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Premier Wen Jiabao Meets with African Leaders

In A Fortnight

By Joseph E. Lin

Beijing Wraps Up Forum on China-Africa Cooperation with Pledges of Aid and Cooperation

The two-day Beijing summit of the Forum on China-Africa Cooperation (FOCAC) concluded with additional pledges of support from China in the form of bilateral and multilateral cooperation, loans and lucrative contracts. Among the various infrastructure development projects that were discussed between Beijing and its African counterparts were a number of undertakings focused upon the development of transportation links that would facilitate in the transfer of oil and other natural resources. In his meeting with President Mwai Kibaki of Kenya, President Hu Jintao agreed to continue supporting the construction of the Kima-Chemasuru Road as well as the Kipsagak-Serem-Shamakhokho Road, both of which run through western Kenya (KBC Online, November 4). Beijing also agreed to assist a massive housing and roads project in Equatorial Guinea in conjunction with the granting of a US$2 billion interest-free loan to the central African state (AFP, November 8).

In addition, as part of its soft power campaign in Africa, Beijing agreed to establish Confucius Institutes throughout additional countries. China's Confucius Institutes, the first of which were established at the University of Nairobi in Kenya last December, are organizations that focus upon Chinese language and cultural instruction and have become immensely popular. According to China's Ministry of Education, some 8,000 African students are studying Chinese at Confucius Institutes as well as at other language centers. On the sidelines of the summit, the second conference of Chinese and African Entrepreneurs was also held and ended with a total of $1.9 billion in private contracts being signed (Ghanaweb, November 5). In addition, the business communities of each side agreed to establish a China-Africa Joint Chamber

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of Commerce and Industry to facilitate the exponentially increasing trade relationship. Just days after the conclusion of the FOCAC meeting, Nigeria announced that its second satellite, the Chinese manufactured NigCom Sat I, would be launched on March 13, 2007.

Jamestown intern Alexandra Frasca provided research assistance.

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New Developments in the PLA's Operational Doctrine

By Nan Li

In late 1997, China's military planners raised, for the first time, the issue of "leapfrogging development" for its military modernization. At the time, the modernization of the People's Liberation Army (PLA) had been largely focused on mechanization—the acquisition of more advanced operational platforms. The concept of joint operations (JO or *lianhe zuozhan*) was endorsed to make operational sense of these new platforms, or "elite forces and sharp arms." Such an emphasis, however, widened the technological gap between the PLA, which was still mechanizing, and the more advanced militaries, which by that time, had already completed mechanization and were concentrating on informationization. To narrow the technological gap, a new policy was articulated and adopted by the CMC in late 2002 to guide the PLA's transformation: "Strive to accomplish the dual-historical task of mechanization and informationization." The endorsement of a policy of dual-construction connotes that the PLA's transformation should simultaneously encompass mechanization and informationization. The emphasis, however, would shift from mechanization to informationization, because unlike the industrial age when hardware capabilities determined the outcomes of wars, in the information age, information would be the determinant of future wars. To operationalize the dual-task of mechanization and informationization, PLA strategists have articulated and advanced the new concept of "integrated joint operations" (IJO or *yitihua lianhe zuozhan*) [1].

Major Differences between JO and IJO

Both JO and IJO involve two or more services, and operations are under a single unified command for the purpose of realizing common objectives. Yet, there are major differences between the two, particularly in terms of primary actors and their structures, service boundaries and identities, coordination, levels/space/timing of operations and operational effects.

The primary actors of JO, for instance, are relatively independent services. Each of these services possesses its own information system that lacks effective lateral linkages and channels for communications and information transmission. As a result, the structure of this system is vertical, narrow and tall, and JO are based on an ad hoc combination of several tall, smokestack-shaped services. The primary actor of IJO, however, is an integrated system comprised of operating units (land, sea, air, space and electronic warfare) and essential operational elements. These elements include 1) ISR (information, surveillance and reconnaissance) that is space, air, sea and land-based and provides battlefield transparency leading to the precision of decisions and operations; 2) C4 (command, control, communications and computer) that connects the highest command and the lowest individual platform, and soldiers and units of both front and rear; 3) K (kill), or digitized and interconnected weapons platforms that constitute a network of superior firepower capable of non-contact, nonlinear and asymmetrical strikes; and 4) integrated logistics. The technical platform that glues operating units and essential elements together is the unified information network that enables both smooth communications and real-time information transmission through data-links. The structure of such a system is flat, broad and short, mainly because it is networked.

In JO, each service is highly specialized in its primary function. As a result, service boundaries are clear, service identities are strong and the relationship among services is defined by equality. "Physical jointness" is also necessary to enable the primary function of each service. In IJO, however, service boundaries and identities may become blurred because 1) a single service, unit or platform may be capable of multiple functions (such as information, mobility, firepower and protection) in different spatial domains, and 2) different services, units or platforms may have similar functions (such as long-range precision munitions launched from land, naval and air platforms and monitored and adjusted by surveillance and command and control). These reduce the need for the physical massing of services-based forces and arms for joint operations. Therefore, modular units capable of multiple functions for operations in different spatial domains for varied tasks are the basic units for IJO. These units are also capable of being plugged into the information network to achieve interconnectedness, intercommunications and interoperability.

Coordination in JO is largely preplanned and based on a services-oriented division of labor. The planning process may involve layered levels and complex procedures. The

implementation follows the prescribed order of the plan. Because such a coordination plan is not based on good, real-time information but on the fixated role of different services, it is difficult to change and cannot adapt to rapidly changing environments during execution, thus creating windows of vulnerabilities. Coordination in IJO, however, is random, initiative-based, mutually interactive and continuous. Given that all the units are interconnected by the information network, they are able to share accurate, real-time information. This type of coordination is more flexible and precise and can adjust faster to changing circumstances.

