

Report on Chinese Energy Security and the Role of the PLAN

By Ryan Clarke¹

1. *The Dynamics of China's Energy Security Dilemma*

The People's Republic of China (PRC) needs to develop capabilities that allow it to secure its global economic interests and trade routes as well as to defend against or deter other great powers, should the need arise. China's economic performance is crucial for the ruling Chinese Communist Party's legitimacy and hence economic interests need to be protected. However, China's economic interests are both regional and global: in 2009 the PRC was the world's third largest trading power and third largest economy. The latter achievement has relied heavily on trade and, by extension, its sea lines of communication (SLOCs). China has also tasked the People's Liberation Army Navy (PLAN) with protecting the PRC's maritime interests though it is not yet capable of doing so. Nonetheless, in a December 2006, President Hu Jintao stressed that China is a maritime power and that the PRC "should endeavor to build a powerful people's navy that can adapt to its historical mission during a new century and a new period". He went further to say that the PLAN has an "important" and "glorious" responsibility of protecting China's "authority and security and maintain our maritime rights".²

Energy security translates to energy being available for economic and social needs, an absence of threat to energy supply, and affordable costing of energy. As Chinese energy analyst Zha Daojiong argues, these do not require in the first instance military guarantees, but have "more to do with geopolitical factors and the national policies of countries affecting the control of energy development and transportation around the world".³ Nonetheless, the

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² Quoted in David Lague, "China Airs Ambitions to Beef Up Naval Power", *International Herald Tribune*, December 28, 2006. Cao Zhi and Chen Wangjun, "Hu Jintao Emphasizes... a Powerful People's Navy that Meets the Demands of Our Army's Historic Mission", *Xinhua*, February 17, 2006.

³ Zha Daojiong, "Energy Interdependence", *China Security*, Summer 2006, pp. 2-17.

growing gap between domestic supply and demand has led China to view energy as a core national interest.

There is a growing fear in Beijing that the U.S. may attempt to cut off the sea lanes used by Chinese tankers in the event of a deterioration in relations with Washington and this drives much of the modernization efforts of the PLAN and PLA Air Force (PLAAF). Even prominent civilian Chinese analysts have cautioned:

It must be made clear that China is not a small regional power like Iraq or North Korea. If confronted with serious threats to its energy security, it will mobilize all its economic, political, and military resources to ensure a secure energy supply, or to interfere in the supply chains of the U.S. and its allies like Japan in key chokepoints such as the South China Sea, the Strait of Malacca or even the Taiwan Strait. These counterbalancing measures would, of course, be a last resort.⁴

Concern in Asia that oil production will be overtaken by global demand do not accord with mainstream assessments projecting macro-stability for at least the next twenty years. While world oil demand is increasing by roughly two percent each year, a general equilibrium will remain in view of Middle East capacity. However, technological setbacks and geopolitical upheaval that could severely disrupt the flow of oil cannot be ruled out for the indefinite future.⁵ Even though no intentional disruption to China's oil supplies has occurred since it became a net oil importer in 1993, fears are aroused through the "China threat" thesis which sees the PRC as a competitor for precious energy resources. This results in a spiral of threat perception: those who fear China cause a reciprocal fear in Beijing of threats to its energy security. Confidence building measures are in order - for example, "dialogue with international actors over energy should include the sharing of technological expertise and management know-how" with China.⁶

Resilience to oil price shocks is a notable feature of China's energy security profile. Even if Saudi oil disappeared from the market, the cost would be less than two percent of China's

⁴ Wu Lei and Shen Qinyu, "Will China Go to War Over Oil?", *Far Eastern Economic Review*, April 2006, Vol. 169, Iss. 3, p. 40.

⁵ Bruce Blair, Chen Yali, and Eric Hagt, "The Oil Weapon: Myth of China's Vulnerability", *China Security*, Summer 2006, pp. 32-64. See also Gal Luft, "Spotlight - Fueling the Dragon: China's Race into the Oil Market", Institute for the Analysis of Global Security, 2003.

⁶ Daojiong, 2006.

annual GDP. Disruptions from Iran would have even less impact, demonstrating the weakness of the argument that China may be held hostage to its energy security by geopolitical threats.

It is not in geopolitics but the politics of conservation that Beijing policymakers need to turn. Factors such as “efficiency, liberalization of domestic energy investment and markets, and other domestic components of energy security” offer much more leverage against the challenge.⁷ Yushi furthers this point:

Countries and companies that badly need resources can freely acquire them on the commodity markets. War and killing over resources has been rendered unnecessary. Taking Japan as an example once again, it remains a resource-poor country, yet it has achieved the status of a world economic power. It purchases all vital resource and energy needs.⁸

These realities clearly highlight the fallacy that the PLA, and the PLAN in particular, are on the frontline in the defense of China’s energy security. This runs contrary to analyses by many military observers who erroneously view this issue through a limited military-centric paradigm. As the rest of this section will demonstrate, the PLA is not of direct relevance to safeguarding China’s energy security and the PLAN’s most likely future roles will be in potential regional conflict scenarios.

