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**In a Fortnight**

By L.C. Russell Hsiao

**CCP PROVINCIAL COMMITTEES' REPORTS HIGHLIGHT GROWING WEALTH AND URBAN-RURAL INEQUALITY**

According to the provincial Chinese Communist Party's (CCP) second plenary committees' report collected by Guangdong-based newspaper *Nanfang Daily*, the gap between the rich and poor is growing wider in many provinces of China.

Among China's 31 provinces (including municipalities and autonomous regions), 26 provinces have held the provincial party's second plenary meeting; party committees in Guangdong, Shandong, Jiangsu, Jiangshi and Yunnan have yet to hold their second plenary meeting.

According to a news report by *Nanfang Daily*: in 2008, Beijing, Fujian, Hubei and Hunan joined the ranks of the 'trillionaire club', which is a term the Chinese-media uses to group provinces whose GDP exceeds Renminbi (RMB) 1 trillion (\$146 billion) (*Nanfang Daily*, January 20).

In December 2008 during the Central Economic Work Conference (*China Brief*, December 8, 2008), Zhongnanhai designated 8 percent as the target GDP growth rate for the national economy in 2009. According to the attitudes surveyed in a *Nanfang Daily* report, provincial leaders' were confident and in some cases bullish about attaining a GDP growth rate target of 8 percent (*Nanfang Daily*, January 20).

Guangdong, Shandong and Jiangsu are the three leading provinces in terms of GDP.

In 2007, Guangdong's GDP was approximately RMB 3 trillion (\$438 billion). At the State Council Information Office Press Conference on January 13, Huang Longyun, standing committee member and deputy provincial governor of Guangdong, stated that Guangdong's GDP grew by 10.1 percent in 2008, which brings its current GDP to RMB 3.4 trillion (\$496.4 billion). In 2008, Shandong's GDP grew by 13 percent, and the province's GDP exceeded RMB 3 trillion, while Jiangsu's GDP reached RMB 2.5 trillion (\$365 billion) in 2007 (*Nanfang Daily*, January 20).

In 2001, Guangdong became the first province to break the 'trillion GDP ceiling', Shandong and Jiangsu followed suit in 2002; Zhejiang joined the club in 2004, Henan and Hebei in 2005; Shanghai in 2006; and Liaoning and Sichuan in 2007. Then in 2008, Beijing, Fujian, Hubei and Hunan's GDP all surpassed the RMB trillionaire mark. There are reportedly four provinces that have GDP exceeding 2 trillion: Guangdong, Shandong, Jiangsu and Zhejiang (*Nanfang Daily*, January 20). Furthermore, in 2008, there were 13 provinces (and municipalities) whose GDP exceeded RMB 1 trillion in spite of the three crises: the severe January snowstorms, the Sichuan earthquake, and the international financial crisis.

Amid the expected slow down in GDP growth rate for 2009, according to the CCP's meeting reports of the 26 provinces that have held their second plenary, Inner Mongolia and Shaanxi have the highest GDP growth rate forecast of 13 percent; Sanxi and Guizhou have the lowest GDP growth forecast of 8 percent. According to data obtained by *Nanfang Daily*, there are nine provinces that forecast a GDP growth rate of 9 and 10 percent, and there are 16 provinces (including municipalities and autonomous regions) that have a forecast GDP growth rate of over 10 percent (*Nanfang Daily*, January 20).

Due, however, to the financial tsunami it is not likely that any new members will be inducted into the so-called 'trillionaire club' during 2009. In 2008, Heilongjiang province was closest to becoming a member of this so-called club with a GDP of RMB 785.6 billion, followed by Inner Mongolia with a GDP of RMB 760 billion, which despite an impressive growth rate of 11 percent and 13 percent, respectively, are both still a far cry from the one trillion mark (*Nanfang Daily*, January 20).

According to *Nanfang Daily*, the per capita income of Shanghai residents are the highest: urban and rural residents earn an income around RMB 26,690 (\$3,901) and RMB 11,400 (\$1,666) respectively, followed by Beijing, whose urban and rural residents have an income around RMB 24,725 (\$3,614) and RMB 10,747 (\$1,571), respectively. Based on data from available provincial party

work reports, the province whose residents have the lowest income is Guizhou (Qinghai and Tibet have not made this data public), where urban and rural residents earn only around RMB 10,891 (\$1,592) and RMB 2,484 (\$363), respectively (*Nanfang Daily*, January 20).

The disparity between the rich and poor is becoming sharper; the CCP's provincial committees' work report indicate that on average urban residents earn about 3 times as much income as rural residents. The disparity is greatest in Guizhou where the urban to rural income ratio is 4.4 times, whereas in Beijing and Shanghai the difference in income is around 2 times (*Nanfang Daily*, January 20).

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## Chinese State Media Goes Global: A Great Leap Outward for Chinese Soft Power?

By Willy Lam

Even as the People's Liberation Army (PLA) is projecting hard power across the four corners of the earth, the Chinese Communist Party (CCP) is mapping out a multi-pronged strategy to publicize globally the apparent viability of the "China model." The administration of President Hu Jintao is spending around Renminbi (RMB) 45 billion \$6.58 billion to boost what party insiders call "overseas propaganda" (*waixuan gongzuo*). Prominent state media including CCTV and Xinhua News Agency will vastly enhance programs and news feed in different languages for Western and Asian audiences, and an English news channel modeled upon Al Jazeera is set to let the world get the Chinese take on issues and events ranging from politics and finance to culture and religion.

