

KELLY AIR FORCE BASE, WAREHOUSE
(Kelly Air Force Base, Building 912)
Hall Street
San Antonio
Bexar County
Texas

HABS No. TX-3396-AD

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

FIELD RECORDS

HISTORIC AMERICAN BUILDING SURVEY
Southwest System Support Office
National Park Service
P.O. Box 728
Santa Fe, New Mexico 87504

HISTORIC AMERICAN BUILDINGS SURVEY

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(Kelly Air Force Force Base. Building 912)
Hall Street
San Antonio
Bexar County
Texas

HABS No. TX-3396-AD

Location: Approximately 8 miles southwest of downtown San Antonio, in the vicinity of San Antonio, Bexar County, Texas

Hall Street
Kelly Air Force Base
San Antonio
Bexar County
Texas

UTM Coordinates: Zone 14,
Northing: 563000, Easting 2135000
(San Antonio, Texas 7.5-minute USGS Quadrangle)

Date of Construction: September 11, 1943

Present Owner: United States Air Force
Kelly Air Force Base
San Antonio, Texas 78241

Current Occupants: 76 CEG/CEZFC
Base Civil Engineering
Kelly Air Force Base
and
Air Force Reserve
433rd CES Civil Engineering
Kelly Air Force Base

Original Owners: United States Army; U.S. Army Air Force (Kelly Field)

Original Use: Functioned as an organization training unit supply building or warehouse where various units stored equipment required for the execution of their particular missions

Current Use: Office space and storage facility for various supplies and equipment owned and operated by the current occupants

Significance:

Building 912 was completed on September 16, 1943, and was used as an organization training unit supply building or warehouse where various units stored equipment required for the execution of their particular missions. The three semipermanent, prefabricated, metal units that comprise Warehouse, Building Number 912, were completed shortly after the depot activities, originally located at Duncan Air Field, expanded into those on the former Kelly Field No. 2. This simple and cost-effective warehouse represents an expedient solution to the enormous demands placed on the San Antonio Air Service Command (1943), San Antonio Air Technical Service Command (1944-1946), and San Antonio Air Materiel Area (1946-1974) for storage and supply space.

Building 912 is eligible for nomination to the National Register of Historic Places (National Register) because its construction and use were associated with the operations of the San Antonio Air Service and other commands during World War II when present-day Kelly Air Force Base (AFB) was the location of one of the largest aviation depots in the world, and maintained or had control command for logistics at 46 sub-depots, 24 air depot detachments, 3 air depot trainings, and 3 specialized storage depots. As such, Building 912, which retains a high degree of integrity, is eligible for nomination to the National Register under Criterion A because it was a part of Kelly AFB, which was strongly associated with World War II and to the subsequent demobilization when materiel was returned to the depot, filling its warehouse space, including Building 912. The building is also eligible under Criterion C because it exhibits distinct characteristics of a particular construction type (World War II-era pre-fabricated warehouse facilities). These exceptional characteristics are also associated with national significance (World War II).

PART I. HISTORICAL INFORMATION

A. Physical History:

1. Date of Construction:

September 11, 1943
(Work Order No. 10-1276)

2. Architect:

Unknown

3. Original and Subsequent Owners:

U. S. Army Air Force, U. S. Air Force

4. Builder, Contractor, Suppliers:

Builder: U. S. Army Corps of Engineers, Galveston District, Galveston, Texas

Contractor: Unknown

Suppliers: Butler Manufacturing Company, Kansas City, Missouri

5. Original Plans and Construction:

No original construction drawings or plans exist. One 1956 remodeling floor plan drawing (number 43-361) of the structure exists. This drawing is in good condition and is on file in the Civil Engineering Department at Kelly AFB.

6. Alterations and Additions:

Building 912 retains its basic original exterior configuration. Minor modifications to the interior have occurred and are listed below.

