

NIDS China Security Report 2022

The PLA's Pursuit of Enhanced Joint Operations Capabilities

Sugiura Yasuyuki

- The 1991 Gulf War prompted the Chinese People's Liberation Army (PLA) to begin full-scale research of joint operations premised on informatization. From around the mid-2000s, the PLA advocated the concept of integrated joint operations [*Yitihua Lianhe Zuozhan*, 一体化联合作战] (IJO).
- The Xi Jinping regime, inaugurated in November 2012, carried out the biggest PLA reforms since the founding of the People's Republic of China for realizing the IJO concept.
- The PLA reforms were set for completion in 2020.

▼ Purpose of this report

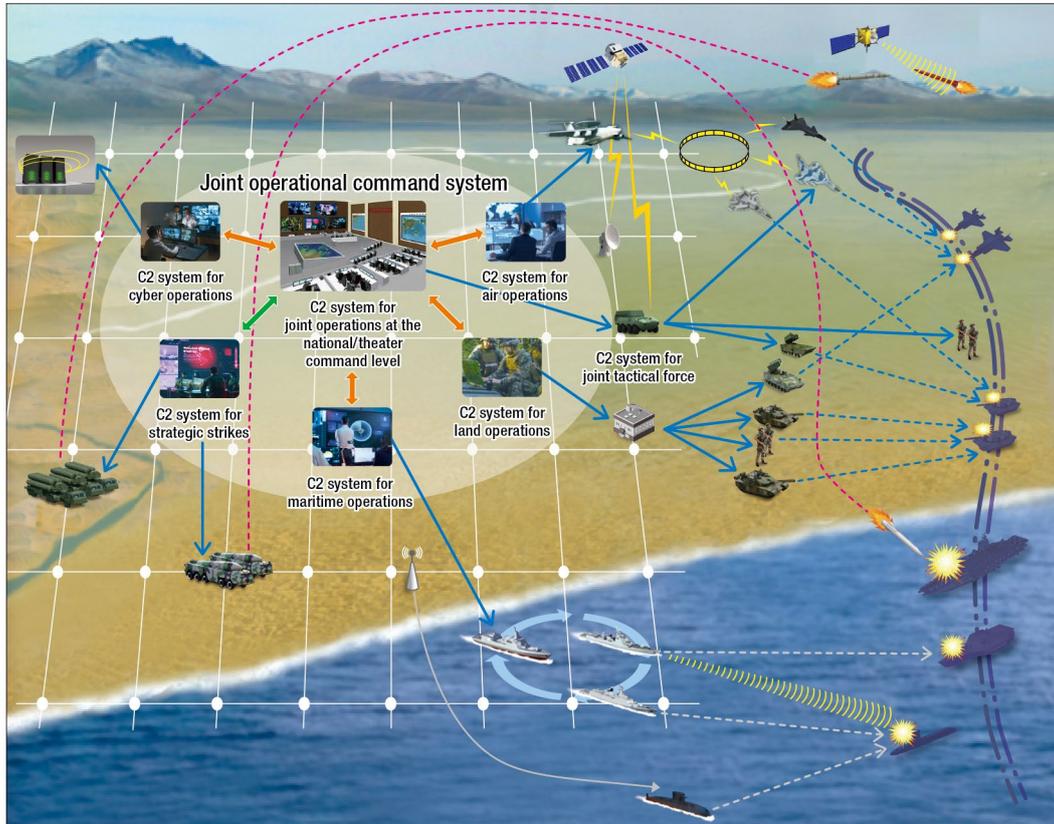
With the 2020 milestone year behind us, this report assesses the extent to which the PLA's joint operations capabilities have progressed since the 1990s from four perspectives: (1) the evolution of the concept; (2) the achievements of the joint operations structure established by the PLA reforms; (3) the development of joint operations training and education; and (4) the maintenance and strengthening of Party-Army relations.

This report carries out a multifaceted analysis and makes an accurate estimate of the PLA's joint operations capabilities

Chapter 1: Evolution of the PLA's Joint Operations Concept

- Based on the outcome of the Gulf War, the PLA started researching joint operations in earnest with informatized warfare in mind. From the mid-2000s, the PLA advocated the **IJO concept** and "**Information System-Based System of Systems Operational Capability**," and presented a joint operations concept that included traditional security domains (land, sea, and air) and new security domains (such as space, cyber electromagnetic, and cognitive domain). Meanwhile, during the Hu Jintao regime, the PLA's informatization was still in the initial stage. Therefore, the PLA set forth that, for the time being, the feasible joint operations were "joint operations under the conditions of informationization," which was based on the military doctrine of "local wars under the conditions of informationization." The joint operations capabilities of the PLA had not necessarily reached a sufficient level in the Hu Jintao era.
- The Xi Jinping leadership established "**informationized local wars**" as a military doctrine. Under this doctrine, the Xi leadership undertook large-scale military reforms in order to strengthen joint operations capabilities based on the IJO concept and "Information System-Based System of Systems Operational Capability."
- In October 2017, at the 19th National Congress of the Chinese Communist Party, Xi advocated the new concepts of "**Joint Operations Capability Based on Network Information Systems**" and "**All-Domain Operations Capability**" in order to deepen the IJO concept. The implementation of precision, stealth, and unmanned operations, as well as the gaining of information dominance, are positioned at the core of these concepts, **putting more pronounced emphasis on new security domains**.
- With "**intelligitized warfare**" proposed from 2019, the PLA is conducting ongoing research on new joint operations concepts, such as "**Multi-Domain Integrated Joint Operations**" and "**Joint Operations under the Conditions of Intelligitization**." These discussions include the possibility of further PLA reforms, such as the establishment of new military services and the implementation of bolder military reforms.