The differences between JO and IJO can also be illustrated in terms of the levels, depth and timing of the operations. In terms of operational levels for JO, due to the lack of precise friend-or-foe identification and precision strikes, a clear line of contact is necessary to differentiate enemy position from one's own position for air strikes. Once both sides become closely intertwined, the safe distance diminishes and air support becomes difficult for fear of friendly-fire casualties. As a result, air-land operations can only be conducted at campaign and not battle levels. In IJO, however, the issue of enemy identification and precise air strikes has been largely resolved by information technology (IT). As a result, joint operations can be extended to more detailed and narrower domains and be conducted at tactical and battle levels without fear of friendly-fire casualties. This also makes it possible to conduct asymmetrical strikes against the opponent—strikes with technologies that the opponent does not possess and therefore finds difficult to defend against.

Regarding operational depth, the limited range of strikes in JO, stemming partly from poor weapons guidance and target acquisition, makes it difficult to hit deep strategic target. As a result, JO must follow the sequence of tactical space conquest, campaign space conquest and final occupation of the strategic heartland of the opponent. In IJO, however, the wide application of IT has alleviated the problem of long-range weapons guidance and target identification and acquisition. As a result, it is now possible to strike deep enemy targets of strategic importance, or those that sustain the opponent's war effort. The destruction of these targets makes it more difficult for the opponent to continue fighting and therefore more likely to yield. As a result, the need for total conquest and final occupation of enemy territory declines. This also makes it possible to replace the older operational style of sequential, linear pushes by concentrated forces and arms with parallel and nonlinear deep strikes from multi-dimensional and dispersed platforms. These strikes are also asymmetrical because they are outside the range of enemy fire and therefore denies the enemy the means to fight back.

Lastly, in terms of operational timing, the lack of real-time information capabilities and precision air strikes prevent JO from being launched during times of darkness and when the sides become closely entangled. As a result, two windows of vulnerabilities appear: night combat and close combat. In IJO, IT helps to resolve the problems of real-time information and operational capabilities and close-range precision strikes. As a result, real-time battlefield transparency produced and provided by the information network and accessed by service units and air support enables quick and decisive battles, which also lowers the concern of exposing one's flanks during a high-speed advance. This means that unit coordination is action-based, flexible and adaptable, but not plan-driven because of the fast changing circumstances. The information network also makes it possible for action-based coordination.

The final difference between JO and IJO concerns operational effects. In JO, because of the lack of IT-based integration, competition largely takes place at the unit level. As a result, operations tend to be more separate, the process slower and dispersed, and the effects more fragmented. Due to the high level of IT-driven integration, however, competition in IJO takes place at the system level. As a result, operations tend to be more focused and purposeful, the pace faster and the effects more systemic and comprehensive. The absence and presence of highly effective, integrative C4KISR is clearly the key variable that accounts for the differences between JO and IJO: serious gaps or windows of vulnerabilities in operational levels, depth and timing due to the lack of integration in the former and seamlessness due to a high level of integration in these three aspects for the latter.

Driving Factors and Implications

Three major factors seem to drive the post-2002 change in the PLA's operational doctrine and strategies. The first has to do with leadership change and power consolidation. Trained as an electrical engineer and having once served as China's Minister of Electronics Industry, Jiang Zemin, as the new chairman of the Central Military Commission (CMC), had clearly been more alert to the impact of the information revolution on military affairs than his predecessor Deng Xiaoping and the old guards of the PLA such as Liu Huaqing and Zhang Zhen. It was not until after Deng's death and the retirements of Liu and Zhang from the CMC in 1997, however, that Jiang felt that his power was secure enough for him to begin to promote this change in Chinese military affairs. The move was also intended to further consolidate his position as the CMC chair and to demonstrate to the PLA generals that he was just as competent in military affairs, if not more so than his predecessor, despite having never served in the PLA. This

would help to enhance his personal image in the PLA and further consolidate his position as the CMC chair. While Jiang had largely won the political loyalty of the generals by increasing defense spending and promoting several of them to higher ranks, Jiang did not want the generals to meddle in party and government affairs, which would complicate his image and position as an effective leader. Therefore, Jiang endorsed two new military policies since 1998, the first of which was to order the PLA to divest its business activities. The second was to promote the concept of the Revolution in Military Affairs (RMA) in the PLA, as an effective way to focus the attention of the generals on the narrow military-technical issues rather than on the broader area of civilian politics.

The second driving factor relates to the development of China's military research and learning. Military research and learning in China have largely been institutionalized over time, and institutions such as the Academy of Military Science and National Defense University have become the major reservoirs of translated foreign military literature, particularly those from the United States on the RMA. They also serve as the primary agencies for socializing RMA ideas among China's military and civilian elite. Socialization of RMA ideas is important primarily because it contributes significantly to a general civil-military consensus, the basis for the endorsement of the 2002 policy change by the central leadership.

The last factor that drives the shift in operational doctrine has to do with promoting the institutional interests of the PLA. PLA planners argue for the change because such a change provides a legitimate reason for the PLA to develop and acquire capital and technology-intensive operational platforms and information grids. The argument justifies the allocation of more money and better technologies to the PLA, clearly serving the financial and technological interests of the PLA. Additionally, years of high economic growth have made it easier to argue for allocating more funding to finance the technological development of the PLA. Finally, the rapid growth of the civilian IT sector in China provides a strong rationale to argue for IT-based development of the PLA by exploiting dual-use technologies, which are largely associated with this sector.

