MASTER OF THE SKY
TO
MASTER OF SPACE

A Brief History of the 50th Space Wing
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INTRODUCTION

While the history of the 50th Space Wing begins with the establishment of the 50th Fighter Wing in May 1949, its honors predate its activation. Following the establishment of the Air Force as a separate military service in September 1947, Air Force leaders sought to improve organizational alignment and command structures. Wing organizations had existed during World War II, though their numbers were fewer and they functioned much as today's numbered air forces. The Air Force's first major reorganization following its independence increased the number of wings, making them the primary field-level establishment. The Air Force then assigned groups to the wings, squadrons to the groups, and the original "Wing-Group-Squadron" organizational structure came to be.

This organizational development did present some concerns to commanders, however. Because the wings were new establishments, they had no combat honors or campaign streamers to display from their organizational flags. When a later reorganization resulted in the inactivation of many of the World War II groups, commanders sought an avenue by which their headquarters could claim those honors. The answer was to bestow temporarily the honors of the World War II groups on the similarly numbered wings to which these groups were now, or had been assigned. In this manner, the combat heritage of the group was not lost and establishments such as the 50th Fighter Wing were authorized to display the campaign streamers earned by their predecessor groups.

In the nearly fifty years since its original activation as the 50th Fighter-Bomber Wing, the 50th Space Wing has played an active role in the defense of the United States and the furtherance of its security and national foreign policy objectives. In a variety of duty locations around the globe, from Cannon Air Force Base, New Mexico, to Germany, to the deserts of Saudi Arabia, and the high plains of Central Colorado, the wing has taken a front seat in the use of high technology. Originally equipped with the propeller-driven F-51 Mustang, the 50th Fighter-Bomber Wing converted to the F-86 "Sabre" jet in 1953. From that point on, the 50th continued to field the most advanced aircraft systems in the United States Air Force. Their exploits included many operations

that showed the flag throughout Europe and the Middle East. The flying wing reached its zenith with the sorties it flew against Iraqi forces during Operation DESERT STORM in 1991. The selection of the 50th Tactical Fighter Wing to assume responsibility for the newest technologies—satellite systems—was the next logical step in the wing's evolution. As the new millennium approached, the 50th Space Wing held the high ground in the Air Force's role of keeping the peace and defending our nation.

CHRONOLOGY

June 1, 1949	Headquarters, United States Air Force ordered the activation of the 50th Fighter Wing and its subordinate 50th Fighter Group and tactical squadrons. These units were allocated to the Air Force Reserve and stationed at Otis Air Force Base, Massachusetts.
March 1, 1950	The 50th Fighter Wing redesignated as the 50th Fighter-Interceptor Wing. Concurrently, the 50th Fighter Group also was redesignated as a fighter-interceptor group.
June 1, 1951	The 50th Fighter-Interceptor Wing and its subordinate units were ordered to active service. On June 2, 1951, the wing inactivated.
January 1, 1953	The 50th Fighter-Bomber Wing (previously 50th Fighter-Interceptor Wing) activated at Clovis Air Force Base, New Mexico. Originally equipped with the F-51 Mustang of World War II fame, the wing soon converted to the new F-86F Sabre.
July 1953	The 50th Fighter Bomber Wing began moving to Europe
August 10, 1953	The 50th completed its movement to Hahn Air Base, Germany.
April 15, 1956	The 50th Fighter-Bomber Wing and its subordinate units relocated to Toul-Rosieres, France.
July 8, 1958	The 50th Fighter-Bomber Wing became the 50th Tactical Fighter Wing.
September 1, 1959	The 50th Tactical Fighter Wing returned to Hahn Air Base. Due to runway repairs and resurfacing, the aircraft fleet would not complete their return until December 1959.
March 2, 1962	The wing implemented United States Air Forces Europe's dual-deputy organizational structure as a means of standardizing unit organization and relieving wing commanders of numerous administrative duties.
April 1965	The wing won the overall competition at the United States Air Forces Europe Tactical Weapons Shoot-Off held at El Uotia Range, Libya.
July 15, 1968	The 417th Tactical Fighter Squadron returned to the United States. The squadron took up residence at Mountain Home AFB, Idaho, assigned to the 67th Tactical Reconnaissance Wing.

November 25, 1968	As part of an United States Air Forces Europe reorganization, the 496th Tactical Fighter Squadron was reassigned to the 50th Tactical Fighter Wing.
July 12, 1971	The wing's 81st Tactical Fighter Squadron moved to Zweibrucken Air Base, West Germany, to become United States Air Forces Europe's first F-4E "Wild Weasel" squadron.
ca. July 1975	10th Tactical Fighter Squadron added laser-guided bombs to its munitions inventory.
1976-1977	The 50th's tactical units converted from the F-4D to the improved F-4E with nose-mounted Vulcan cannon.
November 15, 1976	The 313th Tactical Fighter Squadron joined the wing.
11-19 Nov 1977	During exercise MIDLINK 77, wing F-4 crews became the first in the USAF to be refueled by a KC-747 of the Imperial Iranian Air Force.
December 30, 1981	The wing received the first F-16A delivered to the 313th Tactical Fighter Squadron.
June 21, 1982	The wing's last F-4E Phantom II departed Hahn Air Base
ca. April 1983	Colonel Davey, 50th Tactical Fighter Wing commander, declared the wing operationally ready in the F-16.
1983	50th Tactical Fighter Wing crews won the overall competition at GUNSMOKE. One pilot earned the competition's individual "Top Gun" award. At year's end, a 50th Tactical Fighter Wing load crew earned first place among United States Air Forces Europe units at an Air Force weapons load competition.
ca. February 1984	The 10th Tactical Fighter Squadron set a unit surge record, launching 80 sorties in ten hours.
November 30, 1984	The 10th Tactical Fighter Squadron deployed to Incirlik Air Base, Turkey, where in less than ten hours the unit flew 116 graduated combat capability training sorties, exceeding its record set in February, and establishing a new record for United States Air Forces Europe.
ca. December 1985	The 496th Tactical Fighter Squadron, while deployed to Incirlik Air Base, Turkey, established a new United States Air Forces Europe sortie surge record, flying 144 sorties in less than 12 hours.
April 15, 1986	United States Air Forces Europe announced that the 313th Tactical Fighter Squadron had earned the Commander-in-Chief's trophy as the command's most outstanding flying squadron for the second consecutive year.

1986	The wing converted from its original F-16A and F-16B aircraft to the updated F-16C and F-16D models.
April 1987	The 50th Tactical Fighter Wing was named as winner of the USAF Daedalian Award for 1986.
May 1987	The wing's maintenance community received notice of its selection for the Department of Defense Phoenix Award.
October 21, 1988	United States Air Forces Europe activated the 50th Security Police Group to facilitate better command and control over law enforcement and security activities at Hahn, Morbach, and Wuesheim installations.
December 29, 1990	Pilots, jets, and support personnel left Hahn for Zaragoza, Spain, en route to Al Dhafra, United Arab Emirates. The 10th Tactical Fighter Squadron joined the 17th and 33d Tactical Fighter Squadrons from Shaw AFB, South Carolina, which were already in place at Al Dhafra. Thus began the wing's participation in Operations DESERT SHIELD and DESERT STORM.
January 17, 1991	Crews of the 10th Tactical Fighter Squadron flew their first combat sorties of Operation DESERT STORM attacking Al Taqaddum Airfield near Baghdad, Iraq.
February 27, 1991	Captain Bill "Psycho" Anderson became the wing's first, and only, Operation DESERT STORM prisoner of war when his aircraft was shot down over Iraq by a surface-to-air missile. Iraq released Captain Anderson to the International Red Cross on March 5.
ca. May 1991	Crews, jets, and support personnel returned to Hahn Air Base, Germany from Al Dhafra Air Base, United Arab Emirates.
September 30, 1991	The 50th Tactical Fighter Wing inactivated at Hahn Air Base, Germany.
January 30, 1992	The 50th Tactical Fighter Wing activated as the 50th Space Wing at Falcon Air Force Base, Colorado. The 50th assumed the personnel, equipment, and functions of the 2d Space Wing, which inactivated at Falcon on that date.
July 1, 1993	Headquarters, Air Force Space Command ordered the reassignment of the 50th Space Wing to the newly activated Fourteenth Air Force.
November 15, 1994	The 4th Space Operations Squadron assumed satellite control authority (SCA) for the first Milstar satellite.

June 5, 1998	Falcon Air Force Base renamed Schriever Air Force Base in honor of General Bernard A. Schriever, the former commander of Air Force Systems Command, and a pioneer in developing USAF missile and space systems.
January 1, 2000	Operating Location B (OL-B) of the 3d Space Operations Squadron inactivated at Wahiawa, Hawaii. The squadron turned over the facility, one of five Ultra-High Frequency Follow-On (UFO) satellite communications centers, to the 614th Space Operations Squadron, a Fourteenth Air Force unit based at Vandenberg Air Force Base, California.
February 4, 2000	Onizuka and New Boston Air Force Bases were redesignated Air Force Stations.
February 5, 2000	A crew at the New Boston Remote Tracking Station achieved a new record of error-free supports, logging 20,000 satellite supports with no errors. The crew, Bill Hickerson, Bob Curren, Paul McCay, Bill Cheshire, Vern Townsend, Jim Veach, Matt Curry, Gary Collins and Mike Williams, began working toward the record on 28 July 1997.
February 10, 2000	3d Space Operations Squadron crewmembers performed the last support of an Ultra High Frequency Follow-On satellite, Flight 10. The US Navy assumed SCA for the constellation the next day, ending a 2-year transfer of responsibility for the system from the 3d Space Operations Squadron at Schriever to the Naval Satellite Operations Center at Point Mugu, California. The inactivation of Operating Location C, 3d Space Operations Squadron on April 1, 2000 marked the end of the wing's involvement with the ultra-high frequency satellite system.
June 13, 2000	The 5th Space Operations Squadron inactivated at Onizuka Air Force Station, California. Other 50th Space Wing squadrons assumed most 5th Space Operations Squadron missions and the 21st Space Operations Squadron assimilated most of the inactivated squadron's people.
August 28, 2000	El Paso County Sheriff John W. Anderson presented MSgt Ken Merritt of the wing's Inspector General office with the Sheriff's Office Lifesaving Medal. The award recognized MSgt Merrit's actions at the scene of a rollover accident on 8 June 2000.
September 1, 2000	In an unusual organizational move, the 50th Support Group assumed control of the Services Division, formerly assigned to 50th MSS as the Services Flight. The division oversaw the operations of the Satellite Dish Dining Facility; the Information, Tickets and Tours Office; the Fitness Center, and Outdoor Recreation

October 1, 2000	The wing assumed control of the Midcourse Space Experiment satellite from the Ballistic Missile Defense Organization.
October 1, 2000	Air Force Reserve Command activated the 19th Space Operations Squadron, assigning it to the 310th Space Group at Schriever Air Force Base. Lieutenant Colonel Karen Rizzuti became the first commander of the squadron.
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.
May 2, 2001	Air Vice Marshal Mohammed Mahfoudh Al-Ardhi, Commander, Royal Air Force of Oman, visited the base for an orientation tour and to learn about satellite systems operated by the 50th Space Wing.
October 1, 2002	Air Force Space Command ordered the activation of the 50th Logistics Group, redesignating it 50th Maintenance Group and reassigning the 50th Space Communications Squadron and 850th Space Communications Squadron (redesignated from 50th and 850th Communications Squadrons) to the organization. Concurrently, the command inactivated the 50th Communications Group. The new group included a Program Management Office that held responsibility for a variety of functions, including contracting and logistics.
October 1, 2002	Air Force Space Command ordered the redesignation of the 50th Support Group as 50th Mission Support Group
November 2002	Crews of the 3d Space Operations Squadron relocated Defense Satellite Communications System flight B14 to a new position in a North Atlantic Treaty Organization-owned slot in preparation for Operation IRAQI FREEDOM.
December 8-9, 2002	A major typhoon struck Guam and the Guam Tracking Station (Detachment 5, 22d Space Operations Squadron). The site sustained damage to radomes, facilities, vehicles, and loss of commercial power, though the unit reported no injuries to assigned personnel.
December 31, 2002	Operating Location-AE, 22d Space Operations Squadron reported a record setting 27,993 satellite supports for the year.

March 20, 2003	United States forces launched Operation IRAQI FREEDOM. In the first 20 days of combat, crews of the 50th Operations Group flew hundreds of satellite missions, while the 50th Communications Group (later 50th Network Operations Group) completed thousands of satellite contacts, assisted with anomalies, and helped put additional satellites on orbit.
March 21, 2003	The 2nd Space Operations Squadron opened the Global Positioning System Operations Center.
March 2003	The 50th Space Wing realigned its Anti-Terrorism Office from the 50th Security Forces Squadron to the wing staff.
April 8, 2003	The last Military Strategic, Tactical and Relay (MILSTAR) satellite was launched into a 22,500-mile geosynchronous orbit. Once on orbit Flight 6 completed the Milstar constellation.
June 1, 2003	Headquarters, Air Force Space Command ordered the activation of the 50th Communications Group to replace the 50th Maintenance Group, inactivated concurrent with the communications group activation. The 50th Communications Group absorbed the 50th and 850th Space Communications Squadrons. The command also ordered the activation of the 50th Supply Squadron as the 50th Logistics Readiness Flight and assigned it to the 50th Mission Support Group
August 29, 2003	The last Defense Satellite Communications System satellite, B6, launched from Space Launch Complex 37 at Cape Canaveral Air Force Station, Florida aboard a Boeing Delta IV launch vehicle. Lockheed Martin built the satellite, which weighed approximately 2,500 pounds and cost $200 million.
October 1, 2003	Headquarters, Air Force Space Command ordered the activation of the 50th Comptroller Squadron, renaming it the 50th Comptroller Flight. The command also activated components of the 21st Medical Group at Schriever, giving the installation dental and medical clinics
December 19, 2003	The crews of the Air Force Satellite Control Network set a one-day contact record, logging 514 satellite supports.
December 29, 2003	Air Force Space Command declared initial operational capability for MILSTAR.
December 31, 2003	22d Space Operations Squadron crews set a monthly satellite contact record at 14,710 supports. Additional records set during the year included site contact records at Diego Garcia (REEF) with 15,858; Vandenberg (COOK) with 19,226; Guam (GUAM) with 20,586; and Telemetry and Commanding Station Oakhanger (LION) with 27,966.

March 10, 2004	Air Force Space Command redesignated the 50th Communications Group as the 50th Network Operations Group. Special Order G-009 also transferred command of the 21st, 22d, and 23d Space Operations Squadrons from the 50th Operations Group to the 50th Network Operations Group. The wing sought to consolidate all Air Force Satellite Control Network units under one organization, thereby improving command and control, operations, and maintenance.
March 20, 2004	A Boeing Delta II carried Global Positioning System satellite IIR-11, the 50th GPS satellite, into orbit from Space Launch Complex (SLC) 17B at Cape Canaveral AFS, Florida. The Block II-R satellite was named in honor of Dr. Ivan Getting, considered the "father of GPS."
July 1, 2004	Headquarters, Air Force Space Command ordered the redesignation of the 50th Comptroller Flight to 50th Comptroller Squadron, reversing an action taken in September 2003, when the command ordered the activation of the squadron.
August 27, 2004	The 50th Space Wing dedicated its new administration facility, Building 210, in honor of Lieutenant General Roger DeKok. General DeKok had served as the last commander of the 2nd Space Wing and commanded the 50th Space Wing upon its activation in 1992.
September 3, 2004	1st Lieutenant Jen Phifer, satellite vehicle operator, and Airman First Class Jose Bernal, satellite system operator, conducted the last support of the North Atlantic Treaty Organization IV communications satellite, marking the 3d Space Operations Squadron's end to "hot back-up" support of NATO IV and Skynet systems. "Hawk is out for the final time," commanded Lieutenant Colonel Keith Hinson, 3d Space Operations Squadron commander.
June 20, 2005	General Bernard Schriever (USAF, Ret), for whom Schriever Air Force Base is named, died at his home in Washington, D.C. General Schriever had previously visited the wing in 1998 when the installation was renamed in his honor, and in 2002.
September 8, 2005	The Base Realignment and Closure Commission submitted its completed recommendations to the President. The recommendations included the closure of Onizuka Air Station and the transfer of its remaining missions to Vandenberg.
September 17, 2005	Guam Tracking Station (GTS) celebrated its 40th anniversary.

September 19, 2005	Sergey Revnivykh and Ekaterina Andruschak, operators with Russia's GLONASS satellite navigation system visited Schriever AFB and 2d Space Operations Squadron. The two, part of an international group that visited 2nd SOPS to discuss the future of GPS and its potential for integration with other navigation systems, were the first visitors from Russia's GLONASS program.
November 4, 2005	The 21st Space Operations Squadron put Satellite Operations Center (SOC) 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.
January 1, 2006	Colonel John E. Hyten, commander of the 50th Space Wing appointed Lieutenant Colonel Gary L. Henry temporary commander of the 50th Mission Support Group during the absence of Colonel Merrily D. Madero. Colonel Madero deployed to support Aerospace Expeditionary Forces (AEF) in Southwest Asia. Colonel Madero returned to Schriever in June 2006. At the same time, First Lieutenant Lawrence A. Smith assumed temporary command of the 50th Logistics Readiness Flight.
January 19, 2006	The 22d Space Operations Squadron supported the launch of the New Horizons satellite.
January 24, 2006	Air Force Space Command ordered the inactivation of the 850th Space Communications Squadron, completing an organizational change that merged the functions of the 850th and 50th Space Communications Squadrons.
January 2006	The 50th Operations Support Squadron received the 2005 Headquarters Air Force Space Command Intelligence Flight of the Year award for 2005.
February 7, 2006	The 50th Space Wing hosted Schriever's annual National Prayer Breakfast. The Air Force Chief of Chaplains, Chaplain (Major General) Charles C. Baldwin was the guest speaker.

March 6, 2006	Primary battle staff responsibilities transferred from the 50th Operations Support Squadron to the Wing Command Post. The 50 OSS continued in its commitment to conduct battle staff training and to advise and monitor the Command Post during the March 2006 OPINICUS VISTA exercise.
March 10-12, 2006	The Chaplain's Office hosted a family retreat for the 50th Mission Support Group and wing staff agencies.
March 22, 2006	22d Space Operations Squadron supported ST5/Pegasus launch.
April 7-9, 2006	The Chaplain's Office hosted a family retreat for the 50th Operations Group's folks.
April 20, 2006	22d Space Operations Squadron supported ASTRA 1KR launch.
April 21-23, 2006	The Chaplain's Office hosted a family retreat for folks assigned to the 50th Operations Support Squadron and 4th Space Operations Squadron.
April 28, 2006	Crews of the 22nd Space Operations Squadron provided Air Force Satellite Control Network (AFSCN) support for the National Aeronautics and Space Administration (NASA) launch of CloudSat and CALIPSO aboard a Delta II rocket from Vandenberg Air Force Base, California.
April 2006	Captain (later major) Veronica J. Calligan replaced Major Robert D. Roy as the operations officer at Tracking and Commanding Station (TCS) Oakhanger. As the operations officer, Major Calligan served as the only U.S. military person assigned to Operating Location AE (OL-AE), 22d Space Operations Squadron. OL-AE also included one contractor.
April 2006	Throughout the month, the 50th Operations Support Squadron implemented a task-based training and evaluation (TBT&E) program throughout the 50th Operations Group.
May 15, 2006	Colonel James C. Hutto, Jr. assumed temporary command of the 50th Space Wing while Colonel John E. Hyten deployed to Southwest Asia. Colonel Hyten resumed command of the wing following his return on 23 October 2006.
May 25, 2006	22d Space Operations Squadron supported the launch of a GOES-N meteorological satellite.
May 25, 2006	Major Christopher C. Abate assumed command of the 50th Comptroller Squadron vice Major Gary K. Gualano.
June 7, 2006	Lieutenant Colonel William B. Robey assumed command of the 50th Operations Support Squadron from Lieutenant Colonel Chris D. Crawford.

