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# Breguet 19



## Most widely produced military aircraft of the interwar period

By [Stephen Sherman](#), Apr. 2007. Updated July 23, 2011.

Captain Dieudonne Costes and navigator Maurice Bellonte flew this specially modified red Breguet 19, "Point d'Interrogation," or "Question Mark" on the first non-stop, Paris to New York flight on Sept. 18, 1930. Surprising as it might seem, until then, no one had done a reverse Lindbergh.

The Bréguet XIX was two-seater light bomber and as a reconnaissance aircraft, first rolled out in 1923. A very successful metal biplane, it stayed in operational service for fifteen years.

More than 2,000 Breguet 19's were manufactured in France, and about 700 license-built in Spain, Belgium, and Yugoslavia. In addition to those countries, it served in the air forces of Poland, Romania, Greece and China (seventy by a Manchurian warlord). In the Spanish civil war the Bréguet XIX was employed on both sides. In other foreign air forces it was still employed until the forties. Two Bréguet XIX are exhibited at the Air and Space Museum in Le Bourget.

## Development

The design of the Breguet 19 followed on the successful Breguet 14, a World War One bomber. M. Vuillerme led the design team, working in Velizy-Villacoublay. The prototype appeared in the 7th *Salon d'Aeronautique* in November 1921, impressing all with its duralumin structure. It was a bit of hybrid aircraft: metal frame and spars, which likewise covered the front half of the fuselage, while the large upper wing and rear section the fuselage were covered with fabric. With a huge upper wing and smaller lower, the Breguet 19 was of a style sesquiplane, i.e. a plane with "one-and-a-half" wings. In prototype, a single Breguet-Bugatti 450 HP, 16-cylinder, V-engine powered a four-bladed propeller. When that engine vibrated excessively in test flight, the designers replaced it with a Renault 12-cylinder

## Specifications for A.2:

- Year Developed: 1923
- Engine: one 513 HP Renault 12KD water-cooled 12 cylinder V-engine
- Max. Speed: 146 MPH
- Ceiling: 23,600 feet
- Range: 500 miles
- Weight: 3,800 lb. empty, 5,175 lb. normal load, 6,856 lb. maximum take-off
- Wingspan: 48 ft 8 in
- Length: 31 ft 3 in
- Height: 12 ft 1 in
- Wing area: 538 sq ft
- Guns: 1 Vickers 7.7 mm machine gun forward, 2 rear-facing Lewis 7.7 mm guns, 1 ventral Lewis gun
- Bombs: 882 lb. (400 kg)

Duraluminum fuselage frame and wing spars made the two-seater Bréguet XIX lightweight and very fast, faster than most contemporary fighters. The open cockpit had with two seats, one behind the other and was located immediately under a cutaway in the trailing edge of the upper wing.

These first two variants (Br. 19 A2 reconnaissance plane and Br. 19 B2 bomber) were the most numerous, and were practically identical. They used a variety of engines, the most popular being the 400 hp Lorraine-Dietrich 12Db inline V12. It attained top speeds of 133 MPH and an operational range of 500 miles. It could take up to 900 kg of bombs; and the machine guns served for attack as well as for defence purposes.

When the French introduced the Breguet 19, they knew that a large market for military aircraft was opening up. A Yugoslav general looked them over even while in pre-production. Spain quickly negotiated a license to build their own models. When production started, demand was so great that Breguet sub-contracted out production with another French firm. Deliveries to the French *Aviation Militaire* started in mid 1924; within three years equipping 46 squadrons of light bombers and reconnaissance planes. Foreign orders poured in: Yugoslavia wanted 100, Romania 50, the central Chinese government 4, but in Manchuria, Marshal Chang Tso-lin took 70. Poland's airforce in the mid Twenties, consisted primarily of 250 Bre. 19s; these also set a number of long-distance records.

## Long Distance Flights

The Br.19 GR, a long-distance sport variant built in France in 1925 and equipped with a large fuel tank of 1,994 litres. Four French Br.19 GR of 1926 underwent further modification. They had 2,920 litre fuel tanks fitted in the fuselage, and the cockpit was moved slightly aft. They also had their wingspan increased by three feet. These and another sport variants used more powerful 500 to 600 hp engines.

The Bidons variant of the GR was especially developed for long-range flights. It comprised a higher interior tank capacity, rounded wing ends, a newly designed rudder unit and covers for the main wheels. With an average speed of 188.1 km/h over 5,000 km it attained a new world record in 1928.

The last and most advanced long-distance variant, Bréguet XIX Super Bidon "Point d'Interrogation," was built in 1929, and designed for transatlantic flight. It had a 5,180 litre fuel tank (later 5,580 litres), a modified fuselage, and a wing span of 18.3 metres. It was powered by a 650 hp Hispano-Suiza 12Lb engine. A single model was built in France, and another, with a closed canopy, was built in Spain in 1933. In this unique aircraft, Costes and Bellonte flew 3,852 miles from Le Bourget airport to New York in 37 hours and 18 minutes on September 2nd 1930. making the first non-stop east-west crossing of the north Atlantic. Costes, together with the navigator Navigator Joseph le Brix, had already made a world round flight between 10 October 1927 and 14 April 1928. They flew a Br.19 GR (named Nungesser-Coli) around the world, covering 35,418 miles - though they crossed the Pacific on board ship.

In the Golden Age of Aviation, French, Japanese, Polish, Spanish and Belgium pilots set a number of long-range flight records in Breguet 19s. In February 1925 Thieffry flew over 5,500 miles from Brussels to Leopoldville, Belgian Congo. The Japanese Asahi Shimbun newspaper outfitted aviators H. Abe and K. Kawachi with two Br.19 A2's (and extra-capacity fuel tanks), who made for the Tokyo-Paris-London route in July 1925, covering 8,575 miles. In August- September, 1926, the Pole Boleslaw Orłowski flew the Warsaw-Tokyo route (10,300 km/6,400 miles) and back, in a modified Br.19 A2 Pelletier d'Oisy and Bésin flew from Paris to Shanghai with additional tanks mounted at the bomb mounts of a Bréguet XIX. In October 1927 the first crossing of the South Atlantic succeeded with a Bréguet XIX. The French record breaker Dieudonné Costes flew together with Joseph Le Brix in less than 20 hours the 3,420 km long distance from the Senegal estuary to Brazil. In 1929 a Spanish crew covered the 6,880 km long distance across the South Atlantic from Seville to Bahia.

*Sources:*

- *Years of the Sky Kings*, by Arch Whitehouse, Doubleday, 1964
- [The Aerodrome](#)