Major Implications

The significance of the change is not that it reflects the current reality of the PLA, but that it provides a conceptual roadmap for the future direction of China's military modernization. Since the PLA is now conceptualized as an interconnected and organic operational system, it is likely that future attention and resources will be concentrated on PLA subsystems that have been traditionally weak and susceptible to impeding the effective formation and release of the systemic effects. These subsystems include intelligence, surveillance and reconnaissance (ISR) capabilities, a unified information network with common technical standards, powerful and precise munitions, more advanced and digitized operational platforms and key technologies, such as the data-link.

It is important to note, however, that whether the policy of "informationization" can be successfully implemented may depend on whether the PLA continues to enjoy the generous financial support from the central civilian authorities. Moreover, whether the PLA may obtain access to and integrate the more advanced IT also affects the outcome of the policy. Equally important as to whether the new policy will succeed may depend upon the PLA overcoming its highly bureaucratic and secretive, information-averse culture.

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Notes

1. The following analysis is based upon information from professional Chinese military literature.

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China in Angola: An Emerging Energy Partnership

By Paul Hare

Despite the impressive economic ties between China and Angola in recent years, their historical relations have suffered periods of strain and volatility. During Angola's struggle against Portuguese colonial rule, China provided training and assistance to UNITA, one of the three rival national liberation movements in Angola, while the Soviets supported the MPLA and the United States initially backed the FNLA. When independence was achieved in November 1975, the MPLA controlled the capital, and its leader, Agnostinho Neto, became the first president of Angola. Although China subsequently severed its ties to UNITA, the two countries did not establish diplomatic relations until 1983, a reflection, perhaps, of the previously strained relationship between the two governments. During the next two decades, China maintained a fairly low profile in Angola, providing only small-scale assistance. There were reports that Beijing had helped establish a fishing cooperative, an electric appliance factory and a low-cost

housing project. In light of what was to come, however, the Chinese role during these two decades was modest.

The Turnaround

Relations between the two countries took an about face in March 2004 when China's Export-Import Bank (Eximbank) offered a US$2 billion oil-backed loan to Angola on very favorable terms (*Financial Times*, March 4). The reasons for an offer of this magnitude soon became clear. Shell had divested itself of its oil interests in Angola and had negotiated a deal with Indian oil companies to take over its 50% equity-stake in deep-water Bloc 18, operated by BP. Sonangol, Angola's national oil company, exercised its right of first refusal and instead, gave the equity stake to Sinopec, one of China's national oil companies (*The Financial Express*, March 8, 2005). In another development reflecting China's increased clout, Sonangol refused to extend France-based Total's concession over one part of offshore oil Bloc 3, presumably because of an Angolan pique with the French government over the "Angolagate" affair; Sinopec was the end beneficiary of the new arrangement.

In the most recent round of bidding this year, the Sonangol-Sinopec consortium (SSI) made record breaking bids amounting to $2.2 billion in signature bonuses to obtain rights in relinquished areas of deep-water Blocs 17 and 18 (*Business Week*, June 7). The Chinese were not the only ones bidding high. In an earlier round in April, ENI, the Italian oil company, bid over $900,000 to win operating rights for the relinquished areas of Bloc 15. SSI received a 20% share in that bloc. Although SSI has the major equity stake in the relinquished areas of Bloc 18 (40%), Petrobras, the Brazilian oil company, will be the operator because the Chinese lack the capability to develop deep-water areas (Latin American News, November 6).

China's motivations to strategically target Angola for investment are multifaceted, ranging from the level of political stability to its natural resources. Angola enjoys a large measure of political stability, especially since the death of Jonas Savimbi, UNITA's leader, in February 2002. Furthermore, in April of that year, new peace accords were signed between the government and UNITA; most observers believe that in contrast to previous agreements, the peace will last this time around. Even during the years of war, the major oil companies had established good working relations with Sonangol and were able to carry out operations off the coast of Angola without interruption. A further consideration for China was that Angola's oil production has surged in recent years and is expected to reach 2 million bpd in 2007. The deep-water blocs have been especially prolific, and even though the oil majors (BP, ExxonMobil and Total) have presumably explored and developed the best parts of Blocs 15, 17, and 18, there is the promise of additional oil to be found in the relinquished areas.

In addition to acquiring equity-stakes in oil concessions, the Chinese have also invested in the development of Angola's oil processing infrastructure. Sinopec and Sonangol have formed a consortium to build a major new refinery in Lobito. Sonangol and the Ministry of Petroleum had previously attempted to attract the oil majors to invest in the project but were unsuccessful because of concerns about the project's financial viability. Emblematic of the burgeoning relationship between the two countries, Angola surpassed the Saudis and became the number one oil exporter to China in February 2006 (*Financial Times*, October 26).

Beyond the Oil Sector

Under the ambit of the $2 billion loan, Chinese companies are engaged in a host of projects throughout Angola, constructing schools, clinics, hospitals and low-cost housing and building basic infrastructure, such as roads and bridges. The most ambitious undertaking is the rehabilitation of the Benguela railroad, linking the port of Lobito on the Atlantic with the DRC and Zambia, the old copper route. The Chinese are also working on the railroad linking Luanda with Malange, a major town in the interior of the country. Other major projects include the new airport in Luanda, where Chinese Premier Wen Jiabao was welcomed upon arrival by Angolan Prime Minister Fernando ad Piedade Dias dos Santos (Xinhua, June 20). The Chinese telecommunications company, ZTE, is modernizing and expanding Angola Telecom's fixed line telephone network, as well as investing in military communications and establishing a telecommunications training facility. Another Chinese company is working on the production center for Angola's television station (Afrol News, March 7, 2005).

