

# NEVADA TEST AND TRAINING RANGE



## LINEAGE

98th Bombardment Wing, Very Heavy established, 24 Oct 1947  
Organized, 10 Nov 1947  
Discontinued, 12 Jul 1948

98th Bombardment Wing, Medium established, 28 May 1948  
Activated, 12 Jul 1948  
Redesignated 98th Strategic Aerospace Wing, 1 Feb 1964  
Discontinued, and inactivated, 25 Jun 1966  
Redesignated 98th Strategic Wing, activated and organized, 25 Jun 1966  
Inactivated, 31 Dec 1976

98th Bombardment Wing, Very Heavy and 98th Bombardment Wing, Medium, consolidated, 1 Oct 1984

Redesignated 98th Range Wing, 21 Sep 2001  
Activated, 29 Oct 2001  
Redesignated as Nevada Test and Training Range on 21 Jun 2011

## STATIONS

Spokane AAFld (later, Spokane AFB; Fairchild AFB), WA, 10 Nov 1947-15 Aug 1953  
Yokota AB, Japan, 15 Aug 1953-25 Jul 1954  
Lincoln AFB, NE, 25 Jul 1954-25 Jun 1966  
Torrejon AB, Spain, 25 Jun 1966-31 Dec 1976  
Nellis AFB, NV, 29 Oct 2001

## DEPLOYED STATIONS

Lakenheath RAF, England, 12 Nov 1955-28 Jan 1956

## ASSIGNMENTS

Fifteenth Air Force, 10 Nov 1947  
Second Air Force, 16 May 1950  
Fifteenth Air Force, 28 Jul 1950

57th Air Division, 16 Apr 1951  
Fifteenth Air Force, 25 Nov 1953  
818th Air (later, 818 Strategic Aerospace) Division, 11 Oct 1954  
810th Strategic Aerospace Division, 25 Mar 1965-25 Jun 1966  
Strategic Air Command, 25 Jun 1966-31 Dec 1976  
USAF Air Warfare Center, 29 Oct 2001

### **ATTACHMENTS**

92nd Bombardment Wing, 17 Nov 1947-15 Apr 1950  
92nd Bombardment Wing, 16 May 1950-31 Mar 1951  
FEAF Bomber Command, Provisional, 1 Apr 1951-17 Jun 1954  
Rear echelon attached to 92nd Air Base Group, 1 Apr 1951- 25 Jul 1952  
Twentieth Air Force, 18 Jun-25 Jul 1954  
7th Air Division, 11 Nov 1955-29 Jan 1956

### **WEAPON SYSTEMS**

B-29, 1950, 1951-1954  
KC-97, 1954-1963  
B-47, 1954-1965  
Atlas, 1964-1965  
KC-135 (attached), 1966-1976

### **COMMANDERS**

LTC Joseph D. White, 10 Nov 1947 (additional duty [hereafter, addn dy])  
Col Albert J. Shower, 17 Nov 1947 (addn dy)  
Col James E. Briggs, 12 Apr 1948 (addn dy)  
LTC James E. Johnson, 18 Aug 1948 (addn dy)  
BG James E. Briggs, c. 17 Sep 1948 (addn dy)  
Col Clifford H. Rees, 17 Mar 1949 (addn dy)  
Col Richard H. Carmichael, 16 May 1950 (addn dy)  
Col Kermit D. Stevens, c. 31 Jul 1950 (addn dy)  
Col Conrad F. Necrason, by 29 Aug 1950 (addn dy)  
Col Clifford H. Rees, by 26 Sep 1950 (addn dy)  
Col Conrad F. Necrason, by 30 Oct 1950 (addn dy)  
Col Clifford H. Rees, c. 1 Nov 1950 (addn dy)  
Col Conrad F. Necrason, 6 Jan 1951 (addn dy)  
Col David Wade, 1 Apr 1951  
Col Edwin F. Harding Jr., c. 15 Sep 1951  
Col Lewis A. Curtis, Nov 1951  
Col Winton R. Close, May 1952  
Col Charles B. Westover, 26 Oct 1952  
Col Edgar S. Davis, 17 Jun 1953  
Col George L. Robinson, 6 Jul 1953  
Col Joseph C. Reddoch Jr., 3 Apr 1954  
LTC Frank J. Puerta, 22 Jul 1954  
LTC Harry C. Smith, 25 Jul 1954

Col Ervin Wursten, 1 Aug 1954  
Col Don W. Bailey, 16 Aug 1954  
Col Ervin Wursten, 4 Sep 1954  
Col William F. Coleman, 10 Nov 1954  
Col Wilson R. Wood, 14 Nov 1956  
Col William C. Garland, c. 3 Dec 1958  
Col James T. Gribble Jr., 5 Jul 1961  
Col Lee V. Wiseman, 30 Nov 1963  
Col Edwin H. Garrison, 20 Aug 1964  
Col Clifford J. Moore Jr., 10 Aug 1965  
Col Alvin R. Fortney, 14 Jan-25 Jun 1966  
Col Louis M. Sowers, 25 Jun 1966  
Col Bill H. Martin, 20 Jan 1968  
Col Donald L. Stallsmith, 17 Aug 1970  
Col Donald L. Keplinger, 23 Apr 1973  
Col Gordon J. Krautkrammer, 16 Jul 1976  
Col Donald M. Griffin, 16 Aug-31 Dec 1976  
Col Wilhelm Percival, 29 Oct 2001  
Col Allen E. Wickman, 5 Aug 2003  
Col Christopher E. Haave, 6 Jul 2005  
Col Mark E. Koechle; 20 July 2007  
Col John P. Montgomery, 7 July 2009  
Col Kenneth Thompson, 21 Jun 2011

## **HONORS**

### **Service Streamers**

None

### **Campaign Streamers**

Korea

First UN Counteroffensive

CCF Spring Offensive

UN Summer-Fall Offensive

Second Korean Winter

Korea Summer-Fall, 1952

Third Korean Winter

Korea Summer-Fall, 1953

### **Armed Forces Expeditionary Streamers**

None

### **Decorations**

Distinguished Unit Citation (Korea)

1 Dec 1952-30 Apr 1953

Air Force Outstanding Unit Awards

1 Jul 1964-1 Jun 1965  
1 Jan 1970-31 Mar 1971  
1 Jul 1974-30 Jun 1976

Republic of Korea Presidential Unit Citation  
[1 Apr 1951]-27 Jul 1953

### **Bestowed Honors**

Authorized to display honors earned by the 98th Bombardment Group prior to 24 Oct 1947

### **Service Streamers**

None

### **Campaign Streamers**

World War II  
Egypt-Libya  
Tunisia  
Sicily  
Naples-Foggia  
Anzio  
Rome-Arno  
Southern France  
North Apennines  
Po Valley  
Air Offensive, Europe  
Normandy  
Northern France  
Rhineland  
Central Europe  
Air Combat, EAME Theater

### **Decorations**

Distinguished Unit Citations  
North Africa and Sicily, Aug 1942-17 Aug 1943  
Ploesti, Rumania, 1 Aug 1943

### **EMBLEM**

Azure, a bend indented between a dexter mailed hand couped at the wrist bendwise, grasping a drop bomb and an olive wreath, all Or, all within a diminished bordure of the last. Attached below the shield, a White scroll edged with a narrow Yellow border and inscribed "98th Range Wing" in Blue letters.

Approved for the group, 29 Jul 1942 and for the wing, 29 Feb 1956

Emblem. Approved for the group on 29 Jul 1942 and for the wing on 29 Feb 1956. Range should request a new flag drawing and color artwork with correct designation in scroll.

## **EMBLEM SIGNIFICANCE**

Ultramarine blue and Air Force yellow are the Air Force colors. Blue alludes to the sky, the primary theater of Air Force operations. Yellow refers to the sun and the excellence required of Air Force personnel. The olive wreath is a symbol of peace, and the mailed hand shows preparedness, separated by an indented bend representing the speed at which the organization will adapt itself to either.

## **MOTTO**

## **NICKNAME**

## **OPERATIONS**

From Nov 1947 to Jul 1948 and Jul 1948 to Jul 1954, wing headquarters was often manned as a "paper" unit with most of its components attached to other establishments for long periods. The wing's tactical group was operational, but under control of other organizations from Nov 1947 to Apr 1950 and again from Aug 1950 through Mar 1951. On 1 April 1951, wing headquarters deployed to Japan to assume control over combat operations of three tactical squadrons. Combat missions included interdiction of enemy communications and support of United Nations ground forces. Last combat mission flown 25 Jul 1953. Dropped propaganda leaflets on day of truce two days later. Remained in Japan in combat-ready status for another year. Meanwhile, wing components not deployed in Japan moved to a reopened base in Nebraska to supervise construction in preparation for movement there of deployed wing components. In July 1954, wing components concentrated at Lincoln AFB, NE. Air refueling operations were already underway by then. During next decade, participated in Strategic Air Command's worldwide bombardment training and air refueling commitments. Deployed at Lakenheath RAF Station, England, 11 Nov 1955-29 Jan 1956. From Jan 1964 to Apr 1965, the wing also controlled an Atlas intercontinental ballistic missile (ICBM) squadron. Replaced the 3970 Strategic Wing in Spain on 25 Jun 1966. For the next decade, the wing had no tactical components assigned, but it used attached KC-135 tankers and crews furnished by other Strategic Air Command wings to provide air refueling support to meet operational commitments of various commands in the eastern Atlantic, most of Europe, North Africa, and the Middle East. In Oct 2001, the wing began operating the range facilities of the USAF Air Warfare Center at Nellis AFB, NV.

