In a Fortnight
By Peter Mattis

SECURITY CHIEF'S EFFORTS TO SEAL UP THE POLITICAL-LEGAL CHAIRMANSHIP

The run-up to this year's leadership succession has brought more excitement than observers could reasonably expect when the top two presumptive leaders, Xi Jinping and Li Keqiang, seemed set after the 17th Party Congress in 2007. The competition between Chongqing Party Secretary Bo Xilai and Guangdong Party Secretary Wang Yang over the models of China's future governance offered a tantalizing glimpse behind the curtain of Chinese politics ("Bo Xilai's Campaign for the Standing Committee and the Future of Chinese Politicking," China Brief, November 11, 2011). That Bo Xilai's unprecedentedly public campaign exploded in a confrontation outside the U.S. Consulate in Chengdu—involving public security forces outside their jurisdiction, a vice minister of state security and the possibility of defection—makes the competition for the remaining seven Politburo slots all the more titillating (Financial Times, February 14; Bloomberg, February 10). There is a quieter campaign, however, taking place to ensure a widely-expected result becomes a foregone conclusion. State Councillor and Minister of Public Security Meng Jianzhu is pushing to claim the top spot on the Central Political and Legal Committee, replacing Zhou Yongkang as overseer of China's police, prisons, judiciary and civilian intelligence.
The latest evidence of Meng’s efforts to lock in his future position is a new Ministry of Public Security (MPS) publicity campaign: “three inquiries, three assessments to deepen the big visits” (san fang san ping shenhua da zhou fang) and “practical love-the-people activities” (aimin shijian huodong). The overarching goal of the new slogan campaigns is to demonstrate MPS officials are putting the people in their hearts, even invoking an old Teresa Teng song to popularize the message (China Police Daily, January 31; People’s Net, January 20). At a time when unofficial security forces, e.g. chengguan, seem to provide the muscle for official corruption, the propaganda campaign aims to show “the people’s police for the people” (renmin gong’an wei renmin) (China Police Daily, February 6). Although the campaign officially launched last December, most of the publicity and related pro-police articles have appeared in the last three weeks.

The “three inquiries, three assessments” campaign breaks down into six different activities and questions, ostensibly reshaping the MPS from a control and enforcement agency to a more solicitous police force. The slogan breaks down into “inquire about the people’s situation; inquire into public opinion; inquire into the people’s concerns; assess [MPS] work; assess the problem; and assess options to advance” (fangwen minqing, fangcha minyi, fangpai minyou, pingyi gongzuo, pingyi wenti, pingxuan xianjin) (MPS Sanfang Sanping Homepage, December 17, 2011). It also explicitly builds off the public microblogging effort that became MPS policy last fall to keep the ministry and its local elements active among the population (China Police Daily, January 31; “Public Security Officially Joins the Blogosphere,” China Brief, September 30, 2011).

While it is easy for observers to be cynical about the MPS’s efforts to burnish its public image, the main message of the campaign supports the overall drive for social management laid out by Zhou Yongkang last year. In an article for a leading party journal, Zhou argued social management required a broad toolkit to collect information on public sensibilities, not just information of actionable intelligence value (Qiushi, May 1, 2011). This “three inquiries, three assessments” campaign along with public security microblogging and informatization all change the nature of MPS engagement with society, forcing the police to operate more publicly and visibly. The short-term impact could be minimal; however, over the longer term, the police probably will be evaluated in the public eye by the ministry’s self-professed standards. This is either a mechanism for accountability or disenchantment.

Meng’s assiduous development of the MPS’s capabilities since becoming minister in 2007, in line with his superior Zhou’s stated objectives, indicate he is the favorite to replace Zhou. He also is the right age for China’s security and intelligence chiefs, who, since the abuses of the Mao era, have typically been near the end of their careers. The chairmanship has been the final senior position for its holders since Qiao Shi moved to become Chairman of the National People’s Congress Standing Committee in 1992. Meng, who will turn 65 this year, would serve only one term as chair of the Central Political-Legal Committee, stepping down in 2017 assuming the retirement age holds.

One of the more important issues with Meng’s likely ascendance is the selection of the next MPS chief. Ever since Jia Chunwang’s lateral transfer from the Ministry of State Security (MSS), MPS influence has been rising—based on personnel comparisons—especially vis-à-vis its principal rival, the MSS (“Assessing the Foreign Policy Influence of the Ministry of State Security,” China Brief, January 14, 2011). Jia, Zhou and Meng all were serious political figures with Jia considered for the Politburo in 1997 and the latter two serving as provincial party secretaries prior to their selection for public security chief and state councilor (South China Morning Post, May 29, 1997). Zhou and Meng came out of former Vice President Zeng Qinghong’s energy network and the Shanghai Clique, respectively. One can speculate how the next minister will be chosen or what will be his likely factional alignment, but the choice could affect that faction’s ability to wield power. While this law and order position probably is mostly technical, i.e. preserve stability and investigate crimes, the MPS has substantial, nation-wide investigative resources that may be available to whatever faction controls the ministry and its senior posts.

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China’s Persian Gulf Diplomacy Reflects Delicate Balancing Act
By Chris Zambelis

The diplomatic acrobatics and brinkmanship on display over Iran’s nuclear program are escalating tensions in the Persian Gulf to new heights, raising the stakes for all of the protagonists involved—including China. In this context, it is worth examining China’s position on the rapidly evolving events in the Persian Gulf. The marked expansion of Chinese diplomatic, energy and economic interests in the strategically important Persian Gulf represents one of the most important geopolitical trends of recent years. In accordance with its traditionally pragmatic, middle-of-the-road approach to international affairs, China has cultivated friendly relationships with the array of hostile rivals competing for influence and primacy in the region. As a result, China has been thrust into the mix of diplomacy and tensions surrounding the dispute over Iran’s nuclear program. It should be no surprise, therefore, that China’s stance on Iran was a topic of great interest during Chinese premier Wen Jiabao’s recent six-day visit to Saudi Arabia, the United Arab Emirates (UAE) and Qatar from January 14-19, the first major foreign trip undertaken by Chinese leaders in 2012 (Xinhua, January 20).

