

## Heritage Citation

# Archerfield Airport - Hangar & Interwar Buildings

### Key details

<b>Addresses</b>	At 381 Beatty Road, Archerfield, Queensland 4108
<b>Type of place</b>	Airport
<b>Period</b>	Interwar 1919-1939, World War II 1939-1945
<b>Style</b>	Functionalist
<b>Lot plan</b>	L2_SP200283
<b>Key dates</b>	Local Heritage Place Since — 1 July 2002 Date of Citation — April 2008
<b>Criterion for listing</b>	(A) Historical; (C) Scientific; (D) Representative; (F) Technical; (H) Historical association

Archerfield Aerodrome was Brisbane's commercial airport from 1931 until 1949. It is linked to a number of historic flights by aviation pioneers such as Charles Kingsford Smith and Lores Bonney. During World War II, it became a major airbase for the US Army's 5th Air Force and Archerfield also operated and repaired aircraft from the RAAF, the Royal Navy and units of the Netherlands East Indies forces. Significant buildings on the site include the Interwar Functionalist style terminal building (1941), several interwar hangars and other interwar buildings and two hangars constructed during World War II.

### History

The area immediately surrounding the aerodrome has only been known as Archerfield since 1929. From about 1826, the surrounding district was known as Cowper's [later Cooper's] Plains. It was named after the Moreton Bay Penal Settlement's first medical officer, Dr Henry Cowper, who, during his regular visits to Limestone Hill

[Ipswich], camped overnight on the government cattle run established on the grassy plains east of Oxley Creek, about 7 miles south of the Brisbane township.

The first freehold land in the district was made available in the 1850s while the remaining land was taken up for farming in the 1860s and 1870s. In 1855, Thomas Grenier purchased, from the New South Wales colonial government, 640 acres, much of which is now part of Archerfield Aerodrome. The Grenier family established a family burial plot on their property that developed into what is now known as God's Acre Historic Cemetery, situated at the entrance to the Aerodrome. The aerodrome land was transferred, in July 1856, to John and Isaac Markwell. The land was transferred in December 1878 to George and Samuel Grimes and then in March 1901 to Annie and Martin Finucane who subdivided the property. The land was transferred to the members of Spring and Sims families in the 1910s and 1920s. In July 1929, that part of the Brisbane City Council's Oxley Ward to be zoned for noxious trade under the recommendations of the 1928 Civic Survey, was renamed Archerfield by Council. This was so as to distinguish it from the surrounding residential and farming district. It never was part of the earlier Archerfield, a 14,000-acre homestead just south of Darra, around Blunder Creek, much of the present Durack, Doolandella, Forest Lake and Greenbank areas. Archerfield Road at Inala is believed to have been the track leading to the station homestead.

Brisbane's first aerodrome was established as a civil aerodrome at an Eagle Farm site that had been inspected, in February 1922, by Captain EC Johnston, Superintendent of Aerodromes, Civil Aviation Department. A grass airstrip was formed in 1923 and a layout for hangar blocks and a caretaker's cottage was prepared in February 1924. The Brisbane Civil Aviation hangar was constructed at the site c.1925, and the first commercial operations were commenced by QANTAS in 1926. QANTAS formed the Brisbane Flying Training School there in 1927. By August 1928, a second hangar housing QANTAS was located adjacent to the north of the Brisbane Civil Aviation hangar, with another caretaker's cottage to the south. However, the Eagle Farm aerodrome suffered from poor drainage and flooding.

In September 1928, Council approved 228 acres of farmland at Cooper's Plains (renamed Archerfield the next year) as the site for a new Brisbane all-weather aerodrome. This was intended to replace the Eagle Farm Aerodrome, which had suffered substantial flooding. In 1929 the Commonwealth Government resumed the bulk of the present site, with frontages to Beatty, Mortimer and Boundary Roads while additional land was acquired in 1930, 1936 and 1942. In August 1929, it was stated that as soon as the land at Archerfield was acquired and prepared, flying activities would be transferred from Eagle Farm which would then be available for disposal; and that the two existing civil aviation hangars would be moved to Archerfield, but that the caretakers cottages on the site would remain.