June 9, 2006	Colonel Clinton E. Crosier assumed command of the 50th Operations Group from Colonel J. Kevin McLaughlin.
June 15, 2006	Major James T. Tandy took command of Detachment 2, 22d Space Operations Squadron, Diego Garcia, British Indian Ocean Territory.
June 16, 2006	Lieutenant Colonel Jennifer J. Thorpe-Lewis assumed command of the 50th Contracting Squadron from Lieutenant Colonel Gary L. Henry.
June 17, 2006	The Chaplain's Office hosted a one-day white water rafting retreat for personnel and families of the 50th Security Forces Squadron.
June 21-22, 2006	22 SOPS supported Mites I/II launch.
June 22, 2006	Lieutenant Colonel Kurt W. Kuntzelman replaced Lieutenant Colonel Stephen T. Hamilton as commander of the 2d Space Operations Squadron.
June 23, 2006	Lieutenant Colonel David C. Arnold assumed command of the 22d Space Operations Squadron, replacing Lieutenant Colonel Michael J. Moran.
June 24, 2006	Lieutenant Colonel Donald H. Ridolfi assumed temporary command of the 50th Network Operations Group.
June 26, 2006	Lieutenant Colonel John T. Demboski assumed command of the 50th Mission Support Squadron vice Lieutenant Colonel Pablo F. Melendez.
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. The board also chose new commanders for the 1st, 3d, and 4th Space Operations Squadrons. Those officers would come from outside the 50th Space Wing.
June 29, 2006	Major (later lieutenant colonel) Timothy L. Fuller assumed command of the 50th Civil Engineer Squadron vice Lieutenant Colonel Rick A. Blaisdell. Major (later lieutenant colonel) Robert J. Pavelko assumed command of Detachment 3, 22d Space Operations Squadron, Thule Air Base, Greenland.

July 6, 2006	1 SOPS vacated MOD 10 and began operating exclusively from MOD 16. The exit from MOD 10 was necessary to allow contractors to begin renovation to support the space-based surveillance system mission.
July 8-14, 2006	Federal and Oahu Island firefighters battled a 1000-acre brush fire burning near the Hawaii Tracking Station of the Air Force Satellite Control Network. The blaze caused no loss of life or damage to site facilities.
July 10, 2006	Colonel Robert J. Skinner assumed command of the 50th Network Operations Group replacing Colonel David C. Uhrich.
	Major (later lieutenant colonel) Donovan L. Routsis assumed command of the 50th Space Communications Squadron vice Lieutenant Colonel Mark G. Langenderfer.
	Captain Eleanor S. Peredo assumed command of Detachment 5, 22d Space Operations Squadron, Guam Tracking Station.
August 1-31, 2006	1 SOPS crews observed the operations of the XSS-11 satellite.
August 4-6, 2006	The Chaplain's Office hosted a retreat for families and personnel of the 23d Space Operations Squadron at New Boston Air Force Station. Additional family retreats occurred on 8-10 September for personnel of the 50th Network Operations Group and 13-15 October 2006 for families of the Space Innovation Development Center.
August 26, – September 1, 2006	Contractors installed a Global Positioning System environmental sensor modification at the GPS monitor station at Kaena Point, Hawaii.
August 31, 2006	The 2d Space Warning Squadron assumed command and control responsibility for the Defense Support Program constellation. The 1st Space Operations Squadron had flown the constellation since 1992.
September 1, 2006	The 1st Space Operations Squadron implemented 12-hour shifts for satellite operations crews.
September 20-21, 2006	Air Force Satellite Control Network crews set a 24-hour contact record, logging 80 sorties in 24 hours.
September 25, 2006	Global Positioning System Satellite Vehicle Number (SVN) 52, a Block IIR-M, launched from Cape Canaveral Air Force Station aboard a Boeing Delta II. Crews at Schriever Air Force Base set the satellite useable on 12 October 2006, following early-orbit operations and vehicle checkout. The 22d Space Operations Squadron supported the launch.
October 1, 2006	Renovations began on facilities to support the Space-Based Surveillance System (SBSS) satellite operations center.

October 1, 2006	For the first time since the station opened in 1989, PIKE went off the air at 0600Z. Crew personnel sent the shutdown command to the site's processor at 0555Z. The shutdown reflected Pike's new operating hours of 0700-1500 daily due to significant reductions in funding for the wing's Operational Space Services and Support (OSSS) contract.
October 1, 2006	Renovations began in MOD 10 to support the Space-Based Surveillance System mission. The 1 SOPS moved their operations out of MOD 10 on July 6 and began operating only from MOD 16.
October 26, 2006	22 SOPS supported Stereo launch.
October 26, 2006	A major winter storm dropped more than one foot of snow on Schriever and the surrounding area, causing the base to close for the first time in recent years. The base remained closed on October 27th as highway crews from El Paso County, the state, and the base worked to clear roads.
October 29, 2006	The 1st Space Operations Squadron opened the Multi-mission Space Operations Center (MMSOC).
November 4, 2006	22 SOPS supported DMSP launch.
November 17, 2006	Global Positioning System SVN58 launched from Cape Canaveral Air Force Station. Following early-orbit operations, crews of the 50th Space Wing set the satellite useable on 13 December 2006.
November 17, 2006	Global Positioning System SVN15 set unusable. The GPS Operations Center (GPSOC) released a Notice Advisory to NAVSTAR Users (NANU) announcing this event and another identifying SVN 15 as a test vehicle and setting it unusable until further notice.
November 25, 2006	Members of the 4th Space Operations Squadron deployed their Ground Mobile system aboard a C-17 aircraft. This marked the first deployment of the ground mobile system aboard a C-17 aircraft. The cargo bay of the C-17 provided less than one inch of clearance from the top of the system's tractor-trailer.
December 9, 2006	The 50th Space Wing's Chief of Security Forces and 50th Security Forces Squadron Commander, Lieutenant Colonel Paul F. Scholl deployed to support operations in the U.S. Central Command (CENTCOM) area of responsibility. Captain Justin O. White assumed command in Colonel Scholl's absence
December 16, 2006	22 SOPS observed the launch of the TACSAT-2 satellite.

January 17, 2007	The United States Department of Commerce, in coordination with the European Union, issued a joint statement announcing the first meeting of "Working Group B" to consider trade issues associated with satellite navigation and timing systems and related matters.
January 30, 2007	The new Antedo antenna at New Boston Air Force Station, designated NHS-A, was declared 100 percent operational and the Operations and Maintenance Responsibility Transfer (OMRT) document was signed. Turnover actions within the 22 SOPS continued throughout February and March, and included final certification activity. The completion of Antedo installation and certification at BOSS represented completion of the first phase of the AFSCN antenna recapitalization program. On 23 March 2007, the transportable antenna that had supported BOSS during Antedo construction and certification departed for Wallops Island, Virginia to perform AFSCN compatibility with the Near Field Infrared Experiment (NFIRE) satellite.
February 12, 2007	Captain Lawrence A. Smith, II, assumed command of the 50th Logistics Readiness Flight.
February 28, 2007	The United States Government and the Government of India issued a joint statement on cooperation and use of the Global Positioning System and space-based navigation and timing systems and applications.
February – March 2007	The 22d Space Operations Squadron relocated its crew force for 30 days to conduct operations from Onizuka Air Force Station while their Schriever Air Force Base operations center underwent a major remodel and reconfiguration.
March 2007	The National Reconnaissance Office ended its mission at Onizuka Air Force Station, California.
March 14, 2007	The wing decommissioned and disposed of SVN 15, the last of the original Block II operational GPS satellites.
March 16, 2007	Colonel Ottis L. Hutchinson assumed command of the 50th Mission Support Group from Colonel Merrily D. Madero.
April 19, 2007	The United States Department of State issued a joint statement with Australia concerning cooperation in the civil use of GPS and space-based positioning, navigation, and timing systems and applications.

April 2007	1 SOPS crews completed the disposal of Global Positioning System (GPS) satellite vehicle number (SVN) 15.
April 2007	The 22 SOPS stood up its Operations Integration Flight to coordinate program management, integration, and testing throughout the AFSCN.
May 7, 2007	Captain Joshua J. Pershing assumed command of the 50th Logistics Readiness Flight.
May 22, 2007	Colonel Teresa A.H. Djuric, formerly vice commander of the 30th Space Wing, Vandenberg Air Force Base, assumed command of the 50th Space Wing vice Colonel John E. Hyten.
May 23, 2007	Civil engineers, in cooperation with local and state officials, conducted a prescribed burn on 50 acres at New Boston Air Force Station.
May 24, 2007	The United States Department of State issued a joint statement with Australia concerning cooperation in the civil use of GPS and space-based positioning, navigation, and timing systems and applications.
14 June 2007	Lieutenant Colonel Tommy A. Roberts assumed command of the 4th Space Operations Squadron from Lieutenant Colonel John E. Shaw.
	Captain Florian C. Decastro assumed command of Detachment 3, 22 SOPS at Thule AB, Greenland
June 21, 2007	Major (later Lieutenant Colonel) Glen E. Christensen assumed command of the 50th Security Forces Squadron from Lieutenant Colonel Paul F. Scholl.
June 27, 2007	Lieutenant Colonel Erik K. Eliasen assumed command of the 1st Space Operations Squadron from Lieutenant Colonel Craig L. Bomberg.
June 28, 2007	Lieutenant Colonel Brent P. McArthur assumed command of the 3d Space Operations Squadron.
	Major Kenneth E. Mierz assumed command of Detachment 2, 22d Space Operations Squadron at Diego Garcia, British Indian Ocean Territory.

July 2, 2007	Lieutenant Colonel Kevin P. Reigstad, formerly the wing's Chief of Safety, assumed command of the 23d Space Operations Squadron at New Boston Air Force Station, New Hampshire. Lieutenant Colonel Thomas E. Meyer replaced Colonel Reigstad as the Chief of Safety on 16 July.
July 2007	The 1st Space Operations Squadron, in cooperation with Space Test and Engineering Contract (STEC) personnel, implemented an operations plan to transition the Midcourse Space Experiment (MSX) mission to satellite operations center (SOC) 96.
July 2007	1 SOPS crews completed the disposal of GPS SVN 28.
July 23, 2007	Captain Bryan A. Lamb assumed command of the 50th Contracting Squadron from Lieutenant Colonel Jennifer Thorpe-Lewis.
August 2007	Colonel David J. Buck assumed duties as 50th Space Wing vice commander, replacing Colonel James C. Hutto, Jr., who retired from the United States Air Force.
August 2007	Fourteenth Air Force's Standardization and Evaluation Team visited the 22 SOPS.
August 27, 2007	Preparatory for shut down of the command and control system (CCS) legacy equipment, 1 SOPS transitioned its Global Positioning System operations from 24-hour operations to one 8-hour shift daily.
September 5, 2007	Lieutenant Colonel Bradford N. Lewis assumed command of the 50th Contracting Squadron from Capt Bryan A. Lamb.
September 10, 2007	In a letter to the International Civil Aviation Organization, the United States Department of Transportation reaffirmed the United States' commitment to provide GPS standard positioning service for world-wide aviation.
September 2007	The 2d Space Operations Squadron began configuration management activity associated with the deployment of the Architecture Evolution Program (AEP) and the Launch, Anomaly, an Disposal Operations (LADO) software configuration. The AEP/LADO configuration allowed 2 SOPS to take on all GPS related activities, managing and supporting the constellation and each vehicle from launch to disposal.

October 2007	The 2d Space Operations Squadron transitioned from its legacy operational control system (OCS) to the new LADO system.
October 1, 2007	The 22d Space Operations Squadron stood up its Weapons and Tactics Flight (DOK) to lead the development of tactics, techniques, and procedures involving AFSCN space control issues.
October 10, 2007	At 8:22 p.m. Eastern Standard Time, an Atlas V booster carried the first Wideband Global SATCOM satellite into orbit from Cape Canaveral Air Force Station, Florida.
October 17, 2007	1 SOPS crews shadowed 2 SOPS Launch Anomaly Disposal Operations (LADO) system operations during the deployment and early orbit activities of GPS SVN II-17R(M). While configuration management activity continued until December 2007, the successful 2 SOPS support of GPS IIR-17(M) launch and early orbit operations validate efforts to date.
October 23, 2007	2 SOPS crews decommissioned and disposed of SVN 29, a Block IIA GPS satellite. The satellite had launched on 18 December 1992.
October-November 2007	Modification designs to SOC-12 were completed and 1 SOPS installed new ground equipment. The SOC was also approved as a special compartmented information facility (SCIF) during this process.
December 14, 2007	The Air Force Satellite Control Network Link Protection System (ALPS) installation was completed. The ALPS gave the network crew commander and 22 SOPS leaders the ability to analyze electro-magnetic interference (EMI) at remote antennas.
December 20-24, 2007	1 SOPS crews conducted their final GPS launch supports. Crews used the command and control system to shadow the 2 SOPS Launch, Anomaly, Disposal Operations (LADO) system for SVN IIR-18(M) for critical deployment and early orbit activities. 1 SOPS crews made no supports during the mission.
28 December 2007	1 SOPS crews ended the year by ending their use of the command and control system. On this date, crews completed their final support using the legacy system and permanently powered it down at 1752Z.

March 15, 2008	2 SOPS crews supported the launch of GPS SVN 48 and orbited the spacecraft, parking it in slot A6 of the GPS constellation.
March 17, 2008	2 SOPS crews decommissioned and disposed of SVN 32, a Block IIA GPS satellite.
April 11, 2008	The 3rd Space Operations Squadron accepted operational turnover of the first Wideband Global SATCOM vehicle, WGS-1, from its Boeing contractors. The satellite launched aboard an Atlas V booster on 10 October 2007. Contractors positioned the vehicle in its proper orbit and conducted tests and evaluations prior to handing the vehicle over to 3 SOPS crews.
June 10, 2008	Major John G. Andrade assumed command of Detachment 2, 22d Space Operations Squadron at Diego Garcia, British Indian Ocean Territory.
June 12, 2008	Colonel Cary C. Chun assumed command of the 50th Space Wing from Colonel Teresa A.H. Djuric. Colonel Djuric, selected for promotion to brigadier general, moved to Maxwell AFB Alabama as commander of the Jeanne M. Holm Center for Officer Accessions and Citizen Development.
June 19, 2008	Major Alistair Funge assumed command of Detachment 3, 22d Space Operations Squadron at Thule Air Base, Greenland.
June 20, 2008	Air Force Space Command ordered the redesignation of the 50th Mission Support Squadron, naming it the 50th Force Support Squadron. This redesignation implemented an air-force mandated mission support and services functional merger. Colonel Ottis L. Hutchinson appointed Ms. Thea Wasche to lead the redesignated squadron as its director.
June 25, 2008	Major Jason I. Roberson assumed command of Detachment 4, 22d Space Operations Squadron, Keana Point, Hawaii, from Major Michael S. Deal.
June 30, 2008	Lieutenant Colonel Daniel J. Clairmont assumed command of the 50th Civil Engineer Squadron from Lieutenant Colonel Timothy L. Fuller.
July 16, 2008	Crews of the 1st Space Operations Squadron initiated 50 SW Implementation Plan 02-02, the disposal of the Midcourse Space Experiment satellite.

July 28, 2008	Chaplain (Major) Greg L. Woodbury assumed duties as the 50th Space Wing Chaplain. Chaplain Woodbury replaced Chaplain (Major) Norman D. Ellis, who had served the wing since 15 July 2006.
August 1, 2008	Lieutenant Colonel DeAnna M. Burt assumed command of the 2d Space Operations Squadron vice Lieutenant Colonel Kurt W. Kuntzleman.
August 16, 2008	Lieutenant General William L. Shelton, 14th Air Force commander, ordered the 50th Space Wing to prepare to provide support to the Democrat National Convention in Denver, Colorado. The wing, along with the 21st Space Wing at Peterson AFB, was to be prepared to provide a protection team and associated support equipment upon request of the 460th Space Wing. General Shelton charged the 460th, stationed at Buckley AFB in Denver, with primary responsibility for support.
August 19, 2008	Lieutenant Colonel Donald J. Fielden assumed command of the 50th Space Communications Squadron from Lieutenant Colonel Donovan L. Routsis.
September 30, 2008	The 3d Space Operations Squadron assumed mission planning and AFSCN scheduling responsibilities for the British SKYNET 4 constellation. SKYNET was the United Kingdom's equivalent of the Defense Satellite Communication System (DSCS), providing the British government with military and diplomatic communications.
November 25, 2008	The 4th Space Operations Squadron opened its new Protected Satellite Operations Center (PSOC) in Building 400. The ribbon-cutting ceremony included the unveiling of a memorial to America's combat forces outside the PSOC door. Squadron personnel, place a hand on the memorial as they pass to remember those combat forces Milstar directly supports.
December 4, 2008	The 23d Space Operations Squadron at New Boston AFS, New Hampshire received the state's 2008 Land Ethics for Tomorrow Award for their efforts to clear the installation's unexploded ordnance. A subcontractor working remediation efforts at the station submitted the base for the award.
January 6, 2009	Global Positioning Satellite (GPS) satellite vehicle number (SVN) 37 discontinued transmitting on L-Band, making PRN 01 available for future satellites. SVN 37 launched on June 12, 1993 and was decommissioned on January 20, 2007.

March 15-28, 2009	21st Space Operations Squadron crews supported shuttle Discovery on mission STS-119.
March 24, 2009	Global Positioning System (GPS) IIR-20, equipped with the new L5 civil signal for safety of life, launched from Cape Canaveral AFS, Florida.
April 3, 2009	Launch of Wideband Global SATCOM (WGS) Flight 2 (WGS-2). The 3 SOPS would receive satellite control from Space and Missile Systems Center in August 2009.
July 31, 2009	Contractors completed construction of the 45,000 square foot Building 24, new home to the Space Innovation and Development Center. Cost of the facility was $20.3 million.
August 17, 2009	GPS IIR-21, the second modified GPS IIR satellite carrying the new L5 signal launched from Cape Canaveral AFS, Florida.
August 20, 2009	Colonel Wayne R. Monteith assumed command of the 50th Space Wing from Brigadier General Cary C. Chun.
October 27, 2009	Date marked the beneficial occupancy of the Ellison Onizuka Satellite Operations Facility at Vandenberg AFB. The new facility would become the home of the 21 SOPS in mid 2010.
December 5, 2009	Launch of WGS-3. Satellite control of WGS-3 would not be turned over to the 3 SOPS before the end of the year.
December 8, 2009	Air Force Space Command awarded the 50th Space Wing the Air Force Outstanding Unit Award (AFOUA) for service from 1 October 2007 through 30 September 2009. This marked the wing's first AFOUA since 2003.
May 14, 2010	Colonel Michael Finn, II assumed command of the 50th Network Operations Group.
June 8, 2010	The 50th Space Wing and Detachment 2, 22d Space Operations Squadron accepted operational and maintenance responsibility for the Diego Garcia B-side antenna
June 12, 2010	The 1st Space Operations Squadron assumed SCA for TacSat-3.

