## NATIONAL REGISTER OF HISTORIC PLACES MULTIPLE PROPERTY DOCUMENTATION FORM

This form is used for documenting multiple property groups relating to one **olivers and find yours set of the set of the** 

X New Submission Amended Submission

#### A. Name of Multiple Property Listing

Historic Resources of Williams Air Force Base, Arizona

#### **B. Associated Historic Contexts**

(Name each associated historic context, identifying theme, geographical area, and chronological period for each.)

<u>Air Force Flying Training and the Advent of the USAF Air Training Command, 1918 to 1947</u> <u>Williams Field Training Programs and Wartime Operations, 1942 to 1947</u>

Williams Field Base Facilities Developemnt, 1941 to 1944

Williams Field Base Plan and Architectural Theme, 1941 to 1944

#### C. Form Prepared by

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city or town	Tempe	_sidieAZ_	_zip code_	85283			

#### D. Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR Part 60 and the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation. (\_\_\_\_\_\_ See continuation sheet for additional comments.)

Declar Signature and title of certifying official

May 15,1995 Datel

State or Federal agency and bureau

I hereby certify that this multiple property documentation form has been approved by the National Register as a basis for evaluating related properties for listing in the National Register.

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Signature of the Keeper

<u>6/19/95</u> Date



NPS Form 10-900a (8-86)

United States Department of the Interior **National Park Service** 

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#### E. **Statement of Historic Contexts**

#### Air Force Flying Training and the Advent of the USAF Air Training Command, 1918 to 1947

In the three decades following the end of World War I, the United States Army Air Corps evolved from a fledgling organization with less than 1000 serviceable aircraft to become the United States Air Force, a major military organization with nearly 64,000 aircraft and over one million officers and enlisted personnel. That sharp increase in strength, as well as the establishment of the Air Force as a formidable component of the military structure of the nation, was due principally to the involvement of the United States in World War II. The huge mobilization effort that occurred between 1939 and 1945 played a significant role not only in the rapid programmatic and organizational evolution of the Army Air Corps, but also in the technical, strategic, and tactical advancement of air power to its position as a powerful instrument of war.

An integral aspect of the history of the air forces between 1918 and 1947 was the flying training programs, particularly during the Second World War. The importance of those flying training programs in relation to the evolution of the United States Air Force is significant. In 1916, flying training was conducted principally at one aviation school in San Diego. During the Second World War pilot and crew training was conducted at dozens of training centers and air fields throughout the nation. By 1947, those programs had emerged as the Air Training Command, one of the 14 major commands of the United States Air Force. Williams Air Force Base, established in July 1941, is one of only 24 air force bases remaining in the United States that was established specifically for conducting flying training between 1918 and 1942. Of those air bases, only ten have continued their lineage within the structure of the Air Training Command. They include six in Texas, one each in Mississippi and California, and Luke AFB and Williams AFB in Arizona. Two of those bases, Williams AFB and Mather AFB in California are scheduled for closure under the Base Realignment and Closure Act.

Because of the changing international political scene and the resultant shift toward a reduction in defense spending, the Department of Defense (DOD) must realign and reduce its military forces pursuant to the Defense Base Closure and Realignment Act (DBCRA) of 1990 (Public Law [P.L.] 101-510, Title XXIX). DBCRA established new procedures for closing or realigning military installations in the United States.

DBCRA established an independent Defense Closure and Realignment Commission to review the Secretary of Defense's base closure and realignment recommendations. After reviewing these recommendations, the 1991 Commission forwarded its recommended list of base closures and realignments to the President, who accepted the recommendations and submitted them to Congress on July 12, 1991. Since Congress did not disapprove the recommendations within the time period provided under DBCRA, the recommendations have become law. Because Williams AFB was on the Commission's list, the decision to close the base is final. Williams AFB is scheduled to close in September 1993.

9 1995 INTERAGENCY RESOURCES DIVISION



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#### Initial Programs, 1920 to 1938

The advent of flying training programs within the Air Force is connected to the Army Reorganization Act of 1920. Following the brief but impressive role of the Air Services in World War I, Congress recognized the growing importance of air power and consequently formalized the Air Services' role in the military structure of the United States. The Act made the Air Service a combatant arm of the Army and directed that the various tactical air units be placed under the commands of the nine Army corps areas. The Act also established the Chief of the Air Service, whose responsibilities included command of the non-combat activities of the Air Service, principally materiel, depots, and training schools.

The first formal pilot training programs were begun in 1922 under the direction of the Chief of the Air Service. On June 28, 1922, all flying training was centralized in Texas. Primary flying took place at Brooks Field and advanced flying training at Kelly Field, both located near San Antonio, Texas. At the same time the Air Service established an officer's tactical training school at Langley Field, Virginia, to train officers to command higher units and in the use of military aviation in combat situations. Designated the Air Service Tactical School in 1922, it was relocated to Maxwell Field, Alabama, in 1931 and discontinued in October 1942.

Continued growth of the flying training programs occurred following the passage of the Air Corps Act of 1926, which changed the name of the Air Service to the U.S. Army Air Corps. The Air Corps continued its status as a combatant arm of the U.S. Army, and the role of the Chief of the Air Service was revised to the Office of the Chief of the Air Corps (OCAC). Flying training continued under the direct command of the OCAC and in August 1926, the Air Corps Training Center was formally established at San Antonio, Texas, site of the two flying training fields. Randolph Field, Texas, was dedicated in June 1930. Dubbed the "West Point of the Air," Randolph Field became the headquarters of the Air Corps Training Center, charged with supervision of both primary and advanced flying training. In 1931, it also became the site of the Air Corps primary flying school.

