

## AIR FORCE NUCLEAR WEAPONS CENTER



### MISSION

### LINEAGE

Special Weapons Command established and activated, 1 Dec 1949

Redesignated Air Force Special Weapons Center, 1 Apr 1952

Inactivated, 1 Apr 1976

Redesignated Nuclear Weapons Center, 14 Feb 2006

Activated, 31 Mar 2006

Redesignated Air Force Nuclear Weapons Center, 29 Feb 2008

### STATIONS

Kirtland AFB, NM, 1 Dec 1949-1 Apr 1976

Kirtland AFB, NM, 31 Mar 2006

### ASSIGNMENTS

Headquarters United States Air Force, 1 Dec 1949

Air Research and Development (later, Air Force Systems) Command, 1 Apr 1952-1 Apr 1976

Air Force Materiel Command, 31 Mar 2006

### COMMANDERS

BG Howard G. Bunker, 1 Dec 1949

MG John S. Mills, 10 Oct 1950

MG William M. Canterbury, 25 Jun 1954

MG Charles M. McCorkle, 27 Jul 1959

MG John W. White, 2 Jul 1962

Col Ralph S. Garman, 1 Mar 1966

BG David V. Miller, 1 Jul 1967

Col James E. Paschall, 23 Jul 1969  
Col Algernon G. Swan, 24 Jul 1970  
MG Thomas W. Morgan, 17 Nov 1972  
MG Maurice R. Reilly, 29 Aug 1975-1 Apr 1976  
Col Terrance A. Feehan, July 2006-April 2008  
BG Everett H. Thomas, April 2008-Jan 2011  
BG Garrett Harencak, Jan 2011

## HONORS

### Service Streamers

### Campaign Streamers

### Armed Forces Expeditionary Streamers

### Decorations

## EMBLEM

Special Weapons Command



Air Force Special Weapons Center emblem: On a shield per fess or and gules, a pile transposed sable, with horizontal and vertical graph lines argent; over the pile an atomic cloud issuing from base, in pale, proper, between an atomic symbol in dexter chief sable, a guided missile, fesswise in sinister chief proper, shaded of the last, the dexter and sinister chief proper, stars arch wise argent, four and four. Significance: The atomic mushroom, together with the missile nuclear symbol and engineering background, all unite to present the mission of AFSWC--research, development, and testing to assure the compatibility of new atomic weapons and new USAF aircraft and missiles. Approved: 11 August

Air Force Nuclear Weapons Center emblem: Sable, a globe Azure, edged and grid lined Argent, charged with a nuclear device palewise point to chief Gules, fimbriated of the third, and encircled by three electrons and their orbits in an atomic pattern; all within a diminished bordure Or.

Attached below the shield, a White scroll edged with a narrow Yellow border and inscribed "AIR FORCE NUCLEAR WEAPONS CENTER" in Blue letters. Ultramarine blue and Air Force yellow are the Air Force colors. Blue represents the sky, the primary theater of Air Force operations. Yellow refers to the sun and the excellence required of Air Force personnel. The earth represents the Area of Responsibility (AOR) assigned to the Air Force Nuclear Weapons Center (AFNWC). Both in a strategic and tactical sense, the AFNWC has a significant role in maintaining a viable nuclear deterrent force structure during times of peace and an overwhelming destructive forces in times of nuclear conflict. The AOR is not bound by any one border but extends to anywhere on earth as requirements dictate. The electrons circling the nucleus (represented by earth) represent the basic structure of the atom that is instrumental to the nuclear detonation. The nuclear device represents the numerous nuclear weapons systems that fall under the responsibility of the AFNWC. The AFNWC responsibilities span the total scope of a system's life - from concept to acquisition to sustainment to retirement. "Nuclear Weapons System" includes the nuclear weapon, delivery system (aircraft, cruise missile, ICBM, etc) and support equipment. (Approved, 9 May 2006)

## **MOTTO**

## **OPERATIONS**

The Nuclear Weapons Center was originally established as a Major Command to direct specialized organizations dealing with atomic and other unconventional weapons. Because much of the work involved research and development, it lost its status as a Major Command and was absorbed by the Air Research and Development Command in Apr 1952, but continued to do research and development on special weapons until 1976.

