

CHINESE ARMS EXPORTS:
POLICY, PLAYERS, AND PROCESS

Evan S. Medeiros
Bates Gill

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FOREWORD

Global arms proliferation continues to be a key concern for the United States, particularly the export role of the People's Republic of China (PRC). Clearly, the PRC is a key player in the world's arms bazaar. Although China experienced a significant decline in its arms exports in the 1990s (down from the boom times of the 1980s), the PRC provides a significant array of lethal weapons and sensitive defense technologies to states around the world. These exports provide an invaluable means by which to assess the progress and performance of China's military-industrial complex. Moreover, these products may represent the very systems and technological know-how that the United States and allied forces will encounter in a future conflict.

Authored by two of the world's foremost experts on Chinese arms proliferation, this monograph provides the most up-to-date, comprehensive, and authoritative open-source treatment of the subject available anywhere. The Strategic Studies Institute is proud to publish it.

DOUGLAS C. LOVELACE, JR.
Director
Strategic Studies Institute

SUMMARY

It has been nearly 10 years since a comprehensive study has been undertaken to fully assess the trends, processes, and implications of China's arms exports. For a number of reasons the time is ripe for the present study to take up this subject.

First, over the course of the 1990s, questions of Chinese arms proliferation emerged as a central problem in U.S.-China relations. Second, in spite of this valid continuing concern for U.S. interests, encouraging overall trends in Chinese arms exports principles and practices have resulted in more concrete Chinese unilateral, bilateral, and international commitments to stem its transfers of weapons and technologies on the one hand, coupled with market forces causing a steep overall decline in its major conventional weapons exports over the past 10 years on the other.

Third, far more data, information, and documentation is available today from China on a host of questions relevant to this issue through access to officials, newspapers, policy documents, published regulations, and official statements. These sources—some of which are provided to a wider audience for the first time in this study—offer new insights into the players and process involved in Chinese arms export policy, China's military-technical relationships abroad, the internal bureaucratic and institutional pressures bearing on arms transfers, the strengths and weaknesses of China's export control system, and the extent to which Chinese decisionmakers have embraced international nonproliferation principles. Fourth, since late 1997 and early 1998, the Chinese arms production and arms export system has undergone a sweeping reorganization and restructuring process. While the basic outlines of this shake-up are discernible, its implications for future arms exports are less clear and require careful analysis.

Finally, the upshot of these trends points to enduring and legitimate U.S. concerns over Chinese arms exports and proliferation activities. At the very least, this issue will remain a contentious one and will impede progress in the broader effort of the two countries to stabilize their relationship. In addition, in spite of a relative decline in its arms exports overall, China continues to provide sensitive weapons and technology to a range of recipients Washington views with concern: Iran, Myanmar (Burma), North Korea, Pakistan, and others. There is little doubt that China will employ these types of transfers as a form of leverage in its discussions with U.S. officials on other issues related to areas of concern for China, such as U.S. arms sales to Taiwan. More importantly, it remains highly likely that U.S. security interests and military forces overseas will continue to confront—both diplomatically and militarily—the challenge posed by Chinese weapons in sensitive regions across Asia and the Middle East.

As a result, it is imperative to gain greater insight into Chinese arms export policies, players, and processes and their implications for U.S. interests. This study tackles these issues in two principal parts. First, in order to set the context of the study, we assess past, present, and future *quantitative and qualitative trends* in Chinese conventional arms transfers. The second part of the study examines Chinese arms export *policy, players, and process* in turn. Charts and documents attached as appendices further supplement the work of the study.

Drawing from this research, the study reaches the following principal findings:

BACKGROUND TRENDS

- **Arms Exports in Decline.** All available evidence indicates that China's arms exports have contracted considerably since 1990. This trend will likely continue into the next decade. Total Chinese arms exports declined 75 percent from 1990-98. China's share of the world arms

market also declined significantly, especially in exports to developing countries.

- **Market Conditions Worsening.** The major reason for this decline is a shift in the global arms market towards advanced, high-technology weapons which China is largely unable to provide. China has only a limited ability to produce high-technology weapons, while the United States, Russia, and Western European countries have been willing to export advanced weapons to developing countries. China's remaining customers are unable to purchase from the West due to political constraints and are unable to afford Western weapons. China has also accepted arms-control and nonproliferation commitments which restrict its ability to export its most competitive weapons—ballistic and cruise missile systems.

- **Market Share Shifting.** Over the 1990s, China's customer base contracted significantly and shifted from the Middle East to Asia. Chinese arms exporters recruited few new buyers for conventional weapons, relying mainly on modest transfers to traditional clients like Iran, Pakistan, Myanmar (Burma), Sri Lanka, and a few African countries. None of these are likely major growth markets, and their demand for Chinese arms may contract if Western weapons systems become available. Some former customers like Thailand and Saudi Arabia simply stopped buying Chinese arms in favor of Western systems. Indeed, technical problems caused several countries to remove Chinese weapons from their inventories.

- **Limited New Markets.** China's active search for new markets for conventional arms has produced only limited results. In recent years, China has concluded some small, mostly one-time deals with new customers such as Armenia, Turkey, Kuwait, Croatia, and possibly Serbia. China's military exports to Croatia could be the beginning of sustained arms transfer relationships, possibly including production technologies. Recent visits by Chinese military

leaders to Latin America suggest an attempt to expand a meager market share in that region.

- **Export Composition Changing.** The composition of China's weapons exports has changed in the last several years. Suggestions in the early 1990s that China might increase arms sales by specializing in low-end aircraft and various types of anti-ship missiles and medium-range surface-to-surface missiles (SSMs) did not come to fruition. China has sustained its arms export business through minor transfers of diverse weapons systems. However, some specialization in low-end, short-range SSMs and surface-to-air missiles (SAMs) may be developing. In particular, China's sales of SAMs, especially portable versions, represent one of the few growth areas in the 1990s.

POLICY CHARACTERISTICS

- **Flexible Arms Export Principles.** China's formal arms sales policy is shaped around three pillars: export principles, export regulations, and participation in international arms transfer control regimes. These allow sufficient flexibility to justify a variety of arms exports. China supports the broad aims of the United Nations Register on Conventional Arms (UNROCA) and the Wassenaar Arrangement, but its limited participation in the former and reluctance to join the latter reveals an ambivalent approach to restraint and transparency in arms exporting.

- **New Export Regulations.** In 1997, China issued its first publicly available export control regulations covering military products. These new regulations represent a major advance compared with China's previous export controls, which were suited to a centralized, planned economy. These regulations legally codify China's export principles, adopt some international export control standards, reduce confusion in the export control process, and are more transparent than previous laws. The new regulations will facilitate better export control management by specifying

procedures for license application, consideration, and approval.

- **Weaknesses of Regulations.** China's 1997 export control law exhibits certain weaknesses which may complicate effective implementation. Most notably, the regulations do not include a list of specific military items controlled under the regulations, resulting in uncertainty about what items are covered under this law. It is not clear whether China has an informal internal control list or whether it references an international one.

PLAYERS

- **Government Reorganization.** The Chinese government underwent a major reorganization in March 1998 which downsized and restructured much of the government bureaucracy, including the defense industrial sector. The structural changes raise uncertainties in the short- to medium-term about the proper functioning of export controls on military items and other sensitive technologies. In the long-term, however, these changes—if properly implemented—may create a more organized and rational system for controlling military exports.

- **Organizational Uncertainties.** As a result of the ongoing government reorganization, the agency originally responsible for controlling arms exports was abolished, and its successor has not been formally identified. This uncertainty blurs lines of authority and increases the risk of illicit military transfers. The newly civilianized Commission on Science, Technology, and Industry for National Defense (COSTIND) may have assumed coordinating responsibility for military exports and imports. COSTIND has already been given the administrative and regulatory responsibility for China's defense industry, while the Research and Development (R&D) and production functions have been left to 10 newly formed defense industrial enterprise groups.

- The People's Liberation Army (PLA) and Arms Exports. The impact of the Chinese military's recent exodus from commercial business activities on China's arms exports is unclear. In the past, trading companies operated by Chinese military officers, such as Poly Technologies, actively participated in China's arms trade. The PLA's divestiture from business activities could give newly independent firms incentives for illegal arms exports in order to generate lost income. On the other hand, the transfer of ownership may have weakened bureaucratic linkages and personal relationships which could limit firms' ability to export arms illegally.

CONCLUSIONS

- Continuing Concerns. Despite the declining volume of Chinese arms exports combined with China's shrinking market share, Chinese arms transfers will continue to be an issue of concern for U.S. policymakers. China's willingness to sell certain types of weapons to nations of U.S. concern indicates that Chinese arms sales will remain an area of interest to U.S. officials and analysts. Many of these objectionable sales do not violate international law or multilateral export control regimes and, thus, will have to be dealt with bilaterally. Moreover, China continues to link its arms exports to other sensitive issues, such as U.S. military sales to Taiwan. China may use arms exports to particular countries as leverage in bilateral debates with the United States. Thus, U.S. concerns about specific sales will likely be a periodic source of tension in U.S.-China relations.

- Possible Future Exports. China's strong opposition to U.S. plans to provide theater missile defense (TMD) technology to East Asia partners, especially to Taiwan, could trigger a new round of arms exports from Beijing. Chinese officials state TMD sales to Taiwan are a violation of the Missile Technology Control Regime (MTCR) and a form of missile proliferation which may lead Beijing to

reconsider its existing missile nonproliferation commitments. In retaliation for U.S. exports of TMD systems to Taiwan, China may lift its unilateral ban on cruise missile sales to Iran, considering it was adopted in response to significant U.S. pressure and is not part of China's international nonproliferation commitments.

CHAPTER 1

BACKGROUND TRENDS IN CHINESE ARMS EXPORTS

FROM IDEOLOGY TO PRAGMATISM

Beginning in the mid to late 1980s, Chinese arms transfers increasingly became an issue of concern for U.S. policymakers. Of greatest concern were China's exports of particular types of weapons (especially ballistic missiles, cruise missiles, and nuclear-related transfers) to particular regimes (such as Iran, Iraq, North Korea, Pakistan, Saudi Arabia, and Syria). Starting in the late years of the Reagan Administration, these concerns and the ensuing confrontations with the Chinese have formed the foundation for reoccurring and contentious Sino-U.S. discussions over arms exports and nonproliferation.

A brief review of the historical context to Chinese arms transfers will provide a greater understanding of the current and likely future trends for China's arms export activities and related policies.¹ The greatest single shift in Chinese arms export policy occurred in the mid to late 1970s when, in terms of quantity, quality, clientele, and payment arrangements, China adopted a more "pragmatic" approach to its arms export policies. In doing so, it abandoned much of the Mao-era rhetoric and motivation which drove its arms exports throughout much of the 1950s, 1960s, and early 1970s. These arms export policies involved supporting nascent communist or socialist regimes, fueling revolutionary unrest, generating anti-American and (later) anti-Soviet support, providing mostly basic, small arms and light weaponry, and doing so in the form of cost-free military aid. China then shifted in the mid-1970s to dramatically increase the quantity and quality of weapons exports, to

supply a diverse cross-section of importers, and to do so for payment. In many respects these changes in Chinese policies reflected larger trends in international security and arms export markets.

In terms of quantity, while China had consistently ranked among the top five arms exporters to the developing world since the early 1950s, it steadily augmented its market share especially beginning in the late 1970s and early 1980s with the onset of the Cambodian civil war, the war in Afghanistan, and the Iran-Iraq war. According to data compiled by the Stockholm International Peace Research Institute (SIPRI), China quadrupled its share of exports to the developing world, rising from a 1.8 percent share over the period 1970 to 1979 to gain nearly 8.0 percent of the market by 1990. If measured in terms of contracted value (rather than actual transfers), China had by 1990 risen to become the world's third largest exporter to the developing world.² In reaching these heights, China paralleled the spectacular increase overall in arms exports to the developing world from the mid-1970s to the late 1980s.

Qualitatively, Chinese arms exports also began to improve by the mid-1970s. Indeed, by the mid-1980s China began to develop made-for-export weapons which represented the highest quality military R&D and production it had to offer. In addition, China shifted from the provision of mostly small arms and light weapons to sales of complete major weapon platforms, and did so at levels unseen since the provision of weapons to North Korea in the 1950s. For example, with the exception of some anti-aircraft missile batteries transferred to Albania in the mid-1960s, virtually all of Chinese missile-related exports—anti-air, anti-ship, anti-tank and ballistic missiles—took place from 1978 onwards. Again, this reflects broader trends in the international system, which saw the proliferation of far more sophisticated weapons in the developing world, especially as the United States and

the Soviet Union provided their Cold War proxies with increasingly advanced military means.

Perhaps most importantly, Chinese “pragmatism” in its arms export policies can be seen in the diversification of its client list to include “non-traditional” recipients of Chinese military hardware, including recipients with which China did not have formal diplomatic ties, or toward which it had been openly hostile in the past. In the 1960s and early 1970s, China was particularly active in supplying revolutionary governments and movements, especially in Asia and Africa. However, from the mid-1970s, China diversified its recipients to include Israel and Saudi Arabia (neither had diplomatic relations with China at the time), Chile, Iran, Iraq, Myanmar, Oman, Sri Lanka, Syria, Thailand, and even the United States (some 24 F-6 and F-7 aircraft were provided to the United States for training purposes in 1988 and 1989). Partially rooted in its “independent” foreign policy line of the mid-1980s, China broke from Cold War divisions to provide regional conflicts with ready access to significant amounts of cheap weaponry.

Finally, the decision to begin charging for military exports—rather than offering them as military aid—also signaled a greater pragmatism for Chinese arms export policies. This decision was an especially lucrative one with regard to the Iran-Iraq War, in which China supplied both sides and garnered some \$8 billion in arms exports to these countries over the course of the 1980s. In seeking profits, not only was the Chinese defense industrial base eager to seek more clients, but the People’s Liberation Army (PLA) itself began to sell off its excess inventory as well. In some cases, such as in the CSS-2 ballistic missile sales to Saudi Arabia, such profit-seeking “pragmatism” may have outweighed more fundamental foreign policy calculations.

Throughout this period of greater pragmatism, Chinese leaders never lost sight of the practical strategic, political, and economic benefits which could accrue from arms transfers. In many respects, the shifts in Chinese arms

export policies not only reflected changes in the international arms market, but also reflected changes in China's international security situation. Chinese arms exports in the 1980s, for example, especially those to Afghanistan, Cambodia, Pakistan, Sri Lanka, Thailand, and possibly even to Iran and Saudi Arabia, were intended to shore up Chinese influence in the face of encroachments by the Soviet Union and its client states along China's periphery during this period.

Thus, by the end of the 1980s, a more pragmatic and less ideological set of arms export policies propelled China more openly, and at times more contentiously, into the forefront of the international arms market. These trends, and especially Chinese arms exports to such recipients as Iran, Iraq, Myanmar, Saudi Arabia, and Syria, set the tone for increased tensions between the United States and China on questions of Beijing's proliferation policies which continue today.

Furthermore, the "pragmatism" of China's arms export activities since the mid-1970s resulted in several lingering consequences which have a direct impact on U.S. interests. First, China's arms export policies of the 1980s fostered the rise of both the PLA and China's military industries as more significant stakeholders in the development and implementation of the country's arms export and nonproliferation policies. PLA leaders and defense industry specialists are now actively involved in China's arms sales decisionmaking process as well as China's broader nonproliferation diplomacy. Second, China's arms export activities of the 1980s strengthened certain key military-technical relationships for Beijing—such as with Iran and Pakistan—which have outlasted and expanded their original strategic foundations.

Third, even by the mid-1980s, an important supplier-recipient pattern was emerging for Chinese arms transfers, characterized in the main by two prominent facets: one, China was seen as a "supplier of last resort" to

which “rogue” nations could turn when, because of the nature of the regime, access to weapons from other suppliers was circumscribed; two, China was seen as the “supplier of last resort” of certain systems—such as ballistic missiles, cruise missiles, and fighter aircraft—which other suppliers were unwilling to provide. In the following sections, we will examine these trends and their implications more closely.

THE 1990s AND BEYOND

With the end of the Iran-Iraq War in 1988, the Soviet withdrawal from Afghanistan in 1989, and the beginnings of the Cambodian peace process in Southeast Asia, Chinese arms exports—like those for many other suppliers—fell precipitously. Beginning in the 1990s and throughout the decade, China’s arms exports experienced gradual and sustained shifts in volume, recipients, and the types of weapons sold.

Some shifts in the 1990s were so significant they raise serious doubts about China’s continued viability as a major exporter of conventional weapons. During the last several years, China’s arms exports generated a fraction of the income compared to previous years and China’s share of the developing world arms market declined. China signed few new contracts for major weapons systems and the deals it did sign were with its traditional clients, suggesting difficulties in penetrating new markets. China also cancelled some large and lucrative deals in response to Western (mainly U.S.) opposition. Moreover, specialization in exports of “mid-tech” missile and aircraft systems appears unlikely. Thus, China’s role as a major player in the global arms market is increasingly tenuous but potentially troublesome, and deserves further examination.

To examine this situation, this analysis of China’s arms exports in the 1990s is divided into four parts. The first one analyzes the overall quantitative trends in Chinese arms transfers in the past decade. The second section disaggregates the information presented in the first section

in order to better understand the broad trends. It analyzes the changes and shifts in Chinese arms exports to specific regions, with particular attention to changes in market share and recipients, shifts in the types of weapons exported, and the distribution of weapons among regional customers. A third section discusses China's attempts to find new markets for its arms exports; a final section offers conclusions about the future directions of Chinese weapons sales.

Quantitative Trends.³

China's position as a major exporter of conventional weapons is being increasingly called into question as the volume and quality of its weapons exports and the number of recipients have declined since the beginning of the 1990s. While there are several methods to numerically evaluate the trends in China's arms exports, the most illustrative indicator of this decline is the shrinking volume of arms transfers as measured in total arms *deliveries*. In 1990 China sold \$2 billion worth of arms (in current U.S. dollars). In 1995 China's arms exports had declined to \$600 million, and by 1998 this number had further diminished to \$500 million (Fig. 1). Thus, over the course of 8 years, Chinese arms exports have declined 75 percent.⁴ Data from the Stockholm International Peace Research Institute (SIPRI) similarly indicate that in 1997 and 1998 the volume of Chinese arms sales further declined to \$339 million and \$157 million, respectively (Fig. 2). In addition, this overall decline in Chinese arms exports occurred during an expansion of the *developing world* arms market to which China sells nearly 100 percent of its arms (Figs. 3 and 4). Given these numbers, it is not surprising that the decline in Chinese arms exports is also reflected in its market share. From 1990 to 1998, China's share of the developing world arms market shrank from 4.90 percent to 2.01 percent, according to CRS data; SIPRI data suggest an even more dramatic decline in market share to below 1.0 percent (Fig. 5). Thus, in terms of both delivery volume and market share,

the trend-line for China's arms exports in the 1990s has experienced a sharp decline.

Regional Distribution.

The Middle East. During the 1990s, Chinese military exports to the Middle East underwent significant changes in volume and the types of weapons exported, with lesser changes in the regional recipients of Chinese arms. From the early to mid-1990s, the Middle East was Beijing's largest and most lucrative weapons export market, accounting for over 50 percent of China's deliveries. China's principal recipient in the Middle East was Iran, while substantially smaller amounts went to Israel (\$100 million), Libya (\$100 million), Saudi Arabia (\$800 million), and Iraq (\$200 million). Moreover, during this period China sold a wide variety of weapons to Middle Eastern countries including artillery, supersonic aircraft, surface-to-air missiles (SAMs), anti-ship missiles (ASMs), and some surface-to-surface missiles (SSMs).