Entering the Fray

Before delving further into the implications of Wen’s recent visit to the Persian Gulf, the atmospherics surrounding the tensions over Iran’s nuclear program are vital for context. The United States continues to ramp up pressure on Iran over the purported nature of its nuclear ambitions by imposing a new and particularly aggressive package of economic sanctions. The latest iteration of economic sanctions to hit Iran targets its energy sector and all monetary transactions involving the Central Bank of Iran (Al-Jazeera [Doha], February 6). Washington also has succeeded in enlisting the support of the European Union (EU) to further stifle the Iranian economy; the EU implemented its own ban on the import, purchase and delivery of Iranian oil beginning July 1 (Financial Times [London], January 23) [1]. EU sanctions will cause Iran to lose approximately 20 percent of its foreign oil sales (Economist [London], January 21). Iran’s regional rivals also are assisting in punishing the Islamic Republic. Israel, the region’s only nuclear-armed power, is threatening to bomb Iran. The Persian Gulf monarchies led by Saudi Arabia readily broadcast their concerns about the prospects of a nuclear-armed Iran and Tehran’s posture in the region. To ease fears in global energy markets about how the latest sanctions will impact oil prices and consumer countries heavily reliant on oil imports from Iran, Saudi Arabia—the world’s top oil exporter—along with its Gulf Cooperation Council (GCC) partners has committed to raising oil production to compensate for supply gaps stemming from the removal of Iranian oil from international markets (Al-Arabiya [Dubai], January 16).

Iran has remained defiant in the face of this relentless pressure by threatening to play its trump card: disrupting the Strait of Hormuz (National [Abu Dhabi], December 29, 2011). Over 35 percent of the world’s seaborne shipments of oil and around 20 percent of the world’s overall oil production pass through the strait every day. Tehran has threatened its neighbors against filling any supply gaps in the global oil supply after the latest round of sanctions go into effect or allowing for their respective territories to be used to launch attacks against Iran (Al-Arabiya, January 16; Fars News Agency [Tehran], February 5). To preempt the EU’s embargo against its oil beginning in July, Iran also has threatened to cut off oil exports immediately to certain EU member states (Press TV [Tehran], February 7).

On the surface, the underlying thrust behind Wen’s visit to three of the frontline Persian Gulf states ringing Iran was to discuss an array of political, energy, economic and cultural issues. Wen’s visit marked the first by a Chinese premier to Saudi Arabia in over two decades and the first visit ever by a Chinese premier to the UAE and Qatar. His itinerary included meetings with all three heads of state. Additionally, Wen met with the heads of the GCC and the Organization of the Islamic Conference (OIC). Wen also was present at the World Future Energy Summit and the fourth annual China-Arab States Cooperation Forum. Indeed, Wen and his counterparts concluded numerous agreements governing a range of issues, further solidifying the already strong relationships nurtured between China and all three countries over the years (Ministry of Foreign Affairs, January 20; also see “Bloc Politics in the Persian Gulf: China’s Multilateral Engagement with the Gulf Cooperation Council,” China
Defining the Sino-Iranian Strategic Partnership

China’s quest to satisfy its growing demand for energy has served as the initial impetus underlying the Sino-Iranian strategic partnership. China, the world’s second-largest oil consumer and third-largest importer of crude, depends heavily on Iranian oil imports. This is the case even as Beijing has reduced its imports of Iranian oil in recent months over a series of pricing disputes with Tehran (Wall Street Journal, February 8). Iran is China’s third-largest supplier of imported oil; Iranian oil accounts for approximately 10 percent of China’s imported crude (Reuters, February 6). China is also Iran’s top purchaser of crude and biggest trade partner (Al-Jazeera, February 1). China also has a growing interest in Iranian natural gas. While Western companies have abandoned the Iranian energy sector due to the imposition of harsh economic sanctions against Tehran over the years, Chinese state-owned companies have inked upstream and downstream energy agreements dealing with oil, natural gas, refining and petrochemicals valued at over $40 billion (Zawya Dubai, February 7; Press TV, July 31, 2010).

At the same time, China’s interests in Iran transcend energy. In principle, China is strongly opposed to U.S. and international moves to sanction Iran, especially efforts that target Iran’s energy and banking sectors. In accordance with its philosophy of advocating for non-interference in other nations’ domestic affairs, China supports Iran’s right to peaceful nuclear technology and insists on resolving any disputes over it through negotiations. Yet China also is opposed to any possibility that Iran develops nuclear arms. During his recent visit to Doha, Wen declared “China adamantly opposes Iran developing and possessing nuclear weapons” (Al-Jazeera, February 1). China’s status as a permanent member of the United Nations Security Council (UNSC) affords it with significant leverage when it comes to fending off U.S.-led international efforts to isolate Iran. China’s principled stance in defense of Iran’s right to pursue its nuclear program in the face of a U.S.-directed campaign against it is also viewed in Beijing as a gauge of Chinese credibility. China is keen to show its allies and rivals alike that it is loyal and prepared to stand by its commitments, even in the face of U.S. pressure. The Sino-Iranian relationship also affords Beijing with important diplomatic leverage over Washington, the still preeminent diplomatic and military power in the Middle East. China’s support for Iran serves as a check against Washington in response to the U.S. military presence in East Asia and its constellation of allies and partners surrounding Chinese territory.

Expanding Horizons

China’s insatiable demand for energy in recent years has prompted Beijing to expand its network of energy suppliers in the Middle East and beyond. While Iran remains an important source of oil, Saudi Arabia, the world’s largest oil producer, is currently China’s top source of imported oil. By the end of 2009, China overtook the United States as the top importer of Saudi oil (“Shifting Sands in the Gulf: The Iran Calculus in China-Saudi Arabia Relations,” China Brief, May 13, 2010). Saudi Arabia sold China 1.12 million barrels per day (bpd) in December 2011, the fourth highest amount on record and a figure that represents over 20 percent of China’s imported crude (Al-Jazeera, February 1; Reuters, January 21). Herein lies the significance of the timing of Wen’s visit to the Persian Gulf during this period. As China remains steadfast in its support for Iran, Beijing also is determined to ensure that its access to the region’s vital energy resources is secure in the event of a prolonged disruption of Iranian or other regional oil exports due to any crises that may arise.