A short history and modification chronology, taken directly from the U.S. Air Force real property records for Building 912, are as follows:

<u>Date of Modification:</u>	<u>Description</u>
09/11/43	Water, gas, sewer, and air lines installed on site
09/11/43	Warehouse No. 912 erected (\$17,441.47)
10/01/52	Construction of office in building
05/07/53	Install restroom stalls
11/17/54	Install drinking fountain
03/28/55	Increase building dimensions by 107 square feet
01/20/66	Change designated construction type from semipermanent to permanent
01/23/68	Enclose office area

B. Historical Context:

Kelly Field. In August 1913, U.S. Army Chief Signal Officer Brigadier General George Scriven testified before the United States House of Representatives concerning the establishment of a military aeronautical center in San Antonio, Texas. The center was to be built for the Aviation Section of the U.S. Army Signal Corps. General Scriven, expressing an opinion endorsed by his subordinate officer, Captain Billy Mitchell, described San Antonio as “the most important strategic position of the South.” Three years later, when Fort Sam Houston was the primary site of the Corps’ aerial equipment and personnel, *The San Antonio Light* predicted that the city would be “the most important military aviation center in the United States.”

The center of military aviation that had been envisioned arrived with the establishment of Camp Kelly, an aviation camp established in 1917 on farmland in south San Antonio and designated in 1922 as the Air Force’s Advanced Flying School. A proving ground for aviators during the 1920s and the location of the Air Corps Training Center, Camp Kelly coordinated all Air Corps training in the United States between 1926 and 1931. In the 1930s, Kelly provided advanced training for young American fliers and became the “Alma Mater” of nearly all the Air Corps pilots before World War II.

The U.S. Army Air Service was created out of the Army Signal Corps in 1918 as a separate and equal arm under the Army. In 1926, the Air Corps Act created the U.S. Army Air Corps, with representation on the General Staff of the Defense Department. The Air Service needed trained pilots and required a complex logistics network. Already a leader in the training of aviators, Kelly was also prominent in the training of non-flying support crews, and in the supply and maintenance of the equipment necessary for an effective Air Corps. The ties between logistical support and combat capability were close and resulted in the location of the Air Depot on a portion of present-day Kelly AFB in 1926. The San Antonio Air Depot was one of three Air Service repair and supply depots in the United States that survived the post-World War I demobilization effort. It was one of four air depots in the country after 1926 and the facility where up to one-third of the Army’s aircraft were maintained. By 1943, the Depot had become one of the world’s largest such installations; by the end of World War II, Kelly’s depot functions overshadowed its role in flight training.

Kelly Field, 1916-1918. The years leading up to American involvement in World War I had been innovative but frustrating ones for those who believed in the wartime potential of air power. In 1916, largely because of sporadic and insufficient funding, the United States lacked not only a cadre of trained fliers and ground crews on whom to build an aerial combat force, but also the necessary training and flying fields, airplanes, and technology. Toward the end of 1916, however, initial plans were developed to rectify that situation. San Antonio was identified as the future home station for new aero units, and a new field in south San Antonio (Kelly Field) became the nation’s fourth Army training field by April 1917.

The return of Major Benjamin Foulois to San Antonio in 1916 marked a first step in the development of the country's largest airfield. Soon after his arrival, Foulois scouted the general area of San Antonio and identified what appeared to be an ideal tract along Leon Creek, approximately 8 miles southwest of downtown San Antonio. Chief Signal Officer General Scriven approved Foulois' choice on November 21, 1916, and the San Antonio Chamber of Commerce offered to help acquire a lease to the property (money for land purchase had not been included in earlier Congressional appropriations). In the beginning of 1917, the War Department authorized General Frederick Funston, Commander of the Southern Department (of the Signal Corps), to lease the land selected by Foulois. When diplomatic relations broke off with Germany, Foulois replaced Major William Mitchell as assistant to the Chief of the Aviation Section, Office of the Chief Signal Officer; Captain Townsend F. Dodd replaced Foulois as Chief Aviation Officer of the Southern Department. With Dodd's arrival in San Antonio on March 19, 1917, events moved forward rapidly on Camp Kelly (as Kelly Field was originally called). On April 5, 1917, the first airplanes from the Third Aero Squadron were flown from Fort Sam Houston to Kelly Field.

