

6th SPACE OPERATIONS SQUADRON



LINEAGE

4000th Support Group established and organized, 1 Feb 1963
Redesignated 4000th Aerospace Application Group, 1 Jan 1973
Redesignated 4000th Satellite Operations Group, 3 Apr 1981
Redesignated 1000th Satellite Operations Group, 1 May 1983
Redesignated 6th Space Operations Squadron, 31 Jul 1992
Inactivated, 30 Sep 1998
Activated in the Reserve, 1 Oct 1998

STATIONS

Offutt AFB, NE, 1 Feb 1963-30 Sep 1998
Schriever AFB, CO, 1 Oct 1998

ASSIGNMENTS

Strategic Air Command, 1 Feb 1963
1st Strategic Aerospace Division, 1 Jan 1966
1st Space Wing, 1 May 1983
2nd Space Wing, 1 Apr 1986
50th Space Wing, 30 Jan 1992
50th Operations Group, 31 Jul 1992-30 Sep 1998
310th Space Group, 1 Oct 1998

COMMANDERS

LTC Gordon C. Hannaford, 1 Feb 1963
Col Eugene L. Hudson, 23 Jul 1963
Col Ardelle W. Frenk, 11 Aug 1966
Col Ivan P. Kirschman, 1 Dec 1971
Col Gerald J. Winchell, 7 Apr 1975
Col Richard D. Youngflesh, 6 Jun 1977
Col Norman A. Degenhardt, 25 May 1979
Col Lester J. Weber, 24 Aug 1982
Col John N. Shults, 6 Jul 1983

Col James C. Wheeler, 26 Jun 1985
Col Carl M. Hatlelid, 19 Jul 1988
Col Kenneth D. Riley, 10 Jul 1991
LTC Michael L. Jamilkowski, Jr., 17 Aug 1992
LTC Neil R. Wyse, 7 Sep 1994
LTC John E. Hyten, 21 Aug 1996-30 Sep 1998

HONORS

Service Streamers

None

Campaign Streamers

None

Armed Forces Expeditionary Streamers

None

Decorations

Air Force Outstanding Unit Awards

1 Jul 1964-30 Jun 1966

1 Jul 1966-30 Jun 1968

1 Jul 1969-30 Jun 1971

1 Jul 1971-30 Jun 1973

1 Jul 1974-30 Jun 1976

1 Jul 1976-26 Jun 1977

1 Jul 1977-30 Jun 1979

1 May 1981-30 Apr 1983

1 May 1983-30 Apr 1984

1 Apr 1987-31 Mar 1988

1 Sep 1988-31 Aug 1990

1 Sep 1990-31 Aug 1991

EMBLEM

Approved, 10 Nov 1964; modified, 22 Mar 1994

EMBLEM SIGNIFICANCE

MOTTO

OPERATIONS

6th Space Operations Squadron operates Defense Meteorological Satellite Program satellites in support of the Department of Defense, Department of Commerce and the National Oceanic and Atmospheric Administration.

Millions of people around the world have read about and seen the exploits of the Air Force Reserve's Hurricane Hunters and the mission they perform each year tracking hurricanes in the