Reports by the Hong Kong and Western media last week said that CCTV, Xinhua, and the CCP mouthpiece *People's Daily* could each receive up to RMB 15 billion (\$2.19 billion) for ambitious schemes geared toward enhancing China's international influence. CCTV, which opened French and Spanish channels before last summer's Beijing Olympics, is expected to offer services in Russian and Arabic later this year. Xinhua, which has news bureaus in dozens of major cities around the globe, is reportedly planning to establish a 24-hour English news channel to compete with CNN and BBC. In the run-up to the Olympics, Chinese media—and nationalist Chinese youth—had vehemently denounced CNN and other Western news organizations

for distorting the “true picture” of Chinese policies regarding sensitive areas such as Tibet and human rights. The *Global Times*, which is an offshoot of *People’s Daily*, is readying an English edition in the near future. This would become China’s third English-language newspaper (Reuters, January 13; *South China Morning Post* [Hong Kong], January 12; AFP, January 14).

As with major efforts in other arenas, this aggressive projection of soft power is initiated by a marathon of speeches by CCP senior cadres. Earlier this month, CCP Politburo Standing Committee member Li Changchun told officials attending a national conference on propaganda and ideology that they must “vigorously sing the praises of the achievements of the CCP, socialism, the reform policy, and [the glories of] the great motherland.” Li called for “assiduous efforts to augment the soft power of Chinese culture, and to further elevate our national image.” Wang Chen, who heads the party’s overseas propaganda division, added that media and cultural units should beef up their “capacity to broadcast, to positively influence international public opinion and to establish a good image for our nation.” “We must strive to set up a top-line global media arm that covers the entire world and which is multilingual, enjoys a large viewership, has a large volume of information and is strongly influential,” Wang indicated (*People’s Daily*, January 6; Xinhua News Agency, January 9; AFP, January 14).

Plans to extend the global reach of Chinese norms—and the Chinese model of development—complements PLA gambits such as sending naval vessels to the Gulf of Aden and building aircraft carriers and other state-of-the-art hardware (*China Brief*, January 12). This ‘Great Leap Outward’ of Chinese soft power may also be an effort to exploit the precipitous drop in the esteem of American-style, laissez-faire capitalism in the wake of the financial tsunami. While the Chinese economy has also been hurt particularly due to a shrinkage of exports to the United States and the European Union, the Hu leadership is convinced that the sorry state of the American model has thrown into sharp relief the superiority of the Chinese way of doing things. According to a recent commentary by the Xinhua News Agency, the results of 30 years of Chinese reform have amounted to “the realization of innovation and creativity on a gargantuan scale ... nothing less than an epic poem about expeditious development.” “Not only ordinary people but the media and academia in China and abroad have paid close attention to ‘the China miracle’ or ‘the China model,’” proclaimed the party mouthpiece (Xinhua News Agency, December 28, 2008).

Similar sentiments are being echoed by Beijing’s big-name scholars. For Peking University political scientist Yu Keping, the China model has “enriched our knowledge about the

laws and paths toward social development and promoted the multi-pronged development of human civilization in the age of globalization.” Yu, who sometimes advises President Hu on political issues, said that the Chinese approach carried a special significance for developing countries because “both the ‘East Asian model’ and the ‘Latin American model’ have lost their effectiveness in recent years.” According to Central Party School Professor Zhao Yao, the China model is worth maximum exposure because “it has saved the world socialist movement.” “Through the reform and open door policy of China, new vistas have been opened up for socialism,” Zhao noted (*Beijing Daily*, November 18, 2008; Xinhua News Agency, December 28, 2008).

There is little question that particularly since most private and semi-governmental international news and cultural organizations are downsizing due to harsh economic realities, China’s multi-billion RMB propaganda putsch will catch eyeballs galore. Whether the worldwide audience will buy the product is another question. A just-released survey by the Chinese Academy of Sciences points out that based on data up to 2005, the influence of Chinese culture is ranked seventh in the world, behind that of the United States, Germany, Britain, France, Italy and Spain (Xinhua News Agency, January 18)—and CCP cadres and experts seem convinced that Chinese soft power will mushroom in the wake of the proliferation of publicity materials. According to Dong Manyuan, a senior researcher at the China Institute of International Studies (a Chinese Foreign Ministry think-tank) Chinese soft power is different from—and potentially more appealing than—Western brands because the former exults a wholesome sense of “peace and harmony.” “Characteristics of Chinese soft power include respect for heterogeneity of world [cultures], openness and tolerance, friendliness and inclusiveness ... respect for politeness and benevolence” (Xinhua News Agency, January 18; *Outlook Weekly* [Beijing], December 8, 2008).

However, detractors of the “China model,” including the Chinese approach to overseas propaganda, have cited instances where Chinese leaders—and censors—have failed to demonstrate openness, tolerance or inclusiveness. In a speech late last year summarizing the achievement of 30 years of reform, which underpins the apparent virility of the country’s economy and culture, President Hu took an uncompromising stance while underscoring the imperative of cleaving to Marxist orthodoxy. The superno vowed that the CCP would uphold the “Four Cardinal Principles” of stern party control and “democratic proletarian dictatorship.” Hu said that the CCP would do whatever it takes to “boost its ability to guard against changes [to a non-socialist system] and to withstand risks” such as socio-political instability. And he delivered a stern warning to

liberal cadres who favor a faster pace of political reform as well as the adoption of “universal values” such as elections and rule of law. Hu warned that the leadership “will never take the deviant path of changing the flag and standard [of the party]” (*People’s Daily*, December 19, 2008). Hu’s harsh rhetoric would seem to be at odds with the image of a benevolent, harmonious and tolerant China that the party’s legions of publicists are so keen to project.

