

6 An assessment of the ROCN's modernization program

Strategic and operational considerations

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Introduction

The central theme of this chapter is to look at the external environment (i.e. threats, geography, technological possibilities, and political constraints) that the Republic of China Navy (ROCN) faces and to ask whether or not the ROCN's current modernization program can effectively respond. It is not possible, however, to interpret and understand this question, or make useful practical and reasoned policy proposals only by describing and analyzing the equipment that the ROCN either has recently obtained, or plans to include in its future inventory. The most critical problem of defense planning for a regional medium power such as Taiwan is to determine what is vital and, in more practical terms, decide—under the whole range of relevant circumstances prevailing at the time—what kinds and range of threats indicate what sorts of response.

The measure of the ROCN's contribution to Taiwan's security is far from being the level or even the sum of its visible fleet. It rests more on the degree of how the Taiwanese Navy planners optimize their capability cost effectively, and promote a more joint approach to Taiwan's defense needs. In other words, the yardstick by which the ROCN's efforts on whether the current modernization program can be regarded as successful or not is the extent to which the ROCN's strategic and operational concepts can credibly and effectively match their future platforms and systems against China's new naval inventory. More importantly, such strategic and operational concepts must also contribute effectively to Taiwan's overall defense and military strategy.

Over the past 50 years, Taiwan's defense and military strategy has been altered five times: "limited offensive" from the 1950s to early 1960s; "active defense" from the late 1960s to the early 1970s; a synthesis of offensive and defensive—*gong shou yi ti*—in the 1980s; and "resolute defense, effective deterrence" in the 1990s. Currently, Taiwan's military strategic posture is one of "effective deterrence and strong defense posture". Each alteration represented not only a response to differing external and environmental circumstances, but also a different stage in the evolution of a continuous struggle for dominant strategic/operational concepts among and between the three ROC Armed Services.

As Builder has correctly pointed out, defense planning is “determined more by culture and institutional preferences for certain kinds of military forces than by ‘threat.’ There are many ways to interpret a threat; (and) there are many ways to deal with any particular interpretation of a threat”.¹

Although this insight may not surprise anyone who has ever thought about how Armed Services actually operate, at least for foreign analysts or local civilians, the issue of inter-Service rivalry and power-broking in the understanding of Taiwan’s defense policy deserves more attention than it has hitherto received. The formulation of any military strategy or operational concept must be approached from an organizational/cultural perspective. The practice of interpreting defense policy decisions in terms of “rational behavior” is therefore neither realistic nor practical. This is especially the case when applied to the analysis of non-quantifiable and ill-defined problems, such as those posed by issues of defense planning, the formulation of military doctrine, and the roles of the constituent Armed Services. In other words, each of Taiwan’s strategic revisions, in a deeper sense, was not merely a matter of rational response to its perceived strategic environment, but an indicator of the political influence of each individual Service and the politico-military leadership as well.

It is difficult to refute the importance of the navy to a maritime state, such as Taiwan. There is little evidence from the past record of the defense of Taiwan against invasion to suggest that the Taiwanese could successfully overcome an enemy whose forces had *already* landed on her soil.² The question should be one of where those enemy forces would attack, rather than whether they would. Most commentators agree that Taiwan should maintain a navy, but there is little consensus about how strong it should be. Much effort has gone into analyzing what kinds of warships the ROCN needs, yet few have addressed the central issue of what the ROCN’s role should be in the overall defense of Taiwan. At the first glance, it seems that the debate over the role of the ROCN in the event of a possible Chinese invasion is encapsulated in what has been referred to as “blue water” school/“gray water” school debate.

This debate has revolved around the *perceived* ability of the ROCN to repel a Chinese amphibious attack from the sea, the relative importance of an anti-blockade operational strategy to Taiwan’s overall military strategy, and the most cost-effective high/low mix of the ROCN’s warships. A better understanding of the ROCN’s programs, however, should begin with what role that the ROCN *intends* or *is expected* to perform by the other two Services or the civilian political leadership. Even if neither of the two extremes of the “blue water”/“gray water” school is representative—in fact, the ROCN Admirals have tended to vacillate somewhere between these two extremes—for analytical purposes, the debate between them will be taken as a starting point in the examination below of the ROCN’s role in Taiwan’s military planning.

The issue is further compounded by the variety of missions—from traditional command (or denial) of the sea to a less clear sea-based anti-theater ballistic missile (ATBM) role—that the ROCN has been tasked to perform over time. It is

further complicated by the scope and range of operational theaters—from operating off the coast of Mainland China (in order to support troops in the Kinmen Islands and Matsu Islands) to the South China Sea (for escorting homebound tankers and merchant ships) that these different missions require. Not only are some of these missions offensive in nature, but the ROCN also has been, is now, and will likely continue to be, for the reasons of budgetary constraints or competition among the Services, without sufficient resources and assets to perform all the missions expected of it. The debate over the priorities between different missions and theaters proposed by the different schools of thought, each using different criteria, continues unabated.

Questions such as these have attracted the attention of naval analysts. Surprisingly, the ROCN's doctrinal responses have been less than clear and have often been ambiguous. No positive, or practical, statement about ROC naval doctrine was contained in any of Taiwan's previous *National Defense Reports*—that is, until April 2001. This was the date when some fragments of abstract concepts were included in a twelve-page leaflet entitled *Navy Vision*. As shall be detailed below, *Navy Vision* to some degree reveals a significant bias towards the “blue water” school in the minds of today's naval planners. Although by no means unique to navies around the world, the ROCN's *Navy Vision*, effectively reflects a temporary compromise between the two schools of thought, and does much toward getting an understanding of the current program being pursued by the ROCN. It also, however, points to potential areas of opposition and possible resistance that it will raise.

