# China Maritime Report No. 9: Organizing to Fight in the Far Seas, The Chinese Navy in an Era of Military Reform 

Roderick Lee

Morgan Clemens

China Maritime Report No． 9

## Organizing to Fight in the Far Seas

The Chinese Navy in an Era of Military Reform
Roderick Lee and Morgan Clemens

## Summary

The People's Liberation Army Navy (PLAN) has been laying the organizational groundwork for far seas operations for nearly two decades, developing logistical and command infrastructure to support a "near seas defense and far seas protection" strategy. In the context of such a strategy, the PLAN's ability to project power into the far seas depends upon its ability to dominate the near seas, effectively constituting a "sword and shield" approach. Along with the rest of the PLA, the PLAN's peacetime command structure has been brought into line with its wartime command structures, and in terms of near seas defense, those command structures have been streamlined and made joint. By contrast, the command arrangements for far seas operations have not been clearly delineated and no one organ or set of organs has been identified as responsible for them. While this is manageable in the context of China's current, limited far seas operational presence, any meaningful increase in the size, scope, frequency, and intensity of far seas operations will require further structural reforms at the Central Military Commission and theater command levels in order to lay out clear command responsibilities.

## Introduction

China's progress towards developing a far seas (远海) navy is not exclusively defined by its growing order of battle. The ability to conduct effective blue-water operations also requires an organization designed to employ forces out of area. In recent years, the Chinese military has undergone major organizational reform. While primarily intended to improve the ability of the People's Liberation Army (PLA) to conduct joint operations within the first island chain, the reform also has implications for naval operations outside of East Asia.

This report argues that in order to execute a "near seas defense and far seas protection" strategy, the PLA has taken a two-pronged approach to reforming its forces. On the one hand, the PLA has dramatically strengthened control and employment of its forces in the near seas. On the other, the PLA has also made several changes that set the foundations for far seas operations. This tandem approach acts in some ways as a "sword and shield," wherein a consolidated defensive position in the near seas allows offensive forces to project out into the far seas.

The report comprises four main parts. First, we discuss the challenges that PLA reform and PLA Navy (PLAN) strategy intend to resolve. Second, we highlight key organizational developments within the PLAN that preceded China's military reform. Third, we outline the primary focus of the reform-i.e., strengthening the PLA's ability to conduct joint operations in the near seas-and examine how this goal has impacted the organizational structure of the PLAN. Lastly, we discuss the known facts of command and control of PLAN forces operating in the far seas.

## The Larger Context of Organizational Reform

As part of the broader process of military reform, the Central Military Commission (CMC) has sought to address the following challenges:

1. An inadequate leadership management system
2. An inadequate joint operations command system
3. Sub-optimal structure of the People's Armed Forces
4. Antiquated policy system

5．Inadequate civilian－military integration ${ }^{1}$
Beijing seeks to modernize the People＇s Armed Forces（including the PLA）to win informatized wars and fulfill Party missions．${ }^{2}$ This entails successfully completing three＂great campaigns＂（三大战役）． The first great campaign sought to improve both the leadership management system and the joint operations command system for the People＇s Armed Forces．${ }^{3}$ The core of this campaign occurred from 2015－2017 and involved the creation of the new CMC structure and theater commands and reform of the services．Each of these three components is assigned distinct roles：the CMC provides overall management，the theater commands conduct operations，and the services engage in force construction（军委管总，战区主战，军种主建）．${ }^{4}$ Most notably，operational control over PLA forces is supposed to be managed through a＂CMC－Theater Commands－Units＂（军委—战区—部队）command chain．${ }^{5}$

The second＂great campaign，＂which started in 2016，realigned the PLA＇s structure to better meet current strategic requirements．It not only included adjusting manpower allocations across the PLA＇s services，but also the way units are structured．This effort comprised both＂neck up＂and＂neck down＂changes．＂Neck up＂changes refer to any changes made to the structure and disposition of the CMC，theater commands，and service headquarters．＂Neck down＂changes refer to changes made to units at the corps level and below．

The third＂great campaign＂involved reform of＂policy．＂If one compares the PLA to a computer system，changes made through the first two reform campaigns were focused on modernizing the hardware of the system．However，the software must also be updated．Changes to＂policy＂include reform of personnel management，training，promotion requirements，education，and other less tangible issues．Although these are critical to creating a far seas navy，such changes fall outside the purview of this report．

