

10. THE ORGANIZATION OF THE PEOPLE'S LIBERATION ARMY NAVY (PLAN)

By Bernard D. Cole^{1010 1011}

INTRODUCTION

This addresses China's naval establishment, focusing on the People's Liberation Army Navy (PLAN). Understanding the organization of a nation's military service may tell us much about that nation's security priorities, international aspirations, and domestic priorities. Naval organization may be particularly telling in this respect, since navies are so technology- and equipment-dependent that they demand very large investments of national attention and treasure. The organization of a navy should also reflect the strategic imperatives and doctrinal thinking of the nation. Fleet composition, homeport location, and command arrangements all provide indicators of the role the nation's leaders intend for their navy and national security priorities.

Speaking to the first session of the National Political Consultative Conference in July 1949, Mao Zedong proclaimed:

Our national defense will be strengthened and we won't permit any imperialist to encroach any more upon our territory. Based on the gallant and tested People's Liberation Army, the people's armed forces of ours must be maintained and developed. We shall not only have a powerful army, but also a powerful air force and a powerful navy.¹⁰¹²

¹⁰¹⁰ Bernard D. Cole is Professor of International History at the National War College in Washington, D.C., where he has served on the faculty since 1993. His latest book, *The Great Wall at Sea: China's Navy Enters the 21st Century*, was published in October 2001 by the Naval Institute Press. Dr. Cole earned an A.B. in History from the University of North Carolina, an M.P.A. (National Security Affairs) from the University of Washington, and a Ph.D. in History from Auburn University. He served 30 years in the Navy, all in the Pacific; he commanded USS RATHBURNE (FF1057) and Destroyer Squadron 35, served as a Naval Gunfire Liaison Officer with the Third Marine Division in Vietnam, as Plans and Policies Officer for Commander-in-Chief U.S. Pacific Fleet, and as Deputy Director for Expeditionary Warfare on the staff of the Chief of Naval Operations."

¹⁰¹¹ This paper reflects the views of the author and may not reflect those of the National War College or any other agency of the U.S. Government

Mao and the leading PLA generals were, not surprisingly, strict continentalist in strategic outlook, and it was only the events of the next few years that convinced them China required a navy capable of more than guarding the army's flanks and helping it cross rivers. The need to enforce order on China's coastal waters, offshore battles with the remaining Kuomintang (KMT) navy, including operations to evict KMT troops from various islands, and campaign planning to invade Taiwan were some of these events.

IMPERIAL CHINA

The PLAN can trace its lineage back through the dynasties. The earliest recorded naval battle in China occurred during the Spring and Autumn Period, in 549 B.C., when rival rulers used ships to attack each other's forces; large-scale naval operations continued to play a role in Chinese warfare through the Han Dynasty (206 B.C.-220 A.D.).¹⁰¹³

Chinese sea-goers were the first to control their ships with sails and rudders, greatly increased their vessels' seaworthiness through compartmentation, painted their vessel bottoms to inhibit wood rot, and built dry docks. They developed the art of navigation to a high degree, including use of the portable compass as early as 1044.¹⁰¹⁴ The sea also probably provided the earliest trading routes with south and west Asia, with regular commercial routes established by the end of the Tang Dynasty (907).¹⁰¹⁵

Song Dynasty

The high point of naval developments in dynastic China probably occurred during the Song Dynasty (960-1279), over a 500-year period when China deployed the world's most powerful and technologically advanced navy.¹⁰¹⁶ During this time, combat fleets

¹⁰¹² Quoted in Bruce Swanson, *The Eighth Voyage of the Dragon: A History of China's Quest for Seapower*, Annapolis, MD: U.S. Naval Institute Press, 1982, p. 183.

¹⁰¹³ Gang Deng, *Chinese Maritime Activities and Socioeconomic Development, c. 2100 B.C.-1900 A.D.*, Westport, CT: Greenwood Press, 1997, is a well-written history of this topic. All dates are "A.D.," unless otherwise noted.

¹⁰¹⁴ Joseph Needham's massive work, *Science and Civilization in China*, vols. 1-6, Cambridge: Cambridge Univ. Press, 1954-1986, discusses these and related developments.

¹⁰¹⁵ Deng, p. 41. Also see "China's Sea Route to West Asia Begins in Xuwen," *Xinhua*, 21 June 2000, in FBIS-CPP20000621000077, for archeologists' theory that trading voyages may have departed from Guangdong Province as early as 200 BC, 200 years before the "Silk Road" was established.

¹⁰¹⁶ See Paul C. Forage, "The Foundations of Chinese Naval Supremacy in the Twelfth Century," in Jack Sweetman, ed., *New Interpretations in Naval History: Selected*

composed of several hundred warships and supply vessels were common, with the Song navy reportedly totaling 13,500 ships in 1274.¹⁰¹⁷ Chinese maritime technology also matured during this age, and the maritime sector was an important part of the national economy. Perhaps most significantly, the Song regime was the first in China to establish a permanent national navy as an independent service, administered by a central government agency. The “Imperial Commissioner’s Office for the Control and Organization of the Coastal Areas” was established in 1132 to supervise a navy of 52,000 men.¹⁰¹⁸

The Song maritime experience was based on a rapidly expanding national economy, with a particularly strong maritime sector encompassing commerce, fisheries, and transportation. As the navy was expanded and modernized, so were port facilities, supply centers, and dockyards; soldiers were trained specifically as marines and coast guard squadrons established.¹⁰¹⁹ Song navies used both sail and paddle wheel-driven craft, the latter powered by laborers on treadmills; doctrine was formalized, with formation maneuvering, long-range projectile launches, and complex tactics.¹⁰²⁰

China remained a sea power during the two succeeding dynasties. In fact, the overthrow of the Song regime by the Yuan (Mongol) Dynasty resulted in significant part because the latter rapidly mastered naval warfare. The Yuan also used large fleets to undertake invasions of Vietnam, Java, and Japan: the 1274 expedition against Japan included 900 ships and 250,000 soldiers; that of 1281 sent 4,400 ships.¹⁰²¹

Ming Dynasty

The Ming Dynasty (1368-1644) saw China reach the pinnacle of its overseas naval deployments, but also witnessed the collapse of imperial naval power. Zheng He’s early fifteenth century voyages to the Middle East and Africa represented a standard of Chinese shipbuilding, voyage management, navigation ability, and naval organization

papers from the Tenth Naval History Symposium Held at the United States Naval Academy, 11-13 September 1991, Annapolis, MD: Naval Institute Press, 1992, p. 3.

¹⁰¹⁷ Ibid., p. 70.

¹⁰¹⁸ Lo Jung-pang, “The Emergence of China as a Sea Power During the Late Sung and Early Yuan Periods,” *The Far Eastern Quarterly*, vol. XIV, August 1955, p. 491. By comparison, according to N.A.M. Rodger, *The Safeguard of the Sea: a Naval History of Britain, 660-1649*, N.Y.: W.W. Norton, 1997, p. 221ff, a likely date for the initial organization of a central office for administering England’s Royal Navy is 1545.

¹⁰¹⁹ Forage, pp. 6-7.

¹⁰²⁰ Ibid., pp. 19-21, provides a fascinating account of two battles between Song and Yuan naval forces.

¹⁰²¹ John K. Fairbank, ed., “Maritime and Continental in China’s History,” in *The Cambridge History of China, vol. 12: Republican China: 1912-1949*, Cambridge: Cambridge Univ. Press, 1983, vol. 1, p. 15.

afloat and ashore well beyond European capabilities. Zheng He led large fleets of ships, some displacing over 400 tons, on four voyages half-way around the world at a time when Portuguese explorers were still feeling their way down the west coast of Africa in 50-ton caravels.¹⁰²² At its height, the Ming fleet included as many as 3,500 ships; most were warships, but transports, troop carriers, and even replenishment-at-sea ships were built and organized into discrete squadrons to facilitate administration and operations.¹⁰²³

The Ming rulers deliberately ended these voyages for domestic financial and political reasons, just at the time when European nations were beginning to use the high seas to achieve economic wealth and to proselytize. Furthermore, the government allowed its naval forces to atrophy; organization and administration of the navy became largely a "paperwork drill," and even coastal piracy made a comeback.¹⁰²⁴ By 1500, the government had made it illegal "to build boats of more than two masts," and in 1525 an imperial edict authorized coastal authorities to destroy all oceangoing ships."¹⁰²⁵

Even during this long period of brilliant maritime scientific progress and dominating power, however, the focus of China's national security concerns still lay to

¹⁰²² Louise Levathes, *When China Ruled the Seas: The Treasure Fleet of the Dragon Throne, 1405-1433*, N.Y.: Oxford Univ. Press, 1994, provides a comprehensive description of these epic voyages.

¹⁰²³ *Ibid.*, p. 175.

¹⁰²⁴ There were several reasons for the downfall of the Ming navy. First, the opening of China's Grand Canal in 1415 reduced the need for coastal trade; second, the sea-going commerce attracted foreign merchants and sailors, which increased the foreign presence in coastal provinces: the central government feared that this would loosen its control over these provinces. Third, court politics, with struggles between civil officials and the court eunuchs—traditional sponsors of overseas trade—became increasingly bitter; civil officials tried to weaken the eunuchs by curtailing this trade, which provided them with most of their funding. Fourth, the navy was allowed to deteriorate; by the end of the 16th century, the Ming government was unable to defend Chinese maritime traders against pirates. Fifth, the threat from Mongols and other Asian aggressors increased, which both increasingly focused government concerns inland, and absorbed an increasing portion of the national budget. Finally, the Ming decision also reflected Chinese xenophobia, perhaps best expressed in the Qing Emperor Ch'ien-lung's response to Britain's 1793 attempt to establish relations with Beijing when he told Lord MacCartney that "we possess all things. I set no value on objects strange or ingenious, and have no use for your country's manufactures."

For an interesting but Eurocentric interpretation of the role maritime mobility played in European imperialism, see George Raudzens, "Military Revolution or Maritime Evolution? Military Superiorities or Transportation Advantages as Main Causes of European Colonial Conquests to 1788," *The Journal of Military History*, Vol. 63, July 1999, pp. 631-642.

¹⁰²⁵ Levathes, p. 174.

the north and west.¹⁰²⁶ No dynasty fell because of maritime invasion or pressure: usurpers emerged from the Asian interior and the crucial battles were land battles. Naval missions were defense of the coast, defense and control of maritime trade, and control of riverine and canal traffic to safeguard the state's economic interests. The navy was during various periods well-organized, capable, and even powerful, but never was it vital to the dynasty's survival.

The Qing Navy

The Qing (Manchu) Dynasty made no concerted effort following its 1644 assumption of power to rebuild the navy or expand the maritime sector of China's economy. The Qing faced no significant threat from the sea during its first century and a half in power, and there seemed insufficient justification for the large investment needed for a large, modern navy.¹⁰²⁷ This was especially true after the most notable Qing maritime campaign, when the new dynasty conquered Taiwan in 1683. The island was described as "still largely unknown: flat, malarial plains along the west, backed by inhospitable mountain ranges....[An] unfriendly aboriginal population further discouraged exploration or settlement. . . ."¹⁰²⁸

Until the late 19th century, the Qing navy remained powerful enough to prevent coastal piracy from getting out of hand, to keep order on the canals and rivers, and to perform other coast guard-type functions. China had fallen so far behind the global norm in naval power, however, that it was completely unable to defeat the late-eighteenth and early-nineteenth century imperialists—who came almost entirely by sea.

Major "restoration" movements occurred in China late in the Qing period, following the end of the Taiping Rebellion in 1864. "Self-strengthening" reformers used the rubric of "Chinese learning as the fundamental structure, Western learning for practical use" to describe their intent to take advantage of western science and technology to develop modern Chinese capabilities.

By 1884, China had organized and deployed a modern navy, led by the efforts of Li Hongzhang, one of the most prominent of the scholar-bureaucrats who appreciated how far behind foreign powers China had fallen. Li used three approaches to build China's first modern navy: indigenous production, purchases abroad, and the reverse engineering of foreign systems. An arsenal was established in Shanghai to build steam-powered gunboats, but such efforts to modernize China's navy were opposed by Confucian traditionalists who were the rigid ideologues of the day: it was in part a struggle between ideology and professionalism that foreshadowed the similar situation today.

¹⁰²⁶ "The northern frontier became the fixation," according to Fairbank, p. 16.

¹⁰²⁷ Ibid., p. 13, makes this point.

¹⁰²⁸ Jonathan D. Spence, *The Search for Modern China*, N.Y.: W.W. Norton, 1990, pp. 53-54, describing Taiwan in terms which might be still used.

The new navy also suffered from high-level governmental corruption and weak organization. It was formed into four fleets that were essentially independent navies.¹⁰²⁹ The first test of the new Qing navy resulted from disputes with France over its colonization of Vietnam. Hostilities broke out in August 1884 and the local French fleet attacked the outgunned Chinese Fujian Fleet in Fuzhou Harbor, sinking every ship.¹⁰³⁰ China's other fleets were not sent to fight the French; Li held only problematic authority over the other fleets and in any case wanted to conserve and continue to build up remaining naval strength. His efforts were successful on paper, including establishment of a national Navy Office, a more organized training regimen and shore establishment, and in 1888 standardized naval regulations.¹⁰³¹

Despite these achievements, China's fleets failed to become a coherent national navy, and the most powerful fleet, the Beiyang, came to grief trying to halt Japanese incursions into Korea in the 1890s. The Beiyang Fleet of two modern battleships, ten cruisers, and two torpedo boats lost a sea battle to the Japanese in September 1894. The fleet then withdrew to Weihaiwei's strongly fortified harbor on the northern Shandong coast. In January 1895, the Japanese landed troops who seized the Chinese forts guarding Weihaiwei.¹⁰³² Their guns were then turned on the Chinese ships, which were also attacked by Japanese torpedo boats. The Chinese lost five ships; in conjunction with the September 1894 losses and the suicides of the fleet commander and other senior officers, the Peiyang Fleet was eviscerated.¹⁰³³ The other Chinese fleets again did not join the fight.

China and Japan launched near-simultaneous efforts to organize a modern navy in the second half of the nineteenth century. Both nations sought the technological and organizational expertise of outsiders; they bought and reverse-engineered foreign ships

¹⁰²⁹ Fairbank, *China: A New History*, Cambridge: The Belknap Press of Harvard Univ. Press, 1992, p. 220, relates the most famous case of corruption: the diversion of perhaps \$50 million in naval construction funds to the building of the Empress's Summer Palace in Beijing, complete with a large boat made of marble.

The new Chinese navy was organized into four fleets. The Peiyang Fleet, organized by a leader of the self-strengthening movement, Li Hongzhang, was the most modern and powerful and by 1884 included two 7,500-ton displacement, German-built battleships. The Fujian Fleet was homeported in Fuzhou; the other two fleets were the Nanyang and Guangdong.

¹⁰³⁰ Spence, p. 221. The French had eight warships and two torpedo boats; the Chinese had eleven warships and several other craft, but all were made of wood. The French also destroyed the Chinese shore installations.

¹⁰³¹ Swanson, p. 96ff, discusses these developments.

¹⁰³² Japanese success was simplified by the fact that the forts' guns were designed only to defend against threats from seaward; Japanese forces in took advantage of the same flaw in 1941, when it was repeated by the British in Singapore.

¹⁰³³ *Ibid.*, p. 223.

and systems while developing an indigenous military-industrial infrastructure. Japan succeeded, because it also developed a coherent organization that enabled the navy to function effectively as an instrument of the national security structure.

China's naval conflicts with the French and the Japanese demonstrated that while Beijing had successfully acquired the ships and weapons of a modern navy, it had not instituted effective central administration, training, logistical and maintenance support, and command and control. Furthermore, operational doctrine was almost completely lacking; the navy's leaders failed to establish inter-fleet coordination, exercises, or mutual support. Finally, China failed to provide its new navy with a coherent strategy tied to national security objectives. As a result of these factors, China's attempt to deploy a modern navy in the late nineteenth century ran aground.¹⁰³⁴

Republican China (1911-1948)

Chinese naval forces during the republican period relied almost entirely on ships leftover from the Qing or obtained from foreign nations. No significant efforts were made to rebuild the navy, or perhaps could have been made, given the general political and economic disarray suffered by China during those decades. Individual warlords occasionally made effective use of maritime forces, but these were viewed as adjuncts of the army. The low point was probably reached during the height of the warlord period, in the mid- to late-1920s. A western observer dismissed the Chinese navy since

“there has been a steady deterioration in the discipline of the Chinese Navy since the establishment of the Republic, and it has now ceased to exist as a national force, the different units being under the control of various militarists, who treat the vessels as their own private property It is impossible today to obtain a complete list of Chinese warships, showing to which party or militarist faction they belong.

¹⁰³⁴ China was only one of several countries building navies at this time: Great Britain, Germany, France, Italy, Russia, Japan, the United States, even Austria-Hungary, were all modernizing their fleets. Those that failed spectacularly—China, Germany, Austria-Hungary—all failed to develop meaningful strategic and operational frameworks for their new navies.

William Ferdinand Tyler, *Pulling Strings in China*, London: Constable & Co., 1929, tells some colorful stories about another, more successful maritime force developed in China during the late nineteenth century: the Revenue Service established as part of the Customs Service long-supervised by Sir Robert Hart. The ships of this service were operated mostly by British officers. Tyler also states that he was onboard the Chinese flagship at Weihaiwei in 1895, and characterizes the navy as “a monstrously disordered epicyclic heterogeneity.”

