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# 11. Sino-Russian military–technical cooperation: a Russian view

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## I. Introduction

The post-cold war era is replete with uncertainties and paradoxes. Yesterday's foes become friends and rivalry is growing between former allies. The Sino-Russian economic, diplomatic and military rapprochement exemplifies this paradox in a period of transition and rapid change.

During the early and mid-1950s, the Soviet Union provided the People's Republic of China with a wide array of military hardware. This period of Sino-Soviet strategic cooperation, however, gave way to an era of enmity by the early 1960s. All military cooperation between the two communist countries ceased.<sup>1</sup> During the late 1980s, Soviet President Mikhail Gorbachev started the normalization of Sino-Soviet relations. The two governments opened negotiations on a series of agreements including reciprocal force reductions, demarcation of disputed borders, the resumption of military-to-military exchanges and greatly expanded economic relations. It was Russian President Boris Yeltsin, however, who concluded the most extensive military agreements with China since the 1950s, promising, after a visit to Beijing in December 1992, to sell to China 'the most sophisticated armaments and weapons'.<sup>2</sup> In May 1995, during his visit to China, the then Russian Defence Minister, Pavel Grachev, confirmed that arms transfers would remain an essential element in bilateral relations. China is now emerging as one of Russia's most important arms purchasers.

This chapter examines the motives, purposes and major programmes involved in the new Sino-Russian military cooperation since its resumption at the beginning of the 1990s. Why have China and Russia agreed to resume military ties? What do the Russian Government and defence industry hope to gain from this relationship? The discussion below addresses these questions.

The Russian policy- and decision-making system for arms exports is still in a period of transition and a stable balance between political, economic and military priorities has not yet been found. All three of these issue areas can be seen as playing a role in the renewed Sino-Russian relationship. However, in contrast

<sup>1</sup> Hickey, D. V. and Harmel, C. C., 'United States and China's military ties with the Russian republics', *Asian Affairs*, vol. 20, no. 4 (winter 1994), p. 241.

<sup>2</sup> Boulton, R., 'Yeltsin hails new era in Russian relations with China', *The Independent*, 18 Dec. 1992, p. 11.

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with Sino-Soviet military cooperation in the 1950s, when the USSR generously shared weapons and military technology with China, current Russian policy is more heavily influenced by economic than by strategic or ideological considerations.

## II. Economic incentives for cooperation

The first and most obvious rationale for Russia in seeking arms exports is to provide financial support to the defence industry. Since the break-up of the Soviet Union the formidable Soviet defence industry has found itself in a deep economic decline. This dramatic development raised some concerns in the West. In December 1991 Robert Gates, then Director of the US Central Intelligence Agency (CIA), warned that

the former Soviet defence industries, enterprises involved in special weapons and missile programmes that face cuts in military funding may well try to stay in business by selling equipment, materials and services in the international market place. The hunger for hard currency could take precedence over proliferation concerns, particularly among republic and local governments with high concentrations of defence industry and little else that is marketable.<sup>3</sup>

Those fears proved well-founded. In October 1993 the CIA reported that 'Russia has been actively promoting military sales to China this year to secure needed hard currency and to help defence industries cope with declines in domestic procurement'.<sup>4</sup>

The Russian leadership has many times underlined the need to keep production facilities, technicians and scientists employed lest massive unemployment and falling investment ruin the sector and undermine readiness and technological competitiveness. In 1992 alone, military procurement was cut by 70 per cent.<sup>5</sup> According to the estimates of the Moscow-based economics agency Novecon, defence production fell by 33.4 per cent in 1993.<sup>6</sup>

The Russian Government was often unable to pay defence enterprises for weapons ordered for its own use. In 1993 more than 100 new MiG-29s worth an estimated \$2 billion were parked, unclaimed and unpaid for, at an assembly plant near Moscow.<sup>7</sup> In 1994-95 the Ministry of Defence paid for only 23 per cent of an order to the Fakel (Torch) enterprise, builder of air-defence missile systems. The government owed the defence enterprises in and around the city of

<sup>3</sup> Testimony of Robert Gates in US Congress, House of Representatives, *Potential Threats to American Security in the Post-Cold War Era*, Hearings before the Defense Policy Panel of the Committee on Armed Services, 102nd Congress, 1st session, 10, 11, 13 Dec. 1991 (US Government Printing Office: Washington, DC, 1992), p. 9.

<sup>4</sup> Nai-kuo, H., 'Russia promoting military sales to mainland China', Central News Agency (Taipei), 12 Oct. 1993; and Hickey and Harmel (note 1), p. 244.

<sup>5</sup> *Chancen und probleme der rustungs-konversion in der GUS* [Prospects and problems of defence conversion in the CIS], (Bonn International Center for Conversion: Bonn, 1995), p. 4.

<sup>6</sup> Quoted in Beaver, P., 'Russian industry feels the cold', *Jane's Defence Weekly*, 7 May 1994, p. 30.

<sup>7</sup> Kogan, E., 'The Russian defence industry: trends, difficulties and obstacles', *Asian Defence Journal*, Oct. 1994, pp. 43-44.

Nizhny Novgorod 150 billion roubles by the end of 1994.<sup>8</sup> According to Viktor Glukhikh, at that time the Chairman of the State Committee on Defence Industries (Goskomoboronprom), by the end of 1993 the government owed the defence industry 8 trillion roubles.<sup>9</sup> By the end of 1994 about 400 defence enterprises had stopped all production, while another 1500 defence plants were working part-time.<sup>10</sup> In 1995 the situation became progressively worse.

Among other negative consequences, government non-payment of debts prevented the defence industry from pursuing an effective arms export policy since plants (which now often had to pay their suppliers in cash) had no money to start production of equipment ordered by foreign clients.

Under these conditions the Russian leadership turned to arms exports in the hope of saving the slowly dying defence industry. As President Yeltsin noted, 'the weapons trade is essential for us to obtain the foreign currency which we urgently need and to keep the defence industry afloat'.<sup>11</sup>

Russian officials contend that the restoration of Sino-Russian military ties is the natural outgrowth of a broad and maturing relationship with China. Economic concerns, however, are the driving force behind it. Igor Rogachev, Russian Ambassador to China, explains: 'I think it's quite natural that we consider this [military] cooperation as an integral part of our general relationship. China has been and I hope it will be our partner. Our defence industry needs some impulse. We need hard currency. We now have a lot of economic troubles'.<sup>12</sup> As US analyst Norman Friedman has observed, 'they [the Russians] have one product worth buying and they are selling it'.<sup>13</sup>

Economic considerations have meant that there is considerable pressure to make deals with any country ready to pay in hard currency. A former Minister for Foreign Economic Relations, Pyotr Aven, has noted that Russian defence plants put formidable pressure on the government to permit arms deal with Taiwan.<sup>14</sup> The main block on sales of Russian arms to Taiwan was the damage that this could do to relations with China. According to Sergey Glaziev, Deputy Minister for Foreign Economic Relations, Russia was ready to issue a licence for arms merchants to sell warships, missiles and light arms to Taiwan until the leadership decided that this would do too much damage to relations with mainland China.<sup>15</sup> As is discussed in section III in this chapter, the decision not to proceed with military-technical cooperation illustrated that Russia has not made economic considerations the only element in its arms transfer policy.

<sup>8</sup> *Izvestiya*, 10 Oct. 1995, p. 5 (in Russian) in Foreign Broadcast Information Service, *Daily Report—Central Eurasia* (hereafter FBIS-SOV), FBIS-SOV-95-205-S, 24 Oct. 1995, pp. 33–37.

<sup>9</sup> *Komsomolskaya Pravda*, 27 Apr. 1994 (in Russian).

<sup>10</sup> *Segodnya*, 18 Oct. 1994 (in Russian).

<sup>11</sup> Interview with President Yeltsin, *Izvestiya*, 24 Feb. 1992, pp. 1, 3 (in Russian). To illustrate how military exports can be helpful, in 1993 the Russian defence industry repaid 400 billion roubles (\$220 million) in loan credits from profits from export orders. Beaver (note 6).

<sup>12</sup> 'Russia hopes to sell more arms to Peking', Central News Agency (Taipei), 15 Dec. 1992.