Market Inefficiencies: China’s Primary Threat

Coal accounts for most of China’s energy needs. It is abundantly available domestically but it has had adverse environmental and social impacts. Moreover, the limited incentive to invest in new technology when there is still cheap labor available has meant that the switch from coal to clean energy will be delayed.

Village mines that account for almost half of China’s coal output largely serve local needs and are not part of an integrated national system. As such, energy shortages will continue despite China possessing an adequate domestic supply of coal. As long as the coal distribution network remains fractured and disjointed, China will be unable to fully capitalize

⁷ Blair, et al., 2006.

⁸ Mao Yushi, “Politics vs. Market”, *China Security*, Summer 2006, pp. 106-115.

upon this endowment and will remain vulnerable to power cuts and other shortfalls. These adverse outcomes will stymie the type of sustainable growth that reduces poverty and generates employment. It will also greatly discourage investment in rural and semi-urban areas, places where the threat of social unrest is the most acute.

The proper designation of energy prices is crucial to China's energy security. A rise in energy prices poses a political risk. Although it is still mostly government-controlled, the Chinese consumer of oil is paying almost the same as an American consumer. This leads to many complaints, especially in the media, in view of income differences between Chinese and consumers in industrialized countries. Not surprisingly, suppliers are viewed as being motivated solely by profits and monopolizing the domestic energy supply chain. However, prices still must be readjusted upwards as low oil prices allow for expansion in "pillar" industries, such as automobiles. This cannot be justified in view of their status as luxury items in China and should not receive support from the government.⁹

Price distortion and import quotas in China threaten oil security as they create perverse incentives that contribute to artificial shortages of gasoline and diesel. Keeping fuel prices low is both inefficient and wasteful as people will be encouraged to consume more, even though China's imported oil dependence is growing. It also means refined imported products are sold at domestic prices – a clear money-losing situation. As such, when international prices are high, refineries would not do well to sell their products within China. Zha Daojoing takes the argument in favor of higher domestic prices beyond just the disincentives for refineries to sell locally:

In a strategic business sense, a key instrument for encouraging the global flow of energy to China would be to allow the domestic price levels to rise above international and regional averages. This would provide energy developers and traders the single most powerful incentives not to disrupt supply to China. It would also motivate them to mitigate political interference in business interactions between China and the rest of the world in the realm of energy.¹⁰

⁹ Daojoing, 2006. See also Yang Xi, "NDRC official: China to deepen oil price reform", *China.org*, April 20, 2009, <http://www.china.org.cn>; "China's Oil Prices in Tune with International Markets", *People's Daily*, July 17, 2000.

¹⁰ Kong Bo, "Institutional Insecurity", *China Security*, Summer 2006, p.7.

These measures make economic sense and serve multiple objectives in that they would help to correct fundamental imbalances in China's energy market that would prove fatal if not addressed. They would also do more to ensure a stable overseas energy supply than any PLA mission. However, with the 2008-2009 global economic crisis that prompted the closure of thousands of small and medium enterprises (SMEs), the CCP cannot take the political risk of implementing these types of reforms in the short term. As occurs elsewhere, political considerations tend to supersede sound economics.

The power shortages that continue despite restructuring clearly demonstrate that the 2002 overhaul of the electricity sector was not successful. Rather than competition, as Kong Bo remarks, "assets in the hands of state grid companies . . . [resulted in] . . . cementing their monopoly and inhibiting the formation of a viable power market". In addition, as "provincial grid companies often base their expansion on local economic development", it was impossible for China "to establish a nationwide electricity distribution system".¹¹

Such an opaque process that is not only conducive to corruption among officials and protests in the countryside, it also deters foreign capital and associated technical and management expertise. At the same time, China seeks materials across the globe, claiming it will enable the electrification of the whole country. This will not be possible unless the National Development and Reform Commission (NDRC) establishes an integrated network of regional branch offices that either coordinate closely with provincial grid companies or even replace ones that refuse to modernize. Further, public-private partnerships would serve China well in this regard although foreign investors cannot expect a controlling stake in a strategic asset. Another problem is that the increase in the PRC's demand for resources is not matched by better access to external resources, and this inhibits China's development.¹² A government goal in 2005 to reduce energy consumption per unit of GDP by 20 percent by 2010 (based on 2000 levels) suggests the CCP recognizes the energy security danger posed by fast growth, even though there are financial and political risks in conservation for local officials who have production targets to meet.¹³

¹¹Ibid.