Vessels have been changing their allegiance . . . with bewildering frequency.”¹⁰³⁵

Threats to the new regime were *ground* threats from the Chinese Communist Party (CCP), Russia, and internal warlords. Naval actions that occurred took place chiefly on the rivers, especially the Yangzi and the waterways of the Canton Delta. Many of the warlords who struggled to gain control of various provinces and districts during the revolutionary period used China's inland waterways for transportation, as sources of revenue--taxing the dense river and canal traffic, or as military barriers. These efforts led to frequent "firefights" between provincial forces and the imperialist gunboats that patrolled China's rivers and lakes during the period, but did not contribute to any national effort to revive Chinese maritime power.¹⁰³⁶

Foreign sea power was especially effective as a "force multiplier": Great Britain, the United States, and Japan were able to use sea and river transport to move troops rapidly between crisis areas.¹⁰³⁷ This allowed them to influence the course of events in revolutionary China with relatively small military formations. There was also an October 1929 naval and land engagement on the Heilong (Amur) River between Chinese and Soviet forces that presaged the 1969 incident over disputed boundaries.¹⁰³⁸ Japan introduced a new element of maritime warfare in 1932, when it used bombers from an aircraft carrier stationed offshore Shanghai to bombard Chinese forces threatening Japanese interests in the city. Republican China was unable to contest such maritime efforts.

Jane's Fighting Ships documented this sad story. The 1939 edition reported that "Pending the termination of hostilities between China and Japan it has proved impossible

¹⁰³⁵ "The Chinese Navy," in *Shanghai Defense Force and Volunteers*, Shanghai: North China Daily Herald, 1929 (?), p. 1302.

¹⁰³⁶ One notable exception was a battle at the upper Yangzi River port city of Wanhsien, in September 1926. The local warlord, General Yang Sen, first commandeered British-owned steamers to transport his troops; when a British gunboat, HMS *Cockchafer*, attempted to free the steamers it ran into an ambush very capably managed by Yang and suffered severe casualties. See B.D. Cole, *Gunboats and Marines*, Newark, DE: University of Delaware Press, 1983, pp. 89-90, for an account of this affair.

¹⁰³⁷ The United States, for instance, used just two navy transports and a commercial passenger liner to move a single regiment of Marines from the United States to the Far East, and then between the Philippines and China, and between north and south China, as crises waxed and waned.

¹⁰³⁸ Swanson, p. 157. The "Chinese" naval forces were actually those of Zhang Xueliang, the Manchurian warlord (the "Young Marshall") who had recently sworn allegiance to Chang K'ai-shek's Nationalist government. The Chinese account of this battle quoted by Swanson ends with a Soviet victory due to superior firepower, including air strikes.

to obtain a reliable list of the ships of the Chinese Navy that remain in service. But it is believed that the following [forty-one surface ships] have been destroyed or otherwise lost.” In 1945 *Jane’s* listed fourteen ships in the Chinese Navy, but listed another six as belonging to the “Nanking Quisling Government.”

China’s record as a naval power during the long period of empire and republic documents an understandable focus on the continental rather than the maritime arena. Navies were built, organized, and employed only episodically and almost entirely for defensive purposes.

A NEW BEGINNING: THE PEOPLE’S REPUBLIC OF CHINA (PRC)

The Early Years: 1949-1954

The communist victory in 1949 was an army victory. The PLA had no naval arm and was unable to project power across even the narrow Taiwan Strait. Furthermore, many Chinese thought that China’s 19th and 20th century humiliation had been due in large part to foreigners’ ability to invade from the sea. The new government in Beijing sought to defend its coastline and island territories against both the United States and the KMT regime on Taiwan.

The “East China People’s Navy” was organized on 1 May 1949, formed mostly by the defection of the former KMT Second Coastal Defense Fleet.¹⁰³⁹ The new navy became part of the “East China Military Command,” organized in January 1950 with strength of more than 450,000 men and headquartered in Shanghai.

The new maritime force was given several missions. First was establishing law and order on coastal and riverine waters; second was helping the army capture offshore islands still occupied by the KMT and to prepare for the capture of Taiwan. Third, the CCP Politburo charged the new navy with “defending both [eastern and southeastern] China coasts and the Yangzi River.”¹⁰⁴⁰ Commander (and political commissar) of the East China Navy, General Zhang Aiping, interpreted these missions as requiring the new navy

¹⁰³⁹ Larry M. Wortzel, “The Beiping-Tianjin Campaign of 1948-49: The Strategic and Operational Thinking of the People’s Liberation Army,” Paper prepared for the U.S. Army War College’s Strategic Studies Institute, Carlisle, PA, n.d., Chart 1, points out that by July 1949 the PLA actually included seventy-seven “naval vessels”; Gene Z. Hanrahan, “Report on Red China’s New Navy,” *Naval Institute Proceedings*, vol. 79, August 1953, p. 847, describes the Nationalist contribution to this force as “twenty-five vessels ranging from LCTs to destroyers, representing an estimated one-fourth of the total Nationalist naval force. . . .”; and David G. Muller, Jr., *China as a Maritime Power*, Westview Press, 1983, p. 13, estimates that 2,000 former Republican naval personnel who defected to the communist regime in 1949 formed the core of the nascent PLAN.

¹⁰⁴⁰ Quoted in Shu, p. 51.

to safeguard China's independence, territorial integrity and sovereignty against imperialist aggression. . . . to destroy the sea blockade of liberated China, to support the land and air forces of the People's Liberation Army in defense of Chinese soil and to wipe out all remnants of the reactionary forces.¹⁰⁴¹

Among Zhang's first acts was establishing the "Naval Academy for the East China Military Zone" at Nanjing, in August 1949, to train army troops to become sailors in the new navy.¹⁰⁴² He also organized a rudimentary maintenance and logistical infrastructure.

The PLAN was officially established in May 1950, absorbing the East China Navy.¹⁰⁴³ Zhang remained in command; he was typical of early PLAN leadership, veterans of China's civil war who had spent their entire career as ground commanders. They were transferred to the new navy because of their political reliability and proven combat record, rather than naval experience. In fact, only two career naval officers have commanded the PLAN: Admirals Zhang Liangzhong, from 1987-1996 and Shi Yunsheng, from 1997 to the present.¹⁰⁴⁴

Zhang Aiping visited Moscow in September 1949, and the PLAN was established with Soviet assistance obtained by Mao Zedong during his 1949-50 stay in Moscow. China acquired mostly small vessels suitable to combat the coastal threat from Taiwan, as Zhang set out to develop a defensive force that would be inexpensive to build, and could be quickly manned and trained.¹⁰⁴⁵ Beijing's goal was the naval capability to recover the offshore islands still occupied by the KMT, to conclude with the invasion of Taiwan

¹⁰⁴¹ General Zhang Aiping, quoted in *ibid.*, p. 848.

¹⁰⁴² Muller, p. 14.

¹⁰⁴³ *Ibid.*, pp. 46-54, provides a useful description of the beginnings of the PLAN.

¹⁰⁴⁴ The reverse also occurs. Author's conversation with Qingdao Garrison DCOS for Militia and Reserve Affairs in May 2000 involved a long discussion with a PLA "senior- colonel," who had spent the previous twenty-two years as a senior captain in the PLAN; his transfer to the army came about because of his expertise as an engineer.

¹⁰⁴⁵ The new PLAN also ordered two new cruisers from Great Britain and attempted to obtain surplus foreign warships through Hong Kong, efforts that were nullified by the outbreak of the Korean War.

He Di, "The Last Campaign to Unify China': The CCP's Unmaterialized Plan to Liberate Taiwan, 1949-1950," *Chinese Historians*, vol. 5, Spring 1992, p. 8. This article is probably the most complete account of this period's PLAN activities connected with the Taiwan Strait islands. Its author works at the Institute of American Studies of the Chinese Academy of Social Sciences and presumably had good access to PLA archives while researching this article.

in August 1951. Mao Zedong considered the capture of Taiwan “an inseparable part of his great cause of unifying China.”¹⁰⁴⁶ He lacked experience in naval warfare, but quickly learned that a successful campaign against Taiwan would require adequate amphibious training, naval transportation, “guaranteed air coverage,” and the cooperation of a “fifth-column” on the island--requirements that still apply.¹⁰⁴⁷

1950s

The Korean War presented mixed military lessons to China. The amphibious landing at Inchon in September 1950 was a major turning point of the war, while allied command of the sea allowed free employment of aircraft carriers and battleships to bombard Chinese and North Korean forces. The UN forces also suffered a significant maritime defeat, when a planned amphibious assault on the east coast port of Wonsan in October 1950 had to be canceled because the North Koreans had mined the harbor.¹⁰⁴⁸ Overall, however, Korea was not a maritime conflict and the PLA's successes on the land and in the air contributed to a continued policy of relying on a coastal navy for China's defense.

PLAN operations continued to focus on KMT attacks against the mainland and on capturing offshore islands held by Taiwan. The decade was highlighted by two Taiwan Strait Crises, in 1954-55 and 1958. The 1954-55 incident included the PLA seizure of the Dachen Islands, evacuated by the KMT in the face of PLA air power and developing amphibious assault proficiency.¹⁰⁴⁹

The navy's air force, the People's Liberation Army Navy-Air Force (PLANAF), was organized in 1952. Its mission was support of anti-surface ship and anti-submarine

¹⁰⁴⁶ Ibid., p. 2, points out that the date for assaulting Taiwan was postponed by Mao several times, as PLA failures against various offshore islands emphasized the additional time required to prepare for a successful, large-scale amphibious assault.

¹⁰⁴⁷ Ibid., p. 4

¹⁰⁴⁸ The American amphibious assault on Wonsan in October 1950 was so delayed by 2,000-4,000 mines laid in the harbor and its approaches that the city was captured by Allied troops attacking overland before a landing could be made from the sea. Two U.S. minesweepers were sunk and Japanese "sweeps" had to be called in to complete the task. The presence of mines had been anticipated, but the North Korean failure to lay their mines correctly in Inchon led the U.S. commanders to dismiss the dangers of mine warfare.

¹⁰⁴⁹ Gordon H. Chang and He Di, “The Absence of War in the U.S.-China Confrontation Over Quemoy and Matsu in 1954-1955: Contingency, Luck, or Deterrence?” *The American Historical Review*, vol. 98, December 1993, p. 1514, misleadingly describes this action during which “10,000 PLA troops...overwhelmed 1,086 Kuomintang soldiers.”

defensive operations;¹⁰⁵⁰ initial inventory was eighty aircraft, including MiG-15 jet fighters, Tu-16 jet bombers (a model still active), and propeller-driven Tu-2 bombers.

The North Sea Fleet included the majority of the PLAN's submarine force, perhaps because it was the fleet nearest the U.S. naval forces based in Japan.¹⁰⁵¹ The East Sea Fleet, headquartered in Ningbo, was the busiest and most important of the PLAN's three operating fleets during the 1950s. It faced the American-supported KMT forces, and the Taiwan Strait crises occurred in this fleet's area of responsibility (AOR). The South Sea Fleet, once Hainan was taken from KMT forces in 1950 and the Vietnamese-French war ended in 1954, faced a hostile SEATO alliance but a relatively quiet maritime situation. Within ten years of its founding, the PLAN had been organized, sent to sea, and proven itself as a coastal defense force.

1960s

The 1960s were marked by major foreign and domestic events that constrained development of a sea-going navy. Most important was the split with the Soviet Union, when Soviet advisors (and their plans) were withdrawn from China in 1960. The navy suffered with the rest of the PLA, as training and development projects were left in turmoil.

Other significant events in the early 1960s included war with India, the reemerging Vietnam conflict, turmoil in the new African states, and revolutionary movements throughout Southeast Asia. None of these international events directly involved the navy; they did not provide justification for reorganizing or expanding the PLAN, but instead served to limit naval modernization.

The massive Soviet ground force threat in the 1960s and the PLA's lack of mobility drove China's national security strategy to focus on very large army forces, supplemented by a coastal navy. Naval modernization focused almost solely on the development in the 1960s of nuclear-powered attack and ballistic missile submarines, to the detriment of the remainder of the PLAN.¹⁰⁵²

Addition of a nuclear arm to a coastal defense navy resulted from Mao's determination that China join the nuclear club. Despite the ideological turmoil of the late

¹⁰⁵⁰ Kenneth W. Allen, Glenn Krume, and Jonathan D. Pollack, *China's Air Force Enters the 21st Century*, Santa Monica, CA: RAND, 1995, p. 205 n.11: little open-source information is available about PLANAF assets; a reasonable assumption is that the navy's air arm has flown the older variants of the same aircraft flown by the PLAAF. Allen, Krume, and Pollack provide a useful description of PLA aircraft acquisition programs in Appendix E, pp. 221-9.

¹⁰⁵¹ The PLAN submarine bases were perhaps influenced by Soviet advisors; during discussions with the Allies in the 1940s and with Mao in 1950, Stalin had expressed interest in establishing a Soviet submarine base at Pt. Arthur (Lushun).

¹⁰⁵² John E. Moore and Richard Compton-Hall, *Submarine Warfare: Today and Tomorrow*, London: Adler & Adler, 1987, pp. 195, 201.

1950s and the 1960s, Beijing invested heavily in developing nuclear-armed missiles and the nuclear-powered submarines to launch them. This policy came to fruition in China's 1964 detonation of a nuclear device and the 1988 commissioning of a nuclear-powered fleet ballistic missile submarine (SSBN).¹⁰⁵³

America's involvement in Vietnam and Taiwan's failure to act on its invasion rhetoric meant that China faced no overseas threat during the decade.¹⁰⁵⁴ The PLAN remained organized in three operating fleets, each facing discrete "theaters": the North Sea Fleet was primarily responsible for countering the Soviet naval threat; the East Sea Fleet focused on Taiwan; the South Sea Fleet was on the immediate sidelines of the Vietnam conflict.

1970s

Mao Zedong reportedly directed the development of a modern navy in May 1975 at a meeting of the Central Military Commission (CMC).¹⁰⁵⁵ He may have been reacting both to the Soviet threat and to the development of a powerful navy by China's ancient protagonist and most recent invader, Japan.

PLAN missions in the 1970s included combating criminal activities such as smuggling, piracy, and illegal immigration; life saving; and safety of navigation. The navy's first priority, however, remained defending against possible Soviet amphibious assault. The Soviet Navy in the late 1970s and 1980s was in a position to threaten sea lines of communications vital to Beijing's rapidly increasing merchant marine, as Soviet maritime forces maintained continual naval presence in the Indian Ocean and North Arabian Sea. The Soviet Pacific Fleet almost doubled in size during the 1970s and was improved by the addition of Moscow's latest combatants, including nuclear-powered and armed surface ships and submarines. Soviet merchant and fisheries ships were also omnipresent in Pacific waters historically vital to China's economic interests.

Beijing's second maritime priority was securing offshore territorial claims. Taiwan was the most important of these, but the South China Sea was also significant. Successful action against South Vietnamese naval forces in 1974 resulted in Chinese possession of the disputed Paracel Islands, located in the northern part of that sea.

¹⁰⁵³ Richard Sharpe, ed., *Jane's Fighting Ships: 1995-96*, London: Butler and Tanner, 1996, p. 114, states that China built two *Xia*-class fleet ballistic missile submarines, patterned on the U.S. *George Washington*-class/Soviet *Hotel*-class: A.D. Baker, III, ed., *The Naval Institute Guide to Combat Fleets of the World, 2000-2001: Their Ships, Aircraft, and Systems*, Annapolis, MD: Naval Institute Press, 2000, does not repeat this claim.

¹⁰⁵⁴ Presumably, the United States would have come to Taiwan's defense had the PRC tried to take advantage of the American preoccupation with Vietnam by attacking the island, but the GPCR was even more of a preoccupation for Beijing.

¹⁰⁵⁵ FBIS reports, cited in Muller, p. 154.

The Soviet naval base at Cam Ranh Bay in Vietnam was flourishing as the 1970s ended, and the fight over the Paracels indicated that other claimants to the islands and reefs of the South China Sea would not accede meekly to Beijing's territorial claims. Hence, the South Sea Fleet's organization was significantly changed: the Marine Corps, first formed in 1953 but disbanded in 1957, was reestablished in 1980 as an amphibious assault force and assigned to the southern fleet. The PLAN's slender amphibious assets were concentrated in the south, as that fleet's training regimen began including "island seizing" exercises. In 1980, for instance, a major fleet exercise in the South China Sea focused on the seizure and defense of islands in the Paracels.¹⁰⁵⁶

1980s

PLAN force structure in 1980 for the first time centered on Chinese-built warships. Although still heavily reliant on Soviet designs, the *Luda*-class guided-missile destroyers, *Jianghu*-class frigates, and fast-attack missile-boats marked a significant increase in China's maritime capability.¹⁰⁵⁷ The submarine force included the first Chinese-built nuclear-powered attack submarines, as well as about 60 conventionally powered boats. A seaborne nuclear deterrent force continued under development, following Mao's command "to make [the navy] dreadful to the enemy."¹⁰⁵⁸

Mao's passing from the scene in 1976 limited the effort to modernize the PLAN, however, as Deng Xiaoping put forward a continentalist strategic perspective. Deng selected another general to command the navy, an officer who had worked for him previously. General Liu Huaqing held substantive (general/admiral) rank senior to that (lieutenant general/vice admiral) normally held by the PLAN commander, a sign of Deng's determination to improve the navy.

Liu exerted a strong force on naval developments as commander of the PLAN from 1982-1987, and then Vice-Chairman of the CMC until 1997. He is best known for promulgating a three-stage maritime strategy that provided justification on which PLAN officers and other navalists could base their plans for a larger, more modern navy--a process Liu supported, but at a very moderate pace.

