90 MISSILE WING

MISSION

Mighty Ninety operates 150 Minuteman III (LGM-30G) ICBMs on full alert 24-hours a day, 365 days a year. The 90 Missile Wing employs about 2,585 military personnel and 995 civilian employees. Family members of assigned military personnel add another 5,445 to the local population. Also, some 5,000 military retirees reside in the area.

Organization The 90 Missile Wing is made up of a wing staff and five groups - the 90 Operations Group, 90 Maintenance Group, 90 Mission Support Group, 90 Security Forces Group and 90 Medical Group. The 90 Operations Group consists of more than 550 operators, chefs, facility managers and support personnel. It is composed of three missile squadrons, an operations support squadron, a helicopter squadron and a standardization and evaluation element. Each tactical missile squadron is responsible for five missile alert facilities and 50 Minuteman III ICBMs. The units of the 90 Operations Group include the 319th Missile Squadron, 320th Missile Squadron, 321st Missile Squadron, 90 Operations Support Squadron and the 37th Helicopter Squadron. The 90 Maintenance Group provides the commander with U.S. Strategic Command fully modernized, combat-ready Minuteman III ICBMs along with command and control systems required to launch those missiles. The group maintains 150 missiles and associated launch facilities, as well as 15 launch control facilities spread between a three-state, 9,600 square-mile complex.

ICBM Capabilities The 150 Minuteman III missiles are deployed over a 9,600 square-mile area of eastern Wyoming, western Nebraska and northern Colorado. They are dispersed in hardened silos to protect against attack and connected to 15 underground missile alert facilities through a system of hardened cables. Launch crews consisting of two officers perform around-the-clock alert in launch control centers. A variety of communication systems provide the President of the United States with highly reliable, virtually instantaneous and direct contact with each launch crew.

LINEAGE
90 Bombardment Wing, Medium established, 20 Dec 1950
Activated, 2 Jan 1951
Redesignated 90 Strategic Reconnaissance Wing, Medium, 16 Jun 1956
Discontinued, 20 Jun 1960
Redesignated 90 Strategic Missile Wing (ICBM-Minuteman), 21 Feb 1963
Organized, 1 Jul 1963
Redesignated 90 Missile Wing, 1 Sep 1991
Redesignated 90 Space Wing, 1 Oct 1992
Redesignated 90 Missile Wing, 1 Jul 2008

STATIONS
Fairchild AFB, WA, 2 Jan 1951
Forbes AFB, KS, 14 Mar 1951-20 Jun 1960
Francis E. Warren AFB, WY, 1 Jul 1963

ASSIGNMENTS
Fifteenth Air Force, 2 Jan 1951
21 Air Division, 14 Mar 1951-20 Jun 1960
Strategic Air Command, 21 Feb 1963
13 Strategic Missile Division, 1 Jul 1963
821 Strategic Aerospace Division, 2 Jul 1966
4 Strategic Missile (later, 4th Air) Division, 30 Jun 1971
Fifteenth Air Force, 23 Aug 1988
Twentieth Air Force, 1 Sep 1991

ATTACHMENTS
92 Bombardment Wing, Heavy, 2-31 Jan 1951

WEAPON SYSTEMS
B-29, 1951-1954
RB-29, 1951, 1952-1954
TB-29, 1951-1952
KB-29, 1953-1954
RB-47, 1954-1960
KC-97, 1955-1960
Minuteman I, 1964-1974
Minuteman III, 1973
Peacekeeper, 1986

COMMANDERS
Col Conrad F. Necrason, 2 Jan 1951
Col Joseph S. Pirruccello, 14 Mar 1951

