Chapter 4
External Drivers for OPK Success:
Arms Transfers to China

In the late 1980s, with the advent of glasnost and perestroika, some 25 years of Sino-Soviet antagonism ended. Intensive cross-border movements of people and goods were renewed, including the transfer of Russian weaponry for the first time since the ideological divergence that led to the Sino-Soviet split in the 1960s. From 1980 to 1991, China’s Gross National Product (GNP) grew at an annual rate of 9.4 per cent, peaking at 13 per cent in the mid 1990s. Since then, GNP growth has held steady between 8 and 10 per cent.¹ GNP growth allowed the Chinese military budget to expand: it doubled between 1990 and 1995, doubled again between 1995 and 2000, and doubled yet again from 2000 to 2005.² In March 2006 China announced that its annual defence budget would increase by 14.7 per cent over the previous year. This increase sustained a trend of defence growth rates exceeding overall economic growth that had persisted since the 1990s.³

An expanding defence budget has enabled China to carry out major military reforms by refining the numbers of its military and simultaneously improving the quality of technology, weapon systems and training. However, the publicly announced increases in defence spending of around 18 per cent in recent years are difficult to confirm, given the well-known opacity of Chinese figures and statistics, especially with regard to defence.⁴ What little public information China releases about defence spending is further clouded by a multitude of funding sources, subsidies, and cutouts at all levels of government, and in multiple ministries.⁵ It is likely that this announced spending reveals only the tip of a vast and growing iceberg of military expenditure. The US Defense Intelligence Agency (DIA) believes that the officially published figures substantially underreport actual expenditures: ‘DIA estimates that China’s total military-related spending will amount to between US$70 billion and US$105 billion in 2006—two to three times the announced budget.’⁶

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Since the Tiananmen Square events of 1989, China has been subjected to a Western arms embargo and has had very limited options in obtaining military equipment. Chinese interest in Russian weaponry stems from its limited alternative sources of arms supplies and the commercial benefits associated with dealing with Russia. Commercially, the price of Russian weapons has been lower than other alternative sources. As early as May 1991, the Chinese Central Military Commission drafted a report emphasising that the cost of modernising Chinese military forces with Russian weapons was comparatively cheaper than other sources. It concluded that modernising the People’s Liberation Army (PLA)’s military hardware through imports from Russia would help China realise economies of scale within its weapons imports.\(^7\) China’s strong desire for Russian defence equipment was compatible with equally strong pressure by Russian arms manufacturers to sell their products to any and all interested parties.\(^8\) China’s burgeoning defence budget was a perfect match for Russia’s ‘preferred supplier’ status, selling its weaponry at extremely competitive prices. The Sino-Russian arrangement resulted in a large volume of equipment transfers.

In the early 1990s, the Chinese military continued to lag behind its Western counterparts, both in terms of military doctrine and equipment technology. Chinese authorities deemed the situation critical at the conclusion of the 1990–91 Gulf War, when it became clear that the PLA would be ill-prepared to fight in the air and on the seas against the leading industrialised nations, and some of its closer neighbours.\(^9\) The impact of the Gulf War on Chinese defence strategists was significant, as it demonstrated that large numbers of men and matériel with poor command and control were no match for a smaller, technologically advanced force with state-of-the-art weaponry. The modernisation and refinement of troop numbers in the PLA since the Gulf War was the result of this lesson. The vast majority of the imported military equipment required for this modernisation has come from Russia. According to the Pentagon, China buys about 95 per cent of its new weaponry from Russia, with a focus on aircraft, submarine, destroyer and air-launched, anti-ship-cruise, and surface-to-air missile procurement.\(^10\)

Even though Russia has withheld some of the most advanced technologies that have been sought by China, there is little doubt that Russian assistance in the modernisation of China’s armed forces has had a positive impact on their bilateral relationship. In fact, Russian arms sales to China are such a prominent feature of their bilateral relationship that it represents the main link between the two countries—one that motivates and forms the basis of their closer affiliation.

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7 Ming-Yen Tsai, From Adversaries to Partners? Chinese and Russian Military Cooperation after the Cold War, Praeger Publishers, Westport, CT, 2003, p. 120.
8 Pavel Felgenhauer in, Pierre and Trenin (eds), Russia in the World Arms Trade, p. 91.
9 ‘China’s Confident Bow; China’s increase in defence spending’, Economist, 10 March 2001, p. 1.
External Drivers for OPK Success: Arms Transfers to China

Other than the transfer of weaponry, large numbers of Russian scientists and engineers with long-term contracts also work in Chinese design bureaux and defence plants and Chinese engineers and pilots are partaking in training at Russian facilities and airfields.\(^\text{11}\) By 1996, the leaders of the two countries were publicly describing their relationship as a ‘strategic partnership’ and it became routine for Russia and China to issue joint statements criticising US policy on such issues as NATO expansion, the US-led military intervention in the Balkans and the development of ballistic-missile defences.\(^\text{12}\) The Sino-Russian partnership was formalised in December 2000 when the two states drafted the Treaty on Good Neighbourly Friendship and Cooperation. The Treaty was officially signed in July 2001.

Although the alliance itself is becoming increasingly significant within the international system, the most important foundational element of the post Cold War Sino-Russian relationship was the arms trade between the two countries.\(^\text{13}\) Russian defence industry expert Robert H. Donaldson has suggested that ‘Russia sold arms to China in order to buy time and secure the resources needed to ameliorate its most urgent issue, stabilising … the domestic arms industry’.\(^\text{14}\)

The trade of arms from Russia to China was more than just an economic transaction. For China, it accelerated its military modernisation process and provided valuable advancements within its defence industries during a period of arms embargo by the United States and the European Union. For Russia, it provided not only currency, but also the valuable time and resources required to sustain its own defence industry until such time as Russian domestic arms orders became more tenable.