In an article on the difficulties facing the global marketing of Chinese values and culture, Tsinghua University media scholar Li Xiguang noted that “the soft power of a country manifests itself in whether it has the power to define and interpret ‘universal values’ such as democracy, freedom and human rights.” Li pointed out that in order to enhance the attractiveness of ‘socialism with Chinese characteristics’, “we must let the whole world hear the stories that Chinese citizens have to tell about their democracy, liberty, human rights and rule of law” (*People’s Daily* net, January 5). The problem, of course, is that intellectuals bold enough to air their views on democracy and political reform have been harassed if not incarcerated by the authorities. This is true of the dozens of well-known writers and professors who earlier this month signed a manifesto called Charter 08, which asked the CCP leadership to do nothing more than letting Chinese enjoy civil rights enshrined in United Nations covenants (*China Brief*, December 19, 2008).

Moreover, even though state media are all guns blazing in expanding their coverage and broadcasts overseas, the Department of Propaganda and other departments have tightened their grip on Chinese publications and websites that have apparently run afoul of the censors. A just-released Human Rights Watch World Report pointed out that at least 26 Chinese journalists remain in prison. “The Chinese government continues to strictly control journalists, and sanctions individuals and print and online media which fail to comply with extremely restrictive but unpredictably enforced laws and regulations,” the report said [1]. Since late last year, seven departments including the Public Security Ministry and the State Council Information Office have closed down more than 726 websites that are said to be pornographic. Yet famous blogger Wang Junxiu said that the crackdown could be more about taming the Chinese internet than eradicating smut. Wang, a Charter 08 signatory, indicated that authorities wanted to “tighten up [the media] in response to all the sensitive dates in 2009” such as the 20<sup>th</sup> anniversary of the 1989 Tiananmen Square massacre (*Reuters*, January 5; *AFP*, January 16).

Doubts have also been raised by Chinese intellectuals about the quality—and integrity—of state media including CCTV. Earlier this month, 22 writers and lawyers started a Net-based movement asking Chinese nationwide to

stop watching the station. The campaign, entitled “Say no to CCTV, say no to brainwashing,” accused its news programs of “focusing only on bright side” while reporting on domestic affairs, and doing the opposite about events in foreign nations. The petitioners also faulted the network for running too many historical dramas whose message was that citizens should profess undying loyalty to the emperor. So far, neither CCTV nor other Chinese media have reported on this unprecedented challenge to the CCP media establishment. When asked by Hong Kong reporters to comment on the issue, a CCTV spokesman said only that his organization and its programs were “well-liked by the great majority of Chinese” (*BBC news*, January 13; *Ming Pao* [Hong Kong] January 14; *CableTV News* [Hong Kong], January 14). Unless these and other questions about censorship and brainwashing are answered satisfactorily, however, China’s state media, no matter how well-endowed financially, can hardly win a global following, let alone help Beijing develop soft power that is commensurate with that of a quasi-superpower.

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#### NOTES

1. ‘World Report 2009’, Human Rights Watch, <http://www.hrw.org/en/node/79301>.

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## Commodity Flux and China’s Africa Strategy

By Jeffrey Herbst and Greg Mills

The commodity price decline has revealed to the Africans something of the nature of their friends. During the commodity price boom, China invested massively in Africa seeking to lock up as many raw materials as possible. Some in academia spoke confidently of China having a fifty or one hundred year strategy toward Africa. In practice, Chinese entrepreneurs have been the first to leave when the market turned since the global decline in commodity prices accelerated with the collapse of Lehman Brothers in September 2008. For instance, according to interviews

the authors conducted in Congo, more than 60 Chinese mining companies have left the mineral rich Katanga the last two months, as cobalt and copper prices have tanked. Over 100 small Chinese operators are reported to have left Zambian mines for the same reason.

A similar retreat may be occurring at the strategic level. In 2007, it was announced that China would lend the Congo \$5 billion to modernize its infrastructure and mining sector. Under a draft accord, Beijing earmarked the funds for major road and rail construction projects and for rehabilitation of Congo's mining sector, while the repayment terms proposed included mining concessions and toll revenue deals to be given to Chinese companies. In simple terms it meant 13 million tons of copper for \$5 billion—or (even at today's depressed prices) \$40 billion for twenty-times less [1]. The China-Congo deal, however, has gone very quiet as the copper price has plummeted. The market—not grand strategy—is the main Chinese motivation in Africa.

#### AFRICA AND CHINA

African countries have, on average, grown by five percent or more over the last few years. This remarkable turnaround from the low rates of growth of the previous 20 years has given some hope that many of the world's poorest countries can finally start on the road to development and poverty alleviation. The growth resurgence in Africa has been due to the many difficult economic reforms that many countries have undertaken, including liberalizing the exchange rate and reducing inefficient state enterprises. Yet, growth in Africa has also been fuelled by the large increases in commodity prices over the last few years as most countries are dependent on the export of a few raw materials.

Africa is a new continental market for lesser-priced Chinese exports, while it is a major source of raw materials. China's trade with Africa has dramatically increased from \$11 billion in 2000 to \$73 billion in 2007 [2]. As the price of commodities rose, China rapidly became the most assertive investor nation in Africa. By the start of 2008, over 800 Chinese state-owned enterprises were active on the continent, with Chinese firms investing more than \$6 billion in Africa in 900 projects—notably in the natural resource sector [3].