The complexity of the current circumstances facing China presents Beijing with a difficult contradiction. On the one hand, China continues to benefit greatly from the multifaceted relationship with Iran. The current state of geopolitics suggests the enduring aspects of the Sino-Iranian partnership will remain an important pillar of Chinese foreign policy in the Middle East. On the other hand, the reality of China’s growing energy
needs has alerted Beijing to the importance of securing stable alternative supplies of energy. China also may be concerned about the ramifications of the latest U.S. sanctions applied to Iran, prompting it to seek ways to further decrease its reliance on imports of Iranian oil to satisfy Washington. In a sign of things to come, the United States sanctioned China’s Zhuhai Zhenrong Company in January for doing business with the Iranian oil sector (Al-Jazeera, January 16). While China appears resolute on how it chooses to engage with Iran, Beijing also seems to be taking a pragmatic approach to account for future crises that may arise over its dealings with Iran.

China probably is hedging to mitigate any risk to potential losses it would incur in an extreme set of circumstances that would see it shift course on its overarching policy toward Iran. China’s unyielding position over its dispute with Iran over Tehran’s oil pricing policies may indicate a shift in Beijing’s position on Iran may not be out of the question down the line, although a break between China and Iran of such magnitude is highly unlikely. India, a rival of China and the second largest purchaser of Iranian oil, has exploited the current rift between Tehran and Beijing to increase substantially its imports of crude from Iran, effectively scooping up China’s share (Fars News Agency, February 9). To circumvent the restrictions hampering dealings with Iran’s central bank as a result of the U.S. sanctions, India and Iran have concluded an agreement that allows New Delhi to pay for 45 percent of its imports of Iranian oil in rupees. Both countries also have discussed other creative ways to ensure Iranian oil continues to flow to India, including a barter system whereby India trades critical commodities and products such as wheat or industrial goods in exchange for Iranian crude (Times of India [New Delhi], February 8). Japan and South Korea, the third and fourth largest purchasers of Iranian crude, have expressed deep reservations about the latest sanctions on Iran (Reuters, February 1). Considering Beijing’s mercantilist outlook, it is unlikely that China’s top leaders would stand by as regional rivals displace China’s favored position in Iran.

The timing of China’s outreach to Iran’s rivals in the Persian Gulf does not portend a dramatic shift in Beijing’s regional policy is in the offing. China is not about to abandon Iran. China, however, is acting to shore up its energy security in the event of a regional conflagration by diversifying its oil supply network. Consequently, China is becoming more entangled in the region’s rivalries. China claims to pursue a regional foreign policy that separates business and trade from politics. Yet the current stakes involved are such that China is being drawn into the larger regional competition pitting the Persian Gulf monarchies against Iran—a price Beijing appears willing to pay to secure its interests even at Iran’s expense. In addition to expressing China’s opposition to Iran’s potential acquisition of nuclear arms, Wen conveyed Beijing’s objection to Tehran’s threat to disrupt the Strait of Hormuz (Al-Jazeera, February 1). Notwithstanding China’s military and defense relations with Iran, Beijing also has agreed to assist Saudi Arabia in developing its own nuclear program (Wall Street Journal, January 16). Such a gesture on the part of China almost certainly was designed to serve as an act of political theater to please the Saudi royal family and its GCC partners and to place further pressure on Tehran. For its part, Riyadh may very well be operating under the assumption that the United States already has decided to accept the reality of a nuclear Iran. Paradoxically, such a scenario may eventually usher in a genuine rapprochement between Washington and Tehran in the long run—however unlikely such a scenario may seem at the moment—diminishing the relative influence and significance of Saudi Arabia, Israel and other U.S. allies in Washington’s strategic concept of the Middle East. In this regard, Saudi Arabia and its regional partners are looking to China to help shape events surrounding the Iranian question in their favor. By eliciting an agreement from China to help initiate its own nuclear program, ostensibly as a counter to Iran’s nuclear capability, Saudi Arabia is showing Washington, as well as Tehran, that it too can explore a variety of options to secure its interests.

Conclusion

The ebb and flow of diplomacy and crisis involving the Iranian nuclear question will continue to impact the course of events in the Persian Gulf in the foreseeable future. As China’s interests in the Persian Gulf continue to broaden in such a climate, Beijing will find it increasingly difficult to maintain its delicate balancing act between the myriad competing interests at play. The challenges confronting Chinese diplomacy in the Persian Gulf make it harder for Beijing to sustain its traditional middle-of-the-road approach to engaging the region. Given the extent of regional tensions, a solid tilt by China toward
one of either Iran or the Persian Gulf monarchies will affect that strategic landscape of the region. After all, China’s continued support for Iran on the international stage ensures that Tehran escapes further isolation. Likewise, a hypothetical tilt by Beijing toward Iran’s rivals at this juncture would represent a major convergence between China and the United States. In spite of China’s genuine interest in fostering its ties with the Persian Gulf monarchies, Beijing is not prepared to sacrifice Tehran and lose the leverage its relationship with Iran affords it over the United States.

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Notes:

1. The EU’s decision to allow for the sales of Iranian oil to continue until July 1 was crafted to allow for EU member states heavily reliant on Iranian oil imports, including Greece, Italy, Spain—the three largest purchasers of Iranian oil among EU countries—to find alternative sources of supply.

Civilian UAV Production as a Window to the PLA’s Unmanned Fleet

By Daniel Houpt

R epresenting a wider trend, one of China’s largest aerospace manufacturers, AVIC, recently announced, after a record 18.8 percent growth in 2011, it is increasing investment in an unmanned helicopter that will function in a range of both mundane civil applications as well as more critical military and police missions. Although the Chinese military has already incorporated some unmanned aerial vehicles (UAV) into its arsenal, information on the PLA’s unmanned capabilities remains limited. However, it is possible to glean critical information about China’s future unmanned fleet by looking closer at its civilian UAV uses. The Chinese government has been forthright about its intentions to better exploit civilian ingenuity for its defense modernization and, in the UAV market, domestic defense manufacturers and specialized academic institutions are critical sources of UAV innovation of which the PLA is the ultimate benefactor.