The ROCN before 1980

Historically, naval assets were effectively controlled by different local warlords after the establishment of the ROC in 1911. Most of these vessels, however, were later sunk during the Second World War. The ROCN, as a Service controlled by the central government, first came into existence during the Civil War (1945–49) between Kai-shek Chiang's Nationalist forces and Mao's Communist guerrilla fighters. The ROCN was initially equipped with a number of obsolete US naval ships the purpose of which was to assist Chiang and his Nationalist forces engage the Communist insurgents.

Bearing in mind that the outcome of the Chinese civil war was largely determined by ground forces, as in Chiang's continental wars first against Japan and then, later, against the Chinese Communists, the embryonic ROCN only played a very minor role. In one sense, however, had the ROCN not been in existence—irrespective of how small it was in number and obsolete its equipment—Chiang would not have been able to evacuate his 400,000 defeated troops and officials from the mainland to Taiwan during 1947–49. They would have had to be left behind, and the Communists would surely have annihilated them without mercy. To that extent, the ROCN performed a significant and major role early in modern Taiwan's existence.

With Russian support, in 1949 the People's Liberation Army Navy (PLAN) hastily embarked on a naval construction program. Under the guiding principle of “*fu* (naval aviation), *chien* (submarine), and *kuai* (fast attack craft)”, the PLAN quickly built up a capable coastal force. In a series of combined arms assaults between 1949 and 1955, the Chinese PLA and PLAN were able to successfully force Chiang's Nationalist troops to withdraw from the Tachen and Nanchishan Islands (off the Zhejiang coast) to the Matzu and Kinmen Islands where the ROC Air Force (ROCAF) could effectively provide air cover for naval activities.³ After 1954, the ROCN's inventory was also strengthened rapidly following the Mutual Defense Treaty signed that year between the ROC and the United States.

It is to the credit of the ROCN during this period of tension that it successfully maintained and supplied the 11,000 or so Taiwanese troops stationed on the Kinmen and Matzu Islands. It also sustained that support during the two Taiwan Straits Crises of 1954 and 1958. This logistic backing effectively enabled the Taiwan forces to hold on to the islands, a factor in support of Chiang's risky strategy to try and persuade the Eisenhower Administration also to extend the US defense commitment to those islands. In addition to performing this essential logistic support role, in the early 1960s the ROCN also frequently conducted direct assaults on the PRC-controlled islands, actions that, symbolically at least, supported Chiang's resolution to “retake the Mainland by force” and secure the legitimacy of his leadership of the Kuomintang Nationalists Party (KMT).

Before the Battle of Tachen in 1955, the then Minister of National Defense, David D.W. Yu, predicted that, “if we (the ROC) lost air supremacy (and control of the air), the enemy would start striking our fleet and soon devastate our navy. If so, our troops on Tachen (Island) would be strangled”.⁴ When the PLA's siege of Tachen finally commenced, the ROCN was faced with the immediate disadvantage that the ROCAF could not provide full air cover for the ROCN's nine-vessel convoy supporting the island. As a consequence, the People's Liberation Army Air Force (PLAAF) was able successfully to sink one ROCN vessel and damage three others during a 6-hr engagement.

This experience clearly demonstrated the priorities of defending Taiwan and its off-shore islands: Taiwan could hardly hold on to its possessions if it could not exercise command of the sea; and, then, it could barely exercise control of the sea if it failed also to achieve air superiority over the areas where its fleet operated.

After the loss of Tachen Island, Minister Yu proposed his “defense-in-depth” strategic concept. He asserted that in order to turn Taiwan into an impregnable fortress, Taiwan's force posture should focus on “the command of the Strait by our Navy and Air Force; in order to increase Taiwan's strategic depth, Taiwan and the Penghu should be our main position and the Kinmen and the Matzu should be our front line”. Minister Yu then concluded, at the strategic level, Taiwan needed:

- to stabilize the front line;
- to command the Strait;
- to increase readiness;
- to commence retaking the Chinese Mainland, if the opportunities arose.

At the tactical level, Taiwan should prepare:

- to check enemy at the point of embarkation;
- to strike the enemy in transit;
- to devastate the enemy on Taiwan's beachheads;
- to annihilate the enemy from inside prepared positions.⁵

In reality, however, neither Tachen lesson was learnt quickly or fully; nor was Defense Minister Yu's strategic conception fully implemented. There were many reasons for this: first, in Chiang's conception, the overarching objective of the ROC's military strategy was to *retake*, rather than to *hold*, ground, even though successive American administrations did not support his ideas. Although the protection of Taiwan and the Penghu Islands was less important in Chiang's strategy than the retaking of Mainland China, it introduced a slight, but profound, distinction between means and ends. It was, and remains, a distinction that has unconsciously influenced Taiwan's military force structures ever since.

For example, large numbers of ground forces were maintained for the purpose of retaking Mainland China were the opportunity ever to arise. Naval assets, to some degree, were regarded merely as floating supply lines for transiting and landing troops onto the Mainland. Second, in addition to a serious quarrel between different factions within the Navy, a major political purge was carried out among the young ROCN officers in the late 1940s. Many, suspected as being "defeatists" or "communists", were removed from their command. Some were even prosecuted. As a result, active debates over naval roles were silenced and no one challenged the strategy of retaking Mainland China by military means. Third, under the security umbrella of the Taiwan/US Mutual Defense Treaty, most responsibilities for the naval patrol of the Taiwan Strait during the 1950s and 1960s were assumed by United States Navy (USN) warships. The ROCN was left to patrol along the Mainland coastline and escort re-supply convoys.⁶ For these assigned tasks, a small, coastal navy was considered more than sufficient.

The introduction of guided anti-ship missiles into the PLAN's inventory in the late 1960s rendered the ROCN's offensive patrols along the Mainland coastline a dangerous and risky business. Furthermore, when the US administration suddenly terminated USN patrols along the Taiwan Strait in 1971, the ROCN was forced to redefine its role. However, the ROCN failed to seize the opportunity at the time and the development of the Navy's role progressed slowly. One nevertheless cannot put all the blame onto the shoulders of admirals for this. There was no significant adjustment of Taiwan's overall strategy and the Army generals still dominated the process of defense planning. More importantly, because of changes in US foreign policy, the American administration neither ignored such a need nor was it willing to support it.