The Air Force has consolidated all its functions for the design and maintenance of nuclear weapons at the new Nuclear Weapons Center at Kirtland AFB, N.M. The organization was activated March 31.

The NWC won't result in any new hires or spending. It merely brings various functions, previously spread out across USAF, into one centralized location.

The Special Weapons Command was created to direct specialized organizations dealing with atomic and other unconventional weapons. Because much of the work involved research and development, the command was eventually absorbed by the Air Research and Development Command.

In Dec 1949, Kirtland AFB became headquarters for the newly created Special Weapons Command. The nucleus of this organization was composed of pioneering Air Force agencies that had located here to determine future employment of special weapons.

The command became the Air Force Special Weapons Center on 1 Apr 1952, and was a unit of the Air Research and Development Command. During the 1950s, Center people and aircraft

participated in atmospheric nuclear tests in Nevada and the far Pacific. The first Air Force scientific capabilities at the base were created during the mid 1950s. Biophysicists deliberately flew through nuclear clouds to determine radiation hazards. And engineers launched sounding rockets so physicists could study the effects of high-altitude nuclear explosions and the nature of the recently discovered Van Allen radiation belts around the Earth. During that period, air defense, weather and atomic test squadrons operated from Kirtland AFB, and people from both bases took part in the 12 nuclear test series conducted in Nevada and the Pacific. Special Weapons Center pilots flew through nuclear clouds to determine radiation hazards, and its engineers launched sounding rockets to study the effects of high altitude nuclear explosions and to investigate the upper atmosphere in preparation for future space missions.

Armed Forces Special Weapons Command also constructed two operational sites. One of these sites was known as Site Able, located in the foothills of the Manzano Mountains, just east of Sandia Base. On February 22, 1952, Site Able was renamed Manzano Base, and operated by the Air Force.

From the early years of Cold War, the need to test and evaluate supersonic aircraft technologies, associated munitions, and eventually space systems, required the Air Force to build specialized ground test facilities. As nuclear weapons and electronics became more a part of air power, two new locations for Test and Evaluation (T&E) were created. The Special Weapons Center (SWC) at Kirtland AFB, NM concentrated on the technologies supporting nuclear weapons development. Hanscom Field, MA concentrated on new levels of sophistication in electronics and avionics development. However, both locations were closed for testing in the late 1970s because the Air Force felt that limited R&D dollars were better spent on technology than on infrastructure.

One aspect of the testing environment involves the features a particular location might offer that could help or hinder testing of weapons such as supersonic aircraft technologies, associated munitions, and space systems. For example, the Special Weapons Center was established at Kirtland AFB, NM because of the concentration of technologies and industries supporting nuclear weapons development in the region.

In 1958 Special Weapons Center scientists began to simulate the effects of nuclear explosions in order to strengthen our missiles, missile sites and aircraft against possible enemy attack. It was in 1958 that a nuclear effects simulator was first constructed in an abandoned dining hall at Kirtland.

In 1958, efforts were underway between the United States and Soviet Union to agree on a moratorium for atmospheric nuclear testing. The anticipated limitations on determining weapons effects inspired efforts by the Special Weapons Center and Sandia Corporation to develop methods of simulating nuclear effects with non-nuclear techniques. In 1962, Kirtland AFB and Sandia personnel participated in Operation DOMINIC, a series of atmospheric and subsurface tests in the Pacific. They were the last such tests conducted before the existing Limited Nuclear Test Ban Treaty was signed with the Soviet Union in late 1962, prohibiting testing in the atmosphere, in space and under water.

In the wake of the signing of the test ban treaty, in 1963 the Air Force Weapons Laboratory was created from the Research Directorate elements of the Special Weapons Center. The Special Weapons Center gave up much of its research and development work to the newly created Air Force Weapons Laboratory. The Center continued with its test and evaluation mission and as Kirtland's host organization. The Weapons Laboratory built facilities during the 1960s to simulate nuclear effects such as transient radiation, X-rays, and electromagnetic pulse.