Probably most important, however, were Liu's accomplishments reorganizing the navy, redeveloping the Marine Corps, upgrading bases and research and development

¹⁰⁵⁶ Tai Ming Chueng, *Growth of Chinese Naval Power: Priorities, Goals, Missions, and Regional Implications*, Singapore: Institute of Southeast Asian Studies, 1990, p. 28. China's marine corps had been disbanded in 1957 as "unnecessary."

The concentration of amphibious forces in the South rather than the East Sea Fleet may reveal the PLAN's attitude—ambivalent at best—toward the very difficult task of conducting an amphibious assault against Taiwan.

¹⁰⁵⁷ John E. Moore, ed., *Jane's Fighting Ships: 1976-77*, New York: Franklin Watts, 1977, p. 100ff. The PLAN also included the first Chinese range-instrument ships for tracking guided-missile flights, and the first Chinese-built amphibious transports.

¹⁰⁵⁸ Muller, p. 171.

facilities, and restructuring the naval school system.¹⁰⁵⁹ China's widening maritime concerns and increased budget resources in the 1980s raised interest in a strong modern navy. PLAN modernization proceeded along three paths--indigenous construction, foreign purchase, and reverse engineering--much as had Li Hongzhang's "self-strengthening" navy a hundred years earlier. The 1980s program proceeded at a measured pace, however; Beijing did not embark on a major naval expansion program.

Foreign purchases were concentrated in the west, with the United States sold China a small number of modern ship engines and torpedoes, and western European nations sold other weapons and sensor systems. Indigenous construction included guided-missile destroyers and frigates, replenishment-at-sea ships, and conventionally and nuclear-powered submarines. The PLAN acquired its only *Xia*-class fleet ballistic missile submarine in 1982. The successful submerged launch in 1988 of the *Julong-1* (JL-1) intermediate-range ballistic missile (IRBM) from this submarine meant that China for the first time could deploy nuclear strategic weapons at sea.¹⁰⁶⁰ The *Xia* was one of a kind, however, and other than being home ported with the North Sea Fleet to facilitate engineering support,¹⁰⁶¹ its commissioning did not result in the PLAN organizing a dedicated nuclear strategic force.

During this decade the PLAN also demonstrated increasing capability in other maritime missions. Protecting offshore petroleum assets, other seabed minerals, and fisheries received increased attention,¹⁰⁶² but did not dictate fleet reorganization.

¹⁰⁵⁹ Liu's accomplishments are summed up in Alfred D. Wilhelm, Jr., *China and Security in the Asian Pacific Region Through 2010*, CRM 95-226, Alexandria, VA: Center for Naval Analysis, 1996, p. 43.

¹⁰⁶⁰ See John Wilson Lewis and Xue Litai, *China's Strategic Seapower*, Stanford: Stanford University Press, 1984, for the best account of the development of the FBM and JL-1 programs. A successful 1982 launch was made from a submerged platform; a 1985 attempt from the *Xia* failed; a 1988 attempt succeeded. The *Xia* itself apparently has been a failure, never operating on a regular basis. *Jane's Fighting Ships, 1999-2000*, p. 115, repeats a continuing report that the second *Xia* was destroyed in a 1985 accident before it could go to sea.

Liu has been compared to Alfred Thayer Mahan, the great American maritime strategist, but it would be more accurate to compare Liu to Admiral John Fisher, the British First Sea Lord in the first decade of the 20th century who completely reorganized the Royal Navy.

¹⁰⁶¹ Author's discussion with Senior-Colonel (formerly Senior Captain) Wang Jue (May 2000), who had spent his career as a PLAN nuclear engineer, only to end up as DCOS for Militia and Reserve Affairs for the Qingdao Garrison. A conventionally-powered submarine copied from the Soviet's *Gulf II*-class was also built; it is still operational as a missile test-platform.

¹⁰⁶² See, for instance, Michael Leifer, "Chinese Economic Reform and Defense Policy: The South China Sea Connection," paper presented at the IISS/CAPS Conference,

China invested in four large space-surveillance ships to support its growing military and commercial space program, with these ships conducting the first long-range PLAN deployments in support of space launches in 1980. Task forces also supported scientific expeditions to the Arctic and Antarctic. The navy's operational exploits were accomplished by an organization that had changed little since its founding in 1950.

ADMINISTRATIVE ORGANIZATION OF THE NAVY

The PLAN was downsized as part of Beijing's 1985 decision to reduce the size of the PLA.¹⁰⁶³ Its strength was approximately 270,000 personnel in 1995, about 9 percent of the overall PLA's strength. PLAN strength was 250,000 personnel at the end of 1998 (about 10 percent of the PLA's total strength). This number was scheduled for a 10 percent reduction by mid-2000, as part of the three-year, 500,000-man cut in PLA strength announced by Jiang Zemin in 1997.¹⁰⁶⁴ This downsizing is part of the effort to reorganize the PLA for future warfare, where personnel skill and technological competence count more than mass:

- (1) Active duty PLA forces will become quantitatively smaller, with an emphasis on technological quality;
- (2) Reserves and the People's Armed Police (PAP) will increase in size;
- (3) The PLA will retain many existing weapons and attempt to develop new tactics and techniques to defeat a high-technology enemy;
- (4) Only limited amounts of foreign weapons and equipment will be introduced into the forces; the indigenous Chinese defense industry will be the source of the majority of modern weapons;

Hong Kong, July 1994; and John W. Garver, "China's Push Through the South China Sea: The Interaction of Bureaucratic and National Interests," *China Quarterly*, December 1992, pp. 1019, 1022.

¹⁰⁶³ See Nan Li, "Organizational Changes in the PLA, 1985-1997," *China Quarterly*, June 1999, p. 330, who also notes that all headquarters were reduced by 25 percent as part of this reduction.

¹⁰⁶⁴ The 270,000 figure is contained in Kuan Cha-chia, "Commander Jiang Speeds Up Army Reform, Structure of Three Armed Services To Be Adjusted," Hong Kong *Kuang chiao ching*, No. 305, 16 February 1998, in FBIS-CHI-98-065, 6 March 1998. PLAN strength is given as 230,000 by The Institute for Strategic Studies, *The Military Balance, 1999-2000*, London: Oxford University Press, 1999, p. 187, but the number 250,000, and the 10 percent cut in manpower, is from the author's interviews in October 99. Dennis J. Blasko, "A New PLA Force Structure," in James C. Mulvenon and Richard H. Yang, eds., *The People's Liberation Army in the Information Age*, Santa Monica, CA: RAND, CF-145-CAPP/AF 1999, pp. 263-4, notes that China's July 1998 Defense White Paper states that PLA ground forces will be reduced by 19 percent, naval forces by 11.6 percent, and air forces by 11 percent, which would equal a reduction of about 418,000 ground forces, 31,000 naval personnel, and 52,000 air force personnel.

- (5) Capabilities will emphasize rapid response and joint operations, focusing on precision attack, air operations, naval operations, information warfare, and space operations; and
- (6) Command and control organization will be reorganized to better manage the requirements of future warfare.¹⁰⁶⁵

Since the majority of this reduction will affect the army, the navy's percentage of overall PLA strength should increase. These points will affect the navy's administrative and operational practices, but are not likely to require changes to basic fleet organization.

Although the PLAN is and will almost certainly remain the smallest of China's conventional armed services, it may exert influence in PLA policy determination out of proportion to its size. This is evidenced by the fact that the PLAN probably receives as much as one-third of the PLA budget, although it comprises no more than about 13 percent of the two million PLA personnel.¹⁰⁶⁶

PLAN size is only one indicator of its importance in Beijing's view. The navy's strategic missions are also important. A likely list of China's strategic military goals include the following, all of which require a strong navy to:

- (1) Defend China's borders and territories, especially if they are subjected to military challenge (e.g., Russia, India, Vietnam....);
- (2) Establish secure and recognized maritime boundaries for China, especially in contested areas of the South China Sea and along China's continental shelf;
- (3) Guarantee China against external intervention, coercion, or dictation by other great powers;
- (4) Back up Chinese diplomatic efforts to avoid permanent separation and ultimately achieve recovery of territories (by force if necessary) wrested from China by foreign powers—primarily Taiwan and the Senkaku (Diaoyu) islands; and
- (5) support China's ultimate emergence as a world power with "comprehensive strength."¹⁰⁶⁷

¹⁰⁶⁵ Blasko, "A New PLA Force Structure," pp. 262-3.

¹⁰⁶⁶ Alexander Huang, "The Chinese Navy's Offshore Active Defense Strategy: Conceptualization and Implications," *Naval War College Review*, v. XLVII, No. 3 (Summer 1994), p. 9. These figures do not address national defense expenditures that are not included in the nominal PLA budget, such as foreign purchases of Su-27 and Su-30 aircraft, *Kilo*-class submarines, and *Sovremenny*-class destroyers. Other defense costs that may not be included in the PLA budget include pensions, research and development, training conducted at civilian schools, and China's space program.

¹⁰⁶⁷ This list is adopted from Charles W. Freeman, Jr., "China, Taiwan, and the United States," in Selig S. Harrison and Clyde V. Prestowitz, Jr., eds., *Asia After the*

These missions should make the PLAN commander an important military participant in the national security policy apparatus, along with the heads of the PLAAF, the Second Artillery, and China's seven military regions (MR).¹⁰⁶⁸ His actual influence, however, is likely tied directly to specific maritime missions and/or to the degree of crisis felt about the strategic issue of the moment.

Seven Roles of the PLAN Commander

Admiral Shi Yunsheng rose to command of the PLAN through a series of operational and administrative assignments. He is a naval aviator and served in senior positions in both the North and South Sea Fleets, including command of the PLANAF forces that participated in the 1988 battles against Vietnam in the South China Sea.¹⁰⁶⁹ Shi has to “wear more than one hat” as PLAN commander.

Operational Tasking. First, as the senior officer in the PLAN, he is responsible for directing the operational tasking of the navy in accordance with the determination of national security objectives. The most important facet of this responsibility is ensuring that the PLAN is ready to fulfill its role in national tasking ranging from combating piracy to preparing for various operational options regarding Taiwan.¹⁰⁷⁰

“Miracle”: *Redefining U.S. Economic and Security Priorities*, Washington, D.C.: The Economic Strategy Institute, 1999, p. 172.

¹⁰⁶⁸ See Swaine, pp. 43ff, who discusses a wide range of participants in the national security policy-making process, including retired senior officers and those heading up the National Defense University (NDU) and Academy of Military Science (AMS).

I will not discuss formal organizational or bureaucratic-behavior theory, but note that I assume the national security policy-making process in China has many of the same characteristics as that in western countries and Japan, where the formal structure of decision-making, from the determination of national objectives to the allocation of finite amounts of resources to specific programs, operates amidst an environment of personal relationships and less formal discussion/decision-making. Various elements in the defense bureaucracy, for instance, no doubt contain individuals, military or civilian, who by virtue of longevity and/or special expertise, are able to influence policy to a degree out of proportion to their titular position.

¹⁰⁶⁹ David Shambaugh, “China’s Post-Deng Military Leadership,” in James R. Lilley and David Shambaugh, eds., *China’s Military Faces the Future* Washington, D.C.: AEI/M.E. Sharpe, 1999, p. 27.

¹⁰⁷⁰ Another aspect to his operational responsibility is Shi’s role in gaining authorization from the national policy-making apparatus for tasking the navy wants to execute—such as a multi-ship deployments to foreign nations—by presenting it as beneficial to China in order to gain official sanction.

Resources. Second, as representative of the PLAN in Beijing, Shi serves as advocate for his service in the resource allocation process—in PLA budget battles, in other words. His personal effectiveness in this role is not easily discernable, since current major equipment modernization programs such as the acquisition of *Kilo*-class submarines, *Sovremenny*-class destroyers, *Song*-class submarines, Ukrainian-built gas turbine engines, and various foreign weapons and fire-control systems, were initiated before he assumed his present office.

Education. Third, equally as significant as this equipment modernization, however, may be organizational changes that have occurred since Shi assumed office in 1997. A potentially significant change is the ongoing restructuring of the training and education establishment, from officer accession to ship crew training. The PLAN also operates its own academic research institute (the Naval Research Institute) and equipment research institute (the Naval Research Center) in Beijing, which follow the direction of the navy commander.¹⁰⁷¹

The PLAN is emulating the U.S. reserve officer-training corps (ROTC) programs for producing well-educated, technically oriented candidate officers.¹⁰⁷² Agreements

Author's interviews with PLA officers reveal that Naval Headquarters in Beijing, in late October or early November, nominates to the CMC countries to be visited by PLAN ships during the following calendar year. Nominations are based on visits the PLAN Headquarters or fleet commanders think will serve Chinese and PLAN purposes. These employment plans are submitted to the First Office of the Ministry of Defense for vetting and if approved, to the CMC for approval. Once national approval is gained, ship selection and preparation is the responsibility of the navy offices and fleet headquarters designated by PLAN Headquarters. Typical preparations for a significant foreign deployment would include ship selection from different fleets, to pick the most operationally ready and best looking ships, as well as those with the most proficient commanding officers (CO). An effort is also made to "share the wealth" among the fleets, by rewarding those units that have performed unusually well. Once selected, the ships' COs and crews are "frozen," to ensure continuity throughout the special deployment. Additional crewmen and officers are also usually assigned to increase the number of personnel benefiting from the special deployment (a procedure especially followed in the case of the 1997 PLAN deployment to North and South America). The ships are assigned a dedicated supply officer to help them prepare for the deployment, may receive special training for a particularly long deployment, and their crews receive cultural familiarization lectures.

¹⁰⁷¹ Li Jun-ting and Yang Jin-he, eds., *Overview of the Chinese Armed Forces*, Beijing: People's Publishing Agency, 1989, p. 232. I am indebted to David Finkelstein for explaining the different missions of these two organizations: the *Haijun junshi xueshu yanjiusuo* and the *Haijun zhuangbei lunxheng yanjiu zhongxin*.

¹⁰⁷² The author first discussed with PLA officers implementing an ROTC-like program in China in 1993; discussions since then between U.S. and PRC National Defense University (NDU) faculty--which typically occur at least twice a year--have

are being signed between MR headquarters and civilian universities located in their respective military regions through which the university receives compensation for producing military officer candidates.¹⁰⁷³ The navy is pursuing an especially ambitious ROTC-type program, with a goal of eventually producing no less than 40 percent of the PLAN officer corps from civilian universities.¹⁰⁷⁴

The navy is also participating in the general overhaul of PLA service academies,¹⁰⁷⁵ following Jiang Zemin's demand that academy education "strengthen the

almost always included ROTC as a discussion topic. The modern, highly successful American Naval ROTC program was initiated in 1946 (the Holloway Program) with the goal of organizing units at prominent U.S. universities to produce officers educated in technical and engineering curricula.

¹⁰⁷³ Author's interview with senior PLA officer. Also see, for instance, Xiang Jiajun and Zhang Xuanjie, Beijing *Xinhua*, 28 May 1999, in FBIS-CHI-99-0601, for the report that the "Second Artillery Corps signed an agreement with the Northwest Engineering University in Xian today to cultivate cadres for guided missile troops" and will "supply a certain number of outstanding university and graduate students for the Second Artillery Corps every year," with the Corps establishing a "national defense scholarship" at the school to "encourage and fund" likely students. A similar report is found in Liu Jianxin, Beijing *Xinhua* 28 October 1999, in FBIS-CHI-99-1103, for the report that the "Guangzhou Military Region and Wuhan University have signed an agreement on jointly training military cadres...this military region will...expand the selection of outstanding personnel from institutions of higher learning across the country....All major military regions and armed services have separately designated one local university to be the designated school for training their own cadres."

¹⁰⁷⁴ Beijing *Xinhua*, 17 August 1999, in FBIS-CHI-99-0817: "The Chinese navy plans to recruit about 1,000 officers from non-military universities and colleges yearly beginning this autumn in an effort to meet its need for command and technical talent....[these officers] will account for 40 percent of all naval officers by the year 2010. Also see *Xinhua* Hong Kong Service, 21 June 1999, in FBIS-CHI-99-0622, for the note that these civilian university programs will be linked to the military academy structure. This linkage is no doubt intended to maintain control of the ideological as well as the subject-matter content of the "civilian" program—the latter long a concern within the U.S. Naval ROTC program.

¹⁰⁷⁵ See, for instance, *Xinhua* Hong Kong Service, 21 June 1999, in FBIS-CHI-99-0622, for a *Jiefangjun bao* report that the number of academies are being reduced in the interest of making individual schools larger and more efficient. A 20 June 1999 *Straits Times* article entitled, "China Sets Up Defense Campus," reported that the PLA "has set up a new National Defence Science and Technology University" in Changsha, and "directly under the command of the CMC" will offer a wide range of courses at the general staff college (0-5/0-6) level.

military through science and technology.”¹⁰⁷⁶ In Wuhan, the former Navy Engineering Academy and Navy Electronics Engineering Academy have been merged into the Engineering University of the Navy. The new school, established in June 1999, reportedly awards undergraduate degrees and has graduate programs in 35 subjects.¹⁰⁷⁷ The university's thirteen departments seem to focus on advanced technological areas that address the putative "revolution in military affairs" (RMA), including warship kinetic engineering, electronic information and naval arms engineering, and command and electronic warfare engineering.¹⁰⁷⁸

Shipboard Training. Fourth, education for ships' crews previously occurred almost entirely aboard ship. Within the past decade, however, the PLAN has created more centralized schools and training facilities to help teach personnel how to operate modern shipboard systems.