The 98th Range Wing (RANW) was activated at Nellis Oct. 29, 2001. The history of the 98th can be traced to the 98th Bombardment Wing Very Heavy, formed Oct. 24, 1947. The 98th BW was inactivated July 12, 1948, and redesignated the 98th BW Medium the same day. Further redesignations followed, including the 98th Strategic Aerospace Wing Feb. 1, 1964, and later the 98th Strategic Wing June 25, 1966. The 98th Strategic Wing was inactivated Dec. 31, 1976.

The 98th RANW provides command and control of the Nevada Test and Training Range (NTTR). The commander coordinates, prioritizes and is the approval authority for activities involving other governmental agencies, departments and commercial activities on the NTTR. The 98th RANW integrates and provides support for test and training programs that have a direct effect on the war-fighting capabilities of the combat air forces

On April 1, 1951, the 98th BW deployed "on paper" without personnel or equipment to Yokota AFB, Japan, where it assumed the tactical role of the 98th BG. Interdiction of enemy communications, support of UN ground forces, and propaganda leaflet drops constituted the B 29 wing's missions. In January 1952, to avoid daylight interception by enemy fighters, the 98th BW began to fly night missions almost exclusively. In the spring, its B -29s attacked railway installations and airfields, and then in the summer, industrial targets. The wing's last bombing mission, flown on July 25, 1953, was followed on the last day of the war with a propaganda-leaflet drop.

THE MISSION OF THE 98 BMW WAS TO ORGANIZE, MAN, TRAIN AND EQUIP ASSIGNED UNITS FOR THE PURPOSE OF CONDUCTING LONG RANGE BOMBARDMENT OPERATIONS.THE 98 BOMBARDMENT WING (BMW) WAS ALSO CHARGED WITH DEVELOPING A MOBILE CAPABILITY AND TRAINING SUBORDINATE UNITS TO PERMIT DEPLOYMENT AND ESTABLISHMENT OF OPERATIONS ON SHORT NOTICE IN ANY PART OF THE WORLD. 1960

98 BOMBARDMENT WING (BMW) PARTICIPATED IN BAR NONE EXERCISES AND MAINTAINED AN ALERT FORCE. THE WING CONTINUED TO SUPPORT THE SAC REFLEX PROGRAM.

ON 7 MAR 63, A B-47E AIRCRAFT CRASHED JUST AFTER TAKEOFF AT LINCOLN AIR FORCE BASE (AFB) NE.

THE 98 BOMBARDMENT WING (BMW) WAS CHARGED WITH MANNING AND TRAINING THE WING'S ALERT FORCE AND THE OVERSEAS REFLEX FORCES. 1963 THE PRIMARY MISSION OF THE WING WAS CONDUCTING OF STRATEGIC BOMBARDMENT OPERATIONS WITH LAND AND SEA FORCES. 1963

RESPONSIBILITIES ASSIGNED TO THE WING WERE MAINTAINING ASSIGNED UNITS IN A STATE OF READINESS, BEING PREPARED TO PERFORM TASKS ASSIGNED IN CURRENT EMERGENCY PLANS, EQUIPPING UNITS FOR ACCOMPLISHMENT OF ASSIGNED MISSION, SUPPORTING AIR RESERVE AND NATIONAL GUARD PROGRAM IN ACCORDANCE WITH INSTRUCTIONS RECEIVED FROM HIGHER HEADQUARTERS, AND PERFORMING SPECIAL MISSIONS DIRECTED BY THE COMMANDER, 2 AIR FORCE (AF). 1963

THE 98 BMW FLEW BAR NONE AND PROFILE MISSIONS AND SUPPORTED THE STRATEGIC AIR COMMAND (SAC) ALERT AND REFLEX PROGRAMS.1963

98 BOMBARDMENT WING PARTICIPATED IN OPERATION POWER HOUSE. 1956

98 BOMBARDMENT WING AND 307 BOMBARDMENT WING ENTERED INTO SPECIAL COMBAT CREW UPGRADE TRAINING PROGRAM. 1958

On February 1st 1954, Lincoln AFB was officially activated and so was the 98th Air Base Group, in charge of running the field. The 98th Air Refueling Squadron was its first aircraft unit, arriving from Kansas the same month. The first major aircraft, a KC-97, made its appearance in Lincoln during April. During July, the 98th Bomb Wing arrived from Davis-Monthan AFB where it had disposed of its war-warry B-29 bombers from Japan where it served during the Korean War. Later, during November 1954, the 307th Bomb Wing had also arrived from Okinawa also after the unit's action over Korea. The same month, the 98th Air Base Group was de-activated and the new 818th Air Base Group took over its operations. The 818th Air Division took over control of the base during the month and assumed responsibility over the 307th and 98th Bomb Wings, Their respective Air-Refueling Squadrons and the entirety of Lincoln Air Force Base. Jurisdiction also moved that month from the 15th to the famous 8th Air Force.

Other elements at the base that were activated during the period were the Field Maintenance Squadrons, Periodic (later Organizational) Maintenance Squadrons, Armament and Electronic Squadrons, Headquarters Squadrons, a Material (Supply) Squadron, a Motor Vehicle (Transportation) Squadron, an Air Police (Combat Defense) Squadron, an Civil Engineering (Installations) Squadron, a Food Services (Services) Squadron, a medical section, an Air Depot (Munitions Maintenance) Squadron as well as air-traffic control and air transport detachments.

On December 7th 1954, the first B-47 Stratojet landed at Lincoln fresh from the factory. The 98th would become combat-ready in April of 1955 and the 307th later in June. They soon began their role in nuclear deterrence. 90 B-47 bombers would soon line the flightline of Lincoln AFB. During 1960, the 307th Air Refueling Squadron was re-deployed from Lincoln to Michigan and the 98th ARS would be Lincoln's only tanker asset. New missions arrived however, starting with the deployment of Nike-Hercules Surface-to-Air missile sites around Southeastern Nebraska.

One site was located near Davey and another near Crete, the other two sites defended the Offutt/Omaha defense area. The supersonic missiles were deployed in 12 at each site and were nuclear capable. The 6th Missile Battalion, 43rd Artillery controlled the sites and was Army controlled.

1960 also saw the start of missile silo construction at Lincoln with word that the base would operate Atlas ICBMs soon. 12 silos were placed near Eagle, Elmwood, Avoca, Nebraska City, Palmyra, Tecumseh, Cortland, Beatrice, Wilber, York, Seward and Brainard. After a difficult construction the sites were soon operational in late 1962 under the 551st Strategic Missile Squadron. The massive ICBM contained a 3 megaton warhead and had the range to strike targets in the Soviet Union. A five man crew watched over the missile for many hours at a time, waiting for the call to raise the missile out of its protective silo and to launch it at a predetermined target.

1962 also saw the beginnings of the 4362nd Support Squadron (later changed to Post-Attack Command and Control Squadron or PACCS) where B-47 bombers were converted to serve as communication relay aircraft in the event of nuclear war. The 4362nd came under 307th control. During the two years following the Cuban crisis, Lincoln's downward continued with the last KC-97 tanker of the 98th ARS leaving the base in 1963. It was announced the next year that Lincoln would no longer be needed and be included in long list of base closings during 1965-66.

Soon during March 1965, the 307th Bomb Wing was de-activated and so was the 818th Strategic Aerospace Division (name changed after 551st SMS assigned). The sole major component of Lincoln was once again the 98th, though this time under the name 98th Strategic Aerospace Wing with the remaining 551st SMS transferred to their control.

Even the mighty Atlas missile could not escape deactivation and was pulled from its silos during June 1965. The 551st Strategic Missile Squadron was the last active Atlas unit in the U.S.

December 7th, 1965, 11 years to the day the B-47 first landed in Lincoln, the last 3 of the 98th SAW took-off into the Lincoln skies never to appear again. The 98th lingered on at a now quieter Lincoln Air Force Base until June 25th 1966 when the base officially closed. The two Nike missile batteries stood down the same day, the last major weapon systems to be stationed for Lincoln AFB. Caretaking hereafter controlled by the 4255th Air Base Squadron and the end of major Air Force involvement in Lincoln.

1955 June 98th Bomb Wing declared combat ready

#### 98th Bombardment Group and Wing

Azure, a bend indented between a dexter mailed hand couped at the wrist in bend, grasping a drop bomb and an olive wreath, all Or. Motto: FORCE FOR FREEDOM. Approved for 98th Group on July 29, 1942. Not formally approved for the 98th Wing until 1956.

The 98th has had a varied and distinguished history since its activation in 1942. The organization served in many capacities between 1942 and 1990 as a bombardment group first, then a bombardment wing, a strategic aerospace wing, a strategic wing and an air refueling group. The organization was awarded the Distinguished Unit Citation three times twice during World War II and once for operations in Korea. Also, for its service in Korea, the 98th received the Republic of Korea Presidential Unit Citation. In 1965, as the 98th Strategic Aerospace Wing, the organization received the Air Force Outstanding Unit Award.

The 98th was officially activated as a heavy bombardment group 3 February 1942 at MacDill Field, Florida, under the command of Lieutenant Colonel Frank H. Robinson. The actual activation with the table of organization strength took place 16 February 1942 at Barksdale Field, Louisiana, where a six weeks initial training period was scheduled.

Following the training period at Barksdale, the group departed for Ft. Meyers, Florida, on 28 March for further training.