By the mid-1930s, the Air Corps had grown to include over 1300 officers and nearly 14,000 enlisted men. In excess of 1700 aircraft were in use by the Air Corps' 45 various squadrons. Although it continued as a combatant arm of the Army, the establishment of a somewhat independent command structure for the Air Corps began in 1935. On March 1, 1935, the General Headquarters Air Force (GHQAF) was established and assumed control over all Air Corps tactical units previously under the command of the various Army Corps areas. Both the commands of the GHQAF and the Chief of the Air Corps were responsible directly to the Army Chief of Staff. The OCAC continued to maintain control of all non-tactical functions including the Air Corps Training Center. In 1939, the OCAC assumed control over the GHQAF, thus centralizing command of the entire Air Corps for the first time.

### Program Expansion, 1938 to 1941

The most important circumstance which led to the rapid increase in the size of the Army Air Corps and the flying training program, was the crisis in Czechoslovakia in the fall of 1938. Supported by 500 Luftwaffe aircraft, Nazi ground forces occupied Sudetenland, Czechoslovakia, signalling the beginning of German military aggression in Europe.

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The German Air Force's significant show of strength demonstrated for the first time that air power was a military force to be reckoned with. President Franklin D. Roosevelt readily understood the emerging role of air power and, considering the likelihood that the United States would become involved in the European conflict, asked Congress to authorize a program that would greatly expand the Army Air Corps. On April 3, 1939, Congress authorized \$300 million to expand the Air Corps to 6000 planes, establish new bases, and increase personnel.

Over the next eighteen months the program was revised upward twice, with congressionally approved plans eventually calling for 84 combat groups equipped with 7,800 aircraft and manned by 400,000 troops. The plan was to be in place by June 30, 1942. As the conflict in Europe continued to escalate, plans were again revised, with the Army Air Corps planning for, and achieving a peak strength in April, 1944 of 243 combat groups, 80,000 aircraft, and 2.4 million men and women.

Organization changes in the Army Air Corps during that same period accommodated the expanding force as well as the anticipated combat overseas. The General Headquarters Air Force (GHQAF), with its tactical units, was removed from the command of the Chief of the Air Corps and placed under the command of the Army Field Forces. It was redesignated the Air Force Combat Command. On June 20, 1941, the Army Chief of Staff established the Army Air Forces (AAF) as an autonomous command within the Army. The AAF controlled both the Air Corps and the Air Force Combat Command, which was then removed from the command of the Army Field Forces.

Expansion of existing base facilities and the construction of new air facilities for tactical units and training schools got underway in earnest in 1940. In 1939, the Army Air Corps possessed 17 bases. By December 1941, that number had grown to 114, and by the following year, 128.

The Air Corps Training Center in San Antonio remained the Headquarters for basic and advanced pilot training, but with the availability of more bases for training purposes, three regional training centers were created to supervise flying training in their respective geographical areas. The Southeast Air Corps Training Center was established in September 1940 with headquarters at Maxwell Field, Alabama. Between 1940 and February 1942, at least eight bases were established as flying training schools, located in Alabama, Mississippi, Georgia, Louisiana, South Carolina and Florida. The second regional center, the Gulf Coast Air Corps Training Center, was established in July 1940 with headquarters at Randolph Field. As the largest of the three centers, it controlled at least 12 bases, all but three of which were established between August 1940 and June 1942. Nine bases were located in Texas, with two fields in Oklahoma and one in Arkansas.

The third regional training center was established between July and September, 1940 as the West Coast Air Corps Training Center, with headquarters at Moffett Field, California. Under the command of Major General Barton K. Yount, the West Coast Center oversaw flying training as well as the location, establishment, and construction of new flying schools and air fields in California, Arizona, New Mexico, and Nevada. During the end of 1940 and the spring of 1941, new air field locations were identified and plans made for acquisition and development. Most fields were not officially established until the summer of 1941.

Besides Moffett Field, at least eight other schools were established; four in California, two in Arizona, and one each in New Mexico and Nevada. Mather Field, California, had been established in 1918, and was assigned to the flying training program of the West Coast Center at the end of July 1941. Other fields established in California between June and September 1941

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were: Merced Field (Castle AFB), Victorville Army Air Field (George AFB), and Ontario Field. Las Vegas Army Air Field (Nellis AFB) was established in Nevada in June 1941, and Kirtland Field, New Mexico, was established in December 1941. In Arizona, Luke Field was established in February 1941, and Williams Field on July 1, 1941. Of those nine bases established, two no longer exist as active bases (Moffett and Ontario Fields). Four others, George, Mather, Castle, and Williams AFB are scheduled for closure under the Base Realignment and Closure Act. Only Nellis, Kirtland, and Luke AFB will remain active facilities, with Luke AFB the only one remaing in the Air Training Command.

In addition to the air fields established and operated by the Air Corps under those jurisdictions, a number of flying schools were established and operated by civilian contract instructors, most which functioned as schools for primary training. All together, the expansion of the air force in the early 1940s included the establishment of over 128 bases, at least 50 of them used as military air field training schools. An additional 41 civilian contract schools were handling the primary training flight program.

