

MiG-19P - M01 - Startup, Taxi, Take Off & Landing

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THE MIKOYAN MIG-19

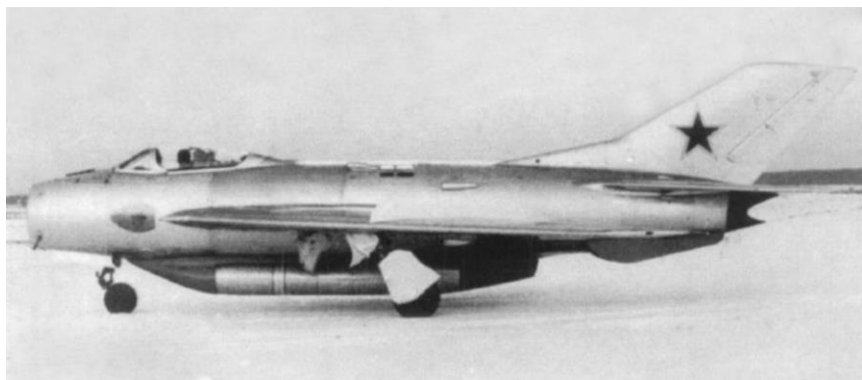
Condensed from a text by Greg Goebel

(http://www.airvectors.net/avmig15_3.html#m3)

DEVELOPMENT:

Even as the MiG-17 was going into service, the MiG OKB began to work in earnest on a next generation of fighters that could attain Mach 1 in level flight.

At the time, the MiG OKB was also working on the MiG-17 SM-1 / I-340 with twin AM-5F engines. Its performance was good, but no great step ahead of the MiG-17's, and so the logical thing to do was to use the engine arrangement of the I-340 with steeply swept flight surfaces. The result was the "izdeliye SM-2" or "I-360" long-range escort fighter, with development formally approved in August 1951.



The I-360 was effectively a new aircraft, powered by twin AM-5F turbojets, each providing an afterburning thrust of 26.5 kN (2,700 kgp / 5,950 lbf), and armed with a single N-37D 37-millimeter cannon in each wing root. The armament was moved from the nose to the wingroots to reduce problems with engine intake gun gas ingestion, though it

complicated maintenance compared to the neat cannon tray of the MiG-15/17. The wing had a leading-edge sweep of 60 degrees; the aircraft featured a ventral fin and, initially, a tee tail arrangement.

Two flight prototypes and a static test airframe were built. First flight of the initial I-360 prototype was on 24 May 1952, with test pilot G.A. Sedov at the controls; the machine broke Mach 1 in level flight on 25 June. The second prototype performed its initial flight on 28 September. The tee tail arrangement proved unsatisfactory, and so a conventional tail arrangement was fitted.



Performance of the I-360 was good, but the design suffered from a number of clear deficiencies. Although the VVS was enthusiastic about fielding the type, Mikoyan engineers thought they could do better and wanted to perform a major redesign, using the new Mikulin AM-9B / RD-9B turbojet, essentially an improved and scaled-up AM-5F with 25.5 kN (2,600 kgp / 5,730 lbf) dry thrust and 31.9 kN (3,250 kgp / 7,165 lbf) afterburning thrust. The new design was given the designation of "izdeliye SM-9".

A formal go-ahead for the development of the SM-9 was granted by the authorities in mid-August 1953, with both a tactical fighter and a radar-equipped interceptor to be built. Three SM-9 prototypes were built, with the initial flight of the first prototype on 5 February 1954, again with Sedov at the controls.

Trials went well, though many changes were implemented during flight tests, with the third prototype approximating production specification. As was common Soviet practice, the type was ordered into production as the "MiG-19" in mid-February 1954, well before the trials were completed, with the VVS looking forward to the service's first true supersonic fighter.

The first two production MiG-19s were delivered to the VVS in June 1955, with 48 of the machines performing a flyover at the Tushino air show in August. NATO assigned the MiG-19 the reporting name "Farmer".

THE MIG-19P "FARMER_B"

This is the radar-equipped interceptor variant, developed in parallel with the tactical fighter variant. The first of three "SM-7" prototypes of the interceptor variant performed its initial flight on 28 August 1954, with V.A. Nefyodov at the controls.



The SM-7 featured a redesigned and longer nose with RP-1 Izumrud radar and the fuselage 23-millimeter cannon deleted, the two wing cannon being retained.