The Special Weapons Center assumed management of Air Force Systems Command's test and evaluation facilities at Holloman AFB NM, during the summer of 1970. And, just one year later on 1 Jul 1971, Kirtland merged with Manzano and Sandia Base, its neighbors to the east, creating the sprawling military complex known as Kirtland AFB.

Commission in furtherance of the atomic energy program in the Army Air Forces." beginning of a function that grew This committee was the rapidly at Kirtland. Also, important to the base's future was a passage of the Department of Defense Reorganization Act of 1947, which established the United States Air Force as a separate military service replacing the U. S. Army Air Forces. Shortly thereafter, on January 13, 1948, Kirtland Field became Kirtland Air Force Base. Kirtland aircraft and personnel supported Operation SANDSTONE tests at Eniwetok Atoll during 1948, and on July 1, the Tactical and Technical Liaison Committee was replaced by an expanded Air Force Field Office for Atomic Energy, located at Kirtland AFB, with a mission similar to that of its predecessor committee. The Field Office operated for a year and a half and was then in turn replaced by the organization that controlled Kirtland Air Force Base and its activities for the next 26 years. On December 1, 1949, the Air Force Special Weapons Command (AFSWC) was activated at Kirtland, with Brigadier General Howard G. Bunker as its first Commander. In addition to the functions discharged by its predecessor units, AFSWC was responsible for operating Kirtland Air Force Base and all Air Materiel Command activities at Kirtland. AFSWC also provided personnel and equipment for developing and testing aircraft and ground handling equipment for special weapons and provided additional personnel and equipment to the AEC for the continental nuclear test program.

To accomplish its mission, AFSWC activated the 4901st Support Wing (Atomic) and its 4925th Test Group (Atomic), the latter with assigned Boeing B-50 and Convair B-36 strategic bomber aircraft. The Group's first jet-powered bomber, a North American B-45, arrived during mid-1950, and was followed by Boeing B-47 bombers. Other flying activity increased at Kirtland in addition to heavy transient aircraft traffic. During 1950, the Albuquerque Air Defense Sector Headquarters (of Air Defense Command) began operations at Kirtland, supported by the Convair F-102 aircraft of the 93rd Fighter Interceptor Squadron. The 4th Air Weather Group and the 4926th Test Squadron (Sampling), flying Martin B-S7 aircraft, were also established at Kirtland AFB during the early 1950s. To provide housekeeping and base host services, the Support Wing activated the 4910th Air Base Group. With activity increasing rapidly, new base housing units were designed and constructed during the 1950s, and service and recreation facilities which were inactive at war's end were reopened.

AFSWC responsibilities expanded to include monitoring the Military Weapons Effects Program and exercising overall control of Air Force personnel taking part in the ongoing series of full-scale nuclear tests. Accordingly, the Command provided aircraft and crews for airdrops, sampling and courier service, as well as for disaster and radiological safety. It also provided damage assessment, telemetry, photography, and administrative services. Beginning in late 1951, AFSWC's Joint Test Group was operational and assumed planning and support responsibilities for future full-scale tests. The Joint Test Group, however, was soon converted to Test Command, Armed Forces Special Weapons Project, and as such operated out of Kirtland AFB. A further change occurred on April 1, 1952, when the Air Force Special Weapons Command was redesignated the Air Force Special Weapons Center (AFSWC) and became part of the Air Research and Development Command. As such, AFSWC was more heavily involved with support for development of Air Force weapons in general, not just nuclear weapons. Responsibility for atomic warhead installations in guided missile weapons, and for development of warhead support equipment, also devolved upon AFSWC personnel. However, the Center still continued to act as "the AEC's Air Force" as long as support for full-scale testing was required.

In addition, AFSWC withdrew its control over Indian Springs Air Force Base, Nevada, which supported much Nevada Test Site activity. One month later, During September 1961, the Soviet Union detonated a nuclear device in the atmosphere and a brief flurry of full-scale test activity followed. AFSWC created a Nuclear Test Directorate for air support planning and for nuclear test operations both in the Pacific and at the Nevada Test Site. Operation DOMINIC, which followed, was the last full-scale test series undertaken before the Limited Nuclear Test Ban Treaty with the Soviets prohibited such tests. That treaty changed Sandia Corporation's emphasis in nuclear ordnance design, as noted previously, and it brought about significant changes in military activities at Kirtland AFB as well.

