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**In a Fortnight**

By L.C. Russell Hsiao

**HU SENDS SPECIAL ENVOY TO PYONGYANG AHEAD OF WHIRLWIND SUMMITRY**

As part of a three-day visit from September 16–18 that largely stayed below the fray of both domestic and international media, Chinese President Hu Jintao sent State Councilor and former Deputy Minister for Foreign Affairs Dai Bingguo—his trusted confidante and top foreign policy advisor on North Korea—to Pyongyang as his special envoy (*The Chosun Ilbo* [South Korea], September 18). Councilor Dai reportedly carried a letter from Hu, which was delivered on September 18 during a meeting with the North Korean leader, Kim Jong Il. Following informal diplomatic conventions for high-profile meetings between Beijing and Pyongyang, neither side walked away empty handed. The Kim-Dai meeting was quickly followed with a pronouncement by the Dear Leader that suggested, albeit vaguely, that Pyongyang may be willing to return to the stalled Six-Party Talks, while Kim was reassured by Hu’s diplomatic overtures that Beijing still considers Pyongyang its “lips and teeth” ally.

Hu’s message for Kim expressed the intent of the Chinese side to consolidate and develop China-DPRK good-neighborly relations, and specifically pointed out that as a close neighbor to the Korean peninsula, Beijing attaches great importance to the relationship and pays close attention to the situation on the Korean peninsula. Moreover that, “it has been China’s consistent goal to realize the denuclearization of the Korean Peninsula and to safeguard and promote peace, stability and development

of Northeast Asia,” adding, “China is ready to spare no effort to work with the DPRK to realize those goals” (*Ming Pao* [Hong Kong], September 18; *China Daily*, September 19).

In response to Hu’s letter, the North Korean leader reportedly stated that North Korea “welcome[s] both bilateral and *multilateral* talks to resolve the standoff over its nuclear programs” (Yonhap [South Korea], September 22). In other words, North Korea appears once again prepared to resume international talks on dismantling its nuclear program.

That Hu dispatched Dai—who chairs the Chinese side of the “Strategic Track” in the revamped U.S.-China Strategic and Economic Dialogue (SE&D) along with Secretary of State Hillary Clinton—to knock at the doorstep of Pyongyang just days before his most important international debut yet, and that this was done in the wake of former President Bill Clinton’s high-profile trip to Pyongyang to secure the release of two U.S. journalists, appears to be a carefully calculated choice by Beijing. Dai’s delegation included Wu Dawei, vice minister of Foreign Affairs, and Fu Ziyang, vice minister of Commerce. Interestingly, Wu, a top diplomat who serves as China’s chief negotiator to the Six-Party Talks, was reportedly in Pyongyang for a week in August for talks but failed to secure a meeting with Kim at the time (*JoongAng Daily* [South Korea], September 26; *Oriental Morning Post* [China], September 19; *Global Times*, August 18).

According to Yoon Deok-min, a senior researcher at the South Korean Institute of Foreign Affairs and National Security, the purpose of Dai’s visit had more to do with “Chinese President Hu Jintao, fearing loss of authority in the region, soon sent State Councilor Dai. The North then spoke of returning to ‘multilateral talks’ to save face for China, but still fell short of pinpointing the six-party negotiations where China acts as the host” (*JoongAng Daily*, September 26). Some Chinese experts, however, challenge such views. “The recent easing of tensions does not mean that China’s influence over the Korean Peninsula is diminishing. On the contrary, China cast its influence by communicating with each party on a diplomatic visit,” said Yang Bojiang, an expert on Northeast Asia issues at the China Institutes of Contemporary International Relations (*Global Times*, August 18).

On top of meeting with the Dear Leader himself, the itinerary for Dai’s delegation included a meeting with Kang Sok-ju, North Korea’s first vice foreign minister and the brain behind Pyongyang’s nuclear brinkmanship, and Kim Yong Nam, president of the Presidium of the Supreme People’s Assembly of the Democratic People’s Republic

of Korea (DPRK). The meetings concluded with a debut for the opera, “The Dream of the Red Chamber,” at the Pyongyang Grand Theater, which will be the main feature for the “60th anniversary of China-DPRK diplomatic ties” celebration on October 6 (Xinhua News Agency, September 17; *JoongAng Daily*, September 18). The inclusion of the opera in the itinerary suggested to some observers that Dai’s visit was intended to lay the groundwork for a possible trip by Premier Wen Jiabao to Pyongyang to mark the 60<sup>th</sup> Anniversary of bilateral relations between China and North Korea on October 6 (*Mainichi Daily* [Japan], September 14; Xinhua News Agency, September 15; Reuters, September 18), which comes on the heel of Hu’s U.S.-tour and right before the Japan-China-South Korea top-level talks hosted by Beijing and scheduled for October 10 (CCTV, September 18; People’s Daily Online, September 24). Whether Premier Wen will indeed attend the celebration has not yet been officially confirmed by the Chinese Foreign Ministry (Xinhua News Agency, September 15).

Hu’s whirlwind summitry, which began on September 21 and ends September 25, includes attending the U.N. climate change summit; making an address to the general debate of the 64th Session of the U.N. General Assembly; and participating in a Security Council summit-level meeting on nuclear non-proliferation and disarmament, which President Barack Obama will chair—the first time for a U.S. president, capped by the financial summit for the Group of 20 (G-20) scheduled for September 24-25.

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## CCP 17th Central Committee Plenum Skips Xi Jinping and Inner-Party Democracy

By Willy Lam

The biggest piece of news to have come out of the Fourth Plenary Session of the Chinese Communist Party’s (CCP) 17<sup>th</sup> Central Committee is what that did *not* happen: the induction of Vice-President Xi Jinping into the policy-setting Central Military Commission (CMC). This is despite widespread reports by several domestic and foreign media that Xi, who is also a Politburo Standing Committee (SPC) member and President of the Central Party School, would be made a CMC vice-chairman in order to buttress his position as heir apparent to President and CMC

Chairman Hu Jintao (The Associated Press, September 16; *Ming Pao* [Hong Kong], September 19; *Straits Times* [Singapore], September 11). More importantly, however, the Xi episode has thrown into sharp relief a major concern of the Central Committee plenum: the expansion of “intra-party democracy” and reform of the cadre system so as to raise the “governance ability” of party-and-government officials.

Speculation of Xi’s imminent accession to the military commission was taken seriously partly because then Vice-President Hu was made a CMC vice-chairman in 1999, exactly three years before he succeeded Jiang Zemin as party chief at the 16<sup>th</sup> CCP Congress in 2002. According to decisions made at the 17<sup>th</sup> Party Congress two years ago, Xi, who is the highest-ranked PSC member among Fifth-Generation cadres, is slated to replace Hu as CCP general secretary at the 18<sup>th</sup> Party Congress in 2012—and state president a few months later. Xi’s apparent failure to make it to the CMC this year, however, does not seem to have affected his “crown prince” status. According to the plenum communiqué released last Friday, only Hu and Xi made major speeches at the four-day conclave. Hu read out much of the “Resolution on certain major questions about strengthening and improving party construction under the new situation” (hereafter Resolution). Immediately afterwards, Xi gave a detailed explanation regarding how this Resolution was drafted. In time-honored CCP tradition, this was revealing symbolism signifying Xi’s formidable clout (Xinhua News Agency, September 18; Bloomberg, September 19).