July 1, 2010	Colonel John E. Shaw assumed command of the 50th Operations Group.
July 15, 2010	Colonel Michael L. Mason assumed duties as vice commander of the 50th Space Wing
July 28, 2010	A ceremony at Onizuka AFS marked the transfer of the 21 SOPS and its mission to Vandenberg AFB.
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.
October 1, 2010	The 50th Network Operations Group implemented an organizational realignment that assigned Air Force Satellite Control Network tracking stations to the 21st and 23rd Space Operations Squadron based on geographic location.
December 2, 2010	The termination of SUN East and West was signaled by the removal of the two Defense Information Systems Agency (DISA) terminals at Onizuka AFS.
January 31, 2011	1 SOPS assumed SCA of IRON 5377 from the Missile Defense Space Experimentation Center (MDSEC). During connectivity and verification testing, which began about 10 January 2011, the MDSEC and 1 SOPS shared joint SCA.
February 23, 2011	14th Air Force (Air Forces Strategic) assumed SCA for the first Space-Based Space Surveillance (SBSS) satellite and immediately transferred that authority to the 50th Space Wing.
May 14, 2011	The 50th Space Wing received the General Robert T. Herres Award for the most outstanding wing with a space mission.
June 15, 2011	The 2d Space Operations Squadron's crews completed implementation of the "Enhanced 24" GPS constellation configuration.

July 7, 2011	Colonel Michael Finn II, commander of the 50th Network Operations Group, accepted operations and maintenance responsibility for the new Remote Tracking Station (RTS) Block Change (RBC) antenna at Oakhanger, United Kingdom. The new antenna added another resource to a taxed Air Force Satellite Control Network. As the antenna, designated LION-C, came on-line the C-side antenna at Thule (POGO-C) came offline in preparations for RBC upgrades.
July 7, 2011	Colonel Jonathan Webb assumed command of the 50th Mission Support Group from Colonel Edward C. Baron.
August 5, 2011	Colonel James P. Ross assumed command of the 50th Space Wing from Colonel Wayne R. Monteith. Colonel Ross previously served as Vice Commander, 45th Space Wing at Patrick AFB, Florida. Colonel Monteith moved to a new assignment at the Pentagon.
August 12, 2011	Crews of the 3d Space Operations Squadron terminated operations of DCSC Flight B9 after 18 years of service.
August 19, 2011	The 2 SOPS accepted SCA for the second GPS IIF satellite, designated SVN-63.
September 15, 2011	Onizuka Air Force Station officials formally transferred the installation to the Air Force Real Property Agency for transition to the City of Sunnyvale for reuse.
September 16, 2011	The 1st Space Operations Squadron assumed SCA for the first operationally responsive space (ORS) satellite.
September 22, 2011	The 2 SOPS received the Chief of Staff Team Excellence Award for fiscal year 2011.
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.
October 14, 2011	Global Positioning System satellite vehicle number (SVN)-63 was first set usable to Navstar users. The 2 SOPS accepted SCA for this satellite on 19 August 2011.

November 23, 2011 The 23d Space Operations Squadron earned the AFSPC General Thomas D. White Environmental Restoration Award for 2011.[1]

[1] (U) Email (U), 23 SOPS/CC to 50 NOG/CC, "23 SOPS/CC Update," 23 Nov 11, **SD 3141**.

THE BEGINNING: THE 50TH PURSUIT GROUP

50th Pursuit Group Emblem

As part of the pre-World War II force expansion, the Army Air Corps established the 50th Pursuit Group (later 50th Operations Group) on November 20, 1940 and activated the new unit on January 15, 1941. The group was first stationed at Selfridge Field, Michigan, where pilots of the 10th, 11th, and 12th Pursuit Squadrons received flight training in P-35s, P-36s, and P-39s until moving to Key Field, Mississippi on October 3, 1941.

While in Mississippi, the group formed part of the Fighter Command School, based in Orlando, Florida. Crews trained new aviators and tested new equipment and fighter tactics. The group's aircrews also conducted training in night fighter tactics using the P-70 and supplied cadre to newly forming night fighter units.

Soon after the Japanese attack on Pearl Harbor on December 7, 1941, the 11th and 12th Pursuit Squadrons left the 50th. The 11th moved with its P-36s on December 19, 1941 to Alaska, while in February 1942 the 12th and its P-39s moved to Cassidy Field, Christmas Island, a British-controlled island in the Indian Ocean about 310 miles south of Jakarta, Indonesia.

The Army Air Corps assigned the 81st and the 313th Pursuit Squadrons to replace the 11th and 12th in January and February 1942. In May 1942, the Army Air Corps renamed the organization the 50th Fighter Group, with the squadrons concurrently renamed fighter squadrons. Newly equipped and renamed, the 50th moved to Orlando Army Air Field (AAF) in October 1942, forming part of the Army Air Forces School of Applied Tactics. On 24 February 1943, the 445th Fighter Squadron (Special) joined the group. Flying from Orlando and other airfields, the group continued its training mission

using P-47s, P-51s, and lesser known aircraft including the Kellett XO-60 (later YO-60) autogiro.

US Army Air Corps Kellett YO-60 Autogiro with Plexiglas canopy for observation trials, 1942-43.

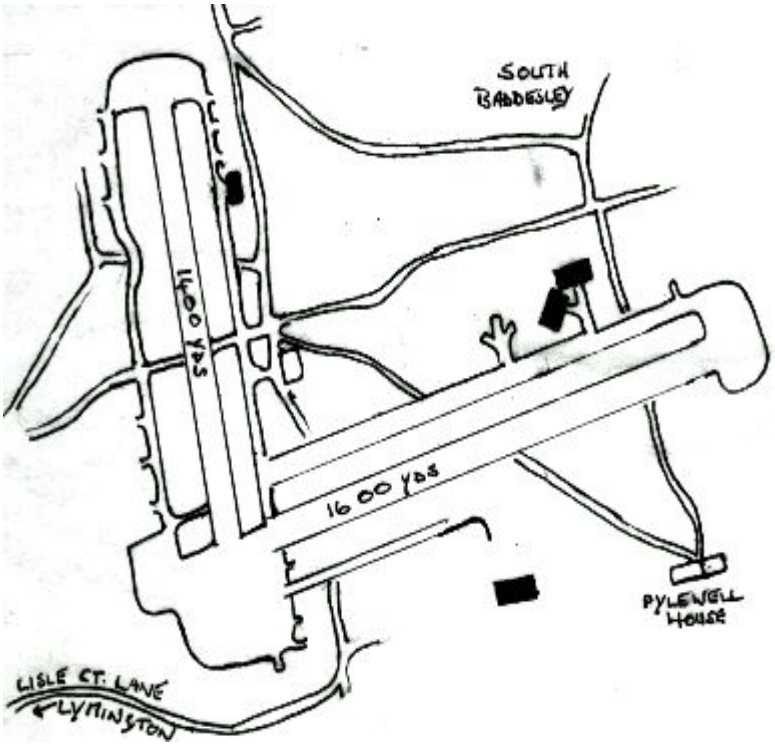
All flying squadrons in the 50th also tested procedures and equipment, seeking better ways to manage the huge efforts required to supply troops and maintain aircraft fighting overseas. Hinting at the conditions under which the group would fly when it entered combat in 1944, crews often flew from airfields with little or no infrastructure.

While the group remained headquartered at Orlando, each of its squadrons operated from different airfields in Florida during 1943. The 445th flew from Orlando, the 10th from Zephyrhills, the 81st from Cross City AAF, and the 313th from Keystone. Each of these detached squadrons returned to Orlando in January 1944. With P-47s and P-51s, the group continued to train and teach at Orlando while preparing to ship out to England, departing in March 1944.

On 5 April 1944, the group arrived at Advanced Landing Ground (ALG) #551 at Lymington, England with P-47s, the 10th reluctantly leaving their P-51s in the United States. The group's pilots began training to familiarize them with the local landscape

and existing tactics and began combat operations on May 1, 1944. In addition to fighter "sweeps" and dive-bombing missions, the group began flying fighter escort for bombers destroying enemy defenses in Normandy. Crews continued these bombing and escort missions until the end of May 1944, when the group changed its focus to preparations to support the D-Day invasion of the continent.

Advanced Landing Ground (ALG) #551, Lymington UK



When the invasion began on June 6, 1944, the 50th Fighter Group's aircrews flew close air support missions over the Normandy beaches, targeting enemy troops and equipment and preventing the Luftwaffe from attacking Allied troops. After hard fighting on the ground and hard work by Army Air Forces combat engineers, the group moved to the airfield A-10 at Carentan, France on 24-25 June 1944, the first of many continental European bases the 50th would call home.

The group's next home was just a few miles away at another recently repaired airfield, Meautis, France, which the 50th occupied on August 16. From Meautis (A-17) the group moved to Orly (A-47) just south of Paris. The 313th occupied Orly on August 30, 1944 with the rest of the group arriving by September 4. While Carentan and Meautis were in the lower Normandy region of France, the rapid advance of Allied forces supported by Ninth Air Force units such as the 50th, allowed the group to make the more than 230-mile jump.

The group remained at Orly only 10 days, moving to Laon/Couvron (A-70) on September 15. Continuing to follow ground forces forward, the 50th moved to Lyon-Bron (Y-6) on September 28-29 1944. Their stay at Lyon was brief as the group and its

squadrons moved to Toul-Ochey (A-96) on November 3. From this airfield, the 50th continued to fly missions supporting the ground offensive into Germany. As the war neared its end, the 50th moved into Germany arriving at Giebelstadt (Y-90) on April 20, 1945. The group made one more move in Germany, arriving at Mannheim on 21 May 1945, after the surrender of Germany.

From Germany, the 50th Fighter Group returned to the United States on August 6-7, 1945 arriving at La Junta Army Airfield, Colorado for demobilization. Headquarters, Army Air Forces inactivated the group on November 7, 1945. During one year of combat operations, the 50th Fighter Group had earned six campaign streamers and two distinguished unit awards. Pilots had scored 51 confirmed aerial victories and Captain Robert D. Johnston had become the wing's only ace, scoring 6 confirmed victories.

BIRTH OF THE 50th SPACE WING

Following the end of World War II, the conflict in Europe and Asia changed from one of western democracies stopping the threat of fascism to western democracies countering the threat of communist influence. As this Cold War heated up, the United States increased military spending and formed additional units. The Air Force established new wings bearing the numerical designations of distinguished World War II groups. On May 16, 1949, the Air Staff established the 50th Fighter Wing, making it available for activation. The wing activated in the United States Air Force Reserves on June 1, 1949, at Otis Air Force Base, Massachusetts. The 50th Fighter Wing consisted mainly of the World War II era 50th Fighter Group, which also activated on June 1. Assigned to Tactical Air Command's First Air Force, the wing served as the reserve corollary (or sister unit) of the 33d Fighter Wing, to which it was attached.

Originally equipped with the F-51 Mustang that had made its operational debut as the P-51 near the end of World War II, the wing's operational focus centered on keeping its air crews well trained and ready. This activity likely included participating in portions of the 33d Fighter Wing's air defense missions and exercises. Redesignated as the 50th Fighter-Interceptor Wing on March 1, 1950, the 50th Fighter Wing was reassigned to the Eastern Air Defense Force on September 1, 1950, although it remained attached to the 33d Fighter-Interceptor Wing. During this transitional year, the wing's arsenal

included the T-6 Texan, T-33 Shooting Star, F-84 Thunderjet, and the F-86 Sabre. The 50th Fighter Wing's air defense and training activity continued until the organization was ordered to active duty on June 1, 1951. On June 2, 1951, the wing and its subordinate units inactivated.

The North Korean invasion of South Korea on June 25, 1950, which was supported by the Chinese and Soviet regimes, added uncertainty and perils to American interests and security in Northeast Asia and the Pacific Rim. While the United States' involvement in that conflict proved insufficient cause to order the 50th Fighter-Interceptor Wing to duty in Korea, it added to already heightened fears of the worldwide spread of communism. Plans to increase forces in Europe during this period resulted in part from desires to show the Soviet Union and China that, despite the Korean situation, the United States and its European allies were committed to stemming the advance of communism, especially in Europe. The United States' national security objectives sought, as part of this commitment, to counter the potential threats posed by the Soviet airfield construction program continuing in Eastern Europe.

Negotiations with France to obtain bases in their zone of occupation in Germany began in 1951. In March of that year, the Commanders-in-Chief of the European Command and the French Forces of Occupation in Germany reached a preliminary agreement on the stationing of troops and the exchange of facilities in the French and American zones of occupation. On March 21, the French obtained 1,280 acres of land near the two small towns of Hahn and Lautzenhausen. France began construction of an air base in April 1951, including an 8,000-foot by 150-foot runway, taxi ways, 75 dispersal hard stands, hangar and alert aprons, and a variety of other facilities. The French completed their construction program at Hahn in late 1952. By this time, American and French commanders had signed an agreement that provided for the transfer of Hahn and other installations in the French zone to the control of United States Air Forces in Europe.

By late 1952, the first of many American construction programs began at the base, expanding on the facilities built by the French. The first American construction projects included a control tower, a fire station, warehouses, a motor pool, roads, mess halls, and eleven 216-man dormitories for enlisted personnel. Also included were the

bachelor officer quarters, squadron operations buildings, and headquarters offices. The United States completed most of this construction by May 1953. By that time, officials had announced that Hahn would receive and support the 50th Fighter-Bomber Wing and its F-86F aircraft.

ACTIVATED FOR DUTY IN GERMANY

Meanwhile, the Air Staff redesignated the 50th Fighter-Interceptor Wing as the 50th Fighter-Bomber Wing on November 15, 1952, and placed it in active status, relieving it from the control of the Air Force Reserve. The Air Staff assigned the wing to the Tactical Air Command for activation, which occurred on January 1, 1953. Concurrently, the 50th Fighter-Interceptor Group activated as the 50th Fighter-Bomber Group and became the wing's primary combat element. The group consisted of two of its original World War II squadrons—the 10th and 81st Fighter Squadrons. Originally assigned to Clovis (later Cannon) Air Force Base, New Mexico for training, the wing resumed flight operations in the F-51 Mustang. Before long, the wing began replacing its propeller-driven Mustangs with the jet-powered, F-86F Sabre. As the conversion to the F-86F continued in the spring and early summer of 1953, crews and maintenance personnel continued their training in

50th Fighter-Bomber Wing F-86Fs on the flight line at Clovis AFB

the Sabre. Once training levels for pilots and aircrews had reached operational levels, the 50th began preparations for its move to Germany.

Sailing from Galveston, Texas, to Bremerhaven, Germany aboard the USNS General M. B. Stewart, the 50th Fighter-Bomber Wing began its first Atlantic crossing; it was the third such trip for the 50th Fighter-Bomber Group. From Bremerhaven, the 50th moved by rail to its new home at Hahn Air Base, Germany, completing the journey in August 1953, and reported to its new headquarters, Twelfth Air Force. At Hahn, the wing completed its fighter squadron complement, which consisted of the 10th and 81st Fighter Squadrons, with the assignment of the 417th Fighter Squadron. Although the 417th was not one of the 50th Fighter Group's original World War II units, the squadron had been stationed with the group at Giebelstadt, Germany, during the final days of the war. Soon thereafter, the 50th Fighter-Bomber Wing became the first tactically operational USAF wing in Twelfth Air Force's jurisdiction.

The movement of the 50th Fighter-Bomber Wing and its F-86F aircraft to the European mainland was one of several events that revealed and responded to a worsening of American-Soviet relations since the end of World War II. The former allies deeply felt a mutual distrust and uneasiness that came to characterize the Cold War between the Soviet's Warsaw Pact and the North Atlantic Treaty Organization (NATO) and other western alliances.

This worsening of relations resulted from a series of incidents occurring after the end of World War II, including the Berlin Crisis and events in the Pacific and Northeast Asia as communists sought to spread

81st Fighter-Bomber Squadron F-86Fs at Hahn AB, Germany

their sphere of influence, threatening United States interests. The buildup of United States forces in Europe sought to quell any Soviet expansionist interests in the region by strengthening NATO, thereby demonstrating western resolve to disallow any expansionist political or military activities. The Cold War and its related arms race would last nearly four decades.

Arriving at Hahn Air Base under the command of Colonel Wallace S. Ford, the wing delayed its unpacking of all but mission critical cargo and put off other routine activities to participate immediately in exercise MONTE CARLO. The purpose of this staged combat employment drill was to illustrate the power and capability of the European allies' air defense forces. During the brief operation, the wing's air crews flew 124 simulated aggressor combat sorties, including 52 in only four hours.

In line with a stepped-up training program, which United States Air Forces in Europe (United States Air Forces Europe) initiated in 1954, the 50th Fighter-Bomber Wing's air crews spent six weeks at the Wheelus Field range in Tripoli, Libya, to improve their air-to-air combat and ground attack skills. Demonstrating their prowess in both facets of their mission, the F-86F crews of the 50th flew 3,062 effective sorties in those six weeks and scored higher in both air-to-air and air-to-ground events than any other unit assigned to the Twelfth Air Force. By 1955, United States Air Forces Europe had initiated an annual, command-wide aerial gunnery competition at the Wheelus Field ranges. During the first such event, on July 30, 1955, the "straight shooting" pilots of the 50th more than duplicated their achievements of the previous year, taking top honors in the command.

While the victory at the gunnery competition was still fresh, the wing began modernizing its aircraft fleet. On October 21, 1955, the first of the wing's new F-86H Sabres arrived at Hahn. The conversion continued throughout the winter of 1955 and spring of 1956, ending in May. While preparing for and then converting to the F-86H, the wing expanded its mission responsibility, accepting the role of supporting Twelfth Air Force's 7382d Guided Missile Group. The wing had previously supported the 69th Tactical Missile Squadron at Hahn, which operated the TM-61 "Matador" missile.

REASSIGNMENT TO FRANCE

New aircraft would not be the only change for the personnel of the 50th, however. With the conversion to the newer F-86H nearly complete on April 15, 1956, the wing began a move to Toul-Rosiere Air Base, France. The 417th Fighter-Bomber Squadron, under the command of Lt. Col. Charles “Chuck” Yeager, was the first of the wing’s squadrons to relocate. This movement took most of the summer of that year. The wing reported itself intact, fully operational, and mission ready at Toul-Rosiere on August 1, 1956. The relocation also meant the end of the wing’s association with the Matador. The move to France did not degrade the wing’s readiness, as the United States Air Forces in Europe chose the 50th Fighter-Bomber Wing to represent the command at the Air Force Fighter Weapons Meet at Nellis AFB, Nevada.

The 1956 UNITED STATES AIR FORCES EUROPE (50th Fighter-Bomber Wing) representatives to the Air Force Fighter Weapons Meet at Nellis AFB, NV included (L to R) Capt Coleman L. Baker, Lt Col Charles E. “Chuck” Yeager, Col Fred J. Ascani, Maj James A Gasser, and Capt Robert H. Pasqualicchio

At about this time, the wing determined that its emblem needed to be updated to reflect its new mission and new aircraft. The modified design (pictured below) depicted

a Griffin, facing forward with wings spread and breathing fire. Centered behind the Griffin appeared an atomic cloud. Behind the beast's right talon, an olive branch denoted peace. A lightning bolt behind the left talon symbolized the strength and power of the unit's aircraft.

