



RUSSIA'S NEWEST FIGHTER JET IS FIFTH-GENERATION 'IN-NAME-ONLY'

News / Manufacturer



Just as the US is continuing to develop its latest fifth-generation aircraft in the form of the F-35 Lightning II, Russia has likewise been working steadily towards its own version of a next-generation aircraft.

Unfortunately for Russia, its PAK FA, also known as the T-50, is having developmental issues that put its entire premise of being a fifth-generation into question.

Reporting from the Singapore Airshow 2016, IHS Jane's reports that "Russian industry has consistently referred to the Sukhoi T-50 PAK-FA as a fifth-generation aircraft, but a careful look at the programme reveals that this is an 'in-name-only' designation."

This is largely due to a lack of evolutionary technology aboard the plane compared to previous jets that Russia and the US have designed. Indeed, the PAK FA's engines are the same as those aboard Russia's 4++ generation (a bridging generation between fourth and fifth-generation aircraft) Su-35. Additionally, the PAK FA and the Su-35 share many of the same on-board systems.

And even when the PAK FA's systems are different from the Su-35's, the plane's specifications are still not up to true fifth-generation standards.

RealClearDefense, citing Indian media reports that are familiar with a PAK FA variant being constructed in India, notes that the plane has multiple technological problems. Among these problems are the plane's "engine performance, the reliability of its AESA radar, and poor stealth engineering."

The question of stealth is one of the largest factors currently influencing perceptions of the PAK FA. In 2010 and 2011, two estimates from individuals close to the program estimate that the plane's radar cross section (RCS) would be between 0.3 and 0.5 square meters, RealClearDefense notes.



*Marina Lystseva via the youngster*A Russia PAK FA during a test flight.

In comparison, the US Air Force has hinted that the RCS of the F-22 is as small as 0.0001 square meters. The F-35's RCS is larger, but is still minuscule when compared to the PAK FA, as it has a RCS of roughly 0.001 square meters.

However, it is helpful to bear in mind that actual RCS numbers are classified. Neither Russia nor the US have released the actual RCS of their aircraft. Nevertheless, if the estimations are anywhere near accurate, the PAK FA is significantly less stealthy than its US equivalents.

Currently, Russia is planning on purchasing 12 PAK FA down from an initial order of 52 due to problems with the plane, rising cost, and problems facing Russia's economy.

25 FEBRUARY 2016

SOURCE: BUSINESS INSIDER

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