By late 2018，the PLA viewed itself as having largely completed the first and second of the＂great campaigns．＂${ }^{8}$ However，the third campaign of policy reform is still not complete．These reform objectives are to be completed by 2020，creating a PLA that，according to the $19^{\text {th }}$ Party Congress work report，is fully mechanized and making significant strides towards being informatized．

[^0]
## Earlier Reforms within the PLAN

The 2015 reform is $a$ driving force for changes in the PLAN，but it is not the only force at play．In reality，the PLAN and other services are constantly undergoing structural changes，and the majority of changes in the PLAN that occurred during the＂neck down＂phase of reform can actually be traced to PLAN structural changes predating the 2015 reform．Although the strategy of＂near seas defense and far seas protection＂（近海防御，远海护卫）was officially adopted in 2015，the PLAN has been moving towards this strategy since 2004．${ }^{9}$ In accordance with then－CMC chairman Hu Jintao＇s guidance，the PLAN embarked on a strategic development phase during which it shifted from a force built around a＂near seas defense＂strategy towards a force capable of executing the anticipated＂near seas defense and far seas protection＂strategy．${ }^{10}$

## The 2004 Base Reform

The first major structural shift occurred at the beginning of this strategic development phase．The PLAN transferred control over first－line combatants and support ships from eight operational bases to the three fleet headquarters．${ }^{11}$ These eight bases had controlled most PLAN maritime forces within a designated sector of the Chinese coastline．Although this structure was suitable for near seas and littoral operations，it limited the PLAN＇s ability to employ forces on a larger scale．After the change， the operational bases were downgraded to corps－deputy leader grade support bases that would provide logistics and equipment support while defending the near seas and littoral regions．${ }^{12}$ While realignment of the PLAN＇s major surface and submarine units under the fleet headquarters freed these units from the geographic tyranny of the eight－base structure，this left the PLAN with a residual problem of how to manage defensive operations，logistics，and equipment support．This problem would remain unresolved until 2017，although the PLAN made numerous efforts to address these structural issues．

## Restructuring for Carrier Task Groups

The commissioning of aircraft carrier Liaoning in 2012 is the most obvious inflection point in the PLAN＇s trajectory towards becoming a far seas navy．However，three other critical but less visible milestones in the PLAN＇s carrier program occurred at roughly the same time．The first came in 2011， with the creation of its first aircraft carrier task group．${ }^{13}$ This corps－deputy leader grade organization was the PLAN＇s first permanent task－oriented unit，and it would set a precedent for how the PLAN would organize its aircraft carrier force．${ }^{14}$

[^1]The second milestone was the creation of the comprehensive support base（综合保障基地）．${ }^{15}$ Created in 2012，the first comprehensive support base was subordinate to the North Sea Fleet（later the Northern Theater Navy）and had the explicit role of providing shore support for the aircraft carrier and its formation．${ }^{16}$

Lastly，in 2013 the PLAN created an organizational structure for its carrier aviation forces．The PLAN stood up a division grade aircraft carrier testing and training base and carrier－embarked aviation unit．${ }^{17}$ Notably，these units do not to appear be subordinate to a fleet headquarters，but it is unclear to whom they do report，whether PLAN headquarters，a theater command headquarters，or even the CMC directly．

## The Requirements for Near Seas Defense and Far Seas Protection

The changes the PLAN made from 2004－2014 were ultimately half－measures likely intended to test various concepts．On the eve of the PLA＇s reform in 2015，the PLAN＇s organizational transformation into a force capable of executing a strategy of near seas defense and far seas protection was incomplete．Both the 2013 Academy of Military Science and 2015 National Defense University editions of Science of Military Strategy identified additional requirements and changes that the PLAN needed to enact in order to be able to execute its designated tasks：${ }^{18}$
－Southward shift of the center of gravity
－Strong offshore defensive zone from which to radiate outward
－Aircraft carrier formations（and nuclear submarines）
－Slimmed down command structure
－Reduced command layers
－Task－based units
－Intelligence，reconnaissance，and surveillance in the distant seas
－Forward logistics capabilities
The changes outlined in these publications foreshadowed the subsequent reforms the PLAN enacted during the＂neck down＂reforms in 2017．However，some requirements saw fuller implementation than others．