Gulf of Mexico and Atlantic. they aren't the only Air Force Reservists who are involved in keeping a watchful eye on these powerful and deadly storms. Operating in relative obscurity from their home at the base of the Rocky Mountains at Schriever Air Force Base, Colo., members of the 6th Space Operations Squadron also play a major role in this high-profile operation. Instead of flying C-130s directly into the eye of the storms, these Reservists conduct their business using satellites orbiting the Earth hundreds of miles in space. But the 6th SOPS is about so much more than tracking hurricanes. The squadron's overall mission is to provide near real-time environmental data to strategic and tactical military commanders. In addition, the unit serves as an alternate command and control organization for the National Oceanic and Atmospheric Administration's Defense Meteorological Satellite Program. DMSP is a long-term U.S. effort in space to monitor the meteorological, oceanographic and solar-geophysical environment of the Earth in support of Department of Defense, Department of Commerce and NASA operations, said Capt. Sheila Demboski, 6th SOPS chief of standardization and evaluations. Ten active Guard and Reserve members and 22 traditional Air Force Reservists are prepared to take over the program's operations at a moment's notice to ensure continuous, 24-hour collection and dissemination of atmospheric data. "We have to be prepared for anything to go down," said Tech. Sgt. Christy Gravitt, 6th SOPS NCO in charge of initial upgrade training. Normal operations consist of a crew of five to seven mission-ready personnel who perform all tasks on the program such as monitoring sensors, gathering and transmitting data, troubleshooting any potential anomalies, and knowing where the satellites are sitting in space, Sergeant Gravitt said. Military commanders worldwide are dependent upon accurate environmental data to plan and execute their missions. The forecasts built from DMSP data are essential for the Federal Aviation Administration and the U.S. military to maintain safe aircraft travel, Captain Demboski said. The satellite program has collected weather data for U.S. military operations for more than four decades. The mission was born under a cloak of extreme secrecy in the early 1960's, shortly after the Russians launched the very first satellite (Sputnik) into space in 1957. In December 1972, DMSP data was declassified and made available to the civil/scientific community, Captain Demboski said. By serving as the "hot back-up" to NOAA, the squadron collects vital weather data from the DMSP. Military and civilian forecasters use this data to monitor and predict regional and global weather patterns, including the presence of severe thunderstorms, hurricanes and typhoons. The data helps save lives and minimize potential property damage by aiding in the planning of evacuation directives, the captain said. As a primary source of data for the National Hurricane Center, DMSP tracked 26 named storms and seven major hurricanes during the 2005 Atlantic hurricane season. Environmental data is gathered from tracking stations around the world utilizing large antennas that "talk" to the satellites. The mission data is then relayed from the tracking stations to the Air Force Weather Agency at Offutt AFB, Neb., and to the U.S. Navy's Fleet Numerical Meteorological and Oceanographic Center at Monterey, Calif. Captain Demboski explained that the colorful weather graphics people see on television are generated at the California facility. The data that DMSP provides is very valuable in the aftermath of natural disasters. For example, program data was critical in determining the extent of damage and coordinating disaster response efforts after the December 2004 tsunami that struck in Indonesia, Captain Demboski said. Every 101 minutes, the Reservists capture and deliver an entire orbit's worth of Earth and atmospheric data to the Air Force Weather Agency within 10 minutes of ground station receipt, said Senior Master Sgt. Troy Wilds, 6th SOPS operations superintendent. The primary weather sensor on DMSP records pictures of visible light and heat, infrared imagery, in an area that measures 1,600 nautical miles

wide as it orbits the Earth. Additional satellite sensors provide data on air temperature and its moisture content, Sergeant Wilds said. At first glance, information on moisture content wouldn't seem to be significant. However, prior to Operation Desert Storm, the program provided data on the soil/moisture content of the desert sand in the Middle East. Tests were then performed to determine if it was safe to transport tanks, service members and equipment across the desert, the sergeant said. In addition to predicting weather patterns, the program's infrared imaging pinpoints fires in both populated and isolated areas, and predicts the impact of wind conditions. The program is also used in analyzing and predicting volcanic ash distribution in major eruptions and to monitor polar ice growth and reduction, Captain Demboski said. Through the satellite program, Reservists can help monitor compliance with international treaties designed to minimize human impact on the environment. For example, to ensure certain areas are not over-fished, the program can observe the activity of fishing boats casting light on the ocean's surface. International treaties also govern drilling for oil and natural gas; the gas flares that accompany these activities are readily detectable by the satellites, Captain Demboski said.