Colonel Hugo P. Rush assumed command of the unit at Ft. Meyers, which was the beginning of a toughening-up process for the organization. The camp was located four miles from the town in a swamp on the outskirts of the everglades. After each rain, the entire camp area was under water.

After six weeks of training at Ft. Meyers, the 98th moved to the Army Airport at Lakeland, Florida, on 17 May 1942. This base was, if possible, worse than the base at Ft. Meyers. The 98th was located nine miles from the town of Lakeland in the middle of the largest deposit of phosphate in the world. The roads to the airport were all but impassable; red bugs and seed ticks were rampant in the grass and weeds; the field was dusty and sandy; gnats and mosquitoes were constantly in attendance, and rattlesnakes were not uncommon visitors to the camp.

Prior to leaving Ft. Meyers, the 25th Reconnaissance Squadron was renamed the 415th Bombardment Squadron, and became a full-fledged member of the 98th. The 98th Bombardment Group was now composed of five full squadrons.

The majority of the organization's aircraft were assigned to the 98th Headquarters Squadron.

On 1 July 1942, a new technical order was issued providing for the demobilization of the 98th Headquarters Squadron and the activation of a headquarters section of 36 men. The majority of Headquarters Squadron personnel were transferred to other squadrons in the group. The 36 men were carefully selected for the four sections of group headquarters, and the group was, at last, ready for combat duty.

Colonel Hugo P. Rush, 98th Bombardment Group Commander, was to lead the air echelon, while the new executive officer, Lieutenant Colonel Thomas Morrow, was placed in charge of ground forces.

The organization moved to Fort Dix, New Jersey, on 3 July where it remained until 15 July. On the morning of 15 July, the men were loaded onto trains and taken to Brooklyn, New York, where they departed from Pier 90 the following day. Although no one knew just where the group was going, rumors were rife, and it was generally believed that the destination would either be the Middle East or the Far East.

The first land sighted was at Freetown, Sierra Leone, Africa, where the ship took on oil for the long voyage to Durban, South Africa. The ship arrived in Durban 4 August and the men were granted a two-day shore leave. Durban came as a relief to the men as the food onboard ship had consisted mainly of fish and some mutton that had begun to spoil.

The transport left Durban on the morning of 6 August on the long journey to the port of Suez. Suez was sighted on 16 August, and the group disembarked to spend three quiet days in a camp for transients. On 19 August, the group boarded an antique, narrow-gauge train bound for Palestine. The 343rd and 344th Bomb Squadrons were based at St. Jean, Palestine, while Headquarters, 345th and 415th Squadrons were at Ramat David, Palestine. Both bases were near the city of Haifa.

By 1 October 1942, the 98th had flown successful missions to Bengazi Harbor, Tobruk Harbor, Suda Bay, Crete and several other Axis targets. Approximately one-half million pounds of high explosives had been dropped, destroying thousands of tons of supplies and valuable oil belonging to the badly-pressed Axis forces. The 98th was equipped with sand-colored or pink B-24s which had gained fame as the "Pink Elephants."

The "Pink Elephants" helped support the Eighth Army in a formidable offensive at El Alemein on 24 October. Matruh, Tobruk and Derna fell before the onslaught, and the Axis forces were relentlessly driven back. As a result of these successes, the 98th moved by truck, train and plane to Fayid, Egypt, which was a superbly-equipped RAF base.

From an advance base near Tobruk, the 98th made successful raids on Tripoli, Naples, Sousse and Tunis. The raids on Naples and Tripoli were particularly successful. A heavy cruiser and several other ships were sunk in the harbor of Naples in the initial attack. Bombing of ships at Tripoli was likewise effective.

Colonel John R. Kane assumed command of the 98th in December 1942, and on 29 January 1943, the group moved to two desert bases southeast of Tobruk. From these bases, the group's targets consisted of ports and harbors in Sicily. The organization moved to two other bases in Libya 10 February Benina Main and Lete. From these bases, bombing missions were flown on Axis ports in North Africa, Sicily, Greece and Italy.

Axis resistance in Tunisia ended on 12 May and Pantelleria was subjected to intense air bombardment which caused the small Italian fortress to fall shortly afterward. The blitz was then transferred to Sicily and the Italian mainland. Sicily was invaded 9 July and the 98th took active part in destroying airdrome installations, planes and supplies. A very successful raid was made on the Naples marshalling yards 17 July; then the Rome yards were attacked 19 July. The Rome mission was extremely effective and received world-wide publicity.

A very important date in the history of the 98th is 1 August 1943. This was the day the 98th participated in the successful bombing of oil refineries at Ploesti, Romania. When the 98th Bombardment Group initially entered the Middle East in the summer of 1942, many months had been spent in preparation of maps and data on the group's prospective targets; the Balkan oil refineries. Of these targets, the refineries at Ploesti were the most important by far with eight of the world's largest and most modern refineries located in the area. Controlled by the Nazis, the output of these refineries comprised more than one-third of the Reich supply of oil. It had been known since the German offensive in Russia that elimination of this target would be a deciding factor in not only stopping the German advance, but in causing the beginning of a German retreat, and, possibly, defeat. With the arrival of the 98th in Egypt, the Balkan target material was temporarily shelved due to the Middle East emergency at that time. The 98th was pressed into service with the task of stopping Rommel's African Corps. During the first year of operations, oil targets in the Balkans were almost forgotten, and it was the latter part of July 1943 before any hint of future operations in this area were disclosed. When a replica of the Ploesti oil refineries was constructed in the Libyan Desert, the crews were let in on the big secret. Low-level bombing and strafing missions were flown over this target to condition the

airmen. It was now definite that an attempt would be made to knock out all of the important refineries at Ploesti by one low-level attack, in which all available bombers would be utilized. Five B-24 groups or 175 planes took part in the raid, but the 98th furnished nearly one-third of the total number of aircraft. The target for the 98th was the largest of the several refineries.

On the morning of 1 August, the sky was clear, and ground crews were up in the early morning hours preparing their planes for the mission. The loud roar of warming engines filled the morning air as the crews gathered around the intelligence and operations huts for last-minute instructions. The crews piled into trucks and were carried across the field to the waiting line of aircraft. A few minutes later, the roar of fifty bombers signaled the launching of the first section. The first to streak down the runway was Colonel John Riley "Killer" Kane, 98th Commander. As other aircraft followed the "Killer," the field gradually became overcast with a huge cloud of red dust. It was the beginning of one of the longest combat missions in history.

The story of the attack was told a countless number of times in newspapers and magazines all over the world. The attack was made from less than three hundred feet, and ground fire and fighter resistance was intense. The 98th gunners destroyed a total of 36 enemy aircraft and the ground targets assigned to the group were wiped out also. Colonel Kane was awarded the Congressional Medal of Honor and his flight leaders received the Distinguished Service Cross. In press interviews, President Roosevelt, the King of England and Winston Churchill made laudatory comments on the spectacular attack.

After the Ploesti mission, the 98th saw very little action until the end of August. Successful missions were made on rail yards and other installations in Northern Italy. Naples, Taranto and several smaller southern ports fell to the allied forces shortly after the invasion, and the slow advance to Rome began.

On 25 September, the 98th moved its base of operations to Hergla, Tunisia, an improvement over Benina and Lete, although the landing ground was below sea level. After two unsuccessful attempts to hit the ME-109 plant at Weiner Neustadt, Austria, a third mission to this target was highly successful on 2 November 1943. The 98th was one of two B-24 groups and four B-17 groups that participated in the mission. Planes from the 98th were credited with most of the destruction wrought to the plant, which had produced approximately one-third of Germany's fighter aircraft production.

In November, the Tunisian rainy season began and the base was transformed into a sea of mud and water. The landing ground was soon covered with 15 inches of water, and a week passed before the 98th planes were able to take off and move to a higher field occupied by the 376th Group about ten miles away. On 22 November, the 98th received orders to move to Brindisi, Italy, a substantial improvement over the landing grounds in the desert and North Africa. Colonel William E. Karnes, who had taken command of the group at Brindisi in November 1943, was killed there in an aircraft accident in January 1944. He was succeeded by Lieutenant Colonel Marshall R. Gray, a young West Point Officer.

The group was at Brindisi less than a month when orders were received 19 December to move to a landing ground at Manduria, Italy. Again the group's stay was cut short at Manduria; orders

were received 14 January to move to another airdrome in Italy, the Fortunato Cesare at Lecce. By 18 January, the men had arrived at the new base. During February, the group was occupied in flying successful missions to Regensburg in Germany and Wiener Neustadt and other targets in Austria.

In March, the 98th received a Presidential Citation for the famous low level Ploesti Mission. Shortly thereafter, the group received another citation for its success in support of the Eighth Army in the Middle East, North Africa and Sicily during the latter months of 1942 and the spring of 1943.

The 98th flew its 200th mission on 28 March 1944. The mission was a very successful attack on the Mestre marshalling yards at Benice. Forty-two aircraft dropped a record total of 118 tons of bombs on the target. In 200 missions, the 98th Bombardment Group had never had a turn-back due to enemy action and the loss of aircraft to enemy action was as low as any heavy bombardment group in the European Theater and possibly the only group in the Army Air Forces that had flown missions from three continents. The 98th had advanced more than 2,600 miles on land and sea since the first mission all this with no rail service and a shortage of all types of transportation.