<sup>13</sup> *Baltimore Sun*, 17 Oct. 1992.

<sup>14</sup> Moscow Teleradiokompaniya Ostankino, 14 Mar. 1992 (in Russian) in FBIS-SOV-92-051, 16 Mar. 1992, p. 49.

<sup>15</sup> Vesti (Russian Television Network), 3 Mar. 1992 (in Russian) in FBIS-SOV-92-044, 5 Mar. 1992, p. 48.

### Financing economic reform

Arms exports have been at the centre of a fundamental debate in Russia about where the resources needed to finance economic reform should come from. One school of thought favours seeking external financial support, another would rely mainly on national resources.

Russian politicians and industrialists point out that the value of Russian arms exports per year (in the region of \$1.5–3.5 billion) is comparable to the level of Western financial assistance, while arms transfers do not increase the national debt.<sup>16</sup> According to Boris N. Kuzyk, since the autumn of 1994 assistant to the Russian President responsible for advice on arms transfers and military-technical cooperation, Russia concluded contracts worth \$2.5 billion in 1995.<sup>17</sup>

Industrialists initially claimed that arms sales could finance conversion. The former adviser to President Yeltsin on arms transfers, Mikhail Maley, suggested that Russia must sell \$5–10 billion worth of arms each year for 15 to 30 years to cover the estimated \$150 billion cost of conversion.<sup>18</sup> President Yeltsin proposed that part of the income from the defence industry be used to finance social programmes for armed forces personnel.

Arms export policy as an instrument of economic reform has had its opponents in Russia. Before he became Russian Foreign Minister, Andrey Kozyrev expressed reservations about the compatibility of an active arms export policy with the new principles of Russian international policy.<sup>19</sup> He also later argued that revenues from arms sales could not substitute for Western aid because they would be channelled to a narrow sector of the Russian economy. Vsevolod Avduevskiy, Chairman of the Russian Commission for Conversion, has voiced primarily political objections, referring to the financing of conversion through exports as a dirty business which he likened to adding kerosine to local conflicts. In his view, such a policy would simply prolong the agony of breaking with a militarized economy by postponing difficult decisions that must be faced. Moreover, there is no guarantee that the proceeds from arms exports will not simply boost the defence industry.<sup>20</sup>

### Providing the Russian people with consumer goods

China has tended to conclude deals with Russia only on condition that the financial arrangements include a significant element of barter. However, the Russian defence industry is willing to sell China sophisticated armaments in the hope of getting at least some hard currency in its present economic situation.

<sup>16</sup> *Jane's Defence Weekly*, 9 July 1994, p. 28.

<sup>17</sup> *Rossiyskaya Gazeta*, 17 Oct. 1995 (in Russian), p. 3.

<sup>18</sup> *Asian Defence Journal*, no. 3 (1994), p. 74.

<sup>19</sup> *Izvestiya*, 20 Feb. 1990 (in Russian).

<sup>20</sup> Cited in Cooper, J., *The Soviet Defence Industry: Conversion and Economic Reforms* (Royal Institute of International Affairs/Council on Foreign Relations Press: New York, 1991), pp. 65–66. See also *Izvestiya*, 7 Feb. 1990, p. 2 (in Russian) in FBIS-SOV-90-031, 14 Feb. 1990, pp. 117–21; and Avduevskiy, V., 'Conversion and economic reforms: experience of Russia', *Peace and the Sciences*, Mar. 1992, pp. 7–10.

If arms transfer deals with China cannot be paid for on a purely cash basis many Russian politicians and industrialists believe that military cooperation could still contribute to the resolution of the problem of the consumer goods deficit in Russia. China can offer Russia a range of goods—such as toys, some electronics, textiles, shoes, leather and tea—and, although some are of relatively poor quality, it has adapted itself to the Russian market much better than other developing (and even developed) countries. Moreover, China is able to offer a much wider variety of goods in barter deals than other arms trade partners such as India and Malaysia.

### **Improving Sino-Russian economic relations**

The Russian leadership has also pointed out that arms and technology transfers promote other forms of economic cooperation between the two countries. The value of Sino-Russian bilateral trade was \$7.68 billion in 1993 and \$5.1 billion in 1994.<sup>21</sup> The value of their trade in these two years added together was greater than that of the two decades of 1950–69. In the framework of discussions about military–technical cooperation a number of Russian regions and particular enterprises have established direct contact with Chinese counterparts. In turn, this commercial and industrial infrastructure serves as an additional spur to the development of Sino-Russian cooperation in various areas.

## **III. Political and strategic considerations**

Economic incentives are not the only reasons for Sino-Russian military–technical cooperation. Political and military motivations have been identified in the resumption of the relationship.

### **Framing a new security complex on the Eurasian continent**

According to the Russian draft foreign policy doctrine of 1993, China is not a very high priority for Russia. In early 1993 the Asia–Pacific region was ranked sixth on a list of 10 priorities in Russian foreign policy, behind relations with the CIS, arms control and international security, economic reform, relations with the United States and relations with Europe. At the same time, it ranked higher in priority than South and West Asia, the Near East and Latin America.<sup>22</sup> However, this order of priorities probably no longer reflects China's significance for Russia.

The place of China in the new Russian world-view must be seen in the light of the search for a new Russian identity and international role. According to the Russian leadership, Russia should become a focal point of a new Eurasian security complex. During his visit to India in December 1992 President Yeltsin

<sup>21</sup> *Rossiyskaya Gazeta*, 17 Aug. 1995 (in Russian).

<sup>22</sup> 'Kontseptsiya vneshney politiki Rossiyskoy Federatsii' [The foreign policy concept of the Russian Federation], *Diplomaticheskiy Vestnik*, Jan. 1993 (special issue), pp. 15–16 (in Russian).

emphasized Russia's Eurasian identity by pointing out that the greater part of Russia's territory (10 million out of 17 million km<sup>2</sup>) lay in Asia and that most Russian citizens live in the Asian part of Russia.<sup>23</sup> During a visit to South Korea in November 1992 he stressed that Russia's foreign policy was turning from the West to the Asia-Pacific region.<sup>24</sup> Along with India and Kazakhstan, China is perceived by Russia as an important pillar of this new security system.

In recent years Russian leaders have faced a continuous temptation to play the 'Chinese card' against Japan and the USA in order to end Russian isolation from the principal economic and security institutions gradually being developed in the Asia-Pacific region. Russia could influence the regional power balance through its arms transfer policies towards China. Given Russia's weakening economic, political and military position in East Asia, it views a strong China as a counterweight to Japan and the United States.

At the present time commercial rationales sometimes challenge strategic considerations when a potential recipient is ready to pay for arms in cash. In East Asia, Taiwan has both a stated need for modern weapons and foreign exchange reserves of around \$97 billion. However, the temptation to sell weapons to Taiwan was resisted, in part for strategic reasons.

### **Promoting Sino-Russian relations**

Russian leaders believe that Chinese interest in military cooperation with its northern neighbour will help in the further development of a stable bilateral relationship and lead to greater flexibility in the resolution of common problems. Despite some security concerns among elements of the Russian military and some politicians, most prominently from the Yabloko Party, the Yeltsin Government and a majority of defence experts are confident that China will not use its growing military potential against Russia.<sup>25</sup> In spite of the fact of military confrontation between China and Russia in the recent past, Pavel Grachev, then Russian Defence Minister, used his visit to China in May 1995 to state his view that China would never pose a military threat to Russia again.

### **Fear of Islamic fundamentalism**

The Russian leadership believes that the Chinese military threat has disappeared for the foreseeable future and Russia no longer plans for a general war to preserve its territorial integrity against a potential Chinese invasion. In the post-cold war international environment, however, there remain elements of unpredictability. Some contend that Russia is selling military equipment to China as

<sup>23</sup> Singh, A. I., 'India's relations with Russia and Central Asia', *International Affairs* (Moscow), vol. 71, no. 1 (1995), p. 71.

<sup>24</sup> Gill, B., 'North-East Asia and multilateral security institutions', *SIPRI Yearbook 1994* (Oxford University Press: Oxford, 1994), pp. 156-57.

