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Military-Technical Cooperation Between Russia and China: Current State and Prospects

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Summary

Military-technical cooperation between Russia and China is experiencing a strong recovery after a period of relative decline. However, unlike the earlier era when it supplied weapons platforms, Russia now provides China with high-tech components for indigenous Chinese platforms. Russian and Chinese military-technical cooperation is characterized by a fundamental lack of trust, with China regarding any dependence on arms imports as a weakness, and Russia considering China a potentially dangerous competitor in the international arms market. Chinese import substitution policy in the defense sector is unlikely to succeed in the foreseeable future, however. While Chinese defense R&D programs are growing more ambitious, they are not always supported by the state of its industrial and research base. Earlier Russian arms sales and technology transfers to China were crucial to the survival of the Russian defense industry, and Russia had no choice but to expand military-technical cooperation. Cooperation today with China is not necessary for the Russian defense sector to survive. Russia now refuses to provide certain types of equipment and technology. In areas where profits clearly outweigh technology leak risks, the Russians are willing to cooperate.

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Military-technical cooperation between Russia and China restarted in the 1990s just prior to the Soviet Union's collapse and affected almost every aspect of Chinese military modernization. For more than two decades, Russia was China's key foreign source of modern military technology. Some of the key Chinese weapon systems produced for both domestic needs and export were based on reverse-engineered Russian designs or were produced under Russian licenses. Russian help allowed China to quickly upgrade its domestic defense industry production capabilities and expand its military power.

The growth of Chinese defense industrial capacity led to a sharp decline in Russian arms exports in the early 2000s, and to a crisis after Russia's failure to fulfill a 2005 contract for Il-76 transport aircraft and Il-78 tankers. However, by 2010 there were clear signs of a new dynamic in Chinese-Russian bilateral cooperation.

The most recent data disclosed by Russian officials in August–September 2012 shows that a rapid recovery of Russian arms exports to China is underway. However, the nature of this cooperation has changed drastically since the 1990s. Currently, the sale of Russian platforms to China is limited. The key cooperation areas are sales and, possibly, joint research on certain high-tech subsystems for Chinese indigenous platforms.

KEY COOPERATIVE PROJECTS

Moscow and Beijing decided to resume bilateral military technical cooperation soon after the normalization of the Sino-Soviet relations in 1989. In May 1990, the two countries signed their first important arms contract since early 1960s for the sale of Russian Su-27SK and Su-27UBK fighters to China. The institutional framework for military-technical cooperation was created by an intergovernmental agreement on military-technical cooperation (signed November 24, 1992) and by a memorandum of understanding between Russia and the PRC (December 18, 1992). The two sides agreed to set up a bilateral Intergovernmental Commission on Military-Technical Cooperation. The commission is co-chaired by the defense ministers of the two countries and meets annually.

A full-scale crisis in the Russian defense industry in 1993 caused by the collapse of the state procurement system significantly increased Russian interest in arms sales to China. At the same time, Russian willingness to transfer technology to China grew as Russian relations with the West deteriorated in the mid-1990s.

In 1995, the two countries signed an additional contract for Su-27SK and Su-27UBK fighters. The first technology transfers also took place around that time. China received production licenses for the Nona-S 120-mm gun-mortar system and the Krasnopol laser-guided artillery shell. The most important tech transfer contract was signed in 1996 and covered production of 200 Su-27SK fighters in China under Russian license, with a contract volume of $2.2–2.5 billion . Another important project was the joint development of the FC-1 fighter, based on an old MiG proposal for a light tactical fighter for the Soviet Air Force (the so-called Item 33).

By the end of 1990s a number of key projects had taken place, including the license transfer for the Bakhcha combat compartment (a weapons system that includes a 30-mm auto-gun, 100-mm gun/missile launcher, and advanced fire control, used by the modern Chinese Armored Infantry Fighting Vehicle). Russia also aided in the development of the Hongdu L-15 trainer, which is based on the Russian Yak-130 design. In addition, Russia and China undertook joint development of a number of important air-launched weapons systems, including the PL-12 and YJ-91 missiles.