The Current PLA UAV Fleet

The Chinese military has only a handful of UAV models in service. Out of the seven models listed by the International Institute for Strategic Studies’ Military Balance 2011 as in active PLA service, about half are outdated and limited in capability. Little is known about the other, more modern models. For example, two models in service, the AS-105 and AS-206, are based on technology dating back to the 1960s, with ranges of about 93 miles, max payloads of about 88 pounds and have to land by parachute recovery—according to the China National Aero-Technology Import and Export Corporation (CATIC) catalogue. The PLA Air Force (PLAAF) is similarly limited in its UAV capabilities: the CH-1 Chang Hong reportedly was reverse engineered from 1950s era U.S. technology, the Chang Kong-1 target UAV was developed in the 1960s and the Harpy UAV was purchased from Israel in 1994.

The newer BZK-005 and BZK-006/W-6 models, while presumably much more capable, remain ambiguous platforms. Recent episodes have shed some light on these models, but have served to spark more questions than answers. In August 2011 pictures surfaced of a stealthy drone similar in appearance to a U.S. Reaper drone that had crashed in Hebei Province in North China. Some believed it to be the BZK-005, also known as “Tianchi,” but little substantive information came out of this episode. Similarly, in December 2011 pictures posted on a Chinese website revealed a swept winged stealthy UAV known as “wind blade” that looked similar in appearance to the RQ-170 U.S. drone that crashed in Iran. Other than generating speculation about its potential uses or actual stealth capabilities, the pictures floating around Chinese discussion boards had limited value.

Direct knowledge of the PLA’s modern UAV capabilities and what their future fleet may look like remains undeniably limited. Yet, when one examines the array of
Civilian UAVs on the Market and the PLA Connection

At a May 2011 exhibition on police and anti-terrorism equipment in China, UAVs were featured as a modern way to support police forces. One platform on display, and being considered by Chinese internal security forces, known as the “Pterodactyl,” is capable of surveillance, reconnaissance and ground strikes, and can fly at 5,000 meters for up to 20 hours. A spokesman for the Beijing municipal public security bureau commented that the drone would be particularly useful in locating suspects after nightfall, given its ability to see in the dark (China Daily, May 20, 2011). Another of the UAVs on display and now being considered for purchase by the Beijing bureau is reportedly the same model employed by the U.S. Army (People’s Daily, May 13, 2011).

Aviation Industry Corporation of China (AVIC), a state-owned entity and the designer of the Pterodactyl UAV, is heavily involved in research, development and manufacturing for the PLAAF. For example, one of AVIC’s subsidiaries, the Chengdu Aircraft Industry Group, led the design and manufacturing of the J-10 multirole combat aircraft, the JF-17 and currently manages the development of the J-20.

Another of AVIC’s subsidiaries, CATIC—which is involved in the design of a number of fighter and bomber aircraft, missiles and air defense systems—was part of a consortium that designed and built the V750 unmanned helicopter. Adapted from a manned helicopter, the V750 has a maximum range of 500 kilometers, is capable of cruising for four hours and can conduct photography, scouting and monitoring missions. It also can be controlled autonomously by stored programs or controlled manually, with the option to switch between the two mid-mission (People’s Daily, May 9, 2011).

As opposed to fixed-wing UAVs, these unmanned helicopters can remain stationary at a specified point in the sky to provide more stable tracking and analysis of ground targets and can even “send out interference to enemy devices” (People’s Daily, September 21, 2011). Previous tests of unmanned helicopters conducted by the Armed Police Engineering Institute included practicing precision bomb dropping, perhaps revealing some other military uses (PLA Daily, February 7, 2006). Only four months after the V750 was first tested, the PLA...
unveiled a strikingly similar concept in the Z-5 unmanned military helicopter, drawing attention to the civil-military connection. Further blurring the line between civil and military UAV technology, CATIC also has developed the U8E unmanned surveillance helicopter, which it states as being important for both civil and military roles, and a medium-altitude and medium-endurance UAV, which can be used for anything from forest fire prevention to electronic warfare and ground target designation *(Jane's Defense Weekly*, May 11, 2011; CATIC Website).

At the 2010 Zhuhai Air Show, the CASL SL-200 was revealed—a high-altitude UAV marketed for agricultural uses such as creating artificial precipitation and spraying pesticides. What stands out about this model is that it reportedly features a “stealthy design capable of carrying out a very diverse payload,” giving some pause about its intended use. The designer of this UAV is the state-owned China Aerospace Science and Technology Corporation, a leading entity in China’s space program and parent company to manufacturers of a range of launch vehicles and missiles *(Jane's Defense Weekly*, November 19, 2010).

Another one of China’s largest UAV companies, ASN Technology Group, which claims to own 90 percent of the UAV market, is also connecting the civilian and military UAV industries. For example, according to its website, it manufactures UAVs for civilian uses such as weather detection, search and rescue missions and “petroleum pipeline detection.” It also has released a lightweight drone, the ASN-211, featuring flapping wings meant to simulate birds and capable of carrying a mini camera—the UAV itself weighs less than half a pound. Based on similar technologies, ASN has developed a Reconnaissance and Precise Attack UAV described as being able to “find and destroy those time-sensitive targets immediately.” Although AVIC markets heavily to civilians, its website states the primary end users of its produces “are the Chinese troops” *(ASN Group Website)*.

The market for Chinese UAVs is only growing. Indeed, Chinese companies are preparing to make larger inroads to the international UAV market. This shift will force the domestic industry to be more innovative and competitive, thereby enhancing the products the PLA can obtain. Although there is little publicly available information on China exporting advanced UAVs abroad, there is some evidence they already are—or are preparing to do so in the near future.

At the 2010 Zhuhai Air Show an ASN Representative was quoted by a Western reporter as saying, “I can’t tell you which models we have sold overseas, as that’s secret, but of course we’re interested in exporting them… That’s why we’re displaying them here” *(Wall Street Journal*, November 18, 2010). To give some idea of the international exposure of Chinese UAVs in the last two years, CATIC has featured UAVs at overseas exhibitions in such places as the United Arab Emirates, Singapore and France, according to CATIC press releases. That UAVs are listed as a regulated item under the Regulations of the People's Republic of China on Export Control of Missiles and Missile-related Items and Technologies strengthens the government connection since UAV exports would require a license from Beijing.