With the aviation camp rapidly filling with new arrivals, in May 1917, General James Parker, Commander of the Southern Department, officially designated the site "Camp Kelly," in honor of Second Lieutenant George E.M. Kelly who had died in an airplane crash at Fort Sam Houston on May 10, 1911 (Isbell 1962:75; Office of History [1980]:9). With the completion of temporary and permanent facilities, by June 1917, Camp Kelly had become the main construction and mobilization center for nonflying personnel in the Air Service.

By 1917, it was apparent that the land acquired for Camp Kelly was insufficient to accommodate new facilities and the growing numbers of recruits. In a repeat of their December 1916 actions, the San Antonio Chamber of Commerce worked to obtain leases for additional land, which it then sublet to the government. The numerous property parcels that became known as Kelly Field No. 2 were adjacent to Camp Kelly, and extended west and south to Leon Creek. Formalities with the military government were completed by mid-July 1917, and a double-unit flying school was scheduled to be built and called Kelly Field No. 2. Simultaneously, complementary programs took shape at Camp Kelly.

On July 30, 1917, the name "Camp Kelly," which had been applied to the aviation camp east of Frio Road, was changed to "Kelly Field." Thereafter, the older, original portion of the base was known as "Kelly Field No. 1" and the more recent portion (west of Frio Road) was referred to as "Kelly Field No. 2."

Kelly Field, 1918-1926. The signing of the Armistice in 1918 was followed by demobilization efforts throughout the United States. Strong isolationist tendencies asserted themselves in America, and Congress cut military appropriations dramatically. With decreased funding, the Air Service experienced cutbacks in personnel and equipment. Rapid changes in the status of the Air Service after 1918 and the effects of years of debate concerning air policy were reflected in the

development of Kelly Field. The hectic pace of World War I activities at Kelly halted abruptly as demobilization and cuts in funding reduced the facility's population and brought most new construction to a halt. However, several idle years at the Kelly Field No. 2 flying school were followed by the centralization of all Air Service flight training in San Antonio and the designation of Kelly as the nation's Advanced Flying School in 1922. After 1922, Kelly Field was the location of a nationally significant training program. A second important mission was located at the older Kelly Field No. 1 facility where supply and maintenance activities were located.

At the beginning of 1925, Kelly Field was home to both the Advanced Flying School and the San Antonio Air Depot, divergent functions that complicated local administration. Although it would be another year before the combination of the Lassiter and Morrow Boards' reports, lobbying by Air Service leaders, and a congressional investigation would result in the passage of the Air Corps Act of 1926, the Air Service was already concerned with the need to develop an organization that would separate flying and support activities. Thus, in March 1925, Kelly Field No. 1, the site of the depot, was renamed Duncan Air Field, formally separating the activities of the depot from those of the flyers on Kelly Field No. 2, which retained the designation Kelly Field. Creation of the Air Corps Materiel Division a year later (as part of the reorganization called for by the Air Corps Act) merely confirmed this separate command structure of the Army's air arm.

Kelly and Duncan Fields, 1926-1936. The years from 1918 to early 1926 had seen a major downturn in the fortunes of the Air Service in the United States, but the succeeding decade was one of significant retrenchment and readjustment. Change within the military arena was paralleled by almost cataclysmic change in the civilian realm as the prosperous 1920s were followed by a decade of economic depression. Thousands of citizens were left jobless by the early 1930s, and in Texas, Bexar County experienced an unemployment rate that exceeded that of any of the other counties in the State. The federal response to the unemployment crisis took several forms, among which were the Public Works Administration (P.W.A.), Civil Works Administration (C.W.A.), and Works Progress Administration (W.P.A.). At Kelly No. 2 and Duncan Fields, the construction projects completed under the various federal work programs, together with the innovative military programs called for by changes in national policy, ensured that the decade 1926-1936 was an eventful one. Kelly Field continued as one of the most advanced flying schools in the nation, while Duncan Field maintained operations as a premiere air depot.

Kelly and Duncan Fields, 1936-1946. With the implications of U.S. involvement in the war, strategists realized that it would be wise to build and train an effective air force. President Roosevelt immediately took steps to build American air power. In 1938-1939, Roosevelt proposed to spend \$300 million for an expansion of the Air Corps: \$130 million was spent on training personnel and \$170 million was spent on new airplanes, new air bases, and new construction at old air bases (Office of History [1980]:64).