The Americans assumed that the surface threat posed by the PLAN could be countered and held at bay by the capable ROCAF. They judged that, as a consequence, the main role of the ROCN should focus on the PLAN's underwater threats—submarines. The earlier development of the ROCN's platforms, weaponry, doctrines, operational concepts, and training were, therefore, redirected

with a heavy stress on the anti-submarine warfare (ASW) task. By way of illustration, some old ASW capable destroyers (DD) were handed over by way of a last grant of military assistance from the US government to Taiwan when diplomatic relations between the two states formally ended in 1979.

The rise of the “gray water” school

The US departure in 1979, followed by the Shanghai Communiqué of 1982, literally placed a quantitative as well as qualitative limit on American arms sales to Taiwan. This was both a bane and a blessing; it was a bane because they raised immediate uncertainties as to the future role of the United States in cross straits relationships. It was a blessing because it forced Taiwan’s defense and military planners to think about the strategic reality with which they were faced. With regard to the latter, the former Minister of National Defense, Chang-chih Soong, a retired Admiral, pointed out in 1982 that Taiwan was then at “a strategic defense stage. As regards strategic defense, in order to defend the Taiwan Strait, it was imperative to put the emphasis on air defense. The ROCN could command the sea only when the ROCAF had command of the air”.⁷

Although Taiwan had in fact abandoned its offensive activities against China during the late Chiang era, Chang-chih Soong’s statement was the first occasion when the ROC government declared in public that Taiwan’s military strategy against China had shifted from the offensive to the defensive.⁸ To reduce the potential for a diplomatic disaster and to raise the morale of Taiwan’s armed forces, the former President, Chin-kuo Chiang, announced the launch of the ROC’s largest military modernization program since 1949 with the objective of building up an independent military force.⁹ This initiative also heralded the beginning of the creation of Taiwan’s own defense manufacturing base.

Taiwan’s largest military modernization program was known at the time as the “Construction Programs of the Second-Generation Force”. It started during the 1980s and lasted for almost 20 years. At the early conceptualization of Taiwan’s military modernization program, differences in the perceived role for the ROCN complicated policy-making. This was because the Republic of China Army (ROCA) was the main focus of the modernization. The Army generals argued that the ROCA was *the* decisive Service and that land battles conclude the outcome of war. The ROCN admirals argued instead that the Navy was the last line of defense, for it was virtually impossible to defeat the superior numbers of PLA troops if they could land on Taiwan at will.

To understand the changes of Taiwan military strategy in the 1980s and 1990s it is necessary to appreciate the rise and fall of General Pei-tsun Hau (the former Chief of General Staff, 1981–89, who later became Minister of Defense and Premier). In 1981, General Hau’s promotion to Chief of General Staff (he replaced Admiral Chang-chih Soong who then became Minister of National Defense) from Command-in-Chief of the ROCA, effectively settled the outcome of the strategic debate.

General Hau was the longest serving Chief of General Staff in the ROC’s history (see Table 6.1). For eight years, (1981–89), he essentially dominated the whole conceptualization of Taiwan’s military modernization, including follow-on

Table 6.1 Key figures in Taiwan's naval programs

<i>President</i>	<i>Chief of General Staff</i>	<i>Minister of National Defense</i>	<i>Command-in-Chief of the ROCN</i>
Kai-shek Chiang (-1975)	Chu-tung Ku <i>Army</i> (1948-50)		Yung-ching Kui (1946-52)
	Chih-jou Chou <i>Air Force</i> (1950-54)	Ji-chiao Kuo (1951-54)	Chi-chuang Ma (1952-54)
	Yung-ching Kui <i>Navy</i> (1954)		
	Meng-chi Peng <i>Army</i> (1954-57)	David D.W. Yu <i>Civilian</i> (1954-65)	Hsu-chao Liang (1954-59)
	Shu-ming Wang <i>Air Force</i> (1957-59)		
	Meng-chi Peng <i>Army</i> (1959-65)		Yue-si Ni (1959-65)
	Yue-si Ni <i>Navy</i> (1965-67)	Chin-kuo Chang <i>Political Warfare</i> (1965-69)	Kuang-kai Liu (1965)
	Kuei-yuan Kao <i>Army</i> (1967-70)	Chieh Huang <i>Army</i> (1969-72)	Chi-tsung Fong (1965-70)
	Ming-tang Lai <i>Air Force</i> (1970-76)	Ta-ching Chen <i>Army</i> (1972-73)	Chang-chih Soong (1970-76)
		Kuei-yuan Kao <i>Army</i> (1973-81)	
Chia-kan Yen (1975-78)	Chang-chih Soong <i>Navy</i> (1976-81)		Chien Tsou (1976-82)
Ching-kao Chiang (1978-88)	Pei-tsun Hau <i>Army</i> (1981-89)	Chang-chih Soong <i>Navy</i> (1981-86)	Ho-chien Liu (1983-88)
		Tao-yuan Wang <i>Civilian</i> (1986-87)	
Teng-hui Lee (1988-2000)	Hsing-ling Chen <i>Air Force</i> (1989-92)	Pei-tsun Hau (1989-90)	Chang-tung Yeh (1988-92)
		Li-an Chen <i>Civilian</i> (1990-93)	
	Ho-chien Liu <i>Navy</i> (1992-95)	Chen Sun <i>Civilian</i> (1993-94)	Ming-yao Chuang (1992-94)
		Chung-ling Chiang <i>Army</i> (1994-99)	Chung-lien Ku (1994-97)
	Pen-li Lo <i>Army</i> (1995-98)		Shih-wen Wu (1997-99)
	Fei Tang <i>Air Force</i> (1998-99)		
	Yiau-ming Tang <i>Army</i> (1999-)	Fei Tang <i>Air Force</i> (1999-2000)	Jei Lee (1999-)
Shui-bian Chen (2000-)		Shih-wen Wu <i>Navy</i> (2000-)	

naval procurement. During his time in charge, not only did the Army's strategic vision reach its peak, but his ideas on the Navy's role in defending Taiwan marked the high point of the "gray water" school. In 1982, he asserted that,