AFSWC also modified its activities. Air Force Systems Command (AFSC) , which had replaced Air Research and Development Command, redefined the AFSWC mission during 1963, and the Center became a test support installation for missile development, as previously noted, with continuing responsibilities in nuclear testing as well. Those responsibilities involved support for the National Nuclear Test Readiness Program. AFSWC's Readiness Division planned and monitored test readiness exercises which began in early 1961 and continued through 1968. However, increasing costs of maintaining the capability to "promptly" resume nuclear tests in prohibited environments, and advancing test simulation expertise, brought the whole readiness program into question by 1969. As a result, AFSWC's readiness support aircraft, B-52s and B-57s, were placed in storage during the early 1970s, and personnel were transferred to other Air Force units. During Sept 1974, its function largely obsolete, AFSC directed the disestablishment of AFSWC. On March 31, 1976, the story of a most significant Kirtland unit came to a close. AFSWC continued to operate Kirtland Air Force Base while these many changes were taking place in Center activities. Several other significant changes took place on the base during that period. Early U.S. Navy detachments assigned to Kirtland for weapons capability tests were expanded into the Naval Weapons Evaluation Facility. Air Force Systems Command established its Noncommissioned Officers Academy at Kirtland in April 1961. With a slowdown in military flying

activity as full- scale testing ended, and with increasing commercial airline traffic into the Albuquerque municipal airport, the Air Force decided to transfer 1,242 acres of land, along with runways, taxiways, and ramps, back to the City of Albuquerque. The transfer took place on January 3, 1963, with Kirtland AFB thereafter providing crash and fire protection on the airfield and leasing use of the runways and taxiways from the city. The most important physical change, of course, was the July 1, 1971, merger of Sandia Base, Manzano Base, and Kirtland Air Force Base, as already described. AFSWC remained in control of the merged installation until the Center was disbanded in 1976. At that time another large Systems Command organization, the Air Force Contract Management Division (AFCMD) assumed control of Kirtland. AFCMD transferred to Kirtland during 1972, taking up facilities and workspace vacated by the former DA5A Special Weapons School on the base's east side. The Division's mission, just as the title suggests, was, and is, to perform contract management in support of systems acquisition. With that principal goal in mind, upon assuming base control, AFCMD officials transferred AFSWC's experienced 4900th Air Base Group to their organization (as the 4900th Air Base Wing) to discharge base host and housekeeping responsibilities. By the early 1970s, Kirtland had evolved essentially into a research and development installation, hosting other military organizations as space availability dictated. Flying operations diminished as AFSWC activities wound down and the base once again had administrative and flight facilities unused.

Early in 1974, the Air Force Test and Evaluation Center was organized at Kirtland AFB to direct and oversee operational testing of emerging aircraft and systems.

Because of budget restrictions and the need to save money, the Air Force Special Weapons Center was disestablished on 1 Apr 1976. In 1976 AFSWC was closed and OPR functions came to the AFWL. Special Weapons Center's responsibilities as Kirtland's "landlord" were also transferred to the Air Force Contract Management Division on the same day

The center will manage the Air Force's nuclear weapons systems to support the National Command Structure and will act as a parent organization for Kirtland, with two subordinate units: the 377th Air Base Wing and the 498th Armament Systems Wing. The 377th will be responsible for nuclear safety, expeditionary forces, and operating support. The 498th will be responsible for a broad range of support functions. 2006

Fission and Fusion: As part of the Air Force's organizational moves to bolster oversight of its nuclear weapons, the service formally relocated on Oct. 25 the 498th Munitions Maintenance Group, along with its new subordinate unit, the 19th Munitions Squadron, from Kirtland AFB, N.M., to Whiteman AFB, Mo. "Our nuclear arsenal is the ultimate backstop of our nation's strategic defense and these units ensure Whiteman is prepared and ready for this responsibility," said Gen. William Fraser, Air Combat Command boss. With the change, the 498th MUMG still retains command of the 898th Munitions Squadron and 708th Nuclear Sustainment Squadron at Kirtland. And the group remains subordinate to the 498th Nuclear Systems Wing at Kirtland, which reports directly to the Air Force Nuclear Weapons Center, also at the New Mexico base, where it oversees the sustainment of Air Force nuclear weapons and support equipment in the continental US.