Political and Military Considerations

The transfer of Russian arms to China began somewhat tentatively and fitfully in the early 1990s, but has broadened in scale and scope in subsequent years.\(^\text{15}\) It is likely the Russians believe that they can control the flow and scope of these transactions, and that Russian industry will retain control over specific technologies vital to the performance of various higher-end weapon systems. The level of technological sophistication of weapon systems sold to China remains

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relatively low, considering what the Russian OPK is capable of producing. This policy stems partly from the conservative military-technical strategy of the Chinese leadership. More importantly, it is also a natural consequence of the limits on arms transfers imposed by the Russian military, due to longstanding mistrust and fears of a resurgent China.

For Russia, the major difference in its perception of China and India—its two largest defence customers—is that, traditionally, China has been perceived as a potential security threat to Russia while India has not been viewed as such. Despite the ease of production and delivery of second-tier military systems to China, Russian policy on arms transfer has provoked much grievance from some isolated Chinese quarters. Ming-Yen Tsai, author of From Adversaries to Partners, interviewed several Chinese experts, who complained that Russia had not sold China its best weapons. Under these circumstances, China has continued to develop next-generation weapons indigenously. In explaining why China sought to develop the JH-7 (FB-7 Flounder) fighter-bomber, the aircraft’s general designer, Chen Yi-jian, stressed: ‘China is unlikely to buy the latest weapons from abroad. Foreign states usually retain important technologies while exporting arms.’

A supporting example was the delivery of the Su-30MKK multi-role fighter to China. Whilst the Su-30MKK is a capable platform in its own right, the Indian Air Force received the more capable Su-30MKI during the same period. The Indian variant possessed thrust-vectoring engines, canards to assist manoeuvrability, and an improved avionics suite.

The net result is that China receives large deliveries of well-tested armaments with minimal risk of technological failure. Chinese orders are simple and are executed without the major delays and problems with quality control that have plagued Indian orders. By the end of 2003 China had already received about 150 Su-27SK/UBK and Su-30MKK fighters, not including the 100 or so fighters acquired through licenced assembly. By that time India, in comparison, had only received 40 Su-30K/MKI fighters. Russian arms industry specialist Konstantin Makienko commented on arms transfers to China in 2004: ‘Chinese contracts concluded after 1999 involve high volume serial production and make relatively few demands for modernization of base models. Such terms are well suited to the Russian military-industrial complex in its present state.’

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16 Ming-Yen, From Adversaries to Partners? Chinese and Russian Military Cooperation after the Cold War, p. 126.
17 Ming-Yen, From Adversaries to Partners? Chinese and Russian Military Cooperation after the Cold War, p. 126.
19 Makienko, ‘The Russian-Chinese Arms Trade: an Attempt at Qualitative Analysis’.
However, there are indications that the mutual distrust and wariness is easing somewhat between the two powers. Politically, this is symbolised by the creation in 2001 of the Shanghai Cooperation Organisation (SCO). The SCO consists of Russia, China, Kazakhstan, Uzbekistan, Kyrgyzstan and Tajikistan and, officially, its *raison d’être* is to combat Islamic extremism. However, as various SCO statements and communiqués make clear, an important secondary motive has emerged—namely to offset America’s increasingly dominant position in Asia.\(^\text{20}\)

Militarily, the easing of mutual distrust was highlighted by the combined arms exercise known as *Peace Mission 2005*. In essence, it was a large military exercise comprising Russian and Chinese forces held on China’s Shandong Peninsula in August 2005. The code-name *Peace Mission 2005* appeared in the press in June 2005 following a meeting between China’s Assistant Chief of Staff, Major-General Chzhan Tsinyein, and Russia’s Commander of the Far Eastern Military District, General Yury Yakubov, in the Russian far-eastern city of Khabarovsk.\(^\text{21}\) *Peace Mission 2005* was split into three phases: a counter-terrorism exercise, seaborne and airborne troop deployment, and an anti-shipping exercise, utilising both air and naval assets from both countries. Russian forces included strategic bombers, advanced early warning, transport, refueling and fighter aircraft along with modern naval vessels, suggesting the exercise also served as a showcase of Russian equipment to prospective Chinese buyers.\(^\text{22}\) Observers from Iran and India were also present, allowing the capability of the equipment on show to also be demonstrated to military officials of these countries. It was the first event of its kind for the Russian and Chinese armed forces and, following the successful conclusion of the second such exercise in August 2007, it looks set to be an ongoing biennial event.

These political and military developments between the two states are clear indications of closer ties, and future arms transfers may well be more advanced in nature than those seen previously. Indeed, immediately following the exercise, China flagged its interest with Rosoboronexport in acquiring 34 Il-76 *Candid* transport aircraft and four Il-78 *Midas* airborne refueller variants.\(^\text{23}\) Later in 2005 a contract was subsequently signed for delivery of both aircraft types, which were present at the *Peace Mission 2005* exercise. It was the first time that Russia had agreed to sell airborne refuellers to China.

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\(^{20}\) Carpenter, ‘Part 4: Managing the US–China–Russia triangle’.


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State of the Chinese Market

The systems China purchased prior to the Il-76/78 aircraft include the Su-27/30 fighter, advanced air-to-air missiles, S-300 (SA-10/20) and Tor (SA-15) anti-aircraft missile systems, Sovremennyy destroyers, and Kilo-class submarines with the associated Klub (SS-N-27) missile system. These weapons have been described in Jane’s Intelligence Review by a Chinese source as ‘stopgap acquisitions’. It is also telling that, according to Russian sources, China is purchasing more technologies for production from Russia than actual weapon systems.24 China’s aim in doing this has been to develop an indigenous capacity for producing advanced weapons in an effort to reduce its reliance on military imports from foreign states. For example, China has utilised the technologies acquired from Russia to build its own indigenous weapon systems: the new Type 052 air-defence destroyers now under construction, the J-10 fighter aircraft, and the Yuan-class submarines. At present, the Chinese continue to rely on critical Russian components for several of its weapon production programs and, in some cases, has purchased the production rights to Russian weapon systems. Russia continues to cooperate with China on technical, design, and material support for numerous weapons and space systems.25 Thus, it is acquiring, according to most estimates, US$2 billion worth of arms and technologies annually from the Russian defence industry.