As regard naval command of the sea, the premise of our naval construction must be based on the concept of a coastal navy, a navy without conclusive air superiority, and stress on command of sea by air, from the land, and then at sea. Our Navy should focus on *fu, chien, kuai* as well as mine warfare, rather than building up (a fleet of) large vessels and anti-ship missiles for surface operations. Our Navy is distracted by the thought of a grand fleet and big guns.¹⁰

In a sense, the "gray water" school, rather than being viewed as a new idea promoted by a ruthless and influential Army general, should be regarded as a logical extension of the ROCN's traditional task. The reasoning is based on the following arguments. First, the Army is *the* decisive force. China cannot finally conquer Taiwan without defeating Taiwan's standing and mobilized ground forces. China will pay a high cost in so doing and take a long time to overcome Taiwanese defense if the ROCA is well fortified and better equipped. If the anticipated cost of a land operation is high enough, it will persuade China from attacking Taiwan; alternatively it will prolong the war and allow sufficient time for US aid and military forces to intervene.

Second, air supremacy is critical for the defense of Taiwan. But the Army generals doubt whether or not the ROCAF has the capability to exercise control of the air over a long period of time when significantly outnumbered by the PLAAF aircraft and also when faced with a full-scale missile assault. Therefore, the ROCAF should "preserve its strength, maximize gain by minimizing cost, avoid being committed in full strength during the initial stages of the campaign, and engage the enemy at the most advantageous time".¹¹ These are the four principles underlying General Hau's idea of "strategic sustainability". They, echoed, to some degree, the former Defense Minister Yu's concept of the "annihilation of the enemy at the water's edge", but not his "annihilation of the enemy from a prepared position". For General Hau, the most advantageous time to engage the enemy would be when their feet first touched dry land.

Third, since the ROCAF was not able to guarantee a sustained air supremacy over the Taiwan Strait, the Army generals further questioned the survivability of the ROCN's fleet without permanent command of the air. Under the Army's dominant concepts of "*yi lu zhi kong, yi lu zhi hai*", (command of the air by land, command of the sea by land) land-based air defense systems could provide the ROCN's fleet the opportunity to sail away and find protection some distance away from Taiwan to the East. The fleet should, therefore, evacuate to the Pacific Ocean, either to secure Taiwan's Eastward "safety route" (the possible sea route for foreign aid), or to wait in some safety before intercepting the PLA's amphibious forces and follow-on logistic support convoys that approached Taiwan's western shores. The ROCN's contributions to the defense of Taiwan in the light of the Army generals' expectations were less one of an anti-blockade fought in distant waters and more ones of preventing an amphibious landing and intercepting

Table 6.2 The ROCN's major naval ship procurement (late 1970s to 1990s)

Fifty new HAIYOU-class FABGs (guided missile fast attack boats)	Commissioned from 1977
Refitted existing 20 YANG class DDGs (guided missile destroyers): WU CHIN I (9), II (4), and III (7) Projects	From 1981
Two new HAILUNG (ZWAARDIVE)-class SSKs	Commissioned from 1987
Four new YUNGFENG (<i>MVV</i> 50)-class MHCs (coastal mine hunters)	Commissioned from 1991
Seven new CHENGGUNG (PERRY)-class FFGs (guided missile frigates): KWANG HUA 1 Project	Commissioned from 1993
Eight lent CHINYANG (KNOX)-class FFGs: KWANG HUA 4 Project	Recommissioned from 1994
Four new YUNG (AGGRESSIVE)-class MSOs (ocean minesweepers)	Recommissioned from 1995
Eleven new JINCHIANG-class PGGs (guided missile patrol gunships): KWANG HUA 3 Project	Commissioned from 1994
Two new CHUNG (NEWPORT)-class LSTs (tank landing ships)	From 1995
Six new KANTING (LA FAYETTE)-class FFGs: KWANG HUA 2 Project	Commissioned from 1996
One new ANCHORAGE-class LSD (dock landing ship)	Recommissioned from 1999

in home waters the re-supply of the PLA's operations in Taiwan. Thus, the "gray water" proponents argued that the naval role in defending Taiwan was defensive, reactive, and focused on the denying the enemy's use of the Strait.

As a result, the modernization of the ROCN's aging fleet was embarked upon according to General Hau's conception (see Table 6.2). As might be expected, General Hau's ideas stood clearly in marked contrast with those of the ROCN admirals. His faith in the "annihilation of the enemy at the water's edge", coupled with the priority given anyway to an advanced, but numerically small, fleet for supporting ground missions, also undermined the ROCN's original procurement plans.

Perhaps this may best be illustrated by the procurement of six new KANGTING (LA FAYETTE)-class frigates (FFGs) (also known as the KWANG HUA 2 Project). In order to replace its twenty-four aged YANG-class destroyers (DDGs), the admirals had initially planned a high-low-mix shopping list for the ROCN's second generation force, of eight 3,000-tons FFGs and sixteen 2,000-tons smaller and cheaper FFGs. Admiral Ho-chien Liu, then Command-in-Chief of the ROCN, suggested that eight CHENGGUNG (PERRY)-class FFGs (also known as KWANG HUA 1 Project) should be procured, mixed with sixteen 2000-ton Korean ULSAN-class FFGs. In the event, General Hau rejected Admiral Liu's proposal; instead of the sixteen Korean UBAN-class FFGs, he decided at a very short notice to buy six LA FAYETTE FFGs at the same cost.¹²