The Academic Connection

While the industrial base serves as an ideal way to exploit domestic manufacturing and utilize public-private partnerships, the government has long relied on academic institutions to fuel defense modernization. The Chinese government is actively looking to Chinese universities for insight into potential technological and operational uses of UAVs. In many cases, the military applicability of such research is acknowledged openly.

Two primary veins serve as the funding mechanism through which the government is fueling UAV research: Project 863 and the National Natural Science Foundation of China (NSFC). Project 863 is a state-funded grant program under the Ministry of Science and Technology (MOST) with the objective of stimulating the high-tech industry, including technical fields that support national security. Since 1986, the program has been renewed in consecutive Five-Year Plans and remains an important source of funding for Chinese researchers and a critical tool connecting the government to academia, according to MOST’s description of the program. A similar, but alternative funding source, the NSFC is an entity of the State Council, which controls the National Natural Science Fund (NNSF). NSFC funding, which “mainly come from the State financial allocations,” is similarly dedicated to supporting applied science and technology research.
The NSFC says that it works in tandem with MOST to develop research and funding priorities; UAVs, it seems, is one of those priorities. For example, by analyzing academic papers, NSFC grants have been given to faculty at the School of Automation Science and Engineering at the South China University of Technology to study how to control unmanned helicopters during rapid and evasive maneuvers and in complex flight environments as well as to researchers at Beijing University looking into UAV remote sensing systems and multi-agent swarming techniques. 863 Program funds have gone to fund a range of remote sensing at the Academy of Opto-Electronics at the Chinese Academy of Sciences and MOST stated:

“Thanks to the support of the National 863 Program, China has developed a range of remote sensing hardware and software, including advanced visible light, infrared, laser and synthetic aperture radar that can be applied in high-precision small scale remote sensing, UAV remote sensing, and high-performance SAR remote sensing. [The funds have also helped China] master a range of key [UAV] technologies, including multi-UAV payload loading… precision navigation and positioning, and real-time data transmission.”

A great example of these funding mechanisms at work is the Nanjing University of Aeronautics and Astronautics (NUAA), which houses the Unmanned Aircraft Vehicle Research Institute and College of Automation Engineering. According to its website, NUAA receives over 10 million yuan ($1.6 million) each year from Project 863, NNSF and Project 973—a related science fund. With these funds, NUAA researchers have published papers on using computers to land UAVs autonomously on ships, adopting complicated algorithms for UAV flight control and techniques for using active perception to better guide low-altitude reconnaissance UAVs. NUAA features a long history of military innovation and has designed such UAVs as the Chang Kong-1, which has served in the PLA AF for decades, and the University’s website highlights its role in making “unprecedented breakthroughs” in national defense programs.

Commercial-Academic-Government Connections

The defense industry and academia do not operate independent of one another and instead often collaborate on military projects. For example, NUAA won an award from AVIC because of its research contributions to the company, which likely went toward new PLA platforms. The connection between industry, academic, and the military is well established and the UAV market is showcasing a similar trend. One of the best examples of these entities at work as one is ironically one of the most public: a UAV-making competition.

In September 2011, AVIC sponsored the International UAV Innovation Grand Prix, also known as the AVIC Cup, in an effort to utilize civilian ingenuity and creativity. The competition, which drew entrants from a number of Chinese universities, was designed to showcase how to use UAVs on aircraft carriers. Participants designed and created UAVs that were able to automatically take off, cruise, and land on the deck of a simulated aircraft carrier built on a trial course in Beijing. Publicized by the Chinese Society of Aeronautics and Astronautics, the winning designers were from such places as Northwestern Polytechnical University, NUAA and the Beijing Institute of Technology.

Conclusion

In President Hu Jintao’s report to the 17th Party Congress, he spoke directly to the importance of civil-military integration in modernizing the PLA: “We will establish sound systems of weapons and equipment research… that integrate military with civilian purposes and combine military efforts with civilian support…and blaze a path of development with Chinese characteristics featuring military and civilian integration.” Demonstrated efforts at such integration are already underway in the field of UAV development, but this is but one example of a wider trend in China’s defense strategy that is marrying public, private, civil and military skills to infuse new ideas and modern technology into its defense forces.

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Notes:

1. See the “Implementation Measures for Weaponry and Equipment Research and Production Licensing” promulgated in May 2005 and discussed in China’s defense white papers.

A Model Company: CETC Celebrates 10 Years of Civil-Military Integration
By Matthew Luce

This year marks the tenth anniversary of China Electronics Technology Group Corporation (zhongguo dianzi keji jituan gongsi)—known better by its acronym CETC—one of China’s ten official defense industry conglomerate-bureaucracies [1]. CETC’s operations are central to China’s push toward dual-use electronics and civil-military integration for information technology. CETC is an entirely state-owned, research and development behemoth with the professed goals of producing advanced electronics for China’s military and leveraging civilian technology in order to do so [2]. The organization combines the advantages of state research funding and government favoritism with a market-oriented business model. Far from being a dinosaur in the modern electronics business, it has managed to grow and profit in diverse economic sectors and has forged partnerships with some of the biggest names in electronics. The broad reach of CETC’s business relationships combined with its self-described “sacred mission” of “rich country, strong army” make CETC worthy of closer inspection from anyone concerned with the national defense implications of the Chinese electronics and IT industries (China Broadcasting Net, November 10, 2011).

Origin and Function

Under CETC’s organizational umbrella are 80,000 employees and myriad subsidiaries. CETC oversees 55 semi-autonomous research institutes (often referred to as RIs)—many of which predate CETC itself and have existed since Mao’s defense modernization push in the late 1950s and 1960s. CETC also includes 184 commercial subsidiary companies—most of which were created by the individual research institutes in the past 20 years. While CETC itself is a young organization, the research institutes that conduct most of its research and production are the oldest electronics research facilities in China. They are responsible for many of China’s major advances in defense electronics, including the electronics for the “Two Bombs and One Satellite” initiative that gave China its first nuclear bomb, guided missile, and geosynchronous satellite. Today, CETC produces a wide range of products for military and civilian markets—from lasers and radar arrays to washing machines and power plants.