Until recently, it appeared that Africa's dependence on commodity export would not be an obstacle to growth. In the middle of 2008, as oil surged past \$140 per barrel, there were confident predictions of a commodity "supercycle" based on sustainable increases in demand from India and China that would keep not only petroleum but every other commodity at record high prices. In fact, commodities

have crashed. Oil is now below \$50 per barrel and other commodities have succumbed to the downward pressure. The benchmark copper price has fallen 65 percent since July and cobalt is now at approximately \$16/lb down from \$52 in March (*Mining Weekly*, December 16, 2008).

The sharp drop in commodity prices has many implications for Africa—and by extension its relations with China. First, growth is going to be massively slashed. Indeed, the price declines have been so sudden and so brutal that many African leaders, who believed that they were doing what the west recommended, suddenly find their economies to again be in tatters. For instance, in Zambia, a combination of bad political leadership, a failure to reinvest, and falling prices had seen copper production fall by the early 1990s to less than one-third of its 720,000 ton 1960s peak [4]. In 1991, the Zambians finally voted out the old party that had presided over decline and instituted a controversial program of privatization. Riding on the commodity boom, Zambia has enjoyed a five-year boom, with production rising to 600,000 tons [5]. Now, Zambian mines are closing as many are unable to produce at the current cost and unemployment is growing rapidly. The value of the local currency, the Kwacha, fell by three-quarters in just 45 days from the start of November 2008. It may not end here. As Zambia's Finance Minister Situmbeko Musokotwane said: "I suspect there will be further knock-on effects, particularly among the sub-contractors to the mines."

However, it is questionable whether Zambia, like others, even made full use of the boom. In response to the high prices Zambia introduced a 'windfall tax', the result being that some mines were forced to pay tax before they made any profit. The outcome: All new investments stopped, including those that would have given old mines a new lease, which may have mitigated the impact of the current price downturn. The windfall tax rates meant that as copper prices rose above \$3 per pound triggering the tax, so the profitability of operations decreased. Unusually it became in companies' financial interests to see prices decline to avoid such taxation.

A similar if more desperate story is underway in the neighboring Congo. Under former president Mobutu Sese Seko's misrule, by the mid-1990s the annual per capita income of Congolese was, at \$120, two-thirds less than before independence. The commodity boom helped Congo and at least Katanga province, where much of the mining is located, experience an uptick. However, Katanga is now in freefall as many of the mines are closing and may well take the rest of Congo with it. Indeed, the upsurge of violence in Eastern Congo may be due in part to the fact that rebels fighting the Congolese government are aware of the commodity price decline and are deliberately picking

a fight against a government that they know has grown weaker.

While the Africans are understandably bitter about the sharp price decline in their export prices that seemingly began with the overbuilding of houses in Boca Raton, Florida, they are not without blame. The commodity boom produced something akin to the proverbial seven fat years for some African countries but there was very little effort to diversify production while the going was relatively good. In particular, the very old story of underinvestment in agriculture was repeated as Africans listened to those analysts who said that commodity prices would stay high forever. Now they are stuck with low prices for their exports and little else.

In the DRC, like Zambia, opportunistic policy and recalcitrant bureaucracy has not helped. In response to high prices the Congolese government initiated a 'revisitation process' early in 2007, questioning the tenure of all mines and forcing companies to reapply for licenses. Such uncertainty made raising capital more difficult. As a result, big long-term mining projects are now at risk. Indeed, such greed may have ensured the DRC has largely missed out on the metal price bubble.

The effects of such avarice have been exacerbated by the nature of the DRC's bureaucracy. This is one hangover from former president Mobutu Sese Seko's 35 years in office when everyone was left to fend for themselves, using their office to frustrate progress until paid. As one mining executive observed, "until the international community can somehow pay for salaries of the bureaucrats, I don't believe things will change much."

No doubt some African countries have benefited on balance from the commodity downturn, as food and fuel prices have fallen. Most African countries are, after all, net energy and food importers. Yet, the sudden price decline has proven again that African countries are not immune to the effects of the international financial crisis and that they must redouble efforts to reduce their dependence on raw material exports.

Despite the price declines, Africans in southern Africa that the authors speak to remain committed to competing in the international economy and driving their countries forward through better policies. Interestingly, government officials and businessmen in Africa never mention foreign aid as a particularly important driver for growth, despite the lavish attention that western media gives to actors, musicians, and others who continue to promote Africans as helpless victims who need ever-greater handouts. Today's leaders in Africa know, especially in light of the commodity decline,

that they have made mistakes but they also know that they will determine the fate of their countries. To do so, they will need a recipe of sound bureaucracy, and consistent policies attractive to investors. China, African leaders know, will be an important and growing presence in Africa. Yet, the price decline, and the subsequent Chinese response, will probably cause African leaders to recalibrate their perspective on what they can expect from Beijing in the years to come.

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#### NOTES

1. Authors' discussion with Zambian and DRC-based mining executive on 21 December 2008 in Johannesburg.
2. Authors' interview on 9 November 2008 in Beijing.
3. See Sudha Ramachandran, 'India pushes people power in Africa', *Asia Times*, 13 July 2007 sourced at [http://www.atimes.com/atimes/South\\_Asia/IG13Df03.html](http://www.atimes.com/atimes/South_Asia/IG13Df03.html)
4. Authors' interviews in December 2008 in Zambia.
5. Authors' interview with Zambian Finance Minister on 15 December 2008 in Lusaka.