¹² Zhang Wenmu, "Sea Power and China's Strategic Choices", *China Security*, Summer 2006, pp.17-31.

¹³ Daojiong, 2006.

With technical and scientific assistance, China could increase its domestic “oil recovery rate” thus reducing pressure in the global oil market. Further, China needs to find ways to augment its oil refining capacity, possibly through international cooperation. As noted by Zha Daojiong, “Deficits in oil refining technology also mean that Chinese oil refiners cannot produce oil products with the same profit as their international peers”; thus larger quantities of “high-quality oil products” must be imported.¹⁴ Even though the PRC leads the world in its holdings of foreign currency reserves, such a system will inevitably erode the nation’s finances, especially in view of China’s practice of keeping its currency at an artificially low rate. This inhibits the ability to invest in critical areas such as education, infrastructure, and military development. Also, a depletion of foreign currency reserves and a fall in social indicators often cause capital flight which creates a vicious circle of further currency depreciation. Due to sound long term thinking, Beijing does not face this problem in the near to medium term. However, it is hardly immune.

The monopoly enjoyed by the state-owned China National Petroleum Corporation (CNPC), Sinopec, and China National Offshore Oil Corporation (CNOOC) harms China’s energy security as private oil companies find it hard to bring in additional oil to the domestic market.¹⁵ Without effective private sector participation, China cannot hope to improve efficiency in the domestic energy market, nor encourage the type of innovation necessary to ensure stability. State-owned companies will inevitably have fewer incentives to keep costs low, maximize profits, and develop new technologies and management practices. They are also usually more reluctant to re-invest revenue given their expectation of state funds to continue flowing.

Key Sources of Supply

It has been observed that “China’s dependence on international energy imports is rapidly changing from a relationship of relative dependence to absolute dependence.”¹⁶ Moreover, the

¹⁴ Ibid.

¹⁵ Bo, 2006.

¹⁶ Wenmu, 2006.

political realist argument holds that China must improve its naval capabilities as these lag far behind China's energy interests and that naval warfare "is the final means for great powers to solve international trade disputes".¹⁷ Though the PRC would be wise to increase its naval capabilities for a range of strategic reasons, this will be a long and halting process that cannot be viewed as an immediate solution to China's energy insecurity. Further, as will be discussed, international market dynamics are rendering navies less relevant in either ensuring energy security or denying that security to an adversary.

China's energy investments overseas do not provide it with any guarantee of energy security, something that contradicts most analyses. Often, as Blair et al. note: "They will produce too little oil too slowly to offset China's rapidly growing imports, and most of the oil will not enter China. Transportation costs will be so high that the oil generally will be sold or swapped for other oil that will enter China."¹⁸ Ironically, China's dealings with controversial regimes, such as Sudan's, actually bring additional supply thereby reducing pressure on the international market. Given the lack of incentives in China's domestic energy market, largely because of price distortions, these international transactions help to provide China with the foreign currency that it needs to import crude oil and other energy needs. As such, this clearly contradicts the argument that China's supply lines are vulnerable to naval interdiction. In fact, much of the oil and other energy resources that enter China are not even on Chinese ships. This makes a naval blockade an impossible task unless a hostile party is willing to disrupt the entire global economy and risk strong retaliatory action from the international community as well as from China.

In 2008, Iran was China's third largest foreign oil supplier (after Angola and Saudi Arabia) and its relations with China have evolved considerably. In 2004, China signed an agreement with Iran to develop the massive Yadavaran natural gas field with Beijing buying from Iran over a 25-year period 250 million tons of liquefied natural gas. Additionally, Beijing's interest in pipeline construction from the Middle East would have major strategic benefits for China as the pipeline would reduce its reliance on shipped oil.¹⁹

¹⁷ Zhang Wenmu, "China's Energy Security and Policy Choices", *World Economics and Politics*, No. 5, 2003.

¹⁸ Blair, et al., 2006.

¹⁹ Lei and Qinyu, 2006; "Nation to build strategic oil reserves in Tianjin," *China Daily*, 7 July 2009.

Chinese strategists have examined the prospect, real or perceived, that oil-producing countries in the Persian Gulf could reduce or cut off oil supplies to China.²⁰ China's lack of substantial strategic reserves (in 2008 it was 30 days versus Japan's 161-day reserve) increases China's sense of vulnerability.²¹ However, a platform of common interests will emerge between a China that seeks to maintain strong economic growth and a Gulf that is pursuing economic diversification regarding its energy exports.²² In addition, a common perception exists in these regions that Chinese economic involvement does not come with any strings attached and that Beijing will remain resilient to criticism to abandon this practice.