## Wartime and Post War Organization, 1941 to 1947

Additional expansion and reorganization of the Air Corps training programs occurred between early 1941 and mid 1943. In March 1941 the Air Corps established as a separate command, the Technical Training Command to direct the new programs for teaching ground crews and technicians. The flying training centers were finally removed from direct control of the Chief of the Air Corps on January 23, 1942, less than two months after Pearl Harbor, when the Air Corps Flying Training Command was established. At that time, the Flying Training Command took control of and coordinated the activities of the three regional training centers. The regional training centers became subordinate components of the command. Major General Barton K. Yount was appointed commanding general of the AAF Flying Training Command.

Finally, a War Department reorganization in March 1942 divided the Army into three separate commands, one of which was the Army Air Forces. The reorganization placed all elements of the air corps within one organization and dissolved the Office of the Chief of the Air Corps as well as the Air Force Combat Command. In July 1943, the Flying Training Command and the Technical Training Command were merged to form the Army Air Force Training Command. The three regional centers were designated sub-commands and their names changed to the AAF Western Flying Training Command, AAF Central Flying Training Command, and the AAF Eastern Flying Training Command. At its wartime peak, the AAF Training Command consisted of more than one million men and women. In less than four years it had trained 203,000 pilots, 53,000 navigators, 50,000 bombardiers, and 72,000 radar observers.

Recognition of the Army Air Forces as an independent service occurred shortly after the end of World War II. The National Security Act of 1947 created the Department of the Air Force, with W. Stuart Symington appointed Secretary of the Air Force. The United States Air Force was established within the Department, headed by General Carl A. Spaatz, first Chief of Staff, USAF. By September 1947, the United States Air Force was comprised of 14 major commands. Of those 14 establishments, only three have continued in major command status with the same name. They are the Alaskan Air Command, the United States Air Forces in Europe, and the Air Training Command.

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### United States Department of the Interior National Park Service

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#### Williams Field Training Programs and Wartime Operations. 1942 to 1947

Between 1942 and 1947, Williams Field was the location of a number of flying training schools conducted as part of the systematic pilot training programs administered by the Army Air Force Flying Training Command. First utilized as a school for twin engine advanced flying training, the base, in the course of five years, supported six other major types of training programs. They included bombardier training, twin engine fighter transitional training, single engine fighter training, four engine pilot training, instrument bombing specialists training, and jet pilot training. By the beginning of 1946, thousands of pilots and bombardiers had been trained at Williams Field, and the base was ranked among the highest in training efficiency system wide by Training Command.

By 1941, the Air Corps training leaders had devised a three tier system of cadet pilot training prior to their assignment in the Air Corps or Air Corps Reserve. That system was formalized when the AAF Flying Training Command was established in January 1942. The initial step was primary training, usually administered by civilian contract flying instructors at various air fields throughout the country. Thunderbird Field, north of Glendale, Arizona, was one such privately run flying school. Following completion of the primary course, cadets were "military checked" by an Air Corps pilot instructor, and those passing the check were assigned to an Army Air Force School Squadron at a Basic Flying School located at a number of Army Air Fields within the three regional commands. After a roughly ten week course, successful cadets graduated to Advanced Flying School at another Army Air Field. Graduate pilots were commissioned as officers and assigned to one of the four Air Forces for transitional training on specific aircraft used in combat.

Williams Field was initially conceived as a Basic Flying School, but by the time the base was operational in December 1941, it was designated as an Advanced Flying School for twin engine airplane pilots. Originally called the Mesa Military Airport at Higley, Arizona, Williams Field was officially established on July 1, 1941. Official activation of the base occurred on Scptember 25, 1941, when Major Bernard A. Bridget arrived from Mather Field in California as field project officer.

Major Bridget supervised the final phases of construction of the base on behalf of the Army Air Corps. He became the first commander of Williams Field on October 16, 1941, when the advanced detachment of the 89th Base Headquarters and Air Base Squadron arrived and officially occupied the base. The advanced detachment numbered about 20 personnel. Finally, on December 4, three days before the Japanese attack on Pearl Harbor, the first cadre of about 350 men assigned to the 89th Base Headquarters and Air Base Headquarters and Air Base Squadron arrived at Williams Field.

By January 1942, base construction activities were substantially complete. Major Bridget was promoted to Lt. Col. on January 15, and the base was officially named Williams Field on February 24, 1942. The first class of pilot cadets arrived at Williams Field on February 25, 1942. About 300 cadets were in the group, most having been transferred from Bakersfield, California, where they had received basic flying training. That first class graduated on April 24, 1942, after an eight week course. Twin engine pilot training continued to be the primary mission at Williams Field until September 1944. The principal aircraft used in the training were North American AT-9s and Cessna AT-17s.

In late June 1942, the field also supported the only bombardier training school in Arizona. Nine bombardier classes were graduated between August 1942 and February 1943, when the school was discontinued at Williams Field. In 1943 the base

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was also used for twin engine fighter transitional training, using P-38s, and for single engine fighter advanced training. Col. Bridget, who was promoted to full Colonel in June 1942, was replaced as base commander on March 3, 1943, by Col. Herbert L. Grills. Col. Grills had been deputy commander at Williams Field since the base was activated in 1941. Both the twin engine advanced flying school and the single engine advanced training were discontinued about September 1944. In the first 28 months of its flying training programs, Williams Field had graduated 27 American pilot classes, 2 Chinese Army pilot classes, and 9 bombardier classes, totaling over 8000 men.