Despite its size and its explicit role in developing tactical electronics for the People’s Liberation Army (PLA), CETC is not well known outside a small community of China defense analysts. Large private companies like Huawei and ZTE have drawn much more attention and suspicion, most recently becoming the focus of respective U.S. Commerce Department and House intelligence committee investigations (Bloomberg: “Huawei, ZTE Face Scrutiny From U.S. House Intelligence Panel” 18 Nov 2011). While it is possible and even likely that private corporations like Huawei and ZTE engage in business dealings with the PLA, they nonetheless primarily are interested in the civilian market, and any contracts with the PLA would comprise only a tiny fraction of their total business. At minimum, Huawei and ZTE deny any direct allegiance to the PLA. CETC, on the other hand, is very open with its stated purpose of leveraging civilian electronics for the gain of the PLA, and a majority of its products and services are destined for state and military customers. If there is any doubt of CETC’s relationship with the military, see the “About Us” (jituan gaikuang) page on its website, especially cached pages from 2006 or earlier, since the most jingoistic language has been toned down since that time.

Diverse Business Areas

CETC’s decentralized structure makes its behavior difficult to track, since its research institutes have widely varying technical specialities, appear to operate more or less autonomously and often operate under pseudonyms [3]. This is largely because all of CETC’s research institutes are older than CETC itself and most of them
continue the same lines of research they pursued before they were amalgamated into CETC and given a common purpose in 2002. Some of these, like the 45th RI, appear to almost exclusively develop consumer electronics; others, like the 54th RI, focus heavily on military and aerospace sensors as well as communications systems. With the majority of the RI’s, however, the distinction is much less clear. Many of these research foundational technology and manufacture industrial components necessary for the advancement of both the defense and commercial electronics sectors. There are RI’s specializing in semiconductors, piezoelectronics, nanotechnology, integrated circuits and industrial control systems—to name but a few.

In turn, almost all of the individual research institutes have their own network of commercial subsidiaries and joint ventures. CETC RIs use their subsidiaries to bring their research to the commercial market and turn a profit, but also to arrange partnerships between the PLA, universities and research organizations as well as Chinese and foreign electronics firms. Some of these subsidiaries are among China’s most notable technology companies, especially in the field of information security, including Venus Software Corporation and Westone Information Industry Company—subsidiaries of 32nd and 30th RIs, respectively. Perhaps incidentally, many of these same companies benefit from government subsidies and tax breaks for their role as “key software enterprises,” including Venus and Westone.

Many of these subsidiaries also are not acknowledged officially by their parent research institutes. Venus Software and the 32nd RI do not acknowledge their connections on their websites, even though the institute is Venus’ founder and, at least previously, the majority shareholder (Shanghai Securities News, August 6, 1998). This practice, as well as the practice of using pseudonyms for the institutes, helps CETC evade notice and any negative associations with the PLA in its business dealings, especially outside of China.

Supporting the Civilian and Defense Economies with Preliminary Research

CETC’s distinguishing feature is that it straddles the line between a military technology research center, a commercial entity and an academic institution. This mixed operations strategy stems directly from a technological development policy that could exist nowhere besides China. Under this policy, CETC can access government research funding to develop commercial and military electronics while training graduate students and engineers and providing a foundation for the advancement of the Chinese technology industry.

Since at least 2002, Beijing has emphasized civil-military technological integration and the belief that a strong military can only emerge from a vigorous and technologically-advanced civilian economy—a point reiterated in last year’s authoritative PLA Day editorials (PLA Daily, August 1, 2011; People’s Daily, August 1, 2011) [4]. As the defense economy was reorganized continually at the turn of the millennium, CETC and the other defense industrial organizations were encouraged to assist both sectors to build off of one another while encouraging a marketized defense economy. This involved not just coordinating technology exchanges between industry and the military, but providing preliminary research for both sectors. When in 2006 China’s Defense Middle- and Long-Term Science and Technology Development Plan demanded all defense industrial organizations invest at least 3 percent of revenue into research and development, CETC was the only one that exceeded this figure, pledging to spend at least 5 percent [5].

CETC benefits from both government funds and corporate revenue to fund its research. The organization is home to 15 state key laboratories—the designated breeding grounds for technologies the Chinese government deems central to national economic and military strategy. Many of the research institutes also host graduate student technical training programs and recognized national “senior scientists.” These resources provide further funding and expert personnel to CETC’s research institutes and allow them to leverage them for either military or civilian projects. CETC’s relationship with the PLA is demonstrated further by awards it receives from the General Armaments Department, which is responsible for commissioning PLA weapons systems [6].

The PLA’s Matchmaker

Since one of CETC’s expressed objectives is civil-military integration in the electronics sector, it should be no surprise
that CETC and its research institutes pride themselves on their partnerships with large Chinese and international corporations. CETC and its subsidiaries have entered into joint ventures and supplier arrangements with some of the world’s largest electronics companies, including IBM, Sun, HP, Cisco, Oracle and, unsurprisingly, Huawei. They also supply their products to a growing list of foreign governments.

CETC operates in many ways like a civilian commercial entity and appears eager to start profitable joint ventures that offer access to the Chinese market, helped by CETC’s status as one of China’s state-authorized investment institutions. CETC’s subsidiaries conduct a diverse range of business with foreign firms and governments, including manufacturing parts for export electronics, providing software outsourcing solutions, engineering radar arrays for foreign governments and marketing advanced foreign electronics in China [7].

In many cases, CETC appears to be the middleman that allows these private companies to do business with the PLA. The CETC 15th RI advertises itself on job-seeking websites, such as Zhaopin.com, as the commercial representative of Huawei and Emerson Electric Company to the PLA, and the 15th RI may not be alone in this role. If this is true for even a few of CETC’s subsidiaries, then any company doing business with CETC would suggest tacit abetment of PLA modernization.

