

## Sukhoi Su-35

The Sukhoi Su-35 is an air-defence fighter that is an improved variation of the Su-27 aircraft. It is a single-seat, twin-engine aircraft designed for air-superiority roles as well as other multiple roles.

It was designed by the Sukhoi Design Bureau and built by the Komsomolsk-on-Amur Aircraft Plant.

This article will give details about the Sukhoi Su-35 within the context of the IAS Exam.

### Origins of the Sukhoi Su-35

The Sukhoi Su-35 was originally designed in the Soviet Union with the Su-27 being the original base design. The maiden flight of the Su-35 happened in June 1988.

Following the dissolution of the Soviet Union, further designs were made in order to make them export ready. About 14 aircraft were produced and used for tests and demonstrations.

The aircraft made its debut in November 1993 when its flying capabilities were demonstrated in front of spectators in Dubai. After that it flew in another demonstration in Berlin and Paris. Following this, the Russian government approved the aircraft for export in the late 1990s and early 2000s.

A variant of the Su-35, the Su-35S saw its first combat deployment during the Russian intervention in the Syrian Civil War in January 2016. This was in response to the increased tensions between Russian and Turkey when a Turkish F-16 fighter shot down a Russian Su-24 bomber in 2015.

The Su-35S provides air cover for other aircrafts when conducting bombing missions. They had been crucial in preventing Turkish and Israeli incursions into Syrian territory as on a number of occasions the Su-35Ss had intercepted and turned away these aircraft when they were carrying out air operations of their own.

### Characteristics of Sukhoi Su-35

Characteristics of the Sukhoi Su-35	
No of Crew	1
Developer	Sukhoi Design Bureau

<b>Length</b>	21.9m
<b>Wingspan</b>	15.3m
<b>Height</b>	5.9m
<b>Maximum Payload Capacity</b>	8,000kg
<b>Armament</b>	<ul style="list-style-type: none"> <li>● <b>Air-to-air missiles:</b> Vypel R-27 (NATO designation AA-10 Alamo), the Vypel radar-guided medium-range R-77 (AA-12 Adder) and the Vypel short-range infrared-guided R-73E (AA-11 Archer).</li> <li>● <b>Air-to-surface missiles:</b> Include the Molniya Kh-29 (AS-14 Kedge) tactical missiles, the Kh-31P (AS-17 Krypton) anti-radiation missiles and the long-range Kh-58UShE (AS-11 Kilter) anti-radiation missiles.</li> <li>● <b>Anti-Ship Missiles:</b> Kh-31A, the long-range Kh-59MK (AS-18 Kazoo), the long-range Kalibr and the NPO Mashinostroyenia heavy long-range Yakhont missile.</li> <li>● <b>Guided Bombs:</b> KAB-500Kr TV-guided bomb, KAB-500S-E satellite-guided bomb, LGB-250 laser-guided bomb, Kab-1500Kr TV-guided bomb and KAB-1500LG laser-guided bomb.</li> <li>● <b>Rockets:</b> 80mm, 122mm, 266mm and 420mm variants</li> <li>● <b>Guns:</b> Gryazev-Shipunov 30mm GSh-30-1 gun is fitted in the starboard wing root with 150 rounds of ammunition.</li> </ul>
<b>Countermeasures</b>	Radar warning system, radar jammer, co-operative radar jamming system, missile approach warner, laser warner and chaff and flare dispenser.
<b>Engine</b>	Powered by two Sturn / UFA AL-31F 117S turbofan engines with thrust-vectoring nozzle control, each supplying 86.3kN thrust or 142.2kN with afterburner.

<b>Fuel Capacity</b>	14,350 Litres
<b>Maximum Speed</b>	2,390km/h
<b>Maximum Altitude</b>	18,000m
<b>Weight</b>	<ul style="list-style-type: none"> <li>• Normal Weight: 18,400kg</li> <li>• Maximum take-off weight: 34,500kg.</li> </ul>

## Comparison between Sukhoi Su-35 and Dassault Rafale Jet

There has been much comparison between the Sukhoi and Rafale Jet. Below we will give a table of comparisons with which a comparison can be made between the two aircraft.

<b>Parametres</b>	<b>Rafael</b>	<b>Sukhoi Su-35</b>
Maneuverability	Compared to the Su-35, the Rafael is not as manoeuvrable	The Sukhoi hands down beats the Rafel in terms of Maneuverability
Maximum Speed	Maximum speed is 1.8 Machs	Sukhoi can achieve 2.2 Mach at high altitudes
Weight	Rafale weighs 10 tonnes and the maximum take-off weight is 24.5 tonnes	Su-35S weighs 18,400 kg approximately and the maximum take-off weight is 34,500 kg.
Weapons	Rafale can carry air-to-ground and air-to-air missiles	Su-35S can carry air-to-air, air-to-surface, anti-ship, and anti-radiation missiles.

## Frequently Asked Questions about Sukhoi Su-35

### Is the Su-35 better than the Rafale?

The Sukhoi Su-35S can achieve a maximum speed of Mach 2.25 at higher altitudes, comparable to the F-22 and faster than the F-35 or F-16. The Sukhoi Su-35S is capable of flying at an altitude of 60,000 feet, which is equal to the F-15 and F-22 and 10,000 feet higher than the Super Hornet, Rafale and F-35.

## How good is the Sukhoi Su-35

The Su-35 is definitely the most capable Fighter in the Russian Air Force and there is no doubt that it presents a serious threat to any 4th gen aircraft out there. But to say that it's on the same level as today's F-15E, F/A-18E/F, Typhoon or Rafale, much less 'superior' is defying reality