With the benefit of hindsight, General Hau's decision seems fortuitous since the LA FAYETTE-class FFGs' stealth properties would be well suited for operations in the narrow Taiwan strait. On reflection, however, it was not surprising that the ROCN admirals, at the time of Hau's initiative, should have hesitated over accepting the Army generals' strategic assumptions and the procurement priorities that followed from them. For those admirals who considered quantitative superiority to be so important for naval ASW and anti-blockade missions,¹³ Hau's decision was seen as diminishing the ROCN's ability to exercise command of the sea as well as seriously undermining naval interests. It would, for example, inevitably curtail the promotion opportunities for senior front line captains and officers by nearly one surface flotilla (i.e. the equivalent of ten FFGs). As a result, the pace of YANG-class DDGs replacement was reduced until Admiral Chang-tung Yeh, the next Command-in-Chief of ROCN, secured the lease of eight CHINYANG (*Knox*)-class FFGs (as known as KWANG HUA 4 Project) from the United States in 1993.¹⁴

The rise of the "blue water" school

After his involuntary retirement as Chief of General Staff, General Hau soon actively opposed former President Teng-hui Lee and questioned Lee's pro-independence position. Lee's response was to remove any evidence of Hau's ideas and influence on the military, including his subordinates. Long dominated by the ROCA, the ROCAF and ROCN seized the opportunity to regain some of their autonomy in developing operational concepts. The latest revision of Taiwan's military strategy started slowly when the struggle between Lee and Hau fully broke out in the early 1990s. This conflict intensified after the missile crisis of 1995/96, which exposed Taiwan's total vulnerability to possible PLA missile raids and the inadequacy of the Army's strategic thinking.

The new President, Shui-bian Chen, indirectly abandoned the Army's vision when he introduced a new operational concept, "*jue zhai jing wai*" (decisive battle outside the territory), in May 2000. Under the "*jue zhai jing wai*" concept, the roles of the ROCAF and the ROCN were given particular emphasis, whereas the ROCA was scarcely assigned any significant task. The ROCA's resistance to change proved much less effective than previously because, this time, the ROCAF and the ROCN dominated the core defense decision-making circle.¹⁵ Although initially obscured by debates over the exact meaning and political implications of his strategic concept, the sense and thrust of President Chen's ideas quickly gathered momentum. With the ROCAF and the ROCN as the principal beneficiaries, "*jue zhai jing wai*" soon overcame its initial linguistic shortcomings and became the dominant frame of reference in developing the operational concepts of both Services.

For the ROCA, General Hau's, "annihilate enemy at the water's edge" concept was the key to their strategic thinking and the main rationale behind the maintenance of substantial land forces. Correspondingly, they considered that all maritime and aviation efforts should therefore be directed in support of that primary

defensive task. However, following by the decline of Hau's influence, many opponents of his strategy emerged. There were a number of interconnected reasons leveled against the Army's vision; all of them go to the heart of the problem of the probability of "annihilating enemy at the water's edge". Among these are first, that the PLA might not choose to initiate a general war against Taiwan but instead adopt a strategy of military compellance, or intimidation, to coerce Taiwanese into accepting Chinese terms at the negotiation table. A maritime blockade is generally regarded as the most probable scenario for such coercive acts of intimidation and military compellance. Furthermore, they argue that the PLA still could defeat Taiwan in a general war without the need to land PLA forces on Taiwanese soil. If the Taiwanese lost air supremacy and maritime command over the Strait, the PLA could land forces on Taiwan at will, conduct aerial bombardment at targets and times of its own choosing, and effectively block any foreign aid. With the psychological impact that would likely follow, the Taiwanese would have little or no choice other than to capitulate and surrender.

Even if a reinforced and upgraded ROCA had the ability to conduct an organized resistance against an enemy invasion, the PLA could bomb at will Taiwan's ground forces continuously until they collapsed themselves, rather than risk conducting an amphibious landing. As Admiral Tsen-huei Wang has argued, the ROCA's concept of "annihilate the enemy at the water's edge" is at best a poor imitation of Tirpitz's "risk theory" based on false assumptions and wishful thinking.¹⁶

Second, the concept of "annihilating the enemy at the water's edge" can only refer to Taiwan's Western coast line (geography dictates that no amphibious landing places are available on the eastern side of the island). It is here, however, where the most densely populated and prosperous areas of the island are to be found. In the event of fighting, the built-up Western coast-line area would quickly be turned into a devastated battleground and reduced to rubble. This would be something that neither side, China or Taiwan, would politically or economically want. If the Taiwanese wished to reduce the damage to its homeland, were war to break out, then the rational strategy would be to strike the enemy before it reached the Taiwan coast, rather than to try to defeat the invaders on Taiwan's beaches and immediate hinterland. If the Taiwanese needed to prevent the enemy from approaching across the strait, then the Taiwanese would have to adopt some kind of pre-emptive offensive action designed to frustrate, at source, the PLA's war preparations. This leads to the conclusion that the ROCN, as well as the ROCAF, would need to acquire the capability to strike at the PLA's coastal, or even inland, targets.

Third, the role and tasks of "force projection" should rest primarily with the aviators and sailors of the ROCAF and ROCN, since the ROCA did not possess any long-range platforms for attacking the enemy on the other side of the Taiwan Strait. The ROCN's warships, which by their nature enjoy considerable maneuverability, could sail to any point off the Chinese coast at relatively little notice. There they can attack and destroy any PLAN attempts to sail their vessels to the Taiwan Strait, assuming that the ROCAF has already secured command of the air. As Admiral Liu has also argued, "if we limit the focus of the anti-blockade operation to the area of Taiwan Strait, this perspective is not broad enough".¹⁷

The anti-blockade mission also needs to be refined and extended. The ROCN should not only be responsible to secure the “safety route” in Taiwan’s Eastern water only, but also be needed to escort homebound convey from the South China Sea to Taiwan.