These new schools and training centers are operated by each fleet's naval base commands, and have been established to teach engineering, surface warfare, ship handling, aviation operations, submarine warfare, and medical operations, in addition to addressing specific equipment systems.¹⁰⁷⁹ The East Sea Fleet, at least, also has established a petty-officer leadership school, in Shanghai, which draws its students from ship and aircraft squadron personnel who have reenlisted.

Logistics. Fifth, in the vital but unglamorous area of logistics, the PLAN has been trying to modernize its support systems during Shi Yunsheng's term in office. He has devoted considerable attention to improving the Navy's General Logistics Command.¹⁰⁸⁰ Shi is reportedly building a "modern logistic support system," to include oil and water supply systems for the fleet, as well as surveying, salvage, transport, and

¹⁰⁷⁶ "Put Military Academy Education in a Strategic Position of Priority Development," *Jiefangjun bao*, 23 June 1999, in FBIS-CHI-99-0629. During the past year, there have been numerous reports of military academy reform; for another "ROTC" plan, see Zhang Jiajun and Zhang Xuanjie, *Xinhua*, 28 May 1999, in FBIS-CHI-99-0601: "The Second Artillery Corps signed an agreement with the Northwest Engineering University in Xian today to....supply a certain number of outstanding university and graduate students for the Second Artillery Corps every year. The Second Artillery Corps will establish a national defense scholarship...to encourage and fund outstanding students...."

¹⁰⁷⁷ Li Xianfang and Liu Haiyang, *Xinhua*, 17 June 1999, in FBIS-CHI-99-0617.

¹⁰⁷⁸ Rear Admiral (RADM) Shao Zijung (college president), quoted in, "Navy Engineering College Is Aimed at Developing New Naval Military Talent," *Xinhua* 7 August 1999, in FBIS-CHI-99-0826.

¹⁰⁷⁹ Author's conversation with senior PLA officers; also, Xu Sen, "Building a Modern Naval Battlefield—Overview of the Naval Vessel Training Center," *Jiefangjun bao*, 15 September 1999, p. 6, in FBIS-CHI-99-0923.

¹⁰⁸⁰ Lin Jun-ting and Yang Jin-he, pp. 244, 245.

hospital ships. Improved ship maintenance is being pursued, as is better support for equipment maintenance and repair.¹⁰⁸¹

Shi is also working to implement the PLA's General Logistics Department's plan to establish a joint logistics service for all services in order to improve the timeliness and effectiveness of PLA logistics, including privatization of some parts of the system.¹⁰⁸² Under this plan, currently being implemented to include creation of joint "naval-air-ground rapid-response logistics units,"¹⁰⁸³ the navy will remain responsible for specific requirements linked to operations at sea, such as providing shipboard supplies and harbor facilities.

A major effort to reorganize the naval base structure to improve management and availability of supply activities both afloat and ashore is part of this PLAN program. This includes provisioning, repair and maintenance, medical care, and technical systems support of naval units and activities.¹⁰⁸⁴ There is no firm evidence, however, that the PLAN is establishing such facilities abroad.¹⁰⁸⁵

Inter-Service Relations. Sixth, Shi Yunsheng presumably is expected to wear a joint (or "purple," in U.S. parlance) hat as a senior member of China's military hierarchy. The importance of ensuring the close coordination of efforts by all services--joint warfare--was brought home to the PLA by the allied victory against Iraq in Desert Storm in 1991. To further jointness, Shi must subsume PLAN priorities within national defense plans that may reduce the navy's share of defense resources.

This "hat" is probably more complex for senior PLA officers than for their foreign counterparts, because of the relationship between the CCP and the PLA: maintaining a

¹⁰⁸¹ Quoted in Huang Caihong, Chen Wanjun, and Zhang Zhao, "China Enhances the Navy's Comprehensive Strength—Interview with Naval Commander VADM Shi Yunsheng," Beijing *Liaowang*, No. 16, 19 April 1999, pp. 13-15, in FBIS-CHI-99-0513.

¹⁰⁸² "Zhang Wannian Steps Up Military Logistics Reform," *Xinhua*, 9 December 99, in FBIS-FTS19991209000883, cites Zhang's statement that "it is imperative for the military to commercialize its logistics in this period of modernization."

¹⁰⁸³ Jianxiang Bi, p. 11. Huang, Chen, and Zhang, describe "naval port cities" being designated as central distribution points in the new logistics system.

¹⁰⁸⁴ See, for instance, Huang Caihong, Chen Wanjun, and Zhang Zhao, "The PLA Navy Has Enhanced Comprehensive Combat Effectiveness," *Xinhua*, 19 April 1999, in FBIS-CHI-99-0423. Even in the logistics area, Shi has been able to build on his predecessor's work: the PLAN's most significant overseas deployment to date, the three-ship visit to the Americas in 1997, which occurred before Shi was appointed to command the navy, is cited as evidence of the navy's enhanced logistics capability by Tai Ming Cheung, p. 237.

¹⁰⁸⁵ There has been considerable speculation in the open press, especially among Indian analysts, that China has established facilities at Burmese coastal and island sites to support a PLAN presence, but U.S. and Taiwan analysts do not support these accusations.

“party army” strains the process of military modernization. “Red” versus “expert” may be too stark a phrase to use, but increasing military professionalism is clearly one of Beijing’s goals and is not likely facilitated by the continuing priority placed on ensuring an ideologically oriented military loyal to the CCP. In other words, Shi Yunsheng must not only be “purple,” he must also be “red.”¹⁰⁸⁶

International Responsibilities. Seventh, Shi represents China in his relations with foreign navies. He has traveled to the United States, most recently in April 2000, and in November 1999 made a trip to France and Egypt accompanied by his East Sea Fleet Commander. This may simply represent tasking from the CMC, but also reflects Shi’s personal interest in foreign navies and a degree of cosmopolitanism perhaps not common among all senior PLA commanders.¹⁰⁸⁷

These seven points indicate that Shi Yunsheng has been an active navy chief, but evaluating his effectiveness requires information that is difficult to access, given the opaqueness of PLA headquarters. There are factors arguing in favor of his limitations as commander: first, he had a hard act to follow: with the retirement in September 1997 of Liu Huaqing as CMC vice-chairman, the PLAN (and its commander) lost an advocate at the highest level of China’s defense establishment. Liu certainly wore “purple” and “red” hats, but is also the father of the current modernizing process in the PLAN. Shi does not have Liu’s stature, because of his lack of a personal relationship with Jiang Zemin, lack of similar experience in the PLA, and because of his relatively junior rank among the heads of the services.¹⁰⁸⁸ Writing circa 1997, Michael Swaine does credit the PLAN with behaving as a quasi-independent bureaucratic actor...pushing for a greater

¹⁰⁸⁶ See James C. Mulvenon, *Professionalization of the Senior Chinese Officer Corps: Trends and Implications*, Santa Monica, CA: RAND, 1997, for the best current analysis of the ongoing professionalization of the PLA’s senior officer corps.

¹⁰⁸⁷ Author’s conversation with U.S. Navy analysts in November 1999 included the suggestion that Shi and Yang visited France to discuss purchase of follow-on technology to the *Exocet* anti-ship cruise missiles previously acquired by China and used as the model for the Chinese-built C-800 series missiles; the visit to Egypt was conjectured to be in connection with a possible multi-ship PLAN deployment to the Mediterranean being planned by Shi. As noted above, this (November) is about the timeframe for such proposals to be forwarded to the Defense Ministry by the Naval Headquarters.

Author’s discussion with Admiral Shi’s U.S. escort officer for his April 2000 visit to the United States revealed that Shi was most interested in U.S. naval aviation programs; C4ISR; officer and enlisted recruitment, retention, and training programs; and USCG roles, missions, and relationship with the U.S.N.

¹⁰⁸⁸ Shi, appointed PLAN commander in September 1997, was finally promoted to full admiral in June 2000. This promotion may merely represent his longevity and distinguished career, but Swaine does identify Shi as one of “the most influential (and vocal) bureaucratic players in formulating and supervising critical components of policy.” See Swaine, p. 45.

recognition of its institutional viewpoint in the senior levels of the PLA leadership, with significant success....as the major...proponent of the creation of a technologically sophisticated, operationally versatile blue water force, although he notes that the “pace and direction of naval modernization remains a major subject of debate” among PLA leaders, with the PLAN viewpoint “often challenged by the ground forces orientation of the [General Staff Department] GSD.”¹⁰⁸⁹ Within the navy itself, Shi’s effectiveness may be limited by the fact that he has spent his entire operational career in aviation units, and has had no shipboard experience.¹⁰⁹⁰

FORCE STRUCTURE

Admiral Shi categorizes the PLAN force structure as comprising five “major arms systems:”

- (1) Naval surface vessel units;
- (2) Naval submarine units;
- (3) Naval aviation units;
- (4) Naval coastal defense units; and
- (5) Marine Corps.¹⁰⁹¹

The “Chinese Naval Officer’s Manual” lists operational level duties for these PLAN “systems,” or warfare communities. The surface fleet is responsible for:

- (1) Attacking enemy warships;
- (2) Anti-submarine warfare (ASW);
- (3) Amphibious warfare;
- (4) Coastal defense; and

¹⁰⁸⁹ Ibid., p. 47.

¹⁰⁹⁰ This would be a significant problem in the U.S. Navy, among others; in fact, an officer of such narrow experience would not be selected to head the U.S. Navy. Historically, there have been very effective heads-of-navy with very limited or no seagoing experience (Alfred von Tirpitz, in early 20th century Germany, for instance), but they are the exception. Key to evaluating the durability of Shi’s influence on the direction of modernization and strategic development in the PLAN would be knowledge of how many and influential are his acolytes in the naval officer corps, especially at the flag officer level.

¹⁰⁹¹ Quoted in “Interview with Shi.” Also see Ren Yanjun, “Forging A Shield of Peace for the Republic—Part 1 of Roundup on 50 Years of Achievements in Army Building,” *Jiefangjun bao*, 6 September 1999, pp. 1-2, in FBIS-CHI-99-0911; and Xu Zuzhi, “Backgrounder on National Day Celebrations,” *Zhongguo xinwen she*, 1 October 1999, in FBIS-CHI-99-1002. These press accounts all make a point of citing Shi’s role in PLAN modern developments, leading to “greatly improved combat capability.”

- (5) Maritime surveillance; mine warfare, merchant ship convoys, search and rescue (SAR), and logistics.
- (6) Interdicting enemy logistics;
- (7) Attacking enemy naval bases and coasts; and
- (8) Maritime patrol and reconnaissance, mine warfare, logistic lift [!], and SAR.

The submarine force is responsible for strategic nuclear strikes;

The PLANAF's responsibilities include

- (1) Anti-surface warfare (ASUW);
- (2) Attacking enemy naval installations;
- (3) Defending PLAN surface and submarine forces during offensive operations;
- (4) Amphibious warfare, and anti-air warfare (AAW); and
- (5) Maritime reconnaissance, ASW, mine warfare, early warning, communications, SAR, and logistic lift.

Finally, the Marine Corps is assigned

- (1) Amphibious warfare;
- (2) Forward base seizure; and
- (3) Coastal defense. ¹⁰⁹²

Administration

The PLAN Commander is headquartered in Beijing, where the navy's Political Commissar is usually his equivalent in rank (see Figure 10.1 and 10.2). Nominally, the Commander and the Political Commissar are also equivalent in authority.¹⁰⁹³ There are three vice admirals as deputy commanders of the PLAN, as well as two deputy

¹⁰⁹² These lists are quoted in Srikanth Kondapalli, "China's Naval Structure and Dynamics," *Strategic Analysis*, vol. XXIII, October 1999, pp. 1097-1109.

¹⁰⁹³ Seniority among officers of the same rank is based on "date of rank": if an officer is promoted to vice admiral on 1 June and a second officer is promoted to the same rank a day later, the first will always be senior to the second, so long as they both are vice admirals. This is not to say, however, that the second officer may not be assigned to a billet in which he is more influential than his nominal senior: in the PLAN the billet may also dictate "seniority;" in the case cited, even if the navy's political commissar was promoted to vice admiral earlier than the navy's commander, the latter would still be "senior" to the former.

commissars, a vice admiral and a rear admiral. The former includes personnel affairs among his duties, while the latter serves as PLAN Inspector-General.¹⁰⁹⁴

The headquarters is organized into four departments, with the PLANAF Headquarters constituting a fifth (Aviation) department. The Headquarters, Political, and Aviation Departments are headed by vice admirals; the Logistics and Equipment Departments by rear admirals. Management of the personnel system is an important function within the Political Department, where it is directed by a rear admiral with a direct line of communication to the PLAN political commissar. This office manages the PLAN officer promotion system, which uses a system of committees.

PLAN officers are commissioned at the naval base level. Their diplomas (if they are naval academy graduates) are signed by the academy commander; their commissions are signed by the commander and the political commissar of the naval base at which they are first stationed following graduation.

Officers with the seniority and qualifications to be considered for promotion to lieutenant, lieutenant-commander, and commander are considered for promotion by a personnel committee at their parent naval base. The committee is chaired by the base political commissar and the base commander (usually a senior captain) has the authority to approve the promotion of those selected. Hence, the promotion system, as it does in most navies, gives a shore commander rather than a sea-going commander the authority to promote or not promote officers stationed in operational fleet units. If the PLAN conforms to common naval practice, however, a sea-going officer's promotability is strongly affected by reports of efficiency from his/her operational commander. Moreover, the base commanders likely have had several successful assignments at sea, or they would not have been promoted to their senior rank and selected for such responsible positions.

The role played by the unit political commissar in officer promotion is important: officer evaluations are undoubtedly based on estimates of both ideological reliability and professional expertise, but the balance between the two is not clear. Some analysts of the PLA believe that professional performance is increasingly important, and that the political commissar's job is increasingly that of a personnel manager and "human resources" specialist, rather than ideological policeman—although that role certainly remains.¹⁰⁹⁵

Selection for promotion to the rank of captain is made at each of the three geographic fleets by a committee headed by the fleet political commissar. The fleet commander has the authority to approve the promotions of the officers selected.

Promotion nominations to the ranks of senior captain, rear admiral, and vice admiral occur at PLAN headquarters. The PLAN political commissar nominally chairs

¹⁰⁹⁴ PLAN organization and office holders are identified through the *Directory of PRC Military Personalities*, October 1999, Honolulu: Serold Hawaii, Inc., 1999, USCINCPAC sources, and PLA sources. The author will note where sources differ.

¹⁰⁹⁵ For instance, see Harlan Jencks, who estimates that current PLA officers spend more than 70 percent of their "day" in professional training and less than 30 percent in ideological education, this was a reversal of the employment percentages prevalent during the Great Proletarian Cultural Revolution of the 1960s and 70s.

the selection committee, which forwards the senior captain and various admiral promotion nominations to a CMC-level office or committee for final approval. Promotions to full admiral are rare and almost certainly a matter for the CMC. The entire PLAN officer selection and promotion system for vice admiral and below is overseen by the "Committee of the CCP of the Navy for Promotions and Major Policies," chaired by the PLAN commander.¹⁰⁹⁶

This is a complex process, but not noticeably more so than that employed in other militaries. The promotion system is notable, however, for the important role assigned to the CCP as managers of the PLAN officer corps.

Headquarters Department. (*siling bu*) The Headquarters Department is arguably the most important of the four PLAN departments in Beijing, since it is through this department that the chain of command runs to the three operational fleets. The Headquarters Department includes one office and four second-level departments, each headed by a senior captain (see Figure 10.3).

The *General Office* (*bangongting*) includes seven divisions:

- (1) Military Strategic Studies, which focuses on long-range planning and strategy;
- (2) Political-Military Affairs, which is organized into global geographic sections;
- (3) Military Assistants, which provides and coordinates the activities of administrative and executive assistants to senior PLAN officers in the headquarters; and
- (4) Operations, which performs the planning function for future fleet operations.

The second of the five Headquarters departments is the *Operations Department* (*zuczhan bu*), which transmits--and probably formulates--operational tasking directly to the three fleets. The third is the *Intelligence Department* (*qingbao bu*), which is organized into regional divisions--Western Hemisphere, Europe, Asia, West Asia, Africa--and performs the PLAN headquarters intelligence function. There are also Planning and Secretarial Offices. This department probably provides intelligence both *up*, to the PLAN commander, and *down*, to the fleet. The PLAN Intelligence Office's relationship to the CMC/PLA intelligence hierarchy is not clear.

The fourth department, the *Training Department* (*zunlian bu*), contains four divisions. These are responsible for PLAN academies (surface, sub-surface, aviation) and other officer schools.¹⁰⁹⁷ The Training Department also manages enlisted and officer equipment classroom training, and probably is the PLAN's primary point of contact with the GSD for training matters.

¹⁰⁹⁶ This discussion on promotions is based on the author's discussions with two PLAN senior captains.; additional information sources are certainly desirable.

¹⁰⁹⁷ There must be a special relationship between the PLAN Political Commissar/PLAN Political Office and the Political Academy in Qingdao.

The PLAN's Training Department's relationships with the GSD training department and with the geographic fleets' training departments are unclear. If the PLAN resembles the PLAAF in this regard, it participates in a GSD annual training conference that delineates the next year's training objectives. The PLAN Training Department would then "flesh out" this annual training plan to ensure the navy's operational objectives are met, and pass the plan to the geographic fleets for execution—possibly following additional modification at that level. Since each fleet faces a different sub-region, each may have specific training requirements.¹⁰⁹⁸

Finally, the Headquarters Department includes the *Military Affairs Department* (*junshi bu*). This organization is responsible for developing naval doctrine, writing and promulgating regulations, overseeing naval publications in general, and organizational structure (including recruiting). It would logically have a strong relationship with counterpart CMC departments, but that is not clear.

