

Side view of K48, W.Nr. 3365 with civil registration D-2012. The example shown is powered by a Siemens Sh 20 engine.
via R. Michulec.



Tests of the A48 lasted until 1933 and undoubtedly taught Junkers a vast amount about producing a successful dive bomber. During this period, a gradual shift in the international political situation gave German manufacturers more freedom to develop military aircraft. The calculated erosion of Versailles Treaty terms by Germany accompanied a more acquiescent attitude among European powers to German rearmament in the late 1920s and early 1930s. Overseas orders for German manufacturers undoubtedly enabled greater freedom to advance the technology of military aviation, and it was an order such as this that led to the Heinkel He 50, regarded as the first true dive bomber of German design and manufacture.

The Imperial Japanese Navy had, like many armed forces around the world, become impressed with the possibilities offered by dive bombing, and commissioned Heinkel to develop such an aircraft to rival US designs such as the Curtiss F8C 'Helldiver'. Heinkel designed a two-seat biplane of mixed wood and steel tube construction powered by a licence-built Jupiter radial. The terms of the agreement were finalised in 1930, and the following year the prototype Heinkel He 50 flew. The IJN secured the rights to build the aircraft as the Aichi D1A. A second prototype was exhibited for the German armed services in 1932, and this type impressed the German government enough to order 60 in 1933 split between Heinkel and Bayerische Flugzeugwerke (later Messerschmitt) with another 12, ordered by China, later retained by the *Luftwaffe*. This aircraft equipped ten units and was the basis of *Luftwaffe* dive bombing. It was later



He 50A, the first purpose-built German dive bomber.
via R. Michulec.

Tropical versions



Ju 87R-2 trop of 4./St.G 2, Africa. Note the tropical filter.

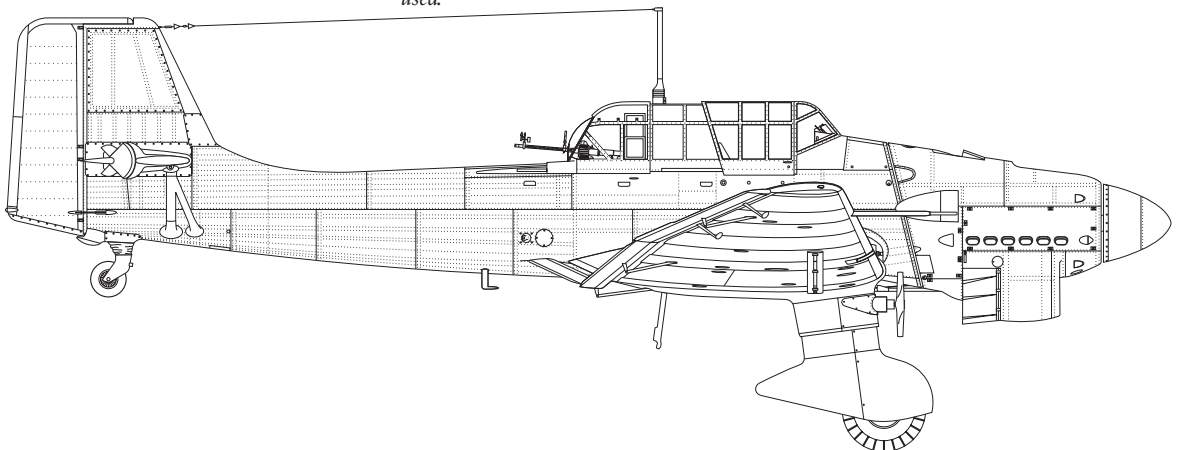
A number of Stuka variants were developed from standard and long range Ju 87s for use in the North African and Mediterranean theatres. Examples of most Ju 87 variants were modified for hot climates throughout their careers, and these machines were commonly distinguished by the suffix 'trop'¹. Alterations consisted chiefly of filters to prevent dust and sand affecting the radiator, carburettor, bomb racks and guns. Externally these aircraft only differed from their non-tropical equivalents in the larger and more angular carburettor intake.