The Izumrud featured a search radar in a "fat lip" radome and a tracking radar in a radome on the inlet bulkhead. After trials, the interceptor variant entered production in 1955 as the "MiG-19P" and went into service mostly with the PVO -- though the VVS and even the Red Navy operated a number of them. It was assigned the NATO reporting name of "Farmer-B".

Early production MiG-19Ps had NR-23 cannon, but production then moved to NR-30 cannon. "Farmer-Bs" often carried a single unguided rocket pod under each wing for air-to-air attacks.

Late in their service lives, some MiG-19Ps were modified to carry the K-13 / AA-2 Atoll Sidewinder AAM clone on a new outboard pylon. Late production machines had the improved RP-5 Izumrud radar, with greater range and better reliability.

The MiG-19's service in Soviet colors was transitory and not very significant. The most "action" they saw was against Western snoopers aircraft probing around or into the USSR's borders.

One of the best-known encounters was on 1 June 1960, when MiG-19 fighters shot down a Boeing RB-47H electronic reconnaissance aircraft that was snooping around Archangel in the north, with four of the crew killed and two taken prisoner.

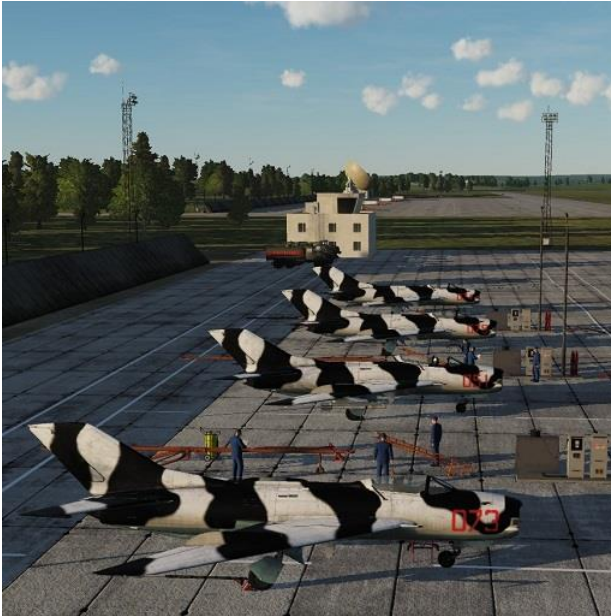
The MiG-19 was the mount of the Red Five flight demonstration team for a time, but the type was out of first-line service with the VVS and PVO by the end of the 1960s

Mission 01: May 5th 1965

This is the first on a set of MiG-19P Practice Missions set on Caucasus on the first half of 1965.

Today's mission objective is to practice Start-up, Taxi, Take Off, Circuit & Landing with the MiG-19P, at the airbase of Anapa-Vityazevo.

The flight is VFR so you don't need to use Navigation radios, but tuning the ADF radio to Anapa's Outer Beacon (at 443 kHz) can help orient yourself with respect to the runway start.



Skills to practice are:

- Cold Start
- Taxi
- Turns maintaining altitude & speed.
- Maintain steady Course.
- Visual Landing
- Your flight accuracy will be points rated, to gauge your progress.

Flight Path:

wp1 : Course 220° (magnetic) until reaching the coast.

wp2 : 305° until Blagoveschenskaya peninsula

wp3 : 35° until the Temryuk Peninsula

wp4 : 145° until bridge over creek

wp5 : 220° Land.

There is no ILS, but the Outer Beacon is 443 kHz so you can tune the ADF to it.



Weather:

Clear, with no wind and few clouds. Mission starting time is 19:55

Communications:

Radio Preset 1: ATC Anapa

Notes:

- Maintain an altitude of 1000 meters MSL & 600 Km/h IAS, during the practice circuit.
- Be careful of other air traffic on the area.
- The aircraft is with 50% internal fuel and no external tanks, to simulate return from a mission.
- Remember to contact ATC prior to landing, so they will lit the runway lights.



Results Points:

- +10 for each Waypoint reached with less than 1 Km of deviation.
- +10 each, for reaching Wp2 & Wp3 within specified altitude (1000 mt +/- 100)
- +10 each, for reaching Wp2 & Wp3 within specified speed (600 Km/h IAS +/- 30)
- +10 for a landing with Vertical Speed within 5 m/sec
- +20 for a landing with Vertical Speed within 2 m/sec
- 15 if you damage the plane during landing
- 50 if you crash or eject.

Max possible Results: 100