On 5 April 1944, the 98th again attacked Ploesti, but this time at a high level. Another devastating blow was struck this time on the Ploesti rail-yards. In contrast with the first mission, no losses were incurred, but still, the group was not finished with Ploesti. The 98th flew a total of eleven additional missions over the valuable refineries in the Ploesti area, with the Nazis using every known method of defense. At last, after Fifteenth Air Force had flown a total of twenty missions (thirteen of them flown by the 98th) over Ploesti, Germany's Romanian prize was reduced to ashes, but at the cost of many lives and planes on both sides.

The 98th, along with other Fifteenth Air Force units, stayed very busy throughout April and July flying missions to high priority targets in Germany, Austria, Hungary, Romania, Southern France, Bulgaria, Czechoslovakia and Northern Italy. Outstanding missions were flown to Toulon, Brasov, Bucharest, Budapest, and most successful of all, to the Schwechat Aircraft Factory, an important manufacturer of German planes. Colonel Salvatore E. Manzo assumed command of the group in July 1944.

On 13 September 1944, the Group flew its 300th mission over enemy territory. The target for the day was the very important viaduct at Aviano in Northern Italy. The target received a terrific pounding with 89.5 per cent of the bombs falling within 1,000 feet of the aiming point. Three spans of the bridge were knocked out and another problem was presented to the Nazis with their communications already cut to the west and the east, the only line remaining to them the line through the Brenner Pass had been effectively knocked out. With the completion of the 300th mission, the 98th had flown more than 7,000 sorties against the enemy, destroyed more than 300 enemy aircraft in aerial combat, and dropped more than 26 million pounds of bombs on every conceivable type of target.

In January 1944, the group moved to Fortunate Cesare Airdrome at Lecce, Italy. From this base, the 98th flew its 400th mission on 22 March 1945 against the Vienna Southeast Goods Depot.

Then the 98th left Lecce for the U.S.A. in April 1945, the much-decorated group had 417 combat missions to its credit.

Following Germany's surrender, the group returned to the United States aboard the liner US WestPoint in April. The purpose of the return to the States was for additional training in preparation for deployment of the group to the Pacific Theater. The group was sent to Fairmont, Nebraska, then to McCook Army Air Field at McCook, Nebraska, for B-29 training. Colonel John B. Ericksen was the group commander beginning in June 1945. V-J Day and the collapse of Japan soon made this training unnecessary, and on 10 November 1945, the 98th Bombardment Wing (Very Heavy) was deactivated, with its squadrons being transferred to other bombardment groups.

With world affairs rapidly changing, the 98th was again activated at Andrews Field, D. C. on 1 July 1947 under the command of Lieutenant Colonel Joseph D. White. The group was transferred to Spokane Army Air Field, Washington, (later renamed Fairchild Air Force Base), in September 1947. The group was assigned to the Strategic Air Command (SAC) 24 October 1947, and further assigned to Fifteenth Air Force. The group, consisting of the 343rd, 344th and 345th Bomb Squadrons, was attached to the 92nd Bombardment Wing and was out-fitted with B-29s.

At Spokane, the group underwent a rigorous training program in accordance with a SAC program which was designed to insure mobility of SAC units in case of a national emergency. Colonel William D. Cairnes assumed command of the 98th in April 1948.

On 12 July 1948, the 98th Bombardment Group was redesignated the 98th Bombardment Wing. The organization sometimes was sent from its station at Spokane to various airfields in the Zone of Interior and, occasionally, to overseas installations for the purpose of practical experience. The group had temporary duty (TDY) in Okinawa from August to December 1948, and in England from May to August 1949. These TDYs were performed under simulated emergency conditions, with only the warning they might receive in the event of actual hostilities.

On 16 April 1950, the 98th was relieved from attachment to the 92nd Bomb Wing. On 16 May 1950, the unit was reassigned from the Fifteenth Air Force to Second Air Force, as plans were being made to move the wing to Ramey Air Force Base, Puerto Rico. Also in May, Colonel Richard H. Carmichael assumed command of the unit.

Outbreak of the Korean Conflict resulted in the unit's being alerted on 29 July for immediate deployment to the Far East. Upon receipt of the alert, SAC reassigned the 98th Bombardment Wing to Fifteenth Air Force. The first squadron to deploy the 343rd Bombardment Squadron — arrived at Yokota Air Base, Japan, 5 August 1950, after flying via Hickman Air Force Base, Hawaii; Kwajalein Naval Air Station and Andersen Air Base, Guam.

Upon arrival in this theater the wing came under the area jurisdiction of Eighth Army and General MacArthur's headquarters. All pass privileges were suspended for four weeks after the landings, until Far East Air Forces (FEAF) Bomber Command lifted the restriction.

The organization engaged in its first mission on 7 August a strike against marshalling yards at Pyongyang, flown in conjunction with the 22nd and 92nd Bombardment Groups. Combat crews loaded their own bombs for the missions flown the first week, then, on 16 August, an augmentation of armament personnel alleviated this situation.

On 9 August, the 98th became officially combat operational. After the 7 August mission, combat missions were flown by the 98th B-29s on 19 of the 22 days remaining in August. Most of the first missions were flown by two or three plane elements against small pinpoint targets. Near the end of August, strategic targets were assigned requiring larger formations. The training received stateside paid off, as actual flying conditions were similar to training conditions. Most of the bombing was done visually with the bombardier receiving maximum assistance from the navigator and radar observer. Briefing usually included a secondary target which could be attacked by radar in case primary visual targets were obscured.

Ground crews worked around the clock to keep the aircraft on flying status. Flight line and dock personnel performed continuous inspections on all aircraft. Maintenance, at first, was a difficult operation, as there was a definite shortage of supplies and equipment. By the end of August, the base supply section had issued power plants and oxygen carts, while crew chief stands, air compressors, tow bars, and other necessary equipment had arrived from Spokane by support airlift.

The results of the first full month of Korean combat reflected the capability and professionalism of the 98th. Operational accomplishments of the wing for September 1950 were greater than those recorded for any B-29 unit operating in World War II and greater than the accomplishments of any unit of FEAF Bomber Command for a similar 30-day period. A total of 309 sorties had been scheduled during the month, of which 303 were flown and 296 were effective. No missions were postponed or cancelled due to adverse weather.

Adverse weather was not an uncommon occurrence. Early weather forecasting was so inaccurate that weather information could not be included in mission planning. Often weather turned out to be good after it had been forecast to be so bad that it was a temptation to either cancel the mission or request a postponement or change in target area. Assembly areas for formation bombing had to be designated as closely as possible to the target area, a procedure made practicable only because of the absence of hostile interception, and as a result, bombing effectiveness improved.

Severe icing was encountered more and more frequently, with particular interference being noted when it was necessary to bomb by radar. Adjustments were made, but it was difficult to make adequate adjustment to the temperatures of the upper air of Korea, because the thermometer often plunged to minus 50 degrees F there, and thermometer readings of minus 70 degrees F had been recorded at 25,000 feet. In many cases, stalls were reported as a result of severe icing. An immediate remedy was the reduction of radar bombing altitudes, which meant a sacrifice of bombing accuracy; but radar targets were secondary or last resort targets, and were of less importance than the hazards of higher altitudes, and the step was taken.

In certain areas of North Korea, especially the Pyongyang complex, ground resistance was fierce to the new pastings by the B-29s. Flak damage was so severe at Pyongyang that new tactics were adopted for attacking heavily defended areas. The new plans included a staggering of attacking squadrons at irregular 100-foot intervals, and increasing bombing altitudes. These two measures combined to effectively reduce flak damage.

After the outstanding operational success of September 1950, operational requirements of the 98th gradually decreased in October, due to the rapid northward advance of United Nations ground forces and a lack of strategic targets. The last mission for the month was flown on 26 October, when the morale of the wing was soaring in anticipation of an early cessation of hostilities, which supposedly would be followed by an abrupt termination of temporary duty. Speculation was widely circulated that the 98th would be home for Christmas.

In the final week of October, Chinese Communist hordes poured across the Manchurian border and plunged into the Korean Conflict. UN armies were hurled back to a line roughly from Sinanju to Hamhung on the East. FEAF Bomber Command was recalled to action on 30 October and the 98th returned to cutting rail lines, bridges, highways and other key communications points.

Once again the 98th plunged vigorously into the work at hand. So forcefully was the bombing program undertaken that photographs of targets to be bombed in North Korea usually showed that the terrain was already pocked with bomb craters.

The first incendiary raids by B-29 aircraft were made in Korea in November 1950. The first incendiary raid was scheduled for 4 November against the North Korean city of Kanggye, but bad weather forced the aircraft to bomb the radar target of Chongjon individually. On 8 November, a maximum effort mission was undertaken with the 98th contributing 29 aircraft, each of which carried 32 E-46 incendiary cluster of 500-pounds each. Fighter aircraft accompanied the B-29s for the first time on this very important mission. The method of attack was squadrons in trail at close intervals, using a base altitude of 18,000 feet.

The next day, 16 aircraft were tasked with an incendiary mission to Pukchin, and on 10 November, 12 aircraft were dispatched to Chongjon, which was almost completely destroyed. The Border city of Hoeryong was leveled with incendiary clusters on 15 November, and the cities of Mupyong-Ni and Kuptong were subjected to the incendiary attacks on 19 November.

Together with other units of Bomber Command, the 98th put the torch to all important cities, towns and military installations of North Korea during the remainder of November and December. The most important part of the interdiction phase of the 98th's effort was destruction of all international bridges connecting Manchuria and Korea across the Yalu River. Three flights of four 98th aircraft bombed the twin bridges at Sinuiju on 13 November. Bombing from an altitude of 25,000 feet, bombs from all flights straddled the two bridges. Damage assessment showed spans down on the highway bridge and the rail bridge still intact.