[^2]
## The Shield－Organizing for Joint Operations in the Near Seas

Although the PLAN＇s ability to operate in the far seas is the focus of this report，one of the most significant challenges for the PLAN in conducting far seas operations is the ability to get there in the first place．The first island chain is an enormous barrier for Chinese maritime operations，and the ability to operate outside of that barrier is presupposed on the ability to first operate with impunity inside that barrier．As identified in the 2013 Science of Strategy，a＂large maritime defensive zone＂ that creates a favorable posture for operations inside the first island chain also allows for operations to radiate outwards．${ }^{19}$

As such，the vast majority of the structural and command changes within the PLA focus on establishing maritime control inside the first island chain，thereby creating a defensive shield around the homeland．This is accomplished through improvements in several organizational areas．First，the PLA created a joint command structure oriented towards operational mission requirements rather than the services．Second，the PLA built a permanent and robust shore－based command bureaucracy that replicates a wartime command structure．Third，the PLAN improved command efficiency by reducing the number of command layers．Lastly，the PLAN improved the quality of support organizations in the Southern Theater to ensure the necessary infrastructure to radiate southward．

## Joint Coverage through Theater Commands

The CMC＇s establishment of joint theater commands and theater command joint operations command centers has enabled the PLA to reliably plan and command joint operations for the first time．This ability to conduct joint operations is especially useful within the first island chain，given the wide range of forces that the PLA has available to use in the near seas．

The theater service components＇command responsibilities are nested within the theater joint command structure．${ }^{20}$ Theater service command centers，which are co－located with the theater service headquarters，have command authorities over all PLA forces within their primary operational domains．For example，a theater navy command center has operational control authorities over all PLA forces conducting maritime operations－not just PLAN forces．Although news sources only identify three theater domain command elements，presumably this construct exists across all five theaters and across multiple domains．Exhibit 1 illustrates the relationship between the Theater Command Joint Operations Command Center and the theater domain command elements．Exhibit 2 lists the known theater domain command entities．

[^3]Exhibit 1．The Relationships between the Theater Command Joint Operations Command Center and the Theater Domain Command Elements


Exhibit 2．Known Theater Domain Command Entities

| Organization | Concurrent Domain Command |
| :--- | :--- |
| Eastern Theater Navy Command Post | Theater Maritime Command Sub－Center（战区海上指挥分中心）${ }^{21}$ |
| Western Theater Air Force Command Post | Theater Air Operations Command and Control Center（战区空中 <br> 作战指挥中心） <br> Possible PLA Rocket Force $63^{\text {rd }}$ Base |
| Theater Conventional Missile Command Sub－Center（战区常导弹 <br> 指挥分中心） |  |

The available Chinese press reporting on the maritime operations and conventional missile command sub－centers suggests that these entities have the authority to command units of other services within their respective theater commands in order to accomplish relevant missions．For example，the Theater Maritime Command Sub－Center can call upon PLA Air Force（PLAAF）aircraft to provide cover for submarine operations，whereas previously it could only rely on navy assets．${ }^{24}$

The maritime command sub－center＇s ability to leverage PLA Ground，Air，and Rocket Forces for maritime－focused campaigns maximizes the total effectiveness and efficiency of the maritime force． This is especially the case out to a range of 500 km from the Chinese coastline，or roughly within the first island chain，where the advantages of land－based air defense，missiles，and intelligence，

[^4]surveillance，and reconnaissance（ISR）platforms are most pronounced．${ }^{25}$ While joint operations were still possible pre－reform era，it would have been far more difficult to accomplish due to lack of training and familiarity with a truly joint system．

## Building Out a Permanent Shore Command Structure

Supporting this theater maritime operations command authority is a reformed regional maritime command structure beneath the theater level．This new permanent command structure reduces the chance of initial inefficiencies that are typical when an organization transitions from a peacetime to wartime command structure．Prior to the 2015 structural reform，the PLA intended to stand up wartime command entities upon mobilization．${ }^{26}$ Although some peacetime command elements such as bases and maritime garrison districts（MGDs）did exist，the arrangement was overcomplicated and inconsistent．${ }^{27}$ The aforementioned creation of a theater joint operations command center and domain command centers was an integral first step in this process of reducing the risks associated with a wartime command transition．However，the PLAN also took steps to create a permanent command structure at lower levels．