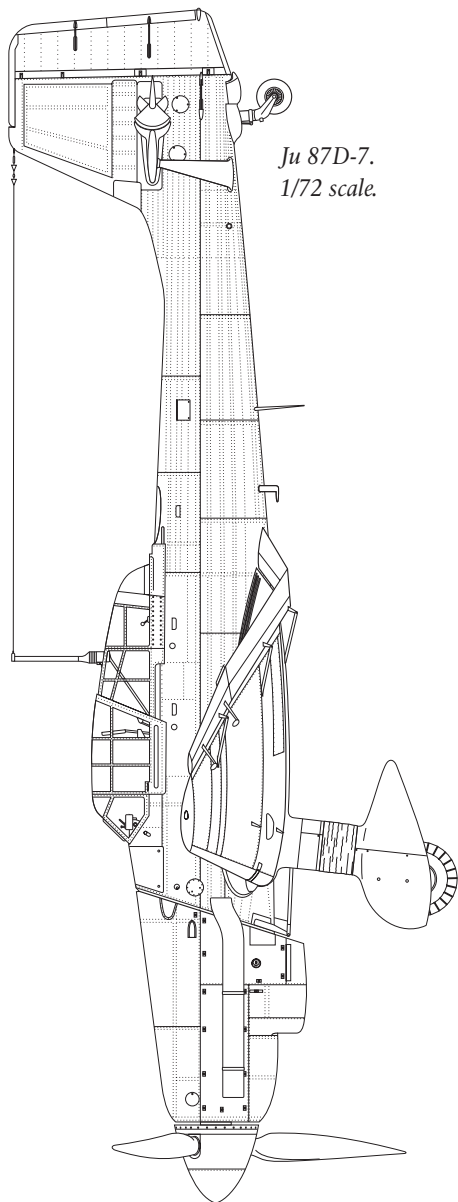
In early 1941 tests with Junkers Ju 87 W.Nr. 5786 modified for hot climates were carried out at Rechlin by the Tropen Erprobungs Kommando (Tropics Testing Command). This aircraft was designated R-5, probably a Ju 87R-2 or R-4 suitably converted, and was possibly an attempt to produce a dedicated tropical Stuka. While 240 tropical versions were initially created by converting existing types at the Stuttgart-Sud plants (an operation that took 2-3 days), a dedicated Ju 87R trop was later put into production in April 1941 at Paderborn and Mönchengladbach.

Stratus coll.

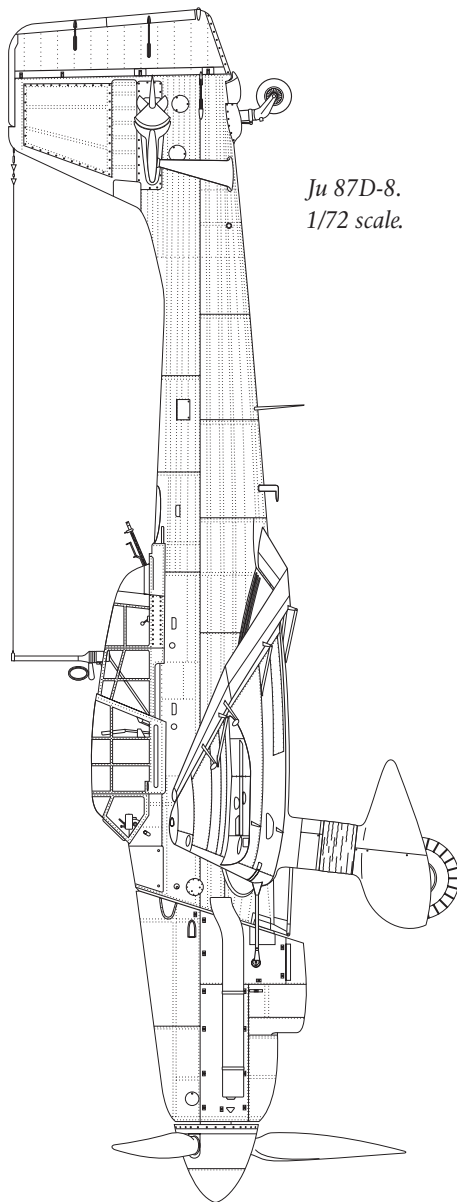
These began to be delivered to the *Luftwaffe* in May, and all but six of the 26 produced were tropical versions of the definitive R-4 long range Ju 87. Even with the modifications to protect the aircraft's vital systems from the ravages of sand and dust, the Jumo 211D's period for routine inspection was halved to 60 hours in tropical versions.

¹ RLM officials, irritated by the common application of the "trop" designator, issued a special letter on 17 December 1940 to remind that "tp" was the correct abbreviation. Nobody seemed to bother, though, and the "trop" suffix continued to be commonly used.





Ju 87D-7.
1/72 scale.



Ju 87D-8.
1/72 scale.

D-5s which had been retrofitted with the night modifications were known as D-3/N and D-5/N (N for Nacht).

In fact, special night squadrons known as Nachtschlachtgruppen (NSGrn) were set up as early as March 1942 and some Ju 87Ds were delivered to these units to replace the obsolete biplanes they had previously been equipped with. These appear to be earlier model Ju 87Ds with wing MG 17 machine guns still fitted. However, the modification programme was a rolling one with developments added to aircraft in service as they became available. Air brakes were often removed and some aircraft were fitted with the FuG 101 radio altimeter for more accurate assessment of height at night. Later D-5/N Stukas were apparently

Rear view of the Ju 87B-1,
W.Nr. 429 of 3./St.G 2,
spring 1940.

via R. Michulec.



Right: A pair of Ju 87B of
St.G 51, in flight. Aircraft
in winter camouflage.

Below: Ju 87B-1 (early)
on the way back from a
mission.

via R. Michulec.





Starboard side of the engine cowling, Ju 87D/G.



Details of the engine supercharger air intake with tropical filter. Note also details of the exhaust as was used on late D-3 and D-5.



Port side of the engine cowling. Details of the exhaust are visible.

All photos Stratus coll.



Ju 87B-1, of 2./St.G 1, France, summer 1940. Personal aircraft of Staffelfkapitän Hptm. Peter Gassmann. Aircraft in standard Ju 87B camouflage.



Ju 87B-1, of 4./St.G 2. Aircraft in standard Ju 87B camouflage.