Following a conference of SAC and FEAF representatives in Hawaii, a rotation plan for the 98th personnel was announced in January 1951. The plan provided for rotation of combat crews during the months of February and March, and ground personnel, including key staff, during the period of February through June. Rotation would be effected in each case only after a qualified replacement had arrived and become familiar with his position. The rotation project was a stimulus to all personnel; previously, no one had known when he would return stateside.

Replacements began arriving 14 February 1951, slightly later than scheduled due to nonavailability of air transportation to the theater. By the end of February, 18 complete crews and 79 support personnel had been reassigned to the Zone of Interior.

Two more missions had been flown against Pyongyang in early January 1951. Good hits were observed by the crews, but post-strike reconnaissance disclosed that targets failed to burn satisfactorily and over-all results were very spotty. A layer of snow blanketing the city at the time was presumed to be the chief factor in preventing the spread of fire, but this would not be the last chance at Pyongyang.

No serious flak or fighter opposition was encountered during the month of January. Precautions against possible encounters included fighter cover for all sorties within the enemy's area of fighter operations and sufficient altitude over known flak positions to minimize the danger to our aircraft. Flak figured more prominently in February missions, which for the most part were confined to bridges, marshalling yards, supply centers and military barracks of central and northern Korea. Flak encountered was the heaviest since the campaign against the Yalu River bridges in December. Heavy caliber flak was encountered at Kang Dong Airfield on the 2nd and 5th days of February, at Pyongyang and Manpojin on the 23rd and 26th, and at miscellaneous communications centers. Flak damage was not serious in any case, though the increase in minor damage was notable.

By February, enemy fighters and weather were hampering operations. Fighter opposition was especially heavy once in February during an attack against the Tokchon Barracks area. At this time, the 98th first observed the peculiar traits that the Communist fighters so exhibited thereafter that is, appearing in considerable force, attacking, then suddenly showing a reluctance to press any advantage gained. The chief weather difficulty was at the home base, as exemplified during the 14 February mission when the B-29s were landed with a ceiling of 100 feet and visibility limited to three-eighths of a mile. On that mission 16 aircraft were landed under the conditions mentioned, while eight more were diverted to Misawa due to a fuel shortage.

A notable increase in the number of bridges destroyed occurred in February. This success was attributed to the heavy-type bomb racks which the wing received that month. The new racks made possible the use of 2,000 and 4,000 pound bombs in attacking bridges, and a concentrated bomb pattern was obtained by the "four ship box" tight defensive formation used almost exclusively in February.

Since all efforts were being made to hinder the movement of enemy troops and supplies toward the front, the weight of the 98th's attack fell largely upon communication lines in Central and North Korea marshalling yards at Wonju, Hamhung, Hwangju and Komusan; also, railroad and

highway bridges at Nanam, Munsan-Niand Koin-Dong. In March 1951, the principal objectives were supply centers at Kumchow, Munchow and Chorwon, which were successfully bombed on the 13th, 19th and 22nd, respectively. Also in March, Colonel David Wade assumed command of the unit.

Throughout the spring, bridges, airfields, railroad yards and supply points remained the popular targets, although, on occasion, missions closely coordinated with the action of ground troops also were flown. April 1951 was a noteworthy month for the 98th, because, on the 5th, the unit completed its 2000th sortie, and, on the 10th, its 200th mission of the Korean Conflict. The primary target for the period was the Sinuiju railroad bridge, which was bombed on the 7th, 9th and 12th despite bad weather and very low ceilings. In May, Pyongyang was again the center of interest with heavy strikes made against the marshalling yards there during the course of the month. In addition, phantom support missions were flown against enemy lines, warehouses and troop concentrations as individual sorties.

Operations were again hampered by unfavorable weather throughout the summer of 1951, but the 98th managed to fly many successful missions. Strikes continued to be aimed at the same types of targets, although airfields were attacked with greater frequency. In June, those at Anak, Yong-Yu and Kangdon were hit, and, in July and early August, raids were made upon the airstrip at Pyong-Ni.

For the remainder of 1951, the 98th directed its efforts against marshalling yards, bridges, airfields and supply points. Because of the vast labor pool available to the enemy, it was often necessary to bomb the same targets time and time again, as the North Koreans constantly rebuilt objectives previously damaged or destroyed. Colonel Edwin F. Harding became commander of the 98th in September 1951, and was succeeded by Colonel Lewis A. Curtis the following November.

A change in operational procedure was made in January 1952. In order to avoid daylight interception by enemy fighters, FEAF Bomber Command inaugurated a policy of flying night missions almost entirely. During the first weeks of this experiment, a total of 4,900 tons of bombs were dropped on various targets. Under the new arrangement, the schedule was rotated so that the missions were diverse. Among the chief targets during the period were the airfield at Sinuiju and the railroad bridges at Songchon, Sunchon and Sinhung-Dong. In an effort to keep railroad lines unserviceable especially at strategic points like Sinanju, Kunu-Ri and Huichon bridges and other railway installations were attacked during the spring months. Colonel Winston R. Close became commander in May 1952, and was succeeded by Colonel Charles B. Westover in June 1952.

The 98th attacked the Chinnampo yards 21 times in June 1952, and, in July, they struck similar areas at Hamhung, Koyang-Dong, Huichon and Kowan. The results of these raids were not considered as damaging to the enemy as had been anticipated, despite the vigor with which the campaign against railroads had been conducted. Consequently, during the summer of 1952, part of the 98th's effort was diverted to industrial targets chemical works at Hungnam, a steel mill at Kyomipo, the Oriental Light Metals Company near Manchurian border, and various North Korean hydroelectrical plants. As fall approached, the main objectives became supply areas,

troop concentrations, communications centers and anti-air-craft installations targets that were usually attacked by a stream of three to six aircraft. Usually little enemy opposition was encountered on these missions, but occasionally one of the B-29s was set upon by fighters.

January 1953 opened with a series of raids directed at marshalling yards and industrial objectives. Chinnampo and Kyomipo were attacked as single missions during the first half of the month. Another target of interest was the Pyongyang Radio, which was bombed out completely on 17 January. Also, during January, the Wing was awarded the Republic of Korea Presidential Unit Citation by Syngman Rhee, President of the Republic of Korea, for action from 1 May 1951 to 15 October 1951. The citation read in part, "The gallantry and heroism of each member of the combat crews of the Far East Air Forces Command, and the planning, maintenance and active support of the rear elements have delivered crushing blows to the menace of Red aggression and forced the tide of invasion back to the soil of our foe."

In February, the crews of the 98th noted a decrease in fighter opposition. Since the 98th had been hammering at railyards and supply targets, it was possible that the enemy was suffering from a lack of supplies. In March, the emphasis was placed upon supply depots. Onjong, Undong, Taegumi, Taepyong-Goe-Ri, and Sangbu-Ri were a few of the major targets. Supply and railroad centers continued to be the striking points during the spring months of 1953, with the same points hit again and again. Due to a lack of fighter opposition, the raids became fairly routine flights. Colonel Edgar S. Davis became commander of the 98th in May, and was succeeded in July by Colonel George L. Robinson.

In July, only seven operations were carried out, and, as it turned out, they were the last seven missions flown by the 98th before the close of hostilities. During the course of the Korean Conflict, the 98th had dropped approximately 167,100 tons of bombs on North Korean targets.

The 98th Bombardment Wing remained in the Far East at Yokota Air Base, Japan. The unit served as a potential threat to further outbreaks in Korea and meanwhile engaged in training. There could be no easing of the pace; the aircraft which had ceased dropping bombs on North Korea now dropped practice bombs at bombing ranges, and conducted the numerous other training functions necessary to keep ready this strategic bomber force.

More honors were added to the distinguished list earned by the 98th during World War II. Battle credits were awarded for participation of the wing in ten campaigns during the Korean Conflict: United Nations Defense (June-September 1950); United Nations Offense (September-November 1950); Chinese Communist Forces' Intervention; First UN Counter-Offensive; Chinese Communist Forces' Spring Offensive (1951); UN Summer-Fall Offensive (1951); Second Korean Winter; Korean Summer-Fall 1952; Third Korean Winter; Korean Summer-Fall 1953.

In May 1954, the wing again re-ceived the Distinguished Unit Citation. This award, the 98th's third DUC, was given for service rendered during the Korean Conflict from 1 December to 30 April 1953.

Changes were made as tension grew more relaxed in the Far East. The 98th, although still assigned to SAC, was, in August 1953, attached to Twentieth Air Force, of FEAF, for

administrative support. The unit was no longer stationed at Yokota on a temporary basis; now it was "home." Permanent personnel were replacing rotating temporary-duty personnel. Twentieth Air Force was returning men to the Zone of Interior and replacing them at a much slower rate. Gradually, the fever pitch the wing had maintained during actual combat subsided; there were fewer personnel and the old faithful B-29 had fallen behind the times. Back in the states, other SAC units were converting to the new jet B-47 type aircraft; the 98th continued its training and patched the war-weary B-29s as best they could. Colonel Joseph C. Reddoch assumed command of the unit in April, and was succeeded by Colonel Ervin Wursten in August.

Finally, in July 1954, the wing received alert orders to return to the United States. The FEAF Bomber Command had been inactivated; the B-29 bomber wings which had been Bomber Command's powerful sting were returning to the U.S. in order to convert to the newer aircraft.