From December 1944 through March 1945, Williams Field became a four engine transitional school for officer pilots, using B-17 "Flying Fortresses." In February 1945, the base became the headquarters for the 38th Flying Training Wing. At that time there were about 1400 personnel assigned to the base. In May 1945, Col. Grills was transferred to the Pacific Theater of Operations and Col. Albert M. Woody became base commander.

An instrument bombing specialists school replaced the B-17 transitional training program in April 1945. Using B-24 "Liberator" heavy bombers, the school taught bombardiers and navigators in the use of some of the earliest radar bombing instruments developed by the military. The program continued until November 1945.

The primary mission of Williams Field changed again beginning in the last half of 1945 to a fighter pilot training facility. In June 1945, a fighter gunnery school was established and in November a fighter pilot transition school began with officer pilots training on P-47 "Thunderbolts" and the P-51 "Mustangs." The first post-war command change at Williams Field occurred on November 8, 1945, when Col. Roy W. Osborn became base commander.

A jet pilot training program was initiated in July 1946 using F-80 "Shooting Stars" as the training aircraft, later replaced by the Lockhead T-33 two seated jet trainer. The T-6 conventional trainer was also used as the transitional aircraft during that period. Those programs continued through the mid-1950s. In May 1946, Col. Jessie Auton was appointed base commander followed in October by Col. Frank H. Robinson. The name of the base was officially changed to Williams Air Force Base on January 13, 1948.

In the post-war reorganization and deactivation period, Williams Field was one of only nine air training fields to be retained as an active base within the AAF Training Command. The other eight were Columbus AFB, Mississippi, Mather AFB, California, and Laughlin, Randolph, Reese, Lackland, and Goodfellow AFB, all in Texas. Only two of those bases, Williams AFB and Mather AFB are scheduled for closure under the Base Realignment and Closure Act (Phase I and II).

### Williams Field Base Facilities Development, 1941 to 1944

Between 1941 and 1944 nearly 400 buildings and structures were constructed at Williams Field. The majority of those facilities were a part of the initial construction and development of the base which was completed by December 1942. Today, only 34 of those pre-1945 buildings and structures still exist.

The first public announcement that the War Department was considering the construction of an Army Air Corps training base in the southeastern portion of the Salt River Valley was reported by the <u>Chandler Arizonan</u> on January 17, 1941. The site contemplated was located about six miles south of Tempe, Arizona, near present day Pecos and Kyrene Roads. The majority

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of the four square mile site was located on the Pima Indian Reservation.

The proposed site would be the last of three pilot training facilities that the Air Corps sought to establish in the Salt River Valley. By January 1941, military officials had already selected two of the sites. One was located near Litchfield, northwest of Glendale. It was formally established in February 1941 as Luke Field. The other field was to be a privately run facility with civilian contract pilot instructors. Located north of Glendale, it was named the Thunderbird Primary School and was established by May 1941.

By April 1941, the War Department was reviewing two potential sites for the third flying training field. Besides the Pima Indian Reservation property, a site seven and a half miles southeast of Chandler, and two miles east of Higley, Arizona, was being considered. By the beginning of May, the War Department rejected the Indian reservation site in favor of the 2,160 acre tract of land east of Higley. Formal announcement came on June 13, 1941, when the War Department authorized the establishment of the Mesa Military Airport, Higley, Arizona. With a construction budget of \$4.7 million, the base was to be used as a basic flying training school, initially developed with about 150 buildings and supporting a population of 1,500 military personnel and 250 pilot cadets. Although the entire base had been planned to support about 3000 personnel, initial construction was decreased to about half of the buildings ultimately contemplated for the facility. As with most other flying training fields being developed at that time, the primary obstacle confronting full scale training programs was the lack of training aircraft. In early 1941, the Army Air Corps only had about 3000 training aircraft at their disposal. Aircraft production would not meet the demand for training as well as combat aircraft until mid 1942. As a result, fewer facilities were built at each base with less pilot cadets being trained during the first year of operation.

By mid-June, the Army Corps of Engineers were in the field surveying the new site. The call for construction bids occurred at about the same time, with bid opening set for June 30, 1941. Three primary projects were included in the first bid opening. They included runway construction and flood control; construction of 146 buildings and structures; and drilling a water well with a storage and supply system.

The runway and flood control construction project included two paved runways, each 7,200 feet in length, and taxiways and tic-down aprons. The project also included the construction of an earth levee which would extend 13,000 lineal feet around the eastern perimeter of the air field to divert natural water drainage. The runway and flood control project was awarded to a consortium of six Arizona contractors. They were: Pearson and Dickerson, Oswald Brothers, J.A. Carson, Lee Moor Construction Co., Phoenix-Tempe Stone Company, and Tanner Construction Company. The total contract amount was \$1,878,061.50.

The contract for the construction of the buildings and structures, in the amount of \$1,534,021.00, was awarded to the Del E. Webb Construction Company of Phoenix. The water well and distribution contract was also let at that time, but the contractor in unknown.