For instance, does the Military Affairs Department receive tasking directly from the CMC, or does its direction come strictly through PLAN headquarters? Does the Military Affairs Department receive input from the fleet and naval colleges? The Naval Command Academy at Nanjing has an operational (experimental) cell with the East Sea Fleet, which would furnish a logical path for recommendations about doctrinal and tactical development to reach PLAN headquarters from the fleet. The North and South Sea Fleets also have units designated to participate in doctrinal and tactical development, and in conducting trials of new equipment and systems.

Additionally, is recruiting coordinated at the CMC level to ensure an equitable distribution of available manpower among the various PLA services?

Political Department (*zhengzhi bu*). The second of the navy's headquarters departments is the Political Department, which serves the PLAN's political commissar as his avenue to fleet and unit commissars. It is divided into at least one office and four second-level departments: General Office and Personnel, Welfare and Recreation, Propaganda, and Cultural Affairs Departments (see Figure 10.4). Each of these organizations is replicated in the geographic fleet headquarters. The Political Department provides, on paper, a duplicative chain of command throughout the PLAN, which may be as much at the service of the PLAN commander as it is the PLAN's political commissar.

Logistics Department (*houqin bu*). The Logistics Department includes Headquarters, Supply, Finance, Ordnance, Civil Engineering, Transportation, and Medical (divided into Hospitals and Public Health bureaus) (second-level) (see Figure 10.5) Departments. These bear the responsibility for ensuring that the navy's shore

¹⁰⁹⁸ For instance, the South Sea Fleet would logically require an annual training regimen that devoted attention to discrete amphibious operations. A partial survey of annual, fleet-level training exercises, however, does not show the South Sea Fleet spending significantly more time on amphibious training than the North and East Sea Fleets. So perhaps the fleets faithfully execute the annual training plan as it is passed down from the PLAN Training Office.

establishment supports the operating units. It is also responsible for the PLAN's logistics reorganization currently in progress.

This department has important personnel responsibilities, as well: the Civil Engineering Department is in charge of family housing construction and maintenance. The Finance Department must ensure an efficient pay and benefits structure for navy personnel. The role of the Medical Department includes both the PLAN medical care system of clinics and hospitals, as well as medical care in operational units at sea and distant installations, such as the South China Sea islands outposts.

Equipment Department (*zhuangbei bu*). The Equipment Department includes second-level departments for Development, Construction, and Repair—each containing specific sections responsible for surface, subsurface, and aviation systems (see Figure 10.6). Additionally, there is an Employment Management Bureau, and Equipment Technology, Equipment Repairs, and Science and Technology Departments; as well as the Center for Equipment Feasibility (probably within the Naval Research Center).¹⁰⁹⁹ This department also manages PLAN weapons and test ranges, including the Underwater Ordnance Testing Ground offshore Shanghai and the missile and gunnery testing range near the Liaotung Peninsula.

PLANAF. The chain of command from Navy Headquarters runs through the Headquarters Department to the three operating fleets, but the vice admiral commanding the navy's air force (PLANAF) reports directly to the navy commander. He has two rear admirals as deputy commanders of his approximately 25,000 personnel and 800 aircraft.¹¹⁰⁰ The PLANAF Political Commissar is a vice admiral; his two deputies are rear admirals.

The PLANAF was organized in the early 1950s, and reportedly began shipboard operations in January 1980.¹¹⁰¹ It includes nine divisions of twenty-seven regiments of twenty-four or twenty-five aircraft each. This equates to about 650 aircraft; however,

¹⁰⁹⁹ Author's conversations with Dr. David Finkelstein of CNA and with PLA officers. The PLAN also possesses many supporting activities, including oceanographic research facilities; see "Key Ocean Study Established in Hangzhou," *Xinhua*, 7 November 1999, in FBIS-CHI-99-0079.

¹¹⁰⁰ Pacific Command (USCINCPAC) sources show the PLANAF reporting not directly to the Navy Commander but through the headquarters Staff Department.

¹¹⁰¹ Chen Wanjun and Sha Zhiliang, "Newsletter: Commanding the Winds and the Clouds Between the Sea and the Sky—A True Picture of the Shipborne Aircraft Unit of the People's Navy," *Xinhua*, 21 April 1999, in FBIS-CHI-99-0502, reported that a PLANAF helicopter unit began training for shipboard operations in the late 1970s, with the first successful operational flight occurring on 3 Jan 1980. Despite this article's purple prose, a 1980 date "fits" with the development of the PLAN's first helicopter-capable combatant, the *Luda II*-class DDG *Jinan*, which began construction in 1977.

estimates of total PLANAF total range from 513 to over a thousand.¹¹⁰² While the PLANAF historically has not kept pace with PLAAF aircraft acquisitions, the South Sea Fleet air arm has conducted mid-air refueling evolutions, albeit more than a year after the PLAAF first conducted these operations.¹¹⁰³

Geographic Fleet Organization

The three fleets are similarly organized into air, surface, and sub-surface force.

Each is nominally assigned three divisions (nine Air Regiments) of the PLANAF (a regiment includes approximately twenty-four aircraft). Each regiment in turn contains four Air Groups.¹¹⁰⁴ The fleet PLANAF arm includes land-based and seaplane patrol planes, bombers, fighters, helicopters, transport, and support aircraft.

Each geographic air commander is operationally responsible to his fleet commander, but receives administrative support from PLANAF headquarters in Beijing. Engineering, maintenance, supply, and training support is provided.

In addition to the aviation arm, each fleet includes large combatants (destroyers and frigates), small combatants (patrol boats), amphibious transports, mine warfare,

¹¹⁰² *Combat Fleets*, p. 103, estimates 485 fixed wing aircraft and 28 helicopters; *The Asia-Pacific Defence Reporter: 1998 Annual Reference Edition*, Vol. 24, No. 1, p. 43, estimates 490 aircraft; *Strategic Survey, 1999-2000*, London: IISS, p. 188, shows 566 aircraft; *Jane's Fighting Ships, 1999-2000*, p. 114, estimates "over 800 aircraft," but notes some of these are "laid up unrepared." The highest estimate is 1,098, by Sidney Trevethan, on the Federation of American Scientists' website in March 2000 (www.fas.org/nuke/huide/china/agency/plan-af-orbat-st.htm).

¹¹⁰³ Robert Sae-Liu, "Chinese Expand Aerial Refueling Capability to Navy," *Jane's Defence Weekly*, 21 June 2000, reported that "PLA Navy fighters conducted their first aerial refueling mission in late March," using a PLAAF H-6 tanker while PLAAF refueling exercises have been conducted since at least late 1998. This is just the tip of the iceberg; at the April 2000 CNA conference on the PLAN, RADM Eric McVadon, USN (Ret.), former U.S. Defense and Naval Attache in Beijing, addressed this capability: now that the PLANAF and PLAAF have demonstrated the ability to conduct aerial refueling after many years of trying, how much longer will it take them to possess the operational capability to refuel numerous aircraft—including at night and in bad weather—when the mission requires refueling to reach their target and return home safely? He suggested it may well take several years to develop this level of proficiency on a sustainable basis.

¹¹⁰⁴ Interviews with PLA officers. Srikanth Kondapalli, "China's Naval Structure and Dynamics," *Strategic Analysis*, Vol. 23, October 1999, assigns eight (vice nine) divisions and twenty-seven regiments to the three fleets. The actual number assigned to each fleet probably does vary, in response to operational and administrative imperatives. In discussion with the author, some U.S. analysts questioned the existence of the "air groups," which may be formed for a particular tactical mission rather than exist as a permanent organizational structure.

replenishment-at-sea, and miscellaneous support ships. A senior captain serves as commander of the surface-forces flotilla and a senior captain as commander of the submarine flotilla, with each flotilla organized into squadrons of the same ship-type. Under this system, a squadron is composed entirely, for instance, of *Luda*-class destroyers, or *Jiangwei*-class guided-missile frigates (FFG), or *Ming*-class submarines (SS), and so on. These flotilla commanders report directly to the fleet commander; the flotilla commanders for small craft such as small patrol boat, harbor, and support vessels report to the local naval base commander.¹¹⁰⁵

The submarine force was organized in 1951, established its first base in 1952, at Qingdao, and began operating in June 1954.¹¹⁰⁶ The PLAN currently includes six nuclear-powered submarines: five *Han*-class attack boats (SSN) and one *Xia*-class nuclear-powered fleet ballistic missile submarine (SSBN). There is also one conventionally-powered SSB, a *Golf II*. The submarine force currently totals approximately fifty-nine operational boats, including the nuclear-powered force, the four *Kilo*-class boats acquired from Russia since 1995, and a mix of *Song* (3), *Ming* (17) and *Romeo* (31) ships, all diesel-electric powered submarines of various vintages.¹¹⁰⁷ The *Song*-class submarine may be the Chinese-built replacement for these boats; the third ship was launched in early 2000. The PLAN will probably have to choose between the *Song* and the *Kilo*-classes because of budgetary limits, or it may opt to purchase the Russian-designed *Amur*-class submarine, which will reportedly be equipped with a air-independent propulsion system.¹¹⁰⁸

The PLAN's submarines are organized into six or seven flotillas. The 2nd, 12th, and 62nd are part of the North Sea Fleet, and include all six nuclear-powered submarines. The 22nd and 42nd flotillas are stationed with the East Sea Fleet, and include China's four *Kilo*-class boats, while the South Sea Fleet deploys the 32nd and possibly a second flotilla. The *Ming*-class submarines are assigned to this fleet.¹¹⁰⁹

¹¹⁰⁵ Such as very small patrol craft and, harbor service craft.

¹¹⁰⁶ Kondapalli, "China's Naval Structure," p. 4.

¹¹⁰⁷ Individual fleet numbers come from *The Military Balance* and Richard Sharpe, ed., *Jane's Fighting Ships, 1999-2000*, Coulsdon, Surrey, UK: Jane's Information Group, 1999, unless otherwise noted. The numbers accuracy is suspect for submarines and small combatants, since as many as half of the stated number of vessels may be held in reserve. Fifty-nine is the number currently used by U.S. Navy analysts.

¹¹⁰⁸ *Ibid.*, p. 117; *Combat Fleets*, p. 107.

¹¹⁰⁹ This information is from a paper on China's submarine force, presented by a very reliable source, at the April 2000 CNA Conference on the PLAN. Richard Sharpe, ed., *Jane's Fighting Ships, 1999-2000* p. 118, states that the *Mings* are split between the North and South Sea Fleets. The uncertainty about the total number of submarine flotillas results from different listings re *Janes Warships, Combat Fleets*, the FAS website, Taiwan sources, PLAN sources, and U.S. analysts.

The PLAN's newest indigenously produced surface ship is the *Luhai*-class DDG, the *Shenzhen*.¹¹¹⁰ The first of two *Sovremenny*-class DDGs purchased from Russia, the *Hangzhou*, reached its new homeport of Zhoushan in early 2000, with the second ship of this class is reportedly undergoing sea trials, preparatory to arriving in China late in the year.¹¹¹¹ Other surface forces include one *Luhai*-class and two *Luhu*-class guided missile destroyers and fourteen operational *Luda*-class DDGs, including the three newest models, one *Luda III* and two *Luda IIs*.¹¹¹² Additional large surface combatants include a mix of approximately six *Jiangwei* and twenty-four *Jianghu*-class guided missile frigates.

Smaller craft include several hundred vessels, ranging from modern missile-equipped *Huang*-class patrol boats to small riverine combatants—some of which are assigned to the People's Armed Police (PAP), the Maritime Safety Agency (MSA), the Customs Service, or the maritime militia.

The PLAN amphibious force is capable of embarking perhaps one mechanized infantry division, approximately 12,000 troops and their equipment, for a relatively short voyage.¹¹¹³ It includes thirteen landing-ships-tank (LST), six of them the relatively modern *Yuting*-class and seven the *Yukan*-class. Two additional *Yutings* are currently under construction. There are also approximately forty smaller landing-ships-mechanized (LSM) of various classes and ages, as well as six *Qiongsha*-class troop transports (two of which have been converted to hospital ships).¹¹¹⁴

¹¹¹⁰ A second *Luhai* is listed under construction by *Ibid.* p. 119; and Philip Young, *Chinese Military Digest* (<http://www.gsprint.com/cmd/cmd.htm>), but according to author's interviews the next DDG, probably under construction in a Dalian shipyard, may be sufficiently different from *Shenzhen* (the first *Luhai*-class ship) as to denote a new ship class.

¹¹¹¹ "China to Receive Second Russian Destroyer in November 2000," *Agentstvo Voyennykh Novostey*, 10 July 2000, in FBIS-CEP2000710000147.

¹¹¹² *The Military Balance*, p. 178, lists a third *Luhu* under construction, but it seems more likely, given China's propensity to build small ship classes, that construction of the follow-on *Luhai*-class of guided missile destroyer (DDG) has superseded further *Luhu* construction. Taiwan Navy sources show different PLAN strength figures, reflected in Annex B.

¹¹¹³ The key determinant to voyage length for almost all these amphibious ships is fresh water availability onboard.

¹¹¹⁴ This is a "soft" number, subject to many factors, including the amount and type of cargo to be carried by embarked troops, the duration and distance of the embarkation, and other factors. The LSTs and LSMs are designed to land troops during an opposed assault; the troop transports are more likely designed to administratively offload troops, pier-side. Also, during an amphibious assault, some of the LSTs and LSMs would carry predominantly cargo—such as supplies and vehicles—and almost no

Several of the combatants, including the *Luda*-class, have mine laying racks installed, and are required to exercise annually laying mines. The PLAN has just one dedicated minelayer, the *Wolei*, and approximately fifty-eight mine sweeping craft, at least half of them in the reserve force and of questionable operational readiness.¹¹¹⁵

Each fleet's AOR includes naval bases and subordinate naval garrison commands. These are important organizations, with extensive geographic reach: they provide "hotel"¹¹¹⁶ and other logistics services to fleet operating units, including training and education, maintenance, and general administrative support.

Command Relationships. Each fleet commander also serves as deputy commander of the matching MR. A vice admiral commands the North Sea Fleet and serves as a Shenyang MR deputy commander, but his authority during wartime is unclear: would he function as a true, joint deputy commander, or merely be the deputy in charge of naval forces? The fleet commander's relationship with the MR PLAAF commander, also an MR deputy commander, is also unclear.¹¹¹⁷

Command relationships within the MRs during peacetime are complicated by the PLAN and PLAAF commanders' dual chains-of-command: administrative and operational, with the MR commander—invariably a ground forces officer—not in control of both chains. The MR commander's scope of authority may be further complicated by the status of special units, such as quick-reaction forces, which are operationally tasked by the GSD.¹¹¹⁸

troops; others might be loaded only with troops. Furthermore, the condition of many of these vessels is hardly known; many of them may not be seaworthy or marginally so.

¹¹¹⁵ In fact, many types of mines can be laid by aircraft, as well as by almost any fishing boat or merchant ship, but laying a truly useful, navigable minefield requires expertise and exact navigation not normally found on such miscellaneous vessels. The PLAN also has forty-two drone mine-sweeping boats in the reserve. *Combat Fleets*, pp. 119-120, reports many of China's dedicated MIW ships are equipped to sweep only moored contact mines.

¹¹¹⁶ "Hotel" services include, literally, food and housing, but also denote maintenance and operation of all shore-side facilities for supporting operating units, to include such things as piers, dry docks, classrooms.

¹¹¹⁷ One senior PLA officer told the author that in time of war, the PLAN commander would be the MR deputy commander senior to the PLAAF commander; the same PLA officer told another U.S. interlocutor that the two would be equal in status as MR deputy commanders.

As pointed out by Dennis Blasko, "A New PLA Force Structure," p. 284, "A true indicator of the PLA's commitment to joint operations would be for the commander of the Eastern or Southern Theaters to be a naval officer...."

¹¹¹⁸ Nan Li, "The PLA's Evolving Campaign Doctrine and Strategies," in Mulvenon and Yang, p. 154ff.

Command relationships are theoretically clarified during wartime, when one or more MRs form a “Front,” as during the 1979 Vietnam incursion.¹¹¹⁹ The Front is augmented by officers from Beijing headquarters staffs. These officers are empowered to relax or sustain constraints on the Front commander’s freedom of action: in the 1979 case, these issues included how far he could move forces into Vietnam and to what degree “hot pursuit” was authorized.¹¹²⁰

North Sea Fleet. The North Sea Fleet is headquartered at Qingdao, on the southern coast of the Shandong Peninsula, with other major bases at Lushun and Xiaopingdao. Smaller facilities are located at Huludao (including nuclear submarine construction and support), Weihai, Qingshan, Lianyungang, Lingshanwei, Dahushan, Changshanqundao, Liushuang, Yushan, Dayuanjiadun, and Jianggezhuang, the last serving as the fleet’s submarine homeport. Important shipbuilding facilities are located at Dalian. PLANAF facilities are located at Liangxiang, Luda, Qingdao, Jinxi, Jiyuan, Laiyang, Jiaoxian, Xingtai, Laishan, Anyang, Changzhi, and Shanhaiguan.¹¹²¹

The fleet’s AOR extends from the Korean border (marked by the Yalu River) to approximately 35°10’N latitude. This area corresponds roughly to the Shenyang, Beijing, and Jinan Military Regions (MR) or, described another way, includes the Bohai (Bo Sea) and northern half of the Huanghai (Yellow Sea). The AOR’s coastline is divided into nine Coastal Defense Zones. The North Sea Fleet’s forces include three submarine, three surface combatant, one amphibious, and one MIW squadrons, as well as the Bohai Sea Training Flotilla and hundreds of small patrol and auxiliary craft.