Russian industry experts are also talking about selling China even more advanced systems to maintain Chinese demand and remain technologically competitive after China’s indigenous defence industry assimilates the technology that is currently being provided by Russia.26 This would be a departure from the traditional Russian reticence to export its most advanced military capabilities to China and could indicate that the Russian defence industry has even more advanced military technology under development. Conducting exercises such as Peace Mission 2005 with China is an astute method for providing the Russian General Staff with an insight into how the Chinese armed forces operate and what their current capabilities are.27 The export of technologically advanced weapon systems could then be regulated accordingly, thereby ensuring Russia maintains the technological edge over China. Table 4.1 outlines Russian military sales to China from 1999 to 2006:

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24 Blank, ‘China-Taiwan Arms Race Quicksens’.
26 Blank, ‘China-Taiwan Arms Race Quicksens’.
Table 4.1: Deliveries of Russian military equipment to the PRC from 1999 to 2006

<table>
<thead>
<tr>
<th>Armament</th>
<th>Designation</th>
<th>Producer</th>
<th>Delivery</th>
<th>Quantity</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weapons for Air Forces</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fighter</td>
<td>Su-27SK</td>
<td>Sukhoi Design Bureau, Komsomolsk-on-Amur Aviation Production Plant</td>
<td>2006</td>
<td>c.110</td>
<td>Licensed production at Shenyang</td>
</tr>
<tr>
<td>Trainer-Fighter</td>
<td>Su-27UBK</td>
<td>NPK Irkut</td>
<td>1992-02</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Multi-role Fighter</td>
<td>Su-30MKK</td>
<td>Komsomolsk-on-Amur Aviation Production Plant</td>
<td>2000-03</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>Multi-role Fighter</td>
<td>Su-30MKK</td>
<td>Komsomolsk-on-Amur Aviation Production Plant</td>
<td>2000-03</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>Transport/ Tanker</td>
<td>Il-76/Il-78</td>
<td>Ilyushin Aviation Production Plant</td>
<td>2007-08</td>
<td>34/4</td>
<td></td>
</tr>
<tr>
<td>Weapons for Naval Forces</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diesel-Electric Submarine</td>
<td>Project 636</td>
<td>Admiralty Shipyard, Krasnaye Sormovo, Sevmash Plant</td>
<td>2005-06</td>
<td>8</td>
<td>All units are to be equipped with Klub (SS-N-27 ASCM)</td>
</tr>
<tr>
<td>Destroyer</td>
<td>Project 956EM</td>
<td>Severnoe PKB, Severnaya Shipyard</td>
<td>1999, 2000, 2006</td>
<td>6</td>
<td>Latter two destroyers come with more advanced weapon systems</td>
</tr>
<tr>
<td>Multi-role Naval Fighter</td>
<td>Su-30MK2</td>
<td>Sukhoi, Komsomolsk-on-Amur Aviation Production Plant</td>
<td>2004</td>
<td>24</td>
<td>An order for a second batch is probable for 2006</td>
</tr>
<tr>
<td>Onboard SAM System</td>
<td>S-300F</td>
<td>NPO Al’tair Design Bureau</td>
<td>2002</td>
<td>2</td>
<td>Probably for a Project 052S destroyer</td>
</tr>
<tr>
<td>Onboard SAM System</td>
<td>Shil’-1</td>
<td>Concern PVO-Almaz Antei</td>
<td>Probably 2003</td>
<td>2</td>
<td>For a Project 052B destroyer</td>
</tr>
<tr>
<td>Weapons and Military Equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-Range SAM System</td>
<td>S-300P</td>
<td>Concern PVO</td>
<td>1998-04</td>
<td>12</td>
<td>batteries</td>
</tr>
<tr>
<td>Long-Range SAM System</td>
<td>S-300PMU-2</td>
<td>Concern PVO</td>
<td>Before 2007</td>
<td>16</td>
<td>batteries</td>
</tr>
<tr>
<td>Short-Range SAM System</td>
<td>Tor-M1</td>
<td>Concern Antei, State Enterprise Kupol Izhievsk</td>
<td>?</td>
<td>27</td>
<td>systems</td>
</tr>
</tbody>
</table>

After examining the weapons sold to China, it is clear that air and naval weaponry has accounted for the vast bulk of Russian arms exports. This trend highlights China’s intention to upgrade its power projection capabilities, thereby enhancing control over its maritime approaches and, if necessary, its ability to act in response to a Taiwan contingency. The deployment of the various air, naval and missile assets along the coastline opposite Taiwan is testament to this strategy, as is China’s likely contract for six Zubr (Pomornik) heavy-assault hovercraft from Russia—perfect assets for a Taiwan invasion. Old Chinese concerns over land borders have been discarded in favour of seeking air and naval supremacy over China’s east and southeast. This is reflected in its procurement plans, which have shifted away from seemingly endless production runs of clunky armour, infantry weapons and other 1960s weaponry to more sophisticated air and naval assets, both domestic and Russian. This has helped to allay Moscow’s concerns over Chinese intentions, as Beijing’s focus is now apparently on geographic regions devoid of Russian interests. This in turn has also helped to sustain the level of bilateral trade for arms, and may even be a factor behind the provision of more advanced Russian weapon systems for export to China.