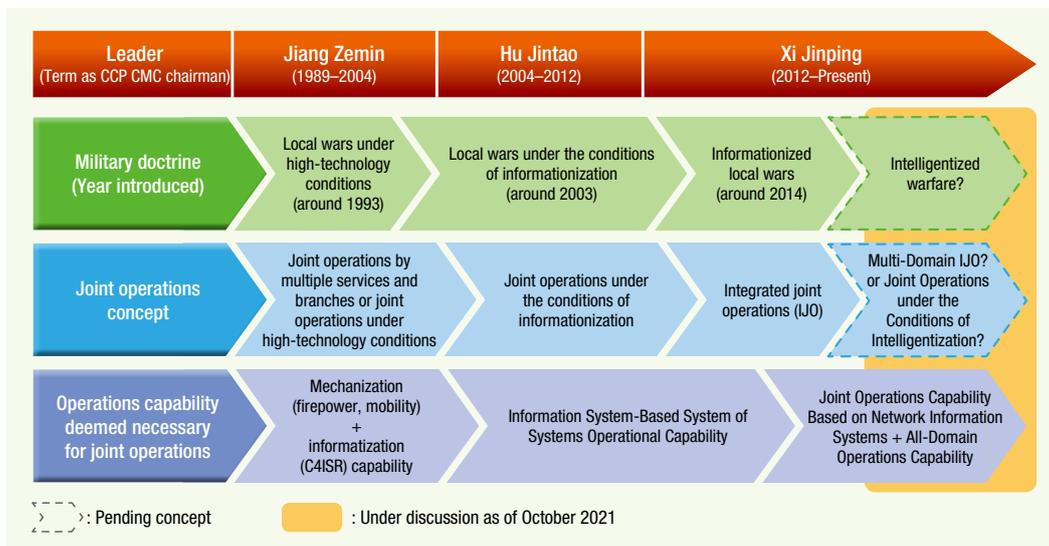
Conceptual Image of the PLA's IJO during the Xi Jinping Regime



↔: The C2 system for strategic strikes concerns the operation of nuclear assets and conventional warhead systems used for strategic targets, such as DF-21D, and is therefore considered to be under the command of the C2 system at the national level, not the theater command level.

Source: Compiled based on 蓝羽石、毛永庆、黄强 [Lan Yushi, Mao Yongqing, and Huang Qiang] et al., eds., 联合作战指挥控制系统 [Joint Operations Command and Control System] (Beijing: 国防工业出版社 [National Defense Industry Press], 2019), p. 12.

Conceptual Diagram of the Evolution of the PLA's Joint Operations Concept

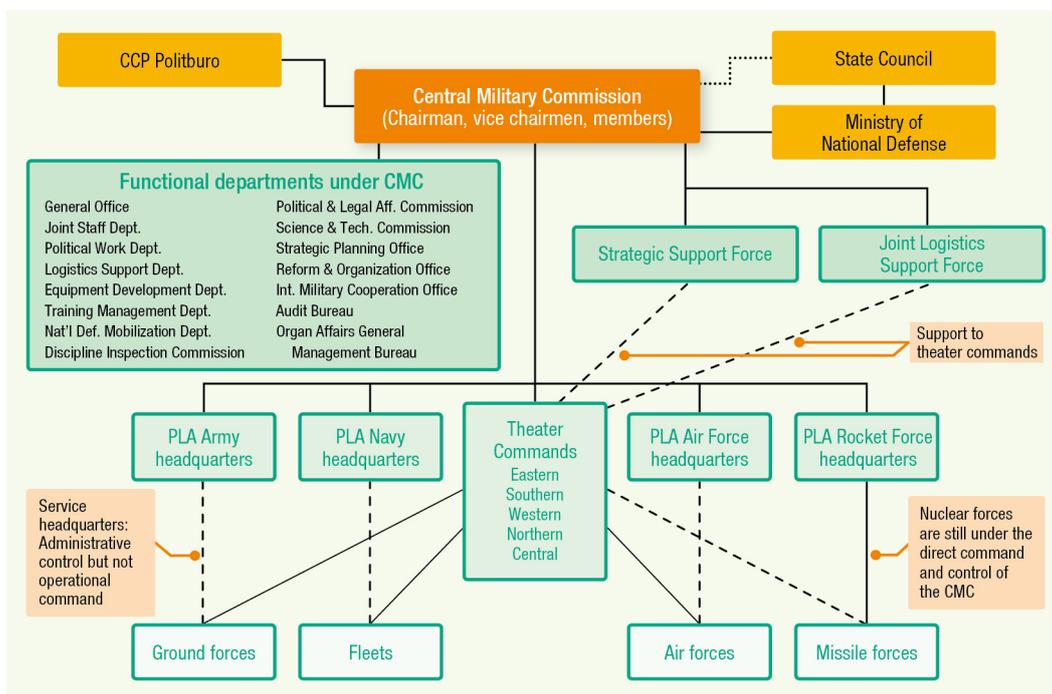


Source: Compiled by the author.

Chapter 2: The Reformed PLA's Joint Operations Structure

- The PLA carried out large-scale military reforms from the end of 2015 to 2016. The reforms were wide-ranging and included: (1) the dissolution of four general departments and the **launch of the multi-department system of the Central Military Commission (CMC)**; (2) the abolition of the seven military regions (MRs) and the **establishment of five theater commands (TCs)**; (3) the **creation of the PLA Army headquarters**; (4) the **upgrading of the PLA Second Artillery Corps to the PLA Rocket Force** and the **launch of the PLA Strategic Support Force and the PLA Joint Logistics Support Force**; and (5) the **expansion of the PLA Navy Marine Corps**.
- The PLA reforms **clarified the distinction between the operational chain of command (CMC-TC headquarters-operational units) and the administrative chain of command (CMC-service headquarters-operational units)**, based on the policy of “the CMC performs general management, the theaters are mainly in charge of operations, and the services are mainly in charge of force building” [*junwei guanrong*, 军委管总; *zhanqu zhuzhan*, 战区主战; *junzhong zhujian*, 军种主建]. Under this policy, TCs were described as “the only supreme joint operations command organization in their respective strategic directions.” The TCs have greater power and command and control (C2) authority than the MRs before the PLA reforms and have gained in importance.

PLA Organization Chart: After the Military Reforms



Source: Compiled based on Joel Wuthnow and Phillip C. Saunders, “Chairman Xi Remakes the PLA,” in Phillip C. Saunders et al., eds., *Chairman Xi Remakes the PLA: Assessing Chinese Military Reforms* (Washington D.C.: National Defense University Press, 2019), p. 6.