As is the case with all three fleets, the North Sea Fleet’s command structure closely resembles PLAN Headquarters in Beijing (see Figure 10.7). Each fleet includes Training (and an associated Training Center), Logistics/Supply, Repair, Political, and Air Departments, and Surface Combatant and Submarine Flotillas. The fleets also have flotillas of small harbor, auxiliary, and patrol craft assigned to their various naval base commanders.

The fleet’s political commissar is a rear admiral, as are the three deputy commanders and three deputy political commissars. The fleet aviation commander is also a rear admiral. The fleet’s Lushun and Qingdao Naval Bases are commanded by rear admirals, while the garrison commands at Dalian, Weihai, and Liugondao are commanded by senior captains.

¹¹¹⁹ Harlan Jencks, “China’s ‘Punitive’ War on Vietnam: A Military Assessment,” *Asian Survey*, vol. XIX, August 1979, pp. 805-6, describes the 1979 formation of the PLA’s “Southern Front” by the Kunming and Guangzhou MRs and the “Northern Front” by the Xinjiang, Lanzhou, Beijing, and Shenyang MRs during the war with Vietnam.

¹¹²⁰ I am indebted to Paul H.B. Godwin for this explanation.

¹¹²¹ Lists of bases for the three fleets comes from *Combat Fleets*, p. 103, which differs somewhat from similar lists provided in Richard Sharpe, ed. *Jane's Fighting Ships, 1999-2000*; and Srikanth Kandopalli, “China’s Naval Structure and Dynamics.”

East Sea Fleet. The East Sea Fleet is headquartered at Ningbo, with other major bases at Shanghai, Fujian, and Zhoushan (where the newly acquired *Sovremennys* are homeported). Smaller facilities are located at Chenjiagang, Dinghai, Wusong, Xinxiang, Wenzhou, Sanduao, Xiamen, Quandao, and Xiangshan (submarines, including all four *Kilo*-class, are homeported at the last).¹¹²² Important shipbuilding facilities are located at Shanghai (for surface ships) and inland on the Yangzi River at Wuhan (for submarines). PLANAF facilities are located at Ningbo, Shanghai, Luqiao, Shitangqiao, Danyang, and Daishan.¹¹²³

The fleet's AOR reaches from approximately 35°-10'N down to 23°-30'N latitude, corresponding roughly to the Nanjing MR, or to the littoral areas of the southern half of the Yellow Sea, all of the East China Sea, and the Taiwan Strait. Its coastline is divided into seven Coastal Defense Zones. Assigned units include two submarine, two surface combatant, one amphibious, and one MIW squadrons, as well as over two hundred small patrol and auxiliary craft, including those that patrol the Yangzi and other riverine waters.

The East Sea Fleet is commanded by a vice admiral who also serves as a Nanjing MR deputy-commander; its political commissar is also a vice admiral (see Figure 10.8). The three deputy fleet commanders are rear admirals, as are the three deputy political commissars and the fleet aviation commander. Base commanders for Fujian, Shanghai, and Zhoushan are rear admirals, while the Xiamen Naval Garrison is commanded by a senior captain.

South Sea Fleet. The South Sea Fleet is headquartered at Zhanjiang, with other major bases at Yulin and Guangzhou. Lesser facilities are located at Hong Kong, Haikou, Shantou, Humen, Kuanchuang, Tsun, Mawai, Beihai, Pingtan, Sanzhou, Tang Chian Huan, Longmen, Bailong, Donguon, Baimajing, and Xiachuandao. PLANAF facilities are located at Lingshui, Foluo, Haikou, Sanya, Guiping, Jialaishi, and Lingling. The fleet's AOR stretches from approximately 23°-30'N to the Vietnamese border, equating to the Guangzhou MR, or the littoral areas of the South China Sea and the Beibu Gulf. Its coastline is divided into nine Coastal Defense Zones.

The fleet's most important operational responsibility is the South China Sea, with significant support facilities on Woody Island and on Fiery Cross, Lincoln, and Duncan Reefs.¹¹²⁴ The fleet's responsibility for the contested Paracel and Spratly Islands, and Macclesfield Bank, explains the presence at Hainan's Lingshui airfield of the PLANAF's

¹¹²² Author's discussion with U.S. analysts. *Jane's Fighting Ships, 1999-2000*, p. 117; *Combat Fleets*, pp. 107-8, gives Ningbo as the *Kilos'* homeport.

¹¹²³ Base locations and size are reported in *The Military Balance, 1999-2000* and in Kondapalli. These sources agree more than they disagree.

¹¹²⁴ Author's interviews with USCINCPAC personnel and with Dr. Mark Valencia, East-West Center, Honolulu, 1-5 November 1999.

long-range B-6 *Badger* aircraft. The base on Woody Island in the Paracels is the only South China Sea facility capable of supporting tactical aircraft.¹¹²⁵

The South Sea Fleet is home to the PLAN's newest indigenously produced surface combatant, the *Luhai*-class guided missile destroyer. It also includes one or two submarine, two surface combatant, one amphibious, and one MIW squadrons, as well as perhaps 300 patrol and auxiliary craft, including those based at Hong Kong and on the MR's rivers. Additionally, the fleet includes one of China's three major replenishment-at-sea ships, the *Nanchang*. The South Sea Fleet—significantly, not the East Sea Fleet facing Taiwan—also deploys the majority of China's newer amphibious ships, including all four *Qiongsha*-class troop transports, both hospital ships, ten of the fifteen *Yuting* and *Yukan*-class LSTs, and all four of the *Yudao*-class LSMs.¹¹²⁶

China's Marine Corps is headquartered in Beijing and reports to the PLAN commander, but the Marines are all stationed in the South Sea Fleet's AOR with a direct operational chain-of-command to the fleet commander. The corps is composed of two multi-arm brigades of approximately 6,000 personnel each, organized into 750-man battalions. This force includes infantry, artillery, armor, engineer, communications, anti-chemical, anti-armor, and amphibious scout personnel.¹¹²⁷

The corps' primary mission is amphibious warfare; the South China Sea is its anticipated operating theater and the marines man the island outposts of that sea. The Marine Corps resembles the PLANAF in having a dual chain-of-command: while it reports operationally through the South Sea Fleet commander, the corps is administratively responsible to PLAN headquarters in Beijing for training, equipment, strategic planning, personnel, and policy. The corps' commander is relatively junior, probably a senior captain. He apparently does not have a position on the MR commander's staff, although he may be tasked by that officer as part of a joint PLA exercise. Furthermore, in wartime the Marine Corps, as a rapid reaction force, would likely be tasked directly by the GSD.¹¹²⁸

¹¹²⁵ Woody Island may be capable of supporting 2-3 fighter aircraft in hangars plus approximately 30 on hard stands, in the open. The island does not, however, offer a significant maintenance or fresh-water washdown capability, although additional fresh water tanks have been constructed. It also does not appear to have the ground control radar capability usually required by Chinese tactical aviators.

¹¹²⁶ *Jane's Fighting Ships* for the past decade show this amphibious concentration in the South Sea Fleet. Two of the *Qiongsha*-class have been converted to hospital ships; only one of the troop transports may be operationally active.

¹¹²⁷ *Xinhua*, 1 October 1999, in FBIS-CHI-99-0930; author's interview with PLA personnel and U.S. analysts.

¹¹²⁸ This is not dissimilar to the status of the U.S. Marine Corps fleet units. For instance, the general in command of the Fleet Marine Force Pacific, located in Hawaii, is operationally responsible to the Commander-in-Chief U.S. Pacific Fleet, but administratively has a direct chain-of-command (as Commander Fleet Marine Corps

The vice admiral commanding the South Sea Fleet serves as a Guangzhou MR deputy commander; another vice admiral is the fleet political commissar (see Figure 10.9). The three deputy commanders are rear admirals, as are the three deputy political commissars. The fleet's PLANAF forces are commanded by a rear admiral; the Marine Corps brigades by senior captains. The fleet's three naval bases at Yulin, Guangzhou and Zhangjiang are commanded by rear admirals. The naval garrisons at Shantou and Xisha are commanded by senior captains.

PLANAF Operations

One important but obscure relationship is that between PLANAF and PLAAF components. Does the PLAAF assume operational control of PLANAF units in time of war, for instance, to increase the efficiency of coastal air defense? Are PLANAF units wholly responsible for the defense of naval bases and other facilities, or can they call on PLAAF assistance? Or are the two air components in the midst of the same command and control imbroglio that has dogged the American military for so many years? The preliminary, general response to these questions is that although over-water flights have now become routine for the PLAAF, there are still very limited joint flight operations occurring between the two "air forces."

One of the factors in this situation is the organization of China's coastal air defenses, including the way responsibility for continental air defense is assigned by the CMC. Ideally, the coastline would be divided into air defense sectors commanded by a joint commander with authority to call upon both PLAAF and PLANAF resources, but this does not appear to be the case.

From north to south along China's coast, air defense is assigned by the proximity of airfields, rather than by service. The North Sea Fleet's PLANAF contingent has the responsibility from its northern border down to about the Shandong Peninsula; the PLAAF then assumes air defense responsibility to a point south of Shanghai, although that city is located in the heart of the PLAN's East Sea Fleet AOR. The PLANAF resumes air defense responsibility for a brief stretch south of Shanghai, but the PLAAF then has the mission for most of Fujian Province's coastline, which places it on the front line against Taiwan. The PLANAF resumes air defense for most of the South Sea Fleet AOR, including the South China Sea.¹¹²⁹

This system, based on geographical sectors rather than service capability or doctrine, indicates that not only are joint maritime flight operations not routinely

Bases Pacific) to the Commandant of the Marine Corps, in Washington, D.C. This enables the general in Hawaii, when he does not agree with a directive from his operational commander, to "put on his other hat" and ask for a different decision from his administrative commander in Washington.

David Finkelstein described to me the 1999 regulations which assigned the GSD responsibility for PLA-wide training and for issuing operational tasking to all rapid reaction forces.

¹¹²⁹ I am indebted to Allen for describing this system of air defense to me.

employed, but joint doctrine for such operations has not been systemically developed by the two "air forces." Indeed, PLAAF operations over water likely concentrate on classic air intercept and pursuit operations, while PLANAF operational doctrine concentrates on fleet support missions, such as surveillance and ASW. Nevertheless, U.S. military surveillance aircraft operating off the coast in the East Sea Fleet's AOR are often intercepted by PLANAF F-7 fighters.¹¹³⁰

Coast Guard

China does not have a formally organized coast guard, but the functions normally assigned to that service—maritime safety, customs enforcement, environmental protection and the like—are the responsibility of several organizations. China organized a maritime militia in the early 1950s as part of the effort to defend its fishing fleet and coastal trade against depredations by KMT naval forces. This force consisted largely of fishing trawlers armed with machine guns and hand-held weapons. They were controlled by local CCP branches, and when on a mission carried party representatives.¹¹³¹ In 1955, Beijing organized Public Security Force sea units; they were responsible for guarding ports, rivers, and the fishing fleets. Ironically, these duties often took them further to sea than the PLAN. Naval district defense units were also organized, and tasked with cooperating with the army for inshore coastal defense.¹¹³²

There is a gap in our knowledge about the development of these forces. China currently deploys several maritime auxiliary forces, all of them semi-military to a degree. These include the Customs Service, the State Oceanographic Bureau, the Public Security Bureau's Maritime Section, the Border Security Force's Maritime Command, the Ministry of Public Security's Frontier Guard Detachment, the MSA, and a maritime militia. The Customs Service may be the most professional of these organizations, although all use a collection of more than 200 patrol craft of various classes, many of them sea-going.¹¹³³

¹¹³⁰ Author's not for attribution conversations with senior PLAN officers.

¹¹³¹ John Moore, ed., *Jane's Fighting Ships, 1980-81*, London: Jane's Publishing Co., 1980, p. 109.

¹¹³² Swanson, p. 204, points out these forces' similarities to imperial predecessors.

¹¹³³ *Jane's Fighting Ships, 1999-2000*, pp. 144-6. See "State to Set Up 200,000-Strong Maritime Cruise Unit," *Xinhua*, 6 December 1996, in FBIS-CHI-96-236, for a report of a 200,000-man "maritime cruise unit" established in 1996, to be manned by reservists and to assume coastal defense duties. A more recent report is "Linhai City of Zhejiang Sets up Sea-Borne Militia Unit to Ensure Boats for Civilian use Will be Able to Come at the First Call," *Zhongguo tongxun she*, 6 May 2000, in FBIS-CPP20000506000062, reporting that the "province's first armed forces department of the aquatic product oceanic administration and a sea-borne militia unit was set up." The "aquatic product oceanic administration" is not further identified, but presumably is a translation of the Maritime Safety Administration.

The State Oceanographic Bureau is responsible for research and environmental protection, including enforcement of the "Marine Environmental Protection Law of the PRC," passed in December 1999.¹¹³⁴ This law assigns responsibilities to several organizations, although they have additional duties, as well:

- (1) *State Environmental Protection Administration*: a consolidated supervisory and managerial department for national environmental protection work;
- (2) *State Marine Administration*: supervision and management of the marine environment and organization of investigations, monitoring, lookout, evaluation, and scientific research of the marine environment;
- (3) *State Maritime Affairs Administration*: supervision and management of non-fishing and non-military shipping pollution of the marine environment;
- (4) *State Fishery Administration*: supervision and management of pollution to the marine environment by non-military ships inside fishing port waters and fishing boats outside fishing port waters; and
- (5) *Military Environmental Protection Department*: supervision and management of pollution to the marine environment by military ships and boats.¹¹³⁵

Other craft are in the Coastal Regional Defense Forces, comprising 25,000 personnel. This force is probably part of the Naval Coastal Defense System, which includes a system of Coastal Observation Posts spread along China's coastline, coastal

Also see *Xinhua*, 18 June 1999, in FBIS-CHI-1999-0618, for a report that Shanghai had established a "Maritime Safety Administration, the first of its kind in China's coastal areas,...to supervise the management of navigation marks, the surveying of sea-routes, and the inspection of ships and maritime facilities."

¹¹³⁴ Tang Min, "PRC Marine Environmental Protection Law Praised," *China Daily*, 3 April 2000, in FBIS-CPP20000403000020, reports that the "amended Marine Environmental protection Law" came into effect on 1 April 2000.

The complexity of coast guard-type responsibilities in China is obvious, and shown in "State Council Forms Marine Bureau in Shenzhen," *Xinhua*, 27 December 1999, in FBIS-FTS19991227000826, which reports that the "Shenzhen Marine Bureau was formed [to carry out] marine supervision. It combined the previous "separate port supervision departments under the Shenzhen Government and the Ministry of Communications." The new bureau is responsible for "managing overseas ships sailing and anchoring in Shenzhen water space, abiding by the related international marine treaty, maintaining order in sea navigation and transportation, supervising ships anti-pollution facility, handling water pollution, maintaining public navigation facilities and regulating the shipping economy." No reference is made to the other organizations which seem to have similar responsibilities.

¹¹³⁵ Text of "Marine Environmental Protection Law of the PRC," *Xinhua*, 26 December 2000, in FBIS-FTS20000207000268.

cruise missile and artillery sites, coastal patrol boat squadrons, and a network of coastal radar and communications stations.¹¹³⁶

The recently established Maritime Safety Administration operates under the Communications Ministry in Beijing. Fourteen of a planned twenty offices had been set up by the end of 1999. The MSA is reportedly charged with supervising the “management of navigation marks, the surveying of sea-routes, and the inspection of ships and maritime facilities,” with a special focus on shipboard safety.¹¹³⁷ Its ship salvage responsibilities are carried out through the semi-private China Salvage Company, which also provides afloat and air SAR assistance.¹¹³⁸

Finally, the Frontier Guard Department is “in charge of administering social order of vessels along the coasts.” Rumors have surfaced that some of these vessels have been involved in piracy and other illegal acts in China’s coastal waters, perhaps evidenced in guidance to this force to “strictly abide by law-enforcement procedures [and not] to levy fines which are beyond their authority, or which are too excessive.”¹¹³⁹

DOCTRINE AND ORGANIZATION

Doctrine is defined in the United States as “fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives

¹¹³⁶ *Xinhua*, 26 March 1999, in FBIS-CHI-99-0327, reported that “a three-dimensional border and coastal defense communications network...has been completed and become operational”: *Xinhua*, 22 November 1999, in FBIS-CHI-99-0647, discusses the command and control structure for at least part of this coastal defense system.

¹¹³⁷ “PRC Establishes 12 State Maritime Safety Administrations,” *Xinhua*, 28 December 1999, in FBIS-CPP19991228001478; *Xinhua*, 18 June 1999, in FBIS-CHI-99-0618, claimed that in 1999 the MSA dealt with 1,880 safety violations and “saved the lives of nearly 2,500 people” in marine waters and on the Yangzi River. The drive to improve maritime safety, following the disastrous passenger ferry sinking in late 1999, was also indicated in “China Takes Steps to Ensure Navigation Safety,” *Xinhua*, 21 February 2000, in FBIS-CPP20000221000132. Also see Guo Aibing, “Chinese Transportation Officials Urge Sea Safety Measures,” *China Daily*, 28 January 2000, in FBIS-FTS20000128000198, for the report that in 1999 “769 passengers died in ship or boat accidents—a 26.9 percent increase over 1998,” as the result of 249 boats sunk at a cost of more than \$30 million. The MSA predecessor, the “Bureau of Harbor Superintendency,” was responsible for anti-pollution and SAR efforts, including the SAR Coordination Centers..