Indicative of the growing Chinese business presence, 26 Chinese companies established a Chamber of Commerce in Luanda earlier this year. At this point, the bulk of Chinese projects are of the "brick and mortar type" and are focused on infrastructure rehabilitation, which correspond to the Angolan government's strategy of giving top priority to reopening the country's transportation corridors devastated by the 27 years of war. Investments or assistance to promote long-term sustainable development and capacity building are thus far minimal, though there have been reports of Chinese involvement in funding a $40 million cotton growing project (Angola Press Agency, November 6).

Lack of Transparency in Activities

In spite of the magnitude of China's projects in the country, very little is known about them. For instance, it is unclear exactly how much money in the form of aid and loans has been offered by Beijing; estimates vary from $2 billion to $9 billion. The Angolan government maintains that the level is currently $2 billion, which most likely reflects the fact that the original Eximbank loan of $2 billion has not yet been used up, but that further monies will be become available once it is. It is also unclear exactly how many Chinese nationals are currently residing in Angola, with reports citing anywhere between 10,000 to 80,000. While Angolan officials have dismissed the upper end of the estimates, they themselves do not offer an official count.

The bidding process for the lucrative contracts is likewise opaque, as it is unclear how many Angolan companies have received contracts under the Chinese loan, though according to the terms of the Eximbank agreement, 30% are supposed to go to the Angolans. Nor is it known how many Angolans are employed by the Chinese, though once again this is stipulated in the agreement. Whatever the facts may be, the popular perception is that the Chinese have gotten the lion's share of the loan money and have brought large numbers of Chinese workers to carry out their projects.

Challenges and Opportunities Ahead

Unlike Sudan or Zimbabwe, Angola's growing partnership with China should not be viewed as a serious threat to the interests of the West or the United States. Although China's propensity to lock into oil supplies runs counter to the West's preference for it to rely on market supply and demand mechanisms, it is at a high cost to the Chinese and does not seriously degrade U.S. energy security. Of more immediate concern is the competitive advantage that Chinese oil companies enjoy because of credit lines and other incentives offered by the Chinese government and its agencies. Angola is not yet an exclusive Chinese market, however, and Angola does not look at China as its sole or even most important partner. Angolans want high quality goods and services from the West and the United States and welcome western investments in the non-oil sectors. The recent purchase of Boeing aircraft, amounting to almost $1 billion, by TAAG, Angola's national airline, underlines this point. Five of the aircraft are scheduled to arrive in Luanda on November 11, Angola's Independence Day. Similarly, GE may be supplying locomotives to Angola's railroad system.

The infusion of money and lines of credit from China certainly diminishes the influence of the International Monetary Fund (IMF) and other actors that would like to promote economic reform and liberalization in Angola. Yet this should not be exaggerated, as Angola remains interested in having its debt rescheduled at the Paris Club and continues to maintain a dialogue with the IMF. An IMF mission is scheduled to go to Luanda at the end of November to engage in further discussions. The World Bank also remains engaged in a number of areas, including the organization of petroleum management workshops in Angola in May 2006, which high-ranking Angolan officials attended.

The massive influx of Chinese businesspersons and companies into Angola has been received with a mixed response. Anecdotal evidence suggests that there is already a growing resentment of the Chinese presence in Angola. There has been talk of the "Chinese Invasion" and complaints that the Chinese are taking jobs and contracts away from the Angolans. Moreover, the Chinese have not been transferring skills or technology to the Angolans, raising the question of what happens once a project is completed. Others, including those at high levels of government, have criticized the quality of the goods and services that Angola has been receiving from China. As potential evidence of the growing tensions between the two countries, President José E. dos Santos chose to visit Moscow with a high-powered delegation, while sending his Prime Minister to the recent China-Africa Cooperation Forum (FOCAC) summit in his stead. Whether or not this was a signal to China is difficult to tell. President dos Santos does not particularly like to sit in large meetings of leaders wherever they might gather, but one would understand if the Chinese were to interpret his absence as a rebuff.

China is in Angola for the long haul—or at least as long as the oil continues to flow—but the same can be said about other countries. The Chinese now have significant equity-stakes in offshore oil and in the construction of an oil refinery, which will remain even if their other construction projects were to taper off. At the same time, the Chinese can expect the Angolans to become more insistent on quality performance and the transfer of skills and technology in the same way that the oil companies are expected to train Angolan nationals and outsource to Angolan companies. If anything, the absence of President dos Santos at the FOCAC summit was a warning to Beijing that nothing should be taken for granted in Angola, even by China.

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Defense Reform and Civilian Control in Taiwan

By Michael Chase

Acquiring high-tech weapons systems and enlisting U.S. support have been Taiwan's primary attempts to counter the growing Chinese military threat across the Taiwan Strait. In recent years, however, it has become increasingly clear that some of the most pressing challenges facing Taiwan's armed forces have more to do with "software" issues, such as strategy and doctrine, the recruitment and training of qualified personnel, and the capability to conduct joint operations [1]. Purchasing advanced military equipment and seeking firmer backing from Washington will not be sufficient unless Taipei successfully addresses these underlying problems. Consequently, Taiwan has embarked on a series of major defense reforms designed to address these challenges. Establishing civilian control over the military and reorganizing the defense bureaucracy are the most crucial components of Taiwan's defense reform program. This process is a necessary precondition for the implementation of the rest of the defense reforms and the further improvement of Taiwan's defense capabilities [2].