Col Gerald G. Robinson, 22 Mar 1951
Col Joseph S. Pirruccello, 4 Apr 1951
Col Conrad F. Necrason, 20 Apr 1951
Col Joseph S. Pirruccello, 21 Apr 1952
Col Conrad F. Necrason, 5 Jun 1952
Col Joseph S. Pirruccello, 19 Sep 1952
Col Albert J. Shower, 6 Dec 1952
Col Joseph S. Pirruccello, 27 Apr 1953
Col Albert J. Shower, 18 May 1953
Col Gordon F. Goyt, Mar 1954
Col Jack E. Cunningham, 8 Apr 1954
Col Albert J. Shower, 22 Apr 1954
Lt Col Vincent M. Crane, May 1954
Col Albert J. Shower, 7 May 1954
Col Joseph S. Pirruccello, May 1954
Lt Col Vincent M. Crane, 7 Jun 1954
Col Joseph S. Pirruccello, 25 Jun 1954
Col Olbert F. Lassiter, 30 Jun 1954
Col Albert J. Shower, Jul 1954
Col Gordon F. Goyt, 6 Jul 1954
Col George L. Robinson, 31 Jul 1954
Col Harold W. Ohlke, 23 Aug 1957
Col William W. Wilcox, 21 Apr 1958
Col Norman J. McGowan, 10-20 Jun 1960
Col Floyd E. Wikstrom, 1 Jul 1963
Col Donald W. Johnson, 26 Aug 1965
Col Robert J. Hill, 16 Aug 1966
Col Robert R. Scott, 2 Aug 1968
Brig Gen Harold A. Strack, 18 Aug 1969
Col Paul E. Bell, 3 Jan 1972
Col Bobbie G. Guthrie, 2 Jul 1973
Col Christopher S. Adams Jr., 13 Jun 1974
Col Ray E. Miller, 3 Dec 1975
Col James E. Cowan, 29 Sep 1976
Col Charles H. Greenley, 26 Mar 1979
Col Martin M. Burdick, 11 Jun 1981
Col James P. Henry, 14 Dec 1982
Col Arlen D. Jameson, 24 Jan 1984
Col Gary L. Curtin, 17 Jun 1986
Col John A. Gordon, 8 Jun 1988
Col Richard L. Farkas, 16 May 1989
Col Thomas A. Fagan III, 1 Sep 1991
Brig Gen Lance W. Lord, 19 Aug 1992
Brig Gen Thomas H. Neary, 5 Aug 1993

Col Howard G. DeWolf, by Dec 1994
Col Robert P. Summer, Jul 1996
Col William F. Shelton, Sep 1997
Col Roger W. Burg, Aug 94
Col Thomas D. Shearer, Jun 01
Col Evan Hoapili, Jul 2003
Col Michael J. Carey, Jun 2005
Col Michael J. Morgan, Jun 2007
Col Tracey Hayes, #2014

HONORS
Service Streamers

Campaign Streamers

Armed Forces Expeditionary Streamers

Decorations
Air Force Outstanding Unit Awards
1 Jul 1968-30 Jun 1969
1 Jul 1973- 30 Jun 1975
1 Jul 1982-30 Jun 1984
1 Jul 1987-30 Jun 1989
1 Oct 1994-30 Sep 1995
1 Sep 1996-31 Aug 1998
1 Oct 1999-30 Sep 2000
1 Jan-31 Dec 2001
1 Oct 2003-30 Sep 2005
1 Oct 2005-30 Sep 2007

Bestowed Honors
Authorized to display honors earned by the 90 Bombardment Group prior to 20 Nov 1947

Service Streamers

Campaign Streamers
World War II
Air Offensive, Japan
China Defensive
Papua
Guadalcanal
New Guinea
Northern Solomons

Bismarck Archipelago
Western Pacific
Leyte
Luzon
Southern Philippines
China Offensive

Decorations
Distinguished Unit Citations
Papua, [Nov] 1942-23 Jan 1943
New Guinea, 13 and 15 Sep 1943

Philippine Presidential Unit Citation

EMBLEM

90 Strategic Missile Wing (ICBM-Minuteman) emblem: Per chevron enhanced reversed azure and light blue a chevron reversed argent bearing six mullets of the first, issuant from base a demi-sphere of the last, rimmed and grid lines of the third surmounted by two olive branches one bendwise and one bend sinistenrise all of the like and overall in pale a missile ascending,

terminating in fess or emitting a propulsion trail gules and two lightning flashes one to dexter fess enarriere and one to sinister fess of the like, in chief a pterodactyl in flight wings elevated of the fourth, eye and tongue of the third, all within a diminished bordure of the fourth. **SIGNIFICANCE:** The shades of blue allude to day and night vigilance. The six stars represent the number of squadrons in the wing at the time of approval. The olive branches symbolize peace and the missile represents deterrent power to maintain peace. The globe depicts the intercontinental capability and the lightning flashes illustrate the strength and swiftness of the unit. The pterodactyl reflects the honors awarded the unit. (Approved, 29 Sep 1964)