By 1941, when the Army Air Force was established, the Air Corps had expanded enormously. In particular, the War Department had formulated new goals not only for the production of combat aircraft but for the training of thousands of enlisted military aircrew members to fly and maintain them. The new goals necessitated the creation of scores of new flying schools and the upgrading of facilities at already established schools. It also required the upgrading of facilities, such as depots that supported the war effort through maintenance, repair, supply, and testing of equipment.

As two of the Air Corps' most important facilities, Kelly and Duncan fields experienced unprecedented growth and change between 1936 and 1946. A representative of the Office of the U.S. Inspector General visited Kelly Field in August 1937 to determine its condition and potential, if and when hostilities occurred. The Inspector General concluded that training at the Advanced Flying School was severely hampered by both obsolete aircraft and physical facilities that were either "on their last legs" or of an inadequate size to accommodate modern aircraft. Nevertheless, he concluded that "Kelly Field was one of the foundation stones upon which the entire personnel structure of the Air Corps rested ..." (Office of History 1980:42,44). It was probably this report that led the Assistant Chief of the Air Corps (and former commander of Kelly Field in the 1920s), Brigadier General James E. Chaney, to recommend the reconstruction of the entire post as soon as possible (Office of History 1980:31,44).

Expansion of personnel and facilities at Kelly Field No. 2 was paralleled by expansion at Duncan Field, the largest and oldest air depot in the United States. Scores of new buildings were constructed there in the early 1940s to support personnel who maintained the new airplanes used to train pilots at the numerous San Antonio flying fields. By early 1943, flying activities had shut down at Kelly Field, and Kelly and Duncan fields merged for the first time since 1925 under the name Kelly Field. The sole function of the new field was maintenance and supply, and flight training moved elsewhere for the first time since 1917. World War II turned Kelly Field into a huge industrial complex in which a workforce of more than 30,000 employees overhauled equipment.

Just as demobilization had a profound impact on Kelly Field after World War I, it also had a major effect after the end of World War II in August 1945. Thousands of civilian workers resigned or were retired, and the remaining staff turned increasingly from repair to storage. The work effort also focused on supporting occupation forces in Europe and Japan with air transportation, communication, and weather systems. Subsequent conflicts brought periodic change to Kelly Field, but the dedication of its facilities to the Air Force mission remained consistent (Arias 1988:5,10).

Kelly Field Facilities. By the end of 1936, Kelly Field appeared much as it had since the Armistice of November 1918. Essentially a Kahn-designed, World War I-vintage airfield, Kelly Field remained virtually architecturally unchanged for almost 20 years. The government's primary contribution to the updating of facilities prior to 1940 resulted in the construction of the

impressive Miniature Range Building (Building 1625) between 1936 and 1937, a structure that reflected the increasing emphasis the Air Corps placed on bombardment and related training during the 1930s.

The stability of Kelly Field's visual appearance until 1936 was reflected in the programs of its Advanced Flying School, the organization that provided advanced instruction to all cadets in the U.S. Army Air Corps. In the late 1930s, however, the Air Corps prepared for major expansion as Europe moved closer to war, and the field became the location for a major rebuilding project. Specialized programs were developed to train thousands of new pilots. Between 1939 and March 11, 1943, when the training function ceased, 7,123 men entered and 6,845 men graduated from advanced flight training at Kelly Field. The Navigation School, which operated between 1941 and 1942, graduated 607 men; the Instructors' School, which was activated in August 1942 and moved to Randolph Field in February 1943, graduated 1,691 men.

Significant Air Corps expansion began after January 1939 at Kelly Field, when President Franklin Roosevelt requested \$300 million dollars from Congress for defensive aviation. A large portion of that funding went to new airplanes and other related equipment, and to physical facilities. Another portion went to the development of training programs.

Organizational and training activities, such as those carried out at the Advanced Flying School, Replacement Training Center, and Reception (Classification) Center, required extensive physical facilities in order to accommodate the large number of new cadets, instructors, administrative and support staff, and training equipment. For the most part, the necessary infrastructure was available at the World War I Kelly Field No. 2 facility to support that mission; however, there was strong interest in redeveloping portions of the base by constructing more permanent facilities that were appropriate to Kelly's expanded training role.

