

American Institute of
Aeronautics and Astronautics
HISTORIC AEROSPACE SITE



**Bremen
Airport**

Bremen, Germany



Members of the the Bremer Verein für Luftfahrt on Neuenlander Feld.

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Bremen Airport

BREMEN, GERMANY



A flyover of Bremen.



Fashionable flyers at Bremen Airport in the 1920s.

The history of Bremen Airport begins in the early 20th century with the early years of the airplane. The Bremer Verein für Luftschiffahrt (BVL), a local aviation club, used some land in Bremen belonging to the local garrison to conduct the first experimental flights in Germany, in the summer of 1910.

The Senate of Bremen supported establishing an airfield in order to connect Bremen to the growing airship route network, and on 16 May 1913 granted official permission for BVL to operate an airport. Although the original purpose was supposed to be airship support, the initial

infrastructure was geared towards aircraft operations, including several hangars.

During World War I, the airport was used by the military, and civilian operations ceased. The military erected a wooden hangar, but conducted only a small number of operations from the airfield. Construction continued after the war ended, and the Bremen Airport officially opened on 18 July 1920.

The first scheduled flight, from KLM airline (which stands for Koninklijke Luchtvaart Maatschappij, Royal

Bremer Verein für Luftschiffahrt (BVL)

The Bremen Airship Aviation Association

The BVL was established in 1909 by local Bremen aerospace pioneers including Wilhelm and Heinrich Focke and Walter Schudeisky, as well as local businessmen. In 1910, four airplane hangars were built on a parade ground in nearby Neuenlander field, one of which was given to the BVL. Association members began flying attempts with motorized aircraft, and were successful in 1911. The local Senate temporarily rescinded their permit to fly when local farmers complained that the milk yield from their cows would be reduced by all these airplane flights.

The Association, officially renamed the Bremer Verein für Luftfahrt (the Bremen Aviation Association), received permission on 16 May 1913 for the official establishment of an airbase on the parade ground, and this was the birth of the Bremen Airport. The BVL also created the first organization for civilian air traffic, in 1921, and in 1923, association members established the Bremer Flugzeugbau AG (later renamed Focke-Wulf Aircraft Ltd). With the outbreak of World War II, civilian air traffic halted, and the airport facilities were destroyed in 1944–45. The society was reestablished in 1950, and soon started a gliding and later a skydiving group, and in 1983 a hot air balloon group. In 2000, the association celebrated the 50th anniversary of its reestablishment.

Aviation Company, more commonly Royal Dutch Airlines), landed a mere 18 months later. On 24 September 1922, the National Assembly approved the sum of three million Reichsmarks to enlarge the airport, in the course of which the Bremer Flughafengesellschaft (Bremen Airport Company) was founded. Focke-Wulf-Flugzeugbau AG, the aircraft makers, began operations on the airport site in 1924. Two years later, the merger of Aero Lloyd and Junkers Luftverkehr AG resulted in a new airline, Deutsche Luft Hansa, which made Bremen airport a part of the flight route network as soon as it opened.

In the 1930s, several new terminal buildings and hangars were constructed at Bremen, and in 1937 four new runways were built, arranged in a star-like pattern. An increasing military buildup also began to show itself at the airport, when the Luftwaffe established a flight training base there. Civilian operations again came to a standstill in 1939, and for

a short period between November 1939 and June 1940, the airport served as the base for a squadron of Focke-Wulf Fw 200 bombers.

In the later stages of the war, the airport came under repeated bombardment because of its proximity to the Focke-Wulf plant, and most of the airport was destroyed.

The United States Army took over the airfield and the adjacent aircraft plant in 1945 for use as an airbase. After conducting the necessary repairs, it operated mostly transport aircraft into and out of the American enclave within otherwise British-occupied northern Germany. Bremen authorities took back control in 1949, and civilian operations resumed in April of that year, with Scandinavian Airlines (SAS) connecting Bremen to Copenhagen.

In the mid-1950s, the terminal buildings were reconstructed and Lufthansa began scheduled flights



The Bremen Airport main entrance.



An aerial view of Bremen Airport.

Lufthansa

A number of airline companies competed for business in Germany in the 1920s, finally coming down to two – Deutscher Aero Lloyd and Junkers Luftverkehr. In order to get government subsidies, however, there could be only one. As a result, the two merged in 1926 to form Deutsche Luft Hansa, named for the Hanseatic League, a powerful medieval trade group. The airline continued to fly even through World War II until all airlines were shut down in 1945. In 1955 the airline was reestablished as Lufthansa in West Germany, and was shortly followed by another Lufthansa in East Germany, although that one soon merged with the main East German airline, Interflug.

to the airport. The German airline also established its pilot training operations at the airport in 1958, and still trains pilots there. During the 1960s, scheduled jet flights began to be operated at Bremen, and in 1971, a large radar system was installed on the southern perimeter of the airport, and the airport expanded its runways in the 1980s to accommodate larger aircraft.

1989 was the first year that the airport had more than one million passengers, and new terminals were built in the late 1990s to handle the increase of passengers. By 2008, over 2.5 million passengers were departing from Bremen yearly. The airport celebrated its 100th anniversary in 2009.