The amount and character of China's arms exports to the Middle East changed dramatically in the latter half of the 1990s. First and foremost, the Chinese share shrank with Asia replacing the Middle East as the principal destination for Chinese arms. This change reflected a major decline in the volume of China's arms transfers to Iran, and a loss of customers like Iraq, Saudi Arabia, Israel, and Libya. Moreover, the character of China's arms transfers to the Middle East changed dramatically as well. The most significant changes were the reduction in number of artillery, supersonic aircraft, SAMs, and SSMs sold, and the large increase in the number of guided missile boats and ASMs exported. In fact, Iran emerged as the single largest buyer of China's ASMs. The data further indicate that, despite earlier projections, exports of light combat aircraft to the Middle East did not emerge as a growth market for China.⁵

Several factors help to explain these shifts throughout the 1990s. First, Iran—China's largest client in the region—had become increasingly displeased with the quality of China's conventional weapons systems. At the same time the Chinese became uncomfortable with Tehran's erratic payment arrangements which were normally provided in the form of barter trade in oil. Iranian military leaders reportedly canceled a major deal in 1996 because of mutual concerns and frustrations.⁶ Moreover, Iraq's poor performance during the Gulf War in the face of high-tech U.S. weapons further underscored Iran's apprehensions about the quality of Chinese weapons systems. The Gulf War demonstrated that low-tech military weapons (even well maintained ones) could easily be defeated by high-tech systems.

Furthermore, Beijing's nonproliferation commitments significantly affected China's arms exports to the Middle East, especially to Iran. Beijing's various pledges, which it appears to take increasingly seriously, have curbed the flow of various ballistic and cruise missile systems to the Middle East. China's SSM sales to the Middle East went from 170 in early 1980s to zero in the latter part of the decade. In the early 1990s, U.S. pressure on China to adhere to Missile Technology Control Regime (MTCR) guidelines played a role in convincing Beijing to cancel the projected sale of M-9 missiles to Syria and Iran. Also, in September 1997 U.S. and Chinese negotiators reached an agreement on ending further sales of C-801 and C-802 anti-ship cruise missiles (and associated production technologies) to Iran during meetings in New York City between Secretary of State Madeleine Albright and Chinese Foreign Minister Qian Qichen.⁷ China's cancellation of these missile deals in response to U.S. pressure has also reduced the likelihood of future Sino-Iranian military cooperation because the Chinese are increasingly viewed as unreliable and capricious suppliers in Tehran.

These three factors collectively explain the reduction in China's arms exports to the Middle East in the late 1990s.

They also represent real constraints on further Sino-Iranian military cooperation which will have to be surmounted for future deals to come to fruition.

Asia. The pattern of China's weapons transfers to countries in East Asia, South Asia, and Southeast Asia also changed significantly in terms of both volume and character over the course of the 1990s. In the early part of the decade, Asia was China's second most important market after the Middle East. During this period Beijing transferred a wide variety of military equipment (almost every type, except for submarines and helicopters) to a variety of Asian nations. The principal Asian recipients of Chinese weapons were Pakistan, Myanmar, Thailand, Bangladesh, and Sri Lanka.⁸

In the second half of the 1990s, the value of China's arms sales to Asia gradually declined but not nearly as dramatically as in the Middle East. Asia quickly emerged as China's most significant market for weapons exports. In terms of China's customers, Pakistan and Myanmar remained faithful clients whereas exports to Thailand, Bangladesh, and Sri Lanka declined sharply. The character of China's weapons exports underwent an equally dramatic change. China's exports of armored personnel carriers (APCs), SAMs, helicopters, and, most notably, supersonic aircraft grew significantly whereas transfers of tanks, artillery, minor surface weapons, and SSMs shrank considerably. Exports of entire classes of weapons, such as SSMs, simply stopped. Congressional Research Service (CRS) statistics indicated that Asia emerged in the latter part of the 1990s as China's most important market for both supersonic aircraft and SAMs; the Asian market accounted for over 80 percent of supersonic aircraft and about 60 percent of the SAMs China transferred to developing countries from 1994 to 1998.

In broad terms, shifts in the key factors of accessibility, price, and regional politics help to explain the trends outlined above. First, Pakistan purchased large amounts of

Chinese weapons in the 1990s, especially fighter aircraft, for the dual reasons of accessibility and price. Beginning in 1990, the U.S. arms market was closed to Islamabad after the Bush Administration's imposition of the Pressler Amendment, and Moscow's strong ties with India precluded the sale by Russia of sophisticated systems to Pakistan.⁹ In addition, Pakistan considered European weapons too expensive. In 1995, for example, Pakistan began negotiations with France on the purchase of Mirage aircraft, but their high price prevented the conclusion of a deal.¹⁰

Despite Pakistan's extensive purchases of Chinese arms in the 1990s, military cooperation with China has not been trouble free. Pakistan has experienced technical problems with the transmission and the gun accuracy of the T-85 tank. Pakistani military officials also began to view China as an unreliable partner for co-production agreements.¹¹ The Sino-Pakistani effort to jointly develop the K-8 jet trainer for mass production and large international sales produced meager results due to the use of low-quality engine technology and the overall poor construction of the aircraft. Similarly, the joint program to produce the Super 7 fighter was delayed in part because of resource constraints which prevented Beijing from meeting the project's initial R&D costs.¹² These factors collectively suggest that Pakistan could conceivably change suppliers, assuming market dynamics changed. If Pakistan's access to U.S. or Russian weapons suddenly increased or prices of European arms declined, then Pakistan might diversify or completely shift suppliers due to the vastly superior quality of these weapons, particularly supersonic aircraft.

Second, changes in regional politics coupled with increasing competition in the global arms market also explains the contraction in China's client base in Asia. Initially, Thailand perceived the threat from Vietnam and Cambodia to be sufficiently serious to warrant a defensive military buildup which was facilitated by purchases of Chinese weapons offered at "friendship prices." After the

Vietnamese withdrawal from Cambodia, however, Thailand no longer felt the same security imperative and arms imports from China dropped off accordingly. Additionally, Thailand experienced a host of technical difficulties with Chinese weapons and had considerable trouble acquiring spare parts for Chinese systems purchased during the Cambodian civil war. As a result, by the mid-1990s Thailand expanded arms import relationships with the West and currently relies almost exclusively on U.S. and European suppliers.

Third, despite the range of Chinese clients in Asia, it is worth highlighting that China exported few, if any, weapons to *East Asian* countries, with the exception of secret transfers to North Korea.¹³ Many East Asian nations such as Japan, Taiwan, and South Korea have long-standing security concerns about China's military modernization efforts. The relative wealth of these countries and their own indigenous defense production capacity also allowed them to purchase and produce more expensive and technologically advanced weapons.

Such conditions in Asia suggest a questionable future for Chinese arms exports to the region. Of China's two principal arms recipients in Asia, Myanmar will almost assuredly remain a faithful customer of Chinese weapons due to its relative international isolation combined with its growing political, economic, and strategic ties with Beijing. The other main recipient, Pakistan, may become less willing to purchase large amounts of Chinese weaponry, as noted above. Given that Asia accounts for a very large share of China's supersonic aircraft exports and, within Asia, Pakistan is the principal recipient of such systems, if Islamabad shifted suppliers then China's overall arms export business would suffer a severe blow.

Sub-Saharan Africa. In contrast to Asia and the Middle East, China's arms transfers to Sub-Saharan Africa experienced noticeable *increases* in volume and shifts in character during the 1990s. In the early part of the decade,

Africa was a low-priority market for China, accounting for less than one tenth of Chinese exports. Yet, from 1995 to 1998, China's exports to Africa increased in terms of both volume and market share. China exported \$600 million worth of arms to Africa during these 4 years, a 500 percent increase from the early 1990s. These increases also massively expanded China's share of the African market from 4.6 percent in 1991-94 to almost 22 percent in 1995-98. Indeed, China in the latter half of the 1990s emerged as the single greatest exporter of arms to Africa followed by Russia with an 18 percent market share.

However, the actual composition and distribution of these transfers suggest that China's role in the African arms market may not be as significant or sustainable as statistics indicate. CRS data show that in the latter half of the 1990s China transferred 10 supersonic combat aircraft, 3 minor surface weapons, and 10 "other aircraft" to African countries. While these exports of moderately large systems were sufficient to augment China's role in the African arms market, it is unclear whether China will be able to maintain its current position over time.

Latin America. Throughout the 1990s, China's arms exports to Latin America remained relatively insignificant. China transferred approximately \$100 million worth of artillery and supply aircraft to countries in Latin America from 1990 to 1998. Interestingly, in the latter part of the 1990s Latin America emerged as an important market for Chinese SAMs. China's major export to the region was 190 surface-to-air missiles, making Latin America China's second largest market (after Asia) for SAM exports. In fact, these two regions alone accounted for all of China SAM sales in the 1994-98 period. Chinese military officials, including senior Air Force and Navy leaders, recently visited various Latin American countries and, in October 1998, Chief of the PLA's General Staff Fu Quanyou took a 13-day tour of Latin America. Yet, whether these burgeoning military ties will evolve into arms transfers remains an open question.

Possible New Markets for Chinese Arms.

In the latter part of the 1990s, China had some limited success recruiting new buyers for its weapons. Most of the new deals have been relatively small in scale and represent China's traditional export categories. Also, it appears most contracts represent one-time deals. In 1997, China reportedly signed a \$150 million agreement with Turkey for the WS-1 artillery rocket. This deal represents China's first known export of this artillery system. China will supply Turkey with one battery of complete missiles and the materials, equipment, and technology to produce five more batteries.¹⁴ In a similar deal, a Chinese firm sold eight unidentified artillery rockets (possibly like the WS-1) to Armenia in May 1999. However, the deal was cancelled and the missiles returned when Azerbaijan filed an official protest with Beijing because some of the missiles were deployed in the disputed Nagorno-Kababakh region.¹⁵

In a similar move, China is reportedly expanding its military cooperation with Croatia. During a June 1998 visit to Beijing by a Croatian Defense Ministry delegation, Chinese and Croatian defense officials signed a memorandum of understanding (MOU) to initiate cooperation between China North Industries Corporation (NORINCO) and Republika Hrvatska-Alan, the Croatian state agency responsible for arms production. The extensive MOU outlined the general parameters of cooperation and "envisaged the development of technologies for third markets, cooperation in the manufacturing of explosives, and rocket missiles."¹⁶ Also in the Balkans, senior Serbian authorities reportedly signed an agreement with NORINCO in late 1997 for the purchase of Red Arrow-8 anti-tank missiles, and, as payment for the arms, Serbian officials agreed to invest \$5.8 million to build a fruit processing factory outside Beijing.¹⁷ Long-term Sino-Serbian military technical cooperation may be particularly appealing to both nations. In recent years and before NATO action against Belgrade in 1999, Serbia had

begun renovating many of its military production facilities, such as the one owned by Crvena Zvezda located at Kraguljvack, which produced T-72 style tanks and artillery. Chinese companies—in particular NORINCO—have had extensive experience producing similar types of military goods; Chinese companies could also serve as a source of spare parts for Serbian tanks and aircraft given their similarity to Soviet-designed Chinese models.

In the Middle East, China has reached deals with both Kuwait and Egypt. Beijing recently began participating in Kuwait's effort to rebuild its military after the Gulf War. In mid-1997, Kuwait placed an order for 18 self-propelled guns from NORINCO; this was the first time that Kuwait purchased any weapons from China. This deal, although small, is expected to be followed by subsequent ones so that Kuwait can outfit two more battalions with these systems. Also, China's deal with Kuwait triumphed over competing bids from South African, British, and American firms which had all gone through extensive trials in Kuwait.¹⁸ More recently, in December 1999, China signed a \$347.4 million contract with Egypt to jointly manufacture 80 K-8E jet trainers which China initially co-produced with Pakistan. China plans to sell Egypt an entire assembly line for the aircraft as well as provide Egypt with parts and materials, maintenance support, and extensive technical training (including the establishment of five aircraft R&D institutes) for the K-8E jet trainer.¹⁹ This represents China's first major military deal with Egypt since the export of F-6 fighters in the late 1970s and early 1980s. While its size and scope are quite large for China, it is unclear whether this agreement represents the beginning of a sustained arms transfer relationship given Egypt's heavy reliance on Western military systems.

In addition to finding new customers, Chinese firms have attempted to reestablish arms cooperation with old clients like Thailand. Bangkok in the late 1990s increasingly turned to the West due to the superior quality of the weapons. Yet, in 1997 Thailand expressed an interest

in purchasing a few hundred APCs from NORINCO (after a deal with France fell apart), and the same year its military authorities began negotiating the purchase of 30 HN-5A portable air-defense systems from a Chinese company.²⁰ More recently, in 1998, Chinese officials courted Thai military buyers by offering numerous incentives. A Thai general noted that, during a June 1998 meeting, China offered free spare parts for T-59 tanks, APC-85 personnel carriers, 37mm anti-aircraft guns, and 122mm artillery rockets, in addition to other cheaply priced weapons. To further sweeten the deal, Chi Haotian reportedly offered not to devalue the Thai currency in calculating payment for arms purchases from Thailand. The decline in Thailand's economy may help explain its willingness to turn once again to the "friendly prices" offered by the Chinese.

CONCLUSIONS

In all, China's role in the global arms market will likely continue to decline in the coming years. With past trends as an indication, China faces significant barriers to expanding its arms export business. First, China's overall customer base has contracted. In the latter half of the 1990s, China recruited few new buyers for its conventional weapons while continuing to rely on transfers to traditional clients like Iran, Pakistan, Myanmar, and a few African countries. In addition, many former customers like Thailand, Egypt, and Saudi Arabia simply stopped buying Chinese arms and augmented their military technical relations with other suppliers. Indeed, many even completely stopped using Chinese weapons in their armed forces.

These trends help explain the steep declines in China's market share in regions like the Middle East. Moreover, prospects for China's arms export business are worsened by the fact that sustained exports to its traditional clients are an open question. Although Iran remained China's single largest Middle East customer throughout the 1990s, Iran has become concerned about the quality of Chinese

weapons. In addition, due to Beijing's various nonproliferation commitments, China can no longer export the military systems Iran covets most. Without access to China's cruise missiles and only limited access to ballistic missile technologies, it is unclear which Chinese military goods, if any, Iran will purchase in the future. Similarly, if Pakistan gains access to U.S. or Russian arms (such as strike aircraft), then its reliance on Chinese systems will probably be replaced with a much smaller level of imports used to supplement its armed forces.

A second and equally significant barrier China faces is the continued poor quality and increasing uncompetitiveness of its arms exports. Beijing continues to market much of the same low-tech, antiquated, Soviet-designed goods that were sold during the 1980s. While these systems will always have the appeal of low prices, availability, simplicity, and ruggedness, China cannot remain a significant arms exporter by exclusively relying on sales of such military goods in an increasingly competitive global arms market. Even China's naval exports, once an appealing option to many countries for coastal defense, are based on Soviet-era vessels which exhibit basic design and construction flaws in addition to lacking modern naval electronics and weapons suites crucial to warfighting. The number of nations that shifted suppliers away from China during the 1990s testifies to the challenge it faces in exporting higher quality systems.

Moreover, earlier suggestions that China might reinvigorate its arms sales business in the 1990s by specializing in sales of low-end aircraft and various types of anti-ship and surface-to-surface missiles did not come to fruition. In the latter part of the decade, China's exports of combat aircraft to developing countries declined overall, particularly in the Middle East where no countries bought Chinese aircraft. Rather, Asian countries emerged as the principal customers of China's fighters but even then the majority of Asian deals were with countries which desired western fighters but were precluded from buying them for a

host of political and financial reasons. Even if China chose to actively specialize in exports of low-cost, light combat aircraft, it is unclear what systems it would sell, considering that China has not yet developed a light fighter significantly more advanced than the F-7 series. The K-8's overall poor quality has compromised its international prospects. Also, the Super 7 remains in the design phase, will not receive Pakistan's full support, and thus may not have its first flight test for at least 2 to 3 years. In addition, the Chinese Air Force does not want the aircraft, and Pakistan is currently the only known customer. Other Chinese made-for-export aircraft, such as the FB-7, remain relatively untested and have few international prospects.

In terms of missile exports, China's nonproliferation commitments combined with external pressure from the United States represent real barriers to transfers of certain ballistic and cruise missiles systems to countries in the Middle East and South Asia. Assuming that Beijing continues to adhere to its promises, and there is reasonable evidence that it will, China is precluded from exporting many of these items. These Chinese weapons, in particular, are the ones most coveted by many developing countries.

To be sure, some specialization in low-end, short-range SSMs and SAMs may still occur. China continues to export non-MTCR ballistic missiles such as the 8610 and ship-to-air missiles such as the LY-60N, but the more capable and desirable systems such as the M-9, M-11, the C-802, and follow-on, next-generation cruise missile systems, will have continued restrictions on their export, largely due to U.S. pressures. Beijing may also continue exporting missile-related equipment, materials, and technologies used in guidance and propulsion systems. Such exports circumvent China's nonproliferation commitments while helping countries to self-sufficiently produce medium-range missiles.

China's sales of SAMs, especially portable versions, are one of the few categories of exports that experienced

significant growth in the 1990s, suggesting a possible area of specialization. China sold several hundred of its shoulder-fired QW-1 SAMs to Pakistan. The China Precision Machinery Import & Export Corporation (CPMIEC) recently developed a more advanced version, the QW-2, with improved targeting and counter-countermeasures. This new SAM may enter the export market in 1-2 years. Chinese defense firms have also developed two new ground-based SAM systems, the FM-90 and FT-2000, to be fielded by the PLA. Both systems could be put on the export market as well.²¹

Such specialization, however, is unlikely to compensate for China's heavy reliance on traditional buyers, its contracting client base, Beijing's continued export of low-tech, unreliable weapons, and the political and technical barriers to specializing in "mid-tech" weapons like ballistic and cruise missiles. Thus, China's prospects for remaining a major arms exporter to the developing world appear bleak. China will continue to provide moderate amounts of low-end equipment to its longtime clients in Asia, Africa, and the Middle East, but it is unlikely to maintain the position it held during the 1980s and 1990s as one of the world's top five arms exporters. However, as noted in the following section, in spite of these quantitative declines, concerns persist about the potentially sporadic and volatile nature of China's arms exports in the future given the ongoing reorganization and restructuring of China's bureaucracy.

ENDNOTES - CHAPTER 1

1. For more complete background discussion, see Karl W. Eikenberry, *Explaining and Influencing Chinese Arms Transfers* McNair Papers 36, Washington, DC: National Defense University, February 1995; R. Bates Gill, *Chinese Arms Transfers: Purposes, Patterns and Prospects in the New World Order*, Westport, CT: Praeger Publishers, 1992; Richard Bitzinger, "Arms To Go: Chinese Arms Sales to the Third World," *International Security*, Fall 1992; John W. Lewis, Hua Di, and Xue Litai, "Beijing's Defense Establishment: Solving the Arms-Export Enigma," *International Security*, Spring 1991.

2. "U.S. Ranked No. 1 in Weapons Sales," *New York Times*, August 1, 1991.

3. Unless otherwise indicated, the figures used throughout this paper are taken from two sources: Richard F. Grimmett, *Conventional Arms Transfers to Developing Nations, 1991-1998* U.S. Congressional Research Service, Washington, DC: Library of Congress, August 4, 1999; and Richard F. Grimmett, *Conventional Arms Transfers to Developing Nations, 1990-1997*, U.S. Congressional Research Service, Washington, DC: Library of Congress, July 31, 1998. All the figures are expressed in *current* U.S. dollars to generally reflect the exchange rates that prevailed during that specific year. The figures also reflect arms *deliveries* and not arms transfer *agreements* signed during a specific year.

4. To be sure, data from the Congressional Research Service (CRS) indicate that Chinese arms exports in 1997 increased to \$1 billion. Yet, this abrupt change is likely an anomaly and not an indication of a broader trend. CRS analysts have indicated that this sharp increase can be accounted for by the coincidental convergence in 1997 of several large contracts and re-supply agreements with traditional clients. Conversation with Richard Grimmett, Washington, DC, June 1999.