This amoral method of conducting business and furthering economic interests has served China well in a realist sense and possibly provides it with a competitive advantage over industrialized democracies in the competition for resources controlled by ostracized regimes. Nonetheless, as China's military and diplomatic clout continue to grow, it will eventually have to abandon this approach if it intends to be tolerated, let alone accepted, by the developed world. Further, unlike the U.S., China's increased economic presence in the Middle East has not coincided with a more robust military presence, something that has won Beijing supporters in this region that is itself trying to cope with the pressures of modernization and foreign influence without compromising cultural identity. However, China is unlikely to remain satisfied with the present scenario and will continue on the false premise that an increased military presence will lead to a corresponding increase in its energy security. By doing so, China risks its neutral status in the region.

By 2010, Kazakhstan will be vital to China's energy security and Beijing is active in purchasing Kazakh oilfields and companies. In this regard it is instructive to note that the PLA has already stated that it is ready to "forge a strong military force powerful enough to

²⁰ Qiu Zhenhai, "From preventing Malacca risks to systematic energy strategy", *World*, Iss. 6, 2006; Yan Wenhui, "Analysis of the impacts of oil for China's peaceful rise", *Journal of the University of Petroleum*, Vol. 20, No. 6, December 2004, pp. 1-5.

²¹ Blair et al., 2006.

²² Daojiong, 2006.

take on important missions on the basis of China's economic development".²³ Nonetheless, much of Kazakhstan's oil, especially from the giant Kashagan oilfield, still goes west and onto European markets as a result of the Soviet-era pipeline infrastructure.²⁴ The presence of PLA armored mechanized corps that can be deployed from Chinese territory into central Asia to secure threatened pipelines²⁵ is more likely for deterrence rather than for conducting operations. Overtly violating the sovereignty of a Central Asian neighbor with ground forces could prompt a series of counter-reactions that could fairly easily lead to a further destabilization of western China (especially Xinjiang), something that Beijing can ill-afford. The East Turkestan Islamic Movement (ETIM) has an extensive infrastructure in Central Asia and serves as a major point of friction. Any cross-border raids, regardless of the motivation, would greatly undermine regional counter-terrorism cooperation.

Moreover, China's main partner for military exercises in Central Asia, held under the auspices of Shanghai Cooperation Organization (SCO), and hence potential partner in the event that it does deploy into the region, is Russia. Russia has more to offer than war games experience. It is also an underutilized energy partner. Dellios has noted "an anomaly that Russia as the world's leading producer of crude oil and the second largest exporter, after Saudi Arabia, ranked [in 2008] only as the fifth largest supplier of China's crude oil imports", and that it "would be easier for China to defend the security of energy supplies from Russia through Eurasia than to protect sea lines of communication (SLOCs) from the Middle East and Africa, where most of China's oil imports originate."²⁶ Politics rather than logistics pose the main risk with Russian energy supplies.

Russia has begun to use oil and natural gas as a political weapon. For example, Ukraine's dependence on Russia for approximately two-thirds of its natural gas became a vulnerability

²³ Sun Xuefu, "Forge a military force commensurate with China's international status", *Jiefangjun Bao*, April 28, 2006.

²⁴ Robert Cutler, "Reality wins over energy grand design", *Asia Times*, January 8, 2009.

²⁵ Martin Andrew, "How the PLA Fights – Weapons and Tactics of the People's Liberation Army", Report for the United States Army, August 5, 2008. This is not an official publication and therefore does not necessarily express the opinions of the U.S. Army.

²⁶ Rosita Dellios, "Mandalic regionalism in Asia: exploring the relationship between regional governance and economic security," *Culture Mandala: The Bulletin of the Centre for East-West Cultural and Economic Studies*: Vol. 8: Iss. 1, 2008. Available at: <http://epublications.bond.edu.au/cm/vol8/iss1/4>

after the 2004 Orange Revolution brought a pro-Western government into Kiev. Moscow cut off natural gas to Ukraine for short periods in the winters of 2006 and 2009, affecting not only Ukraine but the rest of Europe as most of its gas flows through Ukraine.²⁷

By 2009, with the decline of the ruble and stock market, plus rising unemployment, the potential for social unrest and discontent was high despite Putin's approval rating remaining above 80 percent.²⁸ Russia appears to be seeking to reverse the trend of its declining power through exploiting the comparative advantage of its energy resources. The Kremlin feels that influencing the global energy markets is a necessity rather than a luxury. However, if Russia is to become an energy superpower it needs international investment and to develop its lucrative energy fields and transportation pipelines. The global financial crisis of 2008-2009 dealt a major setback to Russia's plans and greatly diminished Gasprom's market value while ExxonMobil did not fare nearly as badly. Further, Gasprom and Rosneft are in heavy debt to foreign companies.²⁹ Both companies borrowed from China \$25 billion in exchange for oil supplies from East Siberia over a period of 20 years. Thus China may not be subject to the Russia's oil politics in view of funds being linked to supplies.³⁰

How Vulnerable is China to a Naval Blockade?