The first hangars were moved to Archerfield in 1930-31. They are now known at Archerfield Aerodrome as Hangar 1 (ex-Eagle Farm government hangar) and Hangar 4 (ex-Eagle Farm QANTAS hangar) respectively. Hangar 1 was used to store aircraft by the Australian Aero Club (Queensland Section) and is presently owned by the Royal Queensland Aero Club (a continuation of the same club). The new aerodrome at Archerfield was officially opened on 1 April 1931. The Queensland Aero Club, which had been established in 1919, had been based at Eagle Farm during the 1920s but moved to Archerfield in 1931. Hangar 4 was the domain of Arthur Baird, a key QANTAS figure, who supervised the work of apprentice engineers. Six civil aircraft, being stored in Hangar 4 were destroyed by fire in June 1939, including *My Little Ship II*, the plane belonging to famous Brisbane aviatrix Loes Bonney. Archerfield Aerodrome would be Brisbane's premier airport until 1949.

The 1920-30s were an important period in aviation history due to the consolidation of rapid gains in technology achieved during World War I. Archerfield Aerodrome played an important part in some record-breaking firsts in

aviation. Charles Kingsford Smith and P.G. Taylor would depart from Archerfield to make the first trans-Pacific flight from Australia to the US in 1934. Queensland aviator Mrs Lores Bonney flew from Archerfield Aerodrome on Boxing Day 1931 on a flight that would set a new Australian record for the longest distance flown in a day. On 10 April 1933, Bonney left from Archerfield on the start of the first solo flight by a woman from Australia to England. Lores Bonney's significance to Archerfield Aerodrome has been recognised by the naming of Lores Bonney Drive at the southern end of the Aerodrome.

During the 1930s, Archerfield Aerodrome, as Brisbane's main airport, was an important national aviation facility. In 1934, Qantas joined with Imperial Airways to create Qantas Empire Airlines, duplicating the mail service to England and providing the first regular international air services. According to one report, this enhanced "Brisbane's importance as a strategic centre in the Empire air mail scheme". New England Airways also operated from Archerfield, providing a Brisbane to Sydney service from 1931. New England Airways operated from a hangar constructed on the site that is now called Hangar 2. It was originally a steel T-shaped structure with an Oregon pine roof frame. It was extended in 1936 after NEA was taken over by Airlines of Australia and used to maintain Stinson and Monospur aircraft. Archerfield Aerodrome was the point of departure for the famous Stinson plane that crashed in Lamington National Park in 1936. From 1935-36, passenger traffic through Archerfield Aerodrome more than doubled.

Soon after relocating to Archerfield, QANTAS erected an additional hangar at Archerfield in 1930-1931. This structure was referred to as Qantas's Number One Hangar. Now known as Hangar 5, it was constructed by Sidney Williams and Co. This all-steel structure was the largest hangar in Queensland at that time, with a span of 90 feet, a 90-foot entrance and a 30-foot lean-to on each side. After 1934, the hangar was used to service the de Havilland Dragon Rapide aircraft used by QANTAS Empire Airways for its international mail service. It was also used by QANTAS to service the planes of private owners. An extension of 1,072 square metres was added during World War II.

In 1935, the Shell Oil Company constructed additional hangars plus a rendered brick and tile building to accommodate an aircraft-refuelling wagon imported from the Britain. A steel-framed hangar, now Hangar 3, was erected in 1935 by Sidney Williams & Co. The structure, which was extended on the northern side later that year, was built on land leased to a Mr. H. Williams. The hangar was used from 1935 to store and service aircraft used by Frank Higginson who offered joy rides and taxi flights. His daughter, Ms Ethel Jones, continued to use the hangar from 1939, operating under the name of Airwork Company until World War II when most of her training aircraft were commandeered and the hangar was taken over by the Department of Aircraft Production. During the war, the hangar was extended with a saw-tooth roof addition. It was returned to the Department of Civil Aviation in April 1946. Two other hangars were built at Archerfield during the 1930s. Hangar 6, which was built by Airlines of Australia in 1939, was used to service Douglas transport planes. This firm employed 23 engineers at Archerfield. During the 1930s, Hangar 7 was reportedly used for the maintenance of aircraft. An extension was added to the western side of this hangar in the 1990s.