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## Recent Trends in Russo-Chinese Military Relations

By Stephen Blank

The Russo-Chinese relationship is a multi-dimensional one. Thus progress in each aspect of those ties is uneven. For instance, Russia has consistently failed to satisfy China's demands for energy, which Russia regards as being excessively one-sided insofar as the apportionment of benefits is concerned. China has long demanded that it pay below market prices and Russia has largely resisted yielding to that demand. On the other hand, the issue of arms sales seemingly is an area where Russia has successfully sold many weapons to China and gained valuable revenues while China gains weapons and technologies plus know-how in designing them. Nevertheless, a closer examination of recent developments in Russian arms sales to China suggests trends parallel those in the energy sector: Russia is failing to meet Chinese demands. Just as Moscow now seeks Chinese loans for its energy companies and investments in Russian Asia, its arms sales to China is falling victim to its angst at the United States and its arms producers' need for

cash even as it builds up a formidable military force that it knows one day could be deployed against it.

From 1990-2007 Russia sold China \$25 billion of weapons. Nonetheless there were many production problems albeit largely unreported ones (Interfax-AVN, December 12, 2008). For example, the three-way contract with Uzbekistan and Russia to build Il-76 military transports and Il-78 tankers was effectively annulled by Tashkent. So while Russia fulfilled its contractual obligation to make the engines, nobody made the airframes (Interfax-AVN, December 12, 2008). In other cases 200 Su-27SK fighter jets were to be made under license but only 105 were completed “whereupon China unilaterally terminated the contract.” Those sales fell precipitously to just \$700 million of new contracts in 2007 (Interfax-AVN, December 12, 2008; FBIS SOV, December 12, 2008; Vedomosti, December 10, 2008; FBIS SOV, December 10, 2008). This prospect caused considerable alarm in Russia’s defense industrial complex, especially in the current economic crisis. China, having bought many weapons platforms, now does not need them but rather seeks the technologies associated with them, the right to joint development and production, and Russian state of the art weapons (Interfax-AVN June 27, 2007; Interfax, December 12, 2008; FBIS SOV, December 12, 2008). Indeed, China had already begun to reverse engineer these Russian weapons and produce them by itself thereby infringing upon Russia’s intellectual property and causing the prospect of millions of dollars in losses.

Consequently there is currently not one single large-scale defense contract with China as in the past. Worse yet, apparently Russian officials are unable to decide what systems should be sold to China. The revelations of defective weapon sales to India and Algeria coupled with Russia’s habit of abruptly raising prices for its products and then demanding payment lest the production line shut down raises question of its overall reliability as an arms seller—not just to China. Yet beyond this “there is currently no effective communication channel or mechanism to deal with the problems, not even at the top leadership levels” [1]. Indeed, there had been no meetings of the full bilateral military commission since 2005.

Therefore this issue became a serious concern for Moscow, especially as it still held back from selling Beijing the most sophisticated and latest technology like what it sells to India. At the same time there also appears to be signs of a subterranean disquiet about the rapid growth of Chinese power (*Nezavisimaya Gazeta*, January 30, 2008; FBIS SOV, January 31, 2008; The Weekly Standard, February 5, 2008). Although some analysts argue that Russia is unafraid of Chinese military power, that is not the case with regard to Chinese nuclear and missile policies since

Beijing’s expanding arsenal clearly has triggered Moscow’s disquiet which, however, it dare not publicize [2]. But since Russian defense exports depend on sales to China, especially under conditions of growing tension with the West and now the global economic crisis, and nobody else will export weapons to China, it was always likely that some compromise weighted toward Beijing would ensue. During Prime Minister Wen Jiabao’s visit to Russia in October 2008, Moscow announced that arms sales will continue through 2015 without problems, a trend that both sides welcome (Interfax, October 24, 2008).

In December 2008 Russian Defense Minister Anatoly Serdyukov led a delegation to Beijing and the first meeting of the bilateral Military Commission since 2005. Those meetings reviewed the entire inventory of arms sales and apparently led both sides to agree in the field of high technologies on both sides, step up cooperation to a higher qualitatively new level (i.e. newer Russian models and weapons, and jointly develop high-tech products). Although no new contracts were signed at those meetings, negotiations are already underway on many new contracts (ITAR-TASS, December 12, 2008; FBIS SOV, December 12, 2008; ITAR-TASS, December 13, 2008; FBIS SOV, December 13, 2008; *Kommersant*, December 12, 2008). Reportedly Russia will expand bilateral military cooperation and defense and security cooperation within the Shanghai Cooperation Organization framework so that both sides will play a bigger role in Eurasia’s security agenda (Xinhua News Agency, December 10, 2008).

Specifically, China will continue producing Su-27 and Su-30 fighter jets under license, and will cooperate with Russia across the spectrum of Sukhoi aircraft, including the SU-33 and multi-role Su-35 fighter, i.e. Russia’s newest models, project 677E submarines and elements of China’s aircraft carrier program, e.g. carrier-based aircraft on the Su-33. China could also be interested in obtaining the TU-22M3 missile armed naval aircraft with new heavy anti-ship intermediate range missiles, project 971 and 949a multi-role nuclear powered submarines, and the MiG-31 Interceptor. In 2010 China will also receive the Il-76 military transports and Il-78 tanker which were contracted for but encountered production difficulties (RIA Novosti, December 12, 2008; Interfax-AVN Online, December 12, 2008; FBIS SOV, December 12, 2008).

