Introduction

In the first week of June 2014 the United States Department of Defence published its “Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China 2014.” This report studies the present and “probable future course of military-technological development” of the PLA and the unclassified part is released for the public. This year’s report has stated, for the first time, that China’s Air Force (also called People’s Liberation Army Air Force - PLAAF), “is pursuing modernisation on a scale unprecedented in its history.” The PLA has been modernising its forces since more than two decades but the scale of modernisation has raised questions about its intentions. While it seems that preparing for a Taiwan contingency and likely intervention by USA is of primary concern to China, the huge military build up now looks like to have included potential conflicts in East and South China Seas. The increasing inventory of advanced weapons - conventional ballistic missiles, cruise missiles, fourth generation fighter aircraft, air defence missiles and other hardware coupled with China’s increasing assertiveness in maritime disputes with its neighbours - has caused anxiety in the region. India needs to be alert of the serious security challenges posed by China’s rising military clout. China’s repeated border incursions are attempts to coerce India and keep tensions alive. This article briefly examines the air force aspects in the Pentagon report and its implications for India.
PLAAF Combat Aircraft Force Structure

With strength of almost 330,000 personnel and 1900 combat aircraft PLAAF is the third largest air force in the world and is modernising at a rapid pace. Out of the 1900 combat aircraft about “600 are modern,” these are probably the J-10/J11/SU-27/SU-30/JH-7A class of aircraft. PLAAF is closing the gap with other advanced air forces by improving its capabilities in command and control, electronic warfare and data links. PLAAF still has a large number of older Soviet era fighter/attack aircraft like the J-7, Q-5 and J-8 but these are being phased out and the report states that “it will become a majority fourth generation force within the next several years.”

PLAAF Modernisation Programs

Some of the major modernisation programs of PLAAF, in the report, are listed below:-

a) China is trying to procure advanced SU-35 multi-role fighter aircraft from Russia. The SU-35 is equipped with the NIIP IRBIS-E passive electronically scanned array radar which has a pick up range of 400 km on a 3m² target. If this deal goes through, the SU-35 could enter service in 2016 or 2018.

b) China is “vigorously pursuing fifth generation capabilities.” The stealth programs which are currently being pursued are the J-20 which first flew in January 2011 and the J-31 which conducted its first test flight in October 2012. J-31 is smaller in size than the J-20.

c) China’s long range bombers continue to be the H-6 variants which are a Chinese copy of Soviet era TU-16 aircraft. China has upgraded its H-6 fleet with new avionics and better engines. The most important improvement is in the H-6K which carries Chinese air...
launched cruise missiles YJ-63 with a range of about 200km+. The H-6K is capable of carrying six ALCMs and has been fitted with new turbofan engines to extend its range. Modifying the H-6K to carry cruise missiles has given PLAAF the capability to carry out long range stand-off precision strikes.

d) Strengthening China’s air defence capabilities is a priority for PLAAF. China has established a robust air defence system and “possesses one of the largest forces of advanced SAMs in the world.” These lethal long range SAMs are a combination of the Russian S-300 variants and the indigenous HQ-9. China has also shown interest in acquiring Russia’s newest long-range SAM, the S-400 TRIUMF. If this contract is signed then China will become the first country to import this very capable 400 km range SAM.

e) China is developing a new heavy transport aircraft, Y-20, which was first flight tested in January 2013. The Y-20 is likely to be the basis for future aerial refuelling, AWACS and ISR (Intelligence, Surveillance and Reconnaissance) platforms.

Implications for India

The implications of PLAAF’s modernisation for India are:-

a) India cannot match the numerical superiority of the PLA in terms of manpower and equipment. There is no need for India to get into an arms race with China and match its inventory weapon by weapon. India needs to concentrate on maintaining an asymmetry to deter China from any attempts at coercion or to resolve disputes by use of force. Indian Air Force (IAF) must continue to maintain its lead with respect to PLAAF in terms of technology and superior training. The IAF at present enjoys a technological advantage over PLAAF with the SU-30 MKI of IAF being superior in many respects to the SU-30MKK of PLAAF. To give an example, the SU30-MKI has a pick up range of 210 km compared to 130 km of the SU-30MKK on a similar target. If the SU-35 deal is finalised it will take another to two to four years for deliveries to start. The SU-35 induction will give PLAAF a technological advantage over the IAF but this can be overcome if we get our act together. India needs to finalise the Rafale deal for 126 aircraft from France. This deal has been hanging fire since the last few years due to various reasons. These problems need to be solved quickly for the deal to move forward. The planned upgrade of
80 SU-30MKI to ‘Super Sukhoi’ standard also needs to be expedited. The **Rafale** and **Super Sukhoi** will give IAF the edge to counter the SU-35.

b) Against PLAAF’s combat aircraft strength of 1900, IAF has strength of 866 combat aircraft. While this gives China a 2.2: 1 advantage in terms of numbers, it needs to be understood that PLAAF cannot deploy all these aircraft against us due to the limited number of airfields close to India and infrastructure of these airfields. China has two military regions opposite India, Lanzhou and Chengdu. Lanzhou covers Xinjiang region opposite Ladakh and Chengdu covers Tibet region opposite Eastern India. China has a large number of airfields but most of them are far away from our border. They have very few military airfields in Tibet and South Xinjiang. The airfields in Tibet are mostly at heights of more than 3000 m. At these high altitudes aircraft operations suffer from load penalties due to the reduced density of air. This will be a limitation for PLAAF considering that their tanker fleet is also limited. The induction of Y-20 heavy transport aircraft in PLAAF as an aerial refueller, in the coming years, will enhance their long range strike capability. This is a trend which India will have to watch.

c) India’s plans to carry out trials of the air launched version of the Brahmos supersonic cruise missile will give the IAF long range standoff precision offensive strike capability and to penetrate China’s strong missile defended areas. India needs to step up its plans to develop the hypersonic Brahmos-2 cruise missile and subsonic 1000 km range Nirbhay cruise missile.

China’s military build up is of serious concern to India. This is a challenge which India must accept and build up its capabilities in critical areas to resolutely counter any provocation from China.

*(Disclaimer: The views and opinions expressed in this article are those of the author and do not necessarily reflect the position of the Centre for Air Power Studies CAPS)*

---

4. The data on number of combat aircraft for PLAAF is from N1 ibid. and for the IAF from Military Balance 2014.