In the mid-1930s, the Commonwealth Department of Civil Aviation recognised the strategic importance of Archerfield Aerodrome and provided funding to upgrade its facilities in preparation for establishing an inter-capital mail service in 1937. Planned works included the erection of a main administrative building (terminal), the control tower, wireless and lighting equipment and the clearing of additional land for runways. The Department of the Interior Works Office's architects designed the terminal building, as it was initially known. Work on the brick, 3-storey, Moderne terminal commenced in 1941 and cost £15,000.

Australia declared war on Germany on 3 September 1939. The RAAF No. 23 Squadron was based at Archerfield from 30 August 1939 to 6 May 1942 pending the completion of a new RAAF aerodrome at Amberley. Archerfield

was also home to the RAAF 3rd Flying Training School (later No. 2 FTS) from November 1939 to April 1942. A large complex of buildings was erected in the southeast corner of the airfield near the corner of Mortimer and Beatty Roads to house the No. 23 Squadron. Local residents remember “going to the pictures” at this camp during the war. Two Bellman hangars were erected in this corner of the Aerodrome for maintenance purposes, as available hangar space was inadequate to meet wartime needs. One of these hangars (identified on the 195? Plan as Building 70) was used by ANA as a repair shop. Neither of these two hangars remains but two other Bellman hangars to the south of Gods Acre Cemetery and Hangar 7 survive. The construction of anti-aircraft gun emplacements at Archerfield was proposed in July 1941 but was delayed due to the shortage of anti-aircraft guns in Australia.

Immediately after the Japanese entered the war on 8 December 1941, Archerfield Aerodrome was on ‘War Alert’. Aircraft were dispersed around the airfield’s boundary to minimise damage if there was a surprise air attack, while duty flight and ground crews, for the RAAF Wirraway CA-1 trainer/fighters and Hudson bombers, were on immediate standby at all times. Other precautions in case of air attack included slit trenches, air raid shelter construction, camouflage on the buildings and the use of decoy aircraft. An aircraft dispersal area was established to the southeast of the aerodrome, amongst the dense bushland to the south of Mortimer Road. In 1942, the airfield was extended to the north, resulting in the closure of Boundary Road west of Beatty Road. Alterations to existing buildings at Archerfield Aerodrome during the war included extensions to Hangar 3, and to the two QANTAS hangars (now Hangars 4 and 5).

While Amberley had paved runways, Archerfield still had grass runways. Initially Archerfield was too small, and the runway too short. Extensions to the landing area to the north-eastern corner were approved in March 1942 that involved severing Boundary Road and the existing Queensland Aero Club buildings fronting Boundary Road were moved. March 1942 saw the strengthening of anti-aircraft defences in Brisbane at Archerfield and Eagle Farm, and other locations. Full camouflage work at Archerfield was underway from April 1942.

General Douglas MacArthur moved his South-West Pacific Area headquarters from Melbourne to Brisbane on 20 July 1942. As a result, in July 1942, the airfield at Archerfield was taken over by units of the United States Army Air Force (USAAF), although the valuable maintenance facilities and the civilian airlines, including QANTAS and AOA/ANA continued to operate. Under US General George C. Kenney, a Central Command Base for the US Army’s 5th Air Force was established. Archerfield became the major USAAF repair and maintenance base under the control of the US 81st Air Depot Group. The Americans established ‘Camp Buckley’ next to Archerfield to house their service personnel.

MacArthur visited Archerfield in March 1943 to present Kenney with the field award of the Distinguished Service Medal. In 1943, a site on nearby Kerry Road was chosen for the erection of 5 large timber framed, single span igloos which were commissioned by the Department of Aircraft from the Allied Works Council. Completed in 1943-44, four of these structures were used as hangars and the fifth, as a store. The igloos were connected to the airfield by a taxiway across Beatty Road. QANTAS and ANA initially occupied two of the new igloos, carrying out repair and maintenance work for the Department of Aircraft. When the US forces began the reconquest of the Philippines in October 1944, they gradually moved-out of Archerfield and returned it to the control of the RAAF.