Other construction contracts were let in July 1941 for telephone lines to the site, and for a sewer pipe distribution system. By mid-July, some site grading was underway as well as the water well project and the telephone line extension work.

Construction of the initial facilities at the base were pushed rapidly during the months of August and September, with an

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average of 400 to 500 construction workers on the site. When Major Bernard A. Bridget arrived at the base to assume his duties as project officer, most of the wood-framed buildings were under construction, including, according to news accounts, "...enlisted personnel barracks, unmarried officers quarters, office buildings and storehouses."

In October 1941, the last two construction projects related to the initial base development were underway. The Gadd Construction Company of Sacramento, California, was installing the gasoline fueling storage and distribution system for the airplanes at a cost of \$112,000. The Central Arizona Light and Power Company was undertaking installation of 16 1/2 miles of gas mains to connect the base with natural gas. The date of beneficial occupancy of Higley Field was October 16, 1941. At that time, elements of the 89th Air Base Squadron, an advanced detachment of about 20 men, arrived at the base. About half of the 160 buildings had been completed, but because the water, sewer, and gas distribution systems were still under construction, the buildings were not fully habitable. By early November, two buildings were being occupied: the Headquarters Building and one enlisted men's barracks. At that time, the construction contracts for the sewage disposal plant and the electric distribution lines were let.

By mid-November, both runways had been completed, as well as two taxiways and about half of the tie down aprons. The flood control levee was also finished. Three demountable hangars were still under construction, as was the 127 foot tall water tower and 250,000 gallon water tank. Construction was pushed in anticipation of full occupancy of the base by early December 1941. When the first cadre of 350 men assigned to the 89th Base Headquarters and Air Base Squadron arrived at Higley Field on December 4, 1941, about half of the enlisted men's barracks and mess halls were finished, including water, electrical power, and natural gas connection. The remainder of the 146 buildings, with the exception of one demountable hangar, the bachelor officers quarters, the water pump station, and the waste treatment facilities, were completed by the end of December 1941. The remainder of the initial construction phase was completed in February 1942 and the base was fully operational in time for the arrival of the first class of pilot cadets on February 25, 1942.

The name of the base was officially changed to Williams Field on the day before the cadets arrived. In keeping with the Air Corps tradition of naming permanent air fields for deceased officer pilots, Williams Field was named in honor of 1st Lt. Charles Linton Williams, an Arizona born pilot, who died on July 6, 1927, when his Boeing PW-9A pursuit aircraft crashed near Ft. DeRusy, Hawaii.

With the rapid increase in aircraft production during mid-1942, the Air Corps' flying training programs gained momentum, and expanded facilities were planned for many of the flying training fields established the previous year. At Williams Field, plans called for the addition of about 140 new structures including barracks, warehouses, shops, training classrooms, ammunition storage bunkers and airplane maintenance hangars. By June 1942, construction was underway on most of those structures. By the end of 1942, the second phase of building construction and development at Williams Field had been completed.

Due to war-time secrecy, publicity concerning most of the specific construction activity at the base was greatly curtailed. However, by December 1942, the base had increased in population to an estimated 3,300 military personnel and was supporting full scale twin engine advanced flying training and bombardier training classes.

The last major construction program undertaken at Williams Field prior to the end of World War II was undertaken in late 1942

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and completed in mid-March 1943. The project involved the construction of 55 married personnel duplex houses and two additional barracks. Prior to that time, all married military personnel, including the base commander, lived off base in rental housing in Chandler. The next major construction effort at the base did not occur until 1951 when the 500-unit Wherry Housing Project was completed in December of that year.

#### Williams Field Base Plan and Architectural Theme. 1941 to 1944

Like most military air fields constructed during the early 1940s, Williams Field was planned by the Army Corps of Engineers. In most instances, the base plans created by the Corps of Engineers were similarly designed and reflected both the traditional nature of army post planning, and the unique requirements of air base facilities.

The fundamental planning concepts for the Air Corps army air fields are connected to the traditional army post plans dating to the nineteenth century. In general, those plans were symmetrically arranged about a large parade ground, dominated at one end of its longitudinal axis by the post command building, and flagpole. Civic oriented structures, such as a hospital, library, or post exchange were located at the opposite end of the axis. The parade ground also separated the officers quarters on one side from the enlisted men's barracks and mess halls on the other side. Beyond the barracks were warehouses, shops, stables, and other logistics-related buildings.

The basic traditional concepts of Army post plans were mimicked in the Air Corps bases, but with the addition of the facility's most dominant features: runways, aprons, and airplane hangars. The central idea of symmetry continued to dominate most air field plans, but the parade ground was replaced by a long series of blocks on the longitudinal axis bounded by parallel boulevards and extending from the base entrance to the flight line. The base headquarters building, flagpole, and modest parade ground provided the focal point at the entrance end of the axis, and the base operation building located by the flight line, providing the terminus for the other end of the axis. The intervening civic blocks contained most functions common to all base personnel including a library, post office, chapel, base exchange, commissary, recreation facilities, and other service-oriented structures.

Like the traditional army post plans, the central element of the plan served to separate officers quarters from enlisted men's quarters. Similarly, the basic operational facilities were located beyond the enlisted men's quarters, and included warehouses, depots, storage buildings, shops, and so forth. The areas along the flightline were developed with orderly rows of aircraft hangars, and a central flight tower and communications building.