On 15 July 1954, aircraft of the 343rd Bombardment Squadron chosen by a drawing to be the leading squadron began leaving Yokota Air Base at half-hour intervals, on the first leg of their return to the Zone of Interior. The last 344th followed two days later; the 345th was last to leave on 19 July. Headquarters, 98th Bombardment Wing, closed at Yokota Air Base at 2400 hours, 24 July, and opened at Lincoln Air Force Base, Nebraska, effective 0001z hours, 25 July 1954. At this time control of the 98th reverted to Fifteenth Air Force; FEAF and Twentieth Air Force were relieved.

The tactical squadrons landed at Davis Monthan Air Force Base, where the B-29s remained to be discarded as scrap. The supporting element of the wing returned via other military aircraft to Travis Air Force Base, California.

The personnel of the 98th reported to Lincoln Air Force Base, Nebraska, after completing their leaves. The base was under control of the 98th Air Base Group, which was inactivated 11 October 1954, upon organization of the 818th Air Division, in accordance with SAC regulations concerning the functioning of a multi-wing base of the command. Colonel William F. Coleman assumed command of the 98th in November 1954.

The B-47 aircraft began arriving in January 1955; personnel were ordered to technical schools and the wing began another intensive training program to effect the conversion to a combat-ready status as soon as possible. The graduation mission, at which time the wing achieved this status, was flown in July 1955.

As a result of a realignment of jurisdiction of SAC bases, Lincoln Air Force Base, including the 98th Bombardment Wing (M), was transferred from the Fifteenth to Eighth Air Force, effective July 1955.

During the remainder of 1955, crews of the 98th were trained in the utilization of the medium jet bomber, the B-47. The wing made steady progress in its B-47 conversion program, although many problems confronted the 98th in the varied fields of personnel, material and operations, and limitations were still held on training due to lack of training facilities. The wing continued to emphasize the "bomber stream" type mission throughout the year. After being declared combat ready, the wing flew numerous Unit Simulated Combat Missions (USCMs) to achieve the

maximum in combat effectiveness. The 98th proved its proficiency 10 October 1955, when the wing's first SAC Evaluation Mission, "Post Hole," was flown, and was a success.

On 6 November 1955, the wing deployed for a 90-day TDY to Lakenheath, England, where more training missions were flown. After the return from Lakenheath 29 January 1956, the wing placed continued emphasis on all phases of training, both flying training and ground training. The wing's intensive training program paid off in August when its selected crews took high honors in the annual SAC bombing, Navigation and Reconnaissance nee Competition. Colonel Wilson R. Wood assumed com-mand of the 98th in November 1956.

Many highlights were recorded by the 98th during the year 1957 as the wing's training accomplishments had improved substantially from the previous year. The wing showed marked improvement in its execution of Pace Setter missions, going from ninth in Eighth Air Force at the beginning of the year to third at the close of the year. Colonel William C. Garland assumed command of the 98th in December 1958. The 98th remained a unit of Eighth Air Force until 1 January 1959, when, along with other units on Lincoln Air Force Base, the 98th Bombardment Wing was reassigned to SAC's Second Air Force, located at Barksdale Air Force Base, Louisiana.

The 98th Bombardment Wing participated in two important competitions in the latter part of 1959. The wing finished eleventh in the Second Air Force Bomb/Navigation Air Refueling Competition held in August; in the SAC Bomb/Navigation Air Refueling Com-petition held in October, the 98th finished seventh. At the end of the year, there was a total of 49 B-47E and 21 KC-97G aircraft assigned to the unit.

Wing personnel were given a visible demonstration of the problem of continuing operations under the most adverse circumstances in September 1960. This demonstration was "April Fool II," a simulated nuclear attack. The exercise was successful as a practical test of the wing's capability to survive and resume operations following a nuclear detonation.

Colonel James T. Gribble, Jr., assumed command of the 98th in July 1961. By this time, the 98th had grown to a sizeable organization. Strength figures at the end of 1961 were 1,705 airmen and 461 officers. A total of 75 combat-ready crews were assigned to the B-47 unit while the 98th Air Refueling Squadron had a total of 19 combat-ready crews assigned to the 98th Bombardment Wing.

The 98th Air Refueling Squadron again deployed to Lajes Air Base, Azores, in September 1962. This was another 90-day TDY in support of the Lajes Tanker Task Force. Another memorable event of 1962 was the Cuban Crisis, which began 22 October. The 98th Bombardment Wing made the appropriate defense condition (DEFCON) changes at that time.

Also, in 1963, the wing acquired a new commander Colonel Lee V. Wiseman assumed command in November.

A highlight of 1963 came in December, when the wing was a participant in "Top Rung II." This was an exercise jointly conducted by SAC and North American Air Defense Command (NORAD). The objective was to exercise and evaluate penetration tactics and equipment of the units of the two commands.

In 1964, the 98th entered a new era with the addition of the 551st Strategic Missile Squadron 1 January. With the new squadron, 12 Atlas F Intercontinental Ballistic Missiles were added to the peace-preserving arsenal of the wing. On 1 February 1964, the 98th Bombardment Wing was redesignated 98th Strategic Aerospace Wing due to the addition of the 551st. The missile squadron of the 98th was the first ICBM unit in SAC to become combat-ready.

Colonel Wiseman was succeeded in August 1964 by Colonel Edwin H. Garrison. Shortly after Colonel Garrison's assumption of command, the cost of operating and maintaining the Atlas missile sites was rendered prohibitive by the successful development of the Minuteman and Titan missiles, and in November 1964, announcement was made that the 551st would be inactivated 30 June 1965, due to the cost factor plus the faster reaction time of the newer missiles.

Also, at this time, it was announced that Lincoln Air Force Base would close 30 June 1966, and that the 98th Strategic Aerospace Wing would be inactivated on or about that date. During 1965, the upcoming inactivation of the Wing and Lincoln Air Force Base was reflected in the constant decrease in personnel 3,270 assigned military personnel were either discharged or reassigned to their units during the year. On 7 December, the last of the Wing's B-47 aircraft departed Lincoln Air Force Base. As of the end of the year, the 98th had 2,099 airmen, 377 officers and 262 civilian personnel assigned.

A highlight of 1965 was the selection of the 98th for the Air Force Outstanding Unit Award. The Wing was selected as a Second Air Force nominee for the period 1 July 1964 through 30 June 1965, and the award was presented 21 December 1965. Also in 1965, the Wing gained a new commander; Colonel Clifford J. Moore, Jr., assumed command in August.

A realignment of SAC units in 1965 resulted in the reassignment of the Wing from the 818th Strategic Aerospace Division (SAD) to the 810th SAD on 25 February.

By the end of April 1965, several actions had been taken in preparation for the closure. Certain base functions had already been terminated by this time. Also, in April, combat readiness training flying were discontinued, transfer plans for air crews were completed and all active files were transferred to SAC Headquarters at Offutt Air Force Base.

On 25 June 1966, the 98th Strategic Aerospace Wing was redesignated the 98th Strategic Wing (SW), and organized at Torrejon Air Base, Spain, upon deactivation of the 3970th SW. The 3970th had been a tenant unit at Torrejon since the Sixteenth Air Force was transferred from SAC to the U. S. Air Forces in Europe (USAFE) 15 April 1966. The 3970th and Sixteenth Air Force were the SAC predecessors to the 98th at Torrejon. The first commander of the 98th SW was Colonel Louis M. Sowers.

Upon activation at Torrejon, the 98th SW assumed operational control and support responsibility for all SAC operations in the following geographic area: west of 100 degrees east longitude from the North Pole to 28 degrees north latitude; west to intercept and follow the western border of Burma south to 20 degrees north latitude, 92 degrees east longitude and south to the Pole; east of 30 degrees west longitude, excluding Greenland.

For the first four months after activation, wing personnel were occupied with reorganization and the relocation of various facets of the unit's operation.

One example was the installation of new communications equipment in the command post to bring it up to the capability required.

The facilities provided by the host base unit, the 401st Combat Support Group (USAFE), proved to be adequate with one exception that being a Maintenance Job Control facility construction of this facility was completed in the latter part of 1967.

Air refueling operations continued with rotational SAC KC-135 tankers and crews from CONUS bases spending three-week TDYs with the wing. The primary refueling mission, flown by personnel of Second, Eighth and Fifteenth Air Forces, was in support of ferry movements across the Atlantic Ocean, both east and west bound. Other support, provided from USAFE, was to qualify receiver pilots for ferry missions. Beginning in September 1966, a full program was implemented to qualify and maintain air refueling currency for all receiver pilots in Europe.

The wing inherited a community relations project from the 49th Communications Squadron (SAC) which was deactivated in April 1966. Personnel assigned to the wing agreed to accept the year round sponsorship of the San Jose de la Montant Orphanage, that had 112 girls, ranging in age from three to fifteen years.

The wing was originally activated at Torrejon with three detachments assigned: Det 1, England; Det 2, Turkey, and Det 3, France. On 2 October 1966, Det 3 was discontinued. Personnel rendered surplus by this action were absorbed by other SAC units; equipment from Det 3 reverted to stocks.

The wing was deeply involved in several important operational exercises in 1967 and 1968. Among these were Glass Road, Crested Cap, Deep Furrow, High Heels and Giant Lance. Besides supporting USAFE, Coronet East and reconnaissance missions on a daily basis throughout Europe, the 98th participated annually in a joint SAC/PvAF air refueling exercise. In addition, the 98th provided primary air refueling support for fighter movements into the Middle East and Cyprus.

