India-Russia Defence Co-operation

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Abstract

Co-operation in the field of defence constitutes one of the most important features of Indo-Russian bilateral ties. However, the relationship is undergoing significant changes in the new context of market reforms and globalisation, as well diversification of acquisitions by India. Owing to the past legacy and ongoing projects, Russia will remain, at least for the foreseeable future, a major defence partner of India. However, in view of the increased competition for the Indian defence market and the technological demands of India's defence sector, joint development and production of new weapon systems could become crucial for sustaining Indo-Russian co-operation in the coming years.

Co-operation in the field of defence constitutes the most important feature of Indo-Russian bilateral ties today. A majority of the Indian military hardware is of Soviet/Russian origin. Cooperation in the sensitive defence field presupposes and has engendered a high level of mutual trust and a broad compatibility of geopolitical interests. Despite the fact that Indian policy makers are engaged in diversifying the sources of military equipment and technology acquisitions, because of the long-established ties and ongoing projects, Russia is likely to remain for the foreseeable future the major defence partner of India. On their part, the Russian policy-makers and defence industry managers are aware of the need to adapt to the new market dynamism and growing competition in the sizeable Indian arms market. Indo-Russian defence ties have their share of new opportunities as well problems that the two sides need to address.

The Soviets were strong in all branches of science and technology except in the upcoming field of micro-electronics, micro-miniaturising and the software that goes with it. In this branch the Soviet Union lagged behind the West. The Soviet hardware was sturdy, bulky and produced in large numbers. Greater emphasis was given to the firepower than to the comfort

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of the man behind the machine. However, the requirements of Moscow and New Delhi in the defence field happened to be mutually complementary, and strong relationship was built over four decades. As Victor Komardin, the Deputy Director of Rosoboronexport remarked in a seminar in New Delhi in 2002, "The history of Russia forced the country to develop its military industry and science…The Russian defence sector provided armament and war equipment not only for the Russian Armed Forces but also for the armed forces of friendly states." [1]

The Military Industrial Complex (MIC) Inherited by Russia

Russia as the main successor state of the Soviet Union inherited the lion's share of the Soviet MIC. It comprised of around 2000 enterprises, more than 900 research organisations and design centres and a work force of roughly 5 million. It was mainly the MIC along with the large energy sector that could compete in the world market. Arms exports were considered crucial for the very survival of the cash-starved defence industries owing to the paucity of domestic defence orders.[2] India and China emerged as the two major buyers of Russian military equipment.

Following the demise of the Soviet Union, many defence plants closed down and thousands of highly qualified scientists and technicians emigrated abroad. The pressing requirement of India at the time was to ensure the supply of spare parts. Various Indian 'logistic delegations' were deputed to scour about the defence factories or original equipment manufacturers (OEMs) scattered all over the former Soviet space literally with suitcases full of dollars in search of spare parts that were hard to come by in the confusion following the Soviet collapse. India, understandably, did not buy new weapon systems from Russia during this period. Up to 1996-97, the major part of arms transfers from Russia or their production under licence in India consisted of the order given to the former Soviet Union. The fact that Russia had buckled under US pressure in 1993 on the Cryogenic deal also created doubts about the reliability of Russia as a defence supplier, although both India and Russia did see to it that the incident did not mar their friendly ties.[3]

Moscow Regains Position as a Reliable Partner

Although Moscow went along with the other P-5 (five permanent members of the UNSC) in condemning India's nuclear tests in the UN

Security Council and elsewhere, in contrast to the policy of the US and several other countries, Moscow did not impose sanctions on India. What was more, despite US pressure, Moscow moved ahead with the Soviet-era deal to build two light water 1,000-mega watt nuclear reactors at Kudankulam in Tamil Nadu. This boosted Moscow's position in Indian perception as a reliable friend and crucial source of sophisticated military hardware. During Russian Prime Minister Yevgeny Primakov's New Delhi visit in December 1998, the two countries extended the long-term agreement on military technical co-operation up to the year 2010. The agreement envisaged shifting the emphasis from buyer-seller relationship to the joint development of new technologies.[4] The two countries are at present co-operating under this programme. Following his return from Moscow in November 2005, Defence Minister Pranab Mukherjee indicated that after 2010 the progress of Indo-Russian defence co-operation will be reviewed and the two may go in for another 10-year programme.[5]