While Russia and China represent a complementarity of energy producer and consumer, the same cannot be said for the U.S. and China. Many analysts feel that the trajectories of the world's two largest energy consumers will lead to competition over resources and that energy security is now beginning to play an increasingly important role in Sino-U.S. relations.³¹ Beijing believes that its dependence on the U.S. to secure its sea lanes potentially threatens its energy security as 80 percent of its imported oil comes through the Malacca Straits. In 2003

²⁷ See George Friedman, "Obama Enters the Great Game", *Geopolitical Weekly, Strategic Forecasting*, January 19, 2009.

²⁸ M.K. Bhadrakumar, "More battles ahead in Russia's 'gas war'", *Asia Times*, January 17, 2009.

²⁹ Andrei Tsygankov, "Russia's superpower strategy runs out of gas", *Asia Times*, January 17, 2009.

³⁰ Robin Paxton and Vladimir Soldatkin, "China Lends Russia \$25 billion to Get 20 Years of Oil". *Reuters*, February 17, 2009. http://www.reuters.com/article/reutersComService_3_MOLT/idUSTRE51G1YY20090217.

³¹ Lei and Qinyu, 2006.

President Hu Jintao expressed “extreme concern” over the “Malacca Dilemma” because the PRC would face a “predicament” in the event of an incident and/or if foreign countries block the Strait.³²

The long-standing Taiwan issue could give cause for conflict between the U.S. and China, though this has been ameliorated since Ma Ying-jeou became Taiwan’s president and pursued a more conciliatory policy with Beijing. If a conflict were to occur, many feel that the U.S. and Japan could attempt to intercept China’s foreign oil imports, thus threatening China’s security and making a resources-related war more likely.³³

Chinese security analysts are also concerned over piracy and terrorism in the Malacca Strait and China has held discussions on security cooperation with the three countries responsible for the Straits - Indonesia, Malaysia, and Singapore. Indonesia and Malaysia have been reluctant to allow foreign powers to play a role lest such activity impinge on their sovereignty. Even if there was a cooperative PLA role its capabilities to reach the area would need to be enhanced. Aircraft carriers and long-range aircraft are being developed and China is also possibly engaged in a de facto strategy known as the “String of Pearls”. This entails gaining access to bases in countries along the sea lanes from oil sources in the Persian Gulf.³⁴ Further, in recent years the PLA has reorganized the army into combined arms battle groups that could secure energy supplies under the doctrine of active defense: this armor heavy corps will become “China’s new strategic weapon”.³⁵ The irresponsible use of any of these new capabilities will set off alarm bells unnecessarily without actually enhancing China’s energy security. Rather, these capabilities should be preparing for regional combat scenarios, or local wars according to PLA doctrine, and for deterrence purposes. Even if a pipeline is secured by military force, it is not worth much if the host nation shuts off the energy resources running through it.

³² Wen Han, “Hu Jintao Urges Breakthrough in ‘Malacca Dilemma’”, Wen Wei Po, January 14, 2004.

³³ Lei and Qinyu, 2006, p. 3.

³⁴ Chambers, 2007; Christopher J. Pehrson, *String of Pearls: Meeting the Challenge of China's Rising Power Across the Asian Littoral*, Strategic Studies Institute, U.S. Army War College, Carlisle, PA, 2006.

³⁵ Andrew, 2007, p.2.

The U.S. Navy seems to believe that it has the ability to ensure blockade of the Malacca and other straits such as Hormuz without serious resistance. This is a function of its control of the sea lanes from the Middle East to Asia, thus supposedly allowing it to quickly cut off China's supplies.³⁶ American blockade abilities have been witnessed previously, namely during the enforcement of the oil embargo on Iraq. In response to these concerns, China has been able to set up coastal intelligence and military outposts in several countries located along strategic oil routes.³⁷

Irrespective of capabilities, the United States cannot enforce a naval blockade that would starve China of energy resources. If it attempted to do so, America's failure to effectively execute the blockade would damage the prestige of the U.S. Navy (and the entire military for that matter) with obvious negative implications for American diplomacy and the nation's global standing. It would be impossible to discriminate between ships as a wide range carry China's energy resources, thus inevitably harming the energy security of American allies while also severely disrupting the global economy. Further, China is steadily reducing its dependence on sea transportation and in the process rendering navies even more obsolete in this regard. Both China and the United States would be better served by concentrating on sound economics and management/distribution practices rather than dedicating substantial resources towards a scenario that is highly unlikely ever to occur.