The murkiness surrounding high-level personnel movements in the party, however, seems to run counter to the plenum theme of expanding democracy within the party. According to the Resolution, the CCP leadership pledged to “safeguard the democratic rights of party members.” “We will fully develop the enthusiasm, initiative and creativity of various levels of party organizations and the broad masses of party members,” the document indicated. Doubts, however, are being raised as to whether the Hu-led Politburo and Central Committee was merely repackaging Lenin’s well-known principle of “democratic centralism.” While noting that “intra-party democracy is the life of the party,” the Resolution stressed that “concentration and unity [of authority] is the guarantee of the forcefulness of the party.” It is significant that while “intra-party democracy” was featured even more prominently in Hu’s “Political Report to the 17<sup>th</sup> CCP Congress” of October 2007, little in the way of substance has been implemented in the past two years. For example, both the Political Report and the Resolution cited the possibility of boosting the powers of the full party congress, as well as allowing party members a bigger say in choosing senior cadres. Yet,

such suggestions have only been taken up, if at all, at the level of counties (*Wen Wei Po* [Hong Kong], September 15; Xinhua News Agency, September 18).

Nothing illustrates the dearth of inner-party democracy better than the fact that the majority of the Central Committee’s 204 full and 167 alternate members do not seem privy to policies related to top-level personnel. Neither Hu nor other members of the PSC—the nation’s supreme governing council—felt obligated to explain to the plenum why the issue of Xi’s elevation to the CMC was not put on the agenda. Given that Hu himself got into the CMC in 1999—three years before the then-vice president was made party chief—quite a few Central Committee members had wanted Xi to be accorded the same treatment at this plenum. Equally significant is the heightened possibility that supremo Hu will hang on to the CMC chairmanship—which is equivalent to commander-in-chief—for up to a full five-year term beyond the 18<sup>th</sup> CCP Congress. Under this scenario, Xi will be made CCP General Secretary at the 18<sup>th</sup> Congress and state president soon afterwards. Yet, the former Shanghai party secretary will not assume full control of the army possibly until possibly the 19<sup>th</sup> Party Congress of 2017. After all, when ex-president Jiang gave up his positions of party chief and state president to Hu both at and soon after the 16<sup>th</sup> Congress in 2002, he held on to his CMC chairmanship until September 2004. Ordinary Central Committee members, let alone lower-level officials, are not empowered to discuss these crucial organizational arrangements. Nor do they have the wherewithal to raise the issue of revising the outdated Party Constitution. While the State Constitution stipulates that the president and the premier can only serve two terms, the CCP Charter has nothing on the retirement age or term limits regarding senior party slots (*Apple Daily* [Hong Kong] September 21; *Financial Times*, September 21).

Prior to the Fourth Plenum, there was widespread discussion on Chinese websites concerning the caliber and performance of cadres running the trouble-prone Tibet and Xinjiang Autonomous Regions. After numerous cases of “syringe attacks” on Han Chinese residents in Xinjiang earlier this month, there were calls in Urumqi and other cities for the sacking of Xinjiang Party Secretary Wang Lequan. Both Wang and his one-time deputy, currently Tibet party boss Zhang Qingli, have been posted to the western regions since the 1990s. They also have the distinction of being long-standing members of the so-called Communist Youth League headed by President Hu (*Straits Times*, September 4; *Ming Pao*, July 9). Yet neither Central Committee members nor ordinary cadres appear to be allowed to make open assessments of the effectiveness of these two Hu cronies. This is despite the fact that the “promotion of the governance ability” of

cadres is another key theme of the Fourth Plenum. All that the Central Committee did was to renew the party's platform on "consolidating and developing socialist ethnic relations [which are characterized by] equality, unity, mutual help and harmony" (AFP, September 19; *Apple Daily*, September 19).

It is noteworthy, however, that while discussing personnel policies, the Resolution resurrected late patriarch Deng Xiaoping's dictum about "grooming cadres from the five lakes and four seas." "We must broaden our perspectives in picking cadres [for promotion]," the Resolution said. "We must broadly open up channels for nurturing cadres." This appears to be a not-so-subtle critique of President Hu's penchant for boosting the political fortunes of cronies and associates within the CYL system. In any event, the jobs of Wang and Zhang—as well as other mediocre Hu protégés—are safe for the moment. This is despite the fact that neither Hu nor CCP Organization Chief Li Yuanchao, who is another CYL Faction stalwart, have explained why the two "warlords" have been exempted from the well-known convention that no senior regional official be allowed to stay in a certain province or major city for more than seven or eight years (*China Youth Daily*, September 19; *Ming Pao*, July 9).

The Central Committee seems more explicit when it concerns fighting graft, which has long been billed as the leitmotif of the Fourth Plenum. The Resolution characterized fighting corruption as "a major political task." It said the party fully recognized that building clean government was a "long-term, complicated, and difficult" struggle, and that anti-graft agencies must endeavor to "tackle both the symptoms and the underlying causes of corruption." Concrete measures were announced by a meeting of the party's Central Commission on Disciplinary Inspection (CCDI), the country's top anti-graft unit, last weekend. More emphasis was put on investigating the occupation, business activities, and wealth of the spouses and kids of mid- to high-ranking officials. The CCDI warned that in addition to regularly stating their earnings and assets, cadres must file with the CCDI and other watchdog agencies details the employment and investments of their spouses and children, and whether these offspring have married foreigners or settled abroad (Xinhua News Agency, September 19; *Ming Pao*, September 20). At least in theory, this means that details of the commercial activities of the offspring of President Hu and Premier Wen—both of whose sons are well-known businessmen—will have to be submitted to the CCDI.

Timed to coincide with elaborate celebrations of the PRC's 60<sup>th</sup> birthday on October 1, the plenum was designed to show Chinese and foreigners that the CCP has what it

takes to remain China's "perennial ruling party"—and to shepherd China to greater glories. Yet more so than previous major party or government meetings, a sense of insecurity informed this plenum. This was despite the fact that the CCP propaganda machinery has been in overdrive singing the praises of the "China model" in response to China's relative economic stability after the global financial crisis. The plenum communiqué urged cadres and party members to "have a sense of urgency about the future, and to think of [possible] dangers in times of prosperity." "We must be brave in reform, courageous in innovation; we will never become fossilized, and we will never be stagnant," the document said (Xinhua News Agency, September 18; China News Service, September 18).

Yet, in his speech to the plenum, President Hu made an impassioned plea that the party's goal in the 21<sup>st</sup> century should be the "Sinicization of Marxism" and "rendering Marxism timely and popular." According to Central Party School political scientist Gao Xinmin, the CCP wanted to "build up a Marxist political party that is oriented toward learning [new things]," and that Hu's mantra about "popularizing Marxism" was a theoretical breakthrough (*People's Daily*, September 19; *New York Times*, September 21). It is noteworthy that since the Tiananmen Square crackdown, the Fourth Plenum of every Central Committee is geared toward preparing the CCP for a generational change as well as a rejuvenation of policies. The unexpected failure of Vice-President Xi to make the CMC has cast doubt on the smoothness of the transition of power from the Fourth to the Fifth-Generation leadership. Also hanging in the balance is something more important: how can the party of 76 million members usher in a brave new world if it has recommitted itself to Sinicizing Marxism-Leninism, something that Chairman Mao Zedong first raised in the 1930s?