Thus it appears that Russian angst with the United States, Moscow’s need for support against America, and desire to show Washington that it has other international options, plus the distress that arms manufacturers have felt due to decreased sales, and the looming economic crisis have led Moscow to sell China most—if not all—of what it wanted in the way of access to high-tech and new weapons

from Russia which will now aid it to challenge the U.S. Navy, Taiwan, other Asian players, and develop enhanced capabilities for power projection. Meanwhile it remains unclear if Russia has really resolved the intellectual property issue of Chinese copying of Russian systems (FBIS SOV, December 12, 2008). The catch for Russia is overcoming its own production bottlenecks that apparently obstructed previous programs' full realization in order to actualize the arms sellers and producers' revenues (ITAR-TASS, December 12, 2008; FBIS SOV, December 12, 2008). But now Russia has had to deny that it will supply China with nuclear submarines because of the inevitable foreign disquiet that reports of these agreements generated abroad (ITAR-TASS, December 15, 2008; FBIS SOV, December 15, 2008). Nonetheless Russia will now actively support the further growth of Chinese military power even though it acknowledges that this power represents a threat to its own interests.

In this respect arms sales parallels energy developments. Russia's inability to execute its contracts due to poor economic governance and policy, coupled with its belligerent stance toward the West may allow it to insist on its sovereign independence, but actually its policy amounts to little more than 'splendid isolation'. Russia appears increasingly compelled to yield to China whether it be on energy, missile defenses, or arms sales even as its defense policies acknowledge, in practice if not word, a rising Chinese threat [3]. Ultimately Russia is riding the dragon but can it alight in time before it bites?

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#### NOTES

1. Jeff Chen, "Russia-India, Russia-China Military Cooperation Running Into Difficulties," Toronto, Kanwa Intelligence Review Internet, in English, March 30-April 13, 2008, FBIS SOV, April 5, 2008.
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## New Advances in PLA Battlefield Aerospace and ISR

By Martin Andrew

A profound transformation is taking place in Chinese battlefield aerospace, the People's Liberation Army's (PLAs) *xinxihua zhanchang* (informationalized battlefield) program is assisting its armed forces in attaining information domination on the battlefield. As part of this program, intelligence, surveillance and reconnaissance (ISR) systems are undergoing a complete reorganization and expansion within the PLA. Previously, battlefield reconnaissance was conducted by the People's Liberation Army Air Force (PLAAF), using fighter aircraft modified for reconnaissance. Cameras used in these missions produced excellent imagery but could not aid the PLA in battle because it took too much time to process and be of any operational value. This has now changed with the PLA's new capabilities of operating helicopters with thermal imaging systems and UAV's providing real time data to battlefield commanders.

Advances in the development of Chinese unmanned air vehicles (UAVs) and unmanned ground vehicles (UGVs) enhance the military's strategic posture and capabilities. Long range patrolling of China's high altitude borders regions in Xinjiang, and to a lesser extent in Tibet, is carried out by border guard patrols in specially designed cross country vehicles pressurized to cope with the lack of oxygen at these heights. UAVs will enable more effective surveillance and patrolling of these borders, at considerably less cost in manpower and equipment, enabling the border guards to focus more on their tasks and quickly move to an area where the UAV has picked up illegal border crossings. The PLA has invested heavily in ISR and command and control systems and the introduction of the latest UAVs will enable them to see 'over the hill' without having to expose soldiers or aircraft. Military operations in urban environments and counter-insurgency operations will also be enhanced as UGVs will be able to search buildings for improvised explosive devices as well as for the insurgents.

#### BATTLEFIELD AEROSPACE AVIATION UNITS

Battlefield aerospace aviation units in the PLA are divided into manned (helicopters) and UAVs. UAVs were primarily used as targets for air defense systems but from the mid-1990s small UAVs started to be employed for battlefield reconnaissance and recently for civilian tasks such as surveying disaster areas. Recently, China started examining the possibility of using UAVs for combat missions. The provision of battlefield helicopters at present is split between the Army Aviation units in the PLA and the PLAAF, which are both expanding and modernizing. The PLA is in the

process of acquiring its first dedicated attack helicopter, the Chinese developed WZ-10, and the PLAAF is acquiring more modernized Russian Mi-17 helicopters to be built in China [1]. Furthermore, the new WZ-15/EC175 medium helicopter is being built in a 50/50 partnership between the Chinese firm ACIC II and Eurocopter [2], which will supplant and subsequently replace the Z-9 model currently in service. Battlefield UAVs have been used by selected PLA units, primarily special forces, since the mid-1990s for reconnaissance but their wider use is expected with new designs coming into service.

Ground reconnaissance elements units have been upgraded throughout the new brigade structures down to the company level and equipped to provide near real time exploitation of their ISR. New scout and reconnaissance vehicles have been introduced and the PLA is looking at unmanned ground vehicles (UGVs) for future use in reconnaissance and other roles.

#### ARMY AVIATION CAPABILITIES

The most common army aviation helicopter is the Harbin Aircraft Manufacturing Company Z-9G/W, which is the Eurocopter AS 365N Dauphin II produced under license, and is the most modern helicopter used by the PLA Aviation battalions. Variants of the Z-9W include dedicated liaison, reconnaissance, utility, anti-tank, command and control and utility variants; with the anti-tank and reconnaissance variants equipped with a nose mounted thermal imaging seeker. The People's Armed Police (PAP) also uses a variant of the Z-9 (*Beijing Qianlong News Online*, April 11, 2005). It has two pylons that can carry a maximum of either eight *Hong Jian-8* anti-tank guided missiles, four *Tian Yan 90*, two cannon pods or two rocket pods [3]. They are vulnerable to even small arms fire as they lack redundant systems and armor. For counter-terrorist and riot control as well as locating and general police duties, the Z-9 can be equipped with a fixed side facing high intensity white light and dual loud speakers on the left side pylon [4]. The introduction of thermal imaging seekers on Z-9 helicopters has provided PLA commanders with real time ISR assets opening up the battlefield at night and with the ability to locate camouflaged positions from stand off distances during the day.