Newly Established Five Theater Commands

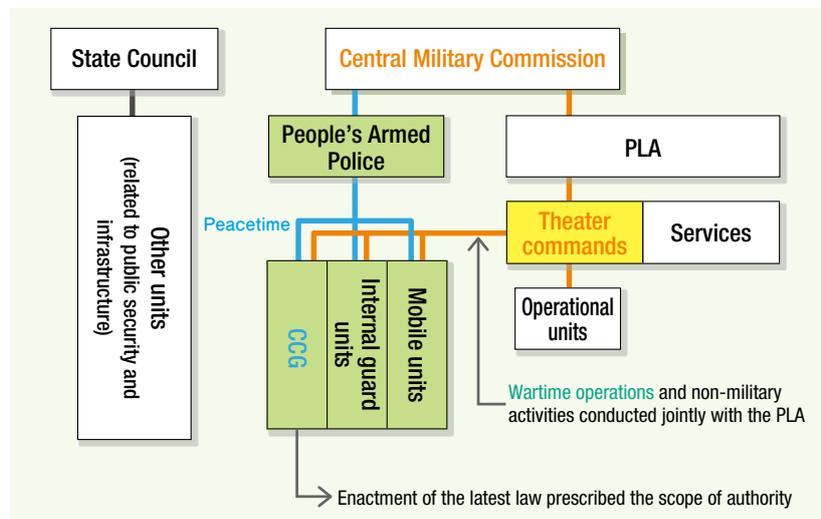


Notes: 1. 🚩 Theater Command headquarters ■ Theater Army headquarters ▲ Theater Navy headquarters
 2. Theater boundaries have not been officially announced. The above map was created based on U.S. Department of Defense reports, media reports, etc.

Source: Compiled based on Ministry of Defense of Japan, *Defense of Japan 2021* (Tokyo: Ministry of Defense of Japan, 2021), p. 66.

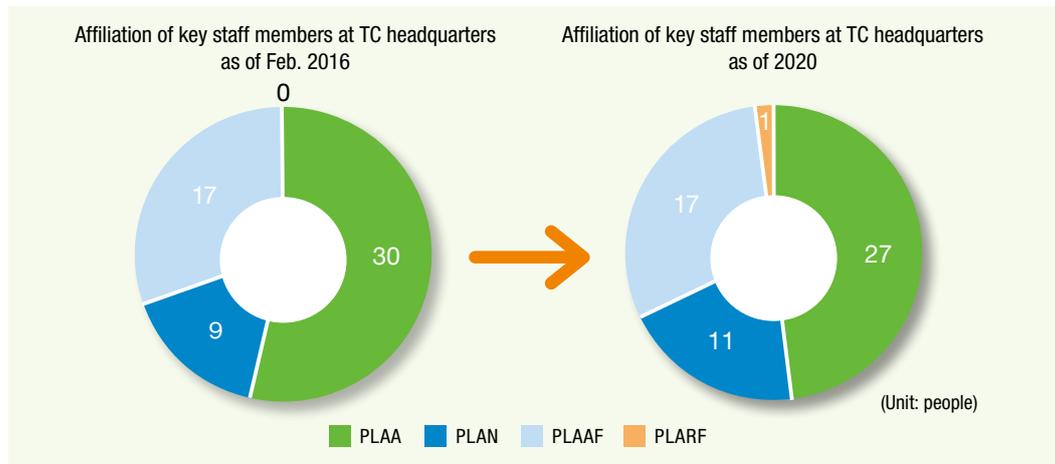
- As part of the PLA reforms, the C2 authority of the People's Armed Police (PAP) was centralized in the CMC, and the China Coast Guard (CCG) was placed under the PAP, **creating the new CMC-PAP-CCG maritime border security management system.**
- Enforcing the CMC chairman responsibility system **strengthened Xi Jinping's C2 authority over the PLA.** In addition, under Xi's leadership, **loyalty to Xi and joint operations were emphasized for selection of the PLA leadership.** Nevertheless, PLA Army personnel still dominate the TC headquarters.

CMC-PAP-CCG Chain of Command Following the Entry into Force of the Coast Guard Law



Source: Compiled based on the website of the Ministry of Defense of Japan.

Shift in Composition of Key Posts at TC Headquarters

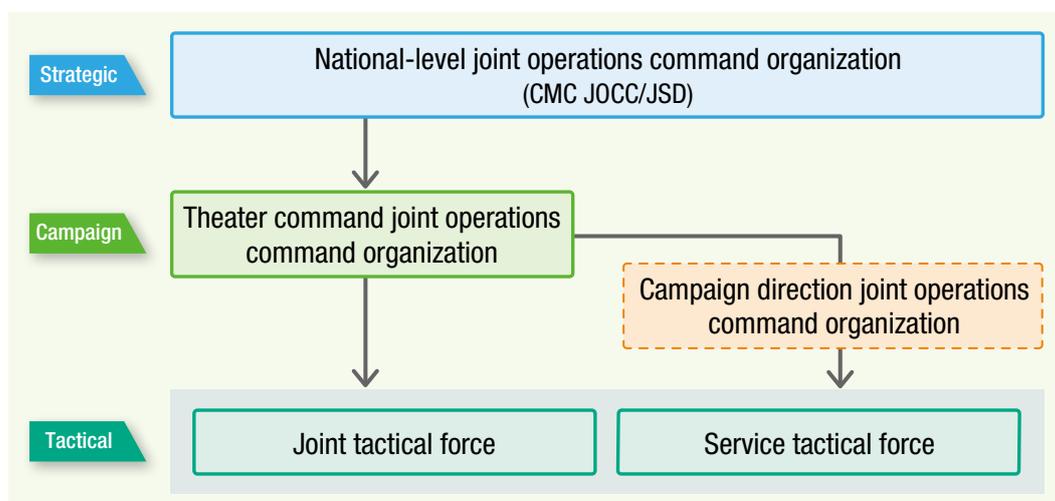


Note: Key posts at TC headquarters refers to commander, political commissars, deputy commanders (including TC chief of staff), and deputy political commissars (including director of the TC Political Work Department).

Sources: Compiled based on 中共研究杂志社 [Studies on Chinese Communism Publishing Co.], ed., 军改后共军重要领导人事评析专辑 [Collection of Evaluations of Important Leaders of the Communist Military after the Military Reforms] (Taipei: 中共研究杂志社 [Studies on Chinese Communism Publishing Co.], 2016), pp. 69-101; 中共研究杂志社 [Studies on Chinese Communism Publishing Co.], ed., 2020年共军事事专辑 [Feature: 2020 Communist Army Personnel] (Taipei: 中共研究杂志社 [Studies on Chinese Communism Publishing Co.], 2020), pp. 110-147.