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## The PRC 60<sup>th</sup> Anniversary Parade: Equipment on Display, Not Military Capabilities

By Dennis J. Blasko

The Chinese press has announced that 52 types of “new weapon systems” will be on display in 30 vehicle and 12 air formations during the October 1<sup>st</sup> military parade portion of the 60<sup>th</sup> anniversary celebration of the founding of the People’s Republic of China (*PLA Daily*, September 17). Fourteen dismounted formations from active and reserve People’s Liberation Army (PLA) units, military academies, the People’s Armed Police (PAP), and militia will follow the tri-service honor guard. All personnel will wear new (Type-07) camouflage, service, or dress uniforms issued in recent years.

Based on what can be deduced from other official media reports, unofficial Chinese blogs and internet postings, and public satellite images (i.e. Google Earth), outside observers can verify what the Chinese have said and make a pretty good prediction of what will be seen during the parade. Yet, the new uniforms and newly painted equipments on display indicate little about actual Chinese military capabilities. The more pertinent issue for Chinese military experts is how the parade reflects military doctrine and how the preparations for this event impact the annual training schedule for the personnel and units involved.

### ALL OF THE CHINESE ARMED FORCES ON PARADE

This is a parade of the entire Chinese armed forces, not just the People’s Liberation Army (PLA).

The Chinese armed forces are a “party army”: their loyalty is pledged to the Chinese Communist Party (CPP), not the state (People’s Republic of China). The first mission defined by Party General-Secretary and Chairman of the Central Military Commission Hu Jintao in his “historic missions in the new century” is to safeguard the Party’s governing position (Xinhua News Agency, October 25, 2007). Every parade formation, except for the honor guard, will be led by two leaders or two vehicles. These pairs represent unit commanders and political officers. In the Chinese armed forces, the commander and political officer are *jointly* responsible for the actions of their unit. There are many examples where both commander and political officer were relieved of their duties when something went wrong.

By law, the Chinese armed forces are composed of 1) the active and reserve units of the PLA, 2) the PAP, and 3) the militia. The PLA is composed of three services, the

Army, Navy, and Air Force, and an independent branch, the Second Artillery—the strategic missile force composed of both nuclear and conventionally-armed ballistic missiles and cruise missiles. Each element of the armed forces has a primary mission: the PLA is focused primarily on defense against external enemies; the primary role of the PAP, in conjunction with the civilian Ministry of Public Security police force, is internal/domestic security [The security tasks of the PAP were enumerated recently in the Law on the People’s Armed Police Force of the People’s Republic of China passed on August 29, 2009.]; while the militia may provide support to both external and domestic security missions. As secondary tasks, the PLA and the PAP may support the other in their primary missions.

According to Chinese doctrine (for example, see *The Science of Campaigns*), all elements of the armed forces are to be integrated with civilian support into joint campaigns to fight local wars under informationized conditions or conduct “non-traditional security” missions (e.g. anti-terrorism, disaster relief operations, internal stability functions, public health security).

In any mission the armed forces undertake the Chinese leadership will seek to mobilize the public to support their efforts politically, economically, and materially as necessary. In that regard, while stoking national pride the 60<sup>th</sup> anniversary parade aims also illustrate to the Chinese population that the last decade of double-digit increases to the defense budget have resulted in tangible progress (*China Brief*, September 10). This is a people’s parade and the uniformed participants fully understand that they need the public’s support as they continue to operate within the modernized “strategic concept” of People’s War, which originated as a political-military strategy invented by Mao Zedong.

Also according to Chinese doctrine, military parades contribute to China’s overall, multi-layered posture of strategic deterrence (e.g. deterring conventional attack on Chinese territory or sovereignty, deterring nuclear attack, deterring further steps toward Taiwan independence, and deterring the “three evils” of “terrorism, separatism, and extremism”). *The Science of Military Strategy*, published by the Chinese Academy of Military Science, the country’s premier military research institute for the development of military strategy, operations, and tactics and which is directly controlled by the Central Military Commission, states:

“Demonstrating momentum by showing the disposition of the strength to the enemy is to display clearly one’s deterrent force for bringing about psychological pressure on and fear to the

opponent and thus to force him to submit. Such deterrent forms as large-scale military review, joint military exercise, and military visit, etc, are usually adopted” [1].

The “enemies” that Beijing seeks to deter may be individuals or groups of terrorists, separatists, or extremists either in China or along its borders or may be state actors which challenge its sovereignty. Thus, the parade is intended for both domestic and foreign audiences. The Chinese leadership will hail it as a measure of their transparency in military affairs.

#### PARADE PREPARATIONS REVEAL MUCH

A Google Earth satellite image of Beijing taken in June 2009 covers the “Parade Villages” at the Tongzhou and Shahe military airfields near Beijing. The preparations and training that have been underway at these sites for five months are clearly visible even to an untrained eye. Foreign journalists have been allowed access to the Shahe “Parade Village” to observe living conditions and training for dismounted personnel marching in the parade (China Military Online, September 11).

Multiple ground and air rehearsals have been conducted along the parade route down Chang’an Boulevard and the Chinese blogosphere is abuzz with close-up photos and videos of equipment and personnel. Analysis of Google Earth imagery matched with rehearsal photographs reveals much of what will be seen on October 1<sup>st</sup>.

Earlier this year, barracks and vehicle parking lots were constructed along the main runway at Tongzhou airfield. Open unit parking lots for 30 vehicle formations are visible on the Google Earth imagery. At the time of the image, nine units were on the runway assembling or practicing driving in formation. The standard formation seen in 1999, four rows of vehicles with four columns led by two vehicles (for a total of 18 vehicles per formation) is evidenced once more on the runway.

Near the north end of the runway, perhaps the most prominent sight is the perfect formation of 18 armored personnel carriers painted white, denoting their subordination to the PAP. Main battle tanks, armored fighting vehicles, self-propelled artillery, multiple rocket launchers, surface-to-air missiles, unmanned aerial vehicles, cruise missiles, and ballistic and cruise missiles of the Second Artillery are all recognizable on the runway and parked in open lots.

Among the parked vehicles, many formations are green (generally indicating Army units) and four can be seen to be

blue (indicating Navy, Marines, Air Force, or Airborne). In addition to the 18 vehicles that will drive in the parade, each unit has a few spares in case of maintenance problems.