Focke Wulf and Bremen

The Focke Wulf Company was founded in Bremen on 23 October 1923 as Bremer Flugzeugbau AG by Prof. Henrich Focke, Georg Wulf, and Dr. Werner Naumann, who soon renamed the company Focke-Wulf Flugzeugbau. Their first product was a conventional aircraft, an all-wood three/four passenger airliner, the A16. In 1931, under government pressure, Focke-Wulf merged with Albatros-Flugzeugwerke of Berlin. Albatros-Flugzeugwerke engineer and test pilot Kurt Tank became head of the technical department and started work on the Fw 44 *Stieglitz* (Goldfinch), a very successful two-seat biplane used for pilot training and sport flying. It was used by many countries around the world.

The company also developed leading-edge technology.

Through his work on the C.19 and C.30 autogiros built by Focke-Wulf under license from Cierva Autogiro, as well as the experience gained through development of the Fw 186, Professor Henrich Focke had come to the conclusion that the inadequacies and limited serviceability of autogiros could only be eliminated by a real helicopter. He and engineer Gerd Achgelis started the design for such a helicopter in 1932. A free-flying model, built in 1934 and propelled by a small two-stroke engine, brought the promise of success.

On 9 February 1935, Focke received an order for the building of a prototype, which was designated the Fw 61. It was also known as the Fa 61, as Focke began a new company—Focke Achgelis—after development had begun. The airframe was based on that of the Focke-Wulf Fw 44 *Stieglitz*.



The Fw 61 on its maiden flight without the coverings on the fuselage.

A single, radial engine drove twin rotors, which were set on outriggers to the left and right of the fuselage. The counter-rotation of the two rotors solved the problem of torque-reaction. The small horizontal-axis propeller directly driven by the engine was used to provide the necessary airflow to cool the engine during low speed or hovering flight – it provided negligible forward thrust. The craft was equipped with an emergency rescue system that, in case of engine failure, allowed the pilot to switch the rotor to idle, enabling the pilot to sail down to earth – an important issue for Focke. Only two aircraft were produced. The first prototype, the V 1 D-EBVU, had its first free flight on 26 June 1936 with Ewald Rohlfs at the controls. By spring 1937, the second prototype, V 2 D-EKRA, was completed and flown for its first flight. On 10 May 1937, it accomplished its first autorotation landing with the engine turned off.

In 1938, Hanna Reitsch, a well known German aviatrix, demonstrated the Fw 61 in a stadium in Berlin. It subsequently set several records for altitude, speed, and flight duration, culminating in June 1938 with an altitude record of 3,427 m (11,243 ft) and a straight line flight record of 230 km (143 mi).

Although neither of the two machines appear to have survived World War II, a replica is on display at the Hubschraubermuseum (helicopter museum) in Bückeburg, Germany.



The Focke-Wulf Fw 61.



Hovering close to the ground with Ewald Rohlfs at the controls.



An Fw 190 under assembly in the Focke-Wulf factory in Bremen.



Henrich Focke with aviatrix Hanna Reitsch.



Charles Lindbergh and Henrich Focke (left).

Other notable aircraft produced by Focke Wulf include the Fw 200, which on August 10, 1938, flew nonstop between Berlin and New York City, making the journey in 24 hours and 56 minutes. The return trip on August 13, 1938 took 19 hours and 47 minutes. These flights are commemorated with a plaque in Bremen's Böttcherstraße.

The Fw 190 *Würger* (butcher-bird), was a single-seat fighter first designed in 1938. It became the main aircraft

What's the difference between an autogiro and a helicopter?

A helicopter has a motor-powered propeller that rotates overhead to provide lift. An autogiro is more like a plane, usually with the propeller in the front (sometimes in the back) that pulls the craft through the air. Instead of fixed wings on either side, like an airplane, an autogiro has rotating blades on the top to keep it in the air, but they are not motorized – they rotate when air rushes through them, creating lift. Because of this, an autogiro cannot hover like a helicopter can.

From <http://www.bears.co.nz/dyk/autogiro.htm>

used by the Luftwaffe during World War II and was produced in quantity from 1941 to 1945.

Although it was designed and originally manufactured in Bremen, most of the Fw 190s were manufactured elsewhere during the war. Due to repeated bombings of Bremen, the mass-production plants moved to eastern Germany and Poland. The Focke-Wulf plant at Marienburg, in eastern Germany, produced approximately half of all Fw 190s until it was bombed by the Allies in 1943.

From 1947 to 1955, many Focke-Wulf workers, including Kurt Tank, worked at the Instituto Aerotécnico in Córdoba, Argentina. In 1951, Focke-Wulf began to make gliders, and in 1955, motorized planes. In 1961, Focke-Wulf, Weserflug and Hamburger Flugzeugbau combined to form the Entwicklungsring Nord (ERNO) to develop rockets.

Focke-Wulf formally merged with Weserflug in 1964, becoming Vereinigte Flugtechnische Werke (VFW). After several more mergers, it is now part of the European Aeronautic Defence and Space Company N.V. (EADS).



The Fw 200 Condor before its record flight across the Atlantic.



The Focke-Wulf Fw 190, the mainstay of the Luftwaffe during World War II.



A multi-generational offspring of the Fw 190 – a VFW VAK 191B hovering at Bremen Airport.

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AIAA established the Historic Aerospace Sites Program in January 2000 to promote the preservation of and to disseminate information about significant accomplishments made in the aerospace profession. In addition to Bremen Airport, other sites recognized by the committee include the NASA Langley Research Center, Allegheny Ballistics Laboratory in West Virginia; Oakland Municipal Airport, and the site of the first balloon launch in Annonay, France.

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**American Institute of
Aeronautics and Astronautics**
1801 Alexander Bell Drive, Suite 500
Reston, VA 20191-4344
www.aiaa.org