On March 31, 2006, the Air Force Nuclear Weapons Center was created and became the parent organization at Kirtland AFB. The 498th Armament Systems Wing was also created to be the maintenance arm of the AFNWC, while the 377th ABW remained the host support unit on base.

The Nuclear Weapons Center was established on March 31, 2006, and renamed to the Air Force Nuclear Weapons Center on February 29, 2008. It is Air Force Materiel Command's center of expertise for nuclear weapon systems. The AFNWC is the single AFMC voice for integrating nuclear weapon systems requirements and nuclear weapon system resource management. The center is the primary unit servicing Kirtland AFB and its over 100 mission partners.

The mission of the AFNWC is to ensure safe, secure and reliable nuclear weapons are available to support the national command structure and Air Force war fighter.

The responsibilities of the AFNWC include acquisition, modernization and sustainment of nuclear system programs for both the Departments of Defense and Energy.

The center is composed of two wings: the 377th Air Base Wing and the 498th Armament Systems Wing, both at Kirtland AFB, N.M., and units in Germany, Oklahoma and Utah.

James Touts Benefits of Nuclear Reorganization -Marc V. Schanz Detailing recent changes to the Department of Defense's nuclear mission, Air Force Secretary Deborah Lee James said the realignment of parts of USAF's nuclear mission under a dual-hatted major general will lead to greater sustainment efficiencies for the Air Force's nuclear systems. In a speech at the Center for Strategic and International Studies Tuesday evening, James said the plan to merge the Air Force Nuclear Weapons Center at Kirtland AFB, N.M., and the Air Force Program Executive Office for Strategic Systems, also at Kirtland, will join together acquisition efforts and support management duties for USAF nuclear systems. Going forward, the Air Force will have "one senior leader accountable for the entirety of the weapons system ... the missile, the launch facilities, and the supporting equipment" for both support activities and acquisition. The 377th Air Base Wing, host of the AFNWC, will move from Air Force Materiel Command to Air Force Global Strike Command as part of the change, to streamline product support and modernization. The USAFNWC also will be reorganized into three directorates-two of which will focus on ICBMs and aircraft-delivered nuclear weapons and the third to focus on nuclear requirements and engaging with the rest of the nuclear enterprise and other agencies. 2014

The Air Force Nuclear Weapons Center reorganized on March 30 and is now broken into three execution directorates, including the existing ICBM Systems, and the newly formed Nuclear Technology and Interagency, and the Air Delivered Capabilities, according to a March 31 release. "Our mission is still to deliver nuclear capabilities and winning solutions that warfighters use daily to deter our enemies and assure our allies," said Maj.Gen. Sandra Finan, AFNWC commander. "Implementation of this [reorganization] will better align our organization to that mission." The new technology directorate will focus on the "unique aspects of nuclear weapons technology and engagement with interagency partners in the nation's nuclear enterprise," states the release.



Both the ICBM and Air Delivered Capabilities directorates directly relate to the Air Force's two legs of the nuclear triad. The ICBM Systems Directorate includes the Ground Based Strategic Deterrent, Minuteman III, engineering, operations management, program control, and product support divisions. The Air Delivered Capabilities Directorate includes, engineering, strategic systems, nuclear weapons systems integration, outside continental United States support, nuclear weapons acquisition, and a cruise missile sustainment division. 2015

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Command Activated 1 Dec 49 At Kirtland Air Force Base Nm. Commanded By Brig Gen John S. Mills.

Mission To Maintain Technical Supervision Over Facilities, Personnel, Aircraft, Equipment, And Instrumentation Required For Development Testing Of Atomic Weapons And Delivery Systems. Mission Expanded In Dec 51 To Include Support Of Nuclear Tests (Including Furnishing Of Aircraft And Crews) And Responsibility For Operational Suitability Testing Of Atomic Weapons.

Command Participated In Ranger Operation (First Of Series Of Nuclear Tests Within Continental United States) At Nevada Test Site During Jan And Feb 51.

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USAF Unit Histories  
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#### Sources

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