The Second Artillery contingent is seen at the southern end of the airfield. Five types of missile systems can be seen: 19 DF-11 short-range ballistic missiles, 19 DF-15 short-range ballistic missiles, 19 DF-21 medium-range ballistic missiles, 14 DF-31/31A intercontinental ballistic missiles, and 19 DH-10 cruise missiles. (There has been no sighting yet of the new JL-2 SLBM, which is eventually expected to be deployed to the Navy.) Significantly, the 14 DF-31/31As present at the airfield comprise a very large percentage of the total number of DF-31/31As deployed. According to the 2009 National Air and Space Intelligence Center report on the “Ballistic and Cruise Missile Threat,” less than 15 of each of the DF-31 and DF-31As have been deployed.

While, like the Chinese say, the weapons on display have been made in China (albeit some under license from Russia and France), it is evident from the rehearsal photographs that more than half of the systems are the same as or modifications or upgrades of weapons seen in the 1999 parade. Unlike previous parades, however, communications and logistics support vehicles will also participate.

The 12 formations of aircraft to over-fly Beijing will include China’s newest fighter, the J-10, other fighters and fighter-bombers (J-8, J-11, and JH-7), airborne refuelers, early warning and control aircraft, and multiple types of helicopters.

Many of the weapons in the parade are considered “assassin’s mace” (*shashoujian*) weapons in the Chinese literature. However, the fact that so many different types of weapons from all services, to include communications and logistics vehicles, are included in the parade represents Chinese military doctrine that calls for all weapons, new and old, to be integrated into campaigns. “Assassin’s mace” weapons will be used in joint campaigns with other elements of firepower, mobility, and special operations integrated with systems to prosecute electronic and information war. Yet, according to PLA doctrine, “information warfare is a means, not a goal” [2].

#### THE PARADE AND MILITARY ORGANIZATION AND TRAINING

Whether or not the new equipment has been seen officially in public before, military enthusiasts and analysts inside and outside of China have been monitoring the status of nearly every weapon (if not all of them) in the parade. Long before the parade rehearsals, websites such as the excellent SinoDefence.com had photos and specifications for the majority of Chinese gear to be seen in the parade.

The appearance of equipment in the parade says nothing conclusive about how widespread it has been deployed to the force. For example, the Type 96 and Type 98/99-series main battle tanks were both seen in 1999. Only 10 Type 98 tanks led eight Type 96s in a mixed formation suggesting there were only 10 Type 99s deployed within the whole of the PLA at that time (a second formation composed entirely of 18 Type 96s preceded the mixed formation in the 1999 parade). This year a full formation of 18 Type 99 will be followed by a second formation of 18 Type 96 series tanks. Currently only about 200 Type 98/99 series tanks are estimated to be deployed to the force, but some 1,500 Type 96-series are found in units throughout the country. These two most advanced main battle tanks make up less than one-third the 6,700 tanks in the PLA (total number found in the 2009 Department of Defense Report to Congress).

This year, much larger formations of Second Artillery missiles will be paraded as compared to the 1999 performance. At that time, nine each of the early models of DF-11 and DF-15s, six DF-21s, and three DF-31s were included. Despite it making a showing at the 1999 parade, according to the 2009 Department of Defense Report to Congress, the DF-31 was not deployed operationally until some seven years later in 2006. Full formations of these ballistic missiles (perhaps ranging from 12-18 missiles depending on type), as well as the recently deployed DH-10 land-attack cruise missile, will be in the parade. However, the numbers of each type of missile seen in the parade do not correspond to the actual numbers of missiles found in operational units. Again according to the Department of Defense Report to Congress, 700-750 DF-11s, 350-400 DF-15s, 60-80 DF-21s, and 150-350 DH-10s missiles are in PLA units (the number of each type of launcher is usually less than the number of missiles available).

The set-piece parade formations of personnel, vehicles, and aircraft also provide no insights into how the PLA has restructured itself over the past decade. The structure of army divisions has been modified; new brigades have been created (many from former divisions). The mix of equipment in the parade does not provide any clue to how these divisions and brigades are organized.

What is more important is that the parade does not reveal how well-trained the troops are to actually use these weapons. While marching or driving in precise formations is rigorous work requiring a high degree of discipline and stamina, the parade formations have absolutely no tactical value or relevance to how units actually move, shoot, and communicate in battle or are integrated into larger systems-of-systems necessary for modern war.

Parade personnel and equipment will miss an entire season of unit field training. Yet the impact is greater than just for the personnel and equipment involved in the parade. In order to assemble sufficient soldiers of the proper height, many subordinate units in the larger organization will have to contribute personnel to create a detachment of the proper size to march in the parade. Units also must send clerks, cooks, medics, and mechanics to support the marchers. Parent units can consolidate those left behind for training or train at less than full-strength, but the parade will have an impact on many units' annual training schedules.

#### CONCLUSIONS

The individuals and units involved in the execution of the parade can rightfully be proud of their accomplishments. It will be no small maintenance accomplishment to get so many pieces of military equipment to complete the route without breakdown after months of slow formation driving. Participation undoubtedly increases unit esprit and confidence in the soldiers and their leaders. Many small unit leaders will likely have improved their own leadership skills to motivate subordinates during what certainly have been trying times during parade practice. The logistics effort to support this commitment also gives the units experience at operating away from their home bases (even if in nice barracks along airfields). Therefore, some benefits accrue from this event, but these intangibles say little about the warfighting or "military operations other than war" capabilities of the Chinese armed forces.

No judgment about Chinese military capabilities can be rendered simply by watching this parade. And more importantly, based on the weapons on display no judgment can be rendered as to the Chinese intention behind the deployment of these weapons. The best that can be said is that these weapons are inventory—but from the parade itself, we do not know how many have been deployed into units or if the units have developed personnel capable of planning for their employment, operating them to their maximum effectiveness, and supporting them in the field under the stress of combat.

The 60<sup>th</sup> anniversary parade is one milestone in China's long-term, multi-faceted military modernization process. It will be major morale boost for the force and a source of national pride for the Chinese public, but the parade should not be misinterpreted by attributing unwarranted intentions to this single event.

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## NOTES

1. Peng Guangqian and Yao Youzhi (eds), *The Science of Military Strategy*, Beijing: Military Science Publishing House, 2005, p. 223.
2. *The Science of Campaigns*. National Defense University Press, both 2000 and 2006 editions make these points.

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## Changes in Beijing's Approach to Overseas Basing?

By Michael S. Chase and Andrew S. Erickson

Although China has traditionally avoided basing its troops abroad, the People's Republic of China's (PRC) growing global interests and its military's evolving missions are leading some Chinese analysts to suggest that Beijing may need to reconsider its traditional aversion to establishing overseas military facilities. In particular, the People's Liberation Army Navy's (PLAN) experience with anti-piracy operations in the Gulf of Aden that began in December 2008 appears to have sparked a debate over the efficacy of continuing to adhere to China's oft-stated and longstanding policy of refraining from establishing any overseas military bases or other dedicated facilities capable of supporting military operations in distant regions. As the PRC's global interests rapidly expand, Chinese security analysts are debating the potential value of such new steps as "establishing land-based supply and support facilities" with increased frequency and intensity [1]. This suggests China may be on the verge of moving beyond its traditional approach. Indeed, some Chinese scholars and military officers are now calling for the establishment of such overseas support facilities to handle the logistics required by a more active role abroad for the Chinese military.