5. See, for example, Bitzinger, "Arms To Go," pp. 84-111.

6. Robert Karniol, "China's \$4.5b Deal with Iran Cools as Funds Fail," *Jane's Defence Weekly*, August 6, 1997, p. 14.

7. Barton Gellman, "Reappraisal Led to New China Policy," *The Washington Post*, June 22, 1988, p. 1; Barton Gellman, "U.S. and China Nearly Came to Blows in 1996," *The Washington Post*, June 21, 1998, p. 1.

8. China also exported small quantities of arms to Afghanistan, Cambodia, the Khmer Rouge, and Laos during the early part of 1990. See *SIPRI Yearbook* 1991.

9. "Collaboration Planned with China on Jet Production," *The Frontier Post*, March 17, 1995, p. 1, as translated in *Foreign Broadcast Information Service (FBIS)-NES-95-056*, March 23, 1995, p. 56.

10. "The Production of the Super-7," *Jang*, March 20, 1995, p. 10, as translated in *FBIS-NES-95-060*, March 29, 1995, pp. 82-83.

11. Kaleem Omar, "Army to Decide Between Polish, PRC Tanks," *The News*, August 17, 1993, pp. 1, 10, as translated in *FBIS-NES-93-162*, August 24, 1993, p. 67.

12. For information on the K-8, see Bates Gill and Taeho Kim, *China's Arms Acquisition's from Abroad: A Quest for Superb and Secret Weapons*, Stockholm International Peace Research Institute, New York: Oxford University Press, 1995, p. 129. For information on the Super-7, see Aroosa Alam, "Report on Problems with Super 7 Effort with China," *The Muslim*, December 11, 1995, as translated in *FBIS-NES-95-242*, December 13, 1994, p. 97.

13. Some Korean reports indicate that China sold North Korea \$2.78 million worth of tanks, engines, and blankets. "Defense Ministry Report on DPRK Imports of Weapons," *The Korea Times*, Internet version, September 28, 1999.

14. "Turkey Gets Chinese Help With Artillery System," *Jane's Intelligence Review*, February 2, 1998, p. 50.

15. The exact artillery rocket sold to Armenia is unclear. Reports indicate that it had a range of 50-60 kilometers. Chinese rockets in that range include the WS-1 MRL sold by the China Precision Machinery Import Export Corporation and the 273mm WM-80 marketed by China North Industries Corporation. Both are for export. David C. Isby, "China Sells Artillery Rockets to Armenia," *Jane's Missile and Rockets*, November 1999, p. 6.

16. "Military Delegation Agrees with China, Returns," *HINA*, June 21, 1998, as noted in *FBIS*, June 21, 1998. The Croatian Delegation was headed by Assistant Defense Minister Major General Vladimir Zagorec and met with Lieutenant General Zuo Jianchang who is a Deputy Director of the General Logistics Department and a member of the State National Defense Mobilization Committee. See *Directory of PRC Military Personalities*, SEROLD Hawaii Inc., June 1998.

17. "Sources Allege FRY-China Deal on Ballistic Missiles," *Nedeljni Telegraf*, in Serbo-Croatian, November 19, 1997, p. 2, as translated in *FBIS*, November 1997. This source also claims that China agreed to sell a 600-kilometer-range missile to Serbia.

18. Ed Blanche and Christopher F. Foss, "Kuwait Launch Customer for Chinese 155mm Gun," *Jane's Defence Weekly*, May 28, 1997, p. 3.

19. Xu Dashen, "K-8 Aircraft Export Prospects Sour," *China Daily*, Business Weekly, March 26-April 1, 2000, p. 1; Lester J. Gestland,

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20. "APC Seized by Customs Said Being Returned from Thailand," *The South China Morning Post*, August 31, 1997, p. 4; Robert Karniol, "MANPADS May Help to Revive Sino-Thai Trade," *Jane's Defence Weekly*, January 22, 1997, p. 13.

21. "New Chinese SAM Offers Improved EECM," *Jane's Missiles and Rockets*, October 1998, p. 11; "China Develops FM-90 SAM," *Jane's Missiles and Rockets*, October 1998, p. 8.

CHAPTER 2

CHINESE ARMS EXPORTS: POLICY, PLAYERS, PROCESS

China's official policies, its decisionmaking processes, and the government institutions involved in conventional arms exports have long been the subject of international concern, especially since the 1980s when China emerged as a significant, second-tier supplier of conventional weapons and missiles to developing countries. China has exported a variety of weapons to an eclectic mix of recipients in volatile regions which have caused many countries to question Beijing's official positions and decisionmaking processes related to arms sales. Most notably, China sold significant amounts of arms to both Iran and Iraq during their lengthy conflict. This two-handed approach raised questions about the nature of China's formal government policy regarding weapons exports, and whether such a uniform position existed at all. These concerns were further heightened by China's exports of cruise and ballistic missiles to countries in the Middle East and South Asia because such exports are uniquely destabilizing. In response to Western criticism of many of these arms deals, the Chinese government often formally denied that such weapons exports took place—even when presented with evidence to the contrary. These denials raised new questions about institutional involvement in the arms export review process and the extent to which these entities are accountable to the government.

Furthermore, China's recent efforts to restructure its defense industrial complex combined with the de-commercialization of the PLA have created even more questions about the policy, process, and players involved in Chinese arms exports. These structural changes have

generated confusion about the authority and responsibility of different government agencies involved in arms sales decisionmaking and the extent to which coordination occurs. Furthermore, the restructuring is taking place in the context of worsening economic conditions in China's industrial and banking sectors, while foreign trade and foreign investment stagnates. Amid this austere uncertainty and organizational confusion, the prospects for the illicit export of proscribed military items may increase. However, over the long term this restructuring effort could also create a more rational and institutionalized system for overseeing China's arms exports, as the responsibilities of differing agencies are further delineated and clarified.

Regardless of the possible positive or negative consequences, these structural shifts have directly influenced the policy, process, and players involved in China's weapons exports. In an effort to elucidate some of these trends, this section examines China's existing policies, the government and commercial institutions involved in arms exporting, and the decisionmaking processes with a particular focus on the impact of recent structural changes.

CHINESE ARMS EXPORTS: THE POLICY

China structures its conventional arms export policy around three pillars: export principles, export regulations, and participation in international arms transfer control regimes. Each will be examined in this section.

Export Principles.

First, the Chinese government has outlined in both government documents and official statements a number of principles which inform its arms sales decisions. In the 1998 white paper called *China's National Defense (Zhongguo de Guofang)*, Beijing stated it "respects the right of every country to independent or collective self-defense and to acquisition of weapons for this purpose in accordance with

the principles contained in the Charter of the United Nations.”¹ Yet China’s commitment to a nation’s right to protect its security through arms sales is not absolute and does not exist in a vacuum. The Chinese government qualifies its previous commitment by noting that “[China] is [also] concerned about the adverse effects on world security and regional stability arising from excessive accumulations of weaponry.” In an attempt to balance national defense and regional stability, China has consistently stated that it observes three principles in its arms dealing. First, its arms sales must help the recipient nation enhance its capability for legitimate (*zhengdang de*) self-defense.² Second, its weapons exports must not impair the peace, security, and stability of the relevant region and the world as a whole. Third, China argues that its arms exports must not interfere in the recipient state’s internal affairs.³

While these military exports principles are consistent with international norms and are intended to promote international security, China’s interpretation and application of them has been the source of significant controversy in the past decade, especially in U.S.-China relations. Applying the principles to potential arms deals requires a Chinese official judgement which is often at odds with Western interpretations. Some examples of differing judgements include China’s export of C-801 and C-802 advanced cruise missiles to Iran, the sale of M-11 missiles to Pakistan in the early 1990s, and ongoing exports of missile-related technologies to Iran and Pakistan. In these three instances, the United States argued that missile exports would undermine regional stability and violate China’s previous nonproliferation commitments. China, by contrast, defended these deals by citing the self-defense requirements of the recipients. Indeed, in response to almost every claim (usually from Western sources) that China exported dangerous weapons, government officials tout the three principles as an explanation for Chinese practices when, in fact, it is merely *describing* the official policy. Moreover, Beijing’s responses to Western concerns

suggest a further ambiguity with Beijing's interpretation of its three export principles: how are the principles prioritized and which one takes precedence over the other two in determining export decisions? Collectively these layers of confusion regarding China's interpretation and application of its military export principles suggest that China can flexibly employ these guidelines in order to justify export decisions.

Export Control Regulations.

The second pillar of China's arms sales policy is its export control regulations covering sales of military products and related technologies. China's only public law covering conventional military exports is the *Regulations on Export Control of Military Items* (see Appendix II), which the State Council and the Central Military Commission issued in October 1997; it became effective on January 1, 1998. The regulations are aimed at "strengthening the unified management of arms export and maintaining the normal export order" and cover commercial exports of military purpose equipment, specialized production facilities, and other materials, technologies, and related services. The new regulations represent a major advance compared with China's previous export control measures. In the past, when China operated a planned economy, export controls took the form of executive decrees. Yet, as China opened up to the world and rapidly began to develop a "socialist market economy," it sought to change its export control laws "in order to meet the requirements of the new situation and as a concrete step towards the rule of law."⁴

The 1997 regulations have several key features. First, these regulations codify the principles which guide China's arms export decisions. The Chinese government and Chinese companies are now legally obligated to adhere to the three principles discussed above. Given that the regulations constitute Chinese law, both the government and Chinese companies can be held to the legal restrictions

and penalties outlined in the regulations. Second, the regulations represent one of China's first public efforts to adopt international export control standards and practices. The regulations require the adoption of an export licensing system (based on international practices) and reference internationally proscribed weapons and related technologies. Third, the regulations help to reduce confusion in export control decisionmaking by delineating the rights and responsibilities of various government organizations in determining which exports are permissible. According to this law, the State Administrative Committee on Military Product Trade (SACMPT)—under joint control of the State Council and the Central Military Commission(CMC)—had authority over all of China's conventional military exports. This commission possessed an administrative office called the State Bureau of Military Products Trade which is charged with supervising and administering all of China's conventional military exports. Both organizations were abolished in 1998 following a major bureaucratic reorganization effort and their respective responsibilities are currently being redistributed. The law has not yet been revised to reflect these organizational changes.

Fourth, compared with China's past export control procedures, these regulations are more transparent and will facilitate better export control management through the adoption of distinct procedures for license application, consideration, and approval. According to the 1997 regulations, an export license will most often be authorized by the State Bureau of Military Products Trade alone or in consultation with other government agencies; in the case of "major" military exports, contracts and export licenses will be reviewed by the SACMPT as well as by the State Council and the CMC. In an effort to further tighten the licensing system, the 1997 regulations stipulate that only companies authorized by the SACMPT can export military products. Lastly, the new law spells out criminal penalties for violations.⁵

International Regimes.

The third pillar of China's arms export policy is Beijing's participation in international arms transfer control regimes. China has been a member of the UN Register of Conventional Arms (UNROCA) since its creation in the early 1990s, and China participated in the P-5 talks on arms control in the Middle East. China's participation in the former was stronger than in the latter, even though Beijing remains skeptical of all arms transparency regimes. Beginning with the UNROCA's creation in 1991 through 1997, China has consistently contributed annual submissions of its arms imports and exports, and China has participated in subsequent reviews of the UNROCA process.⁶ This information is all publicly available from the UN and can be retrieved from the UN's website.⁷

Yet China has not fully supported the development and expansion of the UNROCA. China did not participate in the unanimous vote which created the Register. In addition, China opposed measures to expand the scope of the Register such as proposals calling for states to provide more information on their annual submissions and the adoption of measures to include procurement from national production; also between 1992-95 China provided only the basic information, not background or additional information, on its annual submissions.⁸ In some cases, Chinese submissions to the UNROCA have omitted transfers that other countries have listed as imports from or exports to China, or which appear in other open-source registers such as the *SIPRI Yearbook*.⁹

Furthermore, in June 1997 China opposed the establishment of the Ad Hoc Committee on Transparency in Armaments (TIA). Noting that the UNROCA was already in place and functioning, the Chinese ambassador to the Conference on Disarmament (CD) said, "if the CD continues to seek or explore some abstract or sweeping TIA measures, my delegation does not see any practical meaning in this. My delegation is not against transparency as a matter of

principle. We only feel that all transparency measures are in fact treaty-specific.”¹⁰ In another case of military transparency—the United Nations register of military budgets which was established in 1980—China has yet to file a return as of the end of 1997.¹¹

China's recent participation in the UNROCA raises further questions. In 1998, it failed to submit an accounting of its arms exports and imports for 1997, breaking its previous record of annual submissions since the register's inception. Beijing took this move to protest the U.S. listing of its military exports to Taiwan in the U.S. declaration. China argued that because Taiwan is not a UN member state (or a sovereign country in China's eyes), it has no business being listed in the register. While the ultimate resolution of this dispute is unclear, the fact that China chose to use its submissions to the UNROCA as a means of protest further signals China's general lack of interest in the register as an arms transparency measure.

In 1991 China participated in the U.S.-led effort among the P-5 countries to negotiate guidelines covering arms export to the Middle East. The negotiations, also called the Arms Control in the Middle East (ACME) talks, were intended to develop restraints on the export of weapons of mass destruction and missiles to the Middle East. China joined the talks from the beginning and participated in all three rounds of senior level meetings held from 1991 to 1992 in London, Paris, and Washington. During the negotiations, China expressed several reservations and opposed proposals for the prior notification of arms transfers to the Middle East and for the inclusion of missiles in the category of “weapons of mass destruction” unless advanced strike aircraft and certain types of naval ships were also covered. In September 1992, China abruptly halted its participation in the P-5 talks when the Bush Administration announced the sale of 150 F-16s to Taiwan. The talks have effectively been suspended since late 1992, and there is no indication they will be resumed.¹²

China's formal participation in international conventional arms transfer control regimes is limited to the two forums mentioned above. China is not a member of the Wassenaar Arrangement, COCOM's successor, which seeks to promote transparency and greater responsibility in the transfer of conventional arms and dual-use goods and technologies. The 33 states currently participating in Wassenaar have agreed to control all items set forth in two lists (a munitions list and a "core list" of dual-use goods and technologies) with the objective of preventing unauthorized transfers or re-transfers of these items.¹³ China did not participate in the original negotiation of the Wassenaar Arrangement and has not been invited to join the agreement either, mainly due to its inability to meet all four of the membership criteria.¹⁴

China supports the broad goals of the Wassenaar Arrangement but has taken an ambiguous position on joining the accord. During the discussions on the establishment of the Wassenaar Arrangement, the Chinese Foreign Ministry stated that,

COCOM is a product of the Cold War and should have been disbanded earlier. Whatever the new organization will be, it must be beneficial to the development of economic and trade relations, and the cooperation and exchange of science and technology between all countries.¹⁵

More recently, in a February 1999 interview, Sha Zukang, the Director General of the Chinese Foreign Ministry's Arms Control and Disarmament Department, expressed China's general interest in joining the arrangement. He noted:

It is our understanding the Arrangement is a collective export control regime designed to promote regional and international security by requiring its members to take a cautious attitude on their relevant exports. This is not at odds with China's nonproliferation policies.

As a state capable of manufacturing and exporting weapons and industrial equipment, China is following this issue. If the lacunae such as lack of universality can be redressed, China will be able to play a more active role in this process. However, on the question of membership, China will consider this only when all Arrangement members have reached a consensus and unconditionally invite China to join the regime. We are not in a hurry.¹⁶

One positive step China took in this direction was the issuance in November 1998 of export control regulations covering 183 dual-use technologies, some of which are covered in Wassenaar's "core list" of dual-use technologies.¹⁷ China's Ministry of Foreign Trade and Economic Cooperation (MOFTEC) also released a "Catalogue of Technologies which are Restricted or Banned in China." These documents may represent a further effort to integrate international standards on military and dual-use items into China's existing export control laws and, in broader terms, a move toward China's eventual membership in Wassenaar. Yet, it is unclear whether the new regulations cover all of the items in the three subcategories (basic, intermediate, and sensitive) of Wassenaar's dual-use list or in the munitions list of military products. In addition, China's perennial reservations about arms transfer control regimes as articulated during the P-5 talks may preclude it from becoming an official member of Wassenaar. The arrangement mandates that all members require end-use certificates for each category of technology and engage in pre-delivery consultations for exports of controlled items to certain volatile regions, even though such exports are not subject to a veto. Thus, China may simply incorporate Wassenaar's export controls into its national laws without participating in the multilateral review mechanism so as to not reveal pending arms sales and thus open itself to international criticism.

China's position on the international regime covering missile exports, the MTCR, is somewhat similar to, but slightly more formal than, its stance on the Wassenaar

Arrangement. China is not a full member of the MTCR but agreed in writing in 1992 to adhere to the regime's original guidelines and parameters. Yet, the nature of China's commitment to the MTCR and its subsequent interpretations of that commitment remain a perennial source of controversy in Sino-U.S. relations. The four principal ambiguities within China's position on the MTCR are outlined below.

First, China's original commitment to adhere to the MTCR is unclear. Although the 1992 letter stating Beijing's commitment remains classified, Secretary James Baker noted in his memoirs that during 1991 negotiations China,

objected to language saying that China "will observe" the MTCR guidelines, demanding that it be changed to "intends to observe." By arguing forcefully for a less categorical pledge, it seemed as though Qian Qichen was tactfully acknowledging the possibility that some entity in China's defense community might cheat on this commitment.¹⁸

While Baker's assessment may be pessimistic, it raises questions about China's fundamental commitment to missile nonproliferation and the MTCR. Furthermore, China's original MTCR pledge is doubly unclear because Beijing states that it has agreed to adhere to only "the guidelines and parameters" of the MTCR and not the agreement's annex. The MTCR's annex specifies all the technologies controlled under the guidelines and parameters and informs a member or adherent how to interpret the MTCR guidelines and parameters in determining whether an export is allowable. Without acceptance of it, a meaningful and restrictive interpretation of the MTCR becomes much more difficult to achieve. Also, China has not yet adopted any export control regulations that mirror its MTCR commitments and has not published any laws which control the export of technologies listed in the MTCR Annex.

Second, China has only agreed to adhere to the original MTCR guidelines developed in 1987 and not the revised

guidelines. In January 1993, the MTCR's members expanded the existing guidelines to cover all systems *intended for the delivery of weapons of mass destruction* regardless of range or payload. Adoption of this standard would go a long way toward promoting stability and signaling China's commitment to using the MTCR as a nonproliferation tool.

Third, aside from China's actual commitments, Beijing's interpretation of its commitment to the MTCR and missile nonproliferation represents an additional source of confusion. China appears to adhere to the letter but not the spirit of the MTCR. Chinese missile sales to Pakistan and missile technology exports to Iran are the most common examples of this interpretation. For example, in the view of many analysts, China has argued that sales of complete M-11 missiles to Pakistan do not breach the MTCR because the M-11's operational parameters (290 km/800 kg) do not strictly conform to the MTCR's original prohibitions to which China agreed to adhere. Yet, this position is at odds with the underlying goals of the MTCR, and it appears to run counter to China's 1992 commitment not to transfer missile systems that would "undermine the peace, security, or stability of the regions involved."¹⁹ In addition, China's continued missile technology sales to Iran, although possibly consistent with the original MTCR guidelines, may help Iran build longer range, non MTCR-compliant systems and, thus, could further undermine regional stability in the Middle East. One positive sign regarding China's position on the MTCR came in the June 1998 Joint Statement on South Asia which was issued during the U.S.-China summit meetings in Beijing. In this document, China pledged "to prevent the export of equipment, materials or technology that could in any way assist programs in India or Pakistan for nuclear weapons or for ballistic missiles capable of delivering such weapons, and that, to this end, we will strengthen our national export control systems." This commitment appears to resolve some uncertainty about China's willingness to halt further missile assistance to

Pakistan (including MTCR Category II technologies) and signals China's commitment to begin developing legally based export controls on MTCR controlled technologies.

Lastly, many of China's nonproliferation pledges are not publicly available, which complicates a fair and balanced evaluation of them. As noted above, Beijing's 1992 letter on the MTCR is a classified document. In addition, China's recent assurances to halt cruise missile and nuclear assistance to Iran were made privately and are not open to evaluation. Indeed, subsequent statements (both on and off the record) by Chinese officials call the U.S. interpretation of these commitments into some question. Chinese steps to improve the transparency of its nonproliferation commitments would go a long way toward bolstering their credibility.