With the movement to France and conversion to the F-86H complete, wing personnel returned to more routine duties, training, and participating in various air defense exercises. This sense of normality, however, was brief. On December 8, 1957, the 50th Fighter-Bomber Group inactivated. United States Air Forces in Europe reassigned the group's subordinate squadrons—the 10th, 81st, and 417th Fighter Squadrons—directly to the wing. Similarly, the 50th Maintenance and Supply Group inactivated, and its squadrons were reassigned to the wing. These new organizational changes resulted from an Air Force reorganization plan that eliminated remaining operational combat and maintenance groups to standardize wing structures. Deputy commanders for operations, maintenance, and resources eventually replaced the groups and assumed managerial control of squadrons. Following this reorganization, only the 50th Combat Support Group remained intact. The latter expanded its responsibilities to include transportation, comptroller, and procurement functions.

Soon, United States Air Forces Europe also announced that the 50th Fighter-Bomber Wing would receive the new F-100D Super Sabre. This advanced, supersonic aircraft would significantly improve the wing's combat capability and enhance European air defenses. The 50th converted to the new aircraft during 1957 and 1958, and on July 8, 1958 redesignated as the 50th Tactical Fighter Wing—a name it would carry for almost 35 years.

RETURN TO HAHN AIR BASE, GERMANY

Within one year of rearming with the new jets, the wing was once again on the move. On September 1, 1959, the 50th Tactical Fighter Wing, its support units, and the 10th and 81st Tactical Fighter Squadrons began their return to Hahn Air Base, Federal Republic of Germany. The 417th also moved from France.

The wing's last F-100D as it prepared to depart for duties elsewhere in the USAF

Rather than accompanying the wing at Hahn, however, the 417th relocated to Ramstein Air Base. Delayed somewhat by runway resurfacing at Hahn Air Base, the 50th Tactical Fighter Wing reported its movement complete on December 10, 1959. The detachment of the 417th to Ramstein Air Base, part of United States Air Forces Europe's dual-basing concept, did not go unanswered. When the 50th arrived at Hahn the 496th Tactical Fighter Squadron was already in place. This squadron, assigned to the 86th Fighter-Interceptor Wing at Ramstein Air Base, was attached to the 50th Tactical Fighter Wing. By December 18, 1959, the 496th Tactical Fighter Squadron began replacing its F-86 aircraft with F-102 Delta Daggers. The theory behind dual-basing was to increase the survivability of various aircraft types by dispersing them to alternate locations. Hence, a successful strike at Hahn would not eradicate all of the 50th Tactical Fighter Wing's F-100s. Similarly, a strike at Ramstein would not automatically threaten all of the 86th Tactical Fighter Wing's F-102s.

For the next several years, the 50th Tactical Fighter Wing's personnel concentrated on training, preparedness, and becoming the best fighter unit in United States Air Forces in Europe. During the Cuban Missile Crisis in October and November 1962, the wing hosted the 435th Tactical Fighter Squadron from Moron Air Base, Spain. The

435th had deployed to Hahn Air Base as part of a massive military buildup in West Germany triggered by the crisis in the Caribbean.

Following resolution of the Cuban Missile Crisis, the 50th Tactical Fighter Wing resumed normal operations, conducting air crew proficiency training and participating in various exercises and competitions, oftentimes with other NATO allies. Then, on October 8, 1966, the wing's three tactical squadrons, the 10th, 81st, and 417th, began converting to the F-4D Phantom II fighters built by McDonnell-Douglas. When the last Super Sabre left Hahn, the air crews of the 50th Tactical Fighter Wing had logged 143,147 flight hours in the F-100.

Throughout the conversion to the F-4D, the 417th Tactical Fighter Squadron remained assigned to the 50th Tactical Fighter Wing but detached to the 86th Air Division [previously the 86th Tactical Fighter Wing] located at Ramstein Air Base. The 496th Fighter-Interceptor Squadron, which was stationed with and attached to the 50th at Hahn Air Base but assigned to the 86th Air Division, did not convert to the new F-4D aircraft. An earlier version of the Phantom II, the F-4C, served as a primary ground attack platform during the Vietnam War. Without the benefit of a mounted cannon, however, the Phantom's air-to-air capabilities were somewhat limited. Units involved in combat in Southeast Asia, specifically the 366th Fighter Wing, eventually modified the aircraft to carry an external cannon, improving dramatically its air-to-air combat effectiveness. Production models of the F-4D did not, however, include this modification.

For the next two years, the wing continued normal operations. Aircrew training, local and multi-national exercises, competitions, and headquarters evaluations characterized daily operations. On July 15, 1968, however, the wing underwent another organizational change. On that day, the 417th Tactical Fighter Squadron was

The fire-power the F-4E carried was over seven-times that carried by either the P-47 or F-86

ordered to Mountain Home Air Force Base, Idaho, and subsequently reassigned to Tactical Air Command's 67th Tactical Reconnaissance Wing. This reassignment and movement resulted from the implementation of Project CRESTED CAP, which provided for the semi-permanent redeployment of United States Air Forces Europe units to the continental United States. To replace the 417th, United States Air Forces Europe reassigned the 496th Fighter-Interceptor Squadron from 86th Air Division to the 50th Tactical Fighter Wing. The 496th initially brought to the wing the firepower of the F-102. Still, within two years, Headquarters, United States Air Force Europe redesignated the 496th as a tactical fighter squadron. The squadron converted to the F-4E, an updated version of the wing's F-4D Phantoms, retiring its F-102 Delta Daggers.

United States Air Forces Europe then selected the 81st Tactical Fighter Squadron as the command's first "Wild Weasel" unit. As such, the squadron's primary mission focus changed from ground and air attack roles to location and elimination of threats posed by enemy radar tracking and surface-to-air missile systems. The "Wild Weasel" version of the F-4E (and later the F-4G) could be used as a radar jamming platform or as a search and destroy vehicle. On June 12, 1971, subsequent to its selection, the 81st Tactical Fighter Squadron moved to Zweibrucken Air Base, West Germany. Though it remained assigned to the 50th Tactical Fighter Wing, the 81st was detached from the wing's operational control and attached to the 86th Tactical Fighter Wing. Following these changes, the wing again settled into a more normal operational pace and returned its attentions to maintaining combat readiness.

As the Cold War neared the end of its third decade, changes again faced the 50th. In July 1974, United States Air Forces Europe implemented a reorganization plan that replaced the chief of maintenance with a deputy commander. In addition, a new deputy commander for logistics assumed managerial control of transportation, comptroller, and procurement functions previously assigned to the combat support group. In 1975 the wing's 10th Tactical Fighter Squadron expanded its capabilities when it incorporated laser-guided bombs into its munitions inventory. The 50th also hosted seven F-106 Delta Darts from the 5th Fighter-Interceptor Squadron at Minot Air Force Base, North Dakota, for a brief period. This marked the first deployment of an Air Defense Command unit to the United States Air Forces Europe's theater. The 50th exercised

operational control over the F-106s and crews while at Hahn. During their deployment, the 5th Fighter Interceptor Squadron's jets and crews participated in Exercise COLD FIRE. The wing also began providing base-level support to the 6911th Security Squadron (Mobile) when that unit activated at Hahn AB in July 1975.

In 1976 United States Air Forces in Europe began an extensive reorganization and aircraft realignment program that eventually led to the end of the F-4D era at Hahn Air Base. The 50th Tactical Fighter Wing's new aircraft, the F-4E, added more strength to the unit's punch and boasted improved air-to-air capability. The F-4E included a nose-mounted Vulcan cannon that had not been designed into earlier models. The wing also gained a replacement unit for the 81st Tactical Fighter Squadron, which previously had been detached to the 86th Tactical Fighter Wing [formerly the 86th Air Division]. The November 15, 1976 activation of the 313th Tactical Fighter Squadron reunited two of the 50th Fighter Group's original World War II units—the 10th and 313th Fighter Squadrons.

As the conversion to the F-4E continued, the wing began an operational test of United States Air Force Europe's version of Air Force's Production Oriented Maintenance Organization (POMO) on January 10, 1977. The Tactical Aircraft Maintenance System (TAMS) sought to improve the structure of the maintenance organization, improve mission ready rates for assigned aircraft, and to improve sortie production capabilities. The test continued throughout the year and culminated in SALTY ROOSTER, a USAF-initiated exercise to judge the effectiveness of the new maintenance programs in meeting wartime levels of aircraft sortie production. The 50th Tactical Fighter Wing participated in Exercise SALTY ROOSTER, held in April 1978, flying 2,771

50th Tactical Fighter Wing F-4E lands at Hahn AB, Germany after training mission

sorties in thirteen days. During the exercise, 50th Tactical Fighter Wing air crews met or exceeded all planned objectives. The Commander in Chief, United States Air Forces Europe, General William J. Evans, who believed that SALTY ROOSTER aptly demonstarted the effectiveness of the Production Oriented Maintenance Organization, ordered its implementation throughout the command in June 1978. While the wing's maintenance community tested the viability of the Tactical Aircraft Maintenance System, aircrews continued to participate in various exercises, including multi-national games. During one such exercise, crews of the 50th Tactical Fighter Wing logged the first USAF aircraft refueling with a KC-747 of the Imperial Iranian Air Force.

CONVERSION TO THE F-16

United States Air Forces in Europe also announced in late 1978 that the 50th Tactical Fighter Wing would conduct tests of the new F-16A, the Fighting Falcon, and subsequently would field the new aircraft. Arrangements for the tests began with arrival of the first of four teams in November 1978 and continued into 1979. Finally, a flight of four F-16s landed at Hahn on April 19, 1979, to begin testing the all-weather, multiple-role aircraft. Flight tests commenced the next day. Meanwhile, prompted by the news of the its selection to receive the USAF's most advanced fighter, the 50th began construction of the necessary facilities. In addition to aircraft shelters, hangars, and maintenance shops, the wing contracted the building of 300 additional housing units in communities surrounding Hahn Air Base. Air crews, meanwhile, focused on training under a new graduated combat capability program that provided specific training events and competency levels for each category of crew member.

The first two F-16s to arrive at Hahn AB, an F-16A on the left and F-16B on the right

Maintenance personnel concentrated on learning F-16 specific requirements and adapted the Production Oriented Maintenance Organization to meet the needs of the new jets and mission.

Finally, on December 30, 1981, the 313th Tactical Fighter Squadron accepted the first of the wing's new Fighting Falcons. The aircraft had landed at Hahn the previous day, but was not accepted by the wing until the completion of a necessary "acceptance inspection"—a practice that continues today. Within six months, the last of the 50th Tactical Fighter Wing's F-4Es departed Hahn Air Base, ending the installation's 16-year association with that aircraft. During that time, the 50th's crews had logged more than 176,300 flight hours in the Phantom II. A few weeks later, on July 9, 1982, a gala marked the addition of the Fighting Falcon to the North Atlantic Treaty Organization's arsenal. The ceremony included displays of aircraft from Norway, the Netherlands, Belgium, and Denmark, as well as other countries in the NATO alliance.

For the next several months crews of the 50th Tactical Fighter Wing frequently deployed to Zaragoza Air Base, Spain, for several weeks at a time to conduct air-to-air and air-to-ground training designed to improve mission readiness and achieve fully operational status. The training conducted at Zaragoza included events designed to improve weapons delivery (bombing) accuracy, increase flying reliability (air crew performance), and to raise sortie production capability (ground crew performance). In April 1983, the wing commander, Colonel John M. Davey, reduced the frequency and duration of the training deployments and declared the squadrons operationally ready in air-to-air and air-to-ground roles.

Three months after Colonel Davey's pronouncement, the wing had the opportunity to demonstrate its combat readiness as it began its first United States Air Forces Europe Operational Readiness Inspection and North Atlantic Treaty Organizataion Tactical Evaluation in the F-16 Fighting Falcon. By this time, success in tactical evaluations and competitions had become familiar entries in the wing's history. The July 1983 tests were no exception. The wing's Fighting Falcon crews successfully completed assigned tasks, receiving a favorable evaluation score. Before the Thanksgiving holiday, the wing would add yet another line to its list of accomplishments. That opportunity arrived in October 1983, barely three months after the Operational

Readiness Inspection, when the crews of the 50th Tactical Fighter Wing took their F-16s to the Air Force's annual worldwide bombing and gunnery competition—GUNSMOKE. The combined efforts of the air, maintenance, and weapons load crews led to the wing's selection as overall winner of the competition. Additionally, one of the wing's pilots earned the individual "Top Gun" award. Personnel of the 50th Tactical Fighter Wing continued to demonstrate their excellence when one of the wing's weapons load crews earned first place distinction among United States Air Forces Europe units and third place overall in an Air Force-wide competition at the end of 1983.

Operational activity by March 1984 reached nearly a fever pitch as the wing participated in several exercises and competitions, and prepared for a brief deployment. The wing joined GREEN FLAG exercises held at Nellis Air Force Base, Nevada, in March 1984. GREEN FLAG sought to provide realistic combat training with a heavy emphasis on electronic warfare. Crews faced a series of threat radars associated with missiles and antiaircraft artillery on their approach to, and egress from, targets and against which they had to employ countermeasures successfully. At Hahn Air Base, other wing personnel participated in a North Atlantic Treaty Organization exercise. On March 26, 1984, during this exercise, two F-16As of the 496th Tactical Fighter Squadron conducted the first emergency-procedures landings on an autobahn. The air crews landed, refueled from dispatched trucks, and launched from a highway near the German air base at Ahlhorn. Meanwhile, the wing also prepared for a large-scale deployment to several air bases, necessitated by programmed runway repairs at Hahn Air Base. To facilitate those repairs, aircraft and crews, maintenance specialists, and support personnel deployed to Ramstein and Spangdahlem Air Bases, as well as to West Germany's Pferdsfel Air Base, from April to June 1984.

The 50th Tactical Fighter Wing's growing list of accomplishments and recognition continued into 1985. In February, Headquarters, United States Air Forces in Europe named the wing as the recipient of the Category 1 Outstanding Unit Safety Award. Next, the wing received notice of its selection for an Air Force Outstanding Unit Award for the period July 1, 1982 through June 30, 1984. This was its fifth such award for the 50th and added to an impressive inventory of honors dating to the World War II activities of the 50th Fighter Group. In April 1985, the 313th Tactical Fighter Squadron

learned of its selection for the United States Air Forces Europe Commander in Chief's Trophy (an award it first won only one year after its activation) for 1984, which recognized the most outstanding flying squadron in the command. At the annual GUNSMOKE competition, the 50th Tactical Fighter Wing's crews finished only two points behind the event's overall winner, achieving a second-place finish. So close was the competition that judges could not rely on camera scoring systems. Instead, they had to measure bomb placement to determine the winning team. Adding to the wing's excellent performance, Captain Mark Fredenburgh earned the individual overall "Top Gun" trophy and the individual "Top Gun" award for F-16 wings.

The operational tempo did not slow in 1986, nor did the wing's receipt of accolades and recognition from its headquarters. As the 50th replaced its still new F-16A and F-16B aircraft for the technologically advanced F-16C and F-16D, United States Air Forces Europe announced on April 15, 1986, that the 313th had earned the command's Commander-in-Chief's Trophy for the second consecutive year. Barely one month later, the wing's integrated combat turn-around team garnered first place in United States Air Forces Europe's munitions competition. The maintenance organizations' proven prowess in numbered air force and major command competitions was an extension of its excellence in daily operations. As testimony to its achievements, in October 1986, Seventeenth Air Force selected the wing's maintenance complex for the year's Daedalian Maintenance Trophy. United States Air Forces in Europe followed suit in November 1986, choosing the 50th to represent the command at Air Force-level competition. Notification that the maintenance complex had won the Air Force Daedalian Maintenance Award arrived in April 1987. In May 1987, the wing learned of its selection for the Secretary of Defense's Phoenix Award for 1986, which recognized the best maintenance organization in the Department of Defense. Individual maintenance squadrons also earned high-level recognition. The 50th Aircraft Generation Squadron received the United States Air Forces Europe Maintenance Effectiveness Award for 1986, and the 50th Component Repair Squadron was named best in Seventeenth Air Force.

Maintenance and operations units, however, were not the only squadrons to garner impressive awards. United States Air Forces in Europe named the 50th Supply

Squadron's Mission Capable Branch the best in the command for 1986. The wing's Accounting and Finance Office received the Air Force's Accounting and Finance Special Acts and Services Award and the Superior Performance Award. The wing's life support function was named best in United States Air Forces Europe for 1986, and the wing earned both the command's Foreign Object Damage Incentive Award and the Seventeenth Air Force Zero Foreign Object Damage Program Award. The 50th Transportation Squadron earned two distinguished awards for its programs in 1986--best Traffic Management Office in United States Air Forces Europe and United States Air Forces Europe Motor Vehicle Maintenance Unit of the Year.

While notices of the wing's numerous awards continued to arrive in the spring of 1987, air crews and maintenance teams continued to reach new heights. During a training deployment to Zaragoza Air Base, Spain, the 10th Tactical Fighter Squadron surpassed Spangdahlem Air Base's five-year-old record for sustained surge, flying 956 sorties in 16 days. In July, United States Air Forces Europe hosted its first EXCALIBER bombing competition during which a pilot of the 313th Tactical Fighter Squadron won the individual "Top Gun" award. The wing placed second overall. Accolades continued throughout the year. In September, Seventeenth Air Force named the 50th Aircraft Generation Squadron and the 50th Component Repair Squadron as the best in the command and nominated the wing's Deputy Commander for Maintenance function for the Daedalian Award. Word that United States Air Forces Europe had chosen the wing to represent the command at the Air Force Daedalian competition arrived in December 1987 along with United States Air Forces Europe Maintenance Effectiveness Awards for the 50th Aircraft Generation and Component Repair Squadrons. In addition, the 50th Supply Squadron's Mission Capable Branch earned "Best in United States Air Forces Europe" honors for the second consecutive year, while the 50th Security Police Squadron's Peacekeeper Challenge teams placed first and second in the command competition.

As the 50th Tactical Fighter Wing entered its 35th year of association with the North Atlantic Treaty Organization and United States Air Forces in Europe, few could have foreseen the changes that would soon alter the unit's future, and the world's. Colonel Roger C. Taylor assumed command of the wing on March 2, 1988, replacing Colonel

Ben Nelson, Jr. Under Colonel Taylor's leadership, the wing continued its tradition of excellence. Operationally, wing personnel demonstrated that character during four SALTY NATION exercises, two NATO Tactical Evaluations, and a United States Air Forces Europe Operational Readiness Inspection, even as they continued training deployments to Zaragoza, Spain, and Incirlik, Turkey. During United States Air Forces Europe's EXCALIBER III, crews of the 313th Tactical Fighter Squadron earned top honors, as did the 313th Aircraft Maintenance Unit. Several months later, the 10th Tactical Fighter Squadron placed first in EXCALIBER IV's low-angle bombing phase. Selection of the 313th Tactical Fighter Squadron's Captain William Morgan to fly the two-millionth hour in the F-16 added another highlight to the wing's scrapbook.