After the 9-11 attacks on the United States the PLA's first Army Airborne Regiment was sent to Xinjiang ostensibly to combat Uyghur separatists. The unit was initially equipped with approximately 30 Chinese built Z-9 helicopters (*World Journal*, October 23, 2001) and its missions were to develop tactics and doctrine for helo-borne operations including night time combat search and rescue, as well as conducting counter terrorist and

insurgency missions (*Zhuongguo Guofang Bao Online [China National Defense News*, 12 December 2004; 4 May 2005). The unit's mission profile is similar to a U.S. Army Ranger battalion combined with the 160th Special Operations Aviation Regiment (Airborne). The airborne regiment has PLAAF Mi-17 transport helicopters available to provide greater troop lift and fire support. These are equipped with navigation radar and up-rated engines with an auxiliary power unit to ensure reliable starting at altitudes up to 4,000 meters (m) [5]. It is difficult to establish whether the unit is still in Xinjiang, but 16 Z-9G and 16 Mi-17 helicopters that were self-deployed to Russia for the August 2007 Shanghai Cooperation Organization (SCO) exercise 'Peace Mission 2007' came from Xinjiang (*Eurasia Daily Monitor*, July 27, 2007).

#### HELICOPTER FIRE SUPPORT AND ISR

A long standing requirement for a helicopter to provide survivable all weather aerial fire support for both escorting transport helicopters and close air support will be met by the Changhe Aircraft Industries Corporation (CAIC) WZ-10 attack helicopter. This is China's first indigenous attack helicopter and is the lynchpin of the PLA Army Aviation's modernization plans. Besides anti-armor, the WZ-10 will provide escort, armed reconnaissance, and force protection missions, the latter against enemy attack and reconnaissance helicopters and UAVs. The WZ-10 will give operations staff real-time long range battlefield imagery from its advanced all-weather avionics and targeting systems via data links that can be expected to be part of the avionics system.

The WZ-10 is in the size and weight range of the Italian A129 Mangusta with many design features copied directly from it, including the cockpit. The prototype used two Pratt and Whitney Canada PT6C-6TC engines rated at 1,531 horsepower (hp), which equates to 1,142 kilowatts, power the WZ-10. These are subject to the post-Tiananmen embargo so will be replaced before the WZ-10 goes into service. These give it a top speed of 280 kilometers per hour (km/hr), a cruising speed of 230 km/hr and a maximum range of 800 km.

The cockpit design has been taken directly from the A129 Mangusta fire control system, using helmet mounted display systems a field of view of 260 degrees horizontally and from minus 34 to plus 56 degrees at right angles to the cockpit. The design reduces its infrared signature and the navigation system incorporates GPS/GLOSNAASS updates. The sensor system includes a nose mounted electro-optical laser designator/range finder and a thermal imaging seeker. The systems integration of the navigation, electronic warfare and fire control system will be a challenge for

China's aviation industry.

The armament comprises a 30mm cannon under the nose similar to the AH-64 Apache, and on its two stub wings it can carry a total of eight *Tian Yan* 90 air-to-air missiles, or eight *Hong Jian-10* anti-tank missiles, or rocket and gun pods. It incorporates electronic warfare suite includes a radar warning receiver and a chaff/flare dispenser.

#### TRANSPORT

The PLAAF uses the Russian Mi-17 transport helicopter, the export designation of the Mi-8MTV-2 helicopter, which incorporates a chin-mounted radar enabling bad weather operations and six spools for armament. In PLA service the armament includes six 57 mm UB-32 rocket pods containing a total of 192 55 mm rockets providing transport helicopters a measure of fire support/defence suppression [6]. During the ill-fated Soviet occupation of Afghanistan the Mi-8 was severely underpowered at high altitudes. Due to the problems of flying in mountains at high altitudes, resupply helicopters could only fly between five and ten hours. Often they did not land but dropped the cargo from an altitude of between 5 and 30m at a speed ranging between 20 and 70 km/hr. The maximum payload never exceeded 400 kg [7].

The Mi-17 in PLAAF service has two 1,900 hp turbine engines compared to the Mi-8's engines rated at 1,700 hp. The Mi-17 helicopter also carries an auxiliary power plant, which feeds the air starters to the engines ensuring reliable starting of the main engines up to 4,000 m depending on the engine type. Despite the extra power the Mi-8MT/Mi-17MT can only carry six to eight combat laden soldiers dropping to only four or five at 3,000 to 4,000 m [8]. A Russian air assault soldier can carry anywhere from 35 to 40 kg of extra equipment on top of his weapon and uniform [9]. The company says that it can lift 24 combat equipped soldiers at lower altitudes [10]. By comparison, Australian Defense Force CH-47D Chinook transport helicopters deployed in Afghanistan can carry 30 passengers and five tons of cargo [11].

Interestingly no helicopters in the PLA's service have been seen mounting any type of door gun to provide suppressive fire when the helicopters land during an assault. Providing a machine gun with mount, ammunition and dedicated gunner to provide suppressive fire at high altitudes would severely restrict the amount of personnel or cargo that a Z-9 or Mi-17 helicopter could carry. The poor performance of helicopters at high altitudes is why the CH-47D Chinook has become the primary helicopter for delivery of cargo and personnel by air in Afghanistan.

