

Squaring up to the enemy

During the first two years of the war the Spitfire Marks I, II and V were neck and neck in terms of air combat performance, compared with their Luftwaffe equivalents the Messerschmitt 109E and the Messerschmitt 109F. Then in the autumn of 1941 the Luftwaffe introduced the Focke Wulf Fw 190, which possessed a clear performance advantage over the Spitfire V.

In June 1942 the RAF captured an intact Fw 190, which it tested in mock combat with a range of Allied fighters. The tests confirmed what RAF Fighter Command pilots had been complaining about: the Fw 190 had a speed advantage over the Spitfire V of 25 to 30mph at all altitudes from 2,000ft to 21,000ft. The German fighter could out-climb, out-dive and out-accelerate the Spitfire V at all altitudes and moreover it had a superior

rate of roll. Indeed, the only aspect in which the Spitfire V held the advantage was that it turned tighter than the Fw 190.

In July 1942 the Mark IX Spitfire entered service, powered by the Merlin 61 engine with a two-stage supercharger and developing 1,550hp at 11,000ft. When a Mark IX was tested in mock combat against the captured Fw 190, the two fighters were found to be almost equal in most aspects of combat performance. Against the Messerschmitt 109G, the Spitfire IX was generally superior.

Early in 1944 the Spitfire XIV entered service, powered by the Rolls-Royce Griffon 61 engine fitted with a two-stage supercharger and developing 2,035hp at 7,000ft. In mock combat with the Fw 190A and the Messerschmitt 109G, the Spitfire XIV demonstrated a clear margin of superiority. The excerpts opposite were taken from the combat trials report issued by the Air Fighting Development Unit at Duxford.

BELOW: Jeffrey Quill nudging his Spitfire XIV in close to the photographic aircraft. Quill judged the Griffon-powered Mark XIV to be the most effective fighter variant of them all. (RAF Museum/Charles Brown)



Combat trial of Spitfire XIV against the Fw 190

Maximum Speed. From 0–5,000ft and 15,000–20,000ft the Spitfire XIV is only 20mph faster; at all other heights it is up to 60mph faster than the Fw 190A.

Maximum Climb. The Spitfire XIV has a considerably greater rate of climb than the Fw 190A.

Dive. After the initial part of the dive, during which the Fw 190 gains slightly, the Spitfire XIV has a slight advantage.

Turning Circle. The Spitfire XIV can easily turn inside the Fw 190, though in the case of a right-hand turn this difference is not quite so pronounced.

Rate of Roll. The Fw 190 is very much better.

Conclusions. In defence, the Spitfire XIV should use its remarkable maximum climb and turning circle against any enemy aircraft. In the attack it can afford to “mix it” but should beware the quick roll and dive. If this manoeuvre is used by an Fw 190 and the Spitfire XIV follows, it will probably not be able to close the range until the Fw 190 has pulled out of its dive.

Combat Trial of Spitfire XIV against the Messerschmitt 109G

Maximum Speed. The Spitfire XIV is 40mph faster at all heights except near 16,000ft, where it is only 10mph faster.

Maximum Climb. The same result: at 16,000ft the two aircraft are identical, otherwise the Spitfire XIV out-climbs the Me 109G. The zoom climb is practically identical when the climb is made without opening the throttle. Climbing at full throttle, the Spitfire XIV draws away from the Me 109G quite easily.

Dive. During the initial part of the dive the Me 109G pulls away slightly, but when a speed of 380mph is reached, the Spitfire XIV begins to gain on the Me 109G.

Turning Circle. The Spitfire XIV easily out-turns the Me 109G in either direction.

Rate of Roll. The Spitfire XIV rolls much more quickly.

Conclusion. The Spitfire XIV is superior to the Me 109G in every respect.

Authors' note: The correct abbreviation for the Messerschmitt 109 was 'Bf 109'. However,



the latter abbreviation is not to be found in RAF documents originated in World War Two. Throughout this 1944 official report the abbreviation 'Me 109' was used, and in the interests of authenticity it has been retained.

One factor that should be borne in mind reading this report is that in 1944 the RAF did not possess examples of the latest versions of the Focke Wulf 190 or the Messerschmitt 109, or even the jet-propelled Messerschmitt 262. Nevertheless, the trials report illustrates well the dramatic effect of the various modifications to improve the 'fightability' of the Spitfire throughout the war.

ABOVE: The Spitfire XIV was superior to the Focke Wulf Fw190A in all aspects of combat performance except for rate of roll. (Romm)

BELOW: The Spitfire XIV was greatly superior to the Messerschmitt Bf 109G in almost every aspect of combat performance. (Schliephake)