As part of the＂neck－down＂reforms first announced at the April 2017 ＂ 84 Corps＂ceremony，the PLAN consolidated all command and control functions of near seas maritime operations under six new operational bases．${ }^{28}$ These corps－deputy leader grade bases command PLAN forces oriented towards near seas defense missions，including frigates，fast attack craft，mine warfare craft，and coastal defense cruise missiles．${ }^{29}$ The bases were also assigned a new role as standing＂basic campaign command organizations＂（初级战役指挥机关）．${ }^{30}$ This replaced a confused fleet／base－ MGD－units structure in which some of the one dozen MGD＇s appeared to report to bases，while others reported directly to the fleet．

One overlooked element of command and control is logistics．The PLA differentiates＂logistics＂（后勤保障）and＂equipment support＂（装备保障），and this distinction exists at both the CMC and service level wherein there are two separate departments．However，at the theater service level，the PLA merged them into a single＂support department＂（保障部）．${ }^{31}$ This not only consolidated material

[^5]support responsibilities into a single entity，but it also created a rough command equivalent for wartime．According to Lectures on Joint Operations Command Organ Work，there is no distinction between＂logistics command posts＂（后勤指挥所）and＂equipment command posts＂（装备指挥所）．${ }^{32}$ Instead，these functions are consolidated under a＂support command post＂（保障指挥所）．The creation of theater navy support departments also spawned＂theater navy support department command posts＂（战区海军保障部指挥所）．${ }^{33}$ This created a peacetime equivalent to the wartime support command posts．

## Streamlining Command and Control

In addition to building a robust command structure，the PLAN also reduced command inefficiencies wherever possible．Through the process of reshuffling and downgrading its forces，the PLAN eliminated a dozen division leader grade headquarters and an even greater number of regiment leader grade headquarters．This process flattened the command structure for both maritime forces and aviation forces．The virtual elimination of the MGD command structure streamlined near seas defense operations under the six new bases．Before reform，a series of a dozen division－grade MGDs acted as intermediary command entities for maritime forces．However，through the creation of the six bases，these MGDs were disbanded，and their assets resubordinated directly under the bases．${ }^{34}$ In doing so，the PLAN eliminated a full command layer，thus improving the flow of information across echelons．This process also reduced the span of control at the fleet level，as now all maritime forces were subordinate to the new bases．A similar process occurred in naval aviation．All fighter and fighter－bomber regiments were disbanded，and their subordinate flight groups were placed directly under aviation brigades．${ }^{35}$ This process accomplished a similar flattening of the command structure by removing the regiment level of command for combat aircraft．

## Shifting South

The PLA＇s vague reference to＂shifting the center of gravity to the south＂is likely a signal that the PLAN will strengthen its relative force posture in the Southern Theater area of operations．While only a small part of the larger PLA reforms，changes to the PLAN＇s infrastructure in the Southern Theater will provide a jumping－off point for operations in the Pacific and Indian Oceans．Although the PLAN did not create new organizations or relationships，it modernized its support organizations to support far seas operations．China views much of its maritime access as being blocked by U．S． allies，with South Korea，Japan，Taiwan，and the Philippines forming a geopolitical barrier impeding far seas operations．When geopolitical constraints are combined with the geography of the first island chain，which limits the number of submarine transit lanes into the Pacific and Indian Oceans，the best access in a wartime environment is through the South China Sea．

PLAN maritime and aviation support infrastructure in this region is undergoing a major modernization．Aside from the dramatic land reclamation and military construction in the Spratly Islands，PLAN facilities on Hainan are also quietly being modernized．Based on open source imagery，the Southern Theater Navy Comprehensive Support Base immediately east of Yulin is currently building a large dry dock capable of accommodating an aircraft carrier．Lingshui Airfield

[^6]Station is also undertaking a large construction project that likely includes an additional runway and aircraft shelters designed for fighter－sized aircraft．Both of these projects suggest the development of a support infrastructure on Hainan that is capable of supporting aircraft carrier operations．${ }^{36}$