<sup>25</sup> Afanasiev, E., 'Russia-China relations: from normalization to partnership', *Far Eastern Affairs*, no. 1 (1994), pp. 3-8.

part of an effort to remain vigilant against two potential threats to the integrity of Russia: the possible growth of Islamic fundamentalism within Russia and the resurgence of regional powers with an Islamic background.

According to some observers, the strategic and economic alignments emerging in Central Asia (mainly among Islamic peoples) will shape the strategic balance of Asia in the coming years.<sup>26</sup> China and Russia have a mutual interest in monitoring the activity of Islamic peoples in Central Asia and in adjacent countries such as Iran. Joint action to prevent any potential threat will be a solid basis for future Sino-Russian ties and a lasting feature of their policies.

#### IV. The management of arms transfers to China

The dislocation of the Soviet decision-making system and the development of a new export control system in Russia are described in earlier chapters of this book. Discussions on military–technical cooperation with China were already under way in the late Soviet period, and deals in progress or under negotiation by individual enterprises were disrupted by the sudden changes in the rules.<sup>27</sup>

After 1991 Oboronexport (the predecessor of Rosvooruzhenie) and the Central Engineering Directorate (Glavnoye inzhenernoye upravleniye, GIU) within the Ministry of Foreign Economic Relations (MFER) were the chief negotiators and points of contact for discussions with China. Suddenly after November 1993 the new state company Rosvooruzhenie became the chief negotiator for major arms deals.

Chinese requests for Russian military equipment and related technology were usually relayed to specialist agencies through the Ministry of Foreign Affairs and the MFER. Applications were first considered by the licensing authority — at that time the Interdepartmental Commission for Military–Technical Cooperation between the Russian Federation and Foreign States (Komitet voyenno-tekhnicheskogo sotrudnichestva, KVTS). Afterwards the state authority (now Rosvooruzhenie) together with the State Committee on Defence Industries would identify specific defence plants which might be interested to produce the arms which had been licensed.

If an enterprise was the only producer of a given system a choice was very easy. For example, for a time the Nizhniy Novgorod Krasnoye Sormovo plant was the sole producer of the Kilo (Varshavyanka) Class submarine.<sup>28</sup> The Irkutsk Aviation Production Association (IAPO) is the main builder of the Su-27 aircraft. However, if a deal could involve several exporters Rosvooruzhenie was subjected to heavy lobbying: the MiG-29 fighter aircraft offered to China, for instance, could have been transferred by either the Moscow

<sup>26</sup> Rumer, B. Z., 'The gathering storm in Central Asia' and Malik, M. J., 'India copes with the Kremlin's fall', *Orbis*, vol. 38, no. 1 (winter 1993).

<sup>27</sup> Author's interview with Sergey L. Zimin, formerly Director, Volga Innovation Company, Nizhniy Novgorod, 11 Sep. 1995.

<sup>28</sup> Early in 1996 the Admiralty shipyard in St Petersburg decided to begin construction of the Kilo Class submarine. *Jane's Intelligence Review Pointer*, Oct. 1996, p. 1.

Aviation Production Association (MAPO) or the Sokol plant in Nizhniy Novgorod. Orders were sometimes allocated to the plant which was in the worst economic situation and sometimes to the one able to produce the best equipment. In the case of China the equipment was usually taken 'off the shelf' from stocks produced for the Russian Ministry of Defence or a foreign customer but never paid for. According to Nikolay Zharkov, Director of the Krasnoye Sormovo plant, two Kilo Class submarines which were sold to China were initially designated for Poland and Romania but they had refused to pay for them at the last moment.<sup>29</sup> Fifty T-80 tanks were sold to China by the Kirov Plant in St Petersburg after the Russian Ministry of Defence refused to pay for them.<sup>30</sup>

After the decision on exporters was taken, the state authority formed a mixed team which included both state officials and representatives of the producer to negotiate price and payment schedules with the Chinese. Representatives of enterprises had no major voice in the negotiating process, usually playing more the role of consultants. On a number of occasions negotiations were carried out only by the state agency. For example, the Kilo submarine deal (including prices and other financial conditions) was concluded by Rosvooruzhenie without any participation of the Krasnoye Sormovo plant.<sup>31</sup> At the same time an enterprise might have some opportunities to renegotiate some technical aspects of the contract (such as the delivery and payment schedule or the shares of hard currency and barter payments): representatives of the Krasnoye Sormovo plant succeeded in increasing the hard currency element of the submarine deal through direct negotiations with China after the general contract had been signed.<sup>32</sup> The producer was also responsible for adapting the weapon system to the specific requirements of the Chinese forces and for after-sales service.

Since the dissolution of the Soviet Union, some regional governments in Russia have also had a voice in arms export decisions. The regional governments of, for example, Yekaterinburg, Irkutsk, Nizhniy Novgorod, St Petersburg and Tula all promoted the establishment of local arms trading firms and issued export licences to defence plants. The regional governments gave plants which allocated some arms export proceeds to conversion programmes exemption from certain taxes or privileged tax status.<sup>33</sup> Local governments received Chinese delegations to assure them of their interest in and support for the Russian defence industry.<sup>34</sup>

<sup>29</sup> *Izvestiya*, 10 Sep. 1994 (in Russian).

<sup>30</sup> *Izvestiya*, 30 Mar. 1994 (in Russian).

<sup>31</sup> *Delo*, 24–30 Mar. 1995, p. 7 (in Russian).

<sup>32</sup> See note 31.

<sup>33</sup> Author's interview with Andrey A. Khudin, Director, Nizhniy Novgorod Division, Institute of Economy and Conversion of Military Production, 16 Oct. 1995; and interview with Vladimir A. Andreyev, formerly Head, Planning Division, Department of Conversion, Nizhniy Novgorod Regional Government, 25 Oct. 1995.

<sup>34</sup> Author's interview with Igor V. Moskayev, former Head, Department of International Relations, Nizhniy Novgorod Regional Government, 23 Oct. 1995.



### Management of the production process

The management of the production process for arms to be exported depends on the specific conditions laid down in the contract. The producers manage the programmes themselves, including coordinating the many levels of production and suppliers of equipment and sub-systems. This represents a fundamental change compared with previous practice by which this coordination was managed by central ministries. Since 1993 many defence enterprises have become joint-stock companies largely independent from central government.<sup>35</sup> For example, by April 1995, 22.5 per cent of shares of the Krasnoye Sormovo plant had been sold through auction and 35 per cent more were to be auctioned.<sup>36</sup> In July 1995 the Sokol plant also sold 22 per cent of its shares through auction.<sup>37</sup> After this the plants applied for local and central government support only where they experienced troubles with their subcontractors.

Some problems were revealed in the functioning of the relationship between design bureaux and production enterprises. A number of design bureaux complained about neglect of their copyright in particular weapon systems. One of the chief designers at the Sukhoi Design Bureau (designer of the Su-27 fighter sold to China) complained in March 1992: 'Our situation violates the laws of the market . . . As soon as the design bureau transfers [design] documentation to the aircraft production plant, the production plant becomes sole proprietor of the aircraft it produces. They forget the enormous intellectual effort invested in the aircraft, which ought to bring the designers definite dividends'.<sup>38</sup>

In most cases designers and manufacturers have moved to form production associations that would assure them both a share of the proceeds from the sales of a given weapon system. For example, the Krasnoye Sormovo plant works in close contact with its design bureau, which is in St Petersburg. In 1994–95 the plant used the facilities of the design bureau to test submarines in the open sea before they were transferred to China.<sup>39</sup> The MiG Design Bureau agreed to sign final contracts together with the assembly plants of MAPO and Rosvo-oruzhenie. This 'triple signature' is also intended to reassure the potential customer that the Russian Government is in full control of the deal. The general designer (MiG) will be responsible for aircraft modifications, while the director of the assembly facility (MAPO) will be responsible for maintenance, technical service and supply of spare parts.<sup>40</sup> In 1995, the MiG Design Bureau, MAPO, the Sokol plant and a number of banks took a further step and formed the MiG financial–industrial group to qualify for privileges regarding taxation, tariffs, credits and orders.<sup>41</sup> Outside the aircraft building sector, the Admiralty shipyard

<sup>35</sup> Author's interview with Andrey A. Khudin, Director, Nizhniy Novgorod Division, Institute of Economy and Conversion of Military Production, 16 Oct. 1995.