2. A More Realistic Assessment of the PLAN's Future Roles

Throughout China's history, its strategic orientation has been continental with an associated strategic culture that focuses on land war. However, today the threat of invasion by land, which was the primary worry of Chinese strategists for centuries, has nearly disappeared -- though this does not suggest that they abandoned contingency planning for such a scenario. Moreover, the maritime dimension is largely seen as a defensive barrier against any attack on

³⁶ Blair, et al., 2006.

³⁷ Blair, et al., 2006.

China.³⁸ Nonetheless, several official Chinese documents have stressed the need to improve the PLAN's strategic depth.³⁹

This is understandable in view of China's global trading status which has caused it to become heavily dependent upon sea lines of communication. As noted from the outset of this report, disruption of trade will not only affect China's economy, but also the stability of the current regime that draws much of its legitimacy from continued economic growth. However, since the PLAN lacks the capabilities needed to protect vital shipping lanes, PLA planners are actively seeking to enhance these maritime capabilities.⁴⁰

A major driver of PLAN development is not only security of the trading routes but sovereign integrity in maritime zones. Taken together, as itemized by McDevitt, these are Taiwan, China's east coast, the East China Sea, the Spratly Islands, and maritime trade:

- With Taiwan being an island, it is the combination of Taiwan's air defense and the threat of intervention by the U.S. military (primarily the U.S. Navy) that effectively keeps the Taiwan Strait a moat rather than a highway open to the PLA.
- Perhaps as strategically significant to a PLA planner as Taiwan is the geostrategic reality that the PRC's economic center of gravity is its east coast. Because it is a "seaboard," it is extremely vulnerable to attack from the sea – a military task the United States is uniquely suited to execute.
- Territorial disputes with Japan over island and seabed resources in the East China Sea have become more serious, representing a potential flashpoint where Sino-Japanese interests are contested. Each state is emphasizing its claims by the periodic deployment of naval and coast guard vessels . . .
- Unsettled territorial disputes, and their concomitant resource issues, remain with respect to the Spratly Islands and the South China Sea . . .
- China's entire national strategy of reform and opening depends largely upon maritime commerce – i.e. trade. The PRC's economy is driven by the combination of exports and imports which together account for almost 75 percent of PRC gross domestic product (GDP). This trade travels mainly by sea.⁴¹

³⁸See Michael McDevitt, "The Strategic and Operational Context Driving PLA Navy Building", in *Right Sizing the People's Liberation Army: Exploring the Contours of China's Military*, ed. Roy Kamphausen and Andrew Scobell, Strategic Studies Institute, U.S. Army War College, September 2007, pp. 481-559.

³⁹ For example, see Information Office of the State Council of the People's Republic of China, "China's National Defense in 2006", Beijing, December 2006, Chapter II.

⁴⁰ Chambers, 2007.

⁴¹ McDevitt, p.485-486. See also "Chinese Warships Make Show of Force at Protested Gas Rig", *Japan Times*, September 10, 2005; Dan Blumenthal and Joseph Lin, "Oil Obsession: Energy Appetite Fuels Beijing's Plans to Protect Vital Sea Lines", *Armed Forces Journal*, June 2006.

As opposed to attempting to secure Chinese energy supplies in far-flung regions, such as the Middle East, the PLAN should prioritize these types of regional issues. In this regard, the PLAN will hope for the best while planning for the worst but combat preparations will assume a distinct focus on asymmetric warfare. This is because its capabilities lag far behind those of the United States and Japan but also because deterrence is preferable to military engagement. The aim is not to hand a punishing conventional defeat to an adversary, but rather to raise the stakes in a conflict to an unacceptable level thus prompting an opponent to scale down hostilities or to avoid them entirely, with the latter the more desirable option from China's point of view. However, Chinese concepts of asymmetric warfare and deterrence differ greatly from the West in that Beijing views asymmetric warfare as something that extends well beyond the military realm and can include a wide range of methods to coerce adversaries in economic and political terms.

By the end of the first decade of the 21st century, PLAN has developed into a force that is capable of long distance missions, as demonstrated by the deployment of two destroyers and a supply ship to the Gulf of Aden on an anti-piracy mission. Moreover, the Ministry of National Defense (MND) has indicated that the country is building aircraft carriers (though these have been hinted at for many years). Given the fact that less and less of China's energy needs travel by sea and there are more pressing issues closer to home, these potential aircraft carriers need to be viewed within a regional context. Against the backdrop of a global recession in 2008-2009, China's unwavering commitment to naval modernization was evident.⁴²

Chinese Views on Maritime Security

Sea power has played a major role international relations, including China's. Many Chinese analysts believe that inadequate naval power allowed China's humiliation in the 19th century, evidenced by the Opium Wars and the Sino-Japanese War. They also believe that the Taiwan issue is still not resolved because of China's insufficient sea power.⁴³ As such, it should be of no surprise that naval power is being sought by current planners. "China's sea power is

⁴² Willy Lam, "China Flaunts Growing Naval Capabilities", *China Brief*, Vol. 9, Iss. 1, January 12, 2009.