Azure, issuant from base a demi-globe celeste gridlined argent (silver gray), two lightning flashes chevronwise reversed or striking globe at pole, overall a pile diminished reversed gules, between six mullets chevronwise in chief of the third, all within a diminished bordure yellow. **SIGNIFICANCE:** Blue and yellow are the Air Force colors. Blue alludes to the sky, the primary theater of Air Force operations. Yellow refers to the sun and the excellence required of Air Force personnel. The light blue globe on the dark field represents day and night vigilance of the Wing. The globe also represents the worldwide scope of the unit's mission. The pile reversed suggests the Wing's endeavor for peace through the strength of its assigned weapons. The lightning bolts refer to the swiftness and constancy of the Wing as a deterrent force. The six white stars symbolize the original squadrons of the unit and the honors awarded the Wing. (9 Dec 1993)

MOTTO

OPERATIONS

Operational training unit for B-29 aircrews and mechanics, May 1951-Sep 1952; also replacement training unit for B-29 aircrews, Jun 1951-Aug 1953 and RB-29 aircrews, Nov 1952-Aug 1953, bound for Far East Air Forces.

Also trained Shoran personnel, SAC-wide, Nov 1952-Nov 1953.

Flew strategic reconnaissance missions, Sep 1953-May 1958, and air refueling missions, Feb 1956-Jun 1960.

Served as RB-47 combat crew training wing, May 1958-Jun 1960.

Deployed at Eielson AFB, Alaska, 5 May-31 Aug 1955.

On November 21, 1957, the Department of Defense announced that F.E. Warren would become the nation's first ICBM base. Shortly thereafter, the base shifted to the Strategic Air Command from the Air Training Command. Originally, the project design for the above-ground Atlas D ICBM launch and control facilities at "Site A" was to be completed by mid-May 1958 and construction finished in November 1959. However, design revisions forced addendums on the bid packages delaying the bid opening to July 15, 1958. To meet a previously set June 30th bid award deadline, the package was advertised without the critical Propellant Loading Skids, instrumentation, controls, expansion, anchorage and structural support, and site power facilities.

Despite these gaps, construction began at a location 23 miles northwest of Cheyenne for the facilities of the recently activated 706th Strategic Missile Wing. The Omaha District of the Army Corps of Engineers oversaw the construction at "Site A," which eventually consisted of two above-ground complexes with three launchers each. Because the Atlas D was radio-controlled from the ground, the launchers had to be clustered close to the radio transmitters. The prime contractor, the George A. Fuller Company, worked through the fierce winter of 1958-1959 to get the job completed in 190 days.

The project was not without problems, and many of these problems would later plague the construction efforts at other ICBM sites. Inexperience, time pressure, remote locations, and constant modifications required to adjust the facility to support an evolving missile design hampered the construction effort. At Site A, also known as "Warren I," 35 modifications were made to the guidance facility and 117 to the launchers before Fuller completed the contract. The were four work-stoppages over issues such as pay, hours, and the presence of non-union workers. There were no fatalities at this project; moreover, the number of disabling injuries was just below the average for all Corps of Engineers projects and about six times better than the national average.

On September 15, 1959, the first Atlas D missile to deploy away from Vandenberg AFB, California, went to the 564th Strategic Missile Squadron stationed at Warren I. A month later, F.E. Warren became the recipient of the first air transported Atlas missile. With General Power (the Commander in Chief of SAC) present, the first Atlas D complex was turned over to the 564th SMS and declared operational on August 9, 1960.

As work proceeded at Warren I, the Corps contracted for yet another complex. In February 1959, bids were opened for "Warren II," a complex that would have three sites with three Atlas D launchers at each. The Blount Company won the bid to build "annexes B, C, and D" to be

scattered to the northeast, southeast, and southwest of Cheyenne. Slow material deliveries, modifications, and 11 different work stoppages hindered the construction of these complexes. Slated for completion in February, Warren II was finally ready in the summer of 1960. The 565th Strategic Missile Squadron, activated on December 1, 1959, operated the nine launchers. On a positive note, the safety record at Warren II exceeded that at Warren I. The Martin K. Elby Construction Company of Wichita, Kansas, submitted the low bid to construct Warren III, which would host the Atlas E missile.

Because the Atlas E contained inertial guidance, the launch sites need not be concentrated. Nine Atlas Es would be scattered over a 60-square-mile area at single "coffin" launch sites. The term "coffin" was used because the missile laid on its side underground with the coffin roof at ground level. This configuration offered limited protection for the launcher. Work began on December 7, 1959.