<sup>36</sup> *Delo*, 7–13 Apr. 1995 (in Russian).

<sup>37</sup> *Birzha*, 14 July 1995, p. 4 (in Russian).

<sup>38</sup> *Krasnaya Zvezda*, 21 Mar. 1992 (in Russian).

<sup>39</sup> See note 36.

<sup>40</sup> Kogan (note 7), p. 45.

<sup>41</sup> *Nizhegorodskaya Yarmarka*, no. 32 (1995), p. 3 (in Russian).

along with a leading Russian commercial bank, Inkombank, established a financial-industrial group to produce Kilo Class submarines for export.

## Payment

The financial aspects of arms export deals with China remain an unresolved problem from the Russian point of view. China usually pays in hard currency for only 20–30 per cent of contract value; the rest is paid for by shipments of consumer goods. For example, Russia received hard currency payments to cover one-third of the value of the first Su-27 Flanker fighter aircraft contract and 35 per cent of the contract to provide ship-borne guns of 77-mm calibre produced by the Mashzavod machine-building plant in Nizhniy Novgorod.<sup>42</sup>

In some cases Russia has succeeded in signing more advantageous contracts with China. For example, in the deal to transfer the Kilo Class submarine, the producer was able to shift the ratio of hard currency and barter to 50 : 50. However, the Krasnoye Sormovo plant remained unsatisfied since, after paying taxes and commissions, its hard currency payment would be only 8–10 per cent of contract value.<sup>43</sup> The programme to supply Su-27 aircraft is likely to extend over several phases. Russia would like the ratio shifted to 50 : 50 in future deals and would like the barter goods to be of sufficient quality for re-export.<sup>44</sup> Some sources have reported that this hard currency ratio has been achieved in the second phase of the programme.<sup>45</sup>

The Chinese consumer goods received in part payment are not popular in Russia because of their low quality and are already available from many other businesses. The lack of clarity in the contracts has been used by China to propose an assortment of goods that left their Russian counterparts no choice and could not be effectively resold in Russia or re-exported.

In time this problem may be solved if both China and Russia move towards fully convertible currencies. At present, however, the Russian defence industry has no alternative but to accept such business practices. For many plants exports remain the only way to survive and readjust production. According to some reports, the Kilo Class submarine deal in September 1994 prevented the financial collapse of the factory and a strike in the Krasnoye Sormovo plant.<sup>46</sup>

Industrial leaders are nevertheless very critical of what they call the ‘banana approach’ to arms exports and put pressure on the Russian Government and Rosvooruzhenie to try to modify it.<sup>47</sup> In their view, this kind of financing can serve only as a temporary tactic to survive a transitional period.

<sup>42</sup> See note 31; *Birzha*, 14 Apr. 1995, p. 3 (in Russian); and *Far Eastern Economic Review*, 3 Sep. 1992, p. 21.

<sup>43</sup> See note 31.

<sup>44</sup> *Jane's Defence Weekly*, 22 Jan. 1994, p. 3.

<sup>45</sup> Other sources even report that a more likely split will be 70 : 30 in favour of hard currency. *Jane's Defence Weekly*, 6 May 1995, p. 3.

<sup>46</sup> See note 31; and note 36.

<sup>47</sup> This term became popular after the Philippines offered bananas in exchange for Russian weapons. *Moscow News*, 19 Mar. 1993.

A number of complaints have been lodged against Rosvooruzhenie by industrialists and arms-trading companies, many addressed to the way in which Rosvooruzhenie handles its business. In particular, they have blamed Rosvooruzhenie for neglecting the economic interests of the weapon producers.

As a state company, Rosvooruzhenie has often established the prices and financial conditions of agreements on the basis of political and strategic considerations rather than commercial reasons. This is similar to the Soviet practice. For instance, Kilo Class submarines were sold at substantially reduced prices for that class of vessels—\$90 million each—while Germany is believed to have sold submarines recently for in excess of \$200 million each.<sup>48</sup>

Second, industrialists are not content with the size of the commission charged by Rosvooruzhenie for its services. Under current legislation, Rosvooruzhenie is allowed to take 5–10 per cent of the value of sales in commission. The rest of the after-tax proceeds should, theoretically, go to the producers. In reality the commission was often 15–20 per cent of the value of the deal.<sup>49</sup> In one case—the deal to supply China with T-80 tanks—the commission was 25 per cent.<sup>50</sup> Other government and private trading companies have limited themselves to commissions of up to 5 per cent.

While deals with China have usually been concluded on the basis of barter, Rosvooruzhenie took its commission in hard currency regardless of the conditions of the contract. Naturally, this evoked resentment in enterprises which were left with the bulk of their proceeds in the form of goods. Moreover, plants which succeeded in getting some part of their payments in hard currency were required, under the prevailing rules, to sell 50 per cent of their currency to the Russian Central Bank at an artificial exchange rate.

Industrialists also insist that in future a general arms export contract should be signed after or at least simultaneously with an agreement on the method of payment. This could increase the bargaining power of Russia both in deciding the hard currency portion of a deal and regarding the specific selection of Chinese goods accepted as barter.<sup>51</sup>

Russian industrialists and trading firms were not content with the idea that Rosvooruzhenie should enjoy a monopoly on foreign trade contacts. Following a government decree of 6 May 1994, a number of defence enterprises and local trading companies (for example, Aviaexport and Promexport in Moscow, Russkoye Oruzhiye in Tula and the Volga Innovation Company in Nizhniy Novgorod) received licences to engage in arms export operations directly.<sup>52</sup> Trading companies offered enterprises much better financial conditions and

<sup>48</sup> *Izvestiya*, 10 Sep. 1994 (in Russian).

<sup>49</sup> Author's interview with Sergey L. Zimin, former Director, Volga Innovation Company, Nizhniy Novgorod, 11 Sep. 1995.

<sup>50</sup> *Izvestiya*, 30 Mar. 1994 (in Russian).

<sup>51</sup> Author's interview with Sergey L. Zimin, former Director, Volga Innovation Company, Nizhniy Novgorod, 11 Sep. 1995.

<sup>52</sup> Decision of the Government of the Russian Federation on granting the enterprises of the Russian Federation the right to participate in military–technical cooperation with foreign countries, no. 479, 6 May 1994, reproduced in appendix 3 in this volume as document 10.

services than Rosvooruzhenie, especially with regard to the commission that they charged. However, the export efforts of trading firms were met with a very hostile reaction from Rosvooruzhenie, which accused them of incompetence or even damaging national security.<sup>53</sup>

As described in chapter 6 of this volume, the nature of Russian Government control over arms exports has been continuously shifting since 1994 and remains very uncertain. From the defence enterprises' point of view, by effectively retaining its monopoly over arms exports, the government has returned to the Soviet practice of subordinating commercial to political and strategic objectives. The centralization of bureaucratic procedures is also seen as neglecting the interests of producers. However, whereas the Soviet period was characterized by stable administrative procedures, in the new environment producers are forced to deal with a constantly changing group of government agencies.<sup>54</sup>

## V. Major bilateral programmes

Since the resumption of Sino-Russian military cooperation, Russia has become China's biggest arms supplier. According to former Prime Minister Yegor Gaidar, Russian arms sales to China totalled \$1.8 billion in 1992.<sup>55</sup> Few agreements were reached in 1993, but Sino-Russian arms trade was reactivated in 1994 and 1995. New contracts were agreed for a total of \$1 billion by the end of 1994.<sup>56</sup>

Russia is assisting with the modernization of the Chinese ground forces, air force and navy as well as transferring some military technologies.

### Ground forces

China is estimated to have 10 000 tanks in its inventory, mostly Chinese versions of Soviet-designed main battle tanks.<sup>57</sup> Most of these are of outdated designs, having been developed from the Soviet T-54/55 series of the early 1950s. Moreover, many Chinese tanks are believed to be non-operational. The need to modernize the tank fleet became obvious by the end of the 1980s.