⁴³ See Wenmu, 2006.

uniquely defined,” according to Zhang Wenmu. “A traditional Western notion of sea power is the ability to control the sea, while China’s concept of sea power is a marriage of the notion of equal sea rights and sea power.”⁴⁴ In an anarchic international political system in which there is no higher power than state sovereignty, sea rights are often exercised through sea power.⁴⁵ With the U.S. being typically viewed the most powerful potential threat to China’s maritime security interests, the PLAN must focus on asymmetric tactics in the region, specifically anti-access strategies that aim to make involvement in a local conflict simply too costly for Washington both domestically as well as internationally. Large weapons platforms, like aircraft carriers, will serve a deterrent function and weapons of last resort in view of their vulnerability to superior American military power.

The PLAN’s notion of offshore defense is based on the former Soviet Union’s maritime strategy. After all, both were continental powers before turning their attention to naval power and the PRC in its formative years took guidance from its Soviet comrades. The Soviets used layered sea lanes of defense to protect the country, with each layer having the appropriate weapons and associated tactics for its role. However, the difference between the Soviet and PRC approaches is that the PLA – according to the U.S. Defense Department’s annual reports to Congress on China’s military power citing 1980s PLA theory⁴⁶ – decided to define distance-related thresholds in terms of “island chains”.

Following the Soviet model, Michael McDevitt notes three requirements for layered defense at sea.⁴⁷ The primary one is surveillance capability to locate ships at sea and to identify naval vessels as distinct from oil tankers for the purposes of intercepting the former if required. Missile-armed land-based long-range aircraft are also needed for layered maritime defence. At this point in time, China does not possess many of the capabilities of the former Soviet Union, namely aircraft capable of carrying long-range cruise missiles.

⁴⁴ Wenmu, 2006.

⁴⁵ Ibid.

⁴⁶ United States, Department of Defense, *Annual Report on the Military Power of the People’s Republic of China*, 2006 onwards.

⁴⁷ Ibid.

The third aspect of the Soviet layered strategy, according to McDevitt, was deploying submarines to their targets like the German U-boats targeting convoys: “they were vectored by commands from shore, based on surveillance information”; for the Soviets the target was carrier battle groups through “the use of nuclear-powered submarines equipped with large magazines of cruise missiles”. By comparison, PLAN deployment would rely on conventionally-propelled submarines which are difficult to defeat, but lack endurance.⁴⁸ McDevitt concludes that this overall operational template “is a classic response of a continental strategic culture” that is “more interested in defending itself from attack from the sea” rather than using maritime means for offensive action against another nation.⁴⁹

If Beijing intends to deter U.S. Naval forces from going to Taiwan’s defence in the event of forced “reunification” by China, the PLAN would have to send six or more submarines towards the US carrier group, and if there were up to four such carriers then China would need to deploy 24 submarines. Depending on “how long it would take to transit between homeport and patrol station,” McDevitt calculates, roughly 60 submarines would be needed for the anti-carrier mission.⁵⁰ At present, the PLAN lacks the resources to mobilize many submarines at once and dispatch them to a single conflict theater without causing other aspects of its maritime security to suffer.

It may therefore be argued that given the PLAN’s technological shortcomings, it is likely to place the greatest emphasis on its undersea assets, namely its submarines, as these can serve in regional conflict scenarios thus playing a critical role in deterrence, especially with regard to the United States. If employed correctly and used in an asymmetric, tactically-effective manner, mid-tech submarines and the use of sea mines could either deter stronger forces, such as the United States and/or Japan, or inflict an amount of pain that exceeds the thresholds of their respective constituencies. As such, it is an erroneous assumption to believe that PLA strategists and senior CCP leaders are prioritizing the development of high-tech

⁴⁸ While the PLAN’s extensive submarine force renders it a prominent element in China’s layered defense it is noteworthy that of the 31 new submarines commissioned between 1995 and 2005, only two were nuclear-powered (ibid.). See also United States, Department of Defense, *Annual Report on the Military Power of the People’s Republic of China*, 2009.

⁴⁹ McDevitt, ibid.

⁵⁰ Ibid.

capabilities over mid- and low-tech. Although any navy would be keen to develop these types of advanced capabilities, given financial and resource limitations, the PLAN must prioritize the programs that will prove most useful in the most likely combat scenario, which in this case is a local war over Taiwan or sea-based resources that Beijing views as its own and will seek to secure through anti-access strategies and other asymmetric tactics.