**Future Prospects**

The warming of Sino-Russian relations post SCO and *Peace Mission 2005* has meant Russia’s option to sell more advanced weapon systems to China is looking increasingly realistic. Beijing’s intensified efforts to modernise its armed forces is resulting in rapid increases in defence expenses and currently makes China the main strategic partner for Russia in military-technical cooperation. According to Russian defence industry expert Konstantin Makienko, China will continue focusing its efforts on improving its Air Force and Navy:

> The main objective in aviation is the modernization of the fleet of Su-27SK and J-11 aircraft. It would be most reasonable if these aircraft are upgraded to the Su-27SKM version, but it is also quite possible that far less reserved variants of modernization will be provided, including with integration of phased array radars.

In terms of naval equipment, the most likely future transfer from Russia to China is more advanced air defence missile systems. Furthermore, Russia may assist the Chinese Navy in enhancing its amphibious capabilities, allowing licence-production of Zubr (Pomornik) or Murena-E assault hovercraft to

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complement the six Zubrs likely to be signed for in 2007. However, the largest cooperation project may involve Russia assisting China in building its desired aircraft carrier fleet. The main contribution Russia can make to this project is to allow licence-production in China of the Su-30 Flanker navalised variant, the Su-33. If they come to fruition, these options are significant for two reasons. First, they would indicate that Russia does not fear a military threat to its own interests from China, at least in the near term. Second, the bulk of recent and potential future arms sales have involved air and naval weapons that would be required in any clash between China and the United States over Taiwan, but are of little use to China in a future war with Russia.

The next decade or so will likely see a continuation of the trends of the last decade; that is, significant Chinese business for Russian arms manufacturers. China will probably continue to purchase Russian naval, air, and air-defence systems from Russia in an effort to fill niche gaps in capability and to make up for deficiencies in its indigenous production lines. However, as Chinese technologies develop, and Chinese satisfaction in receiving second-tier military hardware from Russia dwindles, Russia will risk losing a key customer. Often discussed in the Western press, the potential removal of the European Union’s arms embargo from China will have no less of a negative impact on Russian sales than Chinese defence industrial advancement. In fact, the majority of Chinese arms trade experts agree that, in general, EU expansion into the Chinese market poses only a very minor threat to Russia’s position. The Europeans have a competitive position only in those sectors where Russia has nothing of significance to offer, namely communications, optical-electronic and laser-based systems.

The Sino-Russian military technical nexus is alive and well. Despite the inherent risks to these traditional adversaries within the relationship, both sides are also managing to derive tangible benefits. China is receiving new weapon systems faster than it could without Russian assistance, as well as slowly mastering a great deal of new Russian-sourced military technology. Russia is receiving not only the finance to assist the development of its OPK but also the orders of military equipment that are required to keep many military production lines operating. This position will probably remain for the next decade. The downside for Russia is that there is an increasing chance that China will catch up technologically and lower its demand for Russian arms. If this does occur, it will be beyond the next decade, by which time a combination of Russia’s own domestic orders and the Rosoboronexport sales drive into the Middle East, Latin America and Southeast Asia will have compensated for the contraction in the Chinese market. Considering the 2006 US$3 billion and US$7.5 billion arms

31 Makienko, in ‘China to Remain Russia’s Main Arms Market—Expert’.
32 Makienko, ‘The Russian-Chinese Arms Trade: an Attempt at Qualitative Analysis’.
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orders from Venezuela and Algeria respectively, Russia seems well on the way to compensating for the potential future loss of its traditionally most prized arms customer.
Chapter 5
External Drivers for OPK Success:
Arms Transfers to India

Russia has sold weapons worth over 10bn dollars to India over the last five years and contracts worth another US$9 billion dollars are currently being worked on.¹

Aleksandr Zhukov, March 2006

India’s choice of Russian military hardware is determined by a host of factors, such as their easy accessibility, the defence requirements of India’s armed forces, the quality of weapons, and pricing considerations. It is no secret that Russia sells similar weaponry at half the price demanded by European countries.² For example, a Russian Kilo-class diesel-electric submarine currently costs around US$200 million, whilst the less capable German Type 209 diesel-electric submarine costs around US$450 million. The Indian Navy operates 10 Kilo-class submarines but only four Type 209 submarines. A further factor is the inertia created by India’s four decades of heavy dependence on Russian military hardware. India’s strategic analysts have argued a case against this reliance, pointing out that India must diversify its sources of weapons procurement because of the threat associated with reliance upon a single supplier. However, these warnings continue to go unheeded by the Indian Government, which retains its preference for Russian equipment. According to Western sources, signed deals and prepared future transactions in defence procurement between Russia and India for the next 8–10 years were estimated to be at least US$12 billion. This was in 2003. After Vladimir Putin’s late 2004 visit to India, the expected sum of the contracts for arms destined for India over the next 15 years skyrocketed to US$30 billion.³ By 2004 about 40 per cent of Russian military exports were destined for India. For the next 20 years New Delhi plans to allocate about US$100 billion for the procurement of military hardware, and the Russians will most likely receive the lion’s share of this figure.

An Indo-Russian defence accord, set to expire in 2010, was extended for a further ten years. This was decided at the fifth meeting of the Indo-Russian Inter-Governmental Commission on military-technical cooperation in November 2005.

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Indian Defence Minister Pranab Mukherjee stated at this meeting that Russia would continue to assist Indian shipyards, as it did in April 2005, with the laying down of the 37,500 tonne aircraft carrier (Air-Defence Ship or ADS) at Cochin Shipyard. As an aside, India has no indigenous carrier-based aircraft and so will probably exercise its option to procure another 30 MiG-29K navalised Fulcrum aircraft for this new aircraft carrier to complement the 16 it has already ordered for the Admiral Gorshkov.

India has also entered into an agreement to lease two Russian Akula II nuclear attack submarines to develop the sea leg of its three-tier strategic deterrent. The first boat underwent sea-trials in the Russian Far East and was expected to enter service sometime in 2008. Mukherjee also told a press conference in Moscow that India would join Russia in developing and financing a fifth-generation fighter aircraft project, as well as agreeing to utilise the Russian Glonass navigational satellite system, an alternative to the US-controlled Global Positioning System.\(^4\)

India’s preference to source strategic systems such as nuclear submarines and satellite systems from Russia is due to the fact that it has few sourcing options for such systems and its perception that Russia is a reliable provider unlikely to impose sanctions for political or human rights indiscretions.

