

# Project “Kleinst-Jäger“ [Midget Fighter]

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## Project commissioned by the Reichsluftfahrtministerium (RLM)

During his interrogation at the end of the war, Oberst Knemeyer<sup>o</sup> from the Technischen Luftrüstung (TLR) [Technical Air Armament] gave the following key reasons leading to the development of the He 162:<sup>8</sup>

- By the summer of 1944, there was no longer any effective fighter defence against low-flying Allied air attacks.
- The absence of undamaged, larger airfields called for an aircraft with short start and landing capabilities, ideally also from grass airstrips.
- Its intended operation against low-flying aircraft permitted somewhat lighter armament.
- From a production standpoint, two engines per aircraft were not feasible.

All jet fighters and jet bombers that were already in, or coming into, service had at least two engines. Under the prevailing economic circumstances, it was logical for the RLM to be calling for a single-engined jet fighter aircraft that could be developed and produced as quickly as possible.

As part of its “Emergency Fighter Programme“ the RLM, on Friday, 8<sup>th</sup> September 1944, issued a call for tender to the Arado, Blohm&Voss, Fieseler, Focke-Wulf, Heinkel, Junkers and Messerschmitt companies.<sup>p</sup> Probably thanks to the presence of its CEO, Frydag, in Berlin, the Heinkel company learned about the call for tender that very same day. Given the normal time span needed for transmission, the other firms only heard about it later. Dr. Vogt, Chief Design Engineer at Blohm&Voss, for example, was only appraised of the tender on Sunday, 10.9.1944. Proposals were expected within 10 days and possible series production was to start on 1.1.1945. A set of documentation, the so-called Installation File, dated 4.7.1944, for the specified BMW 109-003 engine was provided. The

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<sup>8</sup> A.P/W.I.U. 87/1945

## Developments undertaken by competing companies

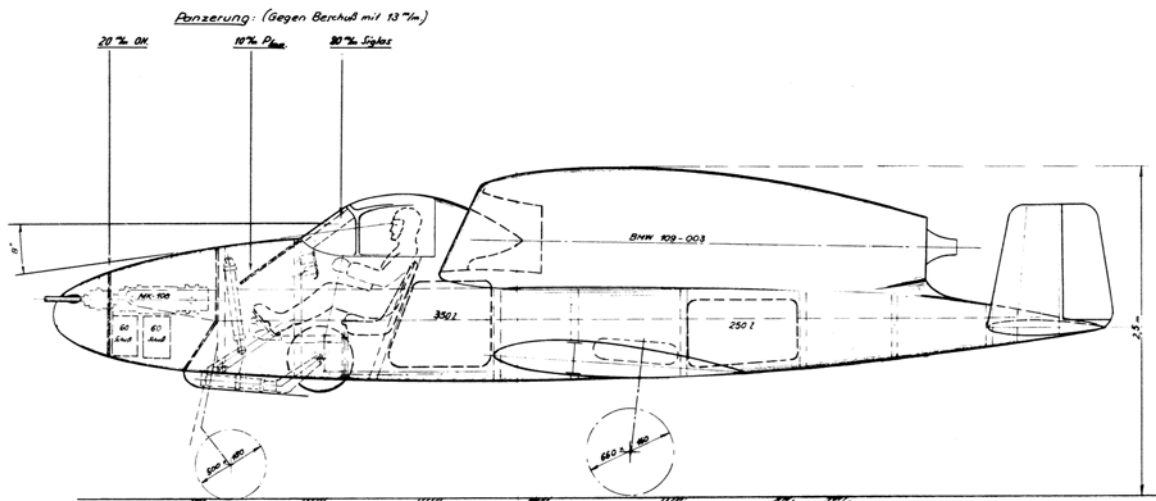
Messerschmitt and Fieseler withdrew from the project, while the remaining participants had difficulty in meeting the deadline. The introductory comments in the Arado project report open with the following words:<sup>10</sup>

»As a consequence of the limited time available (2 days) the project submitted could only be generated in draft form.«

In addition to the aforementioned proposal from Heinkel, tenders were submitted by Arado, Blohm & Voss, Focke-Wulf and Junkers.<sup>11</sup> The Arado and Blohm & Voss submissions are worthy of closer examination; the former because it showed a certain similarity to the Heinkel tender and the latter because it was truly innovative.

### The Arado Project: Fighter Aircraft E 580

Designed as a low-wing monoplane with a single, fuselage-mounted engine with a twin-tail unit, this concept was uncannily similar to Heinkel's submission. Also interesting is the use of two fuselage-mounted fuel tanks that would have made trimming the centre of gravity simpler than in the Heinkel design. The pilot would have sat virtually on top of the nose wheel. The main undercarriage pivoted from the wings and retracted inwards into the fuselage.



Side view of the Arado E 580. Note that the armament is located ahead of the pilot. It is also interesting that the nose wheel could not have been fully retracted into the fuselage.

<sup>10</sup> Cited by Pawlas, Luftfahrt International 14, p. 2147

<sup>11</sup> Interrogation of Heinkel and Frydag, Intelligence Report T.I. A-462, p.2