## The Sword－Organizing for Far Seas Naval Operations

The PLAN also operates in the far seas，giving Chinese leaders options for more proactive measures in both war and peace－in essence，serving as the＂sword＂to＂shield＂erected in the near seas． Although the reforms clarified operational and administrative control over most PLA forces，how the PLA commands forces deployed beyond China＇s immediate periphery remains less certain．Each Theater Command now clearly has operational control over naval forces within its area of responsibility（AOR），but the actual geographic bounds of Theater Command AORs are unlikely to span the globe．

In peacetime，the Theater Commands and their naval components play some role in far seas training and thus presumably operations by extension．For instance，in January 2019 the PLAN＇s Task Force 174 （consisting of a destroyer，frigate，amphibious transport dock，and replenishment ship）undertook a month－long training cruise in the South China Sea and Western and Central Pacific，functioning as a＂far seas joint training task force＂（远海联合训练编队）．${ }^{37}$ It was also described as the＂Southern Theater Command Navy far seas joint training task force＂（南部战区海军远海联合训练编队）．${ }^{38}$ The cruise required the＂training task force command post＂（训练编队指挥所）to cooperate with the command organs of the Southern Theater Command，the Southern Theater Command Navy，the Southern Theater Command Air Force，and the PLA Rocket Force（PLARF），in order to further＂far seas oceanic combat system construction＂（远海大洋作战体系构建）．${ }^{39}$ Thus，the exercise was expressly designed to build the Theater Command＇s capacity to control and direct some joint far seas operations．

PLA press described the event as a＂routine element of the Theater Command Navy＇s annual plan＂ （战区海军年度计划内的例行性安排），implying that the operational skills，capacities，and practices that such activities seek to build are themselves viewed as inherent to the role of Theater Commands and their service component organs．${ }^{40}$ In addition，the exercise was described as a test of the ＂wartime command system＂（战时指挥系统）${ }^{41}$ ，indicating that far seas joint operations commanded by Theater Commands are an inherent element of wartime operations．The fact that the task force apparently operated in the Central Pacific，beyond even the second island chain，gives some indication of how Theater Command authority may extend to the far seas，though not its outer bounds．

[^7]Conversely，there is little evidence to suggest that the PLAN counterpiracy task group in the Gulf of Aden is commanded through the Theater Command structure．This begs the question，who commands naval forces operating outside of Theater Command AORs？At first glance，the Joint Staff Department Operations Bureau＇s Overseas Operations Division（frequently referred to as the Overseas Operations Office）appears to be a plausible match to command and control such forces in the far seas．However，its status as an administrative office and its relatively junior grade（division grade）rule this out．Indeed，the only sensible option for commanding far seas and overseas operations outside of the Theater Command structure is some entity operating more directly under CMC authorities，giving rise to several possibilities．One option is for far seas operations to be commanded directly by the CMC＇s Joint Operations Command Center．A second possibility is that PLAN Headquarters Operations Command Office（海军作战指挥室）commands such operations through CMC authorities．A third possibility is that the mysterious Navy Special Activities Command and Control Group（海军专项行动指控组）${ }^{42}$ commands and controls PLAN operations occurring outside Theater Command AORs．Unfortunately，there is no substantive evidence available to suggest which of these is most likely．

Ultimately，the further one moves from away from China geographically，the less clear naval command responsibilities become．While naval training task forces do operate under Theater Command control in nominally far seas contexts，there are limited indications that Theater Command authority extends beyond this point，especially for naval forces．CMC organs or the PLAN headquarters could exercise command and control in such contexts，but this will not prove a workable solution in the long run if or when China＇s overseas military presence expands in scope and intensity．This is especially the case if China intends to engage in more than counterpiracy and humanitarian operations in places such as the Indian Ocean and Middle East，as the concomitant increases in the span of control would likely over－burden CMC－level organs．

## Conclusion

The PLA＇s ongoing reforms serve to bring its organizational structure more in line with the evolving strategic outlook it has been professing for nearly two decades．For the PLAN，these organizational changes have had their greatest impact on its capacity for near seas operations．As befits China＇s broader national strategy，the PLA and the PLAN have been reconfigured primarily to suit the task of fighting and winning a regional war fought in China＇s immediate maritime near－abroad．