Moscow seems to be more relaxed about offering military technologies to India than to China. An idea of the staggering Russian influence on Indian defence procurement is provided by the fact that about 60 per cent of the Indian Army’s military hardware is Russian-made, while 70 per cent of naval systems and 80 per cent of air force hardware is Russian-made or of Russian origin. Overall, 70 per cent of the military hardware in the Indian armed forces comes from Russia.\(^5\) In this light, it is easy to see why India will remain a key market for Russian arms well into the future. Russia has sold over US$10 billion worth of weapons to India between 2001 and 2006 and contracts worth another US$9 billion are currently under consideration.\(^6\) This will ensure that India remains a key customer well into the next decade.

Indeed, Russia’s presence within India’s defence industries is almost omnipresent, with licence-production of Russian designed tanks and aircraft in the form of 1000 T-90 MBTs, 140 Su-30MKI fighters, and 64 MiG-29SMT fighters. Indian warships currently under construction also have a Russian influence due to the presence of Russian advisors and engineers within the Indian shipyards. These vessels range from an aircraft carrier, air-defence destroyers and frigates, to nuclear submarines. When complete, many of these vessels will incorporate Russian designed and developed missile and radar systems. Notable direct sales

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over the last few years have included six *Talwar* frigates to compensate for the slow delivery of Indian platforms, as well as *Smerch* multiple launch rocket systems, and *Tunguska* air defence systems to compensate for the problems inherent within India land defence industries.

India’s traditional reliance on Russian hardware has meant that revenues continue to flow well after the last piece of hardware has been sold. For example, Russia has been upgrading India’s 1960s and 1970s fleet of MiG-21 *Fishbed* and MiG-27 *Flogger D* fighter and ground-attack aircraft over the last five years, which could potentially net Russia US$800 million. As previously discussed, Indo-Russian relations are not, however, narrowly confined to a ‘buyer-seller relationship’. They have gone beyond that stage and show that the two nations trust each other, as evidenced in their joint design and production of weapons such as *BrahMos* ASCM. Table 5.1 is a summary of key Russian arms contracts with India since 1999:

### Table 5.1: Key Russian Arms Contracts with India from 1999

<table>
<thead>
<tr>
<th>Contract</th>
<th>Price</th>
<th>Delivery</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admiral Gorshkov aircraft-carrier equipment package</td>
<td>$1.6bn</td>
<td>2008</td>
<td>Cost is for overhaul and upgrade, and the delivery of 16 MiG-29Ks.</td>
</tr>
<tr>
<td>Construction of three Talwar frigates</td>
<td>$1bn</td>
<td>2004</td>
<td>The first two, the Talwar and the Trishul, delivered in 2003.</td>
</tr>
<tr>
<td>8 Su-30K and 32 Su-30MKI fighters</td>
<td></td>
<td>2004</td>
<td></td>
</tr>
<tr>
<td>6 Il-78 MIDAS air tankers</td>
<td>$150m</td>
<td>2003</td>
<td></td>
</tr>
<tr>
<td>310 T-90S tanks</td>
<td>$800m</td>
<td>2003</td>
<td>124 tanks delivered, and 186 licence produced in India.</td>
</tr>
<tr>
<td>5 Ka-31RLD helicopters</td>
<td>$108m</td>
<td>2002</td>
<td></td>
</tr>
<tr>
<td>Upgrade of 5 Il-38 MAY anti-submarine aircraft for the Indian Navy</td>
<td>$205m</td>
<td>2007</td>
<td>Upgrade involves the installation of Sea Dragon radar system.</td>
</tr>
<tr>
<td>40 Mi-17 helicopters</td>
<td>$170m</td>
<td>2001</td>
<td></td>
</tr>
<tr>
<td>Licensed production of 140 Su-30MKI in India</td>
<td>$3bn</td>
<td>2012–2017</td>
<td></td>
</tr>
<tr>
<td>Several hundred Iгла MANPADs</td>
<td>$32m</td>
<td>2001</td>
<td></td>
</tr>
<tr>
<td>1000 Krasnopol-M laser-guided artillery shells</td>
<td>$35m</td>
<td>2000</td>
<td></td>
</tr>
<tr>
<td>Construction of three Talwar frigates</td>
<td>$1.1bn</td>
<td>2012</td>
<td></td>
</tr>
</tbody>
</table>

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7 G. Fernandes in, B.M. Jain, ‘India and Russia: Reassessing the time tested ties’, *Pacific Affairs*, vol. 76, no. 3, Fall 2003, p. 385.
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<table>
<thead>
<tr>
<th>Contract</th>
<th>Price</th>
<th>Delivery</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 Smerch multiple launch Rocket Systems, with rockets</td>
<td>$500m</td>
<td>2007</td>
<td></td>
</tr>
<tr>
<td>Upgrade of 66 MiG-29 Fulcrum</td>
<td>c.$890m</td>
<td>c.2011</td>
<td></td>
</tr>
<tr>
<td>License production of 1000 T-90S tanks</td>
<td>c.2020</td>
<td></td>
<td>Deliveries over the next 15 years.</td>
</tr>
<tr>
<td>Fitting-out and leasing of two Akula II nuclear submarines</td>
<td>c.$1.8bn</td>
<td>2007–08</td>
<td>First hull currently being readied for sea trials.</td>
</tr>
<tr>
<td>24 Tunguska-M1 air-defence systems</td>
<td>$400m</td>
<td>2007</td>
<td></td>
</tr>
<tr>
<td>140 RD-33 aero-engines</td>
<td>$250m</td>
<td>2007</td>
<td>120 for license production for the MiG-29 upgrade. Could give Russia advantage in c.$9bn Indian tender for 126 multi-role fighters.</td>
</tr>
<tr>
<td>Mi-17 1V helicopters</td>
<td>c.$662m</td>
<td>2007–08</td>
<td></td>
</tr>
</tbody>
</table>