As the country's Prime Minister in 1999, Vladimir Putin observed that only 20 per cent of Russian defence industry plants were functioning and that many were about to be closed. After taking over the presidency in 2000, Putin critically noted that Russia's MIC was archaic and that it did not correspond to the contemporary military-political tasks of the country.[6] He took measures to revive and restructure the MIC through consolidation and amalgamation into viable and profit-making conglomerates. The objective was to create about 50 vertically integrated defence holdings and concerns with different forms of ownership.[7] As a result, it appears that a substantial part of Russia's MIC has been salvaged and the country has emerged as the second biggest arms exporter after the US. In fact, during 2000-2004, Russia was the largest exporter of conventional weapons, while during 1999-2003, the US was the largest exporter ahead of Russia.[8]

At the time of President Putin's visit to India in October 2000, major weapons deals worth $3 billion– under negotiations for a long time – were clinched. The India-Russia Intergovernmental Commission on Military-Technical Co-operation was upgraded from the level of defence secretaries to the level of Defence Minister on the Indian side and the Deputy Prime Minister in charge of defence exports on the Russian side.

Major Weapon Systems Purchased from Russia

The major weapon systems acquired or contracted from Russia in the

last five years include Su-30MKI multi-role fighter aircraft, Il-78 tanker aircraft to be used as platform for Airborne Warning and Control System (AWACS), Mi-17-IV military transport helicopters, R-77 air-to-air missiles, Kilo class/type 877E submarines, frigates, Ka-31 Helix airborne early warning helicopters, aircraft carrier *Admiral Gorshkov*, MiG-29K, including MiG-29KUB version for use on aircraft carrier *Admiral Gorshkov,* Ka-27PL (Ka-28 version) and Ka-31 helicopters; T-90 tanks, fire control radar, air and sea surveillance radar, combat radar, aircraft radar, anti-tank and anti-ship missiles, etc.[9]

The heavy weaponry listed above is basically meant to deter adventurism on the part of India's potential adversaries as well as to project power. In fact, there is a general consensus in the country's strategic community that a country of India's size and vulnerabilities must project power, especially so in the Indian Ocean region. The value of projects under the current long-term defence co-operation programme up to 2010 is generally agreed to be around $9-10 billion.[10]

The Russian MIC

Areas of Strength

Russian defence industries have their strong areas. Even the Western countries have shown interest in Russian aero-engine technology.[11] "Independent industry sources" believe that in aircraft, helicopter and shipbuilding, the quality of Russian weapons is close to the level of the best Western producers, at a price that is 30-35 per cent lower. Military aircraft and helicopters dominate the Russian export segment. They accounted for 60 per cent of sales in 2003. The export of ships comes next. Russia's is the global leader in the space booster industry for its reliable and cheap rockets. There is considerable foreign interest in Russian surface-to-air missiles, which are considered to be effective and comparable to Western systems.[12]

Problems and Weaknesses

Machinery and equipment in the Russian defence industries are becoming old and out-dated. It has been pointed out that during 1999 and 2000, less than 5 per cent of the machinery was less than five years old, while over 75 per cent were more than 10 years old. About one-third

of the machinery was more than 20 years old.[13] Ageing manpower is another problem. The average age of the workers is mid-fifties. Younger people are not attracted to defence industry jobs. There is in general a shortage of funds for R&D. The dependence on exports is yet another limitation. Moreover, the Russian defence industrial sector is known for its general lack of transparency.[14] It appears unlikely that the Soviet mentality will change overnight. All this is cautioning Indian policy-makers not to risk putting all eggs in one basket and diversify the source of defence supplies.