Assistance from a variety of support agencies, many of which participated in contests independent of the tactical squadrons, made the high operational tempo possible. The wing's weapons crews opposed 17 other United States Air Forces Europe bases during SURE FIRE competition from June 6-17, 1988, at Sembach Air Base, Germany. Again, the wing's teams took top honors. The distinguished service of the wing's maintenance community led to its selection in 1988 to test the Front-line Aircraft Maintenance Engineering program. Under this plan, selected military maintenance specialists received weapon-system-specific training to the same level as the Contractor Engineering and Technical Service representatives for that aircraft. The maintenance community ended the year on another high note when, in November 1988, the Explosive Ordnance Division received the Seventeenth Air Force Maintenance Effectiveness Award for its munitions maintenance activities.

The 50th Security Police Squadron also continued the wing's tradition of excellence. During the annual Peacekeeper Challenge in July, the wing's teams took first place in the M-16 marksmanship and obstacle course events. Amidst these activities, the wing also conducted four major accident response drills and underwent three Nuclear Surety Inspections. The results of these inspections helped justify the wing's receipt of special recognition from the Air Force's Directorate of Nuclear Surety.

As the men and women of the 50th Tactical Fighter Wing concluded 1988, pending changes filled the air. Events in Europe, from a series of aircraft accidents in West Germany to growing social, economic, and political uncertainty in the Soviet Bloc would

dramatically alter the course toward the future. Pilots and maintenance personnel conducted aggressive training programs from Zaragoza, Spain and Incirlik, Turkey because of recent aircraft disasters in Germany. During the first three months of 1989, the wing's pilots flew 2,879 sorties from Zaragoza, Spain. This aggressive training program aided the 496th Tactical Fighter Squadron's pilots in EXCALIBER V, during which they received "Top Flight" honors. Working closely with the pilots, the squadron's aircraft maintenance unit won the Top Aircraft Maintenance Unit award during the same competition—proof that the cohesiveness and expertise of the wing's air and ground crews and support personnel created a formidable opponent. Locally, men and women of the 50th Tactical Fighter Wing took part in SALTY NATION exercises, and underwent nuclear surety and unit effectiveness inspections.

By year's end, the social, economic, and political turmoil in the Soviet Union had resulted in the dismantling of the Berlin Wall and the dawn of a new era in Europe. Former Soviet republics proclaimed their independence and right to self-determination. Quickly, talk in Germany turned to the possibility of reuniting East and West Germany. The Soviet Union, long considered the West's most formidable adversary, was in the throes of collapse. Debate followed on the future role of American forces in Europe, and worldwide change loomed imminent.

At Hahn Air Base, 1990 began with a siege of intense ice fog that hampered flight operations and air crew training. Implementation of previously developed plans to deal with such conditions, however, ensured the continuation of training deployments to Incirlik, Turkey. SALTY NATION exercises and more routine activities also continued, despite the inclement weather. On February 27, 1990, Colonel Roger C. Taylor relinquished command of the 50th Tactical Fighter Wing to Colonel George W. Norwood. Few, if any, knew then that Colonel Norwood would be the wing's last commander in Germany.

Throughout the spring and summer, the 50th Tactical Fighter Wing continued its aggressive training schedule. Meanwhile, American military and government officials debated the new role and structure of the armed forces in light of perceptions of a diminished threat to Western Europe. The changes brought about by events in the Soviet Union and in light of increasing public and governmental concern over the United

State's increasing budget deficit. For many, the possibility of any combat activity seemed unlikely, but that perception changed almost in the blink of an eye during autumn 1990.

OPERATION DESERT STORM: WAR WITH IRAQ

While the wing's aircrews continued their normal operations in Germany and Turkey, Iraqi President Saddam Hussein resumed a war of rhetoric against Kuwait. As the summer heat in Southwest Asia intensified, so did Hussein's war of words. A buildup of troops, tanks and armor vehicles, artillery, and air power in the southern part of Iraq soon followed. On August 2, 1990, Iraqi forces crossed the border into Kuwait, forcing the Kuwaiti royal family and existing government to seek refuge in neighboring countries. The United Nations condemned the invasion, calling for immediate withdrawal of all Iraqi forces from Kuwait.

Within days of the Kuwait invasion, the United Nations authorized formation and deployment of a coalition force, consisting of air, ground, and naval units from many countries. That force initially aimed to protect other nations from Iraqi aggression and to demonstrate the worldwide resolve to guarantee Kuwait's independence. United States forces began arriving in the Middle East in large numbers, constituting the largest movement of American troops since the Vietnam War. Eventually, the coalition's strength would reach nearly 500,000. The 50th Tactical Fighter Wing contributed its share to this force, deploying two dozen aircraft, crews, maintenance specialists, and a variety of support personnel, including security police combat teams, to various units. The 10th Tactical Fighter Squadron contributed the bulk of the wing's aircrew contingent, deploying as a unit to serve with units of the 363d Tactical Fighter Wing.

Although not tasked for deployment immediately after the Iraqi invasion of Kuwait, the wing's command staff and representatives from United States Air Forces in Europe began developing plans for the movement of a number of the wing's aircraft, crews, and support personnel. Returning to Hahn following an October 1990 training deployment to Zaragoza, Spain, Lieutenant Colonel Ed Houle, commander of the 10th Tactical Fighter Squadron, received notice to prepare his unit for possible deployment. Originally scheduled for a Thanksgiving Day movement, plans changed and called for the

deployment of the 10th within 72 hours of the outbreak of hostilities, should that happen. Pilots scheduled to separate or return to the United States before June 1991 transferred to the 496th Tactical Fighter Squadron, while pilots from the 496th filled the resulting vacancies in the 10th. The squadron selected its best 26 aircraft and 35 crews for the deployment. Special arrangements allowed those pilots who had not flown as part of the 10th Tactical Fighter Squadron to conduct training with the unit to familiarize themselves with squadron flight operations. It appeared the 10th Tactical Fighter Squadron, after 45 years of peacetime service, would again take to the air to stop an aggressor.

As the final days of autumn passed and winter began, plans again changed. Word came that the 10th Tactical Fighter Squadron would deploy on January 15, 1991, to fill out the combat strength of the fighter wing at Al Dhafra, United Arab Emirates. United States Central Command readjusted this date twice, finally establishing a deployment date of January 1, 1991. Meanwhile, crews continued to train and make other preparations. The 313th Tactical Fighter Squadron selected six F-16Cs and eight pilots as potential replacements for lost jets and crews. While the 10th prepared for movement, the United Nations continued to strengthen its ultimatums to Iraq. Eventually, the United Nations Security Council issued a resolution authorizing use of force if Iraq did not withdraw from Kuwait by January 15, 1991.

A 10 TACTICAL FIGHTER SQUADRON F-16C like those deployed to the Middle East during the Gulf War

Thirty F-16Cs left Hahn Air Base for Zaragoza, Spain, on December 29, 1990. Six served as airborne spares to replace any of the original 24 that might not complete the trip to Al Dhafra. For those 30 pilots, and the 10 others aboard Military Airlift Command airlifters, for the maintenance and support personnel accompanying the fighter squadron with hundreds of tons of equipment, DESERT SHIELD had begun. Scheduled to continue to the United Arab Emirates on the following day, the 10th

Tactical Fighter Squadron's crews were delayed at Zaragoza by heavy fog—the very condition they had attempted to avoid by staging from Spain instead of Hahn. While hundreds of personnel at Zaragoza Air Base, Spain celebrated and welcomed the new year, thirty pilots of the 50th Tactical Fighter Wing fired their afterburners, drowning the sounds of celebration, and lifted into the darkness bound for the Middle East and the near certainty of combat.

Arriving only two weeks before the deadline imposed by the United Nations, 10th Tactical Fighter Squadron pilots and support personnel had precious little time and much to do. While pilots received initial briefings on flight operations, maintenance specialists prepared the F-16s for their next flights, only two days off. Aircrews learned that they would not employ the low-level procedures they had practiced for use in Central Europe. Instead of low-level ingress and 10 to 30-degree dive angles, they would deliver their payloads from nearly 20,000 feet with ingress angles near 60 degrees. As training progressed, crews from the 10th began sitting alert with crews of the 17th and 33d Tactical Fighter Squadrons, hoping that they might be the first to strike if war erupted.

Capt. Evan "Ivan" Thomas explained the feeling.

> Why, I'm sure you're asking yourself, would anyone *want* [emphasis in original] to go fly into combat, especially in the skies of today's battlefields with countless radars, heat-seeking missiles, and good, old-fashioned anti-aircraft guns? It's a hard thing to explain.
>
> Think about whatever activity you like most in life … riding your motorcycle, or maybe just playing baseball. Now imagine that it's your job, with pay and everything. … You love baseball. You've worked hard to be one of the best players, and you and your family have sacrificed a lot to get you there. You practice every day, but the practice is a little different than usual. Some days you do batting practice, but since real baseballs are expensive, you use whiffle balls to 'simulate' real ones. Other days you work on fielding, only with half the team because the rest are 'simulated'. When you work on base running, you have to 'simulate' the throw to the bag, because a real throw might be dangerous.
>
> A few times every year, your whole team gets together and plays full out, real bats and balls, and everything, against a 'simulated' team. But you've never actually played a game, you've never competed for the win. Now you have a chance to play in a big game, a real game, with every man, woman, and child in your country rooting for your team. The only catch is that there are a few people with pistols in the stands. If you make an error, they might take a shot at you, but they're not very good shots. Or are they?

January 15, 1991 passed with Al Dhafra's crews and much of the coalition forces watching events unfold on cable television news. International news broadcasts, beamed via satellite, told of Iraq's refusal to withdraw and the resulting discussions on how the U.N. coalition would proceed. January 16, 1991 was much the same. Then, with a click of the second hand, DESERT SHIELD became DESERT STORM. At 0400 local, January 17, the first 40-plane strike package left Al Dhafra for targets in Iraq. Pilots of the 10th Tactical Fighter Squadron flew their first combat sorties of the war later that afternoon, led by squadron commander, Lt Col Edward H. Houle, call sign "Julio." The assigned target for the eight-ship element of the 10th Tactical Fighter Squadron, call sign "Sabre 1," was Al Taqaddum Airfield, near Baghdad, a round-trip of more than 1,400 miles and an eight-hour mission for crews accustomed to training flights of only one to three hours duration.

For nearly six weeks, crews of the 10th Tactical Fighter Squadron conducted attacks on Iraqi targets, including airfields, communication centers, and military command centers. Iraq sent up few fighters to intercept the coalition's attackers. Those that did fly were shot down or chased to the Iraq-Iran border. After the initial attacks against airfields, command centers, and communication facilities, the 10th Tactical Fighter Squadron crews received new orders. Iraq had begun using their SCUD missiles in retaliation against the coalition's offensive air strikes, targeting both coalition forces and Israeli civilian population centers. Israel responded to these attacks by threatening to enter the conflict—a development that would have jeopardized Arab participation in the coalition. In response, United States Central Command ordered search-and-destroy missions against Iraqi mobile and fixed SCUD launchers.

Attacking those targets put the F-16 pilots of the 10 TACTICAL FIGHTER SQUADRON, as well as pilots of the other SCUD patrol aircraft, at greater risk. Not only were the launchers heavily defended, a good kill meant locating and identifying the SCUD's associated radar once it was activated for launch. Once located, pilots had to reach the target and make their attack while jamming Iraq's defensive radars. The squadron's first SCUD patrol mission began on January 19, 1991--only three days into DESERT STORM. Capt. Mark Hebein, flying a lead aircraft in one of the first "SCUD buster" packages, described the mission:

We are sent in a forty-ship package to western Iraq, a very long way away with no return tankers scheduled at the present time. Oh boy! Found the site we were looking for and encountered AAA, SA-2s, and SA-6 SAMS. Took out three SCUDs. Getting dark now and heading for home low on gas with no place to land. Where are the tankers? Forty jets find two or three tankers with a little gas. The weather is getting bad. We proceed in the dark in the clouds hopping from tanker to tanker, finding them on radar and slowly closing in to finally see them maybe 2,000 feet away if we're lucky.

None have enough gas to get the four of us home, so we have to go find another! Everyone has spatial disorientation so bad no one knows which way is up, including me, the leader. Finally, after the fourth tanker, we have enough fuel to get home. 700 miles later we descend into our home drome in the middle of the desert. No lights to speak of. It is so black, we call it the black hole. You can't even see the runway until on final. After a 7.2-hour flight we land and hit the bar for a well-deserved beer. This night shall forever be known as "the mission from hell." Aircraft #385.

After several days of "SCUD busting" operations, the Al Dhafra-based fighter crews returned to offensive attacks against larger targets such as airfields, communications, and command facilities, as well as non-conventional weapon industries. One particular airfield, Al Taqaddum near Baghdad, was so heavily defended that pilots suggested one could ski on the flak. This led to the phrase, "I'm going east of the lakes, and ski Al Taqaddum."

On January 23, the mission again changed. With most of the strategic targets eliminated, the time had arrived to concentrate on Iraq's Republican Guard units occupying Kuwait and Iraq's southern region. At a press conference, General Colin Powell, Chairman of the Joint Chiefs of Staff, explained, "Our strategy against the Republican Guards is simple. First, we cut them off, next we kill them!" For the Al Dhafra-based crews, this meant bombing any military targets on the road and destroying any pontoon bridges being constructed across the Tigris River. In addition, the wing's crews dropped leaflet bombs over Iraqi positions and civilian centers. For the next month, emphasis centered on preparing the battlefield for the eventual ground war and serving on SCUD alert.

When the ground war began on February 25, crews began flying combat air patrols, protecting and supporting coalition ground forces. This mission, however, lasted only three days. On the morning of February 28, 1991, the offensive ceased to allow Iraqi units to withdraw. The Gulf War ended. The 10th Tactical Fighter Squadron lost one aircraft and one pilot had become a prisoner of war. Captain Bill "Psycho" Andrews had

been shot down and captured on the afternoon of February 27. Iraqi forces provided him with no medical treatment for the broken leg he suffered while ejecting from his aircraft and he received beatings during interrogations. Fortunately, he remained a POW for only one week, released to representatives of the International Red Cross in Baghdad on March 5. Captain Andrews received the Air Force Cross for heroism on May 20, 1991.

After a brief interlude, crews returned to combat air patrols to enforce cease-fire accords that prohibited Iraqi aircraft from operating within defined areas. This provision of the cease-fire sought to protect coalition ground forces, United Nations personnel who would monitor Iraq's compliance with Security Council resolutions, and civilian populations. The reduced, monotonous level of activity after the hectic pace of the air war soon bored many. Crews and support personnel alike looked forward eagerly to leaving Al Dhafra for home and family.

THE 50TH TACTICAL FIGHTER WING INACTIVATES

When they returned to Hahn Air Base, Germany, in the late spring, the wing's pilots, maintenance specialists, and other support personnel found that much had changed during their brief absence. Although greeted with praise and honors, euphoria over the triumph against Iraq and the liberation of Kuwait soon ebbed. The outcome of the dramatic changes in Eastern Europe that began in the late 1980s had been a decision to reduce the American presence in the West. Selected units were to inactivate and return to the United States. Their home bases would realign and take on new units and missions or close. While the 10th Tactical Fighter Squadron had been engaged in combat thousands of miles away, wing officials had received word that the 50th Tactical Fighter Wing was to inactivate and Hahn Air Base would close. With only a few months remaining, the returning forces joined the rest of the wing in preparing for inactivation, scheduled for September 30, 1991.

The final months at Hahn Air Base were hectic ones indeed. There was much work to be done. Aircraft had to be prepared to fly out to their new units. Logistics folks had to prepare aircraft parts and spares kits, as well as other equipment, for redistribution to other United States Air Forces Europe units or for transportation to units that would

receive the wing's F-16s. Assignments for the wing's remaining personnel had to be identified, processed, and executed. Despite the emotions that came with closing the unit and the base, the men and women of the 50th Tactical Fighter Wing set about their tasks and inactivated the unit as scheduled.

Wing Commander Colonel George W. Norwood cases the wing's flag during its inactivation cermony 30 September 1991.

NEW LIFE FOR THE 50TH TACTICAL FIGHTER WING

Air Force officials soon reversed their decision to inactivate the 50th. On January 30, 1992, Air Force Space Command activated the 50th Tactical Fighter Wing as the 50th Space Wing, at Falcon Air Force Base, east of Colorado Springs, Colorado. At the same time, the command activated the 50th Operations Group, the redesignated World War II, and early Cold War-era 50th Fighter Group, and assigned it to the 50th Space Wing. Air Force Space Command also activated the 50th Maintenance and Supply Group and the 50th Combat Support Group under new names, creating a wing organization that very closely resembled that of the 1950s. Air Force Chief of Staff,

General Merrill A. McPeak, implemented this return to the wing-group-squadron structure throughout the Air Force to clarify command relationships and realign administrative duties to the proper organizational level.

Squadrons assigned to the wing concurrent with its activation included a mixture of the wing's past units and those previously assigned to the 2d Space Wing, which the 50th replaced at Falcon Air Force Base. The command activated the 50th Mission Support, Civil Engineering, Security Police, Communications, Airdrome, Air Service, Depot Repair, and Depot Supply Squadrons with new designations. Transferred from the 2d Space Wing were the 1st, 2d, 3d, and 5th Satellite Control Squadrons, renamed Space Operations Squadrons. Headquarters, 2d Satellite Tracking Group became Headquarters, 750th Space Group, and transferred to the 50th Space Wing. The 50th Space Wing also assumed responsibility for a number of detachments operating around the world.

Within months of its activation, the wing completed its reorganization under the objective wing structure that had been ordered by General McPeak to streamline organizations and to clarify lines of command. The objective organizational structure replaced former deputy commander staff elements with line organization groups to which squadrons were assigned. Much of the preliminary groundwork for this return to the "wing-group-squadron" structure had already been completed concurrent with the wing's activation. As such, the primary operational and support groups had been identified, activated, and assigned commanders. Still, many functions and squadrons, especially in the support areas, relied on Peterson Air Force Base organizations, about 12 miles west of Falcon. As the wing matured over the first year of activity, its commanders determined that the units at Falcon Air Force Base could be served better by wing-owned agencies. The 50th Space Wing soon gained its own Military Personnel Flight and Morale, Welfare, and Recreation Office, decreasing its reliance on Peterson Air Force Base's 21st Space Wing.

Organizational changes continued throughout the first four years of the wing's tenure as the Air Force Space Command and its subordinate units matured. This evolutionary process, and additional Air Force-wide restructuring and redefining of roles and responsibilities, led to unit activations, inactivations, and redesignations. So too,

did the expanding role of the 50th Space Wing in satellite control. Changes such as these, a regular part of the wing's past for nearly 40 years, continued as the 50th Space Wing found itself reporting to a new headquarters on July 1, 1993. The expansion of the Air Force Space Command's mission and organizational standardization led to the activation of the Fourteenth Air Force at Vandenberg Air Force Base, California on that date. The command's space launch, surveillance, warning, and control wings were reassigned to the numbered air force following its activation. The addition of the Military Strategic and Tactical Relay (Milstar) communications satellites to the Department of Defense's space systems resulted in the activation of the 50th Operations Group's 4th Space Operations Squadron in April 1994.