Through its subsidiaries, CETC has even managed to establish partnerships with western military technology firms, bringing their products to the Chinese market. Through its subsidiary group Hebei Far East, the 54th RI has partnered with the U.S. defense contractor Harris Corporation, which, according to its website, provides tactical communications, intelligence and satellite services to the U.S. military, National Security Agency and National Geospatial-Intelligence Agency. The joint venture, Hebei Far East Harris Communications Company, manufactures a wide range of communications products, including military-grade communications field switches and private mobile radio systems—which it markets in China and the Russian Federation—according to the joint venture's website.

CETC International (CETCI), yet another subsidiary, also is designated as an official Chinese arms export company and markets its products abroad through international branches in Venezuela, Peru, Ecuador, Algeria, Egypt, Morocco, Angola, Sudan, Saudi Arabia, Pakistan, Thailand, Myanmar and Syria. The CETCI catalog appears to be more limited than that of the collective research institutes, but still openly markets products like mobile signal jammers, microelectronics systems and laser products.

Conclusion

CETC is the crux of China’s effort to support the PLA with dual-use electronics and information technology. As a research organization, CETC has access to favorable government policies, science grants, and top technicians. As a business, it can actively attract partners in the private sector and leverage their technology. Finally, as a state-run organization, it uses these resources to openly support the PLA and its modernization program. CETC’s decentralized structure and use of unacknowledged subsidies allow it to stay off of the public radar to a large extent even when private and/or profit-driven companies like Huawei and ZTE cannot. Its partners comprise Chinese and international technology giants, including at least one U.S. intelligence contractor. Additionally, its supplier relationships with major international electronics companies may mean that CETC-designed software and electronics components are more ubiquitous in our everyday electronics than most observers realize.

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Notes:

1. Other notable Chinese defense companies include the following: China North Industries Corporation (NORINCO), China Aerospace Science & Industry Corp (CASIC), and China State Shipbuilding Corporation (CSSC), government-run corporations that develop the PLA’s physical weapons systems. Inevitably these receive more attention than CETC, just as missiles tend to receive more attention than their
guidance systems.

2. “Basing the military among the people” or “combining military efforts with civilian support” (junmin jiehe, yu jun yu min) has become a common slogan since 2006 and the Report to the 17th Party Congress. This part and others, unless otherwise noted, is drawn from the CETC and subordinate organizations’ websites.

3. For example, the 15th Research Institute refers to itself as the “North China Research Institute of Computing Technology,” the 44th Research Institute is the “Chongqing Optoelectronics Research Institute” and the 29th Research Institute is “Siwi Electronics Corporation.”


6. The 15th Research Institute, for example, recently received a GAD research award: www.nce.ac.cn/intro.htm, January 18, 2012.

7. For example, the CETC 54th Research Institute won the contract to supply antennas for Australia’s enormous ASKAP Radio Telescope Array for astronomy research. See, Australian Telescope National Facility News, No. 66, April 2009.

Mekong River Patrols in Full Swing but Challenges Remain

By Ian Storey

Following the brutal murder of 13 Chinese sailors on the Mekong River in October 2011, China prevailed upon Thailand, Burma and Laos to improve transboundary law enforcement cooperation by participating in coordinated riverine patrols launched in December. While China’s participation in coordinated patrols in Southeast Asia is not unprecedented—the Chinese and Vietnamese navies have been conducting regular patrols in the Gulf of Tonkin since 2006—the Mekong initiative is another indication of Beijing’s growing influence in the region and its willingness to utilize its security forces to protect Chinese economic interests and citizens abroad.

The Mekong Murders

The circumstances surrounding the killings are still murky and many questions remain unanswered. It appears, however, that two Chinese cargo vessels—the Hua Ping and Yu Xing 8—were hijacked on October 5 near the Thai port of Chiang Saen in the northern province of Chiang Rai. Several days later Thai security forces found the bodies of 13 Chinese crew members on board the vessels or floating nearby; most had been bound and blindfolded before being shot or stabbed to death. The Thais recovered nearly one million methamphetamine tablets on the vessels with an estimated street value of 100 million baht ($3.2 million) (Associated Press, October 14, 2011).

The Thai authorities initially pointed the finger of blame at drug warlord Nor Kham, an ethnic Shan whom they accuse of illegal narcotics trafficking, kidnapping and running protection rackets along the Mekong between Chiang Saen and Guanlei in Yunnan Province. In late October, however, the story took a new twist when nine Thai soldiers belonging to an anti-narcotics task force of the Third Army (responsible for security in northern Thailand) were detained and charged with the murders of the Chinese sailors. Observers speculated that the Thai soldiers were in the pay of a local drugs baron and/or that they had demanded protection money from the crew. The Chinese sailors presumably refused and paid the ultimate price. It remains unclear why the murderers did not take the methamphetamine pills during the raid. The soldiers are currently awaiting trial but have denied the charges. Not surprisingly, the upper echelons of the Thai security forces have denied any complicity in the atrocity (BBC, October 29, 2011).

The incident took place on the upper reaches of the Mekong where the river boundaries of Thailand, Burma and Laos meet. This area forms part of the Golden Triangle, notorious for opium cultivation, drug gangs,
ethnic warfare, illegal trafficking and violent crime. Over the past several years, the security situation in the area has worsened. According to the United Nations Office of Drugs and Crime, opium cultivation has been steadily rising in Burma and Laos along with methamphetamine production in northern Burma (Reuters, December 15, 2011). Criminal gangs have used the increasing volume of shipping along the Mekong to traffic drugs from Burma and Laos into Thailand and China. In addition, cargo and passenger ships have provided attractive targets of opportunity for criminals operating along the Mekong. Porous borders, government corruption and scarce resources coupled with weak cooperation among the four countries’ law enforcement agencies have provided an enabling environment for criminals operating along the Mekong.

The surge in crime has become a serious concern for the China because of the important role the Mekong plays in its economic interests in mainland Southeast Asia. Since its establishment in 1992 under the auspices of the Asian Development Bank, China has been an enthusiastic supporter of the Greater Mekong Sub-Region Economic Cooperation Program (GMS). The purpose of the GMS is to promote economic development among the six riparian states (Burma, Cambodia, China, Laos, Thailand and Vietnam) through the upgrade of transportation links. In the early 2000s, China funded dredging works along the upper Mekong to enable larger ships to navigate the waterway. Since then, the stretch of water between Guanlei and Chiang Saen has become an important conduit for Chinese goods to enter the lucrative Thai market. Cargo volumes between Yunnan and Thailand along the Mekong have tripled since 2004 to reach 300,000 tons per year (Reuters, January 26).