Most of the weapon systems that permitted Russia to emerge as one of the two biggest arms exporters were essentially developed by the Soviet Union in 1970s and 1980s. These weapons successfully competed with their foreign equivalents. Russian experts apprehend that India and China have purchased most of what Russia can offer. The two may look to other sources for more advanced weapon systems and technology, and arms exports to India and China may, in fact, decline after 2007-2008.[15] It is imperative for Russia to develop new weapon systems to remain a major arms exporter. While there are instances of Russia developing new weapons and upgrading existing ones,[16] the US Army on its part has embarked on an ambitious multi-billion dollar Future Combat Systems (FCS) programme.[17]

Problem of Spare Parts

The easy availability of cheap spare parts is a problem area in any defence relationship. The problem existed even during the Soviet period. There were delays and bottlenecks in getting timely supply of spare parts. While the Soviet weapons were cheap, Soviet spare parts were not. Thus a retired Lt. General of the Indian Army has stressed that although the import of Soviet weapon systems has been of immense benefit, there have been persistent problems of maintenance and support. Interestingly, the blame is not put squarely on the Soviet Union/Russia alone. It appears that the Indian side did not pay adequate attention to details while concluding initial agreements in which clauses for product support were not included. Once the weapons were acquired, India was at the mercy of the supplier for spare parts. There was lack of openness on the part of the Soviet side and also lack of communication and understanding of each other's systems. Due to the climatic conditions in India, there is a greater wear and tear of equipment. Also, those who actually used the equipment were not involved

in negotiations. Owing to the "antiquated system of inventory control and maintenance in Indian Ordinance Depots," spares received at times disappeared and were not easy to locate when needed thereby adding to the stories of poor Russian response to India's demands for spares. The problem of spares and maintenance was further aggravated as some of the equipment was getting obsolete in its country of origin by the time it was acquired in the late 1960s and early 1970s.[18]

In 2000, the state arms monopoly *Rosoboronexport* was created. It controls 90 per cent of Russian arms exports and also seeks to establish monopoly on the supply of spare parts. According to Victor Komardin military spare parts bought by India from unauthorised dealers were to blame for non-optimal performance and other problems in Russian-built equipment. He admitted that spares bought from his company would be more expensive as well as require time to deliver.[19] In fact, the price quoted by Rosoboronexport is several times higher. In 2001, the then Vice Admiral Arun Prakash reportedly 'blasted' the Russian arms dealers for lack of transparency regarding pricing and low quality of spares. He said that it was difficult to ascertain whether the delivered parts were new or old. He emphasised the need for Russia to streamline the arms trade and clarify the prices of equipment.[20] The Indian side resents Rosoboronexport's efforts to have a monopoly on the supply of spare parts when identical hardware is available in the market at significantly lower prices. Indeed, in all the meetings of the intergovernmental commission on military-technical co-operation, India has been persistently taking up the issue of product support for equipment of Soviet/Russian origin.

Impact of Growing Competition for Indian Arms Market

As Russia is facing increasing competition in the Indian arms market, it is showing greater willingness to respond to Indian needs. The recent setting up of a consignment warehouse and a service centre in India called Rosoboron Service may go a long way in meeting India's requirements for timely and uninterrupted supply of spare parts and repair and maintenance of equipment of Soviet and Russian origin. It is a joint venture involving eight Russian defence manufacturers and an Indian company comprising ex-servicemen called *Krasny Mir*. Initially, the Rosoboron Service will meet the needs of the Indian Navy. Subsequently, it will also cater to the requirements of the Indian Air Force. For the IAF, Rosoboron Service will set up a new MRO (maintenance, repair, and overhaul) centre in Nasik for

MiG29B-12 and Su-30MKIs. A number of Russian companies plan to set up 'bonded spares warehouses and dedicated workshops' for undertaking MRO activities for the Indian Air force.[21]

Of late, reports have appeared that in view of persistent complaints, the Russian government is also willing to partially reduce Rosoboronexport's monopoly. The Russian government is willing to allow 20 top Russian defence firms to sign international spare parts and upgrade contracts on their own, bypassing Rosoboronexport.[22]

No More 'Friendship' Prices

If the main motive behind the Soviet arms transfers was geo-political, the main motive behind Russian arms transfers is commercial. A retired Vice Admiral said the following regarding the situation immediately after the collapse of the Soviet Union:

> Russia adopted free market philosophy. They started demanding unreasonably high prices for their hardware. They started making unreasonable demands. Russian prices demanded became equal to the Western, but they did not provide detailed break-up of costing and Russian technology also lacked the sophistication of the Western countries.[23]

No wonder, Russia is not prepared to supply weapons to India on prices and terms offered by the former Soviet Union. In April 2001, an Indian parliamentary report noted that Russia no longer grants India 'friendship prices'. The report recommended that India should opt for global bids for all its defence procurements.[24] In the initial post-Soviet period, India wanted rupee payment, but Russia insisted on hard currency payments.[25] Now, in any case, the rupee payment regime has come to an end and all transactions have shifted to hard currency.