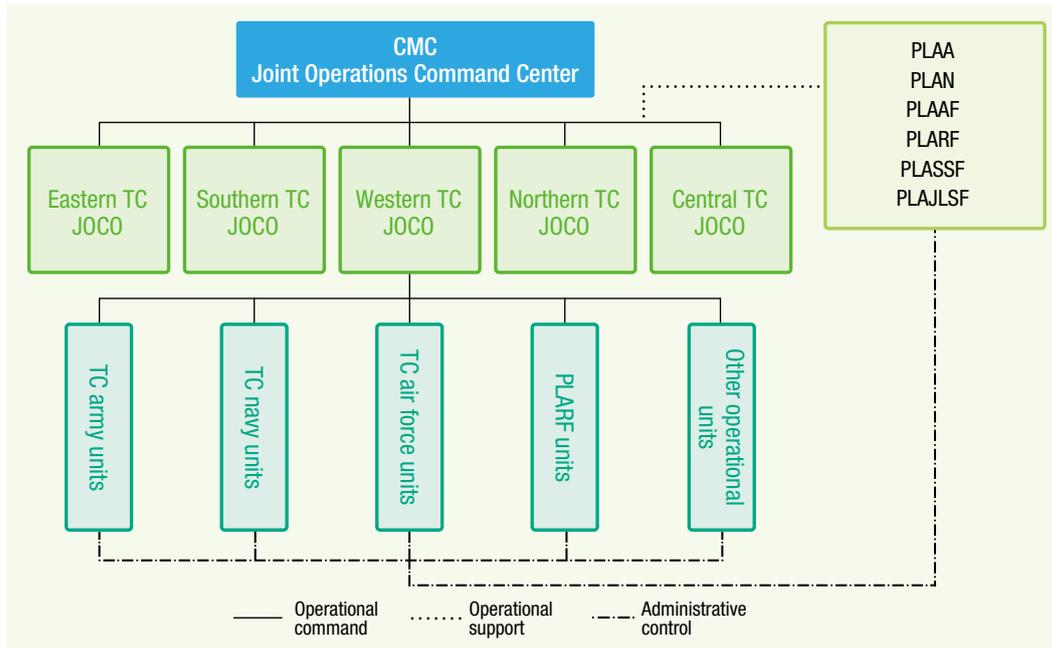
- With the formation of the standing CMC Joint Operations Command Center and TC Joint Operations Command Organizations, the PLA established a joint operations command structure for “unification of peacetime structure and wartime structure” [Ping Zhan Yiti, 平战一体]. In addition, the PLA has been developing C2 systems for joint operations, interconnecting them with the C2 systems of the military services and integrating them with the C2 systems of government organizations and the civilian sector.

The Layers of the PLA's Joint Operations Command Structure



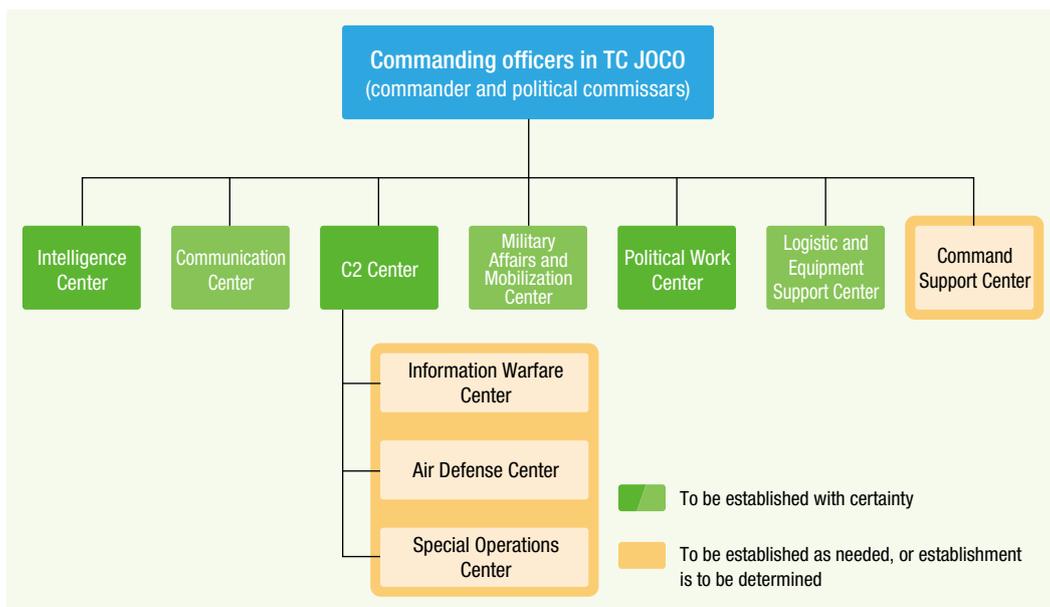
Sources: Compiled based on 谭亚东 [Tan Yadong], ed., 联合作战教程 [Lectures on Joint Operations] (Beijing: 军事科学出版社 [Academy of Military Science Press], 2013), pp. 88-92; 蓝羽石、毛永庆、黄强 [Lan Yushi, Mao Yongqing, and Huang Qiang] et al., eds., 联合作战指挥控制系统 [Joint Operations Command and Control System] (Beijing: 国防工业出版社 [National Defense Industry Press], 2019), p. 47.

The PLA's Joint Operations Command Structure



Source: Compiled based on 刘伟 [Liu Wei], ed., 战区联合作战指挥 [Theater Command Joint Operations Command] (Beijing: 国防大学出版社 [NDU Press], 2016), p. 340.

Internal Structure of Main Command Post of TC Joint Operations Command Organization