No longer did the wing's crews strap into ejector seats, hit the afterburners, and launch into the wild blue yonder. The 50th Space Wing's crews "flew" satellites in the deep black of space, again assuming a leading role in the application of advancing technology. The leap into space was a natural act for the unit that had been at the forefront in fielding and operating technologically advanced fighters in United States Air Forces Europe.

As the 50th Space Wing, the organization assumed command and control responsibilities for several existing satellite constellations that provided a variety of critical information to the Air Force, Department of Defense, and other users. Additionally, the 50th assumed responsibility for the Air Force Satellite Control Network (AFSCN), which enabled satellite controllers to "fly" satellites under their command. Crews of the wing's space operations squadrons, clad in Air Force blue flight suits, monitored satellites during launch operations, "flew" the satellites to their proper orbits, operated the craft while in orbit, and fixed those satellite anomalies repairable from ground control stations as they occurred. Controlling the satellites included such tasks as conducting telemetry, tracking, and commanding functions, monitoring the health of the vehicles, and performing station-keeping and other required maneuvers. Crews of the wing's 50th Operations Group and 750th Space Group conducted these operations.

Immediately after its activation, the wing entered an arena well known to those who had served previously with the unit—that of excellence. In February 1992, the 3d Space Operations Squadron received Air Force Space Command's Space Support

Trophy for its “superior achievement, outstanding mission performance, and professionalism.” As it had in its many years at Hahn Air Base, the 50th continued to achieve levels to which other units could aspire. In April 1992, crews of the Colorado Tracking Station broke an existing Air Force record when they logged their 439th day of satellite support operations without a personnel error. By September 30, the day their streak ended, the station had logged more than 15,000 satellite supports without a personnel error. This achievement led to the station’s second consecutive Operational Excellence Award.

By year’s end, the wing had demonstrated that its lack of aircraft did not limit its contribution to contingency operations. In fact, its satellite control mission virtually guaranteed the wing’s involvement at some point. In November 1992, crews of the 3d Space Operations Squadron flew a Navy Fleet Satellite Communications (FLTSAT) craft from an orbit above the Pacific Ocean to one above the Atlantic. The flight, covering 162 degrees of longitude was the longest in the squadron’s history. Then, on December 4, 1992, crews of the 3d Space Operations Squadron realigned a Defense Satellite Communications System craft from its European coverage area to provide needed communications for Operation RESTORE HOPE. The unit activated a second antenna of the same satellite to compensate for some of the lost capability in Europe. These activities, and those of the wing’s other units, led to the wing’s receipt of the Herres Award recognizing the US Space Command wing that made most effective use of its assigned resources.

Despite defense reductions of the early 1990s, the 50th Space Wing continued to demonstrate its capabilities and its commitment to public service. After wild fires ravaged large areas around Oakland, California, the wing’s 750th Communications Squadron deployed 37 of its Onizuka-based personnel to support relief efforts.

Since its activation, the wing’s responsibilities have expanded as new satellite systems entered service, became operational, and transferred to any one of the wing’s space operations squadrons for command and control. By 1994, the 50th Space Wing managed the 24-satellite Global Positioning System. The Global Positioning System constellation provided military and many other government agencies, as well as private and commercial users, with nearly precise location (to within 16 meters) in latitude,

longitude, and altitude. Crews of the 50th Space Wing's 4th Space Operations Squadron accepted command authority for the Military Strategic and Tactical Relay communications system on November 1, 1994. The wing also assumed control of satellites in the Defense Support Program, the Defense Meteorological Satellite Program, in addition to supporting the satellite control needs of other military and government agencies.

In June 1997, the 50th Space Wing began realignment actions under the Base Realignment and Closure Commission recommendations approved by Congress and the President in 1995. These actions called for a reduction in military presence at Onizuka Air Station, Sunnyvale, California; Fairchild AFB, Washington; and Offutt AFB, Nebraska. The first actions included realigning the remote tracking stations to the 22d Space Operations Squadron. Soon after the wing inactivated the 750th Operations Support Squadron and 750th Logistics Support Squadron.

In the fall of 1997, the Air Force redesignated the 50th Logistics Group as 50th Communications Group to reflect better the functions and mission accomplished by its personnel.

In the spring of 1998, Air Force Space Command and the wing broke ground on the new satellite control facilities at Falcon (later renamed Schriever) to house the satellite control activities being transferred from Onizuka Air Station, California.

Additional realignment actions during the year including closing the Defense Meteorological Satellite Program (DMSP) space operations center (SOC) at Fairchild AFB. After the unit closed, the Air Force shipped the equipment to Suitland Maryland, where the National Oceanic and Atmospheric Administration (NOAA) planned to establish their SOC for controlling the DMSP satellites. Under a presidential initiative, the Air Force would relinquish control of the satellites to NOAA by 1998. NOAA would then operate the satellites supported by an Air Force Reserve squadron stationed at Falcon AFB. As measures taken at Fairchild concluded, the 50th Space Wing worked towards the closure of the DMSP SOC at Offutt AFB. Through late 1997 and early 1998, the wing worked towards the transfer of the DMSP mission to NOAA and the activation of the reserve unit at Falcon. When the 50th Space Wing ceased operations at Offutt in June 1998, the equipment transferred to Schriever AFB (formerly Falcon)

where the 8th Space Operations Squadron began installation of the equipment to operate as NOAA's back-up operations center for DMSP. In September 1998, the unit began its first operations at Schriever.

In the fall of 1998, the wing retired one satellite system and gained responsibilities for another. On October 21, 1998, the 5th Space Operations Squadron placed the last Defense Satellite Communications Satellite II into a deep orbit. The DSCS II satellite had exceeded the limits of its life expectancy and had to be replaced with a newer communication satellite. No longer a part of the wing's inventory, the DSCS II was transferred to a commercial satellite research firm for study. In December 1998, the wing began support of the Midcourse Space Experiment satellite.

It was also in November 1998, that the wing stood as the vanguard organization in the forefront of space defense when the wing became the primary Air Force Space Command organization monitoring the Leonids meteor shower. This galactic phenomenon, during which the Earth passed through the debris field of the comet Temple-Tuttle, occurred every 32 years. During the five-day event, the wing collected and disseminated data on the number of particles affecting the DOD's, civil, and commercial orbital areas.

The new millennium brought with it new challenges and new threats. Continuing activity resulting from the 1995 Defense Base Closure and Realignment Commission report resulted in the inactivation of the 750th Space Group and the 5th Space Operations Squadron at Onizuka Air Force Station in 1999 and 2000, respectively. The inactivation of other agencies and units at Onizuka AFS left the 21st Space Operations Squadron as the installation's host and the 21 SOPS commander assumed installation commander responsibilities.

On September 11, 2001, the terrorist organization Al Qaeda launched an attack against the United States. Using hijacked commercial airliners as missiles, Al Qaeda operatives flew three aircraft into the World Trade Center and the Pentagon. A fourth hijacked airliner crashed in a field in Pennsylvania after passengers challenged the hijackers and attempted to regain control of the aircraft.

In response to the attacks, which killed 2,976 people, the United States initiated Operation ENDURING FREEDOM on October 7, 2001, supported by British forces and

the anti-Taliban Afghanistan Northern Alliance. On that date, U.S. forces attacked Al Qaeda and Taliban forces in Afghanistan, quickly driving the terrorists and their militant supporters from power. The 50th supported, and continued to support, United States, British, and by 2006 NATO operations in Afghanistan with satellite communications, GPS enhancements, and deployed personnel. By 2005, the 50th averaged 80 persons per month deployed to forward operating bases supporting the Global War on Terrorism and Operation IRAQI FREEDOM.

Afghanistan would not be the only front in the war against terrorism. Operation ENDURING FREEDOM included operations in the Philippines supporting the Philippine government in its actions against the terrorist organizations Abu Sayeff and Jemaah Islamiyah, and other terrorist organizations in the Horn of Africa. Iraq, meanwhile, saw the United States' operations against the Taliban and Al Qaeda as an opportunity to take advantage of the situation. Saddam Hussein's military forces continued to engage U.S. air patrols over the northern and southern Iraqi no-fly zones established at the end of DESERT STORM. His government failed to comply fully with 16 United Nations resolutions calling for full disclosure of his weapons of mass destruction (nuclear, chemical, and biological) programs and international inspection of all facilities.

On March 20, 2003, United States forces initiated Operation IRAQI FREEDOM by leading a coalition of British, Polish, and other countries' military units to remove Hussein from power and arrest him. As they had in 1991, coalition forces moved swiftly to defeat Iraqi forces and Republican Guard units, capturing Baghdad on April 9, 2003. Again, the 50th Space Wing played a key role. Crews of the 2d Space Operations Squadron developed new techniques for enhancing Global Positioning System accuracy over the Iraqi theater of operations and flew over 1,000 satellite sorties between 20 March and 10 April 2003. Satellite crews of the 3d and 4th Space Operations Squadrons maximized satellite communications coverage of the theater, while the 1st Space Operations Squadron set a record, placing a GPS satellite in orbit and completing all early on-orbit checkout activities in only 11 days, while also flying 100 Defense Support Program satellite sorties and 300 GPS sorties in the first 20 days of combat. The 3d Space Operations Squadron's Defense Satellite Communications System Block III satellites provided 80 percent of in-theater bandwidth. Meanwhile, the

4th Space Operations Squadron dedicated 85 percent of MILSTAR communications capability to the war effort, flying 14,000 sorties in the first 20 days of operations.

The crews of the 50th Network Operations Group (previously 50th Communications Group) supported all of the wing's satellite command and control activities through the Air Force Satellite Control Network scheduling nodes managed by the 22d Space Operations Squadron. Personnel at the wing's remote tracking stations, including 21st and 23d Space Operations Squadrons and their detachments, logged over 12,312 satellite contacts while also assisting with other satellite operations and 3 satellite launches.

The 50th also underwent organizational changes in the first years of the new century. To correct inefficiencies and realign organizations along mission lines, Air Force Space Command ordered the redesignation the 50th Communications Group as the 50th Network Operations Group and reassigned the 21st, 22d, and 23d Space Operations Squadrons to that organization. Functions of the 850th Space Communications Squadron merged with those of the 50th Space Communications Squadron and the 850th inactivated in January 2006.

The 50th Space Wing ended 2005 preparing to implement actions directed by the 2005 Defense Base Closure and Realignment Commission. The commission's recommendations called for the transfer of some mission functions of the 21st Space Operations Squadron mission to 50th Space Wing units at Vandenberg AFB, California, and the closure of Onizuka Air Force Station. The mission transfer would occur over the next several years, following the construction of needed facilities at Vandenberg AFB. Onizuka Air Force Station was scheduled to close by 2011.

The importance of Schriever Air Force Base, and its host 50th Space Wing to United States military and national space operations continued in the first decade of the new century. While progress continued on implementing the closure of Onizuka Air Force Station and realigning its mission activity, the wing and Air Force Space Command determined to relocate the 21st Space Operations Squadron to Vandenberg to fulfill those functions. Construction began on a new satellite control facility to be named on honor of Colonel Ellison S. Onizuka, and was completed and ready for operations by mid 2010.

At Schriever AFB, the 50th broke ground on 242 privatized housing units on May 16, 2008, 25 years after the ceremonial ground-breaking marking the beginning of construction of the base. Scheduled for completion by the fall of 2010, the new housing area boasted high-quality homes and a community center offering many recreational services. In July 2010 the last home in privatized housing on Schriever AFB was completed three months ahead of schedule. By the close of 2010 the housing contractor reported an occupancy rate of 98.35 percent. The development included 132 four-bedroom homes and 110 three-bedroom homes.

Also in 2008, contractors launched the first of the Wideband Global SATCOM (WGS) spacecraft. Following months of training and rehearsals, crews of the 3d Space Operations Squadron shadowed contractor crews, observing and learning operations associated with the newest wideband satellites. The 3 SOPS assumed satellite control authority (SCA) of the spacecraft in early 2009. Meanwhile, the 50th Operations Group continued development of the Multi-Mission Satellite Operations Center, while crews of the 4th Space Operations Squadron began rehearsals and training for the planned launch of the Advanced Extremely High Frequency (AEHF) satellite.

Continuing budgetary constraints and other factors led to the Base Realignment and Closure Commission to identify Onizuka AFS for realignment and closure by the end of fiscal year 20ll. Following much planning and construction of new facilities, in 2010 the 21st Space Operations Squadron, commanded by Lt. Colonel Robert J. Pavelko, relocated to Vandenberg AFB, California. Detachment 4, 21st Space Operations Squadron activated to oversee base closure activates at Onizuka AFB and inactivated upon completion of those actions in September 2011.

The 1st Space Operations Squadron began tracking, telemetry, and commanding for the Tactical Satellite (TacSat)-3. The TacSat-3 was an experimental reconnaissance satellite that provided real-time imaginary, information from sea-based buoys, and “plug-and-play” avionics to U.S. combat forces. The squadron’s crews also prepared to operate the Space-Based Space Surveillance (SBSS) system after contractors turned operations over to the Air Force. SBSS provided improved space situational awareness by improving the detection and tracking capabilities of the space surveillance network.

The squadron also accepted SCA of the first Operationally Responsive Space (ORS) satellite from the 14th Air Force.

Additional WGS satellites continued to expand the broadband communications constellations operated by the 3d SOPS, while the 4th Space Operations Squadron prepared to accept SCA for the first Advanced Extremely High Frequency (AEHF). Launched in August 2010, the first AEHF space vehicle suffered an anomaly during liquid apogee engine burn that resulted in a year-long effort to bring the satellite into proper operational alignment and orbit. Crews and contractors worked diligently to achieve operational status and had nearly completed all actions by the end of 2011.

APPENDIX 1

Lineage of the 50th Space Wing

Established: 50th Fighter Wing, May 16, 1949

Activated: June 1, 1949 (in the AF Reserve)

Redesignated: 50th Fighter-Interceptor Wing, March 1, 1950

Ordered Active Svc: June 1, 1951

Inactivated: June 2, 1951

Redesignated: 50th Fighter-Bomber Wing, November 15, 1952

Activated: January 1, 1953

Redesignated: 50th Tactical Fighter Wing, July 8, 1958

Inactivated: September 30, 1991

Redesignated: 50th Space Wing, January 1, 1992

Activated: January 30, 1992

Assignments: 1st Air Force, June 1, 1949; Eastern Air Defense Force, September 1, 1950-June 1,1951 (attached to 33 FW, June 1, 1949-June 1, 1951); 9th Air Force, January 1, 1953; 12th Air Force, August 9, 1953; United States Air Forces in Europe, January 1, 1958; 17th Air Force, November 15, 1959- September 30, 1991; Space Command, January 30, 1992-June 30, 1993; 14th Air Force, July 1, 1993-Present

Stations: Otis AFB, MA, June 1, 1949-June 2, 1951; Clovis AFB, NM, January 1, 1953-July 23, 1953; Hahn AB, West Germany, August 9, 1953 - July 16, 1956; Toul-Rosieres AB, France, July 17, 1956-September 9, 1959; September 10, 1959-September 30, 1991; Falcon AFB (later Schriever AFB), CO, January 30, 1992-

Aircraft: 50 FG: BT-13, 1941-1942; P-35, 1941-1942; P-36, 1941-1942; P-40, 1941-1943; P-51 1942-1943; DB-7 (A-20), 1942-1943; P-70, 1942-1943; P-47, 1942-1945. 50 FW: T-6, 1949-1951; T-33, 1949-1951; F-51, 1949-1950, 1953; F-84, 1949-1950; F-86A, 1950-1951; F-86F, 1953-1956; F-86H 1956-1957; ET-33, 1955-1956; T-33, 1959-1966; F-100, 1957-1966; F-104, 1962; F-4D, 1966-1977; F-102, 1968-1970; F-106, 1975; F-4E, 1976-1981; F-16A/B 1981-1986; F-16C/D 1986-1991

Missiles: Matador, 1955-1956

Satellites: DMSP, 1992-1998; DSCS II, 1992-1998; DSCS III 1992-Present; DSP, 1992-2006; FLTSAT, 1992-1996; GPS, 1992-Present; Milstar 1994-Present; NATO III, IV/Skynet, 1992-2004; UHF F/O, 1992-1999; MSX, 2000-2008; WGS, 2008-; ORS-1, 2010-; TACSAT-3

AFSCN Supported Satellites: Technology for Autonomous Operational Survivability (TAOS), 1996-Present; Midcourse Space Experiment (MSX), 1998-2008; Advanced Composition Explorer (ACE), 1997-Present

APPENDIX 2

UNITS

TACTICAL

50th Pursuit (later 50th Fighter, 50th Fighter-Interceptor; 50th Fighter-Bomber; 50th Operations) Group, 1 Jun 49-2 Jun 51; 1 Jan 53-8 Dec 57; 30 Jan 92-

750th Space Group, 30 Jan 92-25 Jun 99

1000th Satellite Operations Group, 30 Jan 92-31 Jul 92

1st Space Operations Squadron, 30 Jan 92-

2nd Space Operations Squadron, 30 Jan 92-

3d Space Operations Squadron, 30 Jan 92-

4th Space Operations Squadron, 30 Jan 92-

5th Space Operations Squadron, 22 Nov 93-13 Jun 00

6th Space Operations Squadron, 30 Jan 92-30 Sep 98

8th Tactical Fighter Squadron (attached), 8 Mar 73-2 Apr 73; 6 Sep 75-6 Oct 75

9th Tactical Fighter Squadron (attached), 11 Sep 71-7 Oct 71; 23 Sep 76-24 Oct 76

10th Fighter-Bomber (later Tactical Fighter) Squadron, 8 Dec 57-30 Sep 91 (detached 28 Dec 90-10 May 91)

21st Space Operations Squadron, 30 Jan 92-

22d Space Operations Squadron, 30 Jan 92-

23d Space Operations Squadron, 30 Jan 92-

68th Fighter-Interceptor Squadron (attached), 01 May 77-7 Jun 77

69th Pilotless Bomber Squadron, Light (later Tactical Missile Squadron) (attached), 14 Mar 55-15 Apr 56

81st Fighter-Bomber (later Tactical Fighter) Squadron, 8 Dec 57-15 Jul 71

313th Tactical Fighter Squadron, 15 Nov 76-1 Jul 91

355th Tactical Fighter Squadron (attached), 5 Sep 61-16 Nov 61

417th Fighter-Bomber (later Tactical Fighter) Squadron, 8 Dec 57-1 Jul 68, (attached) 1-15 Jul 68, 15 Jan 69-4 Apr 69, 11 Sep 70-10 Oct 70, 9 Sep 71-2 Oct 71, 5 Feb 73-8 Mar 73, 6 Mar 74-5 Apr 74, 3 Oct 75-5 Nov 75, 24 Aug 76-26 Sep 76

421st Tactical Fighter Squadron (attached) 5-25 Aug 77

428th Fighter-Bomber Squadron (attached), 1 Apr 75-ca 1 Oct 57

429th Fighter-Bomber Squadron (attached), 7 Oct 56-1 Apr 57

430th Fighter-Bomber Squadron (attached), 20 Apr 56-7 Oct 56

435th Tactical Fighter Squadron (attached), ca 24 Oct 62-11 Dec 62

457th Fighter-Bomber (later Tactical Fighter) Squadron (attached) 13 Aug 58-18 Feb 59