CHINESE ARMS EXPORTS: THE PLAYERS²⁰

The "players" involved in China's arms exports can be divided into two categories: (1) government agencies—new and old—which participate in the export review process, and (2) China's military and defense industrial enterprises which export military products. This section profiles these institutions and their roles and seeks to assess their relative influence. Much of this analysis is necessarily speculative given the extensive and continuing changes within the State Council bureaucracy, the PLA, and China's defense industrial complex.

Government Agencies.

Principal Actors. The main organizations consistently involved in either or both arms export policymaking and export control decisions are detailed below (see Appendix III). The relative influence of any one of these organizations is difficult to determine and can only be surmised based on an accounting of their formal roles in past policy debates or export control decisions.

- The State Administrative Committee on Military Products Trade (SACMPT). Abolished in mid-1998, the SACMPT used to be the main government organization responsible for overseeing controls on exports of military products and related technologies. It was principally tasked with drafting laws and policies governing arms transfers. According to China's 1995 white paper, the SACMPT reported to both the State Council and the Central Military Commission (CMC) and was comprised of "leading personnel" from the MFA, COSTIND, the headquarters of the General Staff, MOFTEC, and "other relevant departments." In this sense, the SACMPT functioned as an interagency mechanism. The day-to-day administrative responsibilities of the SACMPT were handled by the State Bureau of Military Products Trade (SBMPT). Companies were required to register with the SACMPT and their contracts and export license applications had to be approved before military goods could be legally exported. The 1995 white paper explained that the SACMPT only reviewed applications for "major military transfers" and would then forward them to the State Council and the CMC for consideration. The new State Commission on Science, Technology and Industry for National Defense has likely assumed the responsibilities of the former SACMPT and the SBMPT.

- The State Commission on Science, Technology, and Industry for National Defense (COSTIND). In March 1998, COSTIND was formally abolished as a quasi-military organization and then reconstituted under the State Council during the organizational reforms announced at the 9th National People's Congress. COSTIND, which used to oversee the defense industrial base and was headed by military personnel, was thus "civilianized" under the reforms. The "new" COSTIND is headed by civilian leaders and was formed by combining three parts of the bureaucracy: the national defense departments of the Ministry of Finance and the State Planning Commission and the administrative offices of the former five defense

industrial ministries (aviation, aerospace, shipbuilding, nuclear, and ordnance.) The new COSTIND appears to be tasked with implementing defense production directives and continuing to oversee and enhance the civilian production output of China's defense plants. COSTIND has become the administrative and regulatory point of contact for China's ten newly formed defense industrial enterprise groups (*jungong jituan gongsi*). In other words, COSTIND has assumed many of the government related functions of the defense enterprises (e.g., formulating production directives) while allowing the enterprises to manage themselves by giving them authority to make microeconomic decisions such as those concerning profits and losses.²¹

As an extension of these new responsibilities, COSTIND may have assumed an important coordinating role for export control decisions covering conventional military products as well as other sensitive items such as nuclear and missile-related technologies. Its export control responsibilities stem from two recent changes. First, some responsibilities of the former SACMPT and SBMPT have reportedly been transferred to the Arms Trade Division (*Jun Mao Qu*) within COSTIND's International Cooperation Department (*Guoji Hezuo Si*) (see Appendix IV for English-Chinese glossary of Chinese organizations). This organization, in consultation with the PLA and the Ministry of Foreign Affairs, will determine which military goods are permissible for export. Second, COSTIND inherited the China Atomic Energy Agency (CAEA) which used to serve as the regulatory arm of the China National Nuclear Corporation (CNNC) and was responsible for reviewing pending nuclear exports.²² Thus, COSTIND will likely take the lead on some export control issues but it will not possess ultimate authority on exports of military products and related technologies because these decisions are the result of an inter-agency review process. (This process is detailed below.)²³

- The General Armaments Department (GAD).²⁴ The General Armaments Department was formed in April 1998 as part of the restructuring of China's military industrial complex initiated at the 9th National People's Congress. The GAD, one of four general staff level departments under the control of the Central Military Commission, assumed many of the military-related responsibilities of the former COSTIND such as control over China's military testing and evaluation bases. Specifically, the GAD's role in arms control, nonproliferation, and export control decisionmaking stems from three main activities.

First, the GAD now controls the "old" COSTIND's arms control division (within the Foreign Affairs Office) which tracks for PLA the full spectrum of arms control and nonproliferation issues including nuclear, chemical, and biological weapons proliferation, exports controls, and nuclear testing issues. In addition, the China Defense Science and Technology Information Center (CDSTIC), which among other tasks conducts research on arms control and nonproliferation topics, now reports to the GAD. Formerly under the control of COSTIND, the CDSTIC is one of the military's leading centers for expertise and research on arms control issues. Presumably, its research is furnished to the office of the Chief of the General Staff for use in interagency discussions and to PLA representatives in the field at overseas embassies and at multilateral disarmament organizations such as within the United Nations.

Second, the GAD plays an active role in the export control process. The GAD is believed to have a hand in vetting pending exports of military products and certain missile systems in conjunction with COSTIND and the Foreign Ministry. In terms of nuclear exports, the GAD has responsibility for controlling exports of nuclear *materials*.

Third, the GAD will have key inputs into Chinese arms control and nonproliferation policies owing to the influence of certain individuals. The GAD is led by General Cao

Gangchuan who headed the former COSTIND until its "civilianization" in March 1998. Cao was previously deputy chief of the General Staff and has played an important role in some of China's more well-known arms export cases, such as the transfer of DF-3 intermediate range ballistic missiles to Saudi Arabia in 1988. He was also appointed to the Central Military Commission in October 1998, the military's highest policymaking body. General Qian Shaojun, a nuclear physicist and senior member of the GAD's Science and Technology Committee, is the military's leading voice on arms control issues. According to Chinese experts, Qian is one of the most knowledgeable and influential arms control experts in China. Zhu Guangya, another prominent physicist closely associated with China's nuclear weapons program, continues to head the GAD's Science and Technology Committee, but given his age, his position is largely ceremonial.

Despite the influence of the GAD in arms export decisions, the GAD may also have to coordinate with the Foreign Affairs Office in the Ministry of National Defense (MND). The MND's FAO is responsible for all of the PLA's interactions with the international community (e.g., military-to-military relations) and as such it likely has some role in Chinese military exports, especially if weapons are drawn from PLA stocks. The MND's Foreign Affairs Office is reportedly trying to assert its authority over the newly created GAD, and the FAO's participation in arms export decisionmaking could be one manifestation of this trend.²⁵

- The Ministry of Foreign Affairs (MFA). The MFA's role in China's arms control and nonproliferation affairs has become much more formal in the past few years, and this has augmented its influence in arms sales policymaking and export control decisions. In September 1997, the MFA established an Arms Control and Disarmament Department which is one of the principal government actors involved in formulating, articulating, and defending China's arms export policies. The Department has four divisions, and the "Third Division" is exclusively devoted to

covering conventional weapons issues such as China's position on anti-personnel landmines (APLs), missile exports, and the MTCR, and China's position on the Wassenaar Arrangement. Its main responsibilities involve providing policy guidance on these issues, and this division participates in interagency consultations only on pending exports of highly sensitive military products—such as missile technology—which are related to China's nonproliferation commitments.²⁶ For other military exports, the MFA's regional departments are involved in licensing decisions, given their knowledge of regional politics and the potential impact of an arms deal on regional stability. For example, the MFA's Department of West Asian and North African Affairs—not the Arms Control Department—played the key role in China's decision to sell K-8E jet trainers to Egypt.

In the past, the MFA was reportedly not well informed about China's sensitive exports and often found out about them after the fact. Establishment of this new department and the promulgation of a formal licensing and approval process for military exports makes it unlikely that the MFA would not be informed of a pending arms export assuming that the deal was officially authorized. Traditionally, the MFA has taken a more conservative approach to China's conventional arms exports; this approach likely results from the MFA role in assessing the impact of such exports on China's foreign relations, its international image, and the extent to which such sales are consistent with China's existing arms control commitments. For example, one study claimed the MFA opposed the DF-3 missile sale to Saudi Arabia in 1988, arguing against the deal's military proponents that it would damage Sino-U.S. relations. A second, more recent study claimed that while the MFA supported the deal, it sought modifications in order to limit the negative impact on China's relations with the United States and the Soviet Union.²⁷

- The Ministry of Foreign Trade and Economic Cooperation (MOFTEC). MOFTEC has nominal

jurisdiction over most exports and has the authority to regulate all foreign trade activities.

MOFTEC is responsible for issuing broad-based trade laws governing China's export controls such as the 1994 Foreign Trade Law. MOFTEC's principal role in the export control process is to participate in the license review process and to issue the licenses. Specifically MOFTEC's Science and Technology Department normally participates in interagency discussions about exports of controlled items such as nuclear, nuclear dual-use, or chemical goods. (In the nuclear and chemical areas, the China Atomic Energy Agency and the Chemical Industry Administration take the lead in vetting export applications and then refer them to MOFTEC.) Interestingly, MOFTEC has no role at all in the licensing process for military goods; MOFTEC does not even issue the licenses after an interagency decision is made.²⁸

- General Administration of Customs (GAC). The Customs Service is the enforcement bureau for export controls. It is responsible for inspecting exports before they leave China to ensure they have the appropriate export licenses and transit documents. Exporters often first go to the GAC before applying for a license in order to determine if an item is controlled by China's export control regulations. The GAC operates a computer database listing controlled items.

Leadership Oversight.

In addition to the six agencies noted above, three other government organizations have a role in arms sales decisions. All three are high-level agencies but are considered secondary actors because they do not regularly participate in policymaking or export control decisions unless highly controversial and politically sensitive issues are being considered. All of these organizations have much more influence than the six cited above, but this influence is often only wielded in unique circumstances.

- The State Council (China's Cabinet). Officials from the State Council, CMC, COSTIND, and MOFTEC used to meet occasionally to discuss military export policies. According to China's 1997 regulations on military exports, State Council officials only review applications for "major military exports" along with the CMC before a deal is approved. It is unclear whether the State Council's role has changed in the wake of the 1998 restructuring effort.

- The Central Military Commission (CMC). Senior officials from the CMC meet with State Council officials to discuss export policies; China has stated that "major" military exports and contracts must be examined and approved by the CMC and the State Council.

- Military Products Export Leading Group. Interpretations of this organization differ. According to Chinese sources, this "leading group" is composed of very senior government and military officials (e.g., China's Vice Premiers and CMC members) who meet on an ad hoc basis to discuss the most controversial and sensitive weapons exports. Given the high level nature of the group's participants, it only considers arms deals that are internally controversial and politically sensitive for China's foreign relations. However, some Western scholars argue that this small group is the same organization as the former SACMPT but with a different name.

China's Military and Defense-Industrial Enterprises.

China's weapons exporters are divided into two distinct categories: military enterprises and defense-industrial enterprises.²⁹ The military enterprises (*jundui qiye*) were originally owned and operated by the PLA and engaged in both military and civilian commerce within China and internationally. Only a small number of PLA entities are trading companies involved in arms imports and exports whereas the majority of PLA companies produce nonmilitary goods; others produce nonlethal military

equipment such as tents and uniforms. Before July 1998, these PLA companies had formal and direct links to the CMC's General Departments (Staff, Logistics, Political, and now Armaments), the Military Regions and Districts, and the active duty and reserve forces of the Army, Air Force, Navy, and the Strategic Rocket Forces. The enterprises paid 20-40 percent of their profits to the military's General Logistics Department (GLD), and "these monies [were] used to improve the living standards of the troops by raising wages, constructing new barracks, or supplementing messing budgets."³⁰ During the 1990s, in order to reduce corruption and maintain discipline, the military consolidated many of its enterprises into conglomerates which reported to the CMC's general departments or to the heads of military regions.

By contrast, the defense-industrial enterprises (*jungong qiye*) report to the State Council and form the backbone of China's defense production system. These enterprises were formerly divided among China's five defense production "ministries," but in July 1999 these five were divided into ten industrial enterprise groups, with two to each military industry. This organizational bifurcation was part of the government's defense reform effort intended to inject autonomy and competition into the operation of China's sluggish defense industrial sector. While these firms produce military goods for the PLA under contract, they have no formal links to the PLA. Many of these enterprises produce a variety of civilian and military goods which are marketed domestically and internationally. The profits from these sales do not go to the PLA but are often reinvested in the firms to improve their production capabilities.³¹

Military Enterprises.

Before mid-1998, the principal PLA enterprises engaged in the export of military goods were Poly Technologies Ltd. and to a lesser extent the China Xinxing Export-Import

Corporation. In the wake of President Jiang's call for the PLA to end its commercial activities, it is not clear if any of these companies will continue to export military products.

- Poly Technologies (Baoli) Ltd. Founded in 1984, Poly Technologies used to be the main commercial export arm of the Equipment Division of the General Staff Department (GSD). Since its establishment, Poly Technologies has sold millions of dollars worth of weapons from the PLA's surplus stocks. In 1987, Poly Technologies' sales peaked with exports worth about \$500 million. Its customers included Thailand, Burma, Iran, and Pakistan. The highest profile deals Poly Technologies conducted include Silkworm missile sales to Iran in the 1980s and the 1988 sale of DF-3 medium-range ballistic missiles to Saudi Arabia. Poly Technologies reportedly received a commission for its arms exports but the majority of the profits were repatriated to the General Logistics Department to subsidize the PLA's budget.³²

As the global arms market became more competitive in the 1990s, Poly Technologies diversified into a wide variety of commercial ventures including hotels, real estate development, casino operations, and other businesses. Poly also operates several subsidiaries in the United States and other countries as well. Poly's operations in the United States include PTK International, Dynasty Holding Co., and Poly U.S.A Inc., among others.³³

In the past, Poly Technologies was known to be closely tied through family relations to various senior members of the Chinese government. These ties to high-level government officials and its direct military links made it difficult for the MFA to control Poly's arms export activities. Yet, the extent to which this situation persists is unclear, given the growth and institutionalization of China's arms control and nonproliferation community in the 1990s and the recent divestiture of the PLA from commercial activities.

- China Xinxing (Group) General Corporation. Xinxing is one of five commercial enterprises operated by the General Logistics Department of the PLA. It conducts both military and civilian business activity but with a greater reliance on the latter. It operates several subsidiary companies which are involved in medical science and technology, mining products, chemicals, real estate development, car production, and shipping activities. Located throughout China, these companies control over 100 industrial plants and mining enterprises. The military and civilian items the Xinxing Group produces for China's domestic market include uniforms, textiles, leather goods, footwear, machinery, steel, and chemicals. Its international sales arm is called the China Xinxing Export-Import Corporation, and it exports mainly nonmilitary items such as truck parts, cars, touring buses, salt, iron, steel, mining ores, and a variety of other goods. It exports military supplies and logistics equipment such as uniforms, bedding, shoes and boots, implements, backpacks, and tents.³⁴ The Xinxing Group also operates a known subsidiary in the United States, Xin Xing U.S.A., and other operations may exist as well.

Defense-Industrial Enterprises.

China's defense industrial enterprises—covering the aviation, aerospace, ordnance, and shipbuilding sectors—normally conduct arms exports through trading firms which function as their window to the international market. These trade arms are not involved in military production but rather are licensed by the government to conduct military exports and are independent of the PLA; interestingly, during the 1980s and 1990s some of these enterprises actually competed with PLA companies for arms sale contracts with developing countries. There are currently five key firms involved in conventional weapons sales. Details on them and their past export activities are provided below. In July 1999, China divided its five large defense industrial group corporations into 10 industrial

enterprise groups. Despite this bifurcation, so far there is no indication that each of the enterprise groups will establish its own trading firms. The ones detailed below continue to serve their corresponding industries.

- China North Industries Corporation (NORINCO). Founded in 1984, NORINCO is the successor organization to China's Fifth Ministry of Machine Building which oversaw the production of tanks and other armored vehicles, artillery, munitions, and small arms. NORINCO was established during an early reorganization of China's defense industrial system which sought to "corporatize" China's five defense industries to make them more efficient. Currently, NORINCO operates 157 large and medium-sized companies employing 800,000 people, as well as 30 R&D centers and more than a dozen technical colleges. NORINCO also operates more than 80 overseas subsidiaries including some 11 companies in the United States.³⁵

Beginning in the early 1980s as PLA orders declined and defense producers were officially encouraged to "convert," many of NORINCO's factories diversified into producing a variety of civilian goods. NORINCO's factories now market vehicles and vehicle motors, chemical industry products, mechanical products, light industrial products, and optical and electric products. In terms of military goods, NORINCO develops, produces, and markets a variety of products, including fire control systems, sighting and aiming systems, and nuclear, chemical and biological protection equipment. Its most prominent military-related exports are "civil firearms" and ammunition. During the 1980s, NORINCO sold thousands of tanks, artillery, and armored personnel carriers to China's then-traditional clients like Iran, Iraq, Pakistan, and Thailand. In the late 1980s and early 1990s, demand for NORINCO's weapons took a sharp downturn due to the poor quality of its military equipment combined with increased competition from Russian weapons exporters.

• China Precision Machinery Import-Export Corporation (CPMIEC).³⁶ Established in the early 1980s, CPMIEC is involved in missile and missile technology exports; it is the prime marketer of China's M-series missiles including the M-9/DF-15 and the M-11/DF-11. CPMIEC reportedly can negotiate sales of nearly all missiles and technologies produced by the China Aerospace Corporation, except strategic systems. CPMIEC also markets liquid- and solid-fueled rocket engines. CPMIEC imports and exports high technology equipment, including defensive weapon systems, space equipment, satellite technologies and products, precision machinery, optical instruments, and electronic products.

The types of missiles CPMIEC offers for export include:

- Surface-to-surface missiles: M-9/DF-15, M-11/DF-11;
- Cruise missiles: SY-1 (CSS-N-1), YJ-1/C-801, YJ-2/C-802, HY-1 (CSS-N-2/CSSC-2), HY-2/C-201 (CSSC-3), HY-4/C-201 (CSSC-7), C-601 (CAS-1);
- Surface-to-air missiles: HQ-2 (B, J), CSA-N-2, FM-80, LY-60, KS-1, Vanguard (shoulder-launched); and,
- Free rocket systems: WS-1.

CPMIEC was sanctioned in May 1991 and August 1993 by the United States for its involvement in M-11 exports to Pakistan.

According to a company brochure, CPMIEC is:

A nationwide foreign trade organization which combines trade with industry and technology. As a subsidiary of China Aerospace Corporation, CPMIEC has the status of a legal person and independently carries out import and export business.

Backed by the immense economic and technology base and the strong production capability of the space industry in China, supported by ample funds, advanced facilities and a large number of well experienced experts from the research and development institutes and plants, CPMIEC has adequate

capacity for research, design and manufacture of various high-precision equipment and products of high technology.

CPMIEC deals with import and export business in high technology, including defensive weapon systems, space equipment, satellite techniques and products, special equipment, precision machinery, optical instruments, electronic products, etc. CPMIEC accepts orders for processing with customer's drawings, materials, and samples, engages in joint research and development, co-production, joint venture, technology transfer and compensation trade, contracts for the design and construction of industrial and civil projects, consultations of technical and foreign trade business information and other forms of trade activities.

Since CPMIEC was set up in 1980, it has established a wide range of business relations with dozens of countries and regions throughout the world. In business activities, CPMIEC has always been honoring its contractual obligations, keeping the commitments, and seeking high efficiencies. It has also been exporting various products with reasonable prices, superior quality and reliable performance, together with good after-sales services and long-term supply of spare parts.

The company brochure also defined the scope of CPMIEC's services. They include:

- Export of weapon systems;
- Design and construction of test range, technical and firing sites; modification and upgrading and maintenance of foreign weapon systems; and,
- Export of civilian products and technologies converted from military production; and joint venture, co-production, and manufacture with supplied materials, designs, or samples.