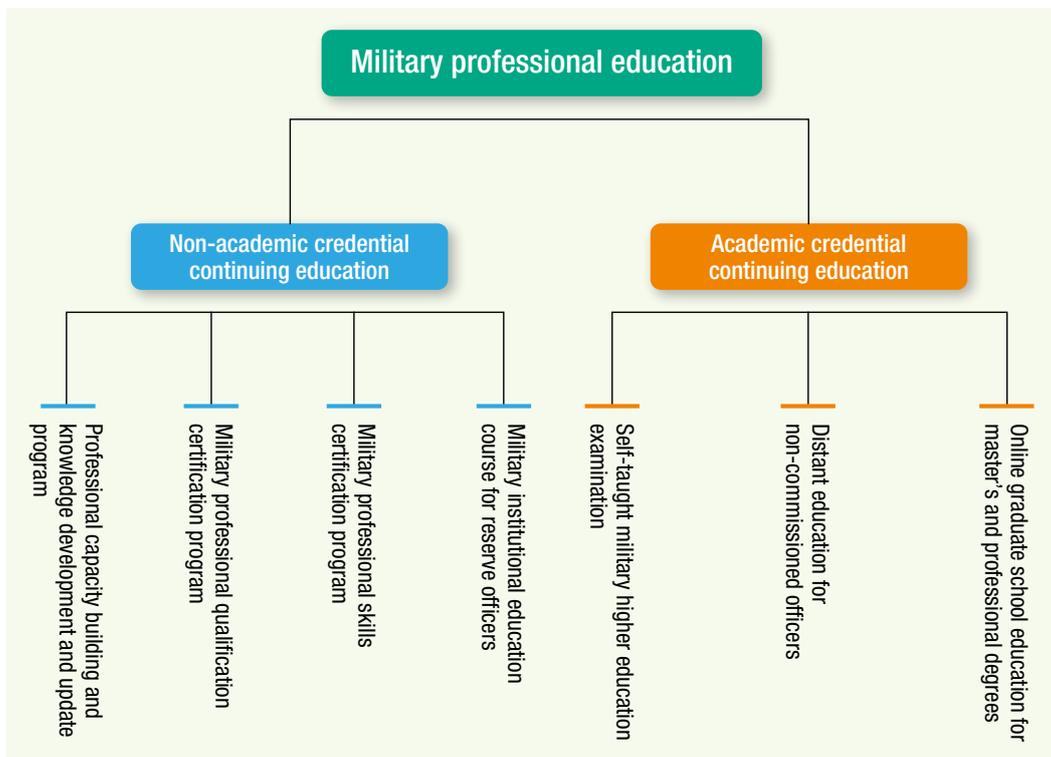


Sources: Compiled based on 刘伟 [Liu Wei], 联合作战指挥 [Joint Operations Command] (Shenyang: 白山出版社 [Baishan Publishing House], 2010), pp. 50-53; Liu, *Theater Command Joint Operations Command*, p. 82.

Chapter 3: The Transformation of Joint Operations Training and Talent Cultivation Programs through the PLA Reforms, and the Quest for Strengthening Party-Army Relations

- In accordance with Xi Jinping's instruction to become an army that is "ready to fight and win wars," the PLA further strengthened its joint operations training after the PLA reforms, **stepped up trainings in Taiwan's vicinity and in the South China Sea**, and is enhancing its capabilities for commanding joint operations in China-Russia joint exercises. Through a series of joint operations trainings, the PLA has especially **strengthened information sharing among the services and connecting their C2 systems**. In addition, the PLA improved the quality of trainings by strengthening the training supervision structure.
- In order to overcome the shortage of personnel for commanding joint operations, the PLA **developed the "triad" System for training new types of military personnel**, consisting of military institutional education, unit training practice, and military professional education (online education). The PLA National Defense University is the central academy for cultivating personnel for joint operations, and the joint operations personnel who have been trained at the university are assigned to operational units.
- The PLA sought to strengthen the education and training structure by **establishing and improving related documents, laws, and regulations**. In terms of training, the PLA updated the "Military Training Regulations" and the "Military Training Outline" and enacted the "Trial Guidelines on PLA Joint Operations." In terms of education, it enacted the "Military Education Policy in the New Era," the "Trial Regulations on the Education in Military Academies," and the "Trial Regulations on Military Professional Education for Armed Forces."
- As the PLA strengthens its joint operations structure, some scholars note that the traditional system for maintaining Party-Army relations will become a setback. To address this, the PLA **seeks the coexistence of the IJO concept and the maintenance and strengthening of Party-Army relations** by: (1) enforcing the "system of division of the leader's responsibilities under the unified collective leadership of the Party committee"; (2) focusing on military expertise and scientific and technological knowledge in the selection and cultivation of political officers; and (3) emphasizing the "Three Warfares" and promoting informatization in wartime political work.

Main Types of Military Professional Education



Source: Compiled based on *PLA Daily*, March 1, 2018.

List of Wartime Political Work

| Wartime political work | Description |
|--|--|
| Wartime publicity (propaganda) and education work | Conducts political mobilization and ideological education for the purpose of completing operational missions, and carries out wartime publicity activities to raise the morale of participants. |
| Wartime organization work | Organizes CCP and Chinese Communist Youth League groupings of the participating units, promotes military democracy, turns those who have made outstanding achievements into examples and commends them, selects heroes, and provides care for the wounded and sick soldiers. |
| Wartime cadre work | Makes personnel appointments, including selection of officers for war and the filling of vacant positions during a war. |
| Execution of the “Three Warfares” | Performs public opinion warfare, psychological warfare, and legal warfare. |
| Wartime mass work | Conducts mass mobilization at the local level including militias, conducts ideological and political work and discipline maintenance for mobilized personnel, and addresses masses and minorities in other countries during wartime. Forms militia units that provide information support to engage in cyber operations. |
| Wartime public security, procuratorial and judicial work | Guards key headquarters staff, performs political reviews, conducts counterintelligence activities, and prevents and deals with military crimes. |
| Wartime liaison work | Conducts intelligence activities, such as intelligence collection on the enemy, clandestine dismantling (infiltration) work, and the management, education, and return of prisoners of war. |

Source: Compiled based on 吴志忠 [Wu Zhizhong], ed., 战时政治工作教程 [*Lectures on Wartime Political Work*] (Beijing: 军事科学出版社 [Academy of Military Science Press], 2013), pp. 105-128.

Conclusions

- Since the 1990s, the PLA has advocated IJO, a concept with broad applicability, in order to adapt flexibly to the developments in U.S. military theories and science and technology. The PLA sought to **deepen the IJO concept by pursuing uniqueness, combining tradition (such as “Three Warfares,” military-civil fusion, and maintenance and strengthening of Party-Army relations) and innovations (such as emphasis on long-range precision attack capability, shift to new security domains, and intelligentized warfare).**
- Under the strong initiative of Xi Jinping, the PLA reforms developed a joint operations structure that can realize the IJO concept. In line with this, the PLA evolved its joint operations training and personnel cultivation programs and aimed to reconcile the effective execution of the IJO concept and the maintenance and strengthening of Party-Army relations.
- In the PLA reforms, the PLA accomplished many achievements in deepening its joint operations. Meanwhile, there still remain numerous challenges even after the reforms, such as: (1) **coordination of authority and roles among the CMC, TCs, and services;** (2) insufficient awareness of joint operations and service parochialism; (3) the formalism of joint operations training and coordination between the joint operations training led by the TCs and the training of the services and branches; (4) **difficulties with recruiting, cultivating, and retaining personnel skilled in science and technology;** and (5) **the nature of command authority and capability of political commissars.** Overcoming these challenges is expected to take time.
- The timetable for the PLA's modernization sets 2027, 2035, and 2050 as milestone years. In these years, **it will be important to estimate the joint operations capabilities of the PLA from multiple aspects,** paying attention not only to the increase in defense spending, introduction of new equipment, and statements and actions directed at other countries, but also to the PLA's joint operations concept, military reforms and the formation of an organizational culture, qualitative improvements in education and training and personnel, and Party-Army relations.