Delay in Supply

Delay in the supply of equipment has been a constant problem. For instance, the deadlines set for the supply of Su-30 MKI were not met. There were also delays in the upgradation of MiG-21 to the MiG-21-93 level.[26] It has been reported that the Su-30 MKI aircraft that India has been receiving did not have all the features. Of the 32 aircraft received from Russia, 22 were phase I and phase II variants. There were only 10 phase III fighters but even they did not have some critical components such as electronic warfare system, reconnaissance pod and high accuracy

direction finder radar warning receiver. However, the Russians have agreed to incorporate these systems into all aircraft at their cost.[27]

India has asked Russia to conclude an MoU for providing bank guarantees on timely supply of weapon systems and spares. In place of the bank guarantee, the Finance Ministry of Russia has given a "comfort letter" for ensuring adherence to the delivery schedule and New Delhi can 'encash' it in lieu of penalty.[28]

Concern About Quality

At times, there have been complaints of sub-standard systems and spare parts. At times, the contractual obligations are not met. It was reported that in case of Tangushka Air Defence system, old and rusted systems were provided. However, when the Indian Army drew the attention to this, they were replaced.[29] To cite yet another example, reports suggested a number of lacunae in the latest T-90 tanks supplied to India. The strength of T-90 tanks lies in their missile firing capability, which even the French, German or the US tanks do not have. However, the T-90s supplied to India were without the missile firing system. The manufacturers subsequently promised to equip the tanks with missiles. The engines of the T-90 tanks also have the persisting problem of overheating.[30]

Upgrading and Modernisation

It is widely felt that Russia has not been successful in developing the advanced subsystems that make up the bulk of modernisation activities. Such activities are expected to grow in co-operation with foreign companies.[31] In fact, Israeli companies have become very active in the modernisation of Soviet/Russian military equipment to some consternation of the Russians. Naturally, the Russians are wary of Israeli competition. Nonetheless, the two reached a compromise by signing in March 2003 an Intellectual Property Rights agreement, whereby Israel undertook to involve Russian companies in modernisation of Russian equipment.[32]

The issue of Indian Navy's Tu-142 aircraft upgrade plan is particularly illustrative. In August 2004, India originally turned to Russia for upgrade, but balked at the $888-million price tag put by Rosoboronexport. Then India approached Israel Aircraft Industries to upgrade the aircraft with multi-mission avionics and electronic warfare systems. Russia's consent was mandatory, but Moscow was reluctant. Moscow also reportedly insisted

that its Sea Dragon Electronic warfare systems be part of the upgrade plans. Finally, the Indian Navy advised the government to scrap the plan for upgrade and to launch a global tender to replace all the eight aircraft.[33]

Amidst numerous complaints about the delays in the supply of weapons and spare parts and at times their poor quality, the Soviet/Russian weapons have proved to be battle-worthy and reliable. In fact, during Indo-US joint air exercises in Gwalior in February 2004, the Indian pilots flying Mig-21 Bisons, MiG-27, MiG-29s Su-30s out-performed the US pilots by their training and skills.[34] The success of Indian pilots flying Russian fighter aircraft was hailed with pride across Russia and the other former Soviet republics.

Signing of Intellectual Property Rights (IPR) Agreement

The bane of the Indian defence establishment is the failure to develop indigenous weapon systems of the requisite quality within the planned time. Russian equipment was purchased in bulk as a stopgap arrangement in the hope that it will be replaced by indigenous MBTs and LCAs. This did not materialise and a dependency has been created on imported hardware.

