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Global Fighter Jets: Asia, the New Centre of Gravity?

By Richard A. Bitzinger

Synopsis

Some of Asia's aerospace industries are starting work on fifth-generation fighter aircraft. Despite huge technological hurdles, these countries could displace Western Europe as a leading centre of fighter jet development, and possibly one day give the United States some real competition in global markets.

Commentary

FOR CENTURIES, North America and Europe have dominated the state-of-the-art when it comes to military technology. Nearly all the great breakthroughs in weaponry – from muskets to missiles – have originated there. And perhaps no field of military technology has been more consistently and overwhelmingly the purview of the occidental West than fighter jets.

Since the end of World War II, a handful of countries in the West – basically, the United States, the USSR/Russia, Britain, France, and Sweden – have controlled the global fighter jet industry. Many countries have tried to break into this business: Argentina in the 1950s, Egypt and India in the 1960s, Israel and South Africa in the 1980s; none were particularly successful, and some – such as the Indian HF-24 Marut – were spectacular failures. Even today, perhaps 90 percent of all fighter jets flown by all the world's air forces are produced by these five countries, or are based on copies of their planes (such as the Chinese J-7 fighter, a virtual clone of the venerable Soviet MiG-21).

This Western dominance could begin to crumble, however, as Asia ramps up several new fighter jet programmes, all of which are intended to come into service over the next 10 to 20 years. Consequently, the centre of gravity in the fighter jet industry could gradually begin to shift from the North Atlantic closer to the Asia – a development that could have particularly grave consequences for Western Europe's military aerospace sector and could eventually even challenge the US's predominance in this sector.

Asia's Fighter Jet Programmes: Who's Up, Who's Down?

Combat aircraft development in Asia is a decidedly uneven affair. Southeast Asia, for example, has hardly a player in this sector, despite the vainglorious efforts of B.J. Habibie to turn Indonesia into an aerospace powerhouse, or Singapore Technologies' success as an aircraft maintenance and upgrade shop. In addition, Taiwan's indigenous aerospace industry – which developed both an advanced trainer jet (the AT-3) and a frontline fighter (the Ching-kuo) – is for all practical purposes dead in the water, having not produced a new aircraft in over a decade.

Even Japan, Asia's aerospace leader for decades (and the only country in the region to possess a military aircraft industry before World War II), is in a state of uncertain decline. Its current indigenous fighter jet, the F-2, has been a technological and programmatic dead-end: its all-composite wing is prone to cracks, and it is so outrageously expensive (three times the cost of the F-16 upon which it is based) that procurement was cut from 130 to only 98 planes. When the last F-2 is delivered this year, Japan will have no fighter aircraft in production – and no new programme to replace it.

Rising Centres: China, India, and South Korea

On the other hand, some Asian fighter aircraft producers are obviously on the rise, despite all odds. China startled the world in January with the first flight of its J-20 fighter. Not much is known about this aircraft, which in some ways resembles the US “fifth-generation” F-22, and one should be careful not to read too much into this programme. Nevertheless, the J-20 certainly demonstrates China's ambitions – and the aggressive steps it is prepared to take – to claw its way up into the vanguard of fighter-jet producers.

India is also attempting to develop a fifth-generation fighter, in collaboration with Russia, based on the Sukhoi PAK FA (T-50) prototype. If this programme is successful, it would constitute a generational leap in India's fighter jet technology, as well as atoning for its long-delayed and over-budget Tejas fighter.

Finally, South Korea is pressing ahead with not one but two designs for an indigenous fifth-generation “KF-X” fighter – a twin-engine, canard-type fighter, and a single-engine aircraft resembling the F-35 Joint Strike Fighter (JSF). Interestingly, both Indonesia and Turkey are keen to partner with Korea in developing and manufacturing one of these fighters.

What About Europe?

All of these fighter jets are intended to fly or even be fielded within a decade. Of course, these countries face tremendous challenges translating these programmes – some which are literally paper aircraft – into actual frontline fighters. India is heavily dependent upon Russian know-how and systems, while it is highly uncertain that South Korea possesses the technological base to indigenously develop a state-of-the-art fighter. If these countries should succeed, however, this would constitute a tectonic shift in the centre of gravity in the global fighter jet industry.

Europe is the most at risk for losing its place to Asia in the global fighter jet hierarchy. Western Europe has basically not developed a new fighter in nearly 30 years. At present there is no money in the European aerospace sector to fund a fifth-generation follow-on to the Eurofighter Typhoon, the French Rafale, or the Swedish Gripen. Moreover, talk about a European UCAV (an unmanned combat aerial vehicle), which could constitute the region's next-generation fighter programme, remains just that – talk.

Consequently, the future global fighter aircraft business could in time become a US-Asian duopoly. And while the US, with the F-35 JSF, is likely to dominate this sector for the next two decades – especially when it comes to international arms sales – some upstart Asian aircraft producers could eventually give it a real run for its money.

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