Williams Field is one of a number of air fields which exemplify the typical design concepts developed by the Army Corps of Engineers during the dramatic base expansion program of the early 1940s. Other existing bases in the west built as flying training schools that illustrate those planning ideas include Merced Field (Castle AFB), Victorville Air Field (George AFB) and Luke Field (Luke AFB).

The original architectural appearance at Williams Field was best characterized as orderly, simple, and functional. As with nearly all Army Air Corps fields built during the early 1940s, the buildings were constructed from standard designs created by the Army Corps of Engineers or the Office of the Quartermaster General. So standardized were the designs that, in some instances, the structures were mass produced by a single contractor and then the parts shipped to the various fields for erection.

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Most buildings, regardless of function, took on virtually the same appearance. Whether they were used for offices, barracks, warchouses, or chapels, the buildings embodied the same method of construction, materials, detailing, and stylistic reference. As a style, the buildings at Williams Field can generally be classified as Minimal Traditional, an architectural theme that gained popularity during the late 1930s. The style emphasized simplicity of overall appearance with a minimum of decoration based on the American Colonial or European traditional styles.

The Army Air Corps' version of that style, as illustrated at Williams Field, included simple geometric building plans, usually rectangular or "H" shaped, which were covered with gabled or cross gabled roofs. Most standard buildings were wood-framed structures, sheathed with horizontal shiplap siding. Windows and doors were symmetrically and evenly located on the wall planes. Stylistic details were limited to classical shaped cornice moldings at the eaves, and Colonial Style six over six lite, or 8 over 8 lite double hung, wood windows.

The aircraft maintenance hangars represented at Williams Field best illustrate the Army Air Corps reliance on standard designs for air field facilities. They also illustrate the engineering requirements, such as long, clear spans for roof structures, necessary to accommodate their function. The hangars, erected during the air field construction programs of the 1940s, were engineered and built by single contractors, usually steel fabricators, and then shipped to the local air field general contractor for assembly. Many were also designed to be dismantled or "demounted" and moved to another location as needed. The most distinctive characteristics of the aircraft hangars were the use of steel trusses with spans ranging form 80 to 180 feet, and the system of oversized, telescoping sliding hangar doors.

Taken as a whole, the architectural and engineering solutions to the massive construction effort undertaken by the Army Air Corps during the 1940s, represent a unique aspect of military, as well as architectural history. The buildings and structures remaining from that period are easily recognizable as products of the military and, regardless of location, embody the history of the Army Air Corps and its growth during World War II. They illustrate rare examples of a once common type, and as such exemplify not only their specific function or purpose, but also their association with the beginnings of today's Air Training Command.

## NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section <u>F</u> Page <u>F.1</u>

Historic Resources of Williams Air Force Base, Arizona

Name of Multiple Property Listing

## F. Associated Property Types

### I. Name of Property Type: Military Aircraft Maintenance Facility

#### II. Description

The Military Aircraft Maintenance Facility property type consists exclusively of Aircraft Hangars. The defining physical characteristics of this property type relate to function, design, structural type, size, scale, materials, and siting. The most important functional requirement is the enclosure of large spaces without intervening walls or columns. Consequently, the characteristics of design and structural type, size, scale, and materials will be common to all Aircraft Hangars of the period. The most distinctive features are the use of steel trusses with long, clear spans ranging from 80 to 180 feet, and a system of oversized telescoping sliding hangar doors. Wall sheathing is almost always corrugated sheet metal. Roofing material may be sheet metal or rolled asphalt roofing. The siting of Aircraft Hangars is also a common trait. All will be located adjacent to the flight line and runway aprons.

Associative characteristics of the property type relate to the function of Aircraft Hangars as a necessary component of all World War II - era military airfields. Aircraft maintenance was an important operational activity at airfields and Aircraft Hangars are the most dominant physical illustration of that function. The location and siting of Aircraft Hangars adjacent to the flight line, as well as their size, scale, and design, are associative characteristics that help convey the historical link between the property type and its role in the significant military programs at the base.

#### III. Significance

The Military Aircraft Maintenance Facility property type is significant for its association with the massive airfield facilities construction effort undertaken by the Army Air Corps between 1941 and 1945. In 1934 the Army possessed about 1700 aircraft. By 1944 that number had grown to 80,000 aircraft located at 128 airfields nationwide. The Military Aircraft Maintenance Facility property type is an important illustration of that era of great expansion. It is also representative of the initiation of new designs for its type that were based on the need for rapid construction and greater structural capacities. As a result most aircraft hangars were built from standardized designs with the structural components, such as steel trusses, manufactured by a single contractor before being shipped to each site for erection. The property type exemplifies not only its specific function and purpose, but also one of the most important periods in the history of the United States Air Force.

#### **IV.** Registration Requirements

The types of integrity that should be present as a requirement for registration are design, materials, setting, location, feeling, and association. Since all examples will be large enclosed buildings or structures, the original integrity of the structural system, such as steel trusses, must be present. Retention of sliding, telescoping hangar doors and exterior wall sheathing is also important. Because Aircraft Hangars relate to aircraft maintenance, their location and setting adjacent to the flight line and runway aprons is a necessary type of integrity that must be present.

# NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section <u>F</u> Page <u>F 2</u>

Historic Resources of Williams Air Force Base, Arizona

Name of Multiple Property Listing

## **Registration Requirements (Continued)**

The most important physical characteristics that the property must possess to qualify for the National Register relate to its overall design, in terms of shape and form, and its location adjacent to the flight line. The design is directly associated with function, and it is conveyed physically by the enclosure of large spaces without intervening walls or height restrictions. That characteristic of design is most evidenced by the structural type and method of construction. Therefore physical characteristics must include the principal features of aircract hangars such as steel trusses with long, clear spans, and large shapes in terms of height, length and width. An additional physical characteristic of the property type is its proximity to the flight line, a characteristic which helps convey its associative qualities as representative of World War II-era air training programs as well as military aircraft maintenance processes.

The associative quality that distinguishes the aircraft maintenance hangar property type, and which should be present to qualify for listing on the National Register, is the link between its function and purpose, and the significant role of the base as a World War II military flying training facility. An aircraft maintenance hangar that possesses the types of integrity and physical characteristics previously identified, should clearly evoke an association with the historic operation of the base and its significant flying training programs. The property type should readily convey the association of its construction or development as a facility intended to meet one or more principal needs of the air corps, and the essential mission of training programs at the base during the World War II era. Finally, associative qualities of the property type should provide a direct insight into the beginnings and early growth of the base and its significant role in military preparedness during World War II.

## NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section <u>F</u> Page <u>F.3</u>

Historic Resources of Williams Air Force Base, Arizona Name of Multiple Property Listing

#### I. Name of Property Type: Military Facility

#### II. Description

The Military Facility Property Type consists of a range of buildings, structures, and objects whose primary function is derived from military utility. The overriding physical and associative characteristic of the property type is the value placed on the practical rather than aesthetic qualities of those resources. The primary defining physical characteristics relate to design and materials. Another important aspect that may be present is the property's specialized function that resulted in an unique design solution affecting shape or materials. Property types of a specialized function are usually structures or objects rather than buildings. Examples include bunkers, water towers, and flagpoles.

Most buildings, regardless of function, will take on virtually the same appearance. Whether they are offices, barracks, warehouses, or chapels, the buildings will embody the same method of construction, materials, detailing, and stylistic references. As a style, the buildings can generally be classified as Minimal Traditional, an architectural theme that gained popularity during the late 1930s. The style emphasized simplicity of overall appearance with a minimum of decoration. As such, the style was easily adaptable to military buildings.

Physical characteristics include simple geometric building plans, which are covered with gable roofs. Most buildings are of wood frame construction, sheathed with horizontal shiplap siding. Windows and doors are usually symmetrical and evenly located on the wall planes. Stylistic details are usually limited to classical shaped cornice moldings and Colonial Revival style double hung windows.

#### III. Significance

The Military Facility property type is significant for its association with the rapid construction of military bases and facilities during the World War II era. Their construction or development was intended to meet a specific need required for the proper operation of the base. No building was frivolously constructed: all had an important role as a component of the overall plan of the facility. The property type also embodies the distinctive qualities of military architecture: order, simplicity, and function. They are significant as representative of nearly all Army Air Corps buildings built during the 1940s, which almost always were constructed from standard designs created by the Army Corps of Engineers, or the Office of the Quartermaster General. The buildings and structures from that period are easily recognizable as products of the military, and embody the architectural history, as well as the historic mission of the Army Air Corps and its growth during World War II.

#### **IV.** Registration Requirements

The type of integrity that should be present as a requirement for registration are design, materials, workmanship, and location. Since most buildings are constructed of similar materials, such as wood shiplap siding, and have similar design elements, such as Colonial Revival style windows and gable roofs, design and materials are the most important types of integrity that should be retained. For functionally specialized structures, such as bunkers, or water towers,

## NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

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#### Historic Resources of Williams Air Force Base, Arizona

Name of Multiple Property Listing

#### IV. Registration Requirements (continued)

integrity of design and materials is particularly important since they help convey the purpose and nature of the resources. Integrity of location is also important because the property type's significance is connected to its association with the initial planning and World War II-era development of the military base.

The most important physical characteristics that the Military Facility property type must convey to qualify for the National Register is its overall design, including use of materials and method of construction. Those characteristics are directly associated with the appearance of World War II-era Army Air Corps military facility architecture. A building or a structure's style, the materials and the processes used to construct them, are distinct from those used by the military in the 1950s or any other subsequent period. The physical characteristics of the Minimal Traditional style, the use of wood frame or cast concrete construction, and the standardized use of certain building components such as windows and wall sheathing, are peculiar to World War II military architecture. The resources that possess those physical characteristics visually provide an associative link to the initial development of the base and its significant role in the military flying training programs during World War II.

The associative quality that most distinguishes the Military Facility property type as important, is the connection between its purpose and function and the advent and rapid development of dozens of military facilities needed to support the important flying training programs during World War II. The role of those buildings, structures or objects in the overall scheme of the operation of a military base was specific and purposeful. Military Facility property types that possess the integrity and physical characteristics previously defined, should easily convey their association with the early history of military flying training facilities. The property type represents the infrastructure of the base and as such demonstrates the comprehensive planning and development that was necessary for the proper operation of the facility and the fulfillment of the Army Air Corps' important historic mission of providing flying training programs during World War II.