CPMIEC's engineering design and construction services include:

- Delivery of technical and firing sites;
- Air and sea defense missile test ranges;

- Special facilities for research and design, simulation, CAD and CAM, microwave testing, motor testing, antenna testing, non-destructive testing, static and dynamic strength testing, full-scale testing, information, telemetry, meteorology, computer and material science;

- Special production facilities, including micro and precision machinery, composite materials, chemical milling, chemical deposition, heat isostatic pressing, quality control, environment control, microelectronics, autoclave and vacuum deposition; and,

- Military and civilian buildings for general purposes.

China Great Wall Industry Corporation (CGWIC).³⁷ China Great Wall is a subsidiary of the China Aerospace Corporation (CASC), which controls all of China's research, development, testing, and evaluation of missiles, space launch services, and related equipment. CGWIC imports and exports some missile technology, space technology and equipment, space launch services, precision machinery, electronics, instruments, and meters. It is mainly involved in providing satellite launch services and has been engaged in these activities since the mid-1980s. CGWIC is currently developing improved versions of the CZ-2, CZ-3, and CZ-4 families of space launch vehicles (SLVs) to augment China's ability to place large payloads into geosynchronous orbit.³⁸ CGWIC was sanctioned twice (as a subsidiary of CASC), in May 1991 and August 1993, by the United States for its involvement in exports of M-11 missiles to Pakistan.

- China National Aero-Technology Import-Export Corporation Group (CATIC Group). The CATIC Group was a subsidiary organization of the Aviation Industries Corporation of China (AVIC), and is now responsible for trading military and civilian aircraft. The CATIC Group is not a production entity but rather sells military and civilian aircraft, engines, missiles, and other airborne equipment. For a few years in the early 1990s, CATIC was the sole organization within AVIC which could negotiate for the import/export of AVIC products. CATIC negotiated the

deals and was responsible for getting the products from the factory to the customer; CATIC also provided after-sales maintenance contracts. However, this changed with the adoption of the factory manager responsibility system because individual factories began negotiating contracts themselves and did not go through CATIC. The factories still relied on CATIC to ship the items abroad. CATIC also faced competition from the PLA Air Force (PLAAF) which undermined CATIC's profit-making ability. The PLAAF began competing with CATIC for post-sale maintenance contracts through its Aeronautical Engineering Department (AED) which had an office in Poly Technologies. Drawing on over 20 overhaul and maintenance factories, the Air Force's AED presented CATIC with real competition in the area of maintenance contracts.³⁹

Over the past two decades, CATIC has been responsible for the export of the F-6 and F-7 light fighters, the K-8/FT-7 jet trainer, the F-8II fighter-bomber, and the A-5 ground attack aircraft. These systems have been sold to countries such as Iran, Pakistan, Myanmar, and Sri Lanka. One of CATIC's most recent deals was the 1998 agreement with Pakistan to co-develop the Super-7/FC-1 aircraft. In addition, CATIC has sold air-to-air, ship-to-ship, and land-to-ship cruise missiles and related components produced in AVIC factories. Some of the specific missile systems CATIC has exported include the PL-5B, PL-7, PL-9, FL-1 (CSS-N-1 Mod 2), FL-2 (CSS-NX-5), and FL-7 cruise missiles. CATIC may also have played a role in exporting Silkworm missiles to Iran which were possibly produced at the Nanchang Aircraft Factory.

In recent years AVIC and CATIC have not fared well economically due to a significant drop in the demand for their products, within and outside China. The Chinese government has preferred to buy civilian aircraft from Boeing and Airbus rather than from its domestic manufacturers. In the military realm, the PLA in 1994 concluded a deal with Russia for the purchase of 52

Sukhoi-27 complete aircraft and a joint production deal to assemble and produce as many as 200 of the aircraft. This deal came about in light of AVIC's inability to produce a fighter with equivalent capabilities. Su-27s assembled in Chinese factories conducted their first flight tests in early 1999. China has a poor record of bringing prototypes into serial production, and the delay in assembling the Su-27 aircraft is one example of endemic problems in China's aviation industry. Interestingly, the Su-27 project merely involved assembling materials from a "kit" purchased from Russia, but even then the project took several years before the first flight test occurred. As for future related exports derived from the Su-27, one can imagine the difficulties and delays involved if China sought to integrate Russian aircraft technologies into a domestic weapons system.

Given AVIC's systemic difficulties producing military aircraft and the resulting decline in domestic orders for Chinese fighters, it is likely that CATIC will increasingly look to the international market to sell its military aircraft. For example, the main reason CATIC is co-developing the Super-7 fighter with Pakistan is that the PLA Air Force refused to buy the aircraft; co-development will help to reduce the research and development costs of the fighter. Aircraft exports will be used to generate hard currency for the purchase of advanced production technologies which, in turn, could help modernize the production capabilities of AVIC factories as part of China's effort to develop an indigenous capacity to produce advanced military aircraft.

- China Shipbuilding Trading Corporation (CSTC).⁴⁰ CSTC is the trading arm for China's shipbuilding industry. CSTC is principally responsible for the export of items produced in the CSSC's 75 large- and medium-sized shipyards, 57 marine equipment manufacturing plants, and the 36 R&D and design institutes. The CSTC has marketed military vessels, commercial ships, marine equipment like diesel engines, and some nonmarine items all over the world. It has offices in Hong Kong, Moscow, Los

Angeles, Hamburg, Bangkok, London, Athens, and Islamabad.⁴¹

CSTC military products include a wide mix of platforms currently used by the PLA Navy such as *Luda* and *Luhu* class destroyers, *Jiangwei* and *Jianghu* class frigates, missile corvettes, missile fast attack craft, patrol boats, landing craft, replenishment ships, and anti-smuggling boats. According to CSTC, "Various types of naval vessels can also be designed and built according to the requirements of foreign navies and have been exported to many countries."⁴² In the past the CSTC has exported *Jianghu* class frigates to Thailand and Pakistan, *Hudong* class fast attack craft to Iran, as well as various patrol boats and landing ships to Sri Lanka, Myanmar, and Bangladesh. The CSTC's ability to increase its exports of military vessels is an open question, however. Few countries have ordered major warships such as frigates or destroyers in the last 5 years, and requests for smaller naval vessels have been declining as well. Although the shipbuilding industry's ability to design and produce better quality vessels has vastly improved because of its growing commercial business, it still lacks the ability to equip these ships with advanced weapons technologies and propulsion and navigation systems. As a result, many of China's former clients like Thailand have shifted to buying naval ships and naval weapons systems from non-Chinese sources.

CHINESE ARMS EXPORTS: THE PROCESS⁴³

Formal procedures.

Prior to 1997, China's procedures governing the export of military products and related technologies were unpublished and ambiguous. In recent years, there has been much progress in this area as China has sought to formalize and institutionalize its arms export review process. Yet, many uncertainties remain. China's economic reform policies—which emphasize decentralization, fiscal

autonomy, and foreign trade—have created conditions which make controlling military exports all the more difficult. The principal legal framework for export controls was laid out in the 1994 Foreign Trade Law (FTL). This law included several export control-related provisions: it provided the authority to prohibit exports of items for national security reasons; it permitted Beijing to restrict exports based on China's obligations to international treaties; and it required Chinese companies to apply for a license to export goods controlled by international treaties and conventions. These provisions were very general and did not identify distinct procedures or define control lists for vetting exports of nuclear, chemical, missile, or military products. By 1995, the Chinese government acknowledged the establishment of the SACMPT and described some procedures specifically related to controls on military exports in its white paper on arms control and disarmament; yet, no formal law governing military exports was issued for another 2 years.

Indeed, China's illegal shipment of 2,000 AK-47s to the United States in early 1997 testifies to the lax control on some military exports in China prior to the promulgation of this law. The executive director of Poly Technologies, one of the PLA's largest arms exporters and formerly controlled by the General Staff Department, said on the record that the GSD is not always required to authorize transfers of small arms, even when the weapons are taken from stockpiles controlled by the General Logistics Department.⁴⁴

China's formal process for vetting and permitting exports of military products and related technologies was publicly outlined in the October 1997 *Regulations on Export Control of Military Items*.⁴⁵ (See Appendix II.) These regulations require Chinese arms exporters to receive several different types of government approval before a deal is authorized. Depending on the type of military products being transferred, a variety of government organizations may participate in these approval processes. First, according to the 1997 regulations, a Chinese company

seeking to export military products must apply to the State Administrative Committee on Military Products Trade (SACMPT) for official registration and authorization as a "military trading company." (See Appendix V for flow chart showing China's export control system for military goods.) The SACMPT's administrative arm, the State Bureau of Military Products Trade, handles administrative and day-to-day affairs of the SACMPT. According to the 1997 law, the SACMPT has formulated application procedures for authorization, but they are not yet publicly available. In addition, the SACMPT is responsible for authorizing other companies as military export *transportation* agents "to handle export transportation and other related businesses." No companies other than state registered transportation companies can participate in the transit of military products out of China. The procedures for this latter authorization also are not publicly available.⁴⁶ Furthermore, as noted above, the SACMPT and its subsidiary bureau no longer exist, and it is currently uncertain how this change and the likely shift of responsibilities to COSTIND has affected the operation of the 1997 regulations.

Currently, there are several Chinese companies which are authorized to export military products and related technologies, but the total number is not currently known. As noted above, some of the most well-known arms exporters are NORINCO, China Xinxing (Group) General Corporation, Poly Technologies Inc., China Great Wall Industry Corporation, the China Precision Machinery Import-Export Corporation, China National Aero-Technology Import-Export Corporation, and the China Shipbuilding Trading Corporation. Interestingly, this number greatly exceeds the few companies authorized to export controlled nuclear and chemical materials, equipment, and technologies. Only two companies, the China Atomic Energy Agency and SINOCEM, are authorized to sell nuclear items; similarly, only two Chinese chemical companies, SINOCEM and China Haohua

Chemical Industry Group, are permitted to export controlled chemicals. All other businesses in China must go through these companies to export controlled nuclear or chemical products.⁴⁷

Once a company has been designated as an official military trading company, the next step is to engage China's military export licensing system. The licensing process involves two steps: contract approval and licensing authorization. First, a company must submit a provisional, unsigned export contract to the State Bureau of Military Products Trade for review and approval. The SBMPT normally reviews these contracts itself, but in certain circumstances it consults with "the relevant departments" of the State Council and the CMC. The SBMPT has 15 days to approve the contract in order for it to be considered valid and for the export review process to continue. The 1997 regulations also require companies to append "certification documents" from the recipient countries to the application for contract approval. The regulations do not specify what types of certification documents are needed, but one possibility is an end-use certificate. Once an export contract is approved by the SBMPT and subsequently signed by the Chinese and the foreign company, the next step involves applying for a military export license. This latter step appears somewhat perfunctory and less complicated than the previous one because it involves attaching the approved export contract to a license application. The SBMPT, not MOFTEC, will then issue or deny a license within 5 days.⁴⁸ This license is required before China's Customs Service can legally permit military items to be exported.

By contrast, exports of "major" military products are first reviewed by the SACMPT and then submitted to higher level offices in the State Council and the CMC for approval.⁴⁹ If a pending export is politically sensitive and potentially controversial, then the issue can be reviewed by the Military Products Export Leading Small Group. This high-level government group is comprised of very senior government and Communist Party officials such as the

members of the Central Committee's Political Bureau. Given their senior status, this group meets infrequently to consider only the most controversial arms exports which could have a negative impact on China's foreign relations.⁵⁰

The 1997 regulations also stipulate that *individuals* can not export military goods, and the law sets a series of six standards to which military export companies must conform in their dealings. Companies must not:

- Endanger national security or social and public interests;
- Supplant competitors with unfair competitive means;
- Infringe upon intellectual property rights protected by the national laws;
- Forge, alter, fraudulently obtain or transfer arms export project approval documents, contract approval documents, licenses, valid certificates from recipient countries, and other documents;
- Exceed the scope of businesses defined and approved by the authorities; or,
- Engage in other conduct that violates the laws and administrative regulations.⁵¹

Violations of any of these six standards can result in the closing down of the military trading company, and violations of any of the steps in the licensing processes can result in the revocation of an export license. In addition, any and all violations are considered criminal offenses and can be prosecuted. This stipulation also applies to the staff of the military trading companies to prevent them from engaging in illegal conduct such as accepting bribes.

Despite the seeming comprehensiveness of these regulations, there are two major areas of uncertainty in the law which raise serious questions about its ability to effectively control exports of military products and related technologies. First, these regulations do not specify what, if

any, "control lists" the Chinese agencies refer to when reviewing a license application. The United States, for example, uses the Commerce Control List (CCL) and the State Department Munitions List (ML) but no equivalent seems to exist in China for *military* items. MOFTEC officials claim that such a list exists for missiles and related technologies (i.e., MTCR Annex items), but one has never been openly published. In the areas of nuclear and chemical exports, China has already incorporated international lists, such as the ones used by the Nuclear Suppliers Group and the Chemical Weapons Convention, into its existing export regulations. No equivalent international list covering military products has been adopted by the Chinese. One possibility is that Chinese officials already use the two Wassenaar lists when reviewing license applications, even though neither was referenced in the 1997 export control regulations. MOFTEC's recently published *The Catalogue of Technology Whose Export Is Banned or Restricted in China* may represent a first attempt to link the international munitions and dual-use technology lists used by Wassenaar to China's existing law covering military exports.

The second uncertainty in this law is the extent of interagency consultation during the contract authorization and license review process. The SACMPT, as described in the 1995 white paper, is composed of officials from the MFA, COSTIND, MOFTEC, and the PLA General Staff. Yet, the 1997 regulations do not specify when in the process these various agencies voice their input or how often. Do they help to review each license? Do they also provide input when reviewing license applications for only sensitive exports? Or do they only participate in the formulation and revision of regulations covering military exports? In the nuclear area, specialized agencies such as the China Atomic Energy Agency normally take the lead in the licensing process, while informally consulting with others such as MOFTEC, military officials, or the Foreign Ministry when questions arise. (MOFTEC will then issue a license if approved.) This

informal consultation process, which is common practice in planned economies, may constitute the extent of regularized interagency discussion of license applications related to military exports.⁵² These uncertainties become even greater given the apparent abolition of SACMPT and the possible shift of its responsibilities to COSTIND.

Despite these ambiguities, the MFA has likely become a more influential voice in discussions about China's arms export policies and decisions about specific sensitive weapons exports. The MFA recently established a Department of Arms Control and Disarmament under the leadership of Ambassador Sha Zukang, which has an entire division of some 10-12 officials devoted to covering conventional weapons issues. Although the majority of their work deals with China's participation in international regimes, this concentration of expertise on conventional arms issues within the MFA could be very influential in interagency debates and consultations. Moreover, the professionalism, experience, and trust which Ambassador Sha has built within the Chinese decisionmaking structure on these issues will lend him and his new department greater political leverage. This professionalism is especially important at a time of transition in Chinese nonproliferation and arms control policies.

The MFA's overall influence on arms control and nonproliferation topics appears to depend on the nature of the issues being debated in Beijing. For example, Ambassador Sha's office has taken the lead on voicing China's opposition to U.S. national missile defense and theater missile defense programs. Sha has been unusually outspoken on this issue (for a Chinese diplomat); he has given interviews to several major U.S. newspapers, even though the official Sino-U.S. nonproliferation dialogue has been frozen since May 1999. Meanwhile few PLA officials such as China's defense minister have made statements on the missile defense issue, even though it is ostensibly a military topic. A similar situation exists regarding China's participation in the MTCR. By contrast, the PLA took the

lead on drafting and editing China's 1998 defense white paper, with MFA officials providing limited input on sections directly relevant to their responsibilities.

Government Reorganization and Downsizing.

In March 1998, China adopted a series of policies which have resulted in the downsizing and restructuring of much of the bureaucracy, including the defense industrial sector. These changes within China's defense industries raise uncertainties in the short-to-medium term about the proper functioning of military export controls. In the long term, however, these changes—if properly implemented—may create a more organized and rational system for controlling military exports. Four important changes in particular will affect the processes and players involved in arms sales decisions.

The first major organizational change directly influencing China's controls on military exports was the dissolution of the SACMPT in March 1998. As of early 2000, Chinese authorities have not yet officially stated which government agency (new or old), or combination of existing agencies, will assume SACMPT's responsibilities for overseeing the control of military exports.⁵³ A Chinese Foreign Ministry official suggested the changes may be limited to a shift in the administrative agents specified in the 1997 regulations, while the licensing processes outlined in the law will remain fixed.⁵⁴ The 1997 regulations have not yet been revised to reflect these organizational changes, however. As noted above, the administrative responsibilities of the former SACMPT have possibly been assumed by the new COSTIND. This shift of responsibilities would be consistent with COSTIND's emerging role as an administrative and regulatory organization governing China's defense enterprises. Under this scenario, the successor organization to the SACMPT would only report to the State Council, which represents a shift from the SACMPT's previous position as a quasi-military

organization reporting to both the CMC and the State Council. Indeed, Liu Jibin, the new civilian head of COSTIND, was quoted in a 1999 *Washington Post* article as saying that his organization would assume control of weapons imports and exports. He noted that China's defense corporations are being eased out of policy decisions related to arms exports and imports.⁵⁵

Adding to its growing export control profile, the new COSTIND also assumed control of two subsidiary bureaus, the State Aerospace Bureau and the China Atomic Energy Agency, whose principal role is to oversee and regulate China's aerospace and nuclear industries. These organizations were formerly part of two larger industrial groups: the CASC and China National Nuclear Corporation (CNNC).⁵⁶ As part of their responsibilities, these two bureaus may be expected to vet export license applications for their respective industries. This trend suggests that China's other defense industries may follow suit by separating their administrative offices and housing them in the new COSTIND.⁵⁷ Indeed, this development may be positive for nonproliferation because the placement of these regulatory bodies within the new COSTIND separates them from corporate interests which rank exports among their principal goals.

Second, following the reconstitution of COSTIND, the GAD was formed in April 1998. This new PLA general staff-level department draws together the uniformed military from COSTIND with the General Staff Department's Equipment Directorate, as well as with other military equipment-related offices from other parts of the General Staff system. The GAD's main role is to oversee the development, procurement, supply, maintenance, and the life-cycle management of the military's weapons systems. The GAD was also tasked with overseeing the PLA's testing and training bases such as the Xichang satellite launch center.⁵⁸ The GAD will also have a limited role in vetting some military-related exports but will be a key PLA voice in arms control negotiations affecting China's military

capabilities. The specific roles and influences of the GAD in arms export policymaking were discussed in the previous section.

Third, and beyond these specific reorganizations, the government adopted a series of policies in March 1998 aimed at downsizing and streamlining its bureaucracy. These decisions will have limited effects on China's export control system, although the staffs of ministries involved in export control administration have been cut significantly. MOFTEC's personnel, for example, were cut by 45 percent, and the Science and Technology Department—which reviews applications for “sensitive exports”—was reduced by 30 percent.⁵⁹ China's Ministry of Foreign Affairs was required to reduce its staff by only 26 percent (not the initial 55 percent requested by the State Council), and its Arms Control and Disarmament Department has actually expanded.

The arms control community in China is very small, and very few diplomats have developed a specialization in such issues. As a result, much of the MFA's arms control staff is young and relatively inexperienced with specific issues. Most staffers have received little, if any, formal training on arms control and nonproliferation issues in Chinese universities or diplomatic academies and have had to learn “on the job”; the youngest members of the Arms Control and Disarmament Department staff are often hired simply because of their strong English language skills. Given these constraints, the MFA's input on export controls issues is normally limited to participation in the formulation of policies; MFA officials do not normally review license applications, unless they are deemed particularly sensitive.