According to Russian military sources, in 1992 China agreed to purchase about 50 T-72 tanks and 70 BMP-1 armoured infantry fighting vehicles at a cost of c. \$250 million.<sup>58</sup> According to some reports, Russia delivered these

<sup>53</sup> *Izvestiya*, 10 Oct. 1995 (in Russian). A government audit and investigation of Rosvooruzhenie itself, led by presidential representative Marshal Ye. Shaposhnikov, after numerous accusations against this company revealed many violations of the law (including corruption). Subsequently many employees were made redundant and legal proceedings were begun against Gen. Viktor Samoylov, the former head of Rosvooruzhenie, and a number of his colleagues. *Ponedel'nik*, no. 42 (1994), pp. 2–3 (in Russian).

<sup>54</sup> Author's interview with Sergey L. Zimin, former Director, Volga Innovation Company, Nizhniy Novgorod, 11 Sep. 1995.

<sup>55</sup> Sismanidis, R., 'China and the post-Soviet security structure', *Asian Affairs*, vol. 21, no. 1 (spring 1994), p. 51.

<sup>56</sup> *Izvestiya*, 22 Sep. 1994 (in Russian).

<sup>57</sup> *World Defence Almanac 1993–94*, vol. 18, issue 1 (1994), p. 222.

<sup>58</sup> *Far Eastern Economic Review*, 8 July 1993, p. 26; and *Washington Post*, 31 Mar. 1993.

**Table 11.1.** Deliveries of major conventional weapons to China, 1990–94

Seller	1990	1991	1992	1993	1994	Total
France	30	10	5	2	2	<b>49</b>
Italy	10	8	0	0	0	<b>18</b>
USSR/Russia	86	133	951	677	1 000	<b>2 847</b>
<b>Total</b>	<b>126</b>	<b>151</b>	<b>956</b>	<b>679</b>	<b>1 002</b>	<b>2 914</b>

Source: SIPRI arms trade database.

tanks at the end of 1993.<sup>59</sup> The version of the T-72 involved in the deal was an improved version of the T-72M1, among the most modern of this series. If the T-72 were to replace the immense inventory of older tanks used by China this would represent a major increase in capability.<sup>60</sup> China and Russia have also apparently discussed the transfer of more modern BMP-3 armoured infantry fighting vehicles including a licence to manufacture these vehicles in China.<sup>61</sup> Moreover, China and Russia continue to explore other areas of possible cooperation. During President Yeltsin's visit in April 1996 Russian and Chinese specialists apparently discussed the modernization of older Chinese tanks with new fire-control systems and the possible transfer of the BTR-80 armoured personnel carrier.<sup>62</sup>

In October 1992, the People's Liberation Army (PLA) became the first export customer to receive the Russian S-300 (the NATO designation is the SA-10B Grumble) surface-to-air missile.<sup>63</sup> China has bought three complexes, one apparently for deployment near Peking, one for Wuhu air base in Anhui Province, and one for training purposes.<sup>64</sup> Since the PLA had no system equivalent to the S-300, this represents a significant upgrade in air defence capability.<sup>65</sup>

## The air force

Before China resumed military cooperation with Russia, it had a fleet of 5000 obsolete combat aircraft, most of them based on old Soviet designs such as the

<sup>59</sup> *Izvestiya*, 30 Mar. 1994 (in Russian).

<sup>60</sup> Bain, W., 'Sino-Indian military modernization: the potential for destabilization', *Asian Affairs*, vol. 21, no. 3 (fall 1994), pp. 133–34. It is also reported that China has received T-80U tanks from Russia, although this is denied by Russian experts. *Jane's Intelligence Review*, Sep. 1996, p. 9.

<sup>61</sup> *Rossiyskaya Gazeta*, 5 Oct. 1996, p. 12 (in Russian), in FBIS-SOV-96-196, 5 Oct. 1996.

<sup>62</sup> *Jane's Defence Weekly*, 24 Apr. 1996, p. 10.

<sup>63</sup> Dantes, E., 'Changing air power doctrines of regional military powers', *Asian Defence Journal*, Mar. 1993, p. 43.

<sup>64</sup> *World Defence Almanac 1993–94* (note 57); *Izvestiya*, 5 Mar. 1993 (in Russian); and Gill, B., 'Trade, production and control of conventional weapons in East Asia', 1995, p. 21. Unpublished manuscript.

<sup>65</sup> The S-300 is a local-area air-defence system that was developed to defend against attacks by low-flying aircraft such as the US F-111 or the British Tornado. Later versions of the S-300, designated the SA-12 Gladiator by NATO, have limited capabilities to defend against ballistic and cruise missile attacks. However, it is not thought that this is the version bought by China. Tai Ming Cheung, 'Sukois, sams, subs', *Far Eastern Economic Review*, 8 Apr. 1993, p. 23.

MiG-21 and MiG-19 fighter aircraft and the Tu-4 bomber. Chinese helicopters are also mostly based on Soviet designs, the Mi-4 and Mi-8/17 series.<sup>66</sup>

The PLA Air Force (PLAAF) has made a major investment in trying to modernize its equipment by domestic means, but with limited success. In 1990, China introduced the F-8II Finback. However, this aircraft is derived from the Soviet MiG-21 Fishbed and is not comparable to contemporary Western or Russian aircraft.<sup>67</sup> The failure of the Finback programme forced the PLAAF to seek alternative aircraft and the dramatic reduction in tension between China and Russia made Russia an obvious choice as supplier. In 1992 China received 26 Su-27 Flanker fighter aircraft—Russia's most advanced air superiority fighter—including two trainer versions.<sup>68</sup>

The Su-27 is designed for air-to-air combat, equipped with Russia's most advanced avionics and capable of carrying the most advanced weapons.<sup>69</sup> It has, among other features, multiple-target engagement and look-down/shoot-down capabilities and a combat radius of approximately 1600 km, which could be extended if China can acquire in-flight refuelling capability—an acquisition priority. The Su-27s are currently based at the Wuhu air base and will primarily be used as interceptors. If deployed in southern China (probably on Hainan Island), the aircraft could operate over the South China Sea.<sup>70</sup>

A further batch of 24 Su-27 aircraft (including two twin-seater trainers) was acquired in 1995–96. In April 1996 Yeltsin apparently agreed to the transfer of a third batch of 18 Su-27s and in principle to begin producing the aircraft under licence in China.<sup>71</sup>

The Su-27 deal was followed in 1992 by a contract for 100 Klimov RD-33 aircraft engines, which Russia uses to power its MiG-29 fighter. China will employ these to upgrade its export-oriented Super F-7 fighter.<sup>72</sup>

It has been reported that China is prepared to buy between 24 and 36 Russian-produced MiG-31 fighter aircraft. There are also reports that it is prepared to buy 40 MiG-29 fighter aircraft and 12 Su-24 fighter bombers.<sup>73</sup> According to

<sup>66</sup> *World Defence Almanac 1993–94* (note 57).

<sup>67</sup> The F-8II was at the centre of the Sino-US 'Peace Pearl' programme which involved fitting 50 Finback aircraft with a Westinghouse radar and fire-control computer and a Litton inertial navigation system. The programme was cancelled, among other reasons because the PLAAF determined that the F-8II would not meet performance requirements. Bin Yu, 'Sino-Russian military relations', *Asian Survey*, vol. 33, no. 3 (1993), p. 305; and Jencks, H., *Some Political and Military Implications of Soviet Warplane Sales to the PRC* (Sun Yat-Sen Center for Policy Studies: Kaohsiung, 1991), pp. 5–6. On recent Chinese modernization efforts, see Gill, B. and Taeho Kim, *China's Arms Acquisitions from Abroad: A Quest for 'Superb and Secret Weapons'*, SIPRI Research Report no. 11 (Oxford University Press: Oxford, 1995).

<sup>68</sup> Tai Ming Cheung (note 65).

<sup>69</sup> Taylor, J., 'Gallery of Soviet aerospace weapons', *Air Force Magazine*, Mar. 1990, p. 75.

<sup>70</sup> Fulghum, D. and Proctor, P., 'Chinese coveting offensive triad', *Aviation Week & Space Technology*, 21 Sep. 1992, p. 21.

<sup>71</sup> *Jane's Defence Weekly*, 24 Apr. 1996, p. 10; and *Defense News*, 9 Dec. 1996, p. 26.

<sup>72</sup> Gill (note 64); and *Jane's Defence Weekly*, 22 Jan. 1994, p. 3; and 19 Feb. 1994, p. 26.