As early as 1936, the Shepherd Bill had earmarked \$1.73 million for new construction; the funding became available by mid-1938 (Historical Section A-2 n.d.:55). New construction occurred at the east end of the World War I flightline in the vicinity of the 1936-1937 Miniature Range Building and on "The Hill" west of Leon Creek. Secondary construction occurred at the west end of the flightline and in the vicinity of the wooden hangars where temporary tent cities were erected. Construction was both temporary and permanent in nature. Temporary construction was primarily wood frame whereas permanent work typically consisted of plastered hollow clay tiles or prefabricated metal. Both temporary and permanent structures were constructed widely on Army and Air Corps bases throughout the United States between 1929 and 1943.

A large influx of cadets and a complementary increase in staff resulted in the earliest construction projects at Kelly Field, the first of which included eight sets of officers' houses constructed between 1938 and 1940. By far the most expensive and ambitious project at Kelly Field occurred between 1939 and 1940, when two barracks and the Air Corps Academic Building

were constructed. New airplanes required larger hangars, and between 1939 and 1942, four new structures were built: the Air Corps Operational Hangar (Building 1610), a smaller hangar (Building 1612), and two more hangars (Buildings 909, 910). The remaining structures that were built as a result of the 1939-1942 building program clustered around the east end of the flightline and consisted of permanent and temporary facilities.

Among those facilities constructed during the 1939-1942 building program was Warehouse, Building 912, which was built in 1941. This one-story, prefabricated, Butler-type metal warehouse, located at the west end of the original flightline, functioned as an organizational training unit supply and storage building for the San Antonio Air Service and other commands during World War II.

Kelly and Duncan Fields: Post World War II-Era. When Kelly Field No. 2 and Duncan Field merged in 1943 under the name of Kelly Field, Kelly Field No. 2 lost its original mission, and aircrew training ceased (Office of History[1980]:59). Maintenance and supply became the sole function of the merged Kelly Field, and flight training was moved elsewhere. World War II operations at Kelly Field demanded a huge industrial complex in which a workforce of more than 30,000 people overhauled equipment. During this period storage space was at a premium on base; it was at this time that Warehouse, Building 912, was fully utilized as a storage unit. With the greater need for storage space, the entire Kelly Field complex used not only buildings on base, but expanded into what had been a depot for Fort Sam Houston, when Kelly annexed Normoyle Ordnance Depot in 1945.

Demobilization occurred after the end of World War II in August 1945. After the war, thousands of civilian workers retired or resigned, and the remaining staff at Kelly Field turned increasingly from repair to storage. The end of another world war also brought with it changes in missions; recognition of the Air Force as a separate department from the Army, co-equal in status with the Army and Navy; and a rechristening of Kelly Field on January 29, 1948, when the facility was named Kelly AFB (McGaffey [1955]:12). The base and staff had weathered enormous changes, greatly expanding in a decade, and shifting from dual missions of flight training and maintenance and supply to a single mission that changed the base into an enormous industrial complex. Although demands placed on the base resulted in the removal of many World War I-, pre-World War II-, and World War II-era structures, those that remain illustrate the evolution of one of the oldest continuously used Air Force flying fields. Evidence of Kelly's evolution and original mission is visible in the extant buildings constructed between 1936 and 1942 for the purpose of flight training and maintenance and supply. Warehouse, Building 912, is one of these remaining World War II-era buildings.

A Brief History of U.S. Military Base Closure. Due to the changing international political scene and the resultant shift toward a reduction in defense spending, the Department of Defense must realign and reduce its military forces pursuant to the Defense Base Closure and

Realignment Act (DBCRA) of 1990 (Public Law 101-510, Title XXIX). The Act established new procedures for closing military installations in the United States.

DBCRA also established an independent Defense Base Closure and Realignment Commission (Commission) to review the base closure and realignment recommendations. After reviewing these recommendations, the Commission forwarded its list of base closures and realignments to the President, who accepted the recommendations and submitted them to Congress. Since Congress did not disapprove the recommendations within the time period provided under DBCRA, the recommendations have become law. Among those bases recommended for realignment was Kelly AFB, Texas.