China Reacts

Gruesome pictures of the murdered Chinese sailors quickly spread via the Internet, sending shockwaves across China. Chinese netizens not only expressed revulsion at the murders but also criticized the government’s seeming inability to protect Chinese nationals working overseas. Attacks against Chinese citizens, from Asia to Africa, over the past several years and the need to secure the country’s economic interests abroad has become an increasingly emotive topic in China. In addition to recent events in Egypt and Sudan, the issue was highlighted earlier last year during the civil war in Libya when netizens castigated the government for its perceived failure to protect Chinese investments in the North African country and its slow response to evacuate Chinese nationals (“Kidnappings Highlight Weakness in Chinese Security Posture Abroad,” China Brief, February 3).

When the Mekong murders occurred, Beijing was determined to cool public anger and pre-empt a repeat of these criticisms. The Chinese government’s reaction was swift and decisive and ordered at the highest levels. China immediately suspended all traffic along its stretch of the Mekong and sent patrol boats to escort Chinese vessels back to Guanlei. According to press reports, Premier Wen Jiabao called his Thai counterpart, Yingluck Shinawatra, to express his concern and demand immediate action to bring the murderers to justice (The Irrawaddy, December 26). The Chinese seemed unconvinced by Bangkok’s version of events, and quickly dispatched their own team of experts to assist the Thais with their investigation (“Mekong Murders Spur Beijing to Push New Security Cooperation,” China Brief, November 11, 2011). China’s misgivings were justified: shortly thereafter the nine Thai soldiers were detained. In Beijing, Vice Foreign Minister Song Tao sternly told envoys from Thailand, Burma and Laos his government put a premium on “the life and safety of every Chinese citizen” and demanded a thorough investigation, calling for the perpetrators to face “severe punishment” (Taipei Times, October 14, 2011).

Coordinated Patrols along the Mekong

Starting October 30, China convened a two-day meeting of senior officials in Beijing to discuss ways in which security cooperation could be improved among the four countries. In attendance were Chinese State Councilor and Minister of Public Security Meng Jianzhu, Thai Deputy Prime Minister Kowit Wattana, Laotian Deputy Prime Minister and Minister of Defense Douangchay Phichit and Burma’s Minister of Home Affairs Lieutenant-General Ko Ko (Xinhua, November 1, 2011).

At this meeting, officials agreed on a series of measures to tighten security and crackdown on criminal elements along the Mekong. The most important of these measures was China’s proposal for the countries’ security forces to conduct regular patrols to protect vessels traveling between Guanlei and Chiang Saen. According to veteran
Thai journalist Kavi Chongkittavorn, China initially had proposed joint patrols that would have enabled police vessels to enter the waters of neighboring countries (The Irrawaddy, December 26, 2011). The Thais however rejected this approach on the grounds that it would require approval from parliament. Undoubtedly, this however was a convenient excuse, as Thailand—and probably Burma and Laos—were extremely uncomfortable at the prospect of armed Chinese security personnel operating in their territorial waters. Aware of the sensitivities over national sovereignty, Beijing does not seem to have pressed the issue, settling instead for coordinated patrols. Under this arrangement when Chinese patrol vessels reach the riparian boundaries of one of their neighbours, they hand over escort duties to their respective Southeast Asian counterpart. Nevertheless, the Chinese media continues to erroneously refer to the patrols as “joint” (Xinhua, December 11, 2011).

At the October meeting in Beijing, officials also agreed to establish a Combined Operations Center in Guanlei staffed by police officers from the four countries. Coordination offices also would be established in Thailand, Burma and Laos. The Combined Operations Center and coordination offices will be responsible for the day-to-day operation of the patrols and to facilitate interagency information and intelligence exchange. In recognition of the weak law enforcement capabilities of its neighbors, China also agreed to provide capacity building support to the police forces of Burma and Laos in the form of equipment and training. China itself has allocated to the patrols at least five vessels equipped with heavy machine guns and 200 police officers armed with automatic weapons—far less than the 600-1000 officers originally anticipated (Xinhua, December 10, 2011; November 9, 2011). It is not clear what kind of assets and numbers of personnel the three Southeast Asian countries have committed to the patrols.

To great fanfare, the first Chinese patrols set sail on December 10, escorting 10 cargo ships from Guanlei to Thai waters, returning two days later having completed their mission successfully and without incident (Xinhua, December 14). Since the inaugural patrol, however, several troubling incidents have underscored the challenges of improving the law and order situation along the Mekong. On December 12, three Burmese soldiers on patrol along the river were shot dead by unknown assailants (The Irrawaddy, January 6). On January 4 criminals fired rocket-propelled grenades at a Burmese patrol boat escorting four Chinese cargo ships, though no casualties were reported (The Irrawaddy, January 6). This was followed ten days later by an attack on a Chinese cargo ship traveling from Chiang Saen to Guanlei which came under fire from bandits on the Lao side of the Mekong. China’s Ministry of Public Security reported a Chinese patrol vessel responded to the attack after receiving a distress call from the cargo vessel, though it did not say whether it entered Lao waters. Both the crew and vessel were unharmed (Deutsche Presse-Agentur, January 16).

**Conclusion**

The Mekong murders highlight several important aspects of China’s relations with Southeast Asian states. Beijing’s rapid and firm response to the atrocity was designed to head off domestic criticism that it was not doing enough to protect the country’s economic interests and citizens in Southeast Asia and other parts of the world. Beijing’s central role in organizing the Mekong patrols was clearly a vote of no confidence in its Southeast Asian neighbors’ ability to secure Chinese interests. Thailand, Burma and Laos reacted quickly to China’s anger but successfully resisted suggestions that China’s security forces be allowed to conduct operations in their sovereign waters. If the security situation along the upper Mekong continues to deteriorate, however, the Thai, Burmese and Lao governments may come under pressure from Beijing to revisit the issue of joint patrols in which China would play the dominant role.

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