**Historical Basis**

Since the early 1950s, New Delhi and Moscow have built friendly relations on the basis of realpolitik. India’s nonalignment policy enabled it to accept Soviet support in areas of strategic congruence such as disputes with Pakistan and China, without subscribing to Soviet global policies or proposals for Asian collective security. The most intimate phase in relations between India and the Soviet Union was between 1971 and 1976. This phase was characterised by the 20-year Treaty of Peace, Friendship, and Cooperation of August 1971, which committed the parties ‘to abstain from providing any assistance to any third party that engages in armed conflict with the other’ and ‘in the event of either party being subjected to an attack or threat thereof … to immediately enter into mutual consultations’. This Treaty led the Soviet Union to support the Indian position on Bangladesh, to India’s benefit, and acted as a deterrent to Chinese involvement within the dispute. By the late 1970s, the Soviet Union became India’s largest trading partner.

Upon the disintegration of the Soviet Union, India was faced with the difficult task of reorienting its external affairs and forging relations with the 15 Soviet

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9 Azizian, ‘Russia-India Relations: Stability amidst Strategic Uncertainty’, p. 3.
successor states, of which Russia was the most important. Russia’s first
government made relations with the United States and the West its priority and
it expressed diminished interest in Asia, signaling a strong will to distance itself
from the legacy of Soviet foreign policy.

Russia’s foreign policy, however, soon reverted from the idealism of the early
1990s to traditional realpolitik, which prompted urgent diplomatic efforts
to repair the damage in relations with India. President Boris Yeltsin’s visit to
India in January 1993 laid the foundation for the reinvigoration of bilateral
relations. Yeltsin expressed strong support for India’s position on Kashmir and
pledged not to provide arms to Pakistan. Yeltsin signed a defence cooperation
accord aimed at ensuring the continued supply of Russian arms and spare
parts in order to satisfy the requirements of India’s military and to promote
the joint production of defense equipment.10 The Russian Prime Minister at
the time, Yevgeny Primakov, visited New Delhi in December 1998, resulting
in the formation of seven agreements with the Indian Government. One of the
agreements was a long-term military cooperation pact until 2010, and was of
particular importance. Commitment to the agreements has since been reaffirmed
by both states. Indian Defence Minister Pranab Mukherjee has stated: ‘After
2010 we will review the progress and have another 10-year programme. Our
defence cooperation with Russia is a continuous process and some projects will
overlap the 2010 threshold.’11

In March 1999, India and Russia signed a further agreement to train Indian
defence personnel in key Russian military academies. These actions set the
platform for continued Indo-Russian cooperation throughout the 1990s and
into the early twenty-first century. In turn, four more major agreements in the
field of defence were signed in New Delhi on 4 October 2000. The agreements
were significantly concluded against the background of the visit of President
Vladimir Putin and the signing of the Declaration on Strategic Partnership
between India and Russia.

Of these four agreements signed in October 2000, the first relates to the
establishment of the Indo-Russian Inter-governmental Commission on Military
Technical Cooperation, signed by then Indian Defence Minister George
Fernandes and Russian Deputy Prime Minister Ilya Klebanov. The Commission
meets annually and has under it two Working Groups, the first one dealing with
military-technical cooperation and the second with defence production in the
fields of shipbuilding, aviation and land systems. It exercises coordination and

10 Azizian, ‘Russia-India Relations: Stability amidst Strategic Uncertainty’, p. 3.
11 Indian Defence Minister Pranab Mukherjee, in Vladimir Radyuhin, ‘India, Russia to Renew Defense
control of bilateral military-technical cooperation, facilitates its development, resolves problems emerging in the course of implementation of military-technical cooperation, and assists in accelerating decision-making.12

The important feature of the long-term military-technical cooperation agreement was that it covered new areas of mutual cooperation such as naval and nuclear technologies and anti-ballistic missile systems.13 It paved the way for enhancing the joint research and development (R&D) capabilities of India and Russia in the production of new weapon systems, leading, in the first instance, to the production of the BrahMos ASCM. The successful co-production of BrahMos has further propelled New Delhi and Moscow to co-develop a fifth-generation fighter aircraft. In this way, the defence relationship is set to further deepen in the years ahead and subsequently expand the existing ties between Russia and India,14 most probably in the form of more military joint ventures, continued arms contracts and ongoing Indian military personnel training in Russia. The remaining three agreements were specifically related to military platforms and covered delivery and license production of Su-30MKI aircraft, the refit and delivery of the Admiral Gorshkov carrier with supporting MiG-29K aircraft, and the delivery of 310 T-90 MBTs.

As stated by Indo-Russian relations expert Rouben Azizian: ‘The January 1993 Treaty of Friendship and Cooperation and the October 2000 Declaration on Strategic Partnership serve as the two guiding documents of the Post-Cold War Russo-Indian partnership.’15

These documents state that the partnership between Russia and India is founded on complementary national interests and geopolitical priorities. For example, ‘Russia’s high standing as a world power’ and India’s leading role in the ‘immediate neighborhood, in Asia and beyond’, display the complementary natures of the two states.16 Moscow continues to consider South Asia as an Indian dominated domain and openly supports India’s bid for permanent membership on the United Nations Security Council. Meanwhile, India uses its growing input into the SCO to lend support to Russia’s pre-eminent role in the former Soviet states, particularly in Central Asia. This way, Russia and India support each other’s sphere of influence and maintain healthy relations with one another.