The National Environmental Policy Act of 1969 (NEPA) requires the analysis and documentation of potential environmental effects associated with all major federal decisions. NEPA ensures that environmental factors are considered equally with the technological and economic components of a decision, and that the public is fully informed and appropriately involved in the environmental analysis process. The Base Realignment and Closure (BRAC) laws specifically excluded from NEPA the need to consider alternative installations. However, all subsequent decisions related to BRAC actions fall fully within the NEPA requirements. These decisions include the timing of impacts, disposal and reuse of property, and all other activities associated with carrying out the BRAC mandate. Although compliance with many other environmental laws is also part of this process, NEPA provides a valuable framework for both integrating environmental compliance requirements, and providing necessary information to the decision maker, other agencies, and the public.

Because of this realignment, Kelly AFB is again undergoing extensive modifications and redevelopment. The demands placed on the base have resulted in the removal or scheduled removal of some World War I-, pre-World War II-, and World War II-era structures. Because of specific issues and demands placed on Warehouse, Building 912, including the overall need for more open space on base for new construction, health and safety issues, and being obsolete, the building is scheduled for demolition in mid- to late-1996.

Butler Manufacturing Company. The Kansas City, Missouri-based, Butler Manufacturing Company was founded in 1901 by 25-year-old sheet metal craftsman, Emanuel Norquist, and 33-year-old businessman, Charles Butler. The company began from Norquist's idea to produce livestock watering tanks from copper-bearing galvanized steel that would not rust or leak, and could be transported in one piece, with no assembly required. In the company's long history, hundreds of different products have appeared and disappeared; Butler has produced everything from rowboats to stilts, and from hog oilers to glove dryers. However, those products that have succeeded and have maintained Butler throughout the years include grain bins, stock tanks, garages, and rigid-frame structures, all of metal construction.

By 1907, having introduced its first galvanized steel bins, Butler was the grain bin industry's sales volume leader. In 1909, Norquist designed and built an all-steel framework garage with 16-gauge curved sheets and an arched roof measuring approximately 10 feet by 17 feet. Because the first prototype was too costly to mass produce and sell at a reasonable price for home use, lighter gauge designs with beads, lockseam edges, and corrugation patterns were applied to the framework. These new design efforts were more successful. By 1911, a more economical building design was developed, and the Butler garage entered mass production. In this quest to find an economical garage design, Norquist finally found the secret in grain bins. The rounded grain bin sheets could be used as roof and upper sidewall panels, drastically reducing the need and cost for structural steel supports. Growth in the sizes, styles, uses, and volume of buildings sold by Butler increased rapidly from 1911 forward. By the mid- to late 1920s, the economical buildings Butler designed to serve its oil equipment industry customers had also gained recognition for their usefulness, from garages to hamburger stands and even airplane hangars. Butler also became a primary participant in research at Iowa State College in 1938, helping to prove the superiority of cylindrical steel bins over wooden bins.

In 1939, when most of the company's energies and resources were committed to overcoming the lingering effects of the Depression, Butler won a contract to supply 14,500 steel grain bins (representing 29 million bushels of storage) to the U.S. Department of Agriculture. Another 6,000 bins were ordered mid-contract. Over the next 15 years, Butler's ability to respond to market demand exceeded that of any of their competitors, and as proof of this, they participated in six additional government grain bin programs during that time.

When the product line was reorganized in 1956, Butler expanded their market acceptance throughout the United States, Canada, and Great Britain. Products ranging from sophisticated new dry-cleaning equipment to higher capacity fuel truck tanks vied for company promotion with more exotic steel applications for swimming pools and prefabricated grandstands. Throughout the 1960s, 1970s, and 1980s, Butler continued to produce a variety of products including a number of all steel houses, the Space Grid building system, the D-3000 railroad car, an open web and truss building system, and the MR-24 roof system (redesigned for retrofit applications). Today, Butler continues to design and produce metal-related products just as they have for over 80 years.