In June 1944, the Dutch began to transfer their personnel from Melbourne and Canberra to Camp Columbia situated at nearby Wacol, where a Netherlands East Indies Government-in-Exile was to be established the next month. This, the only foreign government ever to operate upon Australian soil, had been proclaimed by the Dutch on 12 April 1944. The Dutch flew in most of their personnel on their Lockheed Lodestar and Dakota transport planes. As a result there were, by June 1944, 16 Dutch

Dakotas concentrated at Archerfield, Brisbane.<sup>1</sup> Later, the Dutch established a small NEI Transport and Maintenance Section, commanded by an engineering officer, Captain P. Schelling, at Archerfield Aerodrome, to service their aircraft.<sup>2</sup> British Royal Navy's air units (carrier-based), from the British Pacific Fleet (formed 22 November 1944), took over the middle two Kerry Road igloos from February 1945.

American entertainers and film stars who flew into Archerfield during the war included Bob Hope, John Wayne and Gary Cooper. Planes based Archerfield by the US Air Force included B-17 Flying Fortresses, B-24 Liberators, P-40 Kittyhawks, DC-3 Dakotas, and B-26 Marauders. A RAAF Lockheed Ventura, that had future Prime Minister Gough Whitlam in its crew, also was known to operate from Archerfield. A total of 35 buildings including ancillary structures such as administration buildings, lavatories and guardhouses were also erected at Archerfield Aerodrome during the war.

The presence of both the RAAF and British Naval air units at Archerfield Aerodrome continued into 1946. The RAAF 23rd Squadron returned to Archerfield in 1948, remaining there until 1955. In 1949, the Department of Civil Aviation decided to return the site of Brisbane's main airport to Eagle Farm as its flooding problem had been solved by infill work conducted by US Army engineers. Archerfield became a secondary airport, for the particular use of private aircraft. Until recently, Archerfield Aerodrome was owned by the Commonwealth and operated by the Federal Airports Corporation. Various buildings and land were leased to groups such as the Royal Queensland Aero Club. The site was re-leased in the late 1990s for a 50-year period to the private Archerfield Airport Corporation, which are planning to continue the flying functions of the aerodrome while redeveloping some areas for commercial and industrial use.

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## Description

The Archerfield Airport is a remarkably intact precinct of aviation buildings spanning the era of pioneering aviation in Australia. The main hangars to the north, shell refuelling building, parachute preparation shed, administration building and other associated structures to the south collectively provide evidence of the evolution and expansion of this site as a key centre for the advancement of aviation in the Brisbane Region. The brick, 3-storey Moderne-style terminal building, which addresses the tarmac, has a flat roof with an observation deck. Hangars 1, 2 and 5 reveal the key design developments in large span structures of this type. The shape and bulk of the hangars as they present to Beatty Road to the east are indicative of their function for aeroplane storage. Their overall form and rhythm are key streetscape features providing a legible built edge depicting the airport function within the site.

### Hangar 1

Hangar 1 consists of two parts for the storage of aeroplanes, with an adjoining administrative area to the north. Two mature palm trees to the northern side of the hangar contribute to its setting. The hangar consists of the original steel trussed and composite column structure, later extended to the east with a timber-trussed saw-tooth roof featuring southern skylights. The original hangar is located at the western end of the building, and features simple open angle struts with multiple bolting fixed into large welded plate cleats. The truss structure is strengthened with tensile rod tie rods to the centre. Lateral bracing is gained from two tie beams running east-west, combined with the side wall panels of the hangar, which are constructed from the sheeted timber framed panels situated between the composite timber columns. The columns show evidence of an earlier attachment or