A radical departure from previous Chinese policy seems premature. Instead, statements by some Chinese scholars suggest that China may adopt a relatively cautious approach, which allows the PLA to more effectively carry out its new missions without requiring the formal alteration of Beijing's longstanding approach to foreign basing. The most likely outcome is one in which China would follow an approach analogous to the "places not bases" strategy put forward by the U.S. Pacific Command in the 1990s: establish facilities capable of supporting expanded PLA participation in non-traditional security missions such as anti-piracy and humanitarian assistance and disaster relief operations, rather than developing a network of traditional military bases, which would be extremely expensive, politically and diplomatically controversial and highly vulnerable in the event of a crisis or conflict.

## CHINA'S TRADITIONAL APPROACH TO OVERSEAS BASES

China has refrained from setting up overseas military bases as part of Beijing's foreign policy emphasizing non-alignment and non-interference in the internal affairs of other countries. Chinese security analysts frequently stated that forgoing overseas military bases was consistent with a defense policy that emphasized caution about entering into military alliances and deploying troops abroad. Several official documents published from the mid-1990s to 2000 highlighted this longstanding approach. For example, China's 1995 White Paper on Arms Control and Disarmament states, "China does not station any troops or set up any military bases in any foreign country" [2]. Similarly, China's 1998 National Defense White Paper repeats this statement about refraining from establishing overseas bases [3]. China's 2000 National Defense White Paper also indicates that "China does not seek military expansion, nor does it station troops or set up military bases in any foreign country" [4].

Numerous statements by Chinese diplomats, scholars and military officers have echoed the positions expressed in these official documents. In particular, Chinese strategists have highlighted the PLA's lack of overseas bases as a reflection of China's broader approach to national security and defense policy, which they typically portray as inherently defensive. For example, in a 1997 address at the U.S. Army War College, Lieutenant General Li Jijun, then vice president of the PLA's Academy of Military Science (AMS), cited China's minimal overseas military presence and its lack of foreign military bases as evidence of China's purely defensive military strategy. "China has not occupied a single square inch of foreign soil," Li said, "nor has it possessed any overseas military bases" [5]. Such statements have become less strident in recent years, however, and the PLA has begun to take incremental steps toward a more active global role, especially through China's participation in U.N. peacekeeping operations. Nonetheless, China has continued to maintain a self-imposed prohibition on foreign basing.

## CHINESE SCHOLARS DEBATE A NEW APPROACH TO OVERSEAS BASING

Notwithstanding China's historical aversion to the establishment of permanent overseas bases, there are a number of indications that this longstanding policy may be the subject of vigorous debate among Chinese scholars and security specialists in the coming years. For example, in an article that appeared in *Global Times*—the offshoot of *People's Daily*—PLA Air Force (PLAAF) Colonel Dai Xu openly advocated the development of overseas bases to "safeguard commercial interests and world peace" [6]. Specifically, Dai argues that 'support facilities' are



required not only to protect China's growing global economic interests, but also to enable PLA participation in peacekeeping activities, ship escort deployments, and humanitarian assistance and disaster relief operations.

Colonel Dai warns that "If we make things difficult for ourselves in this matter by maintaining a rigid understanding of the doctrines of nonalignment and the non-stationing of troops abroad, then it will place a lot of constraints on us across the board" [7]. Moreover, Dai argues that overseas bases or support facilities are required if China is to "effectively shoulder its international responsibilities and develop a good image." Perhaps anticipating the possibility that overseas bases would heighten international concerns about China's growing power, however, Dai states that Chinese bases would not be part of a global military competition and "would not require long-term stationing of large military equipment or large-scale military units."

As a first step, Dai advocates the establishment of a "test" base in the South China Sea. This follows Gen. Zhang Li's recommendation at the 11<sup>th</sup> CPPCC that China should construct military support facilities on Mischief Reef [8]. Dai states that the base should be "suitable for comprehensive replenishment" and suggests that it could be used to promote common development with neighboring countries. Future bases should then be established in other areas where China has important strategic interests; when possible, bases should be located in countries with which China already has "friendly, solid relationships" (e.g. Burma, Bangladesh, and Pakistan). Looking beyond China's immediate neighborhood, Chinese analysts have also suggested establishing overseas bases or support facilities in Africa and the Indian Ocean.

The anti-piracy operations that the PLAN has been conducting since late last year off of Somalia are typically cited in discussions about the potential value of establishing logistical support facilities in Africa. On December 26, 2008, China dispatched destroyers *Wuhan* and *Haikou* as well as supply ship *Weishanhu* to combat piracy in the Gulf of Aden. After about three months, the destroyer *Shenzhen* and frigate *Huangshan* were deployed to replace *Wuhan* and *Haikou*, while the supply ship *Weishanhu* remained on station. The second escort fleet conducted operations for about 112 days before being relieved by a third escort fleet composed of the frigates *Zhoushan* and *Xuzhou* and another supply ship, *Qiandaohu*. The PLAN handled the logistics and supply requirements associated with these deployments through a combination of underway replenishment and port visits.

Although this mission was a major breakthrough for the PLAN, some Chinese strategists argue that it proves that the PLAN requires overseas support facilities to more effectively

safeguard China's growing maritime interests. According to Dai Xu, the deployment is burnishing China's image, but logistics and supply constraints limit the amount of time each of the escort fleets can spend in the area [9]. As such missions for the Chinese military become more common, however, China will need to carry them out in wider areas, at lower costs, and over longer periods of time. According to Dai, "moves toward establishing an overseas base are a logical extension of this line of thinking." Similarly, Senior Captain Li Jie, a strategist at the PLAN's Naval Research Institute, has recommended establishing a supply and support center in East Africa to facilitate PLAN operations in the region. Li argues that setting up a support center in the area is feasible since the PLAN has already conducted resupply and maintenance activities in African ports and China has friendly relationships with key countries in the region [10].

The other part of the world most often mentioned in discussions of future requirements for overseas support facilities is the Indian Ocean (i.e. Gwadar and Hambantota). Indeed, it is the Indian Ocean with its rich resources and busy energy sea lines of communications (SLOCs) that seems the most likely future area of Chinese naval power projection. Chinese analyses note that from ancient times through the Cold War, the Indian Ocean has been a critical theater for great power influence and rivalry [11]. Some PLA analysts argue that China will need to advance to the Indian Ocean to protect its national interests [12]. Another assessment in China's official media suggests that China should develop several overseas bases and build three or four aircraft carriers [13]. China's growing maritime interests and energy dependency may gradually drive more long-ranging naval development; indeed, reports of imminent aircraft carrier development seem to represent an initial step in this direction. The PLAN's capabilities in key areas are currently insufficient to support long-range SLOC defense missions, but it may gradually acquire the necessary assets, trained personnel and experience.

To sustain a serious naval presence in the Indian Ocean, the PLAN would need to expand its at-sea replenishment capacity and secure access privileges in locations such as Pakistan, Burma and perhaps Sri Lanka or Bangladesh. Yet China remains far from having a naval base beyond Chinese waters. According to Indian Naval analyst Gurpreet Khurana, "China and the [Indian Ocean region] countries involved maintain that the transport infrastructure being built is purely for commercial use. There is no decisive evidence at this point to assert otherwise because these facilities are in nascent stages of development" [14].