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The PLA's Pursuit of Enhanced Joint Operations Capabilities

Published by

The National Institute for Defense Studies

5-1 Ichigaya Honmura-cho, Shinjuku-ku, Tokyo 162-8808 Japan

Website: <http://www.nids.mod.go.jp/english/>

Translated by INTERBOOKS

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The China Security Report 2022 comprises a NIDS researcher's analyses and descriptions based on information compiled from open sources in Japan and overseas. The views expressed herein do not necessarily represent the official position of the Government of Japan or the Ministry of Defense.

ISBN 978-4-86482-099-8

Printed in Japan

NIDS China Security Report 2022

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Preface

The *NIDS China Security Report* published by the National Institute for Defense Studies (NIDS) provides a wide audience in Japan and abroad with an analysis by NIDS researchers of events related to China's military and security affairs that merit attention from a mid- to long-term perspective. We are constantly brainstorming for topics to cover and delve deeply in this report that would contribute to understanding the security situation surrounding China and the People's Liberation Army (PLA). Recent topics have included the Belt and Road Initiative and cyber, space, and military-civil fusion. This latest *China Security Report 2022* has chosen the joint operations capabilities of the PLA and conducts a multifaceted analysis from the perspectives of the evolution of the operations concept, reorganization of the operations structure, and training and personnel cultivation. It discusses in detail that the modernization of the PLA's weapons and equipment and PLA reforms are all converging toward the goal of smooth execution of joint operations, while the PLA struggles to maintain the absolute principle of the Party's Army.

The wide-ranging topics as mentioned above are chosen by China researchers at NIDS, following discussions on the academic perspectives of the topic and its significance. It does not in any way reflect the intention of the Japanese Government, the Ministry of Defense, or NIDS senior officials. The views expressed in this report are those of the author. The author made revisions at his own judgment and responsibility, based on comments from the editorial team and others in the process through publication, and no changes have been made against the author's will. Thus, it is a literal fact that the *China Security Report 2022* has been written solely from the viewpoint of the individual researcher and does not represent an official view of the Japanese Government, the Ministry of Defense, or NIDS.

This report is the 12th in the series but the first to be written by a single author, Sugiura Yasuyuki, Senior Fellow, China Division, Regional Studies Department. In writing this report, it goes without saying that the author has endeavored to present an objective analysis mainly based on materials published by China, while taking note of suggestions gained by exchanging views with researchers, experts, and research institutes in Japan and abroad. This work was supported by the editorial staff comprised of Yamazoe Hiroshi (deputy editor-in-chief), Ohnishi Ken (editor of the Japanese edition), Jingushi Akira (editor of the English edition), Yatsuzuka Masaaki (editor of the Chinese edition), Nakagawa Misa, Arie Koichi, and Seto Takashi.

We hope that the *China Security Report 2022* will contribute to a deepening of policy discussions concerning China at home and abroad, alongside dialogue, exchange, and cooperation among countries and regions regarding security.

November 2021

Momma Rira

Editor-in-Chief, *China Security Report 2022*

Director, Regional Studies Department

Acronyms and Abbreviations

| | |
|----------|---|
| AEW | airborne early warning |
| AEW&C | airborne early warning and control |
| AI | artificial intelligence |
| AMS | Academy of Military Science |
| BDS-3 | BeiDou Navigation Satellite System |
| C2 | command and control |
| C4ISR | command, control, communications, computers, intelligence, surveillance, and reconnaissance |
| CCG | China Coast Guard |
| CCP | Chinese Communist Party |
| CMC | Central Military Commission |
| COVID-19 | coronavirus disease |
| CPX | command post exercises |
| GIG | Global Information Grid |
| GSD | General Staff Department |
| IJO | integrated joint operations |
| IoT | Internet of Things |
| JOCC | Joint Operations Command Center |
| JOCO | Joint Operations Command Organization |
| MDIJO | Multi-Domain Integrated Joint Operations |
| MR | military region |
| NDU | National Defense University |
| NDWP | National Defense White Paper |
| NIDS | National Institute for Defense Studies |
| NPC | National People's Congress |
| NUDT | National University of Defense Technology |
| PAP | People's Armed Police |
| PLA | People's Liberation Army |
| PLAA | PLA Army |
| PLAAF | PLA Air Force |
| PLAJLSF | PLA Joint Logistics Support Force |
| PLAN | PLA Navy |
| PLANMC | PLA Navy Marine Corps |
| PLARF | PLA Rocket Force |
| PLASAC | PLA Second Artillery Corps |
| PLASSF | PLA Strategic Support Force |
| PRC | People's Republic of China |
| PSC | Party Standing Committee |
| SOF | special operations force |
| TC | Theater Command |
| TT&C | telemetry, tracking, and control |

Introduction



Introduction

The 1991 Gulf War shocked the Chinese People's Liberation Army (PLA). This war made the PLA realize that joint operations among all services and branches, premised on informatization, would become key to future warfare. In the first half of the 1990s, the PLA began researching into joint operations in earnest.¹ This approach to warfare remained unchanged even after the change in leadership from Jiang Zemin to Hu Jintao. From the mid-2000s, the PLA advocated the concept of integrated joint operations [*Yitihua Lianhe Zuozhan*, 一体化联合作战] (IJO)² and gradually revamped its joint operations capabilities.