Millions of people around the world have read about and seen the exploits of the Air Force Reserve's Hurricane Hunters and the mission they perform each year tracking hurricanes in the Gulf of Mexico and Atlantic. However, they aren't the only Air Force Reservists who are involved in keeping a watchful eye on these powerful and deadly storms. Operating in relative obscurity from their home at the base of the Rocky Mountains at Schriever Air Force Base, Colo., members of the 6th Space Operations Squadron also play a major role in this high-profile operation. Instead of flying C-130s directly into the eye of the storms, these Reservists conduct their business using satellites orbiting the Earth hundreds of miles in space. But the 6th SOPS is about so much more than tracking hurricanes. The squadron's overall mission is to provide near real-time environmental data to strategic and tactical military commanders. In addition, the unit serves as an alternate command and control organization for the National Oceanic and Atmospheric Administration's Defense Meteorological Satellite Program. DMSP is a long-term U.S. effort in space to monitor the meteorological, oceanographic and solar-geophysical environment of the Earth in support of Department of Defense, Department of Commerce and NASA operations, said Capt. Sheila Demboski, 6th SOPS chief of standardization and evaluations. Ten active Guard and Reserve members and 22 traditional Air Force Reservists are prepared to take over the program's operations at a moment's notice to ensure continuous, 24-hour collection and dissemination of atmospheric data. "We have to be prepared for anything to go down," said Tech. Sgt. Christy Gravitt, 6th SOPS NCO in charge of initial upgrade training. Normal operations consist of a crew of five to seven mission-ready personnel who perform all tasks on the program such as monitoring sensors, gathering and transmitting data, troubleshooting any potential anomalies, and knowing where the satellites are sitting in space, Sergeant Gravitt said. Military commanders worldwide are dependent upon accurate environmental data to plan and execute their missions. The forecasts built from DMSP data are essential for the Federal Aviation Administration and the U.S. military to maintain safe aircraft travel, Captain Demboski said. The satellite program has collected weather data for U.S. military operations for more than four decades. The mission was born under a cloak of extreme secrecy in the early 1960's, shortly after the Russians launched the very first satellite (Sputnik) into space in 1957. In December 1972, DMSP data was declassified and made available to the civil/scientific community, Captain Demboski said. By serving as the "hot back-up" to NOAA, the squadron collects vital weather data from the DMSP. Military and civilian forecasters use this data to

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1000th SATELLITE OPERATIONS GROUP

OFFUTT AFB, NE

LINEAGE

STATIONS

ASSIGNMENTS

COMMANDERS

HONORS

Service Streamers

Campaign Streamers

Armed Forces Expeditionary Streamers

Decorations

EMBLEM

EMBLEM SIGNIFICANCE

MOTTO

NICKNAME

OPERATIONS

In May 1983, the group was transferred to the newly formed Air Force Space Command under the 1st Space Wing and was given a new designation, the 1000th Satellite Operations Group. The group reorganized to align itself with the structure of the 2nd Space Wing in 1985.

In May 1989, Detachment 1 at Fairchild Air Force Base, Washington, was upgraded to squadron status, becoming the 5th Satellite Control Squadron. In August 1989, Air Force Space Command accepted the turn over of Fairchild Satellite Operations Center as the new DMSP command and control facility. Later in the year, the Multi-Purpose Satellite Operations Center at Offutt AFB was retrofitted with a new multimillion dollar ground system.

In July 1992, the One Grand downsized from a group to a squadron and was redesignated as the 6th Space Operations Squadron aligned under the 50th Space Wing, which had also been renamed from the 2nd Space Wing. Likewise, the 5th Satellite Control Squadron at Fairchild Air Force Base reorganized and became Detachment 1 once again.

In May 1994, President Clinton directed the convergence of the DMSP program with the Department of Commerce National Oceanic and Atmospheric Administration (NOAA) Polar-orbiting Environmental Satellite (POES) program. As part of the convergence process, Det 1 at Fairchild closed in 1997.

During 1997, their last full year of operations, the 6 SOPS accomplished a record number of satellite missions...22,221! It also achieved the highest mission effectiveness rating in its 35-year history. For this, the unit was named the 1997 recipient of the General Richard C. Henry Award given to the best space operations squadron in the Air Force.

On 29 May 1998, the 6th Space Operations Squadron transferred satellite control authority of DMSP to NOAA as a result of the 1994 Presidential directive.

A twelve time recipient of the Air Force Outstanding Unit Award, the 6th Space Operations Squadron has long been recognized as one of the finest units in the Air Force. Although the 6 SOPS has seen many changes throughout its glorious 35-year history, the loyalty, dedication and professionalism of its members has allowed the squadron to continually go...Above and Beyond.