The perceived need for air superiority to cover fleet actions tie naval assets close to land. As Gray put it, “in practice since 1939, maritime command has been understood to subsume the necessity for achieving air superiority over the fleet. One does not command the sea if one does not command the air”.¹⁸ Of all the reasons proposed by the “gray water” school, one is not disputed: air superiority over the Taiwan Strait or, at the least, to cover ROCN operations, is critical. Though conceptions of the naval role in defending Taiwan may differ in their perceived mission priorities and the main theater of operations, a characteristic that both schools share is the importance of the ROCAF’s air superiority to the ROCN’s maritime command. However, the “gray water” school regards the fleet as a protégé of air power, whereas the “blue water” school proposed to increase naval capabilities against threats from air in order to become a partner of the ROCAF in providing for the air defense of Taiwan.

Some proponents of the “blue water” school opposed the “gray water” school ideas that incorporated naval operations within a strategy of passive defensive.¹⁹ Bearing in mind that a surprise attack was unlikely, due to insufficient operational depth, were the two navies to encounter each other in a restricted environment, the side that seized the initiative would enjoy a much greater tactical advantage, even if the balance of forces in an era of high-tempo and precision-strike warfare were roughly equal.²⁰ Gray further argues that, “a maritime-dependent power or coalition need not seek battle at sea, but if it tries to avoid battle, it concedes sea denial, and hence the war, to a battle-willing enemy”.²¹ The proponents of the “blue water” school have also noted that Taiwan has had to adopt a defensive posture at the strategic level. This has led to the erroneous assumptions that control of the sea is not dependent on being able to engage with the enemy at sea, and a sea battle was better avoided lest the irreplaceable fleet be lost.

A recent edition of *Navy Vision* highlights the ROCN’s priorities and marks the peak of the “blue water” school’s current strategic and operational thinking. It suggests two guidelines for the future ROCN force requirements. First, there is emphasis on joint operations. The requirement is to integrate the C3ISR systems of three Services in order to provide “the capability of wider defense and battlespace management. Using sea-based systems strengthens the land-based systems so as to constitute a joint operational system as a whole”.

Second, is the requirement for an unbalanced force structure in which the ROCN would try to construct an “unbalanced, asymmetric counterstroke force”. At the operational level, the ROCN contemplates being able to “control the surrounding waters and possess wider operational capabilities for extending our (its) strategic depth and operational radius”. It would thereby build up a force that was “capable both of offensive and defensive” operations. At the strategic level, the goal for the ROCN would be “to be credible in peacetime, decisive in wartime”.²²

Furthermore, external developments have largely encouraged public support for the development of “blue water” school strategy. First, the PLAN’s ocean-going

capabilities had been significantly strengthened when it obtained the advanced SOVREMENNY-class DDGs, LUHU-class DDGs and LUDA II-class DDGs. For these reasons, some have argued that the traditional view that regarded Taiwan's Western waters as a sanctuary for the ROCN to implement a counterstroke, was no longer valid. In order to counter these significant new PLAN surface threats, the ROCN needed to expand the size of the Fleet in addition to the new FFGs currently being acquired.

Second, the lessons of the 1995/96 missile crises exposed Taiwan's strategic vulnerability to ballistic missile attack. Proponents of the "blue water" school have proposed that Taiwan should acquire the larger, *Aegis*-equipped, DDGs as one of the layers of an ATBM system. Third, the 2000 arms request list submitted to the United States particularly stressed naval items (see Table 6.3), one that supported the ideas of "blue water" school. The Americans' willingness to make available some naval items of equipment that Taiwan had long been requesting, such as submarines, that previously had been regarded as offensive weapons and therefore rejected, has done much to encourage support for the "blue water" school.

Table 6.3 gives indications of what the ROCN will look like in the near future: The KIDD-class DDGs have a much more powerful air defense capability than the Taiwanese Navy currently possesses. Air defense radar on the KIDD-class DDGs can deal with forty air targets simultaneously, whereas the CHENGGKUNG, Taiwan's key combatants for naval air defense, can handle only two at one time. The KIDD-class DDG carries sixty-two, 153-km-range SM-2 surface-to-air missile (SAMs) and their combat system can guide 7-13 SAMs to engage the targets. These capabilities give the ROCN a better chance to neutralize saturated attacks by PLAN and PLAAF aircraft. Meanwhile, they also carry eight *Harpoon* II surface-to-surface missiles (SSMs), which enjoy a better range and performance than the *Harpoon* I SSMs on the CHINYANG or the *Hsiungfeng* II SSMs on the CHENGGKUNG and KANGDING. The combat systems on the KIDD-class DDGs can shorten the response time and also have data link (Link-11) with other friendly vessels at sea.

The implications of the KIDD-class DDG procurement as far as the ROCN planners are concerned, are: (1) to perform the role of the command ship within a battle group arising from the ships capabilities in battle space management and area air defense. With an extended operational radius and strategic depth,

Table 6.3 Planned ROCN procurement

<i>Item</i>	<i>US Attitude</i>
8 SSKs	Assist Taiwan to obtain
12 P3Cs	Agreed
MH53Es	Agreed
MK-48 Torpedoes	Agreed
Sub-Harpoon anti-ship missile	Agreed
4 <i>Kidd</i> -class DDGs	Agreed
4 <i>Aegis</i> -equipped DDGs	Not yet agreed

the KIDD-class DDG can make the PLAN's operational planning more uncertain since it would make the intentions and whereabouts of such a battle group will be hard to predict. (2) By cooperating with land- or air-based air defense systems, a layered defense-in-depth against the enemy's air attack can be formed. If the KIDD-class DDGs are forward deployed, they can mount a first line of air defense and enhance the protection of key politico-military installations. (3) The KIDD-class DDG can be the air battle command/control unit in guiding the ROCAF's aircraft in over-the-horizon attack and thus extend the ROCAF's capability for force projection.²³ In short, the procurement can largely fulfill most of the "blue water" school of thinking as expressed in the *Navy Vision*.