<sup>73</sup> Dantes (note 63), p. 43; Anthony, I. *et al.*, 'Register of the trade in and licensed production of major conventional weapons in industrialized and developing countries, 1992', *SIPRI Yearbook 1993: World Armaments and Disarmament* (Oxford University Press: Oxford, 1993), p. 501; International Institute for Strategic Studies, *The Military Balance 1993–1994* (Brassey's: London, 1993), p. 148; Bin Yu (note 67), pp. 308–10; *Asian Security 1994–95* (Brassey's: London, 1994), p. 15; and *Military and Arms Transfers News*, 17 June 1994, p. 5.

Table 11.2. Deliveries of major conventional weapons to China from the former Soviet Union, 1990-97

Supplier (S) or licensor (L)	No. ordered	Weapon designation	Weapon description	Year of order/licence	Year(s) of deliveries	No. delivered/produced	Comments
S: USSR	(2)	Ka-27PL Helix-A	ASW helicopter	(1991)		..	For Navy
	24	Mi-17 Hip-H	Helicopter	1990	1990-91	(24)	
	24	Su-27 Flanker	Fighter aircraft	1991	1992	(24)	Deal worth \$700 m. (offsets 40%); incl. 4 Su-27UB trainer version
	(288)	AA-11 Archer/R-73M1	Air-to-air missile	(1991)	1991-92	(288)	For 24 Su-27 fighter aircraft
	..	AA-8 Aphid/R-60	Air-to-air missile	1991	1991-92	(96)	For 24 Su-27 fighter aircraft
	1	Il-28 Beagle	Bomber aircraft	1992	1993	1	Ex-Russian Air Force; exchanged for canned fruit
	7	Il-76M Candid-B	Transport aircraft	1992	1993	7	Barter deal worth \$200 m. (offsets 60%)
	2	Su-27 Flanker	Fighter aircraft	1992	1992	2	Original order for 12 Su-27 fighter aircraft reduced to 2 Su-27UB trainer version
	24	Su-27 Flanker	Fighter aircraft	1995	1996	24	Deal worth \$2.2 b.; incl. 6 Su-27UB trainer version
	4	AK-130 130-mm SA-15 SAMS	Naval gun	1996		..	On 2 Sovremenny Class destroyers
15	T-80U	AAV(M)	(1996)	1997	15		
(200)	36D6 Tim Shield	Main battle tank	1993	1996	(200)		
(1)	76N6 Clam Shell	Surveillance radar	1992	1993	(1)	For use with SA-10c/S-300PMU SAM systems	
(1)	Bass Tilt	Surveillance radar	1992	1993	(1)	For use with 4 SA-10c/S-200PMU SAM system	
4	Front Dome	Fire control radar	1996		..	On 2 Sovremenny Class destroyers; for use with AK-630 30-mm guns	
12	Kite Screech	Fire control radar	1996		..	On 2 Sovremenny Class destroyers; for use with SA-N-7 ShAMs	
2	Palm Fond	Fire control radar	1996		..	On 2 Sovremenny Class destroyers; for use with AK-130 130-mm guns	
6	SA-10c/S-300PMU	Surveillance radar	1996		..	On 2 Sovremenny Class destroyers	
(4)	SA-N-7 ShAMS/Shtil	SAMS	1992	1993-97	(4)		
4	SS-N-22 ShShMS	ShAM system	1996		..	On 2 Sovremenny Class destroyers	
2		ShShM system	1996		..	On 2 Sovremenny Class destroyers	





some accounts, in July 1994 China's State Council approved an additional \$5 billion-worth of armament imports from Russia including an unspecified number of Su-30MK and Su-35 fighters.<sup>74</sup> Apparently Russia refused to sell the advanced Su-35 but offered the Su-27 and Su-30 aircraft as an alternative.<sup>75</sup>

Table 11.2 summarizes recent Chinese imports of Russian aircraft and missile systems. The Su-27 provides the PLAAF with an instant qualitative boost. The acquisition of MiG-29s and Su-24s would, if confirmed, also give China a further qualitative leap: the MiG-29 has dual-role air superiority/attack capabilities, while the Su-24 is a highly capable attack aircraft.<sup>76</sup>

In addition to these fighter aircraft, Russia has apparently offered to modernize China's bomber fleet, replacing obsolete H-6 bombers with newer models. The supersonic Tu-22M Backfire (with a 4000-km range without refuelling) has been mentioned in press reports, although it should be stressed that these are not confirmed.<sup>77</sup> In 1996 it was reported that China may order four Tu-26 bombers from Russia along with 118 air-to-surface missiles. However, this report is also unconfirmed.<sup>78</sup> China has also expressed interest in developing an airborne warning and control (AWAC) aircraft, perhaps modelled on the Russian A-50 Mainstay aircraft and long-range early-warning radar systems.<sup>79</sup>

The PLAAF has taken delivery of four Ilyushin Il-76 heavy transport aircraft which should prove to be a particularly important addition, since until now its transport fleet has only had light cargo aircraft. A further seven Il-76s are said to be on order.<sup>80</sup>

In October 1990 the first significant Chinese post-*détente* military purchase was made from the then Soviet Union—24 Mi-17 HIP-H transport helicopters.<sup>81</sup>

If these programmes are all completed, the addition of sophisticated Russian equipment will represent a spectacular improvement over current PLAAF hardware. Aircraft such as the Flanker and the Backfire would give the Chinese a credible tool for military intervention beyond its borders. In lieu of actual combat, such aircraft would stand as a symbol of Chinese power and prestige and offer an effective deterrent. Modern military aircraft will also help PLAAF efforts to develop an effective combined arms capability.<sup>82</sup>

<sup>74</sup> *Asian Recorder*, 27 Aug.–2 Sep. 1994, p. 24192.

<sup>75</sup> *Military and Arms Transfers News*, 26 Aug. 1994, p. 5.

<sup>76</sup> Taylor (note 69), pp. 74, 76.

<sup>77</sup> Bain (note 60), p. 135; Blank, S., *Challenging the New World Order: The Arms Transfer Policies of the Russian Republic* (Strategic Studies Institute: Carlisle Barracks, Harrisburg, Pa., 1993), pp. 53–60; Blank, S., 'Russia arms exports and Asia', *Asian Defence Journal*, Mar. 1994, p. 78; and Davis, M., 'Russia's big arms sales drive', *Asia-Pacific Defence Reporter*, Aug.–Sep. 1994, p. 12.

<sup>78</sup> *Jane's Intelligence Review*, July 1996, p. 330. Another report has suggested that China may acquire from Russia the AS-15 air-launched cruise missile, although the status of this report is also uncertain. Allen, K., Krumel, G. and Pollack, J. D., *China's Air Force Enters the 21st Century* (RAND: Santa Monica, Calif., 1995), p. 159.

<sup>79</sup> *Far Eastern Economic Review*, 8 July 1993, p. 26; and *Air Force Magazine*, July 1993, p. 59.

<sup>80</sup> *World Defence Almanac 1993–94* (note 57).

<sup>81</sup> Jencks (note 67), p. 15.