The fourth recent change affecting China's arms exports policies and decisionmaking processes is the decommercialization of the military and law enforcement agencies. In July 1998, Jiang Zemin issued an edict calling for the PLA and the People's Armed Police (PAP) to divest themselves from their business activities. According to

some estimates, the PLA owned and operated 10,000-15,000 enterprises engaged in a variety of commercial ventures from transportation, vehicle production, and hotel operation to real estate development and telecommunications. The Chinese leadership took this step to reduce corruption and smuggling within PLA ranks as part of a broader effort to professionalize and modernize its military. A special office was established within the State Economic and Trade Commission to coordinate the hand-over of military enterprises. This office will take over and manage the military's largest enterprises whereas provincial and local governments will assume control of the smaller enterprises. The hand-over will reportedly occur in three phases: preparation, transfer, and restructuring. The transfer process was *reportedly* completed by December 20, 1998.⁶⁰ U.S. experts indicate that by early 2000 some 4,000-5,000 PLA companies were civilianized, but that the PLA retains control of some 10,000 smaller enterprises.⁶¹

The potential effects on China's arms exports are mixed. On the one hand, the PLA's divestiture from business activities could renew incentives for illegal arms exporting in order to generate the income lost as a result of the deccommercialization effort. It is generally accepted that the profits from the PLA's business activities contributed to the PLA's operating budget, especially within certain units. With this money no longer being generated, PLA units, especially ones based in provinces far from Beijing, may seek to export weapons from surplus stockpiles to make up for the funding shortfall.⁶² To be sure, Premier Zhu Rongji, China's economic reform czar, promised to compensate the PLA for its lost income. According to discussions with senior officials of the GLD, compensation will amount to approximately 3.2 billion *renminbi* per year (about \$400 million) or about 3 percent of China's officially declared military budget for 1997. Yet, it is not entirely clear these funds will be sufficient to cover the defense budget's annual shortfall. PLA leaders were reportedly very upset with Zhang Wannian, the vice-chairman of the CMC, for

accepting Zhu's compensation offer before consulting with them about the PLA's actual financial needs.⁶³

On the other hand, the military's decommercialization and restructuring efforts may have broken certain bureaucratic linkages which could hinder the ability of current and former PLA companies to export arms. Specifically, these policies may have severed ties between (1) former PLA enterprises and PLA departments (e.g., GSD), and (2) PLA enterprises and China's defense industrial enterprises. With the creation of the GAD and a more centralized control over China's weapons stocks, it is unclear whether former PLA enterprises such as Poly Technologies will be able to draw from PLA stockpiles in order to sell weapons abroad, as it did in the past.

Also, it is not certain whether formal relations will persist between former PLA companies like Poly Technologies and defense industrial enterprises like NORINCO; these channels used to be crucial to Poly's arms exports. In the past, Poly requested that NORINCO overproduce weapons for the PLA stockpile in order for Poly to export the excess items. However, if NORINCO's production decisions are now made within the new COSTIND and monitored by the GAD, then companies like Poly may no longer be able to influence production rates in order to facilitate their arms exports. To be sure, Poly Technologies still holds much influence in Chinese military circles and this power may allow it to remain a prominent arms exporter. Poly's influence results from its long-standing personal relationships with officials in the PLA's military supply system and the central role Poly has played in negotiating arms imports from Russia. In the latter case, Poly's connections with Russian arms exporters are viewed as crucial to China's continued access to Russian weapons systems. For this reason alone, Poly Technologies—despite its official break with the PLA—will retain its strong connections with PLA officials involved in weapons imports and exports.⁶⁴

Furthermore, as a result of the divestiture of the PLA, many of the newly civilianized companies may no longer have financial incentives to maintain a close relationship with the PLA and therefore might not be involved in arms exports. In China's more competitive and profit-driven business environment, arms dealing has likely become an unappealing pursuit for Chinese companies. Weapons sales are often controversial and have become increasingly complicated to conduct, given China's growing export control system, the government's nonproliferation commitments, and stiff international competition.

ENDNOTES - CHAPTER 2

1. *Zhongguo de Guofang (China's National Defense)*, Beijing, China: Information Office of the State Council, July 1998. Also see *Zhongguo de Junbei Kongzhi yu Caijun (China's Arms Control and Disarmament)*, Beijing, China: Information Office of the State Council, November 1995.

2. *Zhengdang de* is often improperly translated into English as "appropriate" instead of "legitimate." The former is arguably a weaker standard than the latter in terms of evaluating a nation's right to self-defense. Many translations of China's 1995 white paper use "appropriate" instead of "legitimate," although the Chinese characters are the same in both the 1995 and 1998 white papers. The correct translation for "appropriate" is *shidang de*.

3. These principles are articulated in numerous Chinese documents including: *Zhongguo de Guofang* and *Zhongguo de Junbei Kongzhi yu Caijun*. They can also be found in dozens of Foreign Ministry statements defending China's arms exports.

4. Fu Cong, "An Introduction of China's Export Control System," paper presented at Tokyo Workshop on Nonproliferation Export Control Regimes, Tokyo, Japan, December 11-12, 1997. Fu Cong is currently the director of the "Fourth Division," covering policy research and analysis of the Arms Control and Disarmament Department of the Chinese Foreign Ministry. He was previously the Director of the "First Division" covering nuclear issues.

5. See *Regulations on Export Control of Military Items* (Appendix II); Fu Cong. For a full analysis of these regulations, see the *China Profiles* database operated by the East Asia Nonproliferation Project at

the Center for Nonproliferation Studies in Monterey, CA. The regulations are also included as Appendix II in this report.

6. The UNROCA was established by United Nations General Assembly Resolution 46/36L in December 1991. The register first began recording submissions from UN members in 1993 for their imports and exports of major conventional weapons in calendar year 1992. China's 1998 defense white paper compiles and presents all of its UNROCA submissions.

7. See <http://domino.un.org/REGISTER.NSF>.

8. China was not alone in this. According to a study on the UNROCA participation of 39 Asia-Pacific states, only six countries (Australia, Canada, Japan, New Zealand, Republic of Korea, and the United States) included background information with their submissions covering the 3-year period 1992-94. Bates Gill, "Asia-Pacific Participation in the United Nations Register of Conventional Arms: Prospects for Regionalization," in United Nations Centre for Disarmament Affairs, *Workshop on the United Nations Register of Conventional Arms: The Experience of the Asia-Pacific Region*, New York: United Nations, 1996, pp. 21-31.

9. See, for example, Edward J. Laurance, Siemon T. Wezeman, and Herbert Wulf, *Arms Watch: SIPRI Report on the First Year of the U.N. Register of Conventional Arms*, Oxford: Oxford University Press, 1993, Annexes 1 and 2; Malcolm Chalmers and Owen Greene, *The U.N. Register in Its Fourth Year*, Bradford Arms Register Series Working Paper No. 2, Bradford England: Department of Peace Studies, University of Bradford, November 1996.

10. Statement by Ambassador Sha Zukang to the Conference on Disarmament, June 26, 1997.

11. *SIPRI Yearbook 1997: Armaments, Disarmament and International Security*, Oxford: Oxford University Press, 1997, p. 214.

12. For general details on China's position during the ACME talks, see Robert Shuey and Shirley A. Kan, *Chinese Missile And Nuclear Proliferation: Issues For Congress*, CRS Issue Brief, Congressional Research Service, The Library of Congress, February 12, 1996, p. 14; Shirley A. Kan, *Chinese Proliferation of Weapons of Mass Destruction: Current Policy Issues*, CRS Issue Brief, Congressional Research Service, The Library of Congress, October 17, 1996, p. 11; Weixing Hu, "China's Nuclear Export Controls: Policy And Regulations," *The Nonproliferation Review*, Winter 1994, p. 5.

13. The Munitions List used by the Wassenaar Arrangement is a slightly modified version of COCOM's International Munitions List. The Core List of Dual-Use Technologies is a narrow version of COCOM's International Industrial list and is divided into subcategories of basic, intermediate, and sensitive technologies. Information sharing among members and end-use certification agreements are required for each category of technology; exports of sensitive technologies are subject to "presumptive denial of transfer requests." For a complete explanation of the negotiation and contents of the Wassenaar Arrangement, see *Inventory of International Nonproliferation Organizations and Regimes 1996-1997*, Monterey, CA: Center for Nonproliferation Studies, 1997, pp. 28-30. This report can be found at <http://cns.miis.edu/pubs>.

14. Countries have to meet four criteria to become a member of the Wassenaar Arrangement: (1) Be a producer/exporter of arms or associated dual-use goods and technologies; (2) Have national policies which do not permit the sale of arms or sensitive dual-use items to countries whose behavior is a cause for concern; (3) Adhere to international nonproliferation norms and guidelines; and (4) Implement fully effective export controls. See *Inventory of International Nonproliferation Organizations and Regimes 1996-1997*.

15. News Briefing by the Foreign Ministry, *Beijing Review*, January 17-23, 1994, p. 14; Bates Gill, "Determinants And Directions For Chinese Weapons Imports," *Pacific Review*, Vol. 8, No. 2, 1995, p. 371.

16. "One On One: Interview with Ambassador Sha Zukang," *Defense News*, February 1, 1999, p. 22.

17. The Ministry of Foreign Trade and Economic Cooperation and the Ministry of Science and Technology issued a circular on the publication and distribution of "The Procedures for the Management of Restricted Technology Export." For the text of the regulations, see *Zhonghua Remin Gongheguo Duiwai Maoyi Jingji Hezuo Bu Wengao* as translated in *Foreign Broadcast Information Service* (hereafter *FBIS*), January 17, 1999; "China Approves New Export Controls on Sensitive Technology," *Reuters*, December 2, 1998.

18. James A. Baker III, *The Politics of Diplomacy: Revolution, War and Peace 1989-1992*, New York: G.P. Putnam's Sons, 1995, p. 594.

19. "China Responsible for its Arms Sales," *Beijing Review*, March 2-8, 1992, p. 33.

20. See also Appendix III and Appendix V.

21. Interviews with Chinese military officials, Beijing, September 1998. For a recent discussion of COSTIND's role and its relationship to the defense enterprises, see "Speech of Liu Jibin at COSTIND Working Meeting," *Zhongguo Hangkong Bao (China Aviation News)*, April 30, 1999. Also see Tseng Hai-tao, "Jiang Zemin Pushes Forward Restructuring of Military Industry—Developments of State Commission of Science, Technology, and Industry for National Defense and Five Major Ordnance Corporations," *Kuang Chiao Ching (Wide Angle)*, July 16, 1998, p. 18-20, as translated in *FBIS-CHI-98-209*, July 28, 1998; Liu Xiaohua, "Zhu Rongji Discusses Matters of Vital Importance With Military—Inside Story of Reorganization of China's Five Major Military Industry Departments," *Kuang Chiao Ching*, February 6, 1998 as translated in *FBIS-CHI-98-065*, March 6, 1998. For COSTIND's continued role in defense conversion, see Liu Jibin, "Implement the Guideline of Military-Civilian Integration, Rejuvenate the National Defense Science and Technology Industry," *Renmin Ribao*, February 2, 1999, p. 12, as translated in *FBIS*, February 2, 1999.

22. China's nuclear export control law specifies that companies must first apply to the CAEA as part of the authorization process for selling controlled nuclear equipment and technologies.

23. Conversation with Foreign Ministry and MOFTEC officials, April 1999 and February 2000.

24. The Chinese translation of the General Armaments Department is *Zong Zhuangbei Bu* (×Ü×° ±, ²). Although the term "zhuangbei" is often translated as "equipment," Chinese officials and scholars normally refer to this new organization as the General Armaments Department and not as the General Equipment Department.

25. Interviews with U.S. defense officials in Beijing.

26. The "First Division" covers nuclear issues such as the nuclear testing, nuclear nonproliferation, fissile material issues, and nuclear export controls; the "Second Division" covers chemical and biological issues such as China's compliance with the CWC and chemical export controls; the "Fourth Division" (also called the "Comprehensive Division") is principally devoted to meeting the research needs of the department but has also covered Southeast Asian security issues. Discussions with Chinese officials, Beijing, September 1998. For more background, see *Individuals, Institutions, and Policies in the Chinese Nonproliferation and Arms Control Community*, Conference Report, The East Asia Nonproliferation Project (EANP), Monterey CA: Center for Nonproliferation Studies, November 1997; Wendy Frieman also lays out a basic organizational structure for Chinese arms control

decisionmaking in her *Chinese Arms Control Organizations: A Basic Primer*, McLean: Science Applications International Corporation, January 17, 1997. Frieman's work is now maintained as an updated section within the *China Profiles* database operated by the East Asia Nonproliferation Project, Center for Nonproliferation Studies, Monterey, CA. This database is accessible at <http://cns.miis.edu>.

27. John W. Lewis, Hua Di, and Xue Litai, "Beijing's Defense Establishment: Solving the Arms-Export Enigma," *International Security*, Spring 1991; Lu Ning, *The Dynamics of Foreign-Policy Decisionmaking in China*, Boulder, CO: Westview Press, 1997, pp. 113-117.

28. Conversation with senior MOFTEC official in the Science and Technology Department, Beijing, March 2000. This official did not know which government organizations were involved in vetting potential military exports.

29. This section draws largely from James Mulvenon, *Chinese Military Commerce and U.S. National Security*, Center for Asia Pacific Policy, Santa Monica CA: The Rand Corporation, July 1997.

30. Mulvenon, *Chinese Military Commerce*, p. 5.

31. For more detail on the operation of this system, see John Frankenstein and Bates Gill, "Current and Future Challenges Facing Chinese Defense Industries," *The China Quarterly*, June 1996, pp. 394-427.

32. Tai Ming Cheung, "Arms Reduction: The PLA's Main Weapons Dealer Goes Civilian," *Far Eastern Economic Review*, October 14, 1993, p. 68; James Mulvenon, *Chinese Military Commerce*; Bates Gill, "Determinants And Directions For Chinese Weapons Imports," *The Pacific Review*, Vol. 8, No. 2, 1995, pp. 369-370; Hua Di, "China's Case: Ballistic Missile Proliferation," in William C. Potter and Harlan W. Jencks, eds., *The International Missile Bazaar: The New Suppliers' Network*, Boulder, CO: Westview Press, 1994, p. 170; John W. Lewis, Hua Di, and Xue Litai, "Beijing's Defense Establishment: Solving The Arms-Export Enigma," *International Security*, Spring 1991, p. 89; Yan Kong, "China's Arms Trade Bureaucracy," *Jane's Intelligence Review*, February 1994, p. 81; "Patent Office Weaves Web In China Arms," *New York Times*, August 22, 1991, p. A19.

33. Mulvenon, *Chinese Military Commerce*, pp. 14-15.

34. This information was taken from the China Xinxing Export-Import Corporation internet homepage. It can be found at <http://www.cxxcs.com/xinxin-homepage>

35. Some of this information was taken from the NORINCO internet homepage; it can be found at <http://www.norinco.com>. Also see Tai Ming Cheung, "Elusive Ploughshares: Chinese Defense Plants Turn to Civilian Production," *The Far Eastern Economic Review*, October 14, 1993, pp. 70-71; "NORINCO's Long Arm," *Far Eastern Economic Review*, September 7, 1989, p. 12; Mulvenon, *China's Military Commerce*.

36. Company brochure of CPMIEC, Military Division, China Precision Machinery Export-Import Corporation, Beijing, China; *Jane's Strategic Weapon Systems*, various issues; Hua Di, in Potter and Jencks, *Missile Bazaar*, p. 165; Robert Shuey and Shirley A. Kan, "Chinese Missile and Nuclear Proliferation: Issues For Congress," *CRS Issue Brief*, September 29, 1995, p. 4; "Testimony of Timothy V. McCarthy, Senior Research Associate, Program For Nonproliferation Studies, Monterey Institute Of International Studies," House Foreign Affairs Committee, Subcommittee On International Security, International Organizations And Human Rights, April 28, 1993, p. 170; *The Risk Report*, May 1995, pp. 6-7; "China Helping Iranian Missile Developments," *Jane's Defence Weekly*, July 17, 1996, p. 13; John W. Lewis and Hua Di, "China's Ballistic Missile Programs: Technologies, Strategies, Goals," *International Security*, Fall 1992, p. 5.

37. A website for CGWIC can be found at <http://www.cyberexp.com/company/gw/gw.htm>.

38. "CZ" stands for "changzheng" which means "long march."

39. The authors are indebted to Kenneth Allen for this information. For more background, see Kenneth W. Allen, et al., *China's Air Force Enters the 21st Century*, Santa Monica, CA: The RAND Corporation, 1995.

40. This section draws largely from Evan S. Medeiros, "Revisiting Chinese Defense Conversion: Some Evidence From the Shipbuilding Industry," *Issues and Studies*, May 1998, pp. 79-101; Evan S. Medeiros, "Linking Defense Conversion and Military Modernization in China: A Case Study of China's Shipbuilding Industry," unpublished manuscript. For a comprehensive overview of the structure and operation of China's shipbuilding industry, see *Shipbuilding in the People's Republic of China*, private consultants' report, Hong Kong: Asian Strategic Limited, 1995.

41. Official CSTC information can be found on the company website at <http://www.chinaships.com>.

42. This quotation was taken from the CSTC website.

43. See also Appendix V.

44. For more details on this smuggling incident and an analysis of the security implications of Chinese military companies operating in the United States, see James Mulvenon, *Chinese Military Commerce*, p. 34.

45. This description and analysis of the 1997 regulations will refer to the SACMPT and the SBMPT, even though they have been abolished because their successor organizations officially have not been named yet. The 1997 regulations define military exports as "commercial exports of military-purpose equipment, specialized production facilities and other materials, technologies, and related services." This also includes the export of "police-purpose equipment." See Articles 2 and 30 of the regulations.

46. The 1997 regulations stipulate that all documents which a military trading company submits to the SACMPT during this review process are confidential in order to preserve "the legitimate rights and interests of the military trading companies." See Article 11 of *Regulations on Export Control of Military Items*.

47. A U.S. export control expert maintains that China has tried to limit the number of authorized exporters of dual-use technologies to less than a dozen. Interview with Richard Cupitt, February 1999.

48. The 1997 regulations specify that the SACMPT "will formulate" the procedures for license application and review, but these procedures are not yet publicly available. It is not known if these procedures will differ from the ones used by MOFTEC.

49. The 1997 regulations do not explicitly distinguish between major military exports and other military products. There is no control list appended to the regulations which would offer some guidance.

50. Interviews with Chinese officials and academics, 1999. Some U.S. experts argue that the SACMPT is the same organization as the Military Products Export Leading Small Group; yet, Chinese scholars and officials insist that they are two different bodies that have different roles and responsibilities and operate at different levels of the government.

51. See Article 22, *Regulations on Export Control of Military Items*.

52. Draft version of Richard T. Cupitt and Yuzo Murayama, *Export Controls of the People's Republic of China 1998*, Center for International Trade and Security, University of Georgia, p. 17.

53. The responsibilities among various government agencies for controlling exports of nuclear and chemical equipment, materials, and technologies are much clearer, although some questions still remain. For more detail, see Bates Gill and Evan S. Medeiros, "Foreign and Domestic Influences on Chinese Arms Control and Nonproliferation Policies," *The China Quarterly*, March 2000.

54. Conversation with mid-level officials in the Arms Control and Disarmament Department of China's Foreign Ministry, September 1998 and April 1999.

55. John Pomfret, "Chinese Army Out of Business? Beijing Reforms Would Strip Military of Its Commercial Empire," *The Washington Post*, November 23, 1998, p. A20.

56. For information on the changes in the aerospace sector, see "Aerospace Restructuring Said Not to Affect Great Wall," *China Daily* (internet version), November 23, 1998; Michael Mecham, "China Splits Civil, Military Space Work," *Aviation Week and Space Technology*, October 5, 1998, p. 23. For background on changes in the nuclear sector, see "Nuclear Sector Reform Under Way," *China Daily*, February 5, 1999; Mark Hibbs, "With Demand Below Projections, China May Drop Nuclear Projects," *Nucleonics Week*, March 4, 1999.

57. See "Nuclear Sector Reform Under Way," *China Daily*, February 5, 1999. This report notes that China's aviation industry has already split into two groups, and that China's other defense industries are also undergoing restructuring.