496th Fighter-Interceptor (later Tactical Fighter) Squadron, 1 Nov 68-15 May 91

509th Fighter-Bomber Squadron (attached) 15 Jan 58-24 Mar 58

614th Tactical Fighter Squadron (attached), 5 Sep 61-14 Nov 61

Det, 5th Fighter-Interceptor Squadron (attached), 4-25 Sep 75

SUPPORT

50th Air Base (later Combat Support, Support, Mission Support) Group, 1 Jun 49-2 Jun 51, 1 Jan 53-30 Sep 91, 30 Jan 92-

50th Communications (later Network Operations) Group, 1 Dec 97-1 Oct 02, 1 Jun 03-

50th Maintenance and Supply (later Logistics, Maintenance) Group, 1 Jun 49-2 Jun 51, 1 Jan 53-8 Dec 57, 30 Jan 92-1 Dec 97, 1 Oct 02-1 Jun 03

50th Medical Group (later 50th Tactical Hospital), 1 Jan 53-1 Jul 86 (detached 1 Jul 71-1 Jul 86)

50th Security Police Group, 21 Oct 88-30 Sep 91

50th Air Police (later Security Police, Security Forces) Squadron, 1 Jan 53-30 Sep 91, 30 Jan 92-

50th Armament and Electronics Maintenance (later Avionics Maintenance, Component Repair) Squadron, 15 Nov 58-8 Apr 62, 1 Jul 64-30 Sep 91

50th Ammunition Supply Squadron, 8 Oct 72-15 May 86

50th Civil Engineering (later Civil Engineer) Squadron, 1 Jan 53-30 Sep 91, 30 Jan 92-

50th Communications (later Space Communications) Squadron, 1 May 91-30 Sep 91, 30 Jan 92-

50th Comptroller Squadron, 1 Jul 85-30 Sep 91, 1 Oct 03-

50th Contracting Squadron, 14 Aug 95-

50th Crew Training Squadron, 30 Jan 92-1 Oct 94

50th Field Maintenance (later Consolidated Aircraft Maintenance, Field Maintenance, Equipment Maintenance, Maintenance) Squadron, 8 Dec 57-30 Sep 91, 30 Jan 92-1 Dec 97

50th Flightline Maintenance Squadron, 1 Jul 64-25 Dec 65 (detached 1 Jul 64-1 Oct 65)

50th Logistics Support Squadron, 30 Jan 92-1 Dec 97

50th Munitions Maintenance Squadron (later Munitions Maintenance Squadron (Theater)), 8 Oct 72-8 Oct 78, 15 May 86-30 Sep 91

50th Operations Support Squadron, 30 Jan 92-

50th Organizational Maintenance (later Aircraft Generation) Squadron, 1 Jul 64-1 Jan 66, 1 Jan 72-30 Sep 91

50th Space Systems Squadron (later 850th Space Communications Squadron), 30 Jan 92-23 Jun 97, 1 Dec 97-30 Jan 06

50th Supply Squadron (later 50th Logistics Readiness Flight), 16 May 49-2 Jun 51; 1 Jan 53-30 Sep 91; 1 Jun 03-

50th Support (later Mission Support, then Force Support) Squadron, 1 Jun 89-30 Sep 91, 30 Jan 92-

50th Weather Squadron, 1 Oct 94-17 Mar 97

55th Space Weather Squadron, 6 Mar 97-1 Oct 99

350th Munitions Maintenance Squadron, 1 Jul 64-7 Oct 72

750th Logistics Support Squadron, 30 Jan 92-5 Nov 97

750th Medical Squadron, 1 Oct 94-28 May 99

750th Mission Support Squadron, 30 Jan 92-3 May 99

750th Operations Support Squadron, 30 Jan 92-23 Jun 97

2184th Communications Squadron, 1 Oct 90-1 May 91

7015th Explosive Ordnance Disposal Flight, 1 Oct 78-1 Nov 86 (detached 1 Oct 82-1 Nov 86)

7150th Comptroller Squadron, 15 Nov 83-1 Jul 85

7236th Ammunition Supply Squadron, 1 Oct 67-7 Oct 72

7352d USAF Hospital, 8 Aug 56-25 Sep 57

7362d Munitions Support Squadron, 15 Jul 76-1 Jan 86

7425th USAF Hospital, 1 May 54-9 Apr 56

7501st Munitions Support Squadron, 1 Apr 72-15 Nov 85

7502d Munitions Support Squadron, 1 Apr 72-15 Nov 85

7503d Munitions Support Squadron, 1 Apr 72-1 Oct 72

7504th Munitions Support Squadron, 1 Apr 72-1 Sep 72

USAF Hospital, Hahn (later 50th Tactical Fighter Wing Hospital), 1 Jul 71-30 Sep 91

APPENDIX 3

50th Fighter Group Aerial Victories

World War II

Unit	Credited Victories	Top Pilots	Victories
10th Fighter Squadron	12	1st Lieutenant Roy F. Center	2
		1st Lieutenant Leman L. Rosenberg	2
81st Fighter Squadron	26.5	Captain Robert D. Johnston	6(Ace)
		Captain Patrick J. Ness	3
313th Fighter Squadron	14	Lieutenant Colonel Frank E. Adkins	2
		1st Lieutenant Billy R. Bryan	2
		1st Lieutenant William White	2
Total Aerial Victories	52.5		

APPENDIX 4

50th Space Wing Commanders

50th Fighter Wing (1 June 1949)	
Brigadier General Bruce Johnson	June 1, 1949 - June 1, 1951
50th Fighter-Interceptor Wing (1 March 1950)	
Brigadier General Bruce Johnson	June 1, 1949 - June 1, 1951
Unit Inactive	June 2, 1951 - December 31, 1952
50th Fighter-Bomber Wing (1 January 1953)	
Colonel Wallace S. Ford	January 1, 1953 - July 21, 1954
Colonel Melvin F. McNickle	July 22, 1954 - 23 Jun 1955
Colonel Fred J. Ascani	June 24, 1955 - July 25, 1957
Brigadier General Henry C. Newcomer	July 26, 1957 - August 1959
50th Tactical Fighter Wing (8 July 1958)	
Brigadier General Henry C. Newcomer	July 26, 1957 - August 1959
Colonel Frank L. Wood	August 1959
Colonel Jack S. Jenkins	September 1, 1959 - July 15, 1962
Colonel William P. McBride	July 16, 1962 - February 11, 1963
Colonel David T. McKnight	February 12, 1963 - June 8, 1964
Colonel Louis J. Lamm	June 9, 1964 - July 19, 1964
Colonel George W. McLaughlin	July 20, 1964 - ca. May 1966
Colonel Richard C. Catledge	ca May 1966
Colonel Robert L. Liles	May 20 1966 - June 27, 1968
Colonel Forrest L. Rauscher	June 28, 1968 - June 13, 1969
Colonel John W. Smith	June 14, 1969 - April 21, 1970
Colonel William B. Craig	April 22, 1970 - November 16, 1970
Colonel Billy F. Rogers	November 17, 1970 - September 30, 1971
Colonel William C. Norris	October 1, 1971 - January 1, 1973
Brigadier General Michael E. DeArmond	January 2, 1973 - August 25, 1974
Colonel Paul M. Ingram	August 26, 1974 - March 13, 1975
Brigadier General James P. Albritton	March 14, 1975 - May 18, 1978
Colonel Emery S. Wetzel, Jr.	May 19, 1978 - June 23, 1980

Colonel David M. Goodrich	June 24, 1980 - January 28, 1982
Brigadier General Wilfred L. Goodson	January 29, 1982 - October 19, 1982
Colonel John M. Davey	October 20, 1982 - January 7, 1984
Colonel Clifton C. Clark, Jr.	January 8, 1984 - July 30, 1986
Brigadier General Ben Nelson, Jr.	July 31, 1986 - February 28, 1988
Colonel Roger C. Taylor	March 1, 1988 - February 26, 1990
Colonel George W. Norwood	February 27, 1990 - September 30, 1991
Unit Inactive	October 1, 1991 - January 29, 1992

50th Space Wing (30 January 1992)

Brigadier General Roger G. DeKok	January 30, 1992 - June 16, 1993
Colonel Gregory Giles	June 17, 1993 - November 3, 1994
Colonel Simon P. Worden	November 4, 1994 - March 21, 1996
Brigadier General Glen W. Moorhead III	March 22, 1996 - April 24, 1997
Colonel Elwood C. Tircuit	April 25, 1997- June 9, 1999
Colonel Richard E. Webber	June 9, 1999 – April 19, 2001
Colonel Larry D. James	April 20, 2001 – June 8, 2003
Colonel Michael D. Selva (Interim)	February 7, 2003 – ca. May 2003
Colonel Suzanne M. Vautrinot	June 9, 2003 – April 3, 2005
Colonel John E. Hyten	April 4, 2005 – 21 May 2007
Colonel James C. Hutto, Jr. (Interim)	May 15, 2006 – October 13, 2006
Colonel Teresa A.H. Djuric	May 22, 2007 – June 11, 2008
Colonel Cary C. Chun	June 12, 2008 – 19 August 2009
Colonel Wayne R. Monteith	20 August 2009 – 4 August 2011
Colonel James P. Ross	5 August 2011 -

APPENDIX 5

50th Space Wing Awards and Decorations

Service Streamers (bestowed):	World War II American Theater
Campaign Streamers (bestowed):	Air Offensive, Europe, 1942-1944 Normandy 1944 Northern France, 1944 Rhineland, 1944-1945 Ardennes-Alsace, 1944-1945 Central Europe, 1945
Other Campaigns:	Defense of Saudi Arabia, 1990-1991 Liberation and Defense of Kuwait, 1990-1991
Decorations (bestowed):	Distinguished Unit Citation, Mar 13-20, 1945 Distinguished Unit Citation, April 25, 1945 Cited in the Order of the Day, Belgian Army, June 6 - September 30, 1944
AF Outstanding Unit Awards:	November 1, 1970-September 15, 1971 January 1, 1972-June 30, 1973 July 1, 1973-June 30, 1974 July 1, 1975-June 30, 1976 July 1, 1982-June 30, 1984 July 1, 1985-June 30, 1987 July 1, 1990-August 5, 1991 October 1, 2001-October 1, 2002 October 2, 2002-October 2, 2003 October 1, 2007–September 30, 2009
Omaha Trophy	2010
General Thomas S. Moorman Awd	2011
General Robert T. Herres Award	2011

APPENDIX 6

PRIMARY AIRCRAFT, MISSILES, AND SPACE SYSTEMS

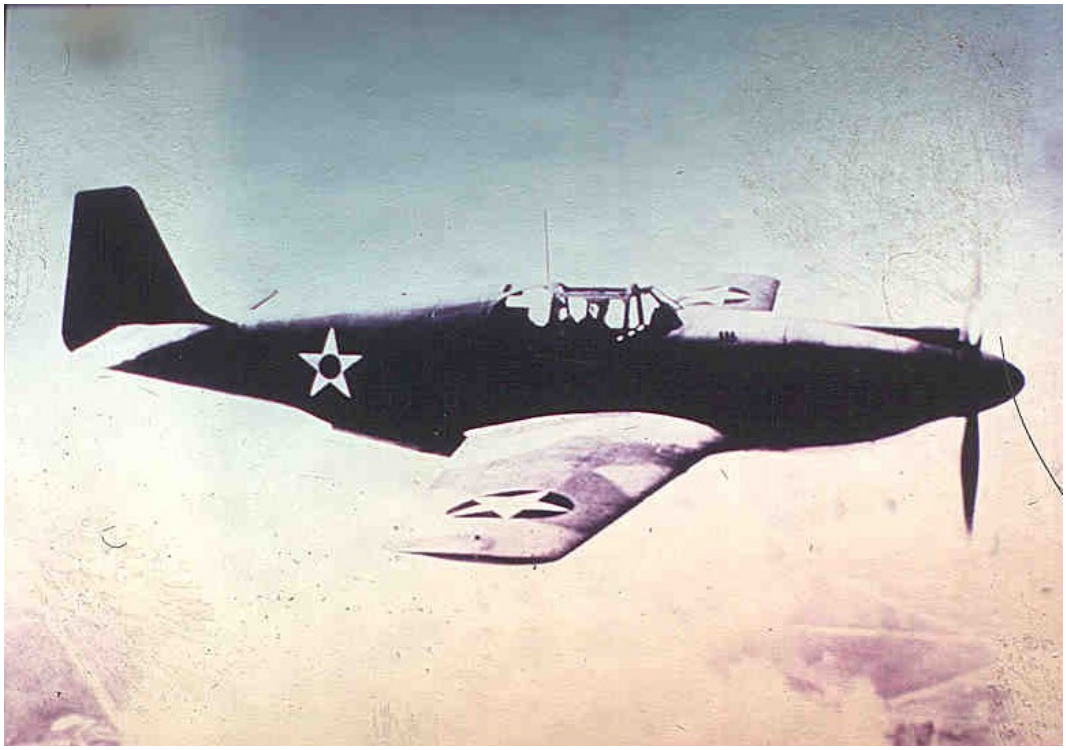
Vultee B-13 Valiant, 1941-1942

Seversky P-35, 1941-1942

Curtiss P-36 Hawk, 1941-1942

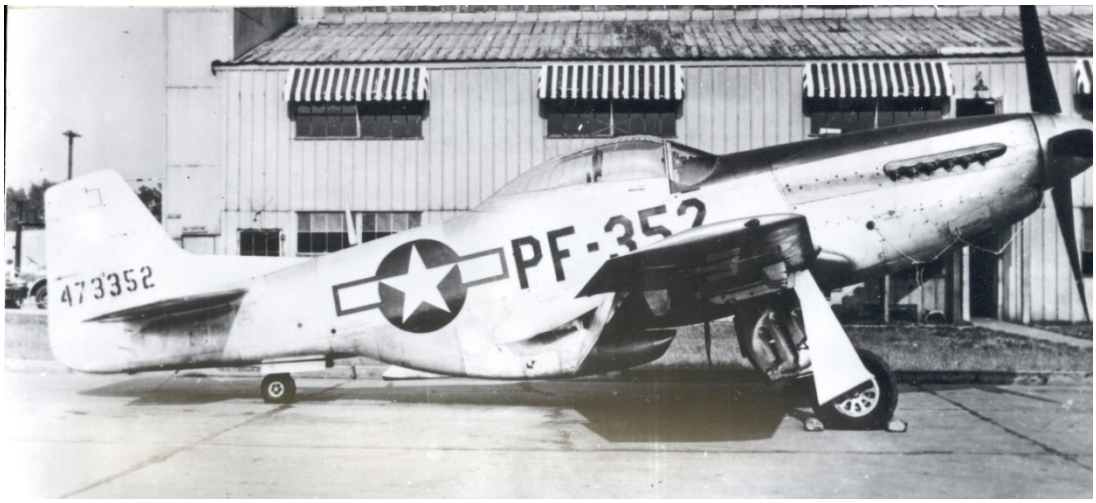
Bell P-39 Airacobra, 1942-1943

Curtiss P-40 Warhawk, 1942-1943



North American P-51 Mustang, 1943-1944

Republic P-47 Thunderbolt, 1944-1945



North American F-51 Mustang, 1949-1953

USAF Photo

Republic F-84 Thunderjet, 1949-1950

North American F-86 Sabre, 1950-1951, 1953-1958

Martin B-61 (TM-61) Matador, 1955-1956

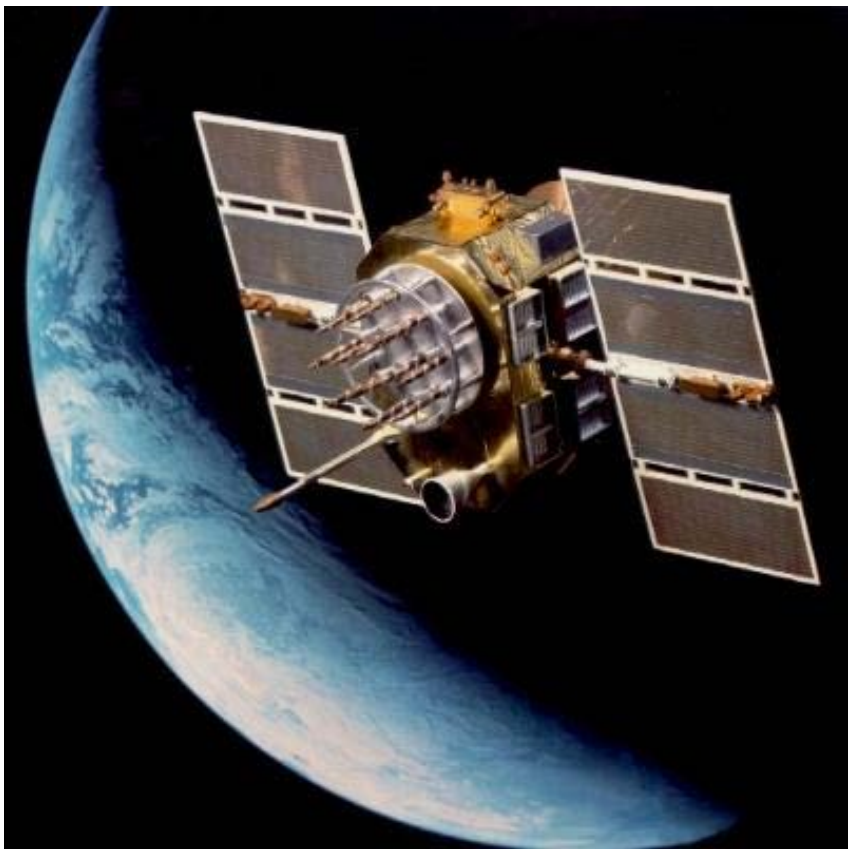
North American F-100 Super Sabre, 1957-1966

Lockheed F-104 Starfighter, 1962

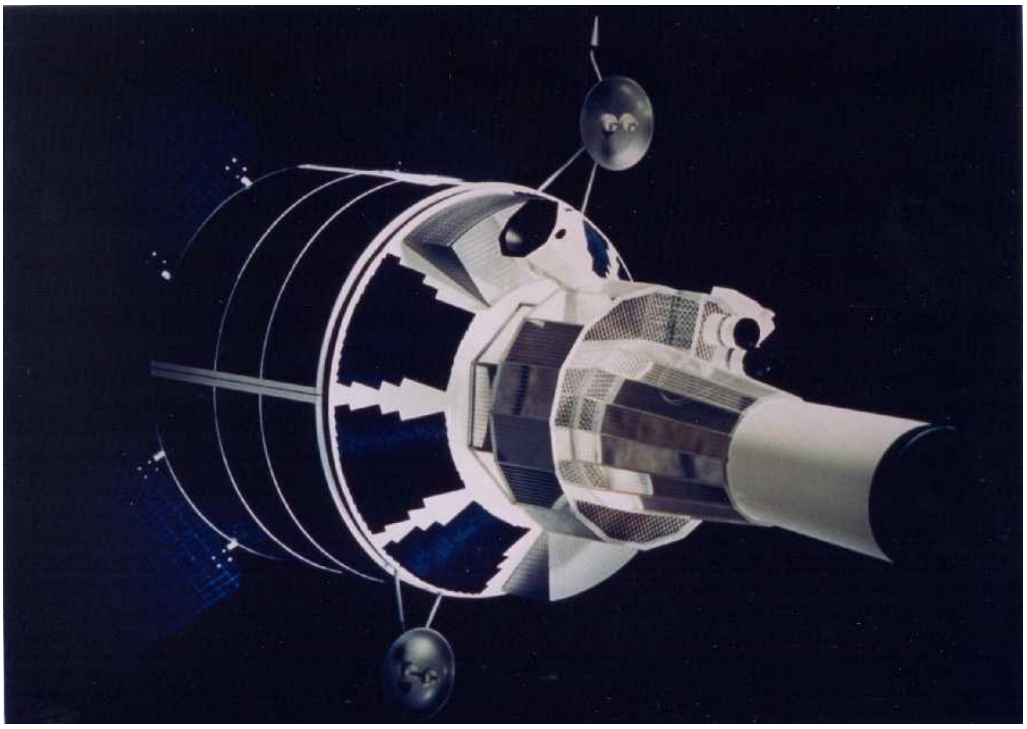
McDonnell Douglas F-4 Phantom II, 1966-1981