China obtained design documentation for the Russian BA-611 "Squall" rocket-propelled torpedo, which enabled it to create an indigenous copy in the 2000s. China was provided with design documentation for the Russian Project 11435 aircraft carrier. The Chinese also purchased Russian Project 877 and Project 636 (KILO-class) conventional submarines and Project 956 destroyers, as well as a number of naval surface-to-air missile (SAM) systems and sensors.

Later, Russia helped in the Chinese development of air defense systems such as the HQ-16 SAM, which had naval and ground-based versions. Supply of the Russian S-300 family long-range SAM systems continued throughout the

1990s and 2000s, and S-300 technology has probably influenced the Chinese HQ-9 SAM system.

In general, Russian cooperation played a vital role in the development of the Chinese air force and air defense systems and a very important role in the development of the Chinese ground forces and navy. China and India in the 1990s were the two key markets that ensured the survival of the Russian defense industry. As one of the two key procurers, China had significant market power, so Russia could deny technology transfers to the Chinese in only a few cases. These cases, reportedly, include Tu-22M3 bombers, MiG-31 fighters, Iskander theater ballistic missiles, and certain engine types.

CRISIS

The development of Chinese indigenous production capacity since the late 1990s–early 2000s has reduced its interest in Russian arms. By 2003, China had terminated the key contract on the Su-27SK licensed production in Shenyang. Later, China produced "indigenous" J-11B/BS fighters based on Su-27SK design, which violated the terms of the license agreement with the Russians. China also stopped procurement of S-30MKK fighters. The Russian licenses for the Chinese ordnance industry were successfully absorbed by the Chinese, and a number of new systems were put into serial production.

The Chinese were clearly overestimating their capabilities in some areas. For example, the Shenyang WS-10A Taihang turbofan was expected to replace Russian AL-31F/FN engines over the next 3–4 years. In 2006, AVIC declared that it had completed the successful development of that engine.

A chance to revitalize cooperation emerged in September 2005 when Russia and China signed a contract for Il-76MD transports and Il-78 tankers worth approximately $1 billion. However, Russia failed to fulfill this contract because of difficulties with the final assembly plant in Uzbekistan. The Uzbek plant was unable to handle such a big order, and relocation of production to a Russian factory in Ulyanovsk required several years. The contract was terminated, which contributed to a sharp downturn in cooperation between the two countries. In 2006–2007, Russia and China canceled the regular meetings of the Military-Technical Cooperation Commission.

However, limited cooperation continued in some areas. For example, China continued to be greatly interested in the Russian S-300 air defense systems. China and Russia were jointly working on the development of the naval and ground versions of the HQ-16 SAM system. China also continued large-scale purchases of Mi-17 helicopters.

The most important dimension of continuing military-technical cooperation between the two countries was in aircraft engines. There are four types of advanced Chinese combat aircraft that rely on Russian engines: the J-11B family aircraft (AL-31F engines), J-10 (AL-31FN), FC-1 (RD-93), and H-6K (D-30KP2). In fact, among the latest generation of the Chinese combat aircraft, only the JH-7A bomber does not depend on Russian engines.

At the same time, Russian interest in the Chinese market has declined. By the mid-2000s, Russian arms manufacturers had expanded their presence to other countries, such as Algeria, Vietnam, and Venezuela. The Russian domestic arms market was also growing steadily. In 2011 the total value of weapons exported by Russia was close to $13 billion, while the Russian defense procurement budget the same year was $18.2 billion. According to Russian Vice Prime Minister Dmitry Rogozin, defense exports account for just 22 percent of the total income of Russian defense companies. Domestic arms sales account for 45 percent of their business, and 33 percent comes from non-defense-related business.