¹¹³⁸ Author’s discussion with Mr. Gerard Yoest, U.S. Coast Guard Director of International Relations, May 2000.

¹¹³⁹ “PRC Will Enforce Rules on Coastal Vessels 1 May,” *Xinhua*, 29 May 2000, in FBIS-CPP20000329000034.

[and which] is authoritative but requires judgement in application.”¹¹⁴⁰ It provides the crucial link between strategic intent and operational effectiveness.

Maritime warfare is by nature multidimensional, a characteristic becoming steadily more complex as information-age developments are adapted for naval use. PLAN organization still conforms, however, to classic naval force structure--surface, sub-surface, and air components operating almost entirely along traditional "vertical" administrative and operational chains of command.

Effective doctrine should also reflect and affect organization. The PLAN's current fleet and shore establishment organization, for instance, does not appear to reflect a significant attempt to conform to developments in modern warfare commonly attributed to "information warfare" or the "revolution in military affairs". The experimental work possibly underway in the Naval Research Center, the Naval Research Institute, or the Nanjing Command Academy's experimental cell located with the East Sea Fleet may lead to such changes.

CONCLUSION

The PLAN today is logically organized, with an emphasis on maintaining and improving its operational forces. Its basic organization is a mixture of geographic and mission-oriented commands typical of large navies. The three operational fleets are organized geographically, but are also oriented toward historic and potential threats. All operate in the shadow of U.S. naval and air power.

The North Sea Fleet faces a complex theater involving Russia, Korea, and Japan. The East Sea Fleet's AOR centers on Taiwan, but also includes the Senkaku (Daoyu) Islands. This fleet presumably is tasked with primary planning and execution responsibility for naval action against Taiwan. The fleet itself possesses inadequate assets to execute any significant action against Taiwan, but under a wartime "front" command would probably be empowered to take operational control of aircraft, surface and subsurface ships, and other resources from its sister fleets.¹¹⁴¹ The South Sea Fleet

¹¹⁴⁰ *The Joint Staff Officer's Guide*, AFSC Pub 1, Washington, D.C.: NDU Press, 1997, pp. 0-16.

¹¹⁴¹ Naval headquarters in Beijing, not to mention the CMC, would of course play a very close supervisory/command role in any such military operations against Taiwan. It is also possible that in the event of such a very major military engagement, one of the other fleets, most likely the North Sea Fleet, would simply be combined with the East Sea Fleet. See Blasko, "A New PLA Organization," p. 286, for this thought.

Moreover, the distances between adjacent PLAN fleets are quite short, generally just one to three days of steaming at moderate speeds, unlike the situation with the U.S. or Russian navies, where the distances between the ports and operating areas of the major fleets are generally measured in thousands of miles and weeks of cruising time. There are no significant geographic obstacles to quick or frequent PLAN inter-fleet transfers, although the presence of foreign naval bases throughout East Asia, from Petropavlosk in Russia to Phattaya Beach in Thailand, certainly may constrain such

also faces a complex operational situation, with its AOR including the South China Sea's operational and political problems, as well as unanswered questions about the long-term value to China of possible seabed resources in the area.

The PLAN's Beijing organization is unremarkable, reflecting the usual requirements for administering a large maritime force. It is marked, however, by the ideological coloration of the political commissar system.

The PLAN commander holds the same substantive rank or is senior to his organizational contemporaries, the PLAAF and MR commanders. Shi's June 2000 promotion to full admiral might indicate greater recognition of the PLAN's increased importance by Beijing; more likely, it merely recognizes his successful career and longevity in service. Shi Yunsheng appears to be exercising effective command of the PLAN and obtaining a disproportionate share of the PLA budget for the navy, while focusing his emphasis on improving education and training, maintenance and fleet support, and the force's ability to attain its strategic objectives.

The navy's organization is determined to a significant extent by the ships and aircraft it operates. The goal is maximum effectiveness of these units, modified by geography, perceived threats, and the international and domestic political considerations. PLAN organization will change, furthermore, as the navy grows and modernizes--as new ships and aircraft are deployed.

Historically, China's navy has been organized into geographically discrete operational fleets, as it is today. PLAN organization has evolved undramatically since its founding fifty years ago, when it was formed as an East China force in reaction to the Kuomintang threat from the sea.

The relative strengths of the North, East, and South Sea fleets has not varied startlingly over time, but changes are discernable during various periods when Beijing identified national security concerns with the United States, the Soviet Union, Taiwan, or the South China Sea. Future concerns with India or with stronger Southeast Asian naval forces would likely result in a similar shift in emphasis, with the South Sea Fleet receiving more modernized ships and aircraft, and expanded shore facilities. The extent of such a shift, however, would depend on the criticality of concern for Taiwan and possible intervention by U.S. naval and air forces.

PLAN fleet organization is marked by some interesting factors. First, the different fleets have also been assigned responsibility for specific platforms, such as submarines or amphibious ships, probably for reasons of assigned missions or for ease of maintenance and operation. Second, concentrating all ships of a class in the same fleet simplifies maintenance, training, and support in general of that class, but has the potential to reduce those ships' utility if they have to be assigned to a different fleet. "Type commanders" are apparently not utilized: this system assigns to a rear or vice admiral responsibility for

operations. Still, the primary obstacles to PLAN inter-fleet operations are probably lack of common operational doctrine and non-standard procedures and tactics, along with lack of practice in working together, but western analysts have yet to explore this area.

maintaining and training all the ships in a specific type--destroyers, submarines, amphibious ships, and so on.

Third, as previously noted, the issue of fleet interoperability—the degree of standardization of administrative and operational procedures, communications, tactics, etc.--is not clear. Fourth, the relationships among CMC, PLAN headquarters, MR, and fleet headquarters are often unclear. Fifth, the operating fleets' role in doctrinal development is not clearly understood.

Currently, the East and South Sea Fleets appear to be receiving the bulk of new PLAN ships and aircraft, although accurate counting is difficult. This would be a logical development, given the strategic priority of the Taiwan and South China Sea issues. That said, the presence of the very strong, modern Japanese and South Korean navies means that China will be cautious about diverting too much strength from the North Sea Fleet. In the near-term, the three fleets should remain balanced, with each deploying the surface, submarine, and aviation assets required to accomplish its tasking. Competition for resources among the fleets and, within the fleets among the surface, submarine, and aviation branches will also continue.

Mao Zedong apparently recognized that organizing a navy to extend Beijing's rule to Taiwan required a national effort, to include concentration on amphibious warfare, seaborne logistics, and maritime air power. His campaign to organize such a navy was aborted because of the Korean War and thereafter limited by domestic political events and the international threats China faced. Current evidence suggests that Beijing is still not striving to organize a PLAN capable of more than a defensive effort within about 400 nm of China's coast.

APPENDICES A-I
PLAN Personnel (as of 1 July 2000)

Figure 10.1 PLAN Headquarters

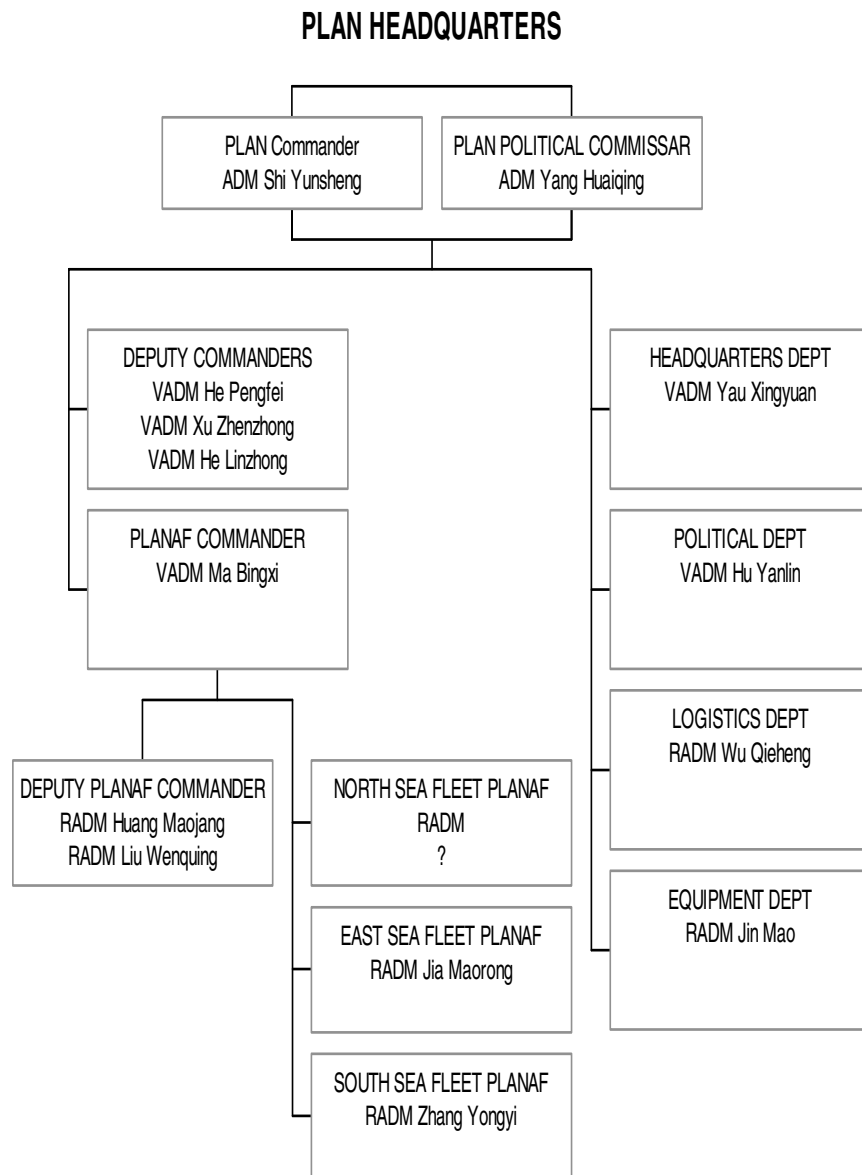


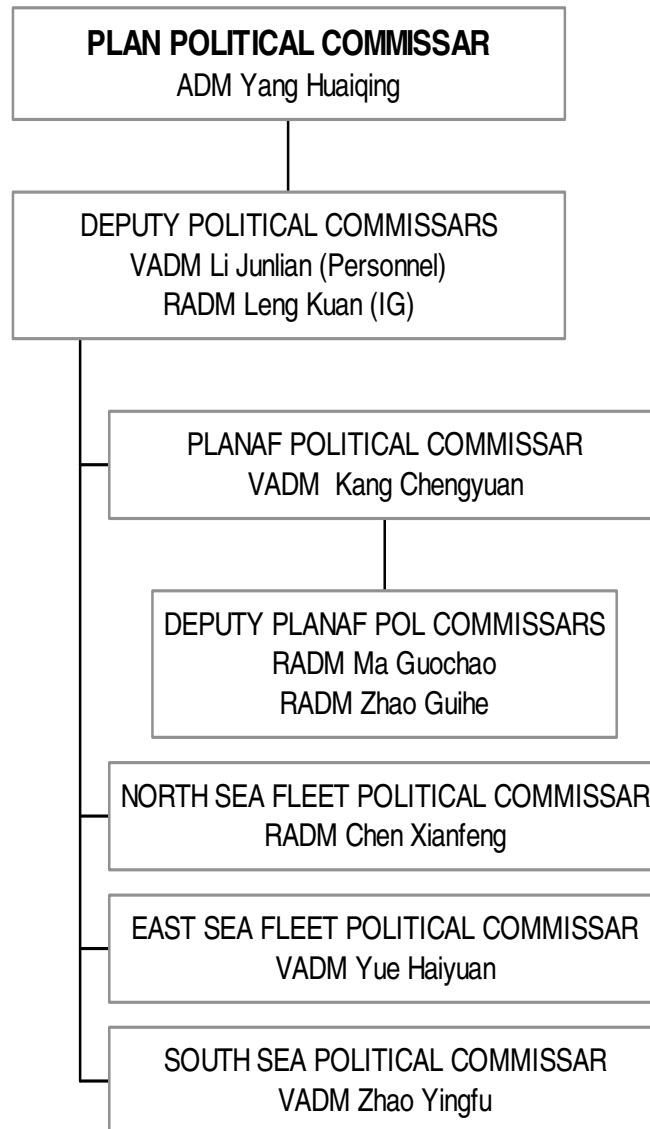
Figure 10.2 PLAN Political Commissar Leadership