Conclusion: the ROCN after 2000

At present, the "blue water" school has the upper hand. It is predicted that their ideas will be further implemented within the next few years if Admiral Jei Lee, the current Command-in-Chief of the ROCN, is promoted Chief of General Staff. In the next 10 years, the ROCN will increase the existing twelve JINCHIANG-class PGGs to twenty-four, thirty new stealth FABGs (also known as KWANG HUA 6 Project with each vessel armed with four *Hsiungfeng* II SSMs), will possibly replace the fifty old HAIYOU-class FABGs and still try to get the United States to agree to make available the required four AEGIS-equipped DDGs.²⁴ If all these

Table 6.4 "Gray water" and "blue water" schools compared

	"Gray water" school	"Blue water" school
<i>Strategic assumptions</i>		
Land battle in determining the outcome of war	The PLA cannot conquer Taiwan without defeating the ROCA	The PLA can defeat Taiwan without landing
The most advantageous time to engage the enemy	Annihilate enemy at the water's edge	Check enemy on yonder shore or strike enemy in transit
The role of the ROCN	Defensive, reactive and sea denial	Offensive/Defensive, active and sea control
<i>Mission priorities</i>		
Anti-submarine	High	High
Anti-landing	High	Low
Anti-blockade	Low	High
Air defense	Point/fleet	Forward/area
ATBM	Negative	Medium
Early warning	Supported by land-based system	Supported land-based system
Offensive force projection	Negative	High
Crisis response	Ambiguous	Ambiguous
<i>Main theater</i>		
	Home water	Home water and near sea

plans are realized, by 2010 the ROCN will enjoy a considerable surface/underwater capability with a sound high-low mix of vessels. The size of the fleet may even go far beyond the original expectations of "blue water" school, and become a balanced fleet.

This is, of course, an ideal, since it would appear to offer the solution to the most of the problems that the ROCN faces. It is a commonplace, however, to say that the field of naval warfare and operations has been difficult to assess accurately because they can be easily affected by a range of non-quantifiable variables, such as quality of equipment, the skill of its personnel, and strategy and doctrine. Generally, naval planners have tended to think in simpler, more arithmetical ways, giving less attention to these more normative considerations. The advocates of the "blue water" school seem now to be arguing that the strategic importance of "blue water" should be taken seriously. They argue that they have something to contribute on how to exercise maritime command far from Taiwan and do not just express a blind faith in particular naval vessels or the size of ROCN fleet.

In the 1950s, the ROCN calculated that it would need forty-eight main surface combatants to maintain the "safety route" for a period of 3 months, or forty vessels for 1 month. After further analysis, however, some naval planners believe that these figures may be exaggerated and that only fourteen main surface combatants will be sufficient for such a task.²⁵ There is an urgent requirement for extensive naval operational analysis, but such analysis will be of little relevance without the necessary data and quantification.

The ROCN's modernization program has a particular poignancy inasmuch as it reflects a contrast, on the one hand, between the confidence of the military leadership in their strategic concepts and, on the other, the degree of the resistance that might be encountered when these concepts are put before the general public. By way of illustration, consider what would happen if Admiral Jei Lee, the leading candidate, were not appointed as next Taiwan's Chief of General Staff in January 2002. In that event, the introduction and implementation of a balanced ROCN fleet could well be called into question.

Compared with the other two Services, the ROCN is relatively young. Its cultural influence on naval operational concepts is much less significant than, say, in the British Royal Navy. Conversely, the ROCN planners may be less constrained by tradition, such as in Nelson's "engage the enemy more closely", that has been prevalent in the Royal Navy.²⁶ This relative freedom of thought may well help the ROCN innovate at both the strategic and operational levels. "Rarely, if ever, do military organizations receive the opportunity to innovate with a clear slate", as Murray has argued in this regard. "The past weighs in with a laden hand of tradition that can often block innovation".²⁷

Each branch of the Armed Services in Taiwan, or the Taiwanese military as a whole, lacks a "joint" culture. They tend to be over preoccupied with the question of "who dominates whom", and with an obsolete legacy of which should lead in tri-service "combined" operations. Due to the ill-designed organization of the defense establishment, the rivalry and lack of mutual understanding among and

between the three Services are worsening. The formulation of strategy and operational concepts has produced zero-sum games or led to coalitions between two Services against the third. These conditions make the revision of strategy or operational concepts deeply rooted in organizational interests and single Service culture, rather than rational defense debate. Some believe that the ROCN's current procurement list, which will absorb a significant proportion of Taiwan's limited defense procurement budget, will inevitably deepen the gap between the three Services.²⁸

There is neither effective civilian control in Taiwan nor a strong civilian leadership that provide clear policy guidelines for the armed forces with regard to strategy or military operational concepts. Not until domestic political needs (such as Chin-kuo Chiang's initiative in the early 1980s) or new external military threats (e.g. the PLAN acquisition of advanced ocean-going warships in the 1990s) did the Taiwan government feel it necessary to appropriate more funding for the modernization of its armed forces. Only after the required new weapons and equipment have been procured in the near term have the Taiwanese armed forces felt it incumbent on them to embark on a revision of their military doctrines. No matter what doctrinal innovations have emerged, however, all major changes in military organization, strategy and operational concepts, have rarely been the result of military professionalism alone. In the past, changes have arisen much more from the military and political leadership—a top-down approach—than from ideas generated from below.

At the policy level, however, the intentions of Taiwan's civilian leadership regarding military policy have always been ambiguous. Taiwan's national military strategy is rarely outlined or disseminated in a precise fashion. Generally, it is expressed in highly abstract terms, such as "resolute defense effective deterrence", or "effective deterrence and strong defense posture". These offer few focused or workable guidelines for defense planners and certainly mean little to the lay man in the street. As a result, the authoritative interpretations are often left to, and with, the Chief of General Staff to formulate. For this reason, the competition for this appointment is keen, since it is the Chief of General Staff who largely determines the distribution of defense budget resources between the Services and who dominates the country's strategic vision.