For the past couple of years, Russia had been insisting that India sign the IPR agreement regarding defence co-operation. The agreement was finally signed during Prime Minister Manmohan Singh's visit to Moscow in December 2005. Apprehensive of India diversifying defence equipment sources, Russia was keen to safeguard its financial and intellectual property rights.The IPR issue became a sore point. Russian Defence Minister Sergei Ivanov warned, "We will find it difficult to move forward in high-end defence technologies without an agreement on the protection of intellectual property. We will not hand over technologies for nothing. Russia is not Soviet Union."[35] Russia also put pressure on New Delhi. India was warned that the doors of Russian defence factories would be shut to Indian military and technicians in the absence of an IPR agreement.[36] In November 2005, Russia refused to transfer technology as part of its planned sale of Igla surface-to-air missile systems. Earlier, in late September 2005, Russia said it would not give the technology along with the Smerch Multibarrel Rocket Launcher system and reduced the order from 69 pieces to 46.[37]

Russia has conceded the Indian demand that the IPR provisions apply to future transactions only. The accord is intended to ensure that no

technology is transferred to third countries and royalty is paid to Russia for work performed on Russian-built weapons by other countries. Reports suggest that the terms of IPR agreement also mention Russia as India's preferred supplier. Some Indian defence experts have cautioned against such a provision. However, India reportedly agreed to the clause as it is still "too dependent on Russian arms supplies."[38]

New Areas of Cooperation

The two countries have signed several new agreements that will sustain cooperation through the coming years.

Admiral Gorshkov (INS Vikramaditya) Deal

The $1.5 billion deal for the purchase of the 45,000 tonne aircraft carrier Admiral *Gorshkov* was signed on January 20, 2004 after over a decade of negotiations. Admiral *Gorshkov* is an old Soviet ship and about 70 per cent of the carrier will be retrofitted. It is expected to arrive in India by the end of 2008. The wisdom of buying an 'old Soviet hull' has been disputed by several experts. However, the Indian Navy greatly needed the aircraft carrier.

Nuclear Submarine Issue

The Gorshkov deal was reportedly a part of the package that included the lease of two 971 Shchuka-B or Akula class nuclear submarines and several strategic Tu-22 (NATO designation 'Backfire') bombers.[39] Subsequently, Russia was reported to have backed out of the nuclear submarine deal so as not to displease the Americans.[40] The issue is in the news again. Citing Russian sources, Vladimir Radyuhin wrote in *The Hindu* (December 7, 2005) that the lease of nuclear-propelled submarines to India is in the pipeline. Under a $1.8-billion contract for a ten-year lease, the Russian side has resumed the construction of the subs, which was frozen in the 1990s. In October 2005, 200 Indian naval officers have started training at a submarine training centre at Sosnovij Bor near St. Petersburg.[41] Earlier, the Soviet Union had leased a nuclear-propelled submarine nicknamed *Chakra* to India from 1988 to 1991. The Navy is hopeful that the nuclear submarine will finally arrive.

India has issued a global tender for the purchase of 126 multi-role fighter aircraft. The deal is worth $5-6 billion. Contenders are American F-

16 Falcon and F/A-18 Super Hornet, the Swedish JAS-39 Gripen, the French Mirage-2000-5 and the Russian MiG-29M2.[42] Russia will have to contend with other competitors. Rosoboron Service India Chairman Anatoly Negreev candidly remarked, "Russia is worried about losing out to US, France and Israel. We need to be more competitive….India is our destiny."[43]

Joint Development of Weapons

Not being in a position to finance the production of weapons on a large scale, Russia has offered to conduct "joint development and production" of weapon systems.[44] From the mid-1990s onwards, it has become the *leit motif* in Indo-Russian dialogue. Russian Defence Minister Sergei Ivanov recently said, "We are prepared to transfer high technology to India in strategic tie-up based on a new pattern of defence cooperation". From the Indian perspective, joint development and production of major weapon systems offers a significant advantages vis-à-vis earlier licensed production which only "taught us to assemble kits and sub-assemblies but not design and manufacture of components".

Major Joint Development and Production Projects

1. BrahMos

The *BrahMos* supersonic cruise missile with the range of 280 km is based on 3M-55 Onyx missile designed by Russia's NPO Mashinostroyenia. It is repeatedly cited as the shining example of joint research, development and production by India and Russia. The Indian Navy has already inducted the sea version of the missile. The land and air versions of the missile are in the process of development and likely induction. The Russian military so far has not inducted it. Russia needs to change its laws before its induction, which it has promised to do. The two countries have also decided to jointly market *BrahMos* to third countries by 2007, by which time India and Russia are expected to finalise sale procedures and put into space at least 18 satellites under GLONASS to track the missile's movements.[45] *BrahMos* is just one example of joint collaboration. The IPR agreement has cleared the deck for more such projects. In view of difficulties and snags in the development of indigenous technologies, such collaboration might be the best way for India to acquire and develop new technologies.