Chinese leader Xi Jinping, appointed chairman of the Central Military Commission (CMC) in November 2012, placed greater emphasis on strengthening the joint operations capabilities of the PLA than his two predecessors, Jiang Zemin and Hu Jintao. At a meeting of the Standing Conference of the CMC held immediately after his appointment, Xi pointed to the PLA's lack of combat experience and instructed the PLA to concentrate efforts on meeting the capability level required by "joint operations under the conditions of informationization."³ In December of the same year, in remarks given after hearing a work report by the Second Artillery Corps, Xi instructed the PLA to devote to training personnel for joint operations.⁴ Behind this was Xi's strong sense of wariness toward: (1) the deterioration of the international situation surrounding China due to such factors as the U.S. rebalance strategy;⁵ (2) the lateness in the PLA's adaptation to informatized warfare and joint operations;⁶ and (3) the decline in the political leadership's ability to control the PLA.⁷

Xi Jinping announced the pursuit of national defense and military reforms (PLA reforms) at the Third Plenary Session of the 18th Central Committee of the Chinese Communist Party in November 2013.⁸ The main objective of the reforms was to develop the joint operations capabilities of the PLA, with particular emphasis given to strengthening the joint operations command structure. At an expanded meeting of the CMC in December 2013, Xi mentioned reviewing the leadership and command system, noting that the reform of the joint operations command structure was a key priority among the PLA reforms. He proposed establishing a complete joint operations command organization of the CMC and joint operations command structure of theater commands. Xi ordered that the PLA, through reforming the joint operations command structure, improve the division of roles between, and the organizational structure of, the CMC and the four general departments (General Staff Department, General Political Department, General Logistics Department, and General Armaments Department), make adjustments to the military regions (MRs) and the PLA's service and branch system, and strengthen the strategy management function of the CMC.⁹ On March 15, 2014, the CMC Leading Group for National Defense and Military Reform, headed by Xi himself, held its first meeting for advancing the PLA reforms.¹⁰

The details of the reforms to the PLA's organizational structure were successively announced from the autumn of 2015 to February 2016. The reforms exceeded the expectations of many observers,

ranging from the dissolution of the four general departments and the seven MRs to the establishment of the CMC multi-department system and five theater commands. Yang Yi, former director of the Institute for Strategic Studies at the National Defense University, described the series of PLA reforms as “the most substantial and thorough reforms since the nation’s founding.”¹¹ Some scholars in the United States noted that the PLA reforms were comparable to the introduction of the Goldwater-Nichols Act. Goldwater-Nichols was enacted in the United States in 1986 to strengthen its joint operations structure and to this day serves as the foundation of the joint operations structure of the U.S. forces.¹²



PLA soldiers marching at the PRC’s 70th anniversary military parade (October 2019) (Photo: Kyodo News)

The PLA reforms, the biggest since the founding of the People’s Republic of China, were to be completed in 2020. At the CMC reform work meeting in November 2015, Xi Jinping instructed the CMC to make significant progress in reforming the leadership management system and the joint operations command structure, and by 2020, build a system of modern military forces with Chinese characteristics, capable of winning the informatized warfare and effectively executing its mission.¹³

As the milestone year of 2020 has passed, the purpose of this report is to assess how much the joint operations capabilities of the PLA have developed since the 1990s, giving particular focus to the following four aspects. First, the report traces the evolution of the joint operations concept from the 1990s to the present, and notes the challenges that have been faced in its materialization. Second, it explains the joint operations structure of the PLA established by the Xi-led PLA reforms and its outcomes, and discusses the challenges under the current system. Third, it analyzes the improvements in joint operations exercises and the enhancement of personnel training that the PLA initiated under the new joint operations command structure, the results they have achieved, and the challenges that remain. Fourth, it examines how the PLA in its reforms has approached maintaining and strengthening the Party-Army relations, which is often considered to be in a tense relationship with the effective execution of joint operations. Specifically, this report sheds light on the search for balance between the traditional systems of the PLA—the Party committee system, the political commissar system, and the system of political leading organ—and the concept of IJO, and notes its achievements and challenges.

Assessing the PLA’s joint operations capabilities from a variety of perspectives has critical significance for examining China’s external actions, especially trends in its exercise of military power. The issues raised in this report have already been a subject of numerous studies, mainly in the United States and Taiwan. Based on their findings, this report focuses its analysis also on the aspects that have

not been sufficiently considered, namely, the situation of the joint operations command structure and the command and control systems for joint operations at the strategic, campaign, and tactical levels, the strengthening of personnel training for joint operations, and the steps taken to balance the IJO concept with maintaining and strengthening the Party-Army relations. This report gives priority to translating the original Chinese text as faithfully as possible, even if the statements of the leaders or the definitions of the concepts contain ambiguities and vagueness because they are characteristics of China's army building and enable the PLA to maintain flexibility in concrete operations.

Chapter 1

Evolution of the PLA's Joint Operations Concept



1. The Joint Operations Concept and Its Challenges from the Jiang Zemin Era to the Hu Jintao Era

(1) The Jiang Zemin Era: Joint Operations in “Local Wars under High-Technology Conditions”

The Gulf War in 1991 prompted the Chinese People's Liberation Army (PLA) to start researching joint operations in earnest. The coalition forces spearheaded by the United States won a stunning victory over the Iraqi forces, leading to the PLA's proposal of “local wars under high-technology conditions” as a new military doctrine in 1993. Its characteristic was the consideration of command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) as critical assets, alongside firepower and mobility.¹ In this new military doctrine, joint operations were viewed as key to winning wars.²

China's concept of joint operations during this era had three features. First, the PLA emphasized the campaign level centered on military regions (MRs) as a unit of joint operations. The PLA recognized that an integrated command and control (C2) system was needed and proposed the war zone/theater concept. In addition, it began training for joint operations at the campaign level and commenced research and education on joint operations based on campaign-level scenarios.³

Second, the PLA emphasized informatization, including in the space and electromagnetic domains. From the 1980s, the PLA underscored electronic warfare and “electronic (or electromagnetic) dominance” as priorities of joint operations. From the 1990s onwards, the PLA started to discuss “information dominance,” including “computer network dominance.” In light of the outcome of the Gulf War, the PLA focused attention on the need for space operations capability, noting that extensive communications and accurate navigation and location information were essential to winning “local wars under high-technology conditions.” Space as a battlefield was positioned as “a major component of future conflict,” taking into account the operations capabilities of the U.S. forces in the Kosovo War.⁴

Third, the PLA refined the concept of joint operations and made “integrated operations, key point strikes” the operational guideline for the campaign level. This guideline focused on integrating the military with politics, economy, and diplomacy, combining forces, including the PLA Army (PLAA), PLA Navy (PLAN), PLA Air Force (PLAAF), and PLA Second Artillery Corps (PLASAC), as well as reserves and militias, and destroying and paralyzing the enemy's operational system. Under this operational guideline, the PLA prioritized firepower and informatization and focused on linking precision-guided weapons, intelligence support systems, electronic warfare systems, and automated command systems.⁵

The PLA has two terms for system, “*tixi* [体系]” and “*xitong* [系统].” The *tixi*-system is a more advanced stage of the *xitong*-system and is a large system consisting of many *xitong*-systems. With regard to the notion of system in the PLA's joint operations concept, this report refers to *xitong* as