In 2004 the Russian Federation appointed a new ambassador, Vyacheslav Trubnikov, to India. His credentials were impressive: an ex-director of Russian

14 ‘India and Russia sign four defence agreements’
15 Azizian, ‘Russia-India Relations: Stability amidst Strategic Uncertainty’, p. 3.
16 Azizian, ‘Russia-India Relations: Stability amidst Strategic Uncertainty’, p. 4.
special services, a former Deputy Minister of Foreign Affairs, colleague and confidant of Yevgeny Primakov, and one of the leading experts on Hindustan. Trubnikov’s appointment as Russian ambassador to India was a sign of the importance that Moscow devoted to relations with New Delhi.\textsuperscript{17}

Military sales form the keystone of the Indo-Russia relationship. From 1990–96, India’s arms purchases from Russia totaled US$3.5 billion. During this period, Russia committed itself to supplying India with 50 Su-30 multifunctional fighters and agreed that an Indian enterprise could produce a modified version of the plane under licence. The modified Su-30 became the Su-30MKI—a very capable platform boasting Western avionics, thrust-vectoring engines, and canards to assist in dog-fighting capabilities. By the end of 1999, the strength of Indo-Russian military cooperation had returned to its Cold War level, with all three branches of the Indian military involved in major procurement programs with Russia. Of paramount concern for Indian naval planners was the requirement for a new ADS to replace the INS Vikrant—one of two former British light aircraft carriers owned by India that was decommissioned in 1997. The Indian Navy, with almost 85 per cent of its vessels of Soviet-Russian origin, was quick to rejuvenate the sagging Indo-Russian bond. To fill the gap in capability between the decommissioning of the Vikrant and the commissioning of the ADS, India acquired the 44 500 tonne Admiral Gorshkov aircraft carrier from Russia, which is to be renamed the INS Vikramaditya and commissioned in 2010.\textsuperscript{18} In conjunction with the delivery of the three Talwar frigates between 2001 and 2004 and the subsequent contract signed in 2006 for three more, it is evident that India lacks the construction capacity and ability to meet the construction timelines necessary to replace ageing Soviet-supplied ships. Therefore, with the delivery of more Russian built vessels, the Indo-Russian naval bond will remain for several more decades.\textsuperscript{19}

While India maintains a vast pool of engineering and scientific knowledge, its defence industry habitually struggles in its attempts to coordinate the various research elements involved in a project’s development. This shortcoming in project management is exacerbated by the absence of market-based efficiency since India’s Defence Research and Development Organisation provides the primary R&D for all of India’s indigenous military projects. Technical and financial considerations mean that very few countries are able to develop and field completely indigenous weapon systems. So, while India is still forced to rely on external support for many of its indigenous projects, it continues to simultaneously promote the idea of self-reliance. The tension resulting from

\textsuperscript{17} Maunk, ‘Military Cooperation of Russia and India In 1991–2005’.
\textsuperscript{19} Conley, Indo-Russian Military and Nuclear Cooperation, p. 70.
heavy reliance on external support and the failures of project management is highlighted by one of India's most publicised and criticised indigenous projects: the Arjun MBT, which has been in development for over 25 years, and continues to be plagued with mechanical faults. In response to Pakistan's procurement of the T-80UD MBT from the Ukraine, and its inability to field the Arjun MBT, Russia offered the T-90S MBT, and 310 were delivered by 2004, with a further 690 to be licence-produced from 2007. The Indian Government has called for the remaining Indian T-72 MBT fleet to be upgraded, and as the preferred supplier, Russia looks set to gain more Indian business at the expense of the unfortunate Indian Arjun indigenous tank program. The far more capable T-90S cost the Indians US$2.4 million each, and was ready when required, whilst the Arjun cost US$3.3 million each. India remains unable to rapidly progress in the development of its indigenous military production. As one retired Indian army officer stated: "No country, however wealthy, can afford to produce three different tanks simultaneously." The Arjun tanks may be shelved permanently due to these issues, and a contract for yet another 330 T-90S kits was signed in October 2006 for US$900 million.

The previously discussed Indo-Russian reaffirmation of their commitment to continued military cooperation in October 2000 occurred despite the apprehension of some Indian policy-makers about the modernisation of the Indian military and the ongoing heavy reliance on Russia to usher in this modernisation. Russia's interest in maintaining its crucial arms market presence in India led it to present India with a unique lease agreement for two Akula II nuclear attack submarines and four Tupolev Tu-22M Backfire strategic bombers, of which only the submarine lease has been officially agreed upon. Despite Indian reluctance to accept the Backfire lease, the Indian Air Force continues to fly a predominantly Russian aircraft fleet. The large number of MiG and Sukhoi aircraft makes continued Indo-Russian cooperation in this field highly likely.
International Policy Considerations

Indian international policy advisors reiterate India’s need to realise full cooperative potential with Russia and to develop relations to the fullest extent. They advocate that India is an almost perfect military-industrial partner for Russia. Compared to China, the Indo-Russian relationship is practically void of military-political complications and Russia’s extensive history of joint projects with India holds it in good stead for future cooperation. Speaking in Russia during a high profile visit in December 2005 that focused on an intellectual property rights agreement Indian Prime Minister Manmohan Singh stated that:

Our perspective … is to move towards collaborative projects involving design, development and production of the next generation military products. India and Russia have identified the medium-range transport aircraft and the fifth-generation fighter aircraft as two such projects.

The agreement regarding intellectual property rights has opened the doors to large-scale cooperation between their respective armed forces and defence industries. During the 2005 meeting, Putin and Singh affirmed their commitment to continue to foster defence cooperation by describing it as ‘a vital pillar’ of Indo-Russian strategic partnership and another manifestation of deep mutual trust and commonality of interests between the two states. It would seem, therefore, that the concerns aired by some Indian defence officials regarding the reliance of the armed forces on Russian platforms are unfounded, as the two states appear to be moving down similar strategic paths. The reliance is seemingly reciprocal, as opposed to one-sided, as Russia requires the Indian arms market as a customer as much as India requires Russian military equipment as a supplier.