Coffin launchers in Wyoming were at Chug-water, Lagrange, and Pine Bluffs. One Atlas E launcher was located in Nebraska and five launchers were placed in Colorado at Grover, Briggsdale, Nunn, Greely, and Fort Collins. As with Warren I and II, problems plagued construction. Delivery of steel was erratic in the wake of the national steel strike. Because of sites located in three states, the contractors had to recruit labor from many different locals.

Consequently, work stoppages occurred at some individual sites while labor harmony prevailed at others. There were nine disabling injuries. Again, Propellant Loading System (PLS) skids proved to be a challenge. In fairness to the contractor, Blaw-Knox, the Corps of Engineers admitted that compressed times for design and fabrication of this system and the attempts to use "off-the-shelf' components such as valves led to problems. Because of the rush to deploy, a prototype PLS for test and evaluation was not built. Construction difficulties encountered at Warren and other ICBM sites would lead to an inter-service dispute over construction management. Eventually, the Corps of Engineers Ballistic Missile Construction Office (CEBMCO) was formed to oversee construction.

On October 1, 1960, the 549th Strategic Missile Squadron became the last Atlas E SMS to be activated. The 549th SMS was redesignated 566th SMS on July 1, 1961. On that same date the parent 706th Strategic Missile Wing stood down. Command responsibilities at Warren were assumed by the recently activated 389th Strategic Missile Wing.

In May 1964, as the Atlas D missiles were being phased out, the 389th Strategic Missile Wing received SAC's last operational readiness inspection for this system. In September, SAC deactivated the 564th SMS. During the following March, the 566th SMS would also be deactivated, completing the phaseout of the Atlas E at Warren.

The departure of the Atlas squadrons did not mark the end of F.E. Warren's role in the ICBM program. On October 15, 1962, Morrison-Knudsen and Associates won the contract to construct 200 Minuteman silos over an 8,300-square-mile area of Wyoming, Nebraska, and Colorado, located north and east of the base. Morrison-Knudsen subcontracted the task of

excavating the silos to the Meridith Drilling Company of Denver. Meridith used an innovative technique of equipping cranes with 6-, lo-, and 15-foot diameter augers. These "biggest post-hole diggers on earth" allowed the crews to average drilling out one silo per day between November 1962 to June 1963. The first site, A-6, reached completion on October 2, 1963.

Besides the innovative drilling technique, the project was blessed with milder than normal weather conditions, which allowed for accelerated progress during the winter months. But access to the 200 sites proved to be a challenge. Thirty-eight miles of offsite roads had to be constructed. The Corps of Engineers Omaha Office handled numerous complaints from local owners claiming property damages. The presence of a Missile Site Labor Committee helped alleviate labor problems. The four work stoppages caused minimal impact to the construction effort. During construction, five fatalities occurred.

While construction proceeded, on July 1, 1963, the Air Force activated the 90 Strategic Missile Wing. Over the next year, the four component strategic missile squadrons activated with the 400th SMS became the last Minuteman I "B" unit to stand up on July 1, 1964.

In November 1972, SAC initiated the Minuteman Integrated Improvement Program. The program entailed silo hardening and upgrading command data buffers, which allowed for quicker missile retargeting. In addition to receiving upgraded silos and launcher control facilities, Warren also received new missiles. With conversion to the Minuteman III model, Warren's last Minuteman I model went off alert status in September 1974.

On November 22, 1982, in a decision statement for Congress, President Ronald Reagan stated his plan to deploy the MX missile dubbed "Peacekeeper" to superhardened silos located at F.E. Warren. The Vice Commander-in-Chief of SAC, Lieutenant General George Miller, explained that location, geography, and geology were key factors for selecting the base.

The initial plan was to deploy 100 Peacekeepers in silos of the 400th and 319th Strategic Missile Squadrons. In July 1984, construction began for Peacekeeper support facilities at Warren.

Supervised Peacekeeper ICBM personnel training and facility preparation, beginning Jun 1985.

Peacekeeper was fully operational on 30 Dec 1986.

From 1986 through 1988, 50 Peacekeepers would be backfitted into silos formally occupied by Minuteman IIIs of the 400th Strategic Missile Squadron. Boeing Aerospace Company served as the primary contractor for reconfiguring the silos to accept the new missile. Unlike Minuteman, which was placed in the silo with a special transporter erector, Peacekeeper had to be assembled stage-by-stage within the silo.

From Sep 1991, maintained and operated on alert its assigned missiles.

USAF Unit Histories
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Sources
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