In the context of far seas operations，the primary benefit to the PLAN of recent organizational and structural changes has been to lay the groundwork for future capabilities，rather than the direct development of such capabilities themselves．As other analysts have noted，further structural reforms and innovations will be required at the command level before the PLA can undertake large－scale overseas operations in non－permissive environments．${ }^{43}$ The reforms to date have strengthened the PLA＇s ability to achieve air and sea control within the first island chain－a prerequisite for major far seas naval operations in wartime．The PLA has also created a modest foundation for limited operations outside of the first island chain by establishing some command and control relationships for far seas missions．

[^8]Nonetheless, in order to effectively sustain high-intensity operations in the far seas, the PLA will either have to scrap its mainland-centric command structure or carve out additional theater-level commands focused exclusively on operating forces beyond China's immediate periphery. It is likely that such a change will happen organically and progressively as the PLA and PLAN continue to garner further experience with the practical realities of far seas operations. While the PLA and PLAN may be working to an envisioned end-state, it is likely that we will see an evolution through multiple command arrangements over a period of a decade or more as the Chinese military eases itself into larger and more complex operations overseas. Given that China continues to face a comparatively benign security environment in historical terms, the PLA will likely have the time to work its way through the problems of far seas command and control. Of course, should that security environment radically change for the worse, then all bets are off as to both the speed with which the PLA's overseas command and control structure is developed as well as the PLA's relative priority on far seas operations.


#### Abstract

About the Authors Roderick Lee is the Director of Research at the Air University's China Aerospace Studies Institute (CASI). Prior to joining CASI, he served as an analyst with the United States Navy covering Chinese naval forces. He earned his Master of Arts degree from The George Washington University's Elliott School of International Affairs.


Morgan Clemens is a Senior Research Analyst in SOS International's Defense Intelligence Group, where his work focuses on the Chinese military and defense industry. He holds a master's degree in Asian studies from George Washington University's Elliott School of International Affairs and a bachelor's degree in history and government from the College of William and Mary.


[^0]:    ${ }^{1}$ 周俊杰［Zhou Junjie］，坚定不移深化国防和军队改革［＂Unswervingly Deepening National Defense and Military Reform＂］，中国军网［China Military Online］，December 20，2018，www．81．cn／theory／2018－12／20／content＿9383444．htm．
    ${ }^{2}$ Ibid．
    ${ }^{3}$ 戴上程［Dai Shangcheng］，坚信！军队改革＂第三场战役＂的胜利就在前方［＂Firmly Believe！The Victory of the ‘Third Campaign’ of Military Reforms is Ahead’］，中国军网［China Military Online］，November 20，2018， www．81．cn／jwsj／2018－11／20／content＿9350645．htm．
    ${ }^{4}$ 鹤鸣［He Ming］，习近平半天换了两件军装，有何深意［＂Xi Jinping Changes Two Uniforms in a Day，What Does it Mean？＂］，中国军网［China Military Online］，www．81．cn／xue－xi／2018－10／27／content 9324627．htm．
    ${ }^{5}$ Ibid．
    6 薛亚［Xue Ya］，军队＂脖子以下＂的改革如何科学定编［＂Scientifically Formulate Military Reforms＇Below the Neck＇＂］，中国军网综合［China Military Network］，January 12，2017，www．chinamil．com．cn／jmywyl／2017－ 01／12／content＿7448394．htm．
    ${ }^{7}$ Dai Shangcheng，＂Firmly Believe！The Victory of the＇Third Campaign＇of Military Reforms is Ahead．＂
    ${ }^{8}$ Ibid．