India was placed under a US arms embargo from 1998, following Indian nuclear tests. The lifting of this embargo in 2001 saw the potential for US competition within the Indian arms market. Russia, therefore, sought to secure as many agreements with India as possible: hence the 10-year deals. In particular, Russia has endeavoured to streamline the acquisition process for parts, with the creation of Rosoboronservice, a Rosoboronexport subsidiary that is based in India with a mandate to repair Russian-sourced military equipment. Russian arms manufacturers also hope to wield the lower costs of their products as a marketing tool against the more expensive US weapons. Finally, Russia has

27 ‘Indian Russia leaders see military, technical ties as ‘vital pillar’’, New Delhi PTI News Agency, 7 December 2005.
offered to export highly sophisticated technology to India, including non-lethal microwave-beam weapons, and to sell advanced air-defence systems that can counteract the proposed US missile-defence shield.  

From a military perspective, the Russian relationship with India is one that the United States cannot hope to match. Washington found itself in a quandary during its embargo of India following the latter’s 1998 nuclear tests. The predicament was that the Indo-Russian arms connection could only be severed by the United States through counteroffers of third-party arms (because of the US arms embargo on India) or by the slow emergence of Indian military self-sufficiency. Even with the lifting of the US embargo, India remains heavily reliant upon Russian sourced weapon systems and its indigenous production will continue to be far from providing self-sufficiency over the next decade at least. For the foreseeable future, it is Russia, not the United States, which will hold the premier source of Indian arms status—a role it has held since the 1960s. It seems that the United States may have missed the opportunity to forge an Indo-American relationship as strong and interdependent as the Indo-Russian relationship.

Future Prospects

_The Indian market [for arms] will remain capacious enough for Russia at least as long as we live._  

Russian Defence Minister Sergei Ivanov’s statement is a strong indication of where the prospects for Indo-Russian arms transfers are headed into the future. In the near term, India’s Chief of Air Force, Shashindra Pal Tyagi, announced India’s intention to buy 80 Mi-17 utility helicopters from Russia, with a contract signed in October 2006. The deal was estimated at US$662 million. However, by far the biggest request for tender in the history of the Indian armed forces is the much anticipated requirement for 126 multi-role combat aircraft, estimated to cost between US$7 and US$11 billion. The Indian Government should make a decision on the choice of aircraft in 2009, and the highly maneuverable and significantly upgraded MiG-29 variant, the MiG-35 _Fulcrum_, is tipped to be one of the favourites. Supporting its chances is the fact that the Indian Air Force already has 66 in its inventory and the Indian Navy will be receiving the navalised variant for the carrier operations. The biggest boost for MiG, however,

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External Drivers for OPK Success: Arms Transfers to India

came in September 2006, when India signed a contract to licence-produce the MiG power plant—the RD-33 engine. As one of the stipulations for the fighter contract is licence-production in India, the fact that it will already be producing the power plants could tip the scales in favour of the MiG tender.

In the longer term, India has indicated a preference for MiG as the producer of its joint fifth-generation fighter. This is an interesting development, as the Russian Government backed the Sukhoi’s PAK-FA fifth-generation fighter. However Indian defence officials have stated that this aircraft is too heavy for their requirements: hence the MiG preference. Defence Minister Pranab Mukherjee publicly acknowledged that India was keen to take part in the development and financing of a MiG fifth-generation fighter with Russia during his November 2005 visit to Moscow.\textsuperscript{31} Half of the financing will be provided by India, in return for joint production rights and potentially technology transfer. MiG’s booming sales through very large orders from India, Yemen and Algeria in the last year would suggest that it may have enough funds to finance the remaining half of the project even without Russian governmental assistance. This would suggest that, in the long-term, Russia will have two fifth-generation fighters (medium and heavy) at its disposal—an unaffordable luxury prior to India’s decision to help fund the MiG project. The PAK-FA and MiG projects will likely replace the Su-27/30 and MiG-29/35 families respectively, once they reach initial operating capability.

Furthermore, the comprehensive agreement for the creation of the medium transport aircraft (MTA) occurred in January 2007. The MTA would be designed, developed and manufactured jointly and would fulfill airlift requirements for both the Russian and Indian Air Forces. The aircraft is designed to replace Russia and India’s An-12 Cub, An-24 Coke and An-32 Curl medium transports. Russia recently reneged on its obligations to a joint project with the Ukraine for a similar transport aircraft. This action is an indication of the importance that Russia is placing on the MTA, now the favoured future transport aircraft for Russian requirements and due to make its maiden flight in 2012.\textsuperscript{32} In terms of land systems, India is interested in acquiring the potent S-300 Grumble/Gargoyle theatre air defence unit to complement the short and medium range systems already purchased from Russia. There is also talk of a contract for the upgrade of India’s T-72 fleet of MBTs to complement the licensed production of the T-90S MBT.

Phoenix from the Ashes?

As highlighted by the 2005 meetings in Moscow, India will continue to procure traditional weapon systems from Russia, such as tanks, heavy artillery and aircraft, and will collaborate in further joint ventures for at least the next decade. Until India is able to secure a reliable indigenous production base for its military needs, and unless other suppliers of major weapon systems are willing to offer India licensing rights as well as end items, India’s reliance upon Russia as a weaponry provider will persist.\(^\text{33}\) Future Indo-Russian ties are likely to meet with greater success, especially in the strategic defence field, as the two states currently have no direct conflict of interest. Their defence ties are not restricted to the mere buyer-seller relationship but are, more significantly, expanding and deepening in terms of co-production of state-of-the-art weaponry. Their approaches to vital strategic issues such as the multipolar world structure, counter-terrorism and the development of nuclear technology cooperation will serve to further solidify their ties.\(^\text{34}\)


\(^{34}\) Jain, ‘India and Russia: Reassessing the time tested ties’, *Pacific Affairs*, vol. 76, no. 3, Fall 2003, p. 396.