Historically, these efforts are also closely associated with Taiwan's democratization and the nationalization of the armed forces and the establishment of civilian control are critical to the democratic consolidation of Taiwan [3]. During the period of martial law from 1949-1987, the military was loyal not to the state, but to the ruling party, the Kuomintang (KMT). The military actively participated in efforts to mobilize voters and was heavily involved in the suppression of opposition to the KMT regime. Military officers, composed primarily of mainlanders, held seats on the most powerful KMT bodies and filled numerous government positions. Additionally, the military was permeated by a political commissar system that ensured its loyalty to the ruling party. The Chief of the General Staff (CGS) reported directly to the President, bypassing Taiwan's cabinet, the Executive Yuan, and minimizing legislative oversight of defense affairs. In addition, there were no civilian defense policy experts. In the words of one Taipei-based analyst, under Chiang Kai-Shek and Chiang Ching-Kuo the armed forces were the "military arm of the KMT instead of the nation. The military was infused with KMT ideology to implement the KMT's policy" [4]. The process of democratization in Taiwan, marked by the lifting of martial law in 1987 and the end of the Period of Mobilization to Suppress the Communist Rebellion in 1991, opened the way for the nationalization of the armed forces and the establishment of civilian control.

The Two New Defense Laws

Restructuring the defense bureaucracy is a central part of the broader effort to enhance civilian control over the military. Two pieces of legislation, the National Defense Law (*guofang fa*) and the Ministry of National Defense Organization Law (*guofangbu zuzhi fa*), sometimes referred to collectively as the "Two Defense Laws," are particularly crucial in this regard. After a lengthy process of drafting and debate that began in the early 1990s, the two defense laws were passed in January 2000 and took effect on March 1, 2002. The "Two Defense Laws" carry far-reaching implications for the modernization of Taiwan's military. Indeed, the potential consequences of the two laws have been described as equal to those of the 1947 U.S. National Defense Act and 1986 Goldwater-Nichols Act combined [5].

The primary purpose of the laws is to lay the groundwork for the reorganization of the defense bureaucracy, which is intended not only to consolidate civilian control and to nationalize the armed forces, but also to quicken the pace of the overall defense reform and military transformation efforts. According to Taiwan's most recent National Defense Report, the reforms and reorganization mandated by the laws have several major policy objectives, including: enhancing civilian control and promoting the "thorough nationalization of the ROC armed forces"; restructuring the defense bureaucracy; increasing the capability of the armed forces to support the mission of "effective deterrence, resolute defense"; developing the capability to conduct joint operations; and improving procurement procedures and optimizing the allocation of resources [6].

To promote the achievement of these objectives, the laws codify the political neutrality of the armed forces. Article 6 of the National Defense Act states, "The ROC Armed Forces shall remain neutral from individual, regional and party affiliations" [7]. The laws also establish a new chain of command; Article 8 of the National Defense Act states, "The President shall assume the supreme command of army, navy, and air force of the ROC, and is the commander-in-chief of the ROC Armed Forces. He exerts executive authority over the Minister of National Defense, and the Chief of the General Staff (CGS) follows the command of the Minister to lead the ROC Armed Forces" [8]. This means that the CGS, who previously reported directly to the president, is now subordinate to the civilian defense minister. The Two Defense Laws also increased the power of the defense minister by placing both the ministry staff

and the armed forces under his direct authority.

Under the new laws, the MND is thus effectively placed in charge of all major aspects of national defense. Specifically, the Organization Act of the Ministry of National Defense declares, "The Ministry of National Defense (MND) is in charge of the overall national defense affairs of the Republic of China" [9]. Accordingly, the law grants the MND authority over a number of areas that were previously the exclusive purview of the General Staff Headquarters (GSH) and the services. Specifically, the law stipulates that the MND is in charge of, among other things, the defense policy, military strategy, budgetary plans and the development of the military forces [10].

The laws thus give the minister control of both military administration and military command, for the first time placing these two functions under the jurisdiction of a single official. Moreover, Article 12 of the National Defense Law stipulates that the minister of national defense must be a civilian. Therefore, a civilian is in charge of administration, command, armament and resource allocation, and is responsible for developing military strategy and defense policy. Another important change resulting from the two defense laws is that the MND will now have the power to make important personnel decisions, a function that was previously dominated by the GSH.

The laws also reorganized the ministry and established new offices within the MND to assist the Defense Minister in carrying out his new duties, the most important of which are the Strategic Planning Department (*Zhanlue guihua si*) and the Integrated Assessment Office (*Zhenghe pinggu shi*). The MND's Strategic Planning Department is responsible for outlining the MND's vision, coordinating the organizational adjustment of the armed forces, analyzing the overall strategic environment and planning a "forward-looking and comprehensive national defense policy." Another of the Strategic Planning Department's responsibilities is promoting security cooperation and exchanges with foreign militaries [11]. The MND's Integrated Assessment Office is charged with supporting strategic planning and ensuring efficient resource allocation. The main responsibilities of the Integrated Assessment Office are to analyze and assess military strategy, plans, force structure, military capabilities and resource allocation. It is also responsible for military modeling and simulation [12].