Convair F-102 Delta Dagger, 1968-1970

General Dynamics F-16 Fighting Falcon, 1981-1991



Navstar Global Positioning System, 1992-

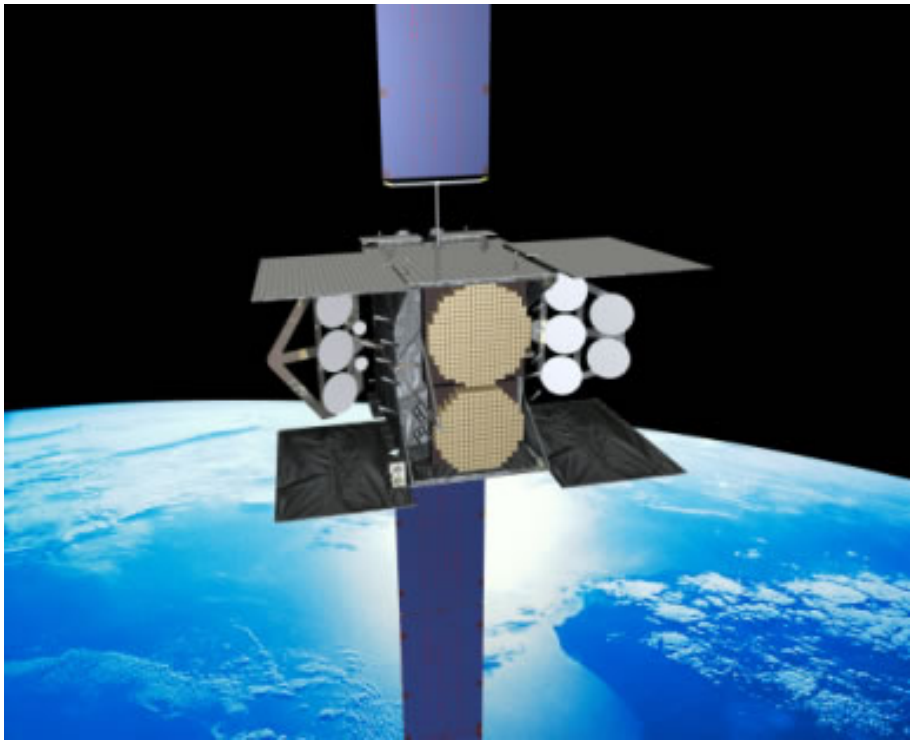


Defense Support Program, 1992-2006

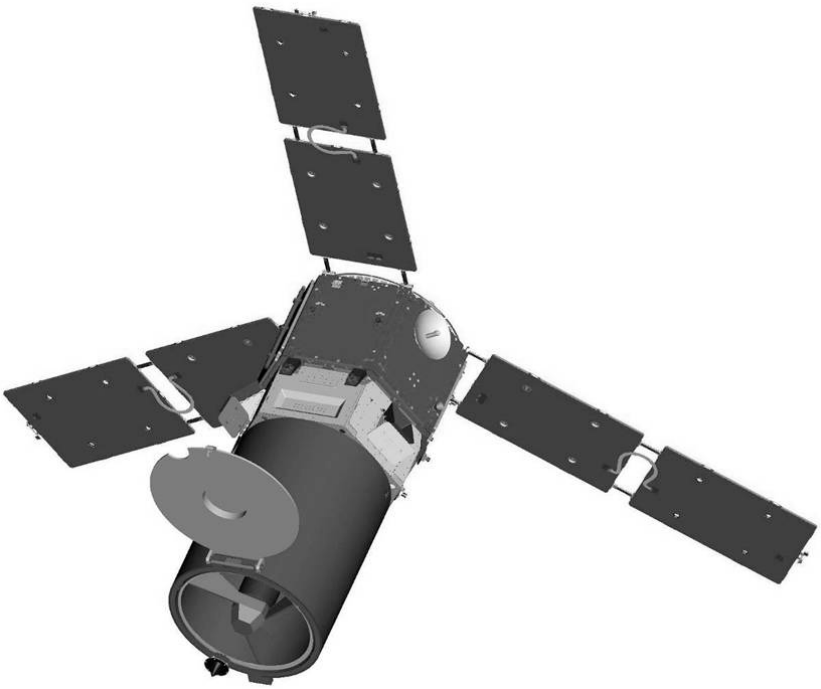
Defense Meteorological Satellite Program, 1992-1999

Defense Satellite Communications System, 1992-

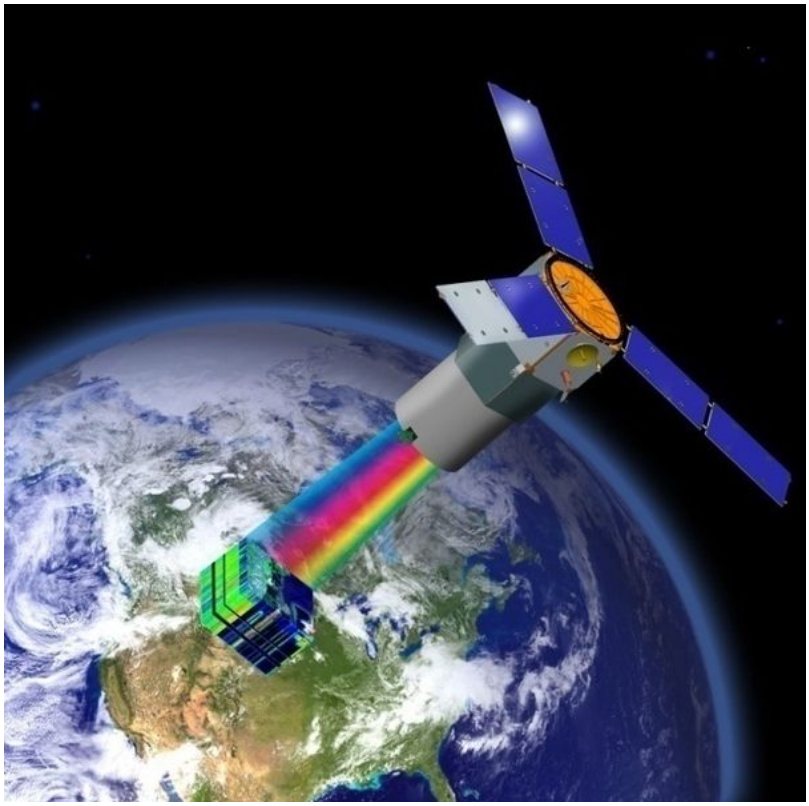
Milstar, 1994-



Wideband Global SATCOM (WGS), 2008-



Operationally Responsive Space – 1 (ORS-1), 2011-



Tactical Satellite 3 (TACSAT-3), 2010-

APPENDIX 7

BRIEF HISTORY OF SCHRIEVER AFB

The history of Schriever Air Force Base began in September 1979 when officials approved plans for the development of an installation to provide a back-up control node for support of existing and planned satellite constellations, and to house an operations support center for NASA's space shuttle. Plans called for a merger of Air Force space operations at a Consolidated Space Operations Center (CSOC) and a Shuttle Operations Center (SOPC).

Following negotiations with the State of Colorado, the state granted the federal government deed to approximately 640 acres of land. On 17 May 1983, contractors broke ground on what would become Falcon Air Force Station, named for the nearby unincorporated town north of the installation. For over two years, contractors worked to complete sufficient facilities to open the base, including headquarters and operations buildings, support facilities, and infrastructure.

On July 8, 1985 the 2d Space Wing activated in a ceremony at Falcon Air Force Station (AFS), although the installation was not complete enough to allow the new wing to occupy the facilities. A ribbon cutting ceremony on September 26, 1985 symbolized the activation of Falcon AFS. Construction costs totaled $91,450,000, less than two-thirds the amount appropriated.

Over the next decades, Falcon continued growing to meet mission requirements, necessitating increases in land area for operations, support, and administrative facilities, and a buffer zone for security. In November 1993, the Air Staff proposed a land exchange with Colorado to obtain the desired properties. By February 1996, negotiations on land transfers with the State of Colorado, combined with purchases of privately owned parcels, resulted in the acquisition of nearly 4,000 acres. This provided the base room to expand and provided an adequate buffer against encroachment.

Leaps in space-related technologies added importance to Falcon's consolidated space operations and brought new missions and organizations to the station. Depicting this growth, Air Force Space Command renamed the installation Falcon Air Force Base on June 13, 1988.

In September 1990, the Joint National Test Facility (later renamed Joint National Integration Center) opened at Falcon, and a few years later, Air Force Space Command activated the Space Warfare Center (later renamed Space Innovation & Development Center) at Falcon AFB. These new organizations necessitated additions to the base's infrastructure.

Changing strategic priorities in the early 1990s led to a reduction of United States military organizations and personnel in Europe. To maintain the history of distinguished units, the Air Force chose to inactivate Falcon's 2d Space Wing and activate the 50th Tactical Fighter Wing, renamed 50th Space Wing to assume responsibility for the satellite control and network operations missions at Falcon. The 50th activated at Falcon AFB on January 30, 1992 and absorbed the personnel, equipment, facilities, and functions of the inactivated 2d Space Wing.

As the new millennium neared, the installation continued to grow. In 1997, Air Force Space Command activated the Space Battlelab at Falcon to develop new and innovative ideas for applying space technology to combat forces. In 1998, the Air Force renamed Falcon AFB in honor of General Bernard A. Schriever, the man known as the Father of the Air Force Space and Missile Program. On June 5, 1998, the wing held a renaming ceremony in honor of General Schriever and marked the first instance of an Air Force installation named in honor of a living person. Also in 1998, construction began on new facilities to house missions and support operations being transferred from Onizuka Air Force Station, a result of the 1995 Defense Base Closure and Realignment Commission initiatives passed into law by Congress.

By mid-way through the first decade of the 21st century, Schriever AFB hosted nearly 70 major and minor facilities and employed over 6,200 people. The base's continuing growth and importance prompted wing and command officials to begin preliminary planning to bring several hundred housing units and associated community support activities to the base.

APPENDIX 8

BRIEF HISTORY OF NEW BOSTON AIR FORCE STATION

New Boston Air Force Station (NBAFS), also known as “BOSS”, is nestled in dense woodland and wetlands in the rolling hills of Hillsborough County surrounded by three New Hampshire towns--Mont Vernon, Amherst and New Boston. American Indians (Pawatucket and Penacook) originally inhabited the land that became New Boston Air Force Station. The total land area encompassed by the station is 2,826 acres of which 100 acres comprise the main operational area.

The station is one of eight worldwide Air Force Satellite Control Network stations with a mission to provide support to USSTRATCOM by performing 24-hour, 365-days, satellite support operations to Department of Defense (DOD) and non-DOD space systems. This is done by performing real-time uplink commands, downlink telemetry and data and tracking data for on orbit satellites in support of critical DOD programs and North Atlantic Treaty Organization allies.

New Boston Air Force Station was established in 1942 as an aerial bombardment and gunnery range to support Grenier Field (now Manchester International Airport). In 1959, the Air Force acquired the range for satellite operations under the management of the 6594th Instrumentation Squadron under the Air Research and Development Command. Construction started with installation of the initial 60-foot antenna. On August 11, 1960, the station performed its first track for the DISCOVERER XIII, CORONA project and was certified operational on June 15, 1961. In 1972, a 46-foot antenna was added and in 1988 a third antenna, a 10-meter data link terminal, was activated. In 1993, the station’s hardware and software were upgraded to the Automated Remote Tracking Station configuration. Current upgrades included a new 43-foot antenna and inflatable radome to replace the 60-foot antenna which was deactivated in 2004.

Over the years, the station underwent numerous changes in its owning organization. First assigned to the 6495th Test Wing, the station later fell under the command of the Air Force Satellite Control Facility. In 1987, Air Force Space Command assumed operational responsibility of the station and designated the

operating unit as Detachment 2, 2d Satellite Tracking Group. Since 1991, the station has been operated by the 23d Space Operations Squadron

For over 50 years, New Boston Air Force Station has dedicated itself to maintaining “PRIDE” in all it does. This pride is demonstrated in the station’s selection for New Hampshire’s 2008 Land Ethics for Tomorrow Award for their efforts to clear the installation’s unexploded ordnance.

The remediation of unexploded ordinance at New Boston’s Joe English Pond began in 2010. The remediation of the pond was a part of a larger project to indentify and eliminate unexploded ordinance on the base. On 12 July 2010 pumps began to remove 13,000 to 15,000 gallons per minute (GPM). Pumping of the pond ceased when heavy rain fell in the area. Before work stopped on the pond two 100-pound Mk4 Mod4 general purpose bombs and a 2,000 pound AN-M66 drill bomb were found. Contactors removed over 300-pounds of munitions-related debris from a former small arms training range on the station and about eight tons of debris from 148 acres on the station throughout 2010.

APPENDIX 9

BIOGRAPHY OF GENERAL BERNARD A. SCHRIEVER

Retired Aug. 31, 1966. Died June 20, 2005. Bernard Adolph Schriever, former commander of Air Force Systems Command, was born in Bremen, Germany, in 1910. The architect of the Air Force's ballistic missile and military space program, he came to America in 1917 when his parents emigrated from Germany. He became a naturalized citizen in 1923, and attended grade school and high school at San Antonio, Texas, and graduated from Texas A&M in 1931 with a bachelor of science degree.

He received a commission in the Field Artillery but in July 1932 began flight training at Randolph Field (later Randolph Air Force Base), Texas and earned his wings and commission in the Air Corps in June 1933 at Kelly Field (later Kelly Air Force Base), Texas. He was assigned as a bomber pilot at March and Hamilton Fields, California, with promotion in June 1933 to first lieutenant.

He went to Panama for duty at Albrook Field and in September 1937 left the Air Corps to fly as a pilot with Northwest Airlines. He returned to duty in October 1938 with the 7th Bomb Group at Hamilton and a year later became a test pilot at Wright Field (later Wright-Patterson Air Force Base), where he also attended the Air Corps Engineering School, graduating in July 1941. He then took an advanced course in aeronautical engineering at Stanford University, received promotion to captain in April 1942, and earned his master's degree in June as a newly promoted major.

In July 1942, Schriever went to the Pacific for combat with the 19th Bomb Group, taking part in the Bismarck Archipelago, Leyte, Luzon, Papua, North Solomon, South Philippine and Ryukyu campaigns. In January 1943 he moved to the 5th Air Force Service Command in maintenance and engineering assignments, and as chief of staff, finally becoming commanding officer of advanced headquarters for the Far East Air Service Command which supported theater operations from bases in Hollandia, New Guinea, Leyte, Manila and Okinawa.

He was promoted to lieutenant colonel in August 1943 and to colonel that December. After the war Schriever went to Headquarters, Army Air Forces as chief of scientific liaison in materiel for three and a half years. He graduated from the National War College in June 1950 and returned to Headquarters, Army Air Forces as assistant for evaluation, in development. In January 1951, he continued the same type of work with

the title of assistant for development planning and was promoted to brigadier general in June 1953.

Schriever began his long association with Air Research and Development Command (ARDC) - later Air Force Systems Command (AFSC) - in June 1954 as assistant to the commander. The next month he headed a small group of officers who went to Los Angeles to organize and form what has became the Air Force's ballistic and systems divisions under AFSC with the end product such ballistic missiles as Thor, Atlas, Titan and Minuteman, and many the aerospace systems which have been launched into orbit, including support for NASA in its Mercury man-in-space and other programs. Schriever received promotion to major general in December 1955. He left Los Angeles for Andrews Air Force Base, Md. in April 1959 as commander of ARDC, which became AFSC April 1, 1961, under a reorganization he initiated. He received promotion to lieutenant general on that date (April 25, 1959), and to general on July 1, 1961.

APPENDIX 10

BRIEF HISTORY OF ONIZUKA AIR FORCE STATION

For nearly 50, Onizuka Air Force Station played a key role in satellite support for the Department of Defense, other national agencies, and civil space programs. The installation originally came into being in 1959 as the host of the 6594th Test Wing, where one of its first primary missions was operations of the CORONA spacecraft, the nation's first imagery satellite. During the subsequent years, the base became home of the Air Force Satellite Control Network, which provided the world's only global antenna network for command and control of military, intelligence, and civil spacecraft constellations.

Throughout Onizuka's service to the Department of Defense and other civilian space programs, its units have made and continue to make significant contributions that have benefited the public interest and the defense of the United States. The Onizuka AFS motto is "Gateway to the Stars" and having supported over 3.4 million sorties from its establishment in 1959 as an interim satellite control center, to its present day mission as an AFSCN Back-up Operations Control Node; it has truly exemplified that historic claim.

During the installation's past five decades of space achievements, Onizuka AFS has supported a host of diverse military satellite and launch programs including NATO III SKYNET, Global Positioning System, Defense Support Program, Defense Meteorological Satellite Program, Defense Satellite Communications System, Delta II launch vehicles, and Inertial Upper Stage booster vehicle. It has played a vital role in the launch of numerous civil satellites, including the Geostationary Operational Environmental Satellite, the Polar Operational Environmental Satellite, Tracking and Data Relay Satellite System, as well as the Hubble Space and Chandra X-Ray Telescopes, and Ulysses, Galileo, and Magellan interplanetary exploration missions.

Onizuka AFS has also supported each and every one of the Space Shuttle missions flown to date and logged more than 18,350 contacts since the first Space Shuttle program launch of Columbia in 1981. As the sole communications interface between NASA and the Air Force Satellite Control Network, Onizuka provided critical

support to the STS-114 and STS-121 Return to Flight missions including 139 error-free on-orbit telemetry contacts. Additionally, when notified of a major change in the mission's communication plan, engineers and operators at Onizuka were able to restructure and reconfigure the shuttle's communications support plan to ensure the Air Force Satellite Control Network could support the new requirement as well as be able to capture and route time-critical space shuttle main engine performance data to NASA engineers at the Marshal Space Flight Center for real-time analysis.

Onizuka AFS was a significant component of United States air and space power throughout its illustrious existence, and it played a direct role in making the United States the dominant air and space power in the world. The many contributions of its assigned organizations to the space industry were unsurpassed, and have been essential to the success of many aerospace programs. The lasting effects from these achievements will be felt for decades to come. A ceremony on July 28, 2010 marked the transfer of the 21st Space Operations Squadron, its AFSCN mission, and its personnel to Vandenberg AFB, California. The closure, a result of the decisions of the BRAC 2005 process, ended the site's nearly 50 years of service to the Air Force and the United States. On September 15, 2011, the station formally transferred to the control of the Air Force Real Property Agency for final disposition.