<sup>82</sup> Bellows, M. (ed.), *Asia in the 21st Century: Evolving Strategic Priorities* (National Defense University Press: Washington, DC, 1994), p. 95; Sismanidis (note 55); Hickey and Harmel (note 1), pp. 241–53; Bain (note 60), pp. 131–47; Afanasiev (note 25), pp. 3–8; Taylor, R. I. D., 'Chinese policy towards the Asia-Pacific region: contemporary perspectives', *Journal of the Royal Society for Asian Affairs*, vol. 25,

## The navy

Russia has also contributed greatly to the development of the PLA Navy (PLAN). The PLAN includes seven ex-Soviet and Chinese Romeo Class submarines (although these are probably no longer operational), 20 former Soviet Kronstadt Class patrol craft and 23 Soviet T-43 Class ocean minesweepers.<sup>83</sup>

The dispute over the Spratly Islands and the growth of Japanese sea power have provided China with an immediate incentive to modernize its naval forces. Chinese leaders are said to have 'attached a high priority to modernizing China's navy'.<sup>84</sup> Naval modernization includes the introduction of a new class of destroyer, new conventional and nuclear-powered submarines and substantial talk of acquiring an aircraft-carrier. According to some assessments, the eventual objective of this programme is to move from a brown-water coastal navy to one that is capable of projecting power into the Pacific and Indian oceans.<sup>85</sup>

Until recent years, the priority in Chinese shipbuilding was laying down large numbers of hulls which were not equipped with sophisticated sensors or weapons. This trend has only begun to change in the 1990s with the acceptance, in 1993, of the first Luhu Class (Type 052) guided-missile destroyer.<sup>86</sup>

The PLAN is also acquiring an upgraded version of the Luda Class destroyer, a new class of frigates (the Jiangwei Class) and new classes of re-supply and amphibious assault ships. Once completed, this programme will allow for sustaining operations further from shore. China has also enhanced the air base and anchorages on Woody Island (Lin-tao) in the Paracel Islands.<sup>87</sup>

In 1991 Russia sold two Ka-27 Helix-A anti-submarine warfare (ASW) helicopters to the PLAN. There are also reports that China may purchase from Russia several Sovremenny Class destroyers. These ships have formidable air defence and anti-ship capabilities and can accommodate ASW helicopters.<sup>88</sup>

In February 1994 the Mashzavod plant in Nizhniy Novgorod signed a contract with the PLAN to supply three ship-borne 77-mm calibre automatic artillery systems. In March 1995 Chinese specialists were trained at the Mashzavod plant to use these guns which were to be delivered by the end of the year.<sup>89</sup>

The PLAN is also working to modernize its submarine fleet. China has purchased four Kilo Class submarines from Russia and apparently intends to obtain

part 3 (Oct. 1994), pp. 259–69; Shambaugh, D., 'The insecurity of security: the PLA's evolving doctrine and threat perceptions towards 2000', *Journal of Northeast Asian Studies*, vol. 13, no. 1 (spring 1994), pp. 3–25; and Munro, R., 'China's waxing spheres of influence', *Orbis*, vol. 38, no. 4 (fall 1994), pp. 585–605.

<sup>83</sup> *World Defence Almanac 1993–94* (note 57), p. 221.

<sup>84</sup> Glaser, B., 'China's security perceptions: interests and ambitions', *Asian Survey*, vol. 33, no. 3 (1993), p. 265.

<sup>85</sup> Bain (note 60), p. 136.

<sup>86</sup> Tai Ming Cheung, *Growth of Chinese Naval Power* (Institute of Southeast Asian Studies: Singapore, 1990), p. 22; and *The Military Balance 1993–1994* (note 73), p. 148.

<sup>87</sup> Ball, D., 'A new era in confidence building: the second-track process in the Asia/Pacific region', *Security Dialogue*, vol. 25, no. 2 (June 1994), pp. 159–60.

<sup>88</sup> Preston, A., 'Russian weapons and ships in the Asia-Pacific region', *Asian Defence Journal*, Dec. 1992, p. 60.

<sup>89</sup> *Birzha*, 14 Apr. 1994, p. 3 (in Russian).

the rights to build additional vessels in China.<sup>90</sup> The two submarines, produced in Nizhny Novgorod, were delivered to China in 1995.<sup>91</sup> Some reports contend that China may ultimately obtain up to 22 Kilos, but sources in Beijing with a closer knowledge of the programme dismiss this.<sup>92</sup> It was reported in March 1995 that China had struck a new deal with Russia for the purchase of six more submarines.<sup>93</sup> The Kilo is considered to be an advanced conventionally-powered vessel that is extremely effective in the coastal defence role. With a range of 9650 km and the ability to remain at sea for up to 45 days, these vessels represent a significant addition not only to the PLA's coastal defence but also to its offensive potential.

According to Tai Ming Cheung, the clearest sign of China's blue-water aspirations is its plan to acquire an aircraft-carrier.<sup>94</sup> There have been frequent although unconfirmed reports that the leadership has decided to acquire one<sup>95</sup> and that China was interested in the Ukrainian ship *Varyag*—a large unfinished carrier that is part of the disputed Soviet Black Sea Fleet. It now appears that China will not purchase the *Varyag* but will either acquire a smaller Russian carrier or build a 30 000- to 48 000-tonne vessel domestically.<sup>96</sup> Although there is no confirmation of China's intentions here either, another indicator of genuine interest in an aircraft-carrier has been the attention paid to the Yak-41 vertical/short take-off and landing (V/STOL) naval fighter aircraft. Bin Yu also argues that it is no coincidence that China purchased the Su-27 for the PLAAF as it can be modified for use on board an aircraft-carrier.<sup>97</sup> Numerous sources have suggested that after the completion of the existing Su-27 Flanker deal a follow-on purchase may include the Su-27K, the naval variant specially designated for carrier-based operations.<sup>98</sup> Moreover, if the PLAN were also to purchase the naval variant of the S-300 (NATO designation SA-N-6), it would possess the foundation for building an adequate defensive and escort force for an aircraft-carrier.

Although Chinese officials can cogently argue that the Spratly Islands dispute demands that China modernize its naval capabilities, this is probably not the underlying or fundamental reason for Chinese aspirations for a blue-water navy. The cost of systems such as the Han Class nuclear-powered attack submarine (SSN) or an aircraft-carrier with its associated escort vessels and air wing make

<sup>90</sup> Tai Ming Cheung (note 65), p. 23; and Tai Ming Cheung, 'China's buying spree', *Far Eastern Economic Review*, 8 July 1993, p. 26.

<sup>91</sup> *Delo*, 7–13 Apr. 1995 (note 36).

<sup>92</sup> *Jane's Defence Weekly*, 13 May 1995, p. 18.

<sup>93</sup> *Asian Recorder*, 26 Mar.–1 Apr. 1995, p. 24672; and *Jane's Defence Weekly*, 18 Mar. 1995, p. 3.

<sup>94</sup> Tai Ming Cheung (note 86), p. 27.

<sup>95</sup> *East Defence & Aerospace Update*, May 1993, p. 3; Ball (note 87), pp. 159–60; and Lin, C., 'Chinese military modernization: perceptions, progress and prospects', *Security Studies*, vol. 3, no. 4 (summer 1994), p. 731.

<sup>96</sup> *New York Times*, 11 Jan. 1993; and Ryan, S., 'The PLA Navy's search for a blue water capability', *Asian Defence Journal*, May 1994, p. 30. If this is true, this domestic programme would take many years to complete.

<sup>97</sup> Bin Yu (note 67), pp. 302, 308.

<sup>98</sup> Dantes (note 63), p. 43; Ackerman, J. and Dunn, M., 'Chinese airpower revs up', *Air Force Magazine*, July 1993, p. 59; and *Military and Arms Transfers News*, 7 Oct. 1994, p. 4.

them expensive tools for use against countries like the Philippines or Malaysia with extremely weak navies. Chinese military interests in the Spratlys would probably be better served by warships covered by long-range and air-refuelled aircraft from the Paracel Islands. An aircraft-carrier, as well as China's nuclear submarines, would be much better suited for use on the open seas rather than in the relatively shallow and constricted waters of the South China Sea.<sup>99</sup>

### **Military technology transfer**

Chinese military technology is as much as 20 years behind that of the West. Past efforts to resolve this problem through reverse engineering (often of Soviet-made equipment) have not overcome this gap. China's defence industry has a history of problems with reverse-engineered systems and some Chinese copies of foreign-designed weapons never reached production—for example, the Chinese copies of the Soviet T-62 tank and MiG-23 fighter-bomber.

Since resuming military cooperation with Russia, China has been extremely cautious in signing deals to purchase Russian military hardware. Chinese officials would prefer to purchase technology and production licences rather than buying equipment 'off the shelf'. This reluctance to place large orders is probably partly because of budget restrictions and partly because of the fear of the potential political consequences of over-dependence on any one supplier. China would prefer to modernize its defence industry. In its pursuit of defence industrial cooperation, China has found Russia a more willing partner than Western countries. Russia has been prepared to consider transfers of advanced technology even at the risk of a long-term adverse impact on the regional balance of power. This willingness stemmed from the desperate economic straits of the Russian defence industry and pressure from the defence industry to overrule the objections of opponents in the Russian Government.