The wing had, upon arriving at Torrejon, set up and sustained a very effective maintenance program. Because of the frequent operational exercises flown by the 98th, maintenance personnel were called upon numerous times to put forth extra effort. This extra effort was a significant contribution toward the successful completion of these exercises.

Supply support was constant and well-planned. Problems that did occur were not insurmountable and did not have an adverse effect upon mission accomplishment. A close working relationship was maintained with the host unit, enabling wing agencies and division to operate without suffering a lack of equipment and/or supplies.

Colonel Sowers retired in January 1968, and was succeeded by Colonel Bill H. Martin.

The wing's strength varied considerably between the time of its activation at Torrejon in 1966 and the end of 1970. Wing strength figure hovered around the 400 mark the first two years at Torrejon. At the end of 1969, only 383 people were assigned to the wing (including both detachments), as compared to the 416 personnel assigned at the end of 1968. The reduction in strength was mainly due to the early-out program, but a more significant reduction in strength occurred as of 1 January 1970, when the REDCOSTE program, a Department of Defense cost reduction program, went into effect.

The REDCOSTE program sought to trim the U. S. military strength in Europe as much as was feasible in order to reduce overall defense costs. With the advent of REDCOSTE, the 98th was required to cut back personnel strength until at the end of March 1970, only 261 personnel were authorized with 283 assigned. Strength fell to an all-time low in June 1970 for the 98th SW; 279 were assigned while the authorized figure still stood at 261.

Assigned strength jumped to 328 as of 1 July 1970, when the Wing's official authorization jumped to 358. The increased strength figures were a result of an expansion in the Wing's mission which was effective as of that date. The expansion of the Wing's mission called for a corresponding increase in personnel, particularly in the maintenance area. By the end of 1970, assigned strength had grown again to 348.

The reorganization of SAC's numbered air forces effective 1 April 1970 excluded Eighth Air Force from equipping the 98SW with aircraft and crew personnel. After that date, this responsibility was shared between Second and Fifteenth Air Forces only.

As of the end of 1970, the 98th Strategic Wing continued to display the standards of professionalism and pride in daily effort maintained by the organization since its first activation in 1942.

Colonel Martin retired in August 1970, at which time Colonel Donald I. Stallsmith assumed command of the 98th.

During the period 1 January 1970 through 31 March 1971, the Wing maintained an outstanding mission accomplishment record, and consequently was awarded the Air Force Outstanding Unit Award.

Development during 1975, included the Wing's continuing support of European United States fighter sales deliveries and air refueling support of a series of Tactical Air Command CONUS-based unit exercises in the European Theater. During the last half of 1975, the 98th provided deployment and redeployment refueling support for seven TAC European exercises.

Additionally, during the same period, the Wing supported a Crested Cap, Shahbaz and Midlink exercise. Accordingly, the 98th logged over 1000 air refueling missions within the six month period without a single aircraft mishap.

During June and July 1975, the 98th and the host base organization at Torrejon and Mildenhall consolidated maintenance resources. Operating under the single manager maintenance test program, the Wing continued to support all requirements without a significant degradation of maintenance capability the consolidation proved extremely costly for both units plus certain maintenance effectiveness ratings dropped significantly. As 1975 ended, the future of the 98th Strategic Wing hinged upon the results of the US/Spain Agreement of Friendship and Cooperation, which was being renegotiated and subject to confirmation by the US Senate.

The 98th Strategic Wing was inactivated on December 31, 1976, bringing to an end more than 30 years of continuous service.

The deactivated 98th returned to life when it was reactivated as the 98th Air Refueling Group (Heavy) by the U.S. Air Force May 12, 1987. It is assigned as a Reserve unit to operate out of Barksdale AFB in Louisiana as part of the 434th Air Refueling Wing. The 98th Air Refueling Squadron became part of the unit, which had assigned strength of about 450 people, including more than 100 flight personnel and more than 300 administrative and support personnel.

The Group was called to active duty in a war zone twice in its first 30 months of operation. In 1989 the Group was called on to fly sorties to support fighter planes participating in Operation Just Cause, the U.S. invasion of Panama that toppled strongman Manuel Noriega. With just a few hours notice, the 98th scrambled five crews and flew six sorties into the air, the first on December 19 and 20, which made the round trip from Barksdale to Panama. Crews obtained emergency leaves from their employers, many of them were pilots and engineers for major commercial airlines. During the brief operation the crews of the 98th got close enough to the fighting on the ground to see detonations. "While we did see some detonations occurring, what was truly mind-boggling was the sight of so many aircraft in so little air space," said Major Jerry Fitzgerald, an aircraft commander who expected by the time his post-strike refueling mission was flown to see all the action completed.

The 98th's second mission into a war zone came in August and September 1990 as part of Operation Desert Shield, the multinational force called on to protect Saudi Arabia from invasion following Iraq's invasion of neighboring Kuwait. In the first six weeks of that operation crews from the 98th performed more than 700 hours of support missions and fueling more than 100 aircraft in just the first four days as massive airlift moved more than 100,000 American personnel to the Arabian desert in a matter of weeks.

Nellis Wing Prepares for Transition: Officials at Nellis AFB, Nev., next week will redesignate the 98th Range Wing as the Nevada Test and Training Range, a direct reporting unit to the US Air Force Warfare Center, also at Nellis. The Air Force activated the wing in 2001 to maintain and oversee the Nevada Test and Training Range complex. Its role will remain the same after the name change. The 2.9 million acres of land and 12,000 square miles of airspace comprising the

range complex represent a "crown jewel of the Air Force," said Col. John Montgomery, outgoing 98th RANW commander. He added, "preserving, protecting, and modernizing that airspace is a national imperative." The range incorporates roughly 1,200 targets, realistic threat air defense systems, and air aggressors to present aircrews with a challenging aerial training environment. 2011

#### 98th Bombardment Wing (M) 1947 – 1954. B-29s

The 98th was re-activated on 1 July 1947 and equipped with B-29 Superfortresses at Spokane Army Airfield, Washington. In 1948, they did a 90 day TDY to Okinawa. During this period, the 98th lost two B-29s and a C54 returning with 98th personnel ditched in the Pacific. Again a 90 day TDY to Sculthorp, England was conducted in the summer of 1949. During the training phase 1947 – 1950, the 98th recorded 6 B-29 losses.

During the TDY to England, the 98th practiced high level (35,000 ft) bombing missions on the Dutch Island of Helgoland. The aircraft were challenged by RAF and USAF fighters. The gunners were evaluated on gun camera film. The Bombardiers were rated on their performance as well as were other air crew members. Needless to say, ground support personnel were very influential in the overall final evaluation. I must say here, we were operating under simulated combat conditions and the food was far from perfect. Our food service personnel were extraordinaire in making dehydrated potatoes, powdered eggs, bully beef, turnip soup, month old bread, and SPAM palatable. As a result of the exercise, the 98th was rated very highly and combat ready.

In early 1950, the 98th was alerted for permanent change of stations to Ramey AFB, Puerto Rico. However, before the move was completed, the Korean conflict broke out and the 98th arrived at Yokota Air Base, Japan in the first week of August 1950, flying their first mission to Korea on 7 August. Although the 98th was designated as a wing, it continued to operate as a group until 1951 when it was staffed as a wing.

The 98th continued to fly against the North Korean Communist until the cease fire in 1953. Remaining at Yokota until July 1954. The 98th returned their B-29s and personnel to the U.S. in July 1954.

From August 1950 to July 1953, the 98th flew more than 5,000 sorties and dropped more than 40,000 tons of bombs (actual total unavailable). They earned 10 battle streamers and two Outstanding Unit Awards which are comparable to the Presidential Unit Citation. They also received the South Korean Presidential Citation. The 98th was credited with the destruction of 5 MiG 15 Jet Fighters and one propeller driven fighter. The 98th recorded 19 B-29 losses from August 1950 to July 1954.

## 98th Strategic Aerospace Wing (M) 1954 – 1966: B-47s

Lincoln Air Force Base was under the control of the 98th Air Base Group when 98th air crews began arriving in the latter part of 1954. The 98th Air Base Group was then inactivated in October 1954 and the 818th Air Division was organized under SAC regulations governing the function of a multi-wing base of command.

Colonel William F. Coleman assumed command of the 98th in November 1954. B-47 aircraft began arriving in January 1955. At this point the wing began an intensive training program to effect the conversion to combat ready status as soon as possible. This was achieved in July 1955 and a “graduation” mission was flown.

Jurisdiction of SAC bases was realigned and the 98th was transferred out of the 15th AF to the 8th AF. The 98th continued to fly and emphasize the “bomber stream” type missions. The 98th proved its proficiency on 10 October 1955 with a successful “Post Hole” SAC evaluation mission.

On 6 November 1955, the 98th deployed for a 90 day TDY to Lakenheath, England. On 27 December 1956, the 98th was again tasked as the 98th Air Refueling Squadron with KC-97s was required to deploy to Harmon AFB, Newfoundland returning to Lincoln on 14 March 1957.

The 98th remained a unit of the 8th AF until 1 January 1959 when it was reassigned to the 2nd AF. The 98th continued to maintain its combat ready proficiency through many 2nd AF operational competitions.

Aside from the 98th Air Refueling Squadron, the 98th B-47 Wing included the 343rd, 344th, 345th, and the 415th Bomb Squadrons. Other squadrons included Headquarters, Armament & Electronics, Field Maintenance, Organizational Maintenance, and the 551st Strategic Missile Squadron.