Some of the less formal history follows

Excerpt from the Det-2 25th Anniversary Dining-Out Booklet.

Detachment 2 has had eleven commanders since its origin in 1963, its first commander being Lieutenant Colonel Harry Urban, to the present commander Major Boyce B. Burley III. The Detachment's unbroken record of meritorious service has been recognized by the presentations of Air Force Outstanding Unit Awards (AFOUA) - 9 such distinctive honors.

Past Commanders of Detachment 2, 1000th Satellite Operations Group

Lt Col Harry Urban 1 Feb 63 - 18 Jan 65

Maj Walter F. Threlkeld 18 Jan 65 - 4 Apr 66

Lt Col Clayton D. King 4 Apr 66 - 18 Jan 68

Lt Col Gordon W. Addy 18 Jan 68 - 12 Feb 73

Lt Col Bernard G Gustafson 12 Feb 73 - 30 Jun 77

Lt Col Troy G. Gray 30 Jun 77 - 20 Dec 79

Lt Col Michael P. Sykes 20 Dec 79 - 3 Jun 83

SMSgt Lawrence H. Furlong 3 Jun 83 - 3 Oct 83

Maj Robert L. Giles 3 Oct 83 - 12 Jul 85

Lt Col William E. Caffall 12 Jul 85 - 14 Jun 88

Maj Boyce B. Burley III 14 Jun 88 -

Det 2 history excerpted from Don McConnell's book.

The 4000th Support Group came into being approximately 1 January 1963. Lt. Col. Harry Urban came to Loring AFB, Maine, to determine if a former Army Nike Site at Connors, Maine, would be suitable for the type of Operation that was to be performed. He later told the site personnel of having to "snowshoe" up the hill and of being able to walk over the top of the fence due to the "light" snow fall. Acquisition of the property for the site had its complications. Unfortunately, the vacant site had earlier been placed up for public auction and subsequently purchased by a Mr. Sam Blotner for a total salvage bid of only \$7600. In February, 1963, lawyers representing the Department of Defense approached the new owner and offered him \$8000 to purchase back a small portion (eight acres) of the original complex. To maintain a low profile, they explained the land was required for the establishment of a radar bomb scoring site (RBS). Mr. Blotner refused the offer to purchase, but after considerable negotiations agreed to lease the land to the U.S. Government for a fee of \$1.00 per year. There were, two major conditions that accompanied his counter-proposal. First, the land and all facilities had to be returned to the same condition if the site was eventually vacated. Second, the site had to be named in memory of his father, Louis Blotner. The conditions were quickly agreed upon, and until 1982, signs along the road leading to Det 2 bore the bold but misleading inscription of "BLOTNER RBS SITE". That was rectified in May 1982, when the signs were replaced with new ones that read simply "BLOTNER SITE". Mr Blotner did enjoy a sense of humor, as the Air Force was soon to learn. On several occasion, much to the consternation of the Air Force, he appeared on the Johnny Carson, late night show, and discussed in a humorous manner his dealings over the site. In June, 1963, the first personnel arrived at Loring AFB, ME for assignment to Det 2. Activation plans called for radome and antenna installation, hook-up of operations vans, placement of a diesel generator. and the establishment of office/living space. By July, 1963, the vans and antenna were in place and operational at the site. On 10 July 1963, a major milestone was reached when Det 2 started the first ever "Blue Suit" space operation in the Air Force. Work continued and diesel generator and live-in capabilities were achieved in September 1963; and none too soon. On 24 October, the personnel at Det 2 were given the opportunity to successfully test the live-in conditions when the harsh Maine winter brought forth a furious storm that dumped 10 inches of snow in approximately three hours. From that point on the site continued to improve both operationally and in appearance. It became a showplace, attesting to the professionalism and pride of the personnel assigned.