2. 5th Generation Fighter Aircraft

For several years, the two sides have been considering joint development of the 5th generation multi-role fighter aircraft and transport aircraft. The intention was reiterated during the December 2005 visit of the Indian Prime Minister. The Russian government has already selected the Sukhoi aviation firm for the purpose and likewise allocated funds. However, the size of the Sukhoi aircraft does not find favour with Indians.[46] *RIA Novosti* (January 18, 2006) in one of its news report has argued that Moscow should develop both a light-engine plane and a heavy fighter. Russia needs a heavy-duty fighter as its "weaponry and electronics have always been bulky." The Sukhoi-developed 5th generation fighter would be a heavy aircraft. Further, India and France might help Russia to develop a light-engine warplane, which could become popular in the international market. A competition is going on between the Sukhoi and MiG aviation firms in Russia. MiG proposes to build a lighter aircraft.[47]

3. Medium Transport Aircraft Development Programme (MTA)

The development of MTA has been assigned greater urgency in India. MTA negotiations began in the late 1990s and in 2000 the $700-million project became part of the 10-year Indian-Russian military-technical co-operation programme. The investment was shared between Russian aircraft maker Irkut and India's HAL (Hindustan Aeronautics Ltd). Subsequently, differences between the two came to light as the Russians wanted 19.5 tonnes of carrying capacity while the Indians are satisfied with 14-16 tonnes. Russia wants to develop PS-12 engine to power the aircraft at the cost of $3-4 billion. The Indians are inclined to use French or US engines.[48] Recent reports suggest the sides are close to agreement to resolve the issue. The cargo carrying capacity of the MTA will be 20 tonnes, but the Indian MTAs will be powered by Snecma Moteurs' CFM 56-7 Turbofans. Solutions for the glass cockpits will be considered from the French firm Thales. IAF will acquire 45 and the Russian side 60 units.[49]

4. Co-operation in Space – the GLONASS

During President Putin's visit to India in December 2004, an agreement was signed between Roskosmos and ISRO on the joint use of the Soviet-era Global Navigational Satellite System (GLONASS) by making it fully functional by joint efforts, including the launching of new Russian satellites

from Indian launch pads with the help of Indian vehicles. The deal will reduce India's dependence on the US GPS (Global Positioning System), which may be denied in times of conflict.[50] During Prime Minister Manmohan Singh's December 2005 Moscow visit, an agreement was signed on measures to protect technology during long-term co-operation in joint development, operation and use of the GLONASS for peaceful purposes.[51] Vladimir Radyuhin, however, opines that GLONASS shall be used by both the countries for civil as well as military purposes.[52]

Joint Military Exercises

During past couple of years, Indo-US military-to-military co-operation has greatly expanded. In contrast, Indo-Russian defence co-operation has largely been in the military-technical field. Recently, Russia also has shown greater interest in boosting military-to-military ties. In October 2005, the two armies and navies held joint exercises in the desert of Rajasthan and off the coast of Vishakhapatnam, respectively.

Moscow Adjusting to Change

The competition for a share of the Indian arms market is growing among major suppliers. The post-Pokhran sanctions on India by the US were removed in November 2001. Israel has emerged as the second biggest arms exporter to India after Russia. Diversification ensures that a country can not be held to ransom by a sole supplier. It can also lead to lower prices as well as access to various technologies. However, diverse suppliers cause the problem of interoperability of different types of equipment, while a single source of supply leads to standardisation of equipment. On their part, the Indian armed forces have the experience of using and integrating different types of equipment.