The 98th Air Refueling Squadron was again deployed to Lajes Air Base, Azores in September 1962. Again, the 98th ARS was committed to operations connected to the Cuban Missile Crisis in October 1962. On April 15, 1963 the 98th ARS was inactivated. After a full nine years, the 98th ARS had flown a total of 64,000 hours without the loss of a single man or aircraft.

## 98th STRATEGIC WING: TORREJON, SPAIN KC-135s, 1966 – 1976

From January 1964 to April 1965, the 98th controlled an Atlas ICBM squadron. The wing was inactivated on June 5, 1966 at Lincoln AFB, but activated the same day at Torrejon Air Base, Spain replacing the 3970th Strategic Wing. For the next decade, the 98th had no tactical aircraft components assigned to it, but rather used attached KC-135 tankers and crews furnished by other SAC wings to provide air refueling support for the operational, alert exercise commitment of SAC, TAC, USAFE and NATO. Its operational area included the Eastern Atlantic Ocean, most of Europe, North Africa and the Middle East. In October 1976, the 306th Strategic Wing, based in West Germany, assumed this support task and the 98th phased down at Torrejon and was inactivated December 31, 1976.

Under the command of Col. Donald Keplinger, the 98th Strategic Wing was unique in that it was tenant on a USAFE (United States Air Force Europe) fighter base. The 98th Strategic Wing usually had the equivalent of two KC-135 tanker wings (30 aircraft) in its possession. The uniqueness was that the tankers were there TDY. The 98th did not own any planes.

The primary mission was to provide refueling support to USAFE as required. The tankers provided refueling support for all fighters crossing the Atlantic, both coming and going. At times of major

deployments, it was quite spectacular to observe as many as 30 tankers taking off in a short time frame. The 98th also provided support for aircraft enroute to or from Iran and Turkey.

At this time, the 98th had two subordinate units in Europe. A detachment in Mildenhall, UK and one in Athens, Greece. Support was provided for the RC-135 recon missions.

Sometime in 1975, the U.S. and Spain renewed their treaty with significant changes. One of which would move SAC out of the Torrejon area, establishing a unit at Zaragoza, Spain sometime in 1976 and limiting the number of aircraft in Spain at any given time. Also about this time a liaison office was opened at USAFE headquarters at Ramstein, Germany. So now the 98th would be at Ramstein instead of Mildenhall.

A very interesting event happened at Torrejon on July 4, 1976. On this date the United States Flag was allowed to be raised and flew all day during duty hours. Because of the treaty with Spain, the U.S. Flag had not flown at Torrejon for many years, but was allowed to fly this day in celebration of our 200th anniversary. How sad to note it was reported that ONLY five individuals came out to see the flag raised and only about ten were there when it was lowered.

Col. Donald M. Griffin was commanding when the 98th Strategic Wing was closed down at Torrejon in September 1976.

98th RANGE WING, (REGULAR A.F.) NELLIS AFB, NV. 2001 – Present

Reactivated on 5 November 2001 and re-designated as the 98th Range Wing under the command of Colonel Wilhelm F. Percival, the 98th is the first and only Wing dedicated to range management in the USAF.

The 98th Range Wing is responsible for the Nevada Test and Training Range (NTTR). Comprised of 2.9 million acres and almost 16,000 square miles of air space. The NTTR maintains the densest threat simulator environment in the world. In addition to communications jamming equipment, the simulated threats include a wide range of SAMs, AAA, GCI, and passive detection systems. These assets provide year round training to U.S. and allied air crews in Red Flag weapons school exercises in addition to electronic combat. Unmanned bombing ranges are also used. Each range consists of tactical type targets representing airfields, surface to air missile (SAM) sites, truck convoys, munitions and fuel storage sites, and artillery companies. The Nevada Test Site, operated by the Department of Energy borders the NTTR.

Nellis Wing Prepares for Transition: Officials at Nellis AFB, Nev., next week will redesignate the 98th Range Wing as the Nevada Test and Training Range, a direct reporting unit to the US Air Force Warfare Center, also at Nellis. The Air Force activated the wing in 2001 to maintain and oversee the Nevada Test and Training Range complex. Its role will remain the same after the

name change. The 2.9 million acres of land and 12,000 square miles of airspace comprising the range complex represent a "crown jewel of the Air Force," said Col. John Montgomery, outgoing 98th RANW commander. He added, "preserving, protecting, and modernizing that airspace is a national imperative." The range incorporates roughly 1,200 targets, realistic threat air defense systems, and air aggressors to present aircrews with a challenging aerial training environment.

2011

The Nevada Test and Training Range (NTTR) formerly the 98th Range Wing, operates, maintains, and develops Test and Training on the NTTR. The NTTR provides instrumentation for Green Flag West at the National Training Center (NTC) and Leach Lake Tactics Range (LLTR).

The NTTR also supports the Department of Defense (DOD) advanced composite force training, tactics development, and electronic combat testing as well as DOD and Department of Energy (DOE) testing, research, and development. The NTTR hosts numerous Red Flag and U.S. Air Force Weapons School exercises each year, as well as various test and tactics development missions.

The NTTR coordinates operational and support matters with major commands, other services, DOE and Department of Interior, as well as other federal, state, and local government agencies. The NTTR acts as the single point of contact for range customers.

### History

The 98th Range Wing was activated at Nellis AFB, Nev., on Oct. 29, 2001. The history of the 98th Range Wing can be traced to the 98th Bombardment Wing (BW) Very Heavy, formed on Oct. 24, 1947. The 98th BW Very Heavy was inactivated on July 12, 1948 and re-designated the 98th BW Medium on the same day. Further re-designations followed, including the 98th Strategic Aerospace Wing on Feb. 1, 1964, and later the 98th Strategic Wing on June 25, 1966. The 98th Strategic Wing was inactivated on Dec. 31, 1976. The 98th Range Wing was re-designated the Nevada Test and Training Range on Jun 21. 2011.

### Background

The NTTR is the largest contiguous air and ground space available for peacetime military operations in the free world. The range occupies 2.9 million acres of land and 5,000 square miles of airspace, which is restricted from civilian air traffic over-flight and another 7,000 square miles of Military Operating Area, or MOA, which is shared with civilian aircraft. The 12,000-square-nautical mile range provides a realistic arena for operational testing and training aircrews to improve combat readiness. A wide variety of live munitions can be employed on targets on the range.

The NTTR is composed of eight directorates, Director of Operations (DO), Mission Support (MS), Program Management (PM), Plans and Programs (XP), Financial Management (FM), Wing Safety (SE), , Range Support (RS), and Security (SD).

### Director of Operations

The mission of the Director of Operations Directorate is to provide day-to-day control of the Nevada Test and Training Range (NTTR). The DO directly supports Air Force, Joint and multi-national test and training activities. The DO operates two ACC bombing ranges, the NTTR and Leach Lake Tactics Range (LLTR). The DO also prioritizes all range activities and is the single point of contact for scheduling range users. The DO provides ground control intercept operations, and flight following safety de-confliction. The DO is also the liaison for coordinating airspace issues with other military and federal agencies.

### Mission Support

The mission of the Mission Support Directorate is to provide base operating support on the NTTR with contingents at several geographically separated locations, including TTR, ISAFAP, Point Bravo, Tolicha Peak Electronic Combat Range (TPECR) and Range 63A. The NTTR supports a physical plant with one and 700 facilities, a 1,000 vehicle fleet and three supply warehouses. The group executes an approximate \$26M budget to deliver range civil engineering, security, dining, custodial, lodging, logistics, fuels, and transportation services. The MS also serves as Chief Quality Assurance Evaluator (QAE) for the Range Support Services Contract, the second largest support contract ever awarded by the US Air Force.

### Financial Management Directorate

The Financial Management Directorate (FM) is responsible for submitting financial plans and tracking annual budget execution, as well as providing input and data to higher headquarters for Future Years Defense Planning through the Program Objective Memorandum process. In addition, the directorate manages business initiatives in support of the Major Range Test Facility Base (MRTFB).

### Program Management Directorate

The Program Management Directorate (PM) is tasked to acquire and manage contract support of range operations, maintenance, instrumentation, communications, and computer systems services. It directs contract changes and evaluates contractor performance.

### Plans and Programs Directorate

The Plans and Programs Directorate (XP) focuses on range requirements, entry project management, information security, and environmental management. XP advocates for long-term range requirements to higher headquarters. This directorate is responsible for interaction of new systems being developed and implemented into the NTTR. XP is also the first stop for NTTR customers to determine future range operations and support requirements for tests and training events. In addition, the directorate oversees environmental management, agreements, land use, and range environmental contractors on the NTTR and Leach Lake Training Range, and is the liaison to the Bureau of Land Management, the Department of the Interior, and other state and federal agencies.

### Range Support Directorate

The RS has functional responsibility for approximately 277 contract manpower equivalent (CME) personnel. The RS is responsible for simulated threat Command and Control operations

and range instrumentation and feedback systems. The RS Directorate assists customers and coordinates support activities

#### Security Directorate

The Security Directorate is responsible for NTTR Security and access to the NTTR. The Security coordinates with external agencies on security programs.



The wing is responsible for sustainment of nuclear munitions and cruise missiles, including operation of two munitions maintenance and storage complexes (at Kirtland AFB and Nellis AFB, Nev.) and the 498th Missile Sustainment Group at Tinker AFB, Okla. This encompasses the entire scope of nuclear weapon system support functions to include sustainment, modernization and acquisition support activities for both the Department of Defense and Department of Energy.

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