Dornier Do24

Le trimoteur Dornier Do24, qui reprenait la formule en vogue de l'hydravion à aile parasol (une aile suspendue au-dessus de l'avion par des mats), effectua son premier vol en juillet 1937 ; un accord de fabrication sous licence fut peu après conclu avec les Hollandais. Un petit nombre de Do24K construits en Allemagne furent livrés à la Luftwaffe. La production de l'appareil aux Pays-Bas se poursuivit après l'invasion du pays par les Allemands ; elle fut également assurée en France occupée par la CAMS. Les Do24 assurèrent principalement des missions de sauvetage en mer (Do24N-1), de reconnaissance maritime et de transport (Do24T-1 et T-2). Certains appareils parmi les 255 construits terminèrent leur carrière au sein de la RAAF, de la force aérienne suédoise, du service de sauvetage en mer espagnol ou de la Marine française. À partir de juillet 1941, la France fut contrainte de faire fabriquer par la SNCAN à Sartrouville 6 avions par mois. Elle en fabriqua au total 46 pour la Luftwaffe. Après la libération, elle continua à en fabriquer pour l'Aéronavale. En plus de la Luftwaffe seule l'Espagne a reçu des Do24. L'Allemagne assiégée et son territoire s'amenuisant n'en ayant plus besoin, 12 exemplaires furent livrés à l'Espagne à l'été et en automne 1944. Convoyés d'Allemagne à Pollença (Majorque), ils furent utilisés jusque dans les années 70 pour des missions de reconnaissance et de sauvetage en Méditerranée et au-dessus de l'Atlantique. Un seul exemplaire appartenant à l'unité de sauvetage Seenotgruppe 81 rejoignit la Suède à partir de Nest en Poméranie piloté par un mécanicien accompagné de sa fiancée fin octobre 1944. La Suède l'acheta et le mit en oeuvre jusqu'en 1951. Un autre Do24, qui était parti de Windau le 9 mai 1945 et avait rejoint la Suède fut remis à l'Union soviétique avec son équipage et les occupants fuyant les pays Baltes, ce qui avait provoqué un tollé d'indignation en Suède à l'époque.

Dornier Do24 :

- 3 Moteurs BMW Bramo 323R2
- 2 X 1000 Ch
- 331 Km/h
- 1 Canon 20 mm 2 Mitrailleuse 7.92 mm 600 Kg de bombes
- 16180 Kg en charge
- 7500 m de plafond pratique
- 4700 Km en distance franchissable
- 4 ou 5 Equipiers

Source : http://les-avions-de-legende.e-monsite.com/pages/les-hydravions/les-hydravions-allemands/dornier-do24.html

Version anglaise Wikipédia

The **Dornier Do 24** is a 1930s German three-engine flying boat designed by the Dornier Flugzeugwerke for maritime patrol and search and rescue. A total of 279 were built among several factories from 1937 to 1945.

Design and development

Dornier Do 24 V3 prototype in Dutch markings

The Dornier Do 24 was designed to meet a Royal Netherlands Navy requirement for a replacement of the Dornier Wals being used in the Dutch East Indies, with the Netherlands government signing a contract for six Dornier Do 24s on 3 August 1936. Two more prototypes were built for the German navy to be evaluated against the Blohm & Voss BV 138.[1] The Do 24 was an all-metal parasol monoplane with a broad-beamed hull and stabilising sponsons. Twin tails were mounted on the upswept rear of the hull, while three wing-mounted tractor configuration engines powered the aircraft. Fuel was carried in tanks in the sponsons and the wing centre section.[2][3] Up to 1,200 kg (2,600 lb) of bombs could be carried under the aircraft's wings, while defensive armament consisted of three gun turrets, one each in nose, dorsal and tail positions. In early aircraft the turrets were each fitted with a machine gun but later aircraft carried a 20 mm cannon in the dorsal turret.[2][4]

Diesel-powered Luftwaffe Do 24 V1 trials aircraft being used as an air-sea rescue aircraft