Figure 10.3 PLAN Headquarters Department

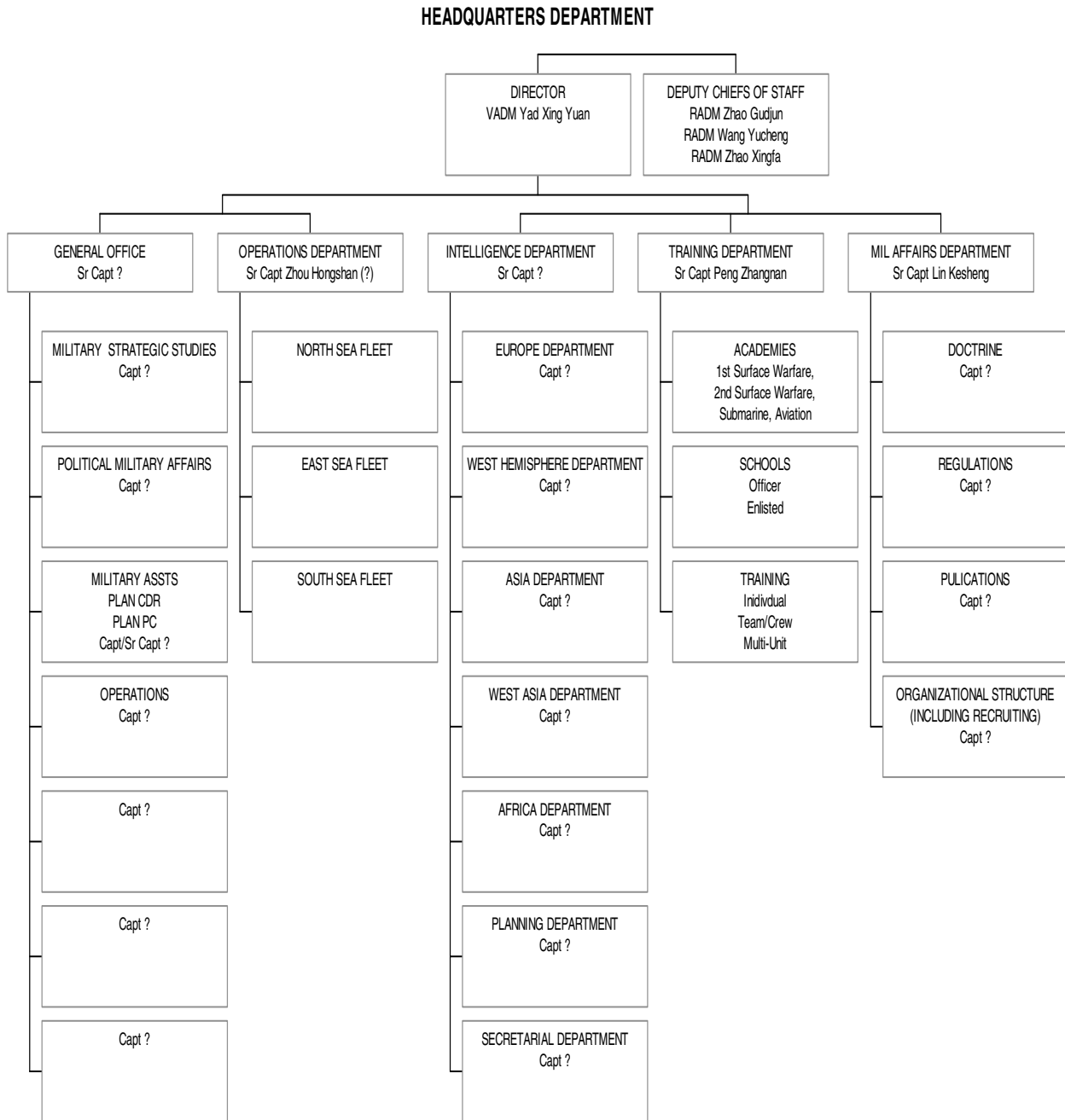


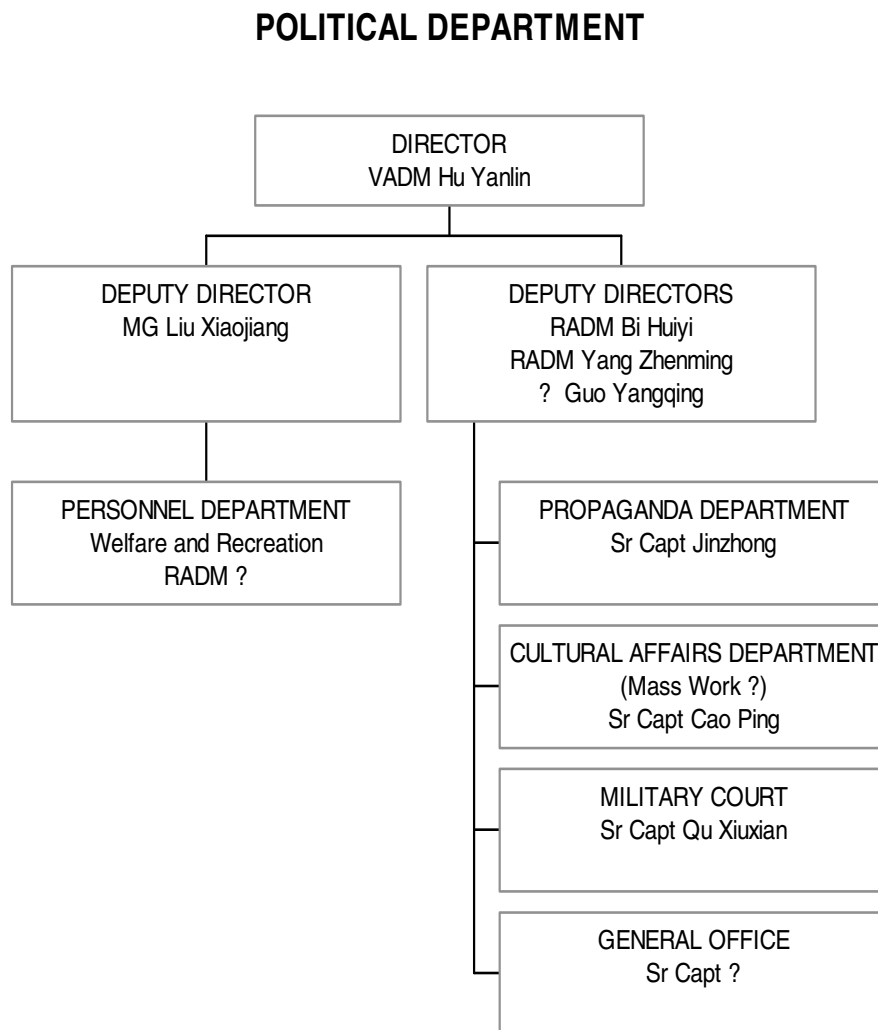
Figure 10.4 PLAN Political Department

Figure 10.5 PLAN Logistics Department

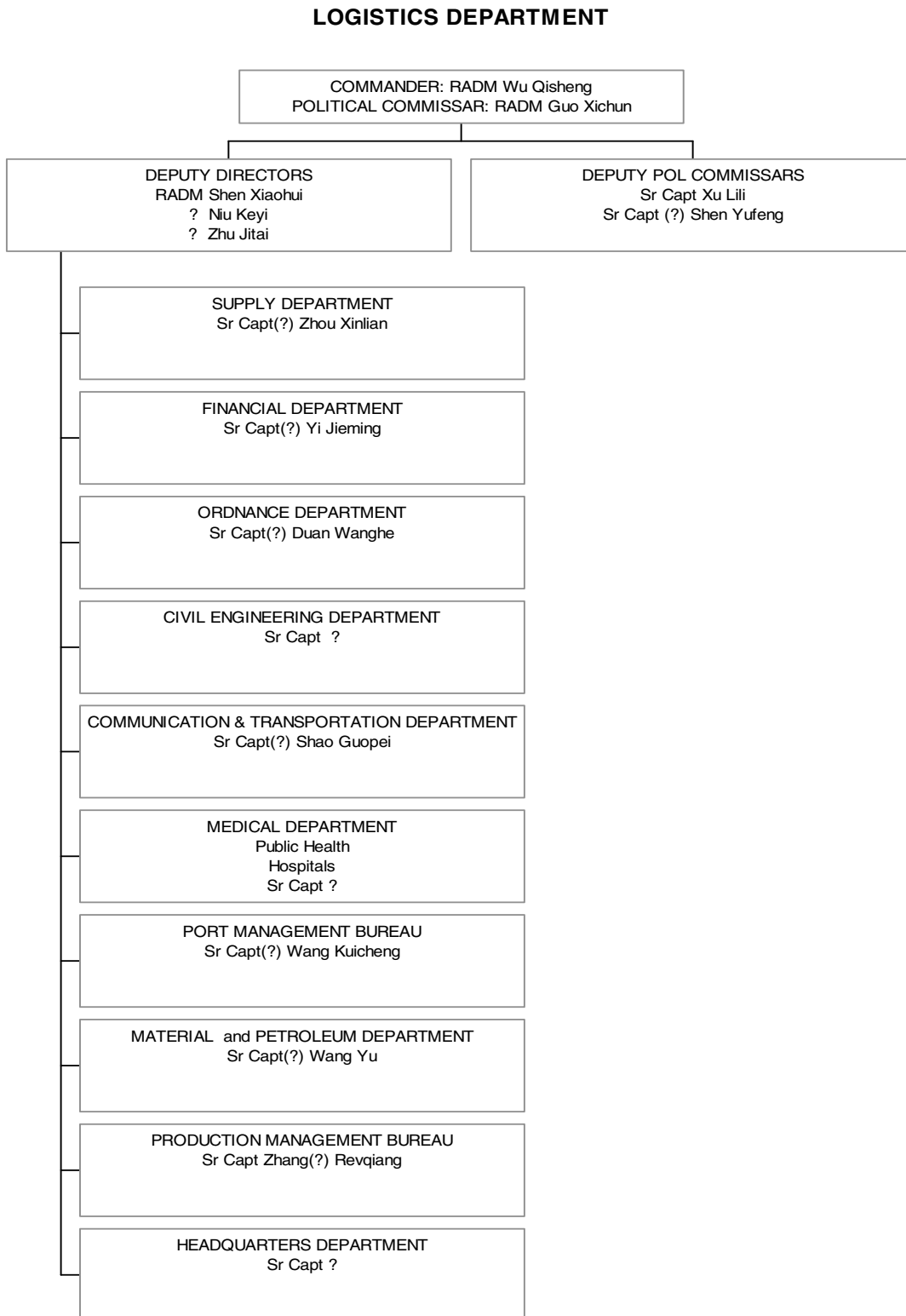


Figure 10.6 PLAN Equipment Department

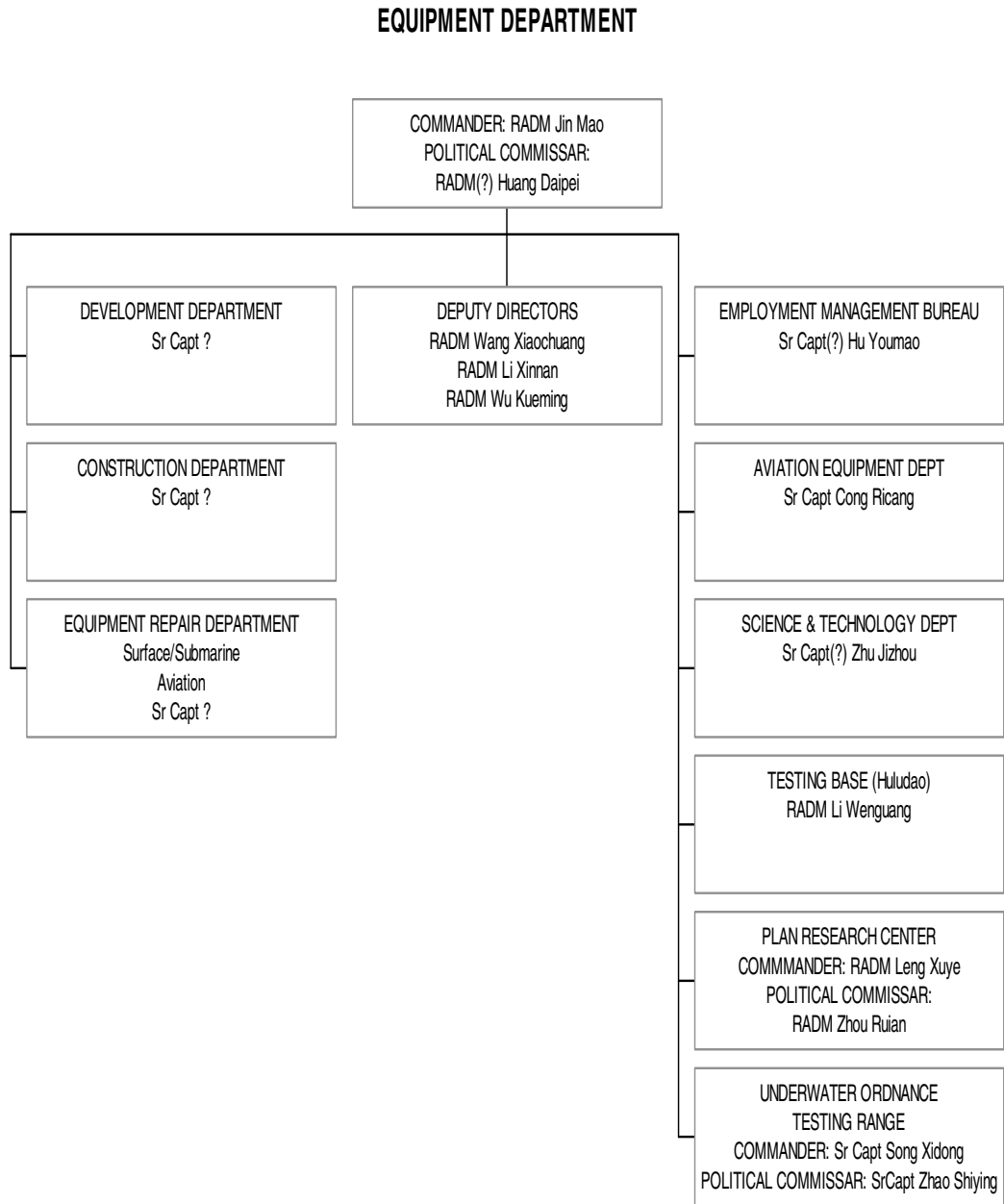


Figure 10.7 North Sea Fleet

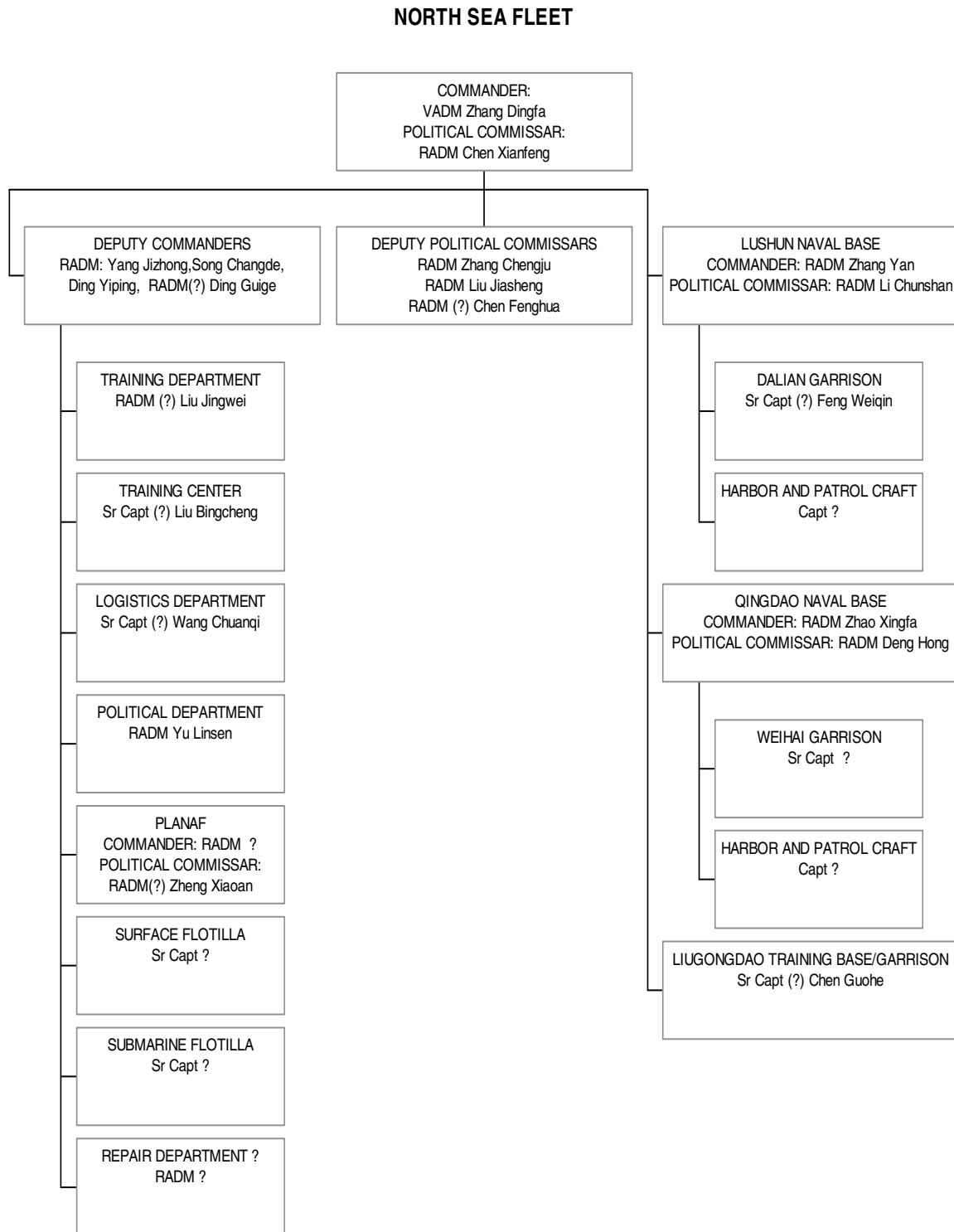


Figure 10.8 East Sea Fleet

EAST SEA FLEET

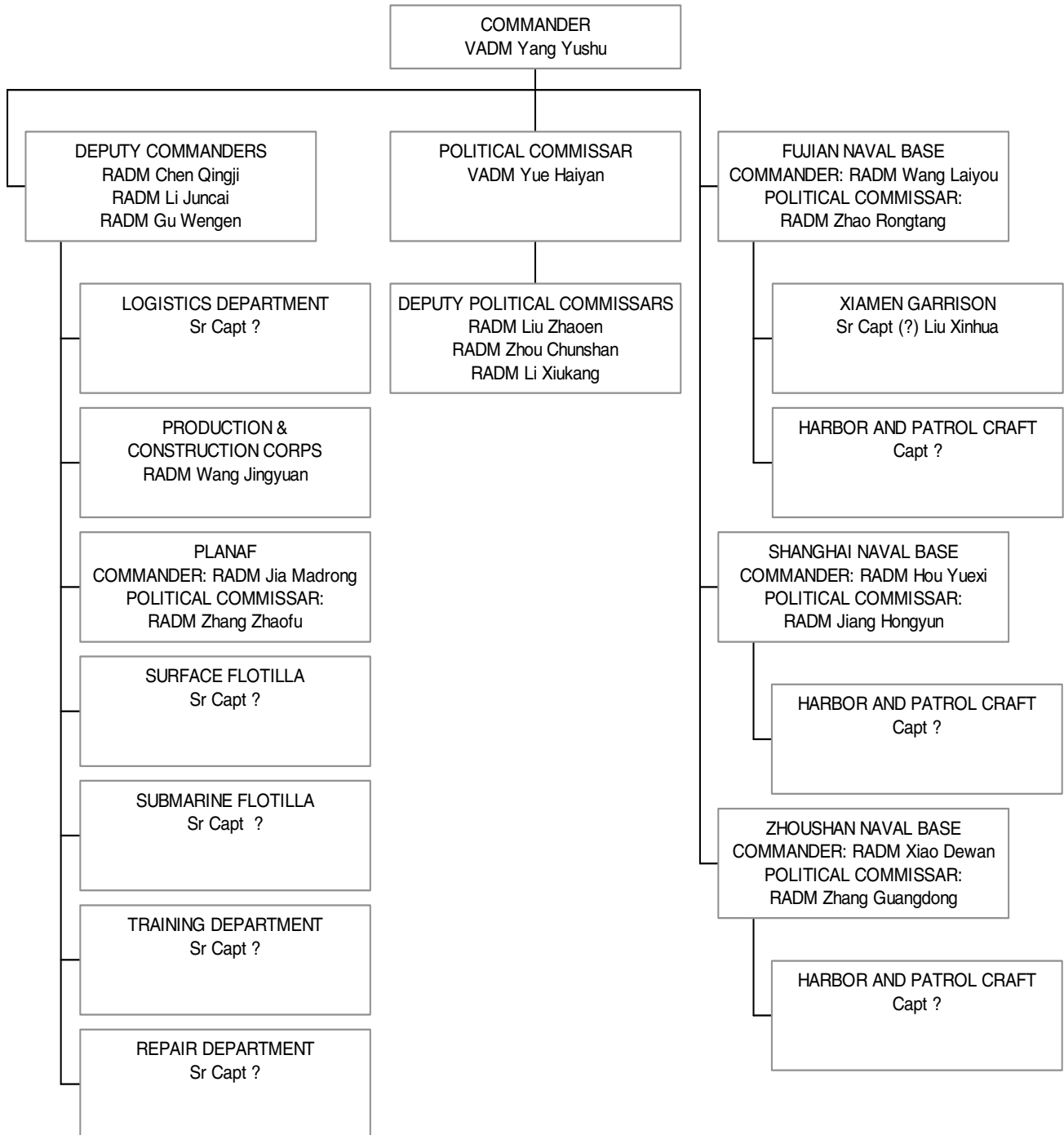


Figure 10.9 South Sea Fleet