The MND's Bureau of Armaments and Acquisition was also established as a result of the implementation of the new defense laws. Its responsibilities include developing defense procurement policies, strategies for procurement of weapons and equipment, and plans for the development of defense-related technologies. It is to provide "rapid, efficient and high-quality support" for weapons acquisition by the services [13]. The primary reasons for the establishment of the bureau were twofold. First, officials in Taiwan recognized that its existing procurement policy was often irrational, in part because inter-service rivalries tended to "distort the allocation of military resources" [14]. They concluded that there was a need to rationalize and improve the efficiency of the acquisition system. The second important motivation was to stamp out the corruption that had plagued the arms procurement process under the KMT, most notably exemplified by the scandal surrounding Taiwan's purchase of the six Lafayette-class frigates from France in 1991.

Progress and Problems

Taiwan has made enormous strides in its efforts to establish civilian control and nationalize the armed forces. The most crucial achievement has been the transformation of the military from what was essentially a "party-army" that was loyal to the KMT into a military that serves the democratically elected civilian leadership, regardless of which political party is in office. This is a particularly impressive accomplishment in light of the considerable tension between the DPP civilian leadership and some elements of the military, which dates back to the period of martial law. This tension was exacerbated by President Chen's accusation that senior military officers attempted to conduct a "soft coup" to overturn the results of the 2004 presidential election, in which Chen and Vice President Annette Lu won by a razor-thin margin following a bizarre shooting incident. Despite these tensions, the military appears to be well on its way toward internalizing its new role as a professional army that serves the civilian leadership and refrains from interfering in party politics. Indeed, the fact that few, if any, commentators in Taipei expect the military brass to become involved in the partisan battle currently raging over the corruption scandal that has engulfed the Presidential Office and is threatening to topple President Chen is a testament to the progress that has already been made.

Yet despite its progress in depoliticizing the military and civilianizing the defense bureaucracy, several major challenges remain. Perhaps the most important is the completion of the "civilianization" of the defense bureaucracy. Prior to the implementation of the "Two Defense Acts," the MND had a total of 224 personnel, of which a mere 28 were civilians. The new laws increased the authorized number of personnel to 570 and mandated that civilians must fill at least one-third of the total positions in MND headquarters. The MND has experienced difficulty in meeting this goal, and as of November 1, 2004, the number of civilian employees stood at 167 [15]. The primary

problem is the limited pool of civilians with backgrounds in defense analysis and national security affairs. It will take a considerable amount of time to develop a community of civilian defense experts in Taiwan. According to former MND officials, another problem is that the Minister and Vice Minister are not permitted to bring sufficient numbers of civilian staff with them when they assume their positions, nor are they given the opportunity to appoint civilian officials to many key mid-level positions, most of which are filled by career military officers [16]. These personnel issues reportedly contribute to the difficulty the senior officials face in controlling the military and implementing bold initiatives and major policy changes.

Still another issue is that since the passage of the "Two Defense Laws," all of the civilians who have served as the Minister of National Defense have actually been senior military officers who have retired to assume the position. The appointment of a civilian defense minister with little or no prior military experience, which some observers expect to take place within the next few years, will thus represent an important milestone on the road to the completion of the civilianization of the defense bureaucracy. In sum, Taiwan has made considerable progress, but the establishment of a truly civilian defense ministry may take as long as another decade.

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Notes

1. Michael M. Tsai and Jason C. Lin, "Funding for Taiwan's Defense Reform," *Taiwan Defense Affairs*, 4:2 (Winter 2003-2004), pp. 232-259
2. Ching-Jyuhn Luor, Huei-Huang Wang, and Jun-Hsiu Yeh, "Reinventing National Defense Organization in Taiwan," *Taiwan Defense Affairs* (*Guofang Zhengce Pinglun*), 2:1 (Fall 2001), p. 153
3. Richard H. Kohn, "An Essay on Civilian Control of the Military," *American Diplomacy*, 3 (1997), http://www.unc.edu/depts/diplomat/AD_Issues/amdipl_3/kohn.html.
4. Arthur S. Ding, "The Meanings and Future Prospects to Implement the Two Defense Laws," *Taiwan Defense Affairs* 2:3 (Spring 2002), pp. 9-10.
5. Mark A. Stokes, "Taiwan's Security: Beyond the Special Budget," p. 3, www.aei.org/docLib/20060327_060327AsianOutlook3.pdf.
6. Ministry of National Defense, *Defense Report of the Republic of China, 2002*.
7. "National Defense Act," http://law.mnd.gov.tw/FLAWDAT0201.asp?lsid=FL005392.
8. *Ibid.*
9. "Organization Act of the Ministry of National Defense," http://law.mnd.gov.tw/FLAWDAT0202.asp?lsid=FL005293.
10. *Ibid.*
11. Government of the Republic of China, Ministry of National Defense, *Zhanlue Guihua Si* [Strategic Planning Department], http://www.mnd.gov.tw/division/~defense/mil/mnd/fpd/Index.htm, accessed August 22, 2003.
12. Government of the Republic of China, Ministry of National Defense, Zhenghe *Pinggu Shi Zixungang* [Outline of the Integrated Assessment Office], http://www.mnd.gov.tw/division/~defense/mil/mnd/iao/TOCFrame.htm, accessed August 22, 2003.
13. Chen Chao-min, Vice Minister of Armament and Acquisition, Ministry of National Defense, Republic of China, "Remarks to the U.S.-Taiwan Defense Industry Conference," San Antonio, Texas, February 13, 2003.
14. Luor, Wang, and Yeh, "Reinventing National Defense Organization in Taiwan," p. 150.
15. Ministry of National Defense, ROC, *2004 National Defense Report*, pp. 133-134.
16. Authors interviews with former MND officials, September 2006.