Do 24 V3, the first of the Dutch X boats, as they would be called in Dutch service, took off from Lake Constance on 3 July 1937, with the second Dutch boat, *Do 24 V4* following soon after.[2] As the Dutch required that their flying boats use the same engines as the Martin 139 bombers in use in the Dutch East Indies, they were fitted with 661 kW (887 hp) Wright R-1820-F52 Cyclone radial engines. Test results were good, with the new flying boat proving capable of operating from extremely rough open seas and the Dutch placed an order for a further 12 Do 24s on 22 July 1937.[2] *Do 24 V1*, the first of the two aircraft for Germany, powered by three 450 kW (600 hp) Junkers Jumo 205C diesel engines, flew on 10 January 1938 but after evaluation, the two German boats were returned to Dornier for storage.[5] The Netherlands was enthusiastic and planned to purchase as many as 90. Of these, 30 were to be built by Dornier (with all but the first two prototypes assembled by Dornier's Swiss subsidiary based at Altenrhein). The remaining aircraft were to be built under licence in the Netherlands by Aviolanda at Papendrecht. Of these aircraft, all but one of the German and Swiss built aircraft and the first seven Aviolanda-built aircraft were to be Do 24K-1s, powered by the original R-1820-F52 engines, while the remaining aircraft were to be Do 24K-2s, with more powerful 820 kW (1,100 hp) R-1820-G102 engines and additional fuel.[5] With the German occupation, production was paused, however while the *Luftwaffe* Küstenfliegergruppen Maritime reconnaissance branch was uninterested in the partially completed aircraft as they had already chosen the Blohm und Voss Bv 138 for the role, the Dutch production line resumed, to provide aircraft for the otherwise poorly equipped *Seenotdienst* (Sea Emergency Service), which was still operating Heinkel He 59 biplanes.[6] The 13 airframes on the Aviolanda assembly line were completed with Dutch-bought Wright Cyclone engines but later models used the BMW Bramo 323R-2. An additional 159 Do 24s were built in the Netherlands during the occupation, most under the designation **Do 24T-1**. Another production line for the Do 24 was established in the CAMS factory at Sartrouville, France, during the German occupation. This line was operated by SNCAN and produced 48 Do 24s during the war and another 40 after the liberation of France, which served with the French Navy until 1952.

Operational history

Luftwaffe Do 24 in Romania, 1941

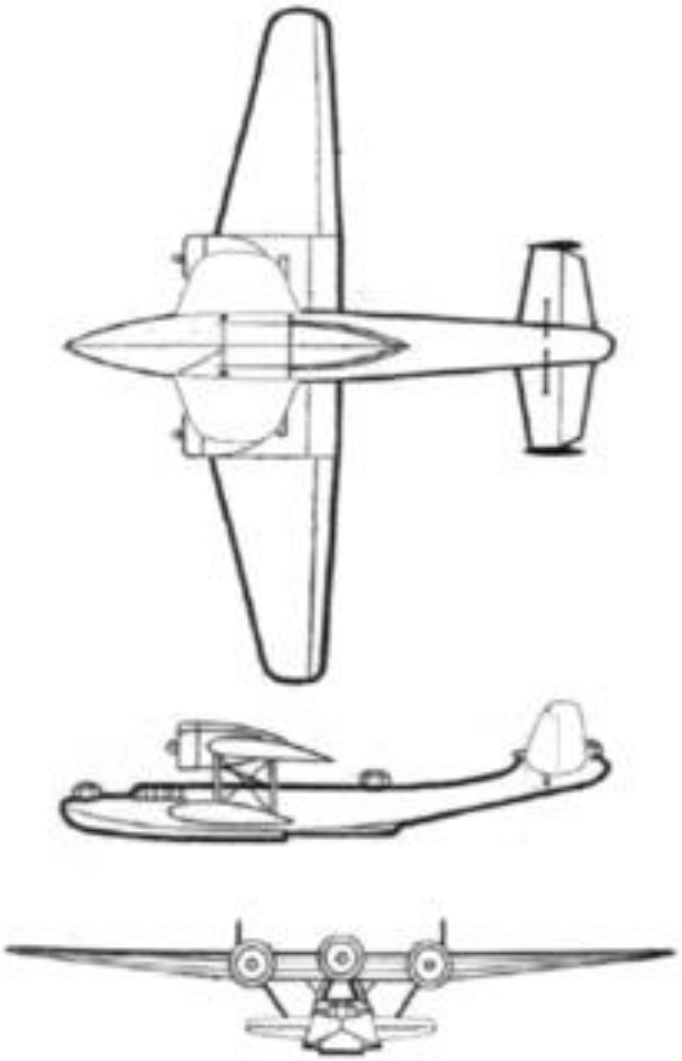
Germany
The two prototypes were used during the invasion of Norway to transport troops to Narvik. The aircraft captured and produced in the Netherlands were pressed into service with *Seenotstaffeln* and deployed in the Arctic, Baltic, North Sea, Bay of Biscay, Mediterranean, and Black Sea. They were also used as transports, notably for keeping contact with the troops left behind on the Aegean Islands and Crete, and for supporting the Kuban bridgehead in early 1943.