Instead, in an effort to secure its interests in the Indian Ocean littoral, China has established a complex "soft power" web of diplomacy, trade, humanitarian assistance,

arms sales, and strategic partnerships with countries in the region—including Pakistan and Bangladesh. One goal of this strategy is to maximize access to resource inputs and trade in peacetime, while making it politically difficult for hostile naval powers to sever seaborne energy supplies in times of crisis. Greater access to regional port facilities may be one outcome of China's soft power initiatives. Indeed, for several years, China has been developing a number of what Kamphausen and Liang refer to as "access points," or "friendly locations" that are intended to enhance the PLA's ability to project power in Asia [15]. Locations such as the ports at Gwadar (Pakistan) and Hambantota (Sri Lanka) as well as various other facilities in Burma and the South China Sea do not appear to amount to the supposed "string of pearls" envisioned by some analysts, but these facilities may offer some capability to support transiting PLA forces, and could be rapidly improved in the future.

#### CONCLUSION

There is virtually no reason to suspect that China intends to establish a worldwide network of military bases that would give the PLA a global presence even approaching that of the United States, but some Chinese analysts clearly support establishing at least a limited number of facilities capable of supporting Chinese forces in areas deemed vital to China's expanding political and economic interests. It is unclear as yet whether their writings reflect the emergence of a school of thought that favors a change in policy or simply embody their personal views, but it appears that the anti-piracy deployment to the Gulf of Aden is sparking serious consideration of the support requirements associated with PLA missions outside of China's immediate neighborhood. One alternative that may prove attractive to Chinese strategists could be an approach similar to the "places not bases" strategy put forward by the U.S. Pacific Command in the 1990s, in which China would have arrangements in place for access to key facilities in strategic locations while still refraining from establishing permanent military bases abroad.

The development of "places" would enable the PLAN to project power in key regions without necessitating a potentially controversial change in longstanding Chinese policy. Chinese analysts may also calculate that an approach centered on "places" would be less alarming to the United States, India, Japan, and other concerned regional powers. This is in part because support centers could presumably handle the requirements of non-war military operations—such as food, fuel, and maintenance and repair facilities—without the propositioned munitions and large-scale military presence typically associated with full-fledged overseas bases. For the same reasons, "places" would presumably be easier for host countries

to accept, thus allowing China to more readily leverage its relationships with key countries in regions of strategic interest.

The extent to which China's approach to overseas basing may be revised remains unclear, but one thing that seems certain is that a debate has begun. As recently as a few years ago, Chinese analysts were adamant that Beijing desired "no bases and no places." Today that approach appears to be changing as a consequence of Beijing's growing global interests and the expansion of the PLA's roles to include missions well beyond China's immediate neighborhood. Although "places" would not mark as dramatic a departure from the past as overseas military bases capable of supporting a full range of potential conflict scenarios, support facilities designed to enable non-war military operations in regions far from China would still represent an important step forward for the PLA as it begins to shoulder new missions in support of China's growing global interests.

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#### NOTES

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7. Ibid.

8. Russell Hsiao, "PLA General Advises Building Bases in the South China Sea," *China Brief*, vol. 9, issue 13, June 24, 2009,

[http://www.jamestown.org/programs/chinabrief/single/?tx\\_ttnews\[tt\\_news\]=35169&tx\\_ttnews\[backPid\]=414&no\\_cache=1](http://www.jamestown.org/programs/chinabrief/single/?tx_ttnews[tt_news]=35169&tx_ttnews[backPid]=414&no_cache=1).

9. In Dai's words, "The Chinese expeditionary force in Somalia has been attracting a lot of attention from around the world, but with only a single replenishment ship, how much escort time can two warships provide for commercial vessels from various countries?"

10. Li Jie is cited in "Military Expert: China Should Consider Establishing a Land-based Support Center in East Africa," *Zhongping News Agency*, May 21, 2009, [http://gb.chinareviewnews.com/doc/4\\_16\\_100975224\\_1.html](http://gb.chinareviewnews.com/doc/4_16_100975224_1.html).

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13. Sun Ruibo, ed., "The U.S. Military Strengthens Forces on Guam—For What Purpose?," *Xinhua*, July 4, 2008, [http://news.xinhuanet.com/mil/2008-07/04/content\\_8489422.htm](http://news.xinhuanet.com/mil/2008-07/04/content_8489422.htm).

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## A Profile of China's Public Gem: China's Aerospace Science and Technology Corporation

By Eugene Kogan

On September 6, the China National Space Administration—the national space agency for the People's Republic of China (PRC)—announced that it has started developing the Long March 6 (Changzheng 6) carrier rockets for its burgeoning space program, which is backed by an industry that has rapidly advanced in nature and scope during the past decade (*China Daily*; *Xinhua News Agency*, September 6). The rockets are reportedly

being designed by the 8th Academy at the China Aerospace Science and Technology Corporation (CASTC, also known as CASC), a large state-owned holding company composed of a number of subsidiaries that design, develop and manufacture a range of spacecraft, launch vehicles, strategic and missile systems and ground equipment along with a number of high-end civilian products (People's Daily Online, September 4). Even as a relative newcomer in the market, CASC provides commercial launch services to the international market and is recognized as one of the world's most advanced organizations in terms of the development and deployment of high energy propellant technology, strap-on boosters, and demonstrated capability to launch multiple satellites atop a single rocket. Back in 1999, CASC together with China Aerospace Science and Industry Corporation (CASIC) were separated from a single company in order to promote greater competition within its space industries. Since then CASC has undergone gradual streamlining and reorganization to improve internal integration, cut excessive waste, and spin-off peripheral operations. A decade later, signs of progress underscore the success of these structural and management reforms to the space industry, which are beginning to bear fruit [1]. According to some estimates, the corporation had a registered capital of \$1.3 billion in 2005 and employs over 110,000 people (*GlobalSecurity.org*; *Techinfo.gov.cn*; *Jane's Defence Weekly*, July 30 2008, 27) [2].

### CASC'S PRIMARY SUBSIDIARIES

- **China Academy of Launch Vehicle Technology** (CALT, also referred to as the 1st Academy) carries out research and development (R&D) for long-range ballistic missiles (LRBM) and space launch vehicles (SLV) (<http://www.sinodefence.com/space/organisation/casc.asp>). CALT is based in Beijing. Li Hong is president of CALT, while Liang Xiahong is vice president and Secretary of the Party Committee of the 1st Academy (*China Internet Information Center*, July 3, 2008; *Xinhua News Agency*, July 19). CALT currently employs 22,000 staff, including 8,000 engineers, and 1,800 senior engineers and scientists. In order to provide a wide range of launch capabilities, CALT has established a comprehensive organization including ten research institutes, two manufacturing plants and various administration units (*China Great Wall Industry Corporation Website*, <http://www.cgwic.com/Partner/index.html>). *Jane's Defence Weekly* noted that the government currently holds the majority of shares in CALT and other defense-related companies, but under the defense-industrial reforms outlined in China's National Defense White Paper in 2008 investors are being urged to

purchase stakes in CALT. The same Jane's report also revealed that the publishing of the White Paper had an almost instant impact on most of the defense companies listed on the Shanghai, Shenzhen and Hong Kong stock exchanges. Among the most active defense and aerospace stocks were aircraft specialist Hafei Aviation and aviation component manufacturer Long March CALT, whose stocks surged from January 20 to January 22, 2008 by 10 percent to 11.3 renminbi (RMB) (*Jane's Defence Weekly*, February 4). Whether this was 11.3 billion was not disclosed.