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The Sino-Russian Arms Dilemma

By Richard Weitz

For over a decade, Russian military exports to China have constituted the most important dimension of the two countries' security relationship. Since the two governments signed an agreement on military-technical cooperation in December 1992, China has purchased more weapons platforms and hardware-related items from Russia than from all other countries combined. During the 1990s, the value of these deliveries ranged up to US$1 billion annually. In recent years, this figure has approached $2 billion per year. Through these dealings, the various branches of the People's Liberation Army (PLA) have acquired Su-27 and Su-30 advanced fighter aircraft, Mi-17 transport helicopters, Il-72 transport aircraft, A-50 warning and control aircraft, SA-10 and SA-15 air defense missiles, T-72 main battle tanks, Kilo-class diesel submarines, and two Sovremenny-class destroyers [1]. Furthermore, in early November, Beijing and Moscow appeared to be finalizing a deal in which China would purchase the Su-33, an advanced carrier-based variant of the Su-27 (Sankei Shimbun, November 6).

Despite these impressive figures, the Moscow-Beijing arms

axis is approaching a crossroad. The ongoing improvement in the quality of China's own defense industry will eventually lead to a declining demand for the advanced weapons systems that Russia currently exports. Russian officials are therefore confronted with a choice: to accept the probability of declining Chinese orders and to seek alternative markets elsewhere or to offer to sell the PLA even more advanced systems that Russian export policies have hitherto prohibited.

Russian and Chinese Motives

Moscow's decision to sell advanced conventional weapons systems to China results primarily from economic considerations. Despite the recent rise in national defense spending, the Russian government resists allocating substantial financial resources to restructuring the Russian defense industry. Citing the need to avoid repeating the Soviet mistake of competing in a ruinously expensive arms race, President Vladimir Putin and other Russian leaders have reaffirmed their commitment to hold annual military expenditures below 3% of Russia's GDP. Instead, government officials have encouraged Russian defense enterprises to sell their products abroad to earn additional revenue for reinvestment and to keep skilled workers from moving into the civilian sector. Unlike energy exports—the other commercial sector where Russia can compete effectively with foreign sellers—arms exports generate high-tech manufacturing employment as well as revenue. Government officials also appreciate the fact that many Russian companies require increased investment to develop the type of advanced conventional weapons systems that have proven so effective for Western militaries in recent wars. International markets for Russian weapons systems, upgrades, maintenance and spare parts help sustain the production lines and workers that provide essential support for the Russian military. For example, foreign funding largely paid for the development of the Su-30, which has since been incorporated into the Russian Air Force.

Several considerations explain China's interest in acquiring Russian arms. Economic factors come into play insofar as, by purchasing Russian weapons, China avoids having to research, develop and manufacture its own systems. Although China's indigenous arms industry has become more capable along with the rest of the economy, Chinese defense enterprises still lag behind their leading international counterparts in several key areas, such as advanced aviation and naval weapons. Chinese firms have been trying to design their own light fighter plane, the J-10, but have had to use Russian-provided engines, radar systems and other technologies [2]. For its more sophisticated heavy fighters, the PLA Air Force still relies on Russian-designed planes, the Su-27 and the Su-30.

Moscow's Dilemma

Although both the Russian government and its defense enterprises would like to perpetuate the current commercial arrangement, the increasing sophistication of China's defense industry is enabling Chinese manufacturers to produce more advanced weapons systems under license instead of purchasing finished systems directly from Russian manufacturers. In addition, China has already begun buying fewer complete Russian weapons platforms, such as turnkey warplanes and warships. Beijing has instead been importing more military technologies, sub-systems and other essential components that Chinese manufactures insert directly into Chinese-designed weapons systems.

The ongoing improvement in the quality of China's national defense production confronts Russian officials with a difficult choice. Until now, the Russian government has refused to sell its most advanced weapons systems—such as long-range strategic bombers or ballistic missiles—to China for fear that such weapons could disrupt the balance of power in East Asia. This policy has meant that Moscow's arms sales to Beijing have not been sufficient by themselves to enable China to compete with the more technologically advanced militaries of Taiwan or Japan. Chinese firms, however, should soon be able to substitute their own technologies for many of the expensive defense items that the PLA has acquired from Russian suppliers in the past.

In order to retain Russia's share of China's defense market, Moscow could decide to sell even more advanced weapons systems to Beijing. In January 2005, the head of the Russian Air Force said that Russia had deliberately showcased their Tu-95MS and the Tu-22M3 at the bilateral August "Peace Mission 2005" exercises to entice Chinese buyers. Although these strategic bombers are older platforms, they can launch long-range cruise missiles against air and ground targets, including U.S. aircraft carriers [3]. Another possible export item might be Russia's fourth-generation diesel-electric Lada-class submarines, the acquisition of which would also increase China's military capability against the United States and its Pacific allies. According to the Stockholm International Peace Research Institute (SIPRI), the Russian government has already offered to sell China Su-33 and Su-35 advanced combat aircraft, which are still under development [4]. Fears that the United States is seeking nuclear superiority over Russia and China—as claimed in a widely read recent *Foreign Affairs* article—could also induce Russia and China to collaborate on nuclear and ballistic missile technology [5].