COMPETITION

Russia has started to think of China as a potentially dangerous competitor for the arms markets of developing countries. In July 2010, Mikhail Pogossyan, at that time the head of the aircraft holding company 'Sukhoi' and RAC MiG, wrote a letter to the Russian Federal Service for Military-Technical Cooperation demanding an end to RD-93 engine sales to China. Pogossyan considered the Chinese FC-1 fighter, which uses these

engines, as a dangerous rival to the Russian MiG-29 family. This request was denied, but heated discussions on the problems of Chinese competition followed.

As a result, Chinese requests for new weapons are now treated with much greater caution. The Chinese side, for example, has been informed that S-400 SAM systems would be available to them no earlier than 2017. By that time, Russia hopes to start producing and deploying the next-generation S-500 systems. Negotiations on a joint heavy transport helicopter project initiated by China in 2008 are still stalled because the Russian side insists on minimal technology transfers and wants the Chinese to finance the project at the same time. There are no signs that Russia is ready to give the Chinese its most advanced 117S engines.

RECOVERY AND THE CURRENT STATE OF COOPERATION

Signs of recovery in China-Russia military-technical cooperation emerged during the visit of Russian Defense Minister Anatoly Serdyukov to China in November 2010. During the annual meeting of the bilateral Commission on Military-Technical Cooperation, the Chinese expressed interest in the new 117S turbofan used on Su-35S fighters, Il-476 transports (Russian-produced upgraded Il-76 version), and S-400 SAM systems. Negotiations on possible Su-35S fighter sales to China started later.

As data published by the Russian authorities in July–September 2012 clearly shows, strong recovery in the bilateral arms trade is already underway, and trade volume in nominal terms will soon approach the levels of the 1990s. The two largest known contracts signed during this time (July contract for 55 Mi-171E helicopters and February contract for 140 AL-31F engines) have a combined value exceeding $1.3 billion. In an interview with the Interfax news agency at the end of August 2012, Vyacheslav Dzirkaln, deputy director of the Federal Service for Military-Technical Cooperation of Russia, stated that the Chinese share of the total Russian defense exports was “close to 15 percent” of the total 2011 volume. That means that the export volume (he spoke about actual arms transfers, not contracts signed) could have approached $1.9 billion per year.

Aircraft engines are still the key component of Chinese-Russian arms trade. In addition, a large portion of Russian exports consists of smaller parts and subsystems for Chinese weapons and platforms, which cannot be easily identified. The only new platforms Russia is exporting to China are Mi-17 transport helicopters and Kamov naval helicopters. In 2011, China also started small-scale purchases of second-hand Il-76 transports from Russia, Belarus, and other former Soviet countries.

The most important new projects that are currently being negotiated by the two countries are:

- ***Su-35S fighters.*** After long negotiations Russia and China agreed in principle on the sale of 24 Su-35S fighters to China. However, the negotiations on the financial terms of the sale are supposed to take place in 2013 and will be difficult (originally Russia hoped to sell at least 48 fighters to China). The Chinese seem interested in the aircraft for reverse engineering and further upgrading the “indigenous” J-11B family aircraft.
- ***S-400 SAM systems.*** Negotiations are underway, but Russia is refusing to allow any sales to take place before 2017. The official reason is that production is at capacity filling domestic orders. The real reason may be that by that time Russia hopes to deploy the more advanced S-500 system.
- ***Il-476 transports*** (IL-76 upgrade, official designation IL-76MD-90A) produced in Ulyanovsk. The only visible obstacles to the deal are delays in the Ulyanovsk plant in testing and preparing for mass production of the aircraft. The Il-476 made its first flight in September 2012 and is currently undergoing tests. The start of serial production is planned for 2014.
- ***117S engines,*** possibly for the next generation of the Chinese fighters. No details are available. Under the current situation, engine sales are possible in the foreseeable future, but without tech transfers.

If even two of these big projects materialize, we can expect further rapid growth in cooperation, above the level of $2 billion per year. Otherwise, cooperation can still be expected to grow steadily for several more years.

Any shut-off of military-technical cooperation could complicate the overall climate of Sino-Russian relations, which has growing strategic importance for both countries. Thus cooperation is likely to continue for some time, and further moderate growth of the Russian defense exports to China can be expected.

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