- **Academy of Aerospace Solid Propulsion Technology (AASPT**, also referred to as the 4th Academy) carries out the design of solid-propellant rocket motors (<http://www.sinodefence.com/space/organisation/casc.asp>). The Academy is directed by Weimin Zhou [3] and it is the country's largest development and production base for solid rockets. As can be seen above, the Fourth Academy is an integral part of CASC. What is important, however, is that according to Tai Ming Cheng, since the end of the 1990s, the 4th Academy has restructured its preliminary R&D system by adopting a new project management model. Under the new framework, projects are assigned to managers who are chosen by a transparent competitive process and are then entrusted with full responsibility for planning, funding, daily management, research, implementation, and the selection of project staff. These managers are, in theory at least, able to offer rewards and administer punishments necessary to create an effective incentive-centered system to motivate employees. This new management system is said to have contributed to several of the academy's achievements in solid-fuel rocket motor technology. The progress and performance of projects are separately monitored and evaluated by appraisal committees at both the institute and academy level [4]. According to Tai Ming Cheung, the defense-related R&D work undertaken by the 4th Academy played a major role in improving the financial and technological performance of its parent company [5]. Yet, there are no financial data to back up this assertion.
- **China Academy of Space Technology (CAST**, also referred to as the 5th Academy) is responsible for all spacecraft development management and the Academy develops and manufactures most of the Chinese satellites (<http://www.sinodefence.com/space/organisation/casc.asp>). Although the English website is useful [6], it is not up to date. For instance, Liu Fang, who appears on the management chart (see R. Battiston, "The Chinese") is no longer on the board, but has been promoted to the position of vice president of CASC. On the other hand, Yang Baohua, who appeared on the management chart as vice president (Ibid.), became president of CAST (Xinhua News Agency, July 19, 2008). CAST is located in Beijing [7].
- **The Academy of Aerospace Liquid Propulsion Technology (AALPT**, also referred to as former Base 067) is China's sole producer of liquid-propellant rocket motors. AALPT is headquartered in Xi'an and produces a variety of different types of motors for ballistic missiles and space launch vehicles. No further information about the location of CAPA has been disclosed.
- **Sichuan Academy of Space Flight Technology**, or Sichuan Aerospace Industry Corporation (SCAIC, also referred to as former Base 062), designs, develops and manufactures various spacecraft and missile components as well as series multiple rocket launchers (<http://www.sinodefence.com/space/organisation/casc.asp>). In addition, SCAIC develops and manufactures many civilian products, including automobile components, engineering plastic-pressure units, security products, optoelectronic products, construction materials and environment protection sets. SCAIC is located in Chengdu, Sichuan Province.
- **Shanghai Academy of Space Flight Technology (SAST**, or Shanghai Bureau of Aeronautics (also referred to as the 8th Academy), designs and develops the Long March-4 family of launch vehicles and FY weather satellites (*Jane's Defence Weekly*, June 13, 2007, 25) (<http://www.sinodefence.com/space/organisation/casc.asp>). Furthermore, SAST develops and produces ballistic missiles, space launch vehicles, satellites, manned spacecraft, SAMs, and AAMs. SAST is also involved in the development of civilian products, such as automobile air-conditioners, office automation, home appliances, mechanical and electronic products, import and export trade, and property management. SAST currently employs about 20,000 staff, including 6,000 engineers (<http://www.cgwic.com/Partner/index.html>).
- **China Aerospace Times Electronics Corporation (CATEC)** is mainly engaged in the research, development, production and sales of the technologies and products in the fields of aerospace

electronics (<http://www.sinodefence.com/space/organisation/casc.asp>). CATEC is located in Beijing and employs 16,000 people (China Beijing Equity Exchange's Website, <http://www.cbex.com.cn/article/en/projects/200811/20081100005651.shtml>).

- **China Academy of Aerospace Aerodynamics** (CAAA, also referred to as former Beijing Institute of Aerodynamics (BIA) or the 701 Institute of CASC) is China's principal missile and rocket manufacturer, first institute for theoretical research and aerodynamic testing in China, and is located in Beijing (<http://www.sinodefence.com/space/organisation/casc.asp>). CAAA employs 1,000 workers, over 60 percent of whom are researchers, engineers and technicians [8].

#### “SPECIAL BUSINESSES”

- **China Great Wall Industry Corporation** (CGWIC) is the only organization authorized by the Chinese government to provide satellite in-orbit delivery (IOD) services, commercial launch services and aerospace technology applications. Yin Liming was appointed president of CGWIC in March 2009, while Zhang Xinqiang was appointed vice president of CGWIC in January 2007 [9]. CGWIC is located in Beijing. It has a U.S. subsidiary, Great Wall Aerospace Inc. of Torrance, California (*Aviation Week and Space Technology*, June 26, 2006, 24).
- **The China Aerospace Engineering Consultation Center** (or CAECC) encompasses several former engineering consultancies centers for aerospace and Center for Economic Research and, as such, was established in 2003 (<http://www.sinodefence.com/space/organisation/casc.asp>). Some 168 people work at the Center. Ma Xingrui is the general manager [10].
- **China Satellite Communication Corporation** (or China Satcom) as the state-owned enterprise (SOE) was founded on December 19, 2001 ([http://www.e-expo365.com/eng/pcen\\_pcindex.asp?peid=878](http://www.e-expo365.com/eng/pcen_pcindex.asp?peid=878)). The main services of China Satcom include satellite special services in communications, broadcast and other fields, satellite mobile communications services, internet services and VSAT services, network services etc. On 10 April 2009 China Satcom (Xinhua News Agency, April 10) became a fully-owned subsidiary company of CASC. Total assets of China Satcom transferred to CASC came

to 6.6 billion renminbi (\$965.81 million). CASC deputy director-general Rui Xiaowu, who was director-general of China Satcom prior to the merger, said that China Satcom will now mainly focus on three service aspects: satellite spatial operations, provision of geographic data and locations, and satellite-ground-communications.

#### CASC AND ITS SUBSIDIARIES BUSINESS INVOLVEMENT

At the *2004 Air Show China*, CASC exhibited a range of previously unknown unmanned aerial vehicle (UAV) projects including a new tactical UAV. CASC's involvement in the UAV field is a clear sign of just how energized the scope of China's UAV development has become (*Jane's Defence Weekly*, May 10, 2006, 26) [11]. At the *Air Show China 2008*, CASC revealed several new designs described as “micro UAV concept demonstrators” (Robert Hewson and Reuven Johnson, “China displays,” 34).

