



AVIC – CATALYST FOR CAPACITY BUILDING

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Inter-changeability of actors and tryst with geopolitics in 1990s redefined China's stature in contemporary history. The breakup of the Soviet Union, the end of the cold war, China's realignment with Russia and also with erstwhile states of Soviet Union whose economy solely depended on the arms industry characterised the alignment of China in the post-cold war era. Entry into WTO was a game changer, resulting in China's integration with the world economy and China's access to dual use technology. As a consequence, China's Aviation Industry started to roll back trade barriers by adopting a development strategy rooted in *Liberalisation, Competition and Cooperation*. It also marked a shift in focus from earlier obsession for quantity to quality and a swing from being imitators to innovators¹.

International threat environment of 1990s was a watershed in China's defence industrial strategy and the leadership was willing to walk the extra mile. The Gulf War altered the outlook and China substantially increased allocation of defense which started to register a year on year increase of 12%. In 1993, China's defence expenditure amounted to a meagre \$6 billion which in real terms was less than its allocation in 1979. However in the post cold war era China increased defence expenditure to \$15 billion in 2000 which was further escalated to a whopping \$115 billion in 2013, the highest in Asia, second to the US and amounting to almost 6% of the world's planned defence

¹ Cheung, Tai Ming, 2010, "Remaking Cinderella: The Nature and Development of China's Aviation Industry," Associate Research Scientist at the Institute on Global Conflict and Cooperation, University of California, San Diego, Paper presented before the US-China Economic and Security Review Commission

expenditure². Hence it became apparent that China was aggressively trying to close-in the existing gap with the developed economies by not only viewing defence as means to guarantee security and ensuring sovereignty but also viewing the aviation industry as a catalyst for capacity building. Its defence economy has since then been propelled by forward thinking leadership which broadly understood the relevance of S&T towards building a modern and innovative nation based on technological autarky.

China observed that the existing technology gap with developed nations was largely due to the lack of qualified human resources and the capacity to absorb technology. China therefore started enhancing the quality of human resources by investing in research institutes and higher education facilities. China started diverting large amounts of public and private funds for defence R&D; employing over 4,00,000 personnel in R&D and 1,20,000 personnel in aviation related R&D. Increased allocation on education resulted in an increase in the pool of NSE (Natural Science Engineers) and PhDs.³ The business sector also played a key role in China's emergence as an innovation oriented nation. China followed the dual-use technology route for the development of Science and Technology through its various programmes like 863, 973, Xinghuo (integrating S&T and agriculture) and Huoju (high-tech industrial development park) which resulted in spin-ins of major technology and also helped in rejuvenating the scientific culture inside China.

The Medium to Long Term Plan for development of S&T 2006 (MLP) resulted in surge of R&D institutes; S&T laboratories and defence enterprises started developing partnerships with universities and foreign high-tech firms to establish technology incubators and undertake high-end R&D.

- 13 % of defence spending allocated for defence R&D which amounted to almost 16% of global defence R&D
- One-third of the China's defence budget allocated for R&D and procurements

² Keith b Richburg, China's Military Spending to top \$100 billion in 2012, alarming neighbours , March 4, 2012 http://www.washingtonpost.com/world/china-military-spending-to-top-100-billion-this-year/2012/03/04/gIQAJRnypR_story.html

³ Lu Yongxiang, Science & Technology in China: A Roadmap to 2050, Chinese Academy of Sciences, Science Press Beijing

- R&D as a percentage of GDP increased to 2% and further expected to increase to 2.5% by 2015
- Increase in the budget helped the PLA expand the acquisition of modern military equipments, develop indigenous capabilities both via imitation as well as the innovation route
- Develop a plethora of modern fourth generation aircraft, frigates, destroyers and a wide range of nuclear and conventionally powered submarines

The reason China was able to step up capabilities was because it was ready to adapt and bring changes in the management and financial systems governing its aviation industries. Healthy governance, JV, flow of FDIs and sub-contracting arrangements from the primes had a profound impact on China's defence economy. The industry also started venturing into the capital markets – all critical to energise growth. While capital markets have funded wars in the past, PLA was now looking at the stock markets to propel the expansion plans for its defence industry. China's defence economy is expected to raise \$1.4 billion through a private placement to buy production facility and equipment to make warships⁴. AVIC (Aviation Industry of China) by 2003 started generating revenues which rose to US \$ 28 billion and profits surged to US \$ 1.5 billion. AVIC's market capitalisation increased to Yuan 200 billion and further expected to rise to Yuan 1 trillion by 2017. Apart from Asia where Pakistan is the major importer of conventional Chinese weapons, China also exports arms to 16 African countries and, between 2007 and 2012, China signed deals worth \$11 billion worldwide⁵.

China's civil and military leadership along with its aviation industry made significant efforts to align and adapt to the changing international business environment. As a result, China's aviation industry of today is different from the industry of yore. China is developing high tech capabilities and trend suggest that Russia's past (as an exporter of arms) could well become China's future. While on one hand China's arms import from Russia dropped from \$2.7

⁴ Simon Rabinovitch, 'China Navy Plots Course to Stock Market', Financial Times, September 12, 2013

⁵ China Exports Arms Worth \$ 11billion in 5 years, Pak Major Buyer: Pentagon, Times of India, May 7, 2013 http://articles.timesofindia.indiatimes.com/2013-05-07/india/39089753_1_arms-exports-pentagon-report-arms-sales and accessed on September 23, 2013.

billion in 2002 to \$500million in 2010, on the other hand China's annual exports surged replacing UK to become the fifth largest arms exporter and accounting for 5% of global arms trade. The export volumes of major Chinese conventional weapons increased by 162 per cent between 2003–2007 and 2008–2012, and its share of the volume of international arms exports increased from 2 to 5 per cent⁶.

Countries in the West ought to learn lessons from the Sino-Russian arms trade where Russia practically ended up arming China. While arms trade is starkly different from selling any other goods hence apart from commercial considerations other factors like ideology and geopolitics too need to be factored in. There are countries in the EU (European Union) calling for the lifting arms embargo by which China will stand to gain substantially. Therefore drawing out lessons from the Russian model where Moscow looked at arms trade as a business, countries in the West eager to participate in China's growth story must show restraint, exercise caution and look at China as a proscribed market lest they too get trapped in the vulnerability of arms trade with China like the Russians.

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⁶ 'China replaces UK as the fifth largest arms exporter' SIPRI, March 18, 2013 <http://www.sipri.org/media/pressreleases/2013/ATlaunch> accessed on September 23, 2013