The statutory responsibilities of the Minister of National Defense have increased significantly since the introduction of Defense Two Laws. However, in the foreseeable future, this legislation has merely changed the location of the defense organizational battleground; the situation of "players as referee" remains unaffected. In addition, the United States can manipulate Taiwan's defense thinking by its promise, or denial, of arms sales. For example, the recent arms sales agreed between the United States and Taiwan has encouraged the rise of the "blue water" school.²⁹ But it is a short-term tactic, at best, and may in time cause unexpected consequences.

These three factors will probably influence the pace and direction of the ROCN's modernization over the next 10 years. Each of them, at one extreme, involves organization and culture; at the other extreme, they are links to the

choice of strategy or operational concepts. The Taiwanese Armed Services react to external demands, but they do so through the mechanisms and filter of military culture and defense organizational preferences. The understanding of how the ROCN's strategy and operational concepts are actually made requires that organizational/cultural factors are taken fully into account.

Notes

- 1 Carl H. Builder, *The Masks of War: American Military Styles in Strategy and Analysis*, Baltimore: Johns Hopkins University, 1989, p. 6.
- 2 Only few exceptions (all were before the nineteenth century) that Taiwanese defeated landed invaders, such as the French and Dutch, whose supplies were short.
- 3 Chung Chien, "Review of ROC Military Reform: A Case Study of Taiwanese Navy", *Taiwan Defense Affairs Conference Paper*, 0106, January 2001, p. 12.
- 4 David D.W. Yu, *Retreat from the Tachen and Bombardment of Huangchi*, Taipei: Ministry of National Defense, 1976, p. 1.
- 5 David D.W. Yu, *Retreat from the Tachen and Bombardment of Huangchi*, p. 17.
- 6 Chung, "Review of ROC Military Reform", *op. cit.*, p. 13.
- 7 Cited from Taiwan Research Foundation, *Defense White Paper*, Taipei: Taiwan Research Foundation, 1989, p. 92 (in Chinese).
- 8 Shui-bian Chen and Chen-heng Ko, *White Paper on the Black Box of Defense*, Taipei: Formosa Foundation, 1992, p. 251 (in Chinese).
- 9 Chih-heng Yang "The Evolution and Adaptation of Taiwan's Military Strategy", *Taiwan Defense Affairs Conference Paper*, 0103, January 2001, p. 6.
- 10 Pei-tsun Hau, *The Late Years of President Ching-kuo Chiang in General Hau's Dairy*, Taipei, 1995, p. 59 (in Chinese).
- 11 Pei-tsun Hau, *Eight-year Diary as the Chief of General Staff*, Taipei: Vol. 1, 2000, p. 238 (in Chinese).
- 12 *China Times*, September 5, 2000, p. 2.
- 13 For example, Admiral Ho-chien Liu regards naval ASW operation "basically is a kind of games of numbers". See "Sea Power, the Great Enabler: Conversation with Admiral Liu, Ho-chien", *Taiwan Defense Affairs*, Vol. 1, No. 3, Spring 2001, p. 199.
- 14 *China Times*, February 25, 2000, p. 2.
- 15 In May 2000, besides the Primer Fei Tang was a retired Air Force General, both Minister of Defense Shih-wen Wu and General Secretary of National Security Council Ho-chien Liu were retired Admirals as well. Only the Chief of General Staff General Yiau-min Tang was from the Army.
- 16 Details see Tsen-huei Wang, "Examining Our Current Strategic Thinking from a Deadly Policy of 'Risk Theory' ", in *The Ocean and Naval Technology Conference Papers*, Tzoying: Naval Academy, 1998 (in Chinese).
- 17 "Sea Power, the Great Enabler: Conversation with Admiral Liu, Ho-Chien", p. 197.
- 18 Colin S. Gray *The Navy in the Post Cold War World: The Uses and Value of Strategic Sea Power*, Philadelphia: Pennsylvania State University Press, 1994, p. 17.
- 19 Tsen-Huei Wang, "The Don Quixote Style of Strategy: From Effective Deterrence to All-Out Defense", *Taiwan Defense Affairs*, Vol. 1, No. 2 (2000/01), p. 137.
- 20 Milan N. Vego, *Naval Strategy and Operations in Narrow Seas*, London: Frank Cass, 1999, p. 11.
- 21 Colin S. Gray, *The Leverage of Sea Power: The Strategic Advantage of Navies in War*, New York: Free Press, 1992, p. 24.
- 22 Quoted from Michael Tsai, "The Practical Importance of Ideas", *Taiwan Defense Affairs*, Vol. 1, No. 3, Spring 2001, p. 2.

- 23 *Independence Evening News*, 20/21 May, 2001, p. 2.
- 24 *United Daily News*, October 29, 2001, p. 2; *Liberty Times*, December 18, 2001, p. 3.
- 25 *China Times*, December 21, 1997, p. 1.
- 26 Although former Command-in-Chief Admiral Kuang-kai Liu had an informal phrase of “engage when encounter” when he was in office (1965), it nevertheless did not evolve as a dominant concept later. See Li Chang and Chin-ian Tseng, “Interview with Mr. Ting-pang Liu”, in Li Chang, Shou-cheng Wu, and Chin-ian Tseng, *Collected Reminiscences of People in ROC Navy*, Vol. 1, pp. 179–80.
- 27 Williamson Murray, “Innovation: Past and Future”, in Williamson Murray and Allan R. Millett (eds), *Military Innovation in the Interwar Period*, Cambridge: Cambridge University Press, 1996, p. 313.
- 28 Some assess that Taiwan will need NT 4–5 hundred billion Dollars to invest on Naval planned procurement in next 10 years. However, the ceiling of total procurement budget in the past 10 years was no more than NT 2 hundred billion Dollars. *China Times*, April 25, 2001, p. 2.
- 29 *China Times*, April 25, 2001, p. 2.