#### UNMANNED AIR VEHICLES

Chinese industry has developed a wide range of UAVs in recent years used by the PLA—small UAVs have been used by special forces since the mid-1990s (*People's Daily Online*, June 19, 2002). Typical UAVs are the W-50 that reportedly has the ability to loiter over four hours depending on the payload and an operational range of over 100 km; and the Z-3 helicopter UAV, which weighs 130 kg with its 30k payload and incorporates GPS navigation for pre-planned reconnaissance missions [12]. In the recent Sichuan Earthquake at least one Chinese-developed small UAV was deployed to survey the damage [13]. Of pusher configuration with twin booms connecting a 'V' shaped rear fin it was 2.1 m long, had a wingspan of 2.6 m and weighed 20 kg. It can travel at 110km/hr, reach an altitude of 3,500 m and has GPS assisted guidance.

In November 2008 at the Seventh China International Aviation & Aerospace Exhibition in Zhuhai a mockup of the China Aerospace Science and Technology Corporation's new CH3 technology demonstrator attack UAV was displayed (*People's Daily Online*, November 3, 2008). It has a tail-less canard design with the flaps mounted on the tips of its rear double delta wings. The engine and triple blade propeller is mounted in the rear of fuselage like the MQ-1C Warrior developed by the United States and appears similar in size although it incorporates a chisel nose instead of the bulbous nose, which contains a radar in the MQ-1C. The CH3 utilizes a blended fuselage and incorporates a stabilized targeting turret under the forward fuselage similar to the AN/AAS-52 Multi-spectral Targeting System on the MQ-1C. There is a large pylon under each rear wing, which on the mockup, mounted a missile similar in size and shape to the AGM-65 Maverick.

Also on display was a reconnaissance UAV, similar in size to the Israeli Aerospace Industries' Scout [14]. Employing skids instead of wheels, implying it is catapult launched, it is most likely employed to locate targets for artillery units. Mechanized and armored units have not been neglected as the PLA has type certified an armored tracked launcher, based on the ZSD 89 armored command vehicle, using a modified low profile turret from the WZ731. This incorporates flat transmitter panels on the turret roof, with a compressed gas catapult for a small UAV mounted on top [15].

#### BATTLEFIELD UNMANNED GROUND VEHICLES [16]

The PLA is also looking at unmanned ground vehicles (UGVs) for use on the battlefield and for high risk missions like explosive ordnance disposal and clearing buildings. The two vehicles that appear most suitable for the ISR

role are the ASENDRO and the CHRYSOR. UGV's not being manned are especially vulnerable to terrain obstacles and light anti-tank weapons and anti-materiel (military equipment) rifles.

The ASENDRO is a small UAV being 600mm long with a chassis height of 400 mm high and weighing 45 kg. There are both wheeled and tracked versions, with the tracked version able to travel at 10 km/hr, climb a 400 slope and cross over a 200 mm high obstacle. The vehicle is capable of carrying mast mounted cameras and a rotating arm on the forward half of the chassis. It uses a 24/27 volt circuit and operates up to four hours. The ASENDRO Scout, a dedicated reconnaissance version, carries an 18 x camera operating in the 7 to 14 micron bandwidth and having an operating angle of 50° x 35°.

The CHRYSOR is a large amphibious UGV, which looks similar to the British Argocat 8 x 8 logistics vehicle. It is 2.92 m long, 1.64 m wide and has a chassis height of 1.92 m. It weighs 950kg and its 31 hp (22.79 kW) gives it a maximum road speed of 45 km/hr and a speed in water of 4 km/hr. It can operate up to 12 hours and it has a payload of 680 kg on ground which drops to 300 kg if it needs to cross water. It can climb a 370 slope, a 1m trench and climb over a 0.4 m obstacle. It carries ten fixed cameras on the chassis for movement and can carry a multifunction mast depending on the mission. The prototype vehicle can be driven if necessary and some of the versions envisaged keep the optional drivers position [17]. Two versions mooted for the ISR role are as a communications repeater in remote areas, which would be extremely useful in high altitudes and as a reconnaissance vehicle in counter-terrorist and urban warfare. This version carries three banks of five high intensity lights to illuminate an area.

To exploit all these new sources of information, and to prevent information overload, the new brigades and battalions contain their own intelligence net that shares battlefield information. A dedicated reconnaissance officer is located at the brigade headquarters to ensure no duplication of assets or missions (*PLA Daily Online*, September 16, 2008). The battalion reconnaissance teams have man portable battlefield radar and night observation equipment coupled with a data link offering the commander a real time picture of the battlefield from the soldiers view as well as from the sky (*PLA Daily Online*, November 19, 2008).

#### CONCLUSION

The drive for information dominance on the battlefield has seen the PLA modernize its ISR assets. Chinese industry has, and is, developing a range of battlefield UAVs that the

PLA is now deploying. Helicopters have been equipped with the ability to operate at night, which denies enemies night-time sanctuary. The introduction of armed UAVs and a new dedicated attack helicopter will enable the PLA to conduct high tempo 24 hour operations. Their ability to assist in disaster relief has already been established, freeing helicopters to perform medical evacuation and supply missions. UGVs are just coming into service and as they are further developed the PLA will find new ways to utilize them. Besides reconnaissance over minefields and booby trapped terrain, they can be used to search for earthquake victims as well as for ordnance disposal.

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