[^1]:    ${ }^{9}$ China’s Military Strategy，Ministry of National Defense of the People’s Republic of China，May 25，2015， www．mod．gov．cn／regulatory／2015－05／26／content 4617812．htm．
    ${ }^{10}$ 寿晓松［Shou Xiaosong］，ed．，战略学［Science of Military Strategy］（Beijing：Academy of Military Science，2013），p． 208；军事科学院军事战略研究部［Academy of Military Science Military Strategy Research Department］，军种战略学 ［Science of Service Strategy］（Beijing：Academy of Military Science，2005），p． 210.
    ${ }^{11}$ Kevin Pollpeter and Kenneth W．Allen，eds．，＂The PLA as Organization v2．0，＂2015， www．airuniversity．af．edu／Portals／10／CASI／Books／PLA＿as＿Organization＿v2．pdf？ver＝2018－07－27－092912－833．
    ${ }^{12}$ Ibid．
    ${ }^{13}$ 夏志军，章新华，钱海民［Xia Zhijun，Zhang Xinhua，and Qian Haimin］，舰艇编队协同规避自导鱼雷攻击方法［＂Ship Formation Coordination and Avoiding Guided Torpedo Attack Method＂］，舰船科学技术［Ship Science and Technology］， No． 5 （2011），p．1．One of the authors of this article is associated with 91181 budui，which is the military unit cover designator of the PLAN＇s $1^{\text {st }}$ Carrier Task group．
    ${ }^{14}$ In 2017，the PLAN created its second aircraft carrier task group，known officially as 91910 budui。解放军晋衔大幕拉开海军 1 人升中将 14 人升少将［＂The PLA Promotes One Navy Vice Admiral and 14 Major Generals＂］，DWNews，July 28，2018，http：／／news．dwnews．com／china／news／2018－07－28／60073888．html．

[^2]:    15 康凯，鲍骏，王炳荣［Kang Kai，Bao Jun，and Wang Bingrong］．雷弹保障：在深山洞库中搭台摆擂［＂Torpedo Support： Set Up a Station in a Deep Cave＂］，中国海军［PLA Navy］，October 23，2012， https：／／web．archive．org／web／20121027203107／http：／／navy．81．cn／content／2012－10／23／content＿5063208．htm．
    16于海峰［Yu Haifeng］，回望 2013 之十二：我自豪我把辽宁舰迎进战略母港［＂Looking back on the $12^{\text {th }}$ of 2013：I am Proud to Usher Liaoning Ship into the Strategic Port＂］，海军新闻［Navy News］，December 28，2013， http：／／navy．81．cn／content／2013－12／28／content 5709722．htm．
    ${ }^{17}$ 习近平视察舰载机训练基地和辽宁舰航母［＂Xi Jinping Inspects Carrier－Based Aircraft Training Base and Liaoning Ship＂］，新浪新闻［Sina News］，August 31，2013，http：／／slide．mil．news．sina．com．cn／slide＿8＿203＿25642．html．
    ${ }^{18}$ Shou Xiaosong，Science of Military Strategy，p．214；肖天亮［Xiao Tianliang］，ed．，战略学［Science of Military Strategy］（Beijing：National Defense Univ．Press，2015），pp．344－346

[^3]:    ${ }^{19}$ Ibid．
    ${ }^{20}$ 赵国涛，杨丹谱［Zhao Guotao and Yang Danpu］，联合指挥中心里的改革风雷［＂Thunder of Reform in the Joint Command Center＂］，解放军报［PLA Daily］October 11，2017，http：／／www．81．cn／jfjbmap／content／2017－ 10／11／content＿189508．htm．

[^4]:    ${ }^{21}$ 刘亚迅［Liu Yaxun］，东海舰队适应新体制提升联合作战能力的启示［＂East Sea Fleet Enlightens to the Adoption of New System to Improve Joint Operational Capabilities＂］，人民海军［People＇s Navy］，October 21，2017，p． 4.
    ${ }^{22}$ Ibid．；CCTV－7，军事报道［ Military Report］，May 7， 2018.
    ${ }^{23}$ 韩兴邦，刘亚［Han Xingbang and Liu Ya］，火箭军部队紧跟改革进程深入推进实战化训练［＂PLA Rocket Force Follows Reform Process and Further Advances Realistic Combat Training＂］，火箭军报［Rocket Force News］，November 15，2017，p． 2.
    ${ }^{24}$ Liu Yaxun，＂East Sea Fleet Enlightens to the Adoption of New System to Improve Joint Operational Capabilities．＂