HEADQUARTERS
4000TH SUPPORT GROUP
Offutt A.F.B. Omaha, NE
Col. Eugene Hudson
Commander

Detachment 1 4000th Support Group Detachment 2 4000th Support Group
Fairchild A.F.B. Spokane, Washington Loring A.F.B. Limestone, Maine
Lt Col. Chester Brown Lt Col. Harry Urban
Commander Commander

The 4000th Support Group came into being on 1 February 1963 under the cloak of extreme secrecy. It was comprised of four distinct components:

- (1) Headquarters at Offutt AFB, Nebraska
- (2) Detachment 1 at Fairchild AFB, Washington
- (3) Detachment 2 at Loring AFB, Maine
- (4) the 4300th Support Squadron at Vandenberg AFB, California

Due to the unit's high mission priority and the extreme security required for its operation, the 4000th was assigned to Headquarters SAC where it reported directly to the Chief of Staff.

In 1968, the Group name changed to 4000th Aerospace Applications Group. Like its predecessors, the mission of the 4000th Aerospace Applications Group was to provide on-orbit command and control of Defense Meteorological Satellite Program (DMSP) spacecraft; collect and retrieve all data supplied by those satellites; and provide state-of-health analysis and protection for the assigned satellites. In accomplishing that mission, the Group assumed several new and unique responsibilities. Operations of the 4000th during the first 11 years was protected by a veil of security that remains to this day.

For nearly 35 years, the unit's mission remained essentially unchanged: to operationally command and control the orbiting weather satellites which form the space-based component of the Defense Meteorological Satellite Program (DMSP). The organization's history was marked by significant changes over the years, driven by changes to the Air Force command structure and by advances in satellite design and ground-based commanding systems.

In May 1967, due to a realignment of launch responsibilities, the 4300th was deactivated with a record of 16 launches without a launch failure. In April 1990, Detachment 2 at Loring AFB was deactivated after 27 years of operations.

In May 1983, the group was transferred to the newly formed Air Force Space Command under the 1st Space Wing and was given a new designation, the 1000th Satellite Operations Group. The group reorganized to align itself with the structure of the 2nd Space Wing in 1985.

4000th AEROSPACE APPLICATIONS GROUP

LINEAGE

4000th Support Group 1 Feb 1963

Redesignated 4000th Aerospace Applications Group

Redesignated 4000th Satellite Operations Group

STATIONS

Offutt AFB, NE

ASSIGNMENTS

COMMANDERS

Col Gerald J. Winchell, 7 April 1975

Col Eugene Hudson

Col Ivan P. Kirschman

HONORS

Service Streamers

Campaign Streamers

Armed Forces Expeditionary Streamers

Decorations

EMBLEM

EMBLEM SIGNIFICANCE

MOTTO

NICKNAME

OPERATIONS

The mission of the 4000 AEROAG is to provide command and control of Defense Meteorological Satellite Program (DMSP) satellites; to organize and direct group activities that relate to planning for future systems; to provide operations and training functions for command control of DMSP satellites; and to generate computer products and provide maintenance, supply, and logistics support for command and control of DMSP satellites. THE SOLE UNITED STATES AIR FORCE UNIT COMMANDING AND CONTROLLING OPERATIONAL WEATHER SATELLITES.

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Major effort of the 4000 aeroag was toward recovery of satellite 12535. Attempt to regain contact initially appeared futile. On 1 through 2 oct, an apparent shift of attitude allowed the solar collecting panels to receive sunlight thereby raising the power level and allowing communications with the satellite by 5 oct. An ops 12535 recovery plan 1-76 was developed and published detailing responsibilities and specifying procedures. Four day rehearsal was conducted to demonstrate readiness and on 1 dec phase i began. Operation was a success and by 8 dec, the spin had been reduced by three tenths of one revolution. De-spin effort will continue into the next quarter. Satellite 7529 failed on 9 dec due to a burn-out in the data transmitter and was placed in a nonoperational status. New roll-up area for the logistics division was completed on 10 dec with their and subsequent moves being completed by 17 dec. Progress is being made to colocate spo (system program office) and contractor system analysts with group engineering analysts. Also, development efforts continue on the ics (integrated command system)-1a, advance system (system 2), and 5d2.



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Sources

Air Force Historical Research Agency. U.S. Air Force. Maxwell AFB, AL.
The Institute of Heraldry. U.S. Army. Fort Belvoir, VA.
Air Force News. Air Force Public Affairs Agency.