Moscow had previously balked at India's attempts to diversify arms supply, especially when India opted for the British Hawk AJT (Advanced Jet Trainer) instead of MiG-AT.[53] But, Russia appears to have finally reconciled to the inevitable change. A PTI dispatch from Moscow on January 18, 2004, quoted the Russian Defence Minister Sergei Ivanov as saying: "We had never planned to monopolise the Indian (arms) market. Depending only on one source is bad for any armed forces, it leads to their degradation." Ivanov said that Russia understands India's desire to get the best available technology and welcomes it, and has to compete by offering

the best technology. Referring to the Israeli Phalcon radar deal that would be fitted into Il-78 tanker aircraft, he added that Moscow was not averse to ties with third parties while working on Indian defence orders. He also referred to the French and Israeli systems having been incorporated in Su-30 MKI multi-role fighter aircraft designed and developed for India. The Russian defence industry itself is changing, for instance, Russian NPO Saturn and French Snecma have set up a joint venture called Power Jet that produces SaM 146 aircraft engines. The engine is believed to "represent all the latest know-how."[54] The European Aerospace and Defence System (EADS) has purchased a 10 per cent stake in Russia's Irkut aviation company.[55]

Owing to past legacy and long-term dependence, Russia is likely to remain a major defence partner. In a keynote address to the General Staff Academy of the Russian Armed Forces, the Indian Defence Minister said that Russia "has been, and remains the largest source of our arms, weapon systems and technology imports." He emphasised that the recent strengthening of defence ties with many countries "is not at the expense of our traditional friendly relations with Russia which remain unique, time-tested and steadfast."[56] Even if no new weapons are purchased, India will continue to need spare parts for the weaponry of Soviet/Russian origin and also depend on Russia for their upgrades and modernisation. The licence production of 140 Su-30 MKI under a $3.5 billion deal, itself will go on till 2017-2018.

While diversifying arms acquisitions, India would not like to risk the derailment of the current system that may pose potential security hazards in the near term. India would like to maintain its strategic autonomy and decide each issue on the basis of merit and from the standpoint of India's national interests. Steps have been taken of late to streamline defence acquisition procedure and make it more transparent, speedy and accountable.[57]

Conclusion

Co-operation with Soviet Union and now Russia has made a vitally important contribution to the development of Indian defence potential. It has given India access to sophisticated weapons and advanced technologies at a time when others were not willing. The defence cooperation reflected the convergence of their larger geopolitical interests. In the post-Soviet

difficult transition period, arms purchases by India and China have helped the Russian MIC to tide over the crisis and survive. As a major arms supplier to both India and China, Russia has been persistently pressing for 'triangular' cooperation among Russia, China and India. However, despite the recent improvement in India's relations with China, in view of the disputed status of the Sino-Indian border and other security concerns, India cannot afford to lower its guard. Russian arms supply to China and the possibility of further transfer of Russian arms and technology to Pakistan through China, do add to New Delhi's worries. At the same time, if India distances itself, it may make Russia even more dependent on China.

No country can be fully self-reliant in all areas of defence-related technology. Moreover, the today trend is towards joint development and production of defence equipment. According to the emerging opinion in the Indian strategic community, the country must be self-reliant in areas where technology denial regimes are imposed, like nuclear and missile technologies. India may concentrate on developing and further expanding the areas of her core competence. In other areas, the country may opt for overseas partners, including Russia. Joint development and production of new weapon systems may emerge as a very promising area of continued Indo-Russian cooperation. It may provide continuity and stability to existing ties. Advanced avionics and electronic systems developed by Western countries and Israel may also be incorporated as is already being done. Competition among the suppliers may indeed be good and has already produced beneficial results. There is a need to handle the emerging situation with dexterity and savoir by giving attention to details and nuances. In the pursuit of its enlightened national interests, it is to be expected that India would seek to leverage its position as a major defence buyer, and so would Russia as a supplier.

In the 21st century geopolitical scenario, all the major actors are engaging each other. Nonetheless, India's ties with Russia will continue to be driven by not only common strategic and geopolitical interests but also shared interest in the defence sector. They would, however, need to adjust policies wherever necessary for enhancing mutual gains in this vital sector if they want to sustain a robust relationship in the new global environment.

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11 *SIPRI Yearbook 2004*, pp. 454-55. The European Aeronautic Defence and Space Company (EADS) has entered into a collaboration agreement with the Russian Academy of Sciences as well as with *Rosaviakosmos* in 2003. They have opened a joint engineering centre and a technology office in Moscow.

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