#### G. Geographical Data

Acreage of Property 897 acres

UTM References (Place additional UTM references on a continuation sheet)

Zone Easting Northing Zone Easting Northing 1 <u>12</u> <u>437380</u> <u>3686322</u> <u>3 12</u> <u>438080</u> <u>3685055</u> 2 <u>12</u> <u>438080</u> <u>3685590</u> <u>4 12</u> <u>436725</u> <u>3683750</u> <u>x</u> See continuation sheet.

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet.)

Boundary Justification (Explain why the boundaries were selected on a continuation sheet.)

**H. Summary of Identification and Evaluation Methods** (Discuss the methods used in developing the multiple property listing on one or more continuation sheets.)

I. Major Bibliographical References (List major written works and primary location of additional documentation: State Historic Preservation Office, other State agency, Federal agency, local government, university, or other, specifying repository.)

**Bibliography** (Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

#### Previous documentation on file (NPS)

\_\_\_\_ preliminary determination of individual listing (36 CFR 67) has been requested.

- \_\_\_\_ previously listed in the National Register
- \_\_\_\_ previously determined eligible by the National Register
- \_\_\_\_ designated a National Historic Landmark
- \_\_\_\_ recorded by Historic American Buildings Survey #\_
- \_\_\_\_ recorded by Historic American Engineering Record # \_\_\_\_\_

#### Primary Location of Additional Data:

- <u>x</u> State Historic Preservation Office
- \_\_\_ Other State agency
- \_\_\_\_ Federal agency
- \_\_\_ Local government
- \_\_\_\_ University
- \_\_\_ Other

Name of repository: \_\_\_\_\_

## NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section <u>G</u> Page <u>G.1</u>

Historic Resources of Williams Air Force Base, Arizona Name of Multiple Property Listing

## G. Geographical Data

#### **UTM References (Continued)**

	Zone	Easting	Northing
(5)	12	436140	3683750
(6)	12	436140	3685545
(7)	12	436400	3686322

#### **Verbal Boundary Description**

The boundary of the multiple property listing are delineated by the dashed line shown on the accompanying map titled "Historic Resources of Williams Air Force Base, 1993."

#### **Boundary Justification**

The boundaries of the multiple property listing includes the original base plan, the three tie down aprons and an area to the south of the original base plan historically used by the military for ammunition storage and waste treatment facilities. Located within the Williams AFB boundary is the Midvale Archaeological Site, a property listed on the National Register of Historic Places.

## NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section <u>H</u> Page <u>H.1</u>

#### Historic Resources of Williams Air Force Base, Arizona

Name of Multiple Property Listing

## H. <u>Summary of Identification and Evaluation Methods</u>

In 1991, the Defense Base Closure and Realignment Commission recommended a list of military bases for closure pursuant to the Defense Base Closure and Realignment Act of 1990. Williams Air Force Base was among the facilities on the Commission's list. The recommendations of the Commission were approved by the President on July 17, 1991, and submitted to Congress. The base closure and realignment list was not disapproved by Congress, hence the Commission list became law and is final. Williams Air Force base is scheduled to close in September 1993.

As part of the base disposal process, the Air Force prepared an Environmental Impact Statement (EIS). HALLIBURTON NUS Corporation was contracted to prepare the EIS. HALLIBURTON NUS subcontracted with the Woodward Architectural Group in 1992 to prepare the <u>Williams Air Force Base Historic Building Survey</u> as part of the EIS process.

The multiple property listing of historic resources at Williams Air Force Base, Arizona, is based on this 1992 historic building survey of Williams Air Force Base. The survey was conducted in accordance with the Arizona State Historic Preservation Office's "Guidelines for Historic Property Surveys." The <u>Williams Air Force Base Historic Building Survey</u> documented and assessed the significance of the 34 remaining pre-1945 buildings located at Williams Air Force Base. The report also provided an evaluation of each historic building, presented a related Historic Context Statement, and made recommendations of eligibility for listing on the National Register of Historic Places.

As part of the <u>Williams Air Force Base Historic Building Survey</u>, both field documentation and historic research was conducted on the 34 extant historic buildings at the base. The field documentation recorded the physical appearance and integrity of the 34 historic buildings, while the historic research was focused on uncovering site specific information on each building and on developing and documenting a related historic context statement.

Once the field documentation and historic research was evaluated and analyzed, the Historic Context Statement was prepared. The Historic Context Statement relates the specific history of the base to larger trends or patterns in American history, thus providing the basis for evaluating the significance of historic resources as illustrative of those trends or patterns. The establishment and early development of Williams Air Force Base is directly related to its original mission and function as one of a number of Army Air Corps flying training bases built during World War II. In light of that context, themes were identified which dealt with the broadest concept of the history of U.S. military flying training programs to the specific development of Williams Air Force Base as exemplary of those programs.

The evaluation of specific historic buildings at Williams Air Force Base in terms of their eligibility to the National Register was undertaken after the historic context was established. Building evaluation centered on two concepts: the resource's functional association with initial development of the base as a flying training facility; and the level of original physical integrity that the building still possesses. Eligible buildings should embody sufficient physical integrity to evoke a sense of time and place and readily illustrate the historical themes to which they are associated. The buildings which possessed those characteristics were recommended as eligible for listing on the National Register.

## NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Section \_\_\_ Page \_\_\_\_

Historic Resources of Williams Air Force Base, Arizona Name of Multiple Property Listing

## I. Major Bibliographical References

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