Managing the Consequences

A Russian decision to sell its most advanced weapons to China could trigger a sharp U.S. reaction. In its February 2006 *Quadrennial Defense Review Report*, the U.S. Department of Defense stated: "Internationally, the United States welcomes Russia as a constructive partner, but views with increasing concern its sales of destructive weapons technologies abroad" [6]. U.S. officials allege that Russia's restrictions on arms sales are much weaker than those of Western countries, especially regarding authoritarian governments accused of massive human rights violations. U.S. officials worry that Russia's arms sales to China are accelerating the PLA's modernization and altering the military balance in the Taiwan Strait in Beijing's favor. This shift could harden Beijing's stance towards Taiwanese autonomy, facilitate another Chinese decision to threaten military force against Taipei and heighten the risk of another Sino-U.S. military confrontation over Taiwan. For this reason, the Bush administration has also made strenuous efforts to prevent the European Union from lifting its embargo on arms sales to China.

These U.S. concerns about Russian arms sales to China—even if endorsed, albeit less vocally, by India and Japan—are unlikely to determine Moscow's policy. Russian officials consistently insist that they follow all applicable international laws and United Nations resolutions regarding the export of military technology. They argue that Russian exports involve primarily defensive weapons that will not disrupt the regional balance of power. They also observe that the United States and its allies transfer large volumes of weapons to many areas of conflict, including South Asia and the Middle East. Finally, Russian representatives argue that foreign protests often reflect a desire to eliminate unwelcome Russian competition or curtail Russia's influence in important regions, such as East Asia. They repeatedly claim that, if they do not sell weapons to a particular country, another foreign supplier will. Last year, the head of Rosoboronexport, the state enterprise that manages approximately 80-90% of Russia's foreign military transactions, said, "Let's have no illusions: if we stop sending arms to export, then someone else will do it" [7]. In March 2006, Russian Defense Minister Sergey Ivanov said, "I often hear criticism that one must not sell weapons to certain states or regimes; according to this logic we cannot sell anything." Ivanov elaborated on the "double standard" theme by telling journalists that the United States exported twice as many military weapons to foreign countries, including many undemocratic regimes, as Russia exported [8].

A more substantial factor weighing against a Russian decision to transfer even more advanced military systems is that Chinese engineers might learn enough from the technology to further improve the quality of their indigenous production. Russian analysts cite past instances when Chinese technicians copied Russian weapons systems and after making slight adjustments in their parameters (e.g., changing the caliber of an anti-missile system from 100 to 105 millimeters), sold them for export [9]. Russian defense firms already have confronted increasingly unwelcome Chinese competition in third-country arms markets, such as Egypt and Myanmar. In some developing countries that previously bought predominantly Soviet arms, Russian firms have yielded much of the market to lower-cost Chinese suppliers. If China is finally able to develop advanced indigenous weapons systems for export—like the long-awaited J-10 multi-purpose fighter plane—China could become an even more formidable competitor. During negotiations in early November 2006, fears of helping Chinese competitors led Moscow to resist granting Beijing a license to deliver less advanced FC-1 fighter planes, equipped with Russian engines, to Pakistan.

In addition to the troubling prospect that the PLA could use Russian technology in a future war with Taiwan, India or the United States is the even more disconcerting increase of Sino-Russian security cooperation in other dimensions. In Central Asia, Moscow and Beijing have worked through the Shanghai Cooperation Organization to promote anti-Western policies in the region (*China Brief*, June 21). Although the nominal focus of "Peace Mission 2005" was on combating terrorism and restoring peace among hypothetical local combatants, the exercise involved large-scale air, sea and ground operations with Chinese submarines, Russian strategic bombers and 10,000 troops from both countries—the kind of forces more suited for a major conventional military operation. While Beijing and Moscow insist they have no plans to establish a formal military alliance, their strengthening partnership though exercises and arms sales could impede the realization of a number of U.S. objectives in Asia in coming years.

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Notes

1. For a list of major Russian-Chinese military transactions see Alyson J. K. Bailes, ed., *SIPRI Yearbook 2006: Armaments, Disarmament and International Security* (Oxford: Oxford University Press, 2006), p. 494-495.
2. Alexeksey Nikol'skiy, "$300 mln za aviadvigateli," *Vedomosti*, July 11, 2005.
3. Vladimir Ubran, "Posledniy rekord rossiyskogo oruzhiya," *Moskovskie Novosti*, June 17, 2005. The U.S.

Department of Defense also concluded that the Russians might have been exploiting the exercise to show off advanced weapons systems to potential Chinese buyers; see Office of the Secretary of Defense, *Military Power of the People's Republic of China 2006* (Washington, DC: U.S. Department of Defense, 2006), p. 2.
4. *SIPRI Yearbook 2006: Armaments, Disarmament and International Security*, p. 454.
5. Igor Gaidar, "Yadernyy balans: opasnye igri," *Vedomosti*, March 30, 2006. The controversial article asserting that the U.S. strategic buildup was in the process of negating Russia's and China's nuclear deterrents was Keir A. Lieber and Daryl G. Press, "The Rise of U.S. Nuclear Primacy," *Foreign Affairs* (March/April 2006).
6. U.S. Department of Defense, *Quadrennial Defense Review Report* (Washington, D.C: February 6, 2006), p. 29.
7. Cited in Oliver Bullough, "Russia Goes Its Own Way in Selling Arms," *Moscow Times*, June 20, 2006.
8. "Sergey Ivanov otvetil na obvineniya SShA v 'bezdumnom rasprostraneniie oruzhiya'," *Izvestia*, March 28, 2006.
9. Chzhan Ikhun, "Russko-Kitayskogo torgovlya po oruzhiya razvivaetsya," *Vremya Novostei*, May 27, 2003. For other evidence that Chinese engineers have succeeded in copying Russian military technology for use in China's own defense industry see Alyson J. K. Bailes, ed., *SIPRI Yearbook 2005: Armaments, Disarmament and International Security* (Oxford: Oxford University Press, 2005), p. 423-424.