Butler's Military Involvement. By the time World War I broke out in Europe in 1914, Butler was well into the oil tank market, and supplied hundreds of truck-mounted tanks to the Allied Forces. When the United States entered the war in 1917, Butler was recognized as one of the major manufacturers of gasoline truck tanks, and their truck-mounted fuel tanks were familiar sights on many airfields across the country. Butler established an office in Washington, DC, to manage war orders, and coordinate necessary supply and distribution. Butler's engineers worked directly with the U.S. War Department, who utilized Butler's experience in the design of truck tanks for use in war zones. Transporting oil, water, gasoline, and other liquids to the front lines was crucial. During World War II, Butler supplied 75 to 85 percent of all government truck tank purchases.

Although government defense orders for metal barrels and small tanks were abundant, Butler Manufacturing was challenged by occasional requests for solutions to the peculiar problems of supplying a war. In 1917, Butler received a request from the military to engineer and fabricate a 50-foot by 50-foot by 200-foot tall steel "Balloon House" for hot air balloons used in aerial reconnaissance. This building was bigger and heavier than anything Butler had made before. It was also simple in construction, so that inexperienced soldiers could erect it in the field.

With the advent of World War II, Butler accepted almost any product challenge presented by government for wartime applications. In 1941, Butler designed and produced the "Dymaxion Deployment Unit," a circular, rigid-frame, prefabricated structure. However, because steel remained on allocation, the government could not divert enough material to support any large contracts for these novel structures. Also during the war, three different types of airplane landing mats were designed to establish instant runways on soggy South Pacific islands. Every airfield also needed hangars for the airplanes, warehouses for supplies, and shelter for troops. With the knowledge gained from the World War I Balloon House and sufficient manufacturing capacity, Butler produced 90 percent of all the prefabricated steel hangars and warehouses purchased by the government during World War II.

Building No. 912 is an example of the prefabricated structures that were designed and constructed during World War II.

PART II. ARCHITECTURAL INFORMATION:

A. General Information

1. Architectural Character:

Building 912 is a one-story utilitarian building and does not fit into any established architectural classification.

2. Condition of the Fabric:

The building is in fair condition. Both the exterior and interior have been altered.

3. Summary Description:

Building 912 is a one-story utilitarian, three-unit, corrugated, lockseam metal structure. The rectangular-shaped building is capped with a corrugated, lockseam metal triple gable roof that reflects the three parallel units that are joined at the eaves. The foundation is concrete and the roof is covered with corrugated metal sheets. The prefabricated structure is pierced by a series of uniformly sized windows and doors on all elevations.

B. Description of Exterior

1. Overall Dimensions:

The structure measures 106 feet, 10 inches long, by 123 feet, 10 inches wide. The total square footage of the structure is approximately 19,916.

2. Foundations:

The raised foundation consists of a series of poured concrete slabs.

3. Wall Construction:

The wall construction consists of corrugated, standing seam iron sheets attached to a metal ribbed frame.

4. Structural Systems, Framing:

The framing system is based on a series of steel I-beam columns bolted to the concrete foundation. The roof truss for each structural unit (there are three parallel units) is further supported by rows of H-beam columns located below each unit's center eave. See sketch plan for truss work and column locations.

5. Openings:

5a. Doorways & Doors:

Originally, each structural unit was designed with large, wood-paneled overhead doors centered on the front and rear elevations. These doors have been replaced with large, metal, overhead doors on the front elevation bays and large, wood, swing-out doors on the rear elevation bays. The large wood-paneled overhead, roll-up doors remain intact and in the rolled-up position (but not in use) at the rear elevation bays.

Standard size metal two-panel entry doors with upper light originally punctuated each structural unit's right bay on both the front and rear elevations. All of the standard size, original two-panel, metal doors, except for one, have been replaced with hollow metal doors with or without upper glass panels. The one remaining original standard size door is intact and is located at the rear of the third structural unit (northwest corner).

5b. Windows:

Fenestration includes a series of two-over-two light, metal frame, horizontal pivoting windows along the east and west elevations of the structure. This same window type is also located between each of the exterior entry doors and roll-up doors on each structural unit's front and rear elevations. All of the windows along the east elevation and the first structural unit have been covered with sheet metal. All other exterior windows are covered with grid-pattern security bars.

