= Mikoyan @-@ Gurevich I @-@ 211 =

The Mikoyan @-@ Gurevich I @-@ 211 was a prototype high @-@ altitude Soviet fighter aircraft built during World War II . It was a version of the Mikoyan @-@ Gurevich I @-@ 210 , itself a variant of the Mikoyan @-@ Gurevich MiG @-@ 3 , fitted with a Shvetsov ASh @-@ 82F radial engine . Its development was quite prolonged , although successful , but by the time it finished its manufacturer 's trials in early 1944 there was no need for a high @-@ altitude fighter and it was not worth reducing the production of existing fighters to convert a factory over to the I @-@ 211 .

= = Development = =

The I @-@ 211 was a direct descendent of the Mikoyan @-@ Gurevich I @-@ 210 high @-@ altitude fighter prototype , also known as the MiG @-@ 3 @-@ 82 or MiG @-@ 9 . Late in 1941 , a decision was made to phase out production of the Mikulin AM @-@ 35A engine used by the MiG @-@ 1 and MiG @-@ 3 in favor of the Mikulin AM @-@ 38 engine used in the Ilyushin Il @-@ 2 . The MiG design team had already created a version of the MiG @-@ 3 called the I @-@ 210 using a Shvetsov ASh @-@ 82 radial engine instead of the inline , liquid @-@ cooled engine . A number of changes were made in order to accommodate the larger circumference of the radial engine , but the redesign of the engine cowling was a failure and the I @-@ 210 proved to be slower than the Yak @-@ 1 or the LaGG @-@ 3 when it first flew on 23 July 1941 .

Artem Mikoyan and Mikhail Gurevich continued development and another prototype was built , the MiG I @-@ 211 , or the MiG @-@ 9Ye , using the improved ASh @-@ 82F engine . Improvements from the I @-@ 210 included aerodynamic refinements of the engine cowling , the cockpit was moved aft 24 @.@ 5 cm (9 @.@ 6 in) , the oil cooler inlets were moved to the wing roots , the oil cooler was moved entirely inside fuselage and a larger tail was fitted . It was armed with two 20 mm (0 @.@ 79 in) ShVAK cannon . It weighed some 300 kg (660 lb) less than the I @-@ 210 , possibly due to an all @-@ metal structure , but this cannot be confirmed .

These refinements took most of 1942 to design and assembly of the I @-@ 211 did not begin until December 1942 . Its first flight was on 24 February 1943 . The reduction in drag and in weight greatly improved performance over the I @-@ 211 , with a top speed of 670 km / h (420 mph) at a height of 7 @,@ 000 m (23 @,@ 000 ft) and took only 4 @.@ 0 minutes to reach an altitude of 5 @,@ 000 m (16 @,@ 000 ft) . The OKB had originally planned to build ten in the first quarter of 1943 , but the manufacturer 's trials took an unexpectedly long time to complete and were not finished until the first quarter of 1944 . By this time there was little demand for a high @-@ altitude fighter and the project was canceled with only a single aircraft built .

= = = Nomenclature = = =

In a number of older books , the MiG I @-@ 211 is called the MiG @-@ 5 . It is now established that the MiG @-@ 5 designation was reserved for the production version of the MiG DIS , a twin @-@ engine fighter that did not enter production . The acronym DIS comes from Dalnij Istrebitel Soprovozhdenya or long @-@ range escort fighter . Similarly the MiG @-@ 9 designation was intended for the production version of the MiG @-@ 3 with the ASh @-@ 82 radial engine . This name was reused shortly afterwards for the first Mikoyan @-@ Gurevich jet fighter .

= = Operators = =

Soviet Union
Soviet Air Force

= = Specifications (I @-@ 211) = =

Data from Gordon , Soviet Airpower in World War 2

General characteristics
Crew : 1
Length : 7 @.@ 954 m (26 ft 1 in)
Wingspan : 10 @.@ 20 m (33 ft 5 ½ in)
Height : 3 @.@ 63 m (11 ft 10 in)
Wing area : 17 @.@ 44 m (187 @.@ 7 sq ft)
Empty weight : 2 @,@ 528 kg (5 @,@ 573 lb)
Loaded weight : 3 @,@ 100 kg (6 @,@ 834 lb)
Powerplant : 1 × Shvetsov M @-@ 82F air @-@ cooled radial piston engine , 1 @,@ 380 kW (1 @,@ 850 hp)
Performance
Maximum speed : 670 km / h (416 mph)
Range : 1 @,@ 440 km (894 mi)
Service ceiling : 11 @,@ 300 m (37 @,@ 065 ft)
Armament
2 × forward @-@ firing ShVAK 20 mm (0 @.@ 787 in) cannon mounted on the bottom of the engine cowling