58. According to one report, the GAD has six subdepartments: comprehensive planning, arms and services equipment, army equipment, general equipment support, electronic information and technological groundwork, and foreign affairs. Pai Chuan, "Command System of the Chinese Army," *Ching Pao*, December 1, 1998, pp. 40-42, as translated in *FBIS*, December 1, 1998; Kuan Cha-Chia, "Jiang Zemin Sets Up General Equipment Department, Zhu Rongji Advances Military Reform," *Kuang Chiao Ching*, April 16, 1998, pp. 10-12.

Other testing bases under GAD control are: Beijing Command Center Northwest Nuclear Test Base, Shanghai Maritime Space

Measurement Ship Base, Jiuquan Satellite Launch Center, Taiyuan Satellite Launch Center, Xian Satellite Launch Center, China Aerodynamics R&D Center, and Baicheng Weapons Test Center. See *China's International Defense Industrial Organizations*, Defense Intelligence Reference Document DI-1921-60-98, Defense Intelligence Agency, June 15, 1998.

59. Cupitt and Murayama, *Export Controls in the People's Republic of China*, p. 16.

60. The State Economic and Trade Commission of the People's Republic of China (SETC) was established in March 1993 during the Cabinet restructuring scheme approved at the Eighth National People's Congress. The SETC is a Cabinet-level department whose mandate is to manage the operations of China's national economy. Operating under the State Council, the SETC has 17 offices which conduct research and planning on the reform and restructuring of China's economy "in line with the objectives and needs of establishing a socialist market economy." This information is drawn from the SETC homepage. See <http://www.setc.cn.net>.

61. Interview with James Mulvenon, RAND Corporation, January 2000.

62. "PLA Exports Weapons for Foreign Exchange Profit," *Ming Pao*, October 14, 1999, p. A17, as translated in *FBIS*, October 19, 1999.

63. Interviews with PLA experts, Hong Kong, October 1998; "Zhu Rongji Promises to Make Up for PLA Losses," *Tao Jih Pao*, July 24, 1998, p. A5, as translated in *FBIS-CHI-98-205*, July 24, 1998.

64. The authors are grateful to James Mulvenon for his insights on the recent changes within the PLA and their possible impact on China's arms sales.

CHAPTER 3

CONCLUSIONS

Despite the declining volume of Chinese arms exports, China's shrinking market share, and the possibility that its arms exports control process will become rational and effective, Chinese arms transfers will continue to be an issue of concern for U.S. policymakers in the coming years. China's past willingness to introduce certain military products such as cruise missiles and ballistic missile technologies into regions of U.S. concern (e.g., the Middle East and South Asia) suggests that Chinese arms exports will remain of interest to U.S. officials, policy analysts, and military planners. Over the years, China has established strong political and technical relationships with the governments and other entities in these countries which can easily facilitate continued and possibly upgraded arms exports to those regions.

To be sure, China has made various pledges to halt exports of missiles and related technologies to South Asia and the Middle East. Yet, China's current commitments are mostly bilateral, political promises made in the context of U.S.-China bargaining; they do not appear to be rock-solid and unequivocal. In the past, China has sought to circumvent its commitments by following the letter of its obligations, but not the spirit of them, or by suggesting that Beijing's interpretations of its commitments differ from Washington's. Thus, Beijing's commitments may rest more on political understandings about U.S.-China relations than on apolitical contractual obligations. As such, a major downturn in Sino-U.S. relations could lead Beijing to overturn commitments and enter upon a new round of arms exports.

Such a scenario is not unlikely given the range of Sino-U.S. differences, especially over security issues like Taiwan. China continues to link its restraint in arms exports to diminishing U.S. arms sales to Taiwan, and China could use its arms exports to particular countries (e.g., Iran) as leverage in bilateral debates over Taiwan-related issues. Indeed, China's vehement opposition to current U.S. proposals to provide TMD technology to East Asia partners, especially to Taiwan, could trigger a new round of arms exports from Beijing.¹ Chinese officials have already indicated they consider TMD sales to Taiwan to be a form of missile proliferation which may lead Beijing to reconsider its existing missile nonproliferation commitments. One possible scenario is that China could restart its cruise missile sales to Iran, considering that its previous ban on such exports came in response to significant U.S. pressure and is not part of China's international nonproliferation commitments.

Further complicating these issues are the ambiguities and lack of transparency surrounding China's official policies and processes related to arms exports. China's currently declared policies on arms transfers and its regulations covering the review of pending exports are unclear on several points. The principles which guide China's official arms export policy are sufficiently flexible to justify almost any export on the grounds that it contributes to the legitimate defense requirements of the recipient. In addition, the 1997 regulations covering military product exports are vague on key points such as the numbers and types of military organizations which can export arms, the nature and extent of interagency review of pending military exports, and—most importantly—which items are covered by the regulations. In the aggregate, these ambiguities are particularly worrisome because they can provide opportunities for Chinese entities to illicitly export military goods without the knowledge of central government authorities.

Indeed, this may already be occurring. In early 1999, reports surfaced that a Chinese company had sold some type of short-range missile/long-range artillery system to Armenia. In response to protests of the deal by Azerbaijan's Foreign Ministry, two senior Chinese officials—China's Ambassador to Armenia Zhu Zhaoshun and Vice Foreign Minister Wang Yingfan—admitted that Beijing did not know about or approve the deal, and that the central government has had difficulty controlling the activities of private Chinese arms exporters despite the 1997 law. Yet, the Chinese officials pledged that similar incidents would not occur in the future.²

Furthermore, the ongoing reorganization of China's government, especially within the defense industrial organizations, has injected a new and possibly more troublesome variable into the arms export equation. These changes call into question the continuing relevance of the past regulations as well as the nature of the export review process. It is currently unclear which agency is responsible for overseeing and approving China's military exports, and it is also ambiguous how the approval process has changed. Other important questions remain unanswered such as which government agencies are still involved in the approval process and which are not; what kinds of influence these players have in the new process; and what type of high-level involvement in the process still exists? Under one scenario, the new COSTIND has assumed responsibility for vetting China's arms exports. But this outcome also raises the prospect that the financial interests of China's military industries, which COSTIND oversees, may be a greater factor in arms export decisionmaking. However, as Beijing seeks to address the range of uncertainties the reorganization has created, the risks that illicit weapons exports could sneak through the cracks of China's evolving export control system have increased. These evolving complexities argue for continued close and concerned observation of Chinese arms exports by U.S. diplomats,

policymakers, military planners, and civilian and military intelligence organizations.

ENDNOTES - CHAPTER 3

1. For a summary of China's opposition to U.S. missile defense programs, see Evan S. Medeiros, *Missiles, Theater Missile Defense and Regional Stability*, Conference Report of the Second U.S.-China Conference on Arms Control, Disarmament and Nonproliferation, East Asia Nonproliferation Project, Monterey, CA: Center for Nonproliferation Studies, April 1999.

2. The exact system sold to Armenia is currently unclear; it is probably an artillery system, not a missile, possibly similar to the WS-1 which China sold to Turkey in 1997. For official Chinese responses to the deal, see "Chinese Envoy on Missiles, Kosovo," *Noyan Tapan* (in Russian), June 16, 1999, as translated in *FBIS*, June 16, 1999; "China Tells Azeri Envoy There Is No Recurrence of Arms Supplies to Armenia," *Turan News Agency*, June 3, 1999, as translated in *BBC Summary of World Broadcasts*, June 5, 1999.

FIGURES

Unless otherwise indicated, the figures used throughout this paper are taken from two sources: Richard F. Grimmett, *Conventional Arms Transfers to Developing Nations, 1991-1998*, U.S. Congressional Research Service, Washington, DC: Library of Congress, August 4, 1999; and Richard F. Grimmett, *Conventional Arms Transfers to Developing Nations, 1990-1997*, U.S. Congressional Research Service, Washington, DC: Library of Congress, July 31, 1998. All other figures are taken from the Stockholm International Peace Research Institute's *SIPRI Yearbook* 1990 to 1998. Both sets of figures reflect arms *deliveries* and not arms transfer *agreements* signed during a specific year. All CRS figures are expressed in *current* U.S. dollars to generally reflect the exchange rates that prevailed during a specific year. All SIPRI figures are expressed in SIPRI trend indicator values. It is important to note that SIPRI "trend indicator values," using dollar figures, do not measure the actual monetary value of given transfers, but serve as a measurement of "volume," based on a weapon system's capabilities. They should not be directly equated or compared with monetary values attributed to transfers in other studies. See the SIPRI publication, *Sources and Methods for SIPRI Research on Military Expenditure, Arms Transfers, and Arms Production*, SIPRI Fact Sheet, Stockholm, January 1995.

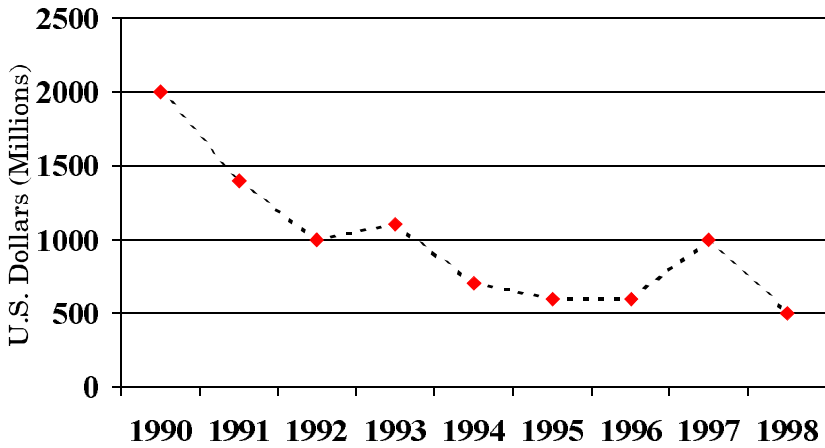


Figure 1. U.S. Congressional Research Service Data for China's Arms Deliveries, 1990-1998.

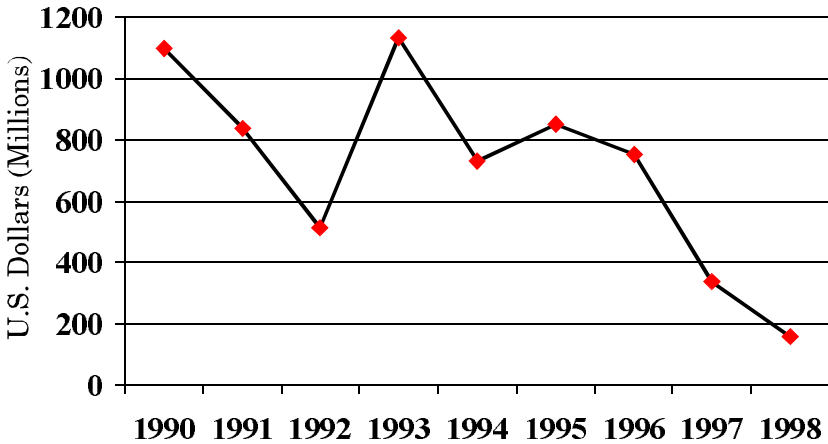


Figure 2. SIPRI Data for China's Arms Deliveries, 1990-1998.

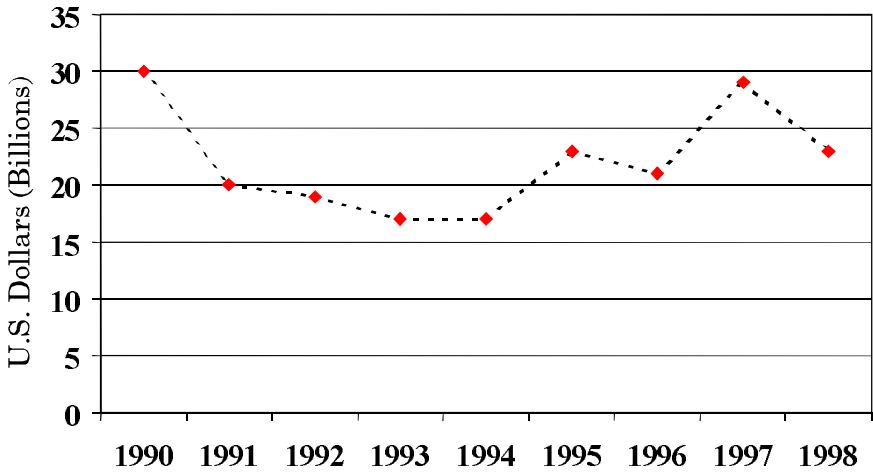


Figure 3. U.S. Congressional Research Service Data for Total World Arms Deliveries to Developing Nations, 1990-1998.

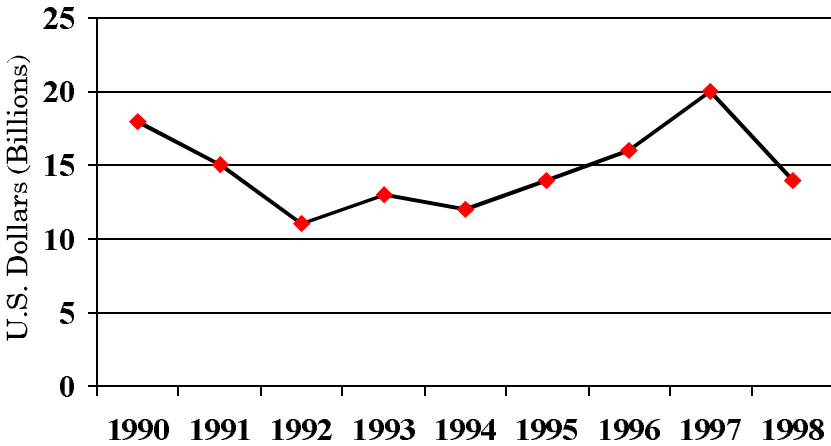


Figure 4. SIPRI Data for Total World Arms Deliveries to Developing Nations, 1990-1998.

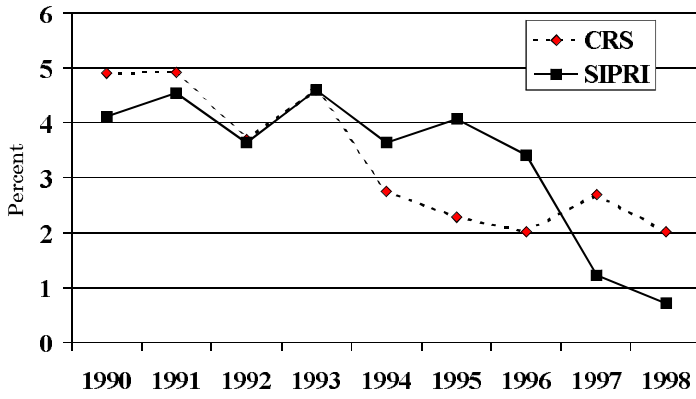


Figure 5. CRS and SIPRI Data on China's Percentage of World Arms Transfers (based upon current U.S. dollars).

APPENDIX I

ACRONYMS

ACME	Arms Control in the Middle East
AED	Aeronautical Engineering Department
APC	armored personnel carrier
APL	anti-personnel landmines
ASM	anti-ship missile
AVIC	Aviation Industries of China
CAD	computer aided design
CAEA	China Atomic Energy Agency
CAM	computer aided manufacture
CASC	China Aerospace Corporation
CATIC	China National Aero-Technology Import- Export Corporation
CCL	Commerce Department Control List
CDSTIC	China Defense Science and Technology Information Center
CGWIC	China Great Wall Industry Corporation
CMC	Central Military Commission
CNNC	China National Nuclear Corporation
COCOM	Coordinating Committee on Multilateral Export Controls
COSTIND	State Commission on Science, Technology and Industry for National Defense

CPMIEC	China Precision Machinery Import-Export Corporation
CRS	Congressional Research Service
CSSC	China State Shipbuilding Corporation
CSTC	China Shipbuilding Trading Corporation
CTBT	Comprehensive Test Ban Treaty
FMCT	Fissile Material Cutoff Treaty
FTL	Foreign Trade Law
GAC	General Administration of Customs
GAD	General Armaments Department
GLD	General Logistics Department
GSD	General Staff Department
MFA	Ministry of Foreign Affairs
ML	Munitions List
MOFTEC	Ministry of Foreign Trade and Economic Cooperation
MOU	Memorandum of Understanding
MTCR	Missile Technology Control Regime
NATO	North Atlantic Treaty Organization
NORINCO	China North Industries Corporation
NPT	Nuclear Nonproliferation Treaty
PAP	Peoples Armed Police
PLA	Peoples Liberation Army
LAAF	Peoples Liberation Army Air Force
SACMPT	State Administration Committee on Military Products Trade

SAM	surface-to-air missile
SBMPT	State Bureau of Military Products Trade
SETC	State Economic and Trade Commission
SLV	space launch vehicle
SSM	surface-to-surface missile
TMD	theater missile defense
UNROCA	United Nations Register of Conventional Arms

APPENDIX II

PEOPLE'S REPUBLIC OF CHINA REGULATIONS ON EXPORT CONTROL OF MILITARY ITEMS

OCTOBER 22, 1997

Translated from Chinese by
The East Asia Nonproliferation Project,
Center for Nonproliferation Studies

I. General Rules

ARTICLE 1

The Regulations are formulated to strengthen centralized management of military exports and maintain normal military export order.

ARTICLE 2

The military exports referred to in the Regulations are commercial exports of military-purpose equipment, specialized production facilities and other materials, technologies and related services.

ARTICLE 3

Under the leadership of the State Council and the Central Military Commission, the State Administrative Committee on Military Products Trade (SACMPT) of the People's Republic of China is responsible for military export activities nationwide.

The State Bureau of Military Products Trade of the People's Republic of China, the executive body of the

SACMPT, implements the supervision and management of nationwide military exports.

ARTICLE 4

The State enforces a centralized military export management mechanism to prohibit any military export activities that damage the national interests and security and to maintain normal military export order in accordance with the law.

ARTICLE 5

All military exports should be consistent with the following principles:

(1) They should assist the recipient country to develop its legitimate self-defense capabilities;

(2) They should not jeopardize the peace, security and stability in the relevant regions and around the world;

(3) They should not interfere in the internal affairs of the recipient country.

ARTICLE 6

Provisions of international treaties which the People's Republic of China has concluded or joined shall prevail in case they are different from the Regulations. However, clauses about which the People's Republic of China has made statements of reservation are excluded.

II. Military Trading Companies

ARTICLE 7

Military trading companies referred to in the Regulations are corporate legal entities that have legally obtained military export authorization to engage in military export activities within the approved business scope.

ARTICLE 8

Military export authorization is reviewed and granted by the SACMPT. Specific application procedures will be stipulated by the SACMPT.

ARTICLE 9

Military trading companies will operate independently in accordance with the law and be responsible for their own profits and losses.

ARTICLE 10

Military trading companies shall abide by contracts, guarantee product quality and improve after-sales services.

ARTICLE 11

Military trading companies, as required by the SACMPT regulations, shall faithfully submit documents and files related to their military export activities to the relevant departments. These departments shall maintain commercial confidentiality and safeguard the legitimate rights and interests of the military trading companies.

ARTICLE 12

Military trading companies can entrust authorized military export transportation agents to handle export transportation and other related businesses. The SACMPT will draw up the specifics in this aspect.

III. Military Export Management

ARTICLE 13

The State manages military exports through a licensing system.

Military exports and contracts shall be filed for review and approval in accordance with the Regulations. Military exports must be accompanied by military export licenses.

ARTICLE 14

Military exports are reviewed and approved by the State Bureau of Military Products Trade or by the State Bureau of Military Products Trade in joint consultation with the relevant departments in the State Council and the Central Military Commission.

ARTICLE 15

Once the military export is approved, the military trading company can sign military export contracts with overseas buyers. The signed military export contract shall be submitted to the State Bureau of Military Products Trade for review and approval. The State Bureau of Military Products Trade shall make an approval or decline decision within fifteen days upon receipt of the application. Military export contracts are valid only upon such approval.