6. Roof:

6a. Shape, Covering:

The moderately pitched, three gabled roof is covered with corrugated sheet metal.

C. Description of Interior:

1. Floor Plans:

Building 912 retains most of its original interior configuration, that is, rectangular in shape and open (see attached floor plan for details).

2. Flooring:

The interior flooring is concrete. The office and restroom floors are covered with heavy-duty linoleum squares.

3. Wall and Ceiling Finishes:

Interior wall finishes include plaster and dry-wall construction over wood studs. Ceiling finishes include dropped acoustical tiles in the office area and large wooden planks below the truss chords covered with masonite panels in the general warehouse area.

4. Openings:

4a. Doorways and Doors:

Interior doors include five-paneled wooden doors in the office area and paneled, wooden doors with upper light at the entrance of the two restrooms. The restroom doors are of thin plywood panels.

4b. Windows:

Building 912 contains no interior windows.

5. Mechanical Equipment:

5a. Heating, Air Conditioning, Ventilation:

Heating: the building was originally heated with space and suspended heating units of varying BTUs. Currently, the building is heated with personal space heaters.

Air Conditioning: The building was not originally air conditioned. Wall-mounted air conditioning units were installed directly into the metal walls of the structure in 1968 and throughout the 1970s. Currently, the building is air conditioned.

Ventilation: The long series of two-over-two light, metal frame, horizontal pivoting windows that extend along both side elevations provide the majority of ventilation for the building. The many roof vents that punctuate the triple-gabled roof also provide ventilation. The large wooden, louvered attic vents located at the apex of each structural unit's gable provide additional ventilation for the structure.

5b. Electrical:

The structure was originally furnished with one line, 110/220 volts. In 1968, an electrical panel (100 amps) and two outlets were installed at the rear of the office area located in structural unit number 1 (east unit). The original electrical service and distribution configuration remain intact.

The building retains one original exterior light fixture with hood located at the rear of structural unit number 3 (west unit) above the louvered attic vent at the gable's apex.

The interior of the general warehouse area retains the original suspended light fixtures. These fixtures are identical in type to the light fixture located on the exterior of the building.

In 1962, a total of 27 two-light fluorescent light fixtures and 2 three-light fluorescent light fixtures were installed in the office and restroom areas of the structure.

5c. Plumbing:

Building 912 contains one 6-inch sewer line, two lavatories, a men's room, and a women's room. Each restroom contains five tank toilets, four wall sinks (three in the men's), wooden toilet partitions, and a large space heater (women's room only; the men's room heater has been removed). The men's room also includes three porcelain wall urinals.

D. Site

1. Orientation and General Setting:

Located on a hill overlooking Leon Creek, Warehouse, Building No. 912, lies at the west end of Kelly AFB's North Taxiway Number 3.

PART III. SOURCES OF INFORMATION:

A. Original Architectural Drawings:

There are no original construction drawings for Building 912 on file at Kelly Air Force Base. There is one modification drawing plan (ca. 1956) for Building 912, on file in the Civil Engineering Department, Kelly Air Force Base:

Drawing Number:

43-361 Floor Plan; notes revision descriptions from 1955 to 1985

B. Historic Views:

All ephemeral material related to Building 912 is housed in the Base Historian's Office at Kelly Air Force Base. Related ephemeral material includes: outdated real property records and one 8x10 inch black and white photograph (1943).

C. Bibliography:

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E. Potential Sources Not Investigated:

Association for Preservation Technology, Fredericksburg, Virginia

City of San Antonio, Planning Department, San Antonio, Texas

Council on America's Military Past-USA, Fort Myer, Virginia

Fort Sam Houston, San Antonio, Texas

Lackland Air Force Base, San Antonio, Texas

Library of Congress, Washington, District of Columbia

National Archives, Washington, District of Columbia

National Building Museum, Washington, District of Columbia

National Trust for Historic Preservation, Washington, District of Columbia

Office of Military History, Department of the Army, Washington, District of Columbia

Preservation Texas Alliance, Austin, Texas

Randolph Air Force Base, San Antonio, Texas

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FLOOR PLAN