In late 1995, Russia agreed to produce the Su-27 aircraft in China. The licensed production deal is covered by a letter of intent that should be finalized once the second batch of the Su-27s is delivered and paid for. A two-stage programme is proposed, the first being assembly in China from kits produced in Russia, and the second full production in China (probably at the Shenyang Aircraft Factory). The licence is thought to cover annual production of 90–100 aircraft, but most observers say that production will probably be half that number, beginning at a rate of 10–20 aircraft per year.<sup>100</sup> Sukhoi Design Bureau officials also reportedly proposed co-production of the Su-35 in China on condition that China purchase close to 120 of the aircraft produced.<sup>101</sup>

<sup>99</sup> Bain (note 60), p. 137.

<sup>100</sup> *Jane's Defence Weekly*, 6 May 1995, p. 3.

<sup>101</sup> Taeho Kim, *The Dynamics of Sino-Russian Military Relations: An Asian Perspective* (Chinese Council of Advanced Policy Studies: Taipei, 1994), p. 19; and Taeho Kim, 'The Russian factor in China's arms acquisition: implications for China's evolving security relations in the Asia-Pacific region', Paper prepared for presentation at the 5th Annual Staunton Hill Conference on China's People's Liberation Army (PLA), sponsored by the American Enterprise Institute, Staunton Hill, Va., 17–19 June 1994, p. 11.

It has also been suggested that China has had negotiations with Russian officials for a technology exchange programme involving the MiG Design Bureau that could include production of an advanced fighter aircraft, probably the MiG-31.<sup>102</sup>

Another recent report suggests that Russia has offered to develop a brand-new fighter for the PLAAF for as little as \$500 million. Senior Russian Ministry of Defence officials have said that there have been negotiations over a deal which could see Russian aerospace firms providing up to two-thirds of the required technical and design work, as well as avionics and an engine, for a new fighter based on the Xinjian J-10 airframe. China is supposedly planning to produce the new aircraft at the rate of 100 per year according to Russian statements.<sup>103</sup>

At present, however, it is unclear what type of aircraft (if any) China plans to co-produce with Russia. One analyst has suggested that, if pursued, such a programme would provide China with its 'first step towards a new manufacturing capability' that could both replenish and modernize the air force's obsolete fleet of aircraft, as well as compete with Western manufactures in the lucrative Asian arms market.<sup>104</sup> However, in order to pursue such a programme China would need technical assistance in the areas of aircraft engines and stealth technology. China is also attempting to purchase Kilo Class submarines, ASW technology and technical data on the design and construction of airframes.

Military technology transfers have been combined with exchanges of personnel and expertise. According to Russian Ministry of Defence sources, 'more than 1000 Russian defence scientists and technicians have travelled to China since 1991 on defence-industrial exchanges [and] . . . there are around 300–400 Chinese defence specialists in Russia'.<sup>105</sup> Some of the Russian scientists now believed to be based permanently in China are apparently experts 'in the fields of cruise missiles, ASW, missile launching experiments and nuclear explosions'.<sup>106</sup> Chinese defence scientists and technicians are working at Russian aerospace institutes, including some in Moscow, Ryazan, Samara and Saratov. Some are studying at organizations such as the Central Institute of Aircraft Dynamics in Moscow.<sup>107</sup>

Some sources have suggested that Russia's chaotic economic, social and political conditions have also permitted China to recruit scientists and acquire technology without official approval. However, as Shulong Chu puts it, 'the

<sup>102</sup> Tai Ming Cheung, 'China's buying spree' (note 90), p. 24; Dantes (note 63), p. 43; and Bin Yu (note 67), pp. 308–10. It has been suggested that 150–300 MiG-31 Foxhounds could be made in China over an 8-year period. This aircraft is a high-altitude interceptor with superior extended-range radar and multiple target-engagement capabilities.

<sup>103</sup> Gallaher, M., 'China's illusory threat to the South China Sea', *International Security*, vol. 19, no. 1 (summer 1994), p. 175; and *Jane's Defence Weekly*, 19 Feb. 1994, p. 28.

<sup>104</sup> Mecham, M., 'China updates its military, but business comes first', *Aviation Week & Space Technology*, 15 Mar. 1993, p. 58.

<sup>105</sup> Tai Ming Cheung, 'China's buying spree' (note 90), p. 24.

<sup>106</sup> 'Peking recruits Russian weapons experts: report', Central News Agency (Taipei), 29 Dec. 1992; *Wall Street Journal*, 14 Oct. 1993; and Shulong Chu, 'The Russian-US military balance in the post-cold war Asia-Pacific region and the "China threat"', *Journal of Northeast Asian Studies*, spring 1994, pp. 89–90.

<sup>107</sup> *Jane's Defence Weekly*, 19 Feb. 1994, p. 28.

reports that China recruits thousands of Russian weapons experts may come from speculation, because there is no governmental source from China or Russia of such exchange programme. The Russian government has lost a lot in controlling its society, but it has not lost everything'.<sup>108</sup>

### **Defence industry conversion**

China and Russia have also agreed to strengthen their cooperation in conversion programmes. China has been engaged in a programme intended to convert its defence industry to civilian production.<sup>109</sup> A document has been signed similar to that signed by China and the United States during the visit of US Secretary of Defense William Perry to Beijing in October 1994.<sup>110</sup>

A number of Sino-Russian joint ventures were set up to develop conversion programmes. The companies involved in the first Sino-Russian venture are Xing-Yui-Ju (Beijing), Yuilang Trading (Hong Kong), the Nizhniy Novgorod-based Impex and the Institute of Applied Physics at the Russian Academy of Sciences.<sup>111</sup> The joint venture will take electro-optical defence items and re-configure the designs to create commercial laser, electro-optic and optical devices for sale in the Middle East. Russia will provide research personnel and expertise, leaving the manufacturing and marketing to the Chinese.

The Sungari Sino-Russian joint venture, set up by the Ural Device-Building Plant (Yekaterinburg) and the Kharbin Commercial Trade Company, has started production of cassette tape recorders for motor cars at the Lazur former defence plant in Nizhniy Novgorod.<sup>112</sup>

## **VI. Conclusions**

This chapter has argued that Russia has vital interests in the resumption and development of military cooperation with China. The immediate background for the reopening of the military relationship has been the need for Russia to support its defence industry. At the same time, China and Russia hope that their bilateral military ties will provide them with a strategic counterweight to a number of threats and challenges of the post-cold war era. These might include US hegemonism, the rise of Japanese power, or a militant Islam. These considerations have helped China and Russia to overcome the hostility which characterized their relations until recently and develop close military ties despite the cautious reaction (or overt opposition) of other major players in the region.

To date it appears that actual deliveries of Russian military equipment to China have been much more modest than has sometimes been reported. The

<sup>108</sup> Shulong Chu (note 106), p. 91.

<sup>109</sup> *Asian Economic News*, 4 July 1994; and *NOD & Conversion*, no. 30 (Sep. 1994), p. 42.

<sup>110</sup> *Izvestiya*, 19 Oct. 1994 (in Russian).

<sup>111</sup> Beaver (note 6), p. 30.

<sup>112</sup> *Nizhegorodskiy Novosti*, 14 Apr. 1995 (in Russian).

military potential acquired by China through recent purchases is still not sufficient to make China a leading military power in the region.

In future, Sino-Russian joint and collaborative efforts could be restored to the levels of the 1950s, when Soviet technology effectively armed the PLA, if the financial arrangements can be worked out to the satisfaction of both sides. If this happens, Chinese force modernization could be achieved at lower cost than through imports from Western suppliers. However, it is also obvious that Russia's arms transfers to China have had a destabilizing effect on the regional security debate and have been used as an excuse by countries throughout East Asia to justify their own acquisition programmes. This is not surprising given the low levels of trust between the governments of the region.

Sino-Russian arms deals and defence industrial cooperation have become the focal point of China's efforts to engage Russia in a substantive long-term military relationship, obtain advanced military equipment and technology to modernize the PLA inventory, enhance its air force and naval capabilities, and advance Chinese power projection in East and South-East Asia.

How dangerous Sino-Russian military cooperation will be in the regional context will depend on the extent to which the major regional players include China and Russia in the evolving Asia-Pacific community, reducing their temptation to form a separate strategic coalition.