[^5]:    ${ }^{25}$ Stephen Biddle and Ivan Oelrich，＂Future of Warfare in the Western Pacific：Chinese Antiaccess／Area Denial，U．S． AirSea Battle，and Command of the Commons in East Asia，＂International Security，vol．41，no． 1 （Summer 2016），pp．7－ 48.
    ${ }^{26}$ 张培高［Zhang Peigao］，联合战役指挥学教程［Lectures on the Science of Joint Campaign Command］，（Beijing： Military Science Press，2012）．
    ${ }^{27}$ 黄亮，曲德江，李丁［Huang Liang，Qu Dejiang，and Li Ding］，北海舰队某基地网络进舰连［＂Network of a Certain North Sea Fleet Base＂］，海军新闻［Navy News］，July 30，2012，http：／／navy．81．cn／content／2012－ 07／30／content＿4975789．htm．
    ${ }^{28}$ The＂84 Corps＂ceremony in April 2017 marked the beginning of major structural changes within the services．This ceremony identified 84 newly created or reorganized corps－grade entities in the PLA．The new roles and missions of these entities reflected broader changes within each service＇s structure．Zhang Tao，＂China Reshuffles 84 Corps Level Military Units，＂China Military Online，April 18，2017，http：／／eng．chinamil．com．cn／view／2017－04／18／content 7567179．htm．
    ${ }^{29}$ Roderick Lee，PLAN Order of Battle Database， 2018.
    ${ }^{30}$ 周启青［Zhou Qiqing］，南部战区海军某基地着力推动形成闭环回路［＂A Certain Southern Theater Navy Base Pushes the Formation of a Closed Loop Circuit＂］，人民海军［People＇s Navy］，March 27，2018，p．1．The term＂basic campaign＂ likely refers to the relatively simple nature and small scale of naval base defense campaigns．Larger and more complex campaigns such as island landing campaigns may be classified as＂high－level＂campaigns．
    ${ }^{31}$ 海军深化＂三讲三整顿＂专题学习教育的启示与思考［＂Enlightenment and Thoughts on the Navy Deepening the Study of＇Three Remarks＇and＇Three Reorganizations＇＂］，解放军报［PLA Daily］，April 16，2019， www．xinhuanet．com／mil／2019－04／16／c＿1210110628．htm．

[^6]:    32 袁文先［Yuan Wenxian］，联合作战指挥机关工作教程［Lectures on Joint Operations Command Organ Work］（Beijing：National Defense University Press，2008）．
    ${ }^{33}$ 刘传斌，杨阳［Liu Zhuanbin and Yang Yang］，南海舰队保障部融合地方资源提高保障能力［＂South Sea Fleet Support Department Integrates Local Resources to Improve Support Capabilities＂］，人民海军［People＇s Navy］，December 30，2017，p． 4.
    ${ }^{34}$ Ibid．；See also Roderick Lee，PLAN Order of Battle Database， 2018.
    ${ }^{35}$ Ibid．

[^7]:    ${ }^{36}$ Imagery of Yulin and Lingshui，Hainan，Google Earth，January 21， 2019.
    ${ }^{37}$ Ryan D．Martinson，＂China＇s Far Seas Naval Operations，From the Year of the Snake to the Year of the Pig，＂Center for International Maritime Security，February 18，2019，http：／／cimsec．org／chinas－far seas－naval－operations－from－the－year－of－ the－snake－to－the－year－of－the－pig／39745．
    38 南部战区海军远海联合训练编队紧贴实战练兵影像［＂Images of the Southern Theater Command Navy Far seas Joint Training Task Force＇s Actual Combat Training＂］，解放军报［PLA Daily］，February 19，2019，p．9．
    ${ }^{39}$ 港媒：中国海军远海训练测试＂联合指挥中枢＂［＂Hong Kong Media：Chinese Navy Far seas Training Tests ‘Joint Command Backbone＇＂］，环球时报［Global Times］，February 22，2019，https：／／mil．huanqiu．com／article／9CaKrnKijKb．
    ${ }^{40}$ 南部战区海军远海联合训练编队起航［＂The Southern Theater Command Navy Far seas Joint Training Task Force Sets Sail＂］，解放军报［PLA Daily］，January 18，2019，p．2．
    41 ＂Hong Kong Media：Chinese Navy Far seas Training Tests＇Joint Command Backbone＂＂

[^8]:    ${ }^{42}$ CCTV－7，军事报道［Military Report］，November 3， 2017
    ${ }^{43}$ See Philip C．Saunders，＂Beyond Borders：PLA Command and Control of Overseas Operations，＂Strategic Forum No． 306 （July 2020）for an up－to－date assessment of the overseas command and control issues confronting the PLA，and some speculative analysis on how they can and will be solved．