panel infill, possibly related to its previous installation at the Eagle Farm site. The floor of the hangar is concrete slab, with the column footings raised approximately 100mm above the slab level, possibly indicating the concrete slab as a later infill. The external wall and roof cladding of the structure is painted galvanised steel, with clerestory glazing to the upper parts of the western and southern side walls. Vented windows are located in the gables of the original hangar but only the eastern window remains intact. The hangar doors are of timber construction with steel bracing straps. Hanging lights with metal shades are set along the base of the trusses at regular intervals. The timber framed saw-tooth truss extension incorporates threaded rod tensile tie rods as vertical triangulation in the trusses, and large timber framed box gutter structures at the base of the skylight glazing. Remedial steel posts and beams have been inserted to strengthen structural performance in this part of the building. A timber framed wall and sliding door constitutes the eastern wall of the extension.

## Hangar 2

Hangar 2 consists of two joined portions including a slow curved roof steel truss hangar to the west and a saw-tooth timber trussed extension of similar construction method to the timber trussed extension of Hangar 1 to the east. The curved trusses are constructed of open steel angles welded and bolted onto plated cleats and strutted vertically with smaller section open steel angles. The timber framed saw-tooth truss extension incorporates threaded rod tensile tie rods as vertical triangulation in the trusses, and large timber framed box gutter structures at the base of the skylight glazing. Large section timber posts notched into timber tie beams support the timber-trussed extension to the east. The roof and walls of the Hangar are sheeted in painted galvanised iron sheeting. Large sliding doors with inlaid windows feature on the eastern elevation.

## Hangar 5

Hangar 5 is a significant large span structure incorporating greater overall height and breadth than its predecessors on site. The truss structure is therefore of a substantial section depth at the centre of the truss, but without a consequent enlargement of the strut section. Combined with cross bracing on the bottom chord horizontal plain of the trusses, the visual effect of the hangar ceiling is that of a 'spider web' of lightweight elements. The truss consists of open angle steel struts and tie rods bolted onto welded plate cleats. The overall form of the building with its curved roof central element visually separated from the walls by a strip of clerestory windows to the north and south elevations goes beyond function into a rudimentary architectural expression of flight. The building is roofed with painted galvanised iron metal sheeting and appears to have resheeted colorbond custom orb walls. The roof incorporates skylights both as raised boxed elements and as strips of white alsynite sheets. The hangar doors to the western tarmac end of the building are similar in form and function to those attached to the QANTAS hangar in Longreach, using new technologies in sliding door construction to suit the function of wide span openings for the entering and exiting of aircraft. The end walls are cross braced in a repetitive structural system.

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## Statement of significance

### Relevant assessment criteria

This is a place of local heritage significance and meets one or more of the local heritage criteria under the Heritage planning scheme policy of the *Brisbane City Plan 2014*. It is significant because:

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## Historical

### CRITERION A

The place is important in demonstrating the evolution or pattern of the city's or local area's history

as a precinct which provides evidence of important developments and events in aviation history which took place in Brisbane.

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## Scientific

### CRITERION C

The place has the potential to yield information that will contribute to the knowledge and understanding of the city's or local area's history

as a possible archaeological site yielding evidence of the aerodrome's role in the Allied war effort during World War II.

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## Representative

### CRITERION D

The place is important in demonstrating the principal characteristics of a particular class or classes of cultural places

as an airport which includes a number of aircraft hangars constructed during World War I, the interwar period and World War II.

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## Technical

### CRITERION F

The place is important in demonstrating a high degree of creative or technological achievement at a particular period

for the evidence it provides of construction techniques used to erect hangars during the 1920s and 1930s that are of particular significance to the local area.

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## Historical association

### CRITERION H

The place has a special association with the life or work of a particular person, group or organization of importance in the city's or local area's history

for its association with notable personalities in Australian aviation history, including Lores Bonney and Charles Kingsford-Smith.

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## References

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**Note:** This citation has been prepared on the basis of evidence available at the time including an external examination of the building. The statement of significance is a summary of the most culturally important aspects of the property based on the available evidence, and may be re-assessed if further information becomes available. The purpose of this citation is to provide an informed evaluation for heritage registration and information. This does not negate the necessity for a thorough conservation study by a qualified practitioner, before any action is taken which may affect its heritage significance.

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