As Lora Horta and Ong Weichong note: “China’s tactical undersea forces will be the cornerstone upon which current and future naval ambitions will be built.” They see China’s undersea “great wall” of tactical submarines serving “to protect the territorial unity and integrity of China” – including Taiwan as an unalienable part of its territory – with “the core of the PLAN’s tactical submarine fleet consisting of its recently acquired SSKs (Song, Yuan, and Kilo class)”.⁵¹ The Russian-built Kilos are armed with supersonic SS-N-27B sizzler anti-ship cruise missiles and wire-guided and wake-homing torpedoes and can remain undetected as they seek to interdict enemy carrier battle groups.⁵² These capabilities would likely deter the opponent from dispatching forces into the Taiwan Strait, especially aircraft carriers that are vulnerable to mines, torpedoes, and other related weapons. The fundamental goal of these acquisitions is, somewhat ironically, to not have to actually use these weapons in a combat scenario but rather to effectively influence military commanders and political leaders and convince them that the cost of intervention is simply too high. In the case of a Taiwan invasion, a *fait accompli* is almost a necessity.

PLAN Enters Somalia – The Beginning of a New Chapter?

In 2008, China had 1,265 commercial ships sail through the piracy-hit Gulf of Aden, with twenty percent of them attacked and two hijacked.⁵³ Though China claims that its naval mission off the coast of Somalia is its contribution to the global effort against piracy, it is also a test for the PLAN’s long-distance capability and how it can be improved. In addition, the South Sea Fleet was sent for the expedition in the Gulf of Aden. Bright B. Simons notes that

⁵¹ Lora Horta and Ong Weichong, “Steel Sharks: China’s Growing Submarine Fleet”, RSIS Commentary, S. Rajaratnam School of International Studies, Singapore, May 5, 2008.

⁵² Ibid.

⁵³ Patrick Burns, “Navies of the world uniting”, Asia Times, January 16, 2009, citing China’s Foreign Ministry.

this “component of the PLA Navy is the most specialized in dealing with hot geostrategic deadlock (geostrategic combat) by virtue of its present and historical orientations towards Vietnam, Cambodia, and Taiwan, and to a lesser extent Malaysia and the Philippines”, all of which “bring into play America’s South China Sea posture”.⁵⁴ This could be interpreted as a form of discreet strategic signaling to other claimants over the Spratly Islands in the South China Sea by demonstrating that the long-distance and sustainable capabilities of this PLAN fleet. The intent is likely to demonstrate that attempting to take any of the islands by force would be a futile effort and as such, diplomacy (on Beijing’s terms) is the only way forward.

Rory Medcalf has observed that: “The Somali piracy crisis creates the ideal platform for China’s debut on the high seas. It gives Beijing every justification for easing its doctrine of non-intervention: Chinese lives and interests are in danger, the UN has blessed the action in Somali waters, and . . . the Somali government has invited China in.”⁵⁵ Further, the mission means the PLAN is looking beyond offshore defensive strategy to blue-water offensive capability.⁵⁶ However, even with the latter, the PLAN will remain a regional force as there is little that it can do to defend China’s energy security further afield.

3. Conclusion

In examining the dynamics of China’s energy security dilemma and the role of the People’s Liberation Army Navy, this report has found that domestic market inefficiencies and poor management practices pose the greatest threat to China’s energy security. Further, increasingly less of Chinese energy imports are making their way to the country by sea and as such, the PLAN actually has a minimal role to play. Given these realities, Chinese fears of a naval blockade that deprives it of energy supplies, and American confidence that this is a realistic strategic option in the event of hostilities, are implausible.

In addition, Beijing’s desire to develop aircraft carriers and other high-tech naval capabilities combined with its contribution to the anti-piracy mission in the Gulf of Aden have led many

⁵⁴ Bright B. Simons, “Masked motives in China’s anti-piracy push”, *Asia Times*, January 15, 2009.

⁵⁵ Rory Medcalf, “China’s gunboat diplomacy”, *International Herald Tribune*, December 29, 2008.

⁵⁶ John Ng, “Pirates draw China to the high seas”, *Asia Times*, December 19, 2008.

analysts to erroneously conclude that China seeks to engage in global power projection like the United States. However, the focus of the PLAN will remain regional and on asymmetric capabilities, namely the effective use of submarines that ultimately seek to deter American and possible Japanese involvement in a conflict over Taiwan and/or the Spratly Islands, which China views as inalienable parts of its territory. Although China's interests are expanding and becoming more international in nature, China's sovereign integrity and the Chinese Communist Party's domestic legitimacy remain the top priorities of China's leadership.