Netherlands
Thirty-seven Dutch- and German-built Do 24s had been sent to the East Indies by the time of the German occupation of the Netherlands in June 1940. Until the outbreak of war, these aircraft would have flown the tri-color roundel. Later, to avoid confusion with British or French roundels, Dutch aircraft flew a black-bordered orange triangle insignia. A Dutch Dornier Do 24 is credited with sinking the Japanese destroyer *Shinonome* on December 17, 1941 while the ship was escorting an invasion fleet to Miri in British Borneo.[7] After the Japanese invasion of the Netherlands East Indies, six surviving Do 24s were transferred to the Royal Australian Air Force in February 1942. They served in the RAAF through most of 1944 as transports in New Guinea.

Spain
In 1944, 12 Dutch-built Do 24s were delivered to Spain with the understanding that they would assist downed airmen of both sides. After the war, a few French-built Do 24s also found their way to Spain. Spanish Do 24s were operational at least until 1967, and possibly later. In 1971, one of the last flying Spanish Do 24s was returned to the Dornier facility on Lake Constance for permanent display.

Sweden
On 31 October 1944, a German Do 24 (CM+RY of *Seenotgruppe* 81) made a forced landing in neutral Sweden, was impounded and eventually bought, and remained in Swedish service until 1952.

Specifications (Do 24T-1)



General characteristics

- **Crew:** 4 or 6[35]
- **Length:** 22.05 m (72 ft 4 in)
- **Wingspan:** 27 m (88 ft 7 in)
- **Height:** 5.75 m (18 ft 10 in)
- **Wing area:** 108 m^2 (1,160 sq ft)
- **Empty weight:** 9,400 kg (20,723 lb)
- **Gross weight:** 13,700 kg (30,203 lb)
- **Max takeoff weight:** 18,400 kg (40,565 lb)
- **Fuel capacity:** 5,300 L (1,400 US gal; 1,200 imp gal) in two 1,000 L (260 US gal; 220 imp gal) wing tanks and twelve small tanks in the sponsons
- **Powerplant:** 3 × Bramo 323R-2 Fafnir 9-cylinder air-cooled radial piston engine, 704 kW (944 hp) each
- **Propellers:** 3-bladed VDM variable-pitch metal propellers

Performance

- **Maximum speed:** 330 km/h (210 mph, 180 kn) at 2,600 m (8,500 ft)

290 km/h (180 mph; 160 kn) at sea level

- **Cruise speed:** 295 km/h (183 mph, 159 kn) at 2,600 m (8,500 ft) (maximum continuous)
- **Range:** 2,900 km (1,800 mi, 1,600 nmi)
- **Ferry range:** 4,700 km (2,900 mi, 2,500 nmi)
- **Service ceiling:** 7,500 m (24,600 ft)
- **Time to altitude:** 2,000 m (6,600 ft) in 6 minutes

4,000 m (13,000 ft) in 13 minutes 12 seconds

Armament

- **Guns:**
  - 1 × 20 mm (0.787 in) Hispano HS.404 or MG151 autocannon in dorsal turret
  - 1 × 7.92 mm (0.312 in) MG 15 machine gun in nose turret
  - 1 × 7.92 mm (0.312 in) MG 15 machine gun in tail gun position
- **Bombs:** 1,200 kg (2,600 lb), under the wings

Source : https://en.wikipedia.org/wiki/Dornier_Do_24