China unveils Stealth Aircraft

CLAWS RESEARCH TEAM

China's first known stealth aircraft just emerged from a secret development program. China test flew its stealth fighter jet on 11 Jan 2011 in what analysts said was either a snub to U.S. Defense Secretary Robert Gates(who was visiting China at precisely that time) or a sign of the rising might of the military in the country. Pictures and videos of the aircraft, designated as J-20, undergoing high-speed taxi tests recently at Chengdu Aircraft Design Institute's airfield, had appeared all over Chinese websites in end Dec 2010. The J-20 fighter is a direct rival for America's F-22 Raptor, the world's only fully operational stealth fighter. Gates cut funding to the U.S. plane in 2009 on grounds China wouldn't have any similar fighter by 2020, and only a few by 2025.

The rolling out of the J-20 has surprised most Western estimates which had predicted that China's stealth aircraft will not be operational by 2020. Gates insisted after his visit that he didn't feel snubbed by the Chinese show of force. But the timing of the test is potentially a huge embarrassment for the White House. Secretary Gates said that President Hu Jintao had confirmed the event to him in their talks and he (Jintao) has also said that it had absolutely nothing to do with Gates' visit and had been a pre-planned test

The J-20 is larger than most observers expected—pointing to long range and heavy weapon loads. It is a single-seat, twin-engine aircraft, bigger and heavier than the Sukhoi T-50 and the Lockheed Martin F-22, both fifth generation stealth aircraft.

The debut of the J-20 was announced in a November 2009 interview on Chinese TV by Gen. He Weirong, deputy commander of the People's Liberation Army Air Force (PLAAF). As reported by Xinhua News Agency, the general said that a "fourth-generation" fighter (Chinese terminology for a fifth generation stealth fighter) would be flown in 2010-11 and be operational in 2017-19.

The major open question at this point is whether the J-20 is a true prototype,

like the T-50, or a technology demonstrator. That question will be answered by whether, and how many, further J-20s enter flight testing in the next 12-24 months.

A rapid development program would be a challenge for China's combat aircraft industry, which is currently busy. The J-10B, FC-17 and Shenyang's J-11B and carrier-based J-15 are all under development. However, the progress of China's military aviation technology has been rapid since the first flight of the J-10 in 1996, owing to the nation's growing economy and the push by the People's Liberation Army for a modernized military force in all domains.

Since then Chinese aeronautics industry has been on the path of self reliance that was a clever mix of intense local research, complex reverse engineering and selective import of foreign designs in aircraft, missiles, Airborne Warning and Control System (AWACS) and various other technologies. In the last decade of the 20th century, China entered into an agreement with Russia for the licensed production of two hundred Su-27s at a Chinese factory at Shenyang. Then, PLAAF entered into a $1.85 billion contract with Russia to purchase thirty-eight Su-30MKK fighter bombers with upgraded avionics, larger weapon payloads, and air-refuelling capabilities. Thereafter, it placed two additional orders for thirty-eight aircraft for the air force and twenty-four Su-30MK2s for the PLA naval aviation forces. To have a better precision strike capability, they developed the JH-7 fighter bomber. The J-10 fighter aircraft, a fourth generation fighter can now be counted as an able adversary to the current crop of American F-15/16/18 aircraft. The PLAAF is still evaluating the JF-17 fighter for induction into its fleet.

The Chinese AWACS was developed in a high-low combination with the KJ-2000 based on the Russian Il-76 MD airframe and KJ-200 based on the Y-8F-200 transport platform. Simultaneously, five other types of EW aircraft, the High New series, the Y-8 version, were developed and have gradually entered service.

Implications for India

The JF-17 is a fourth generation aircraft and is likely to be mainstay of PAF in the coming years. When compared to what Indian Air Force (IAF) has with respect to aircraft of the same generation (MiG-29, Mirage 2000 and Bison), it has restored parity only as far as technology is concerned. Additionally, the Su-30 MKI is arguably the most advance fighter in the world today. India has more than two decades of flying these aircraft. With the experience of maintaining, operating and rigorously training on these under the harshest possible environmental conditions, the edge still remains with India.

The PLAAF modernization is on the close watch list of observers in India. With the imminent deal of 126 multi-role fighter planes, joint Indo-Russian development of the fifth-generation fighter aircraft (FGFA), the induction of AWACS aircraft and the committed focus on network integration, the IAF will still be able to hold its own against its northern neighbour in the decades to come.