The West's air campaigns in various conflicts have been closely watched in China, and some of the impact of these observations was evident at the *Air Show China*, held between October 31 and November 5, 2006. China Aerospace Science and Technology Corporation FT-1 and FT-3 satellite navigation guided bombs were presented there. FT-1 and FT-3 are aimed at potential export customers for the combat aircraft FC-1, with Pakistan first in line. They are also probably intended to address national requirements (*Aviation Week and Space Technology*, November 6, 2006, 26; November 20, 2006, 45).

#### CGWIC AND CAST

Despite disappointing in-orbit failures and a relatively effective U.S. embargo, China is slowly becoming a player in the international telecom market. China first broke into the telecom market in the late 1990's when CGWIC landed contracts from Chinese and southeast Asian operators to launch American and European spacecraft on the Long March-3B (LM-3B). The market opening closed abruptly at the turn of the century when the U.S. government, stung by a series of security lapses, barred Chinese launches for spacecraft equipped with American components. Yet, China, with a fast-growing domestic market and growing international clout, persisted. In 2004, China reorganized its space industry under CASC with the goal of making its satellites and launch services competitive with Western and Russian suppliers.

Over the years, the U.S. government has sanctioned CGWIC on many occasions for being a serial supplier of weapons to Iran, North Korea, Pakistan and Syria. Yet, to the mystification of all, in June 2008, the State Department

dropped sanctions against the CGWIC (*Space News*, April 13).

In addition to launching spacecraft, as long ago as June 2006 it was reported that CGWIC was involved in commercial aviation via its airliner Great Wall Airlines [12].

CAST, which like CWGIC became a wholly-owned subsidiary of CASC, was entrusted with developing a new high-power long-life telecom bus, the DFH-4, while CGWIC was tasked with improving launch and production processes and developing a turnkey in-orbit delivery service offering (*Aviation Week and Space Technology*, June 15, 148-149).

A Chinese LM-3B rocket successfully placed Venezuela's Venesat-1 telecommunications satellite into orbit on October 30, 2008. Venesat-1 was built by the CAST and is the third of the high-power DFH-4 platforms to be built. An official with CGWIC said that China would be launching a replacement satellite for Nigcomsat-1, orbited in May 2007. China signed a contract on October 16, 2008 with the Pakistani government to build and launch the Paksat-1R telecommunications satellite in 2011 (*Space News*, November 3, 2008; *Aviation Week and Space Technology*, June 15, 2009, 149). Speaking at the margins of the *Pagnanelli Space Insurance Conference* in Venice in April 2009, He Xing, vice president of CGWIC, said that the company has three or four additional contracts in "serious negotiations." He Xing noted that since 1996, the Long March family had had a perfect launch record, with 73 straight successful liftoffs (*Aviation Week and Space Technology*, June 15, 149). In addition to the LM-3B, China is developing the Long March 5 rocket launcher. According to Liang Xiaohong, vice president of the CALT, these launchers will ultimately be used to send astronauts to the Moon (*Aviation Week and Space Technology*, March 9, 35).

To conclude, although it is very difficult to assess the financial operations of both corporations because they are not disclosed, it can be said, however, that both corporations' business involvement demonstrate their fortitude and ability to withstand sanctions imposed by the United States. The case of the CGWIC has been highlighted in particular. Furthermore, CASC broke into a new business venue—the development of the UAVs. CASC streamlining and reorganization in general of AASPT in particular clearly demonstrate that the management of the corporation does not shy away from reforms. It appears that CALT is the next CASC's subsidiary that is likely to undergo reforms. The CALT path of reforms might be easier and quicker to undertake since the experience of CASC and AASPT can be very useful. The reform experience gained by the

management of CASC and its subsidiaries would help to streamline and reorganize the rest of CASC's subsidiaries. Yet, such reforms would take some time to pursue.

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[The author would like to thank Tai Ming Cheung, Associate Research Scientist, Institute of Global Conflict and Cooperation (IGCC), University of California San Diego (UCSA) and School of International Relations and Pacific Studies, UCSA.]

#### NOTES

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2. According to Tai Ming Cheung, CASTC's workforce numbers more than 100,000, of which 40 percent are scientists and engineers. *Fortifying China*, 120t. The financial information for CASTC is not publicly disclosed. Tai Ming Cheng in an e-mail to the author, July 22 2009.
3. [http://www.ista-net.net/agm13/Participants%20list\\_E.pdf](http://www.ista-net.net/agm13/Participants%20list_E.pdf)—online on November 1, 2008.
4. *Ibid*, 151-152. According to Christian Lardier, the 4th Academy (ARMT) is one of the CASIC's main subsidiaries. "Restructuration de l'Organisation Spatiale Chinoise" ("Restructuring of the Chinese Space Organization"), *Air et Cosmos*, no. 2132 (July 2008), 33. Hereafter cited as Christian Lardier, "Restructuration de l'Organisation". This information is, however, incorrect.
5. Tai Ming Cheung, *Fortifying China*, 152.
6. <http://www.cast.cn/CastEN/index.asp>. See also R. Battiston, "The Chinese Space Program" online, [http://www.Inf.infn/conference/2005/spazio/ChinaSpace\\_Battiston.pdf](http://www.Inf.infn/conference/2005/spazio/ChinaSpace_Battiston.pdf). Hereafter cited as R. Battiston, "The Chinese." For the current post of Liu Fang, see *Aviation Week and Space Technology*, May 5, 2008, 29.
7. Christian Lardier, "Restructuration de l'Organisation", 33.
8. [http://ssp07.buaa.edu.cn/department/unit/China%20Academy%20of%20Aerospace%](http://ssp07.buaa.edu.cn/department/unit/China%20Academy%20of%20Aerospace%20)
9. For further information, see <http://www.cgwic.com/About/index.html>. The official English website is very useful and provides information about corporate leadership, organizational structure, and shareholder profile.
10. [http://74.125.77.132/translate\\_c?hl=de&sl=zh-CN&u=http://www.spacetalent.com.cn/comintroduce/cascgczxa.asp&prev=/search%3Fq](http://74.125.77.132/translate_c?hl=de&sl=zh-CN&u=http://www.spacetalent.com.cn/comintroduce/cascgczxa.asp&prev=/search%3Fq). For the corporate leadership click on *Führende Mitglieder des* (German).

11. For the continued CASC's involvement in design of the UAVs, see Aviation Week and Space Technology, November 10, 2008, 27; Jane's Defence Weekly, November 12, 2008, 14. See also Robert Hewson and Reuben Johnson, "China displays airpower credentials with glimpse of new weapon systems", Jane's International Defence Review (February 2009), 34. Hereafter cited as Robert Hewson and Reuben Johnson, "China displays".

12. Aviation Week and Space Technology, June 5, 2006, 17. According to the Great Wall Airlines website, <http://www.gwairlines.en/aboutus.asp?id=6>, Great Wall Airlines has three shareholders – Beijing Aerospace Satellite Application Corporation (BASA), which is a fully-owned subsidiary of CASC, Singapore Airlines Cargo and Dahlia Investments Pte Limited. What is important is that BASA is a subsidiary of CASC.

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