Military trading companies shall append with the military export contract approval application the valid certification documents from recipient countries when filing with the State Bureau of Military Products Trade.

ARTICLE 16

Major military exports and their related contracts shall be reviewed by the SACMPT and submitted to the State Council and the Central Military Commission for approval.

ARTICLE 17

Military trading companies shall apply to obtain the military export license with the approval documents for the export contracts prior to engaging in military exports. The State Bureau of Military Products Trade shall issue military export licenses within five days upon receipt of the application to those requests that conform to the military export contract specifications.

The Customs will accept declarations upon presentation of the license to examine and allow passage of the items in accordance with the relevant State regulations.

ARTICLE 18

The SACMPT will formulate the procedures for reviewing and approving military exports and contracts and for issuing military export licenses.

ARTICLE 19

Military export notification will be issued jointly by the State Bureau of Military Products Trade with other relevant departments. Upon receipt of such notification, the departments and local people's governments concerned shall seriously fulfill their duties in accordance with the relevant State provisions to ensure the safety, promptness and accuracy of military exports.

IV. Military Export Order

ARTICLE 20

No units or organizations shall engage in military export activities without obtaining authorization in advance.

The State prohibits individuals in military export operations.

ARTICLE 21

Military trading companies shall abide by the law and provisions of administrative regulations in their military export activities to ensure the normal order of military exports.

ARTICLE 22

Military trading companies shall not exhibit any of the following behaviors in their military export activities:

- (1) Endanger national security or social and public interests;
- (2) Supplant competitors with unfair competitive means;

(3) Infringe upon intellectual rights protected by the laws of the People's Republic of China;

(4) Forge, alter, fraudulently obtain or transfer military export approval documents, contract approval documents, licenses, valid certificates from recipient countries, and other documents;

(5) Exceed the defined and approved scope of activities;

(6) Other activities that violate the laws and administrative regulations.

ARTICLE 23

The State Bureau of Military Products Trade, on its own initiative or upon requests from other military trading companies, can take actions against conducts that interfere with the normal military export order.

V. Legal Responsibilities

ARTICLE 24

The State Bureau of Military Products Trade will give warning to and demand within a definite time corrective measures from the military trading companies that violate Article 11 of the Regulations. If no correction is made within the prescribed period of time, the State Bureau of Military Products Trade will request the SACMPT to revoke the military export authorizations granted to such military trading companies.

ARTICLE 25

The military trading companies that violate Article 21 and Article 22 of the Regulations will be penalized by the relevant State authorities according to the laws and administrative regulations. The State Bureau of Military Products Trade can request the SACMPT to revoke the military export authorizations granted to such military trading companies.

ARTICLE 26

Units that violate Article 20 of the Regulations will have their illegal activities closed down by the State Bureau of Military Products Trade and will be penalized by the State authorities concerned according to the relevant laws and administrative regulations.

ARTICLE 27

Any violations to the Regulations that constitute criminal offenses will be prosecuted according to law.

ARTICLE 28

Military trading companies that plead not guilty to the penalization that revokes their export authorizations can apply for review to the SACMPT within fifteen days of receipt of the penalization notification. The SACMPT shall make a review decision within fifteen days of receipt of the application. The review decision shall be deemed final.

ARTICLE 29

Staff working in national military export administration and management posts who neglect duties, perform fraudulent practices for selfish ends, abuse power, or accept and demand bribes shall be prosecuted according to law if criminal offenses have been committed. Disciplinary penalties will be given to those whose conducts do not constitute criminal offenses.

VI. Appendix

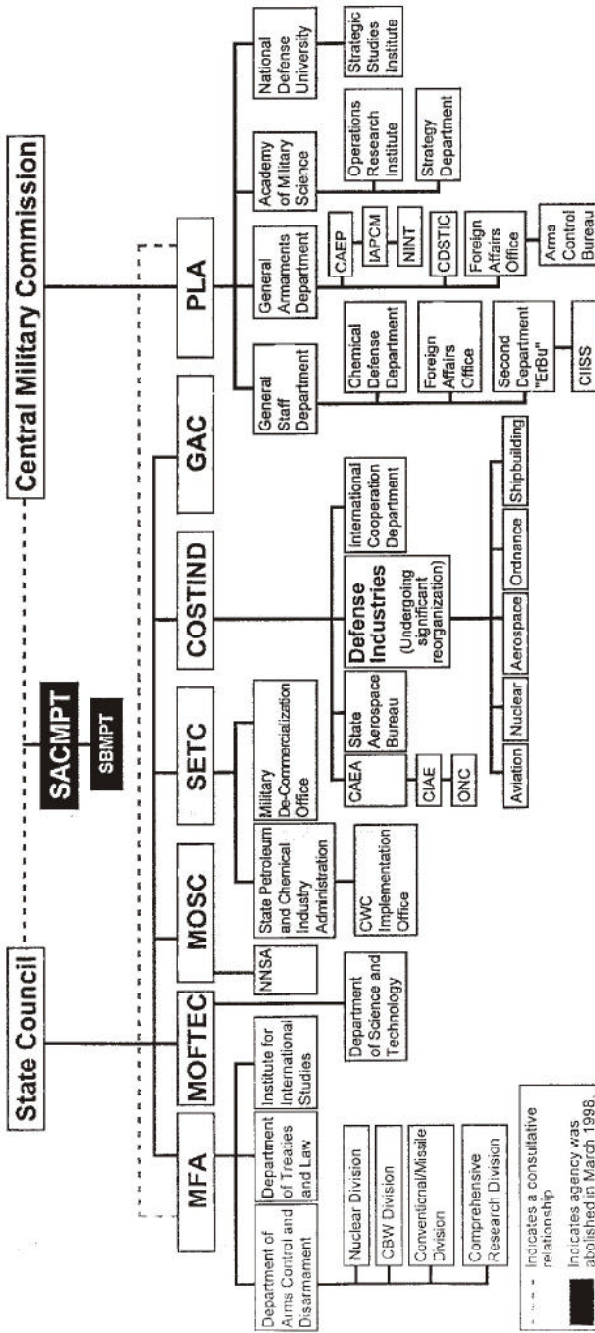
ARTICLE 30

The export of police-purpose equipment is governed by the Regulations.

ARTICLE 31

The Regulations become effective on January 1, 1998.

APPENDIX III. PRINCIPAL ORGANIZATIONS
IN CHINA'S NONPROLIFERATION AND ARMS
CONTROL COMMUNITY.



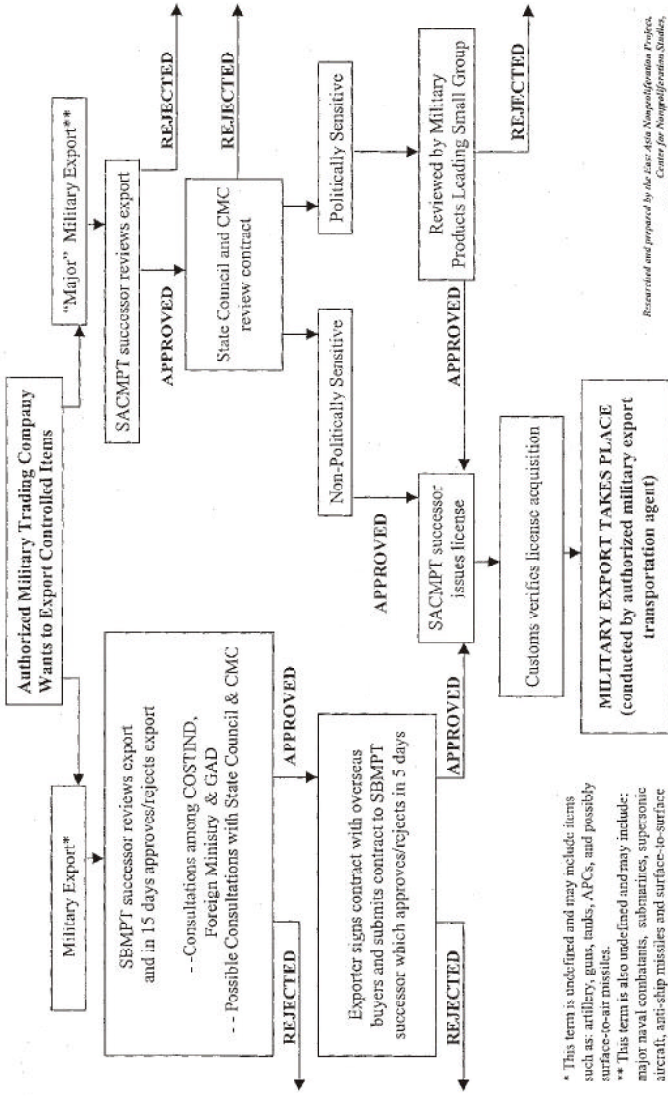
APPENDIX IV. ENGLISH-CHINESE GLOSSARY OF
CHINESE ORGANIZATIONS.

English	Pinyin	Characters
Aviation Industries of China (AVIC)	Zhongguo hangkong gongye zonggongsi	// 中国航空工业总公司
Aviation Industries of China I (AVIC I)	Zhongguo hangkong gongye diyi jituan gongsi	// 中国航空工业第一集团公司
Aviation Industries of China II (AVIC II)	Zhongguo hangkong gongye dier jituan gongsi	// 中国航空工业第二集团公司
Central Military Commission (CMC)	Zhongyang junshi weiyuanhui (zhongyang junwei)	√ 中央军委 (zhongyang junwei)
China Aerospace Corporation (CASC)	Zhongguo hangtian gongye zonggongsi	// 中国航天工业总公司
China Aerospace Science & Technology Corp.	Zhongguo hangtian keji jituan gongsi	√ 中国航天科技集团公司
China Aerospace Machinery & Electronics Corp.	Zhongguo hangtian jidian jituan gongsi	√ 中国航天机电集团公司
China Atomic Energy Agency (CAEA)	Zhongguo guojia yuanzineng jigou	√ 国家原子能机构
China Defense Science and Technology Information Center (CDSTIC)	Zhongguo guofang keji xinxi zhongxin	// 国防科技信息中心
China Great Wall Industry Corporation (CGWIC)	Zhongguo changcheng gongye gongsi	√ 长城工业总公司
China National Aero-Technology Import-Export Corporation (CATIC)	Zhongguo hangtian jishu jinchukou gongsi	// 中国航空技术进出口总公司
China National Nuclear Corporation (CNNC)	Zhongguo henerng zonggongsi	√ 中国核工业总公司
China Nuclear Engineering and Construction Group (CNEC)	Zhongguo hegongye jianshe jituan gongsi	// 中国核工业建设集团公司
China North Industries Corporation (NORINCO)	Zhongguo beifang gongye zonggongsi	// 中国北方工业总公司
China North Industries Group Corporation (CNGC)	Zhongguo beifang gongye jituan gongsi	√ 中国北方工业集团公司
China South Industries Group Corporation (CSGC)	Zhongguo nanfang gongye jituan gongsi	// 中国南方工业集团公司

China Precision Machinery Import-Export Corporation (CPMIEC)	Zhongguo jingmi jixie jinchukou gongsi	$\sqrt{Z \neq \leftrightarrow \rho \Leftarrow \approx \angle \alpha / \geq} \downarrow \downarrow$ $\neq \leftrightarrow \alpha -$
China Shipbuilding Trading Corporation (CSTC)	Zhongguo chuanbo gongye maoyi gongsi	$\rho \neq " \{ \rho \} \sim \partial T \heartsuit / \infty 0$
China State Shipbuilding Corporation (CSSC)	Zhongguo guojia chuanbo jituan gongsi	$\rho \neq \rho \rightarrow \alpha " \{ \rho \neq \in / \infty \theta$
China State Shipbuilding Industry Industry Corp.	Zhongguo chuanbo gongye jituan gongsi	$\sqrt{Z \neq \times \leftarrow " \circ \neq / \otimes \alpha \dots \downarrow \subseteq \oplus$ $\neq \leftrightarrow \alpha -$
General Administration of Customs (GAC)	Haiguan zongshu	$\equiv \leq \neq \leftarrow \supset \square$
General Armaments Department (GAD)	Zong zhuangbei bu	$\leftarrow \circ \neq \supset \downarrow$
General Logistics Department (GLD)	Zong houqin bu	$\exists \leftrightarrow \{ \partial^{TM} \geq Y$
General Staff Department (GSD)	Zong canmou bu	$\exists \circ \neq \downarrow \downarrow \geq Y$
Military Products Leading Small Group	Junpin chukou lingdao xiaozu	$- \otimes \bullet \geq \downarrow \downarrow \downarrow \downarrow \{ \in \dots \angle Y $
Ministry of Foreign Affairs (MFA)	Waijiaobu	$\subseteq \otimes \approx \downarrow$
Ministry of Foreign Trade and Economic Cooperation (MOFTEC)	Duiwai maoyi jingji hezuo bu	$\partial^{TM} \subseteq \otimes \rho \geq \otimes \rightarrow \uparrow \dots \rho \neq \in \cdot " \downarrow$
People's Armed Police (PAP)	Zhongguo renmin wuzhuang jingcha budui	$\sqrt{Z \neq \cup \alpha \rho \} \in^{TM} \circ \downarrow " \downarrow \partial \otimes$
People's Liberation Army (PLA)	Zhongguo renmin jiefangjun	$\sqrt{Z \neq \cup \alpha \rho \} \otimes \bullet \oplus - $
People's Liberation Army Air Force (PLAAF)	Zhongguo renmin jiefangjun kongjun	$\rho \neq / H \infty \exists \div \nabla \heartsuit \uparrow \xi \bullet \oplus \uparrow \xi$
State Administration Committee on Military Products Trade (SACMPT)	Guojia junpin maoyi guanli weiyuanhui	$\neq \dots \otimes - \otimes \bullet \rho \geq \otimes \neq \in \aleph$ $\{ \in \downarrow^{TM} \pm \approx \{$
State Bureau of Military Products Trade (SBMPT)	Guojia junpin maoyi ju	$\neq \dots \otimes - \otimes \bullet \rho \geq \otimes - \downarrow$
State Commission on Science, Technology and Industry for National Defense (COSTIND)	Guofang keji gongye weiyuanhui (guofang kegongwei)	$\neq \bullet \aleph \downarrow \otimes \dots \neq \otimes \alpha \in \downarrow^{TM} \pm \approx \{$ $(\neq \bullet \aleph \downarrow \otimes \neq \in \downarrow)$
State Economic and Trade Commission (SETC)	Guojia jingji maoyi weiyuanhui	$\neq \dots \otimes - \uparrow \dots \rho \geq \otimes \in \downarrow^{TM} \pm \approx \{$

APPENDIX V. CHINA'S EXPORT CONTROL SYSTEM FOR MILITARY ITEMS.

(Based on October 1997 Regulations)



* This term is undefined and may include items such as: artillery, guns, tanks, APCs, and possibly surface-to-air missiles.
 ** This term is also undefined and may include: major naval combatants, submarines, supersonic aircraft, anti-ship missiles and surface-to-surface missiles.

*Recreated and prepared by the East Asia Nonproliferation Project,
 Center for Nonproliferation Studies,
 Monterey Institute of International Studies,
 Monterey, CA*

APPENDIX VI

INTERNET SITES FOR CHINESE ORGANIZATIONS INVOLVED IN MILITARY EXPORTS AND EXPORT CONTROLS

China Great Wall Industry Corporation
www.cyberexp.com/company/gw/gw.htm

China Precision Machinery Import-Export Fuzhou
Corporation
www.nease.net/~Ingzol/tungoil.html

China Precision Machinery Import-Export
Shenzhen Corporation
www.cpmiesc.com

China National Aero-Technology
Import-Export Corporation (CATIC)
www.catic.com

Aviation Industries of China
www.avic.com.cn

China Shipbuilding Trading Company Ltd.
www.shipbuilding.com.cn
cstckm.com
www.chinaships.com

China Xinxing Export-Import Corporation
www.cxxc.com/xinxing-homepage

China North Industries Corporation (NORINCO)
www.norinco.com
www.norincogroup.com.cn

General Defense Industry-related Websites
www.nuclear.cetin.net.cn
www.aero.cetin.net.cn

www.electron.cetin.net.cn

www.ship.cetin.net.cn

www.north.cetin.net.cn

State Commission on Science Technology and
Industry for National Defense (COSTIND)

www.costind.gov.cn

Ministry of Foreign Affairs

www.fmprc.gov.cn

Ministry of Foreign Trade and Economic
Cooperation

www.moftec.com

State Economic and Trade Commission (SETC)

www.setc.cn.net

ABOUT THE AUTHORS

EVAN S. MEDEIROS is currently a Senior Research Associate on the East Asia Nonproliferation Project at the Center for Nonproliferation Studies in Monterey, California. During 2000, he is visiting fellow at the Institute of American Studies at the China Academy of Social Sciences in Beijing and a frequent lecturer at China's Foreign Affairs College. Before joining the Center for Nonproliferation Studies, Mr. Medeiros was a Fulbright Scholar at the University of Cambridge and the School of Oriental and African Studies, University of London (SOAS).

Prior to working and studying in the United Kingdom, Mr. Medeiros was a Senior Research Analyst at the Arms Control Association in Washington, DC. From 1993-95, Mr. Medeiros was a Project Associate with the Nuclear Non-Proliferation Project at the Carnegie Endowment for International Peace and co-author with Leonard Spector and Mark G. McDonough of *Tracking Nuclear Proliferation* (1995). Mr. Medeiros' articles have appeared in such publications as *The China Quarterly*; *Issues and Studies: A Journal of Chinese Studies and International Affairs*; *The Los Angeles Times*; *The Washington Post*; *International Herald Tribune*; *Christian Science Monitor*; *The Boston Globe*; *Defense News*; *Asia Times*; and the *San Diego Union-Tribune*.

He holds an M.Phil in International Relations from the University of Cambridge, an M.A. in China Studies from the University of London's School of Oriental and African Studies, and a B.A. in Philosophy from Bates College. Mr. Medeiros is currently a Ph.D. candidate at the London School of Economics and Political Science writing a dissertation about the role and significance of arms control in U.S.-China relations since normalization.

BATES GILL is Senior Fellow in Foreign Policy Studies and Director of the Center for Northeast Asian Policy

Studies at the Brookings Institution in Washington, DC. He previously directed East Asian programs at the Center for Nonproliferation Studies at the Monterey Institute, Monterey, California, and at the Stockholm International Peace Research Institute, and formerly held the Fei Yiming Chair in Comparative Politics at the Johns Hopkins University Center for Chinese and American Studies, Nanjing, China. A specialist in East Asian foreign policy and politics, his research focuses primarily on Northeast Asian political, security, and military-technical issues, especially with regard to China. His current research addresses the divergence in strategic outlook which characterizes the U.S.-China relationship.

He is the author of two books, *China's Arms Acquisitions from Abroad: A Quest for "Superb and Secret Weapons"* (Oxford University Press, 1995, with Taeho Kim) and *Chinese Arms Transfers* (Praeger, 1992). His third book, for which he is co-editor, is entitled, *Arms, Transparency, and Security in Southeast Asia* (Oxford University Press, 1997). His works have appeared in *The Washington Post*, *Christian Science Monitor*, *Pacific Review*, *Asian Survey*, *Foreign Affairs*, *National Interest*, *Orbis*, *China Economic Review*, *China Quarterly*, *SIPRI Yearbook*, *Far Eastern Economic Review*, *Jane's Defence Weekly*, *Aviation Week & Space Technology*, *Jane's Defence Yearbook*, and *Business Times*.

Dr. Gill received his Ph.D. in foreign affairs from the Woodrow Wilson Department of Government and Foreign Affairs, University of Virginia.

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Director
Professor Douglas C. Lovelace, Jr.

Director of Research
Dr. Earl H. Tilford, Jr.

Authors
Mr. Evan S. Medeiros
Dr. Bates Gill

Director of Publications and Production
Ms. Marianne P. Cowling

Publications Assistant
Ms. Rita A. Rummel

Composition
Mrs. Christine A. Williams

Cover Artist
Mr. James E. Kistler