“system” and to *tixi* as “Systems.”⁶

The main accomplishments of this era were as follows. First, the PLA began joint operations training at the campaign level. From July 1995 to March 1996, the PLA General Staff Department (GSD) conducted joint operations training around the Taiwan Strait. This exercise was assessed as a significant achievement in further developing joint operations under high-technology conditions. After 1999, many MRs also conducted joint landing operational exercises under high-technology conditions.⁷

Second, the PLA established guidelines for the execution of joint operations. In January 1999, the Central Military Commission (CMC) promulgated “Ordinance of Joint Campaigns of the Chinese People’s Liberation Army.” This ordinance envisaged joint operations in the forms of island blockade, island assault, border area counterattack, counter-air raid, and anti-landing campaigns.⁸

Third, the PLA developed an education system for joint operations. Based on “Ordinance of Joint Campaigns of the Chinese People’s Liberation Army,” it published campaign training materials, including *Joint Campaign*, *Island Landing Campaign*, and *Joint Border Area Counterattack Campaign*. In addition, Science of Joint Campaign and Science of Services Campaign were established as courses in the campaign studies department at military educational institutions.⁹

(2) The Hu Jintao Era: Joint Operations in “Local Wars under the Conditions of Informationization”

The “Integrated Joint Operations” Concept and “Information System-Based System of Systems Operational Capability”

In the Hu Jintao era, the PLA developed the idea of “local wars under the conditions of informationization” that replaced “local wars under high-technology conditions.”¹⁰ This was underpinned by the influence of the Kosovo War, Afghanistan War, and Iraq War. “Local wars under high-technology conditions” was an extension of mechanized warfare, in the sense that it emphasized the destruction of the enemy’s physical targets while recognizing the importance of informatization.¹¹ In contrast, “local wars under the conditions of informationization” placed greater focus on informatization. According to the PLA’s definition, they are local wars that rely on information systems and involve weapons and equipment having a certain level of informationization and corresponding operational methods. They are the basic form of combat in the transitional period from the industrial age to the information age. Informatized warfare is a manifestation of this evolutionary trend. Moreover, “informationized warfare” was defined as warfare that relies on network information systems, employs informatized weapons and equipment as well as operational methods, and is conducted in land, sea, air, space, cyber electromagnetic, and other spatial domains as well as in the cognitive domain, where Systems confrontation is the main form of conflict, and is the basic form of warfare in the information age. The PLA identified “informationized warfare” as future warfare.¹²

Under these military doctrines, the PLA developed the two concepts of “integrated joint operations [*Yitihua Lianhe Zuozhan*, 一体化联合作战] (IJO)” and “Information System-Based System of

Systems Operational Capability.” Both constructs were influenced by U.S. military theories but were arranged to conform with the characteristics of the PLA.¹³

The concept of IJO was proposed soon after the Hu Jintao regime came into power.¹⁴ The 2011 revised volume of the PLA's official glossary of military terms, *PLA Military Terminology*, defined IJO as “operations that use informationized weapons and equipment as well as operational methods based on network information systems, all together in the land, sea, air, space, and cyber electromagnetic spaces and the cognitive domain. It is a basic form of operation in response to informationized warfare.”¹⁵ The concept of IJO overlaps with “informationized warfare” in many respects, and the two are inseparably linked. IJO emphasized the operational philosophies of “information leading” (placing the highest priority on “information dominance”), “precision operations” (operations that achieve objectives with minimum effort and in the shortest possible time through a close examination of space, time, targets, means, and effects), “vital point strike” (precision attacks that combine soft- and hard-kill methods to destroy or paralyze the enemy's core operational Systems), and “win by integrated operations” (integrating military, politics, economy, and diplomacy to achieve victory through a combination of various means in the land, sea, air, space, information, psychological, and cognitive domains). The PLA expanded its operational domains from the traditional security domains of land, sea, and air to the new security domains of space, cyber electromagnetic space, deep sea, and cognitive domain.¹⁶

However, as of 2013, the PLA recognized that its mechanization was not yet completed and its informatization was in the initial stage. The PLA had therefore understood that operations feasible for the time being were “coordinated joint operations” that integrate different services and branches according to a plan, and that realizing the IJO concept would take time.¹⁷ For this reason, the PLA set “joint operations under the conditions of informationization” as a preliminary step for the IJO concept. “Joint operations under the conditions of informationization” are a form of operation tailored to “local wars under the conditions of informationization.” This form of operation was conceived as having the following characteristics: (1) although the operational forces have a certain level of informatization, informatized weapons and equipment still do not occupy a leading position; (2) although the operational Systems have a certain level of information system support, the information system function has not reached its full and complete potential; and (3) although the flexible coordination capability has been significantly enhanced, coordinated actions based on a plan still occupy the leading position.¹⁸ Thus, IJO was set forth as a medium- to long-term goal.

From around 2005, the PLA advocated “Information System-Based System of Systems Operational Capability” as an essential capability for future warfare.¹⁹ The *PLA Military Terminology* defines “Information System-Based System of Systems Operational Capability” as “an operational capability that has double efficacy by fusing operational elements, operational units, and operational systems, with the command and information system serving as the link and support, to aggregate and integrate real-time sensing, high-efficiency command, precision attack, rapid maneuver, full-dimensional

defense, and comprehensive support.”²⁰ This construct, while influenced by U.S. military theories on C4ISR advancement, was adapted to fit the characteristics of the PLA and formed its original core concept.²¹ In line with this concept, the PLA presented the following basic forms of Systems operations: “information-firepower strike,” “multi domain-dimensional assault,” “network-electronic integrated confrontation,” “psychological-cognitive attack,” and “special operations” (Table 1.1).²²

The concepts of IJO and “Information System-Based System of Systems Operational Capability” were closely related. Kevin McCauley, a U.S. scholar on Chinese military affairs, notes that the PLA considered the latter as a requirement for IJO.²³

Characteristics

The joint operations discourse during the Hu Jintao regime had three characteristics. First, while focusing mainly on joint operations at the campaign level, their implementation was expanded to the strategic and tactical levels.²⁴ PLA National Defense University (NDU) scholars categorized joint operations into the strategic, campaign, and tactical levels and emphasized replacing the conventional vertical chain of command with a flat, simplified mesh-type chain of command (Figure 1.1).

However, NDU scholars deemed that the basic operational unit of joint operations was the

Table 1.1 Basic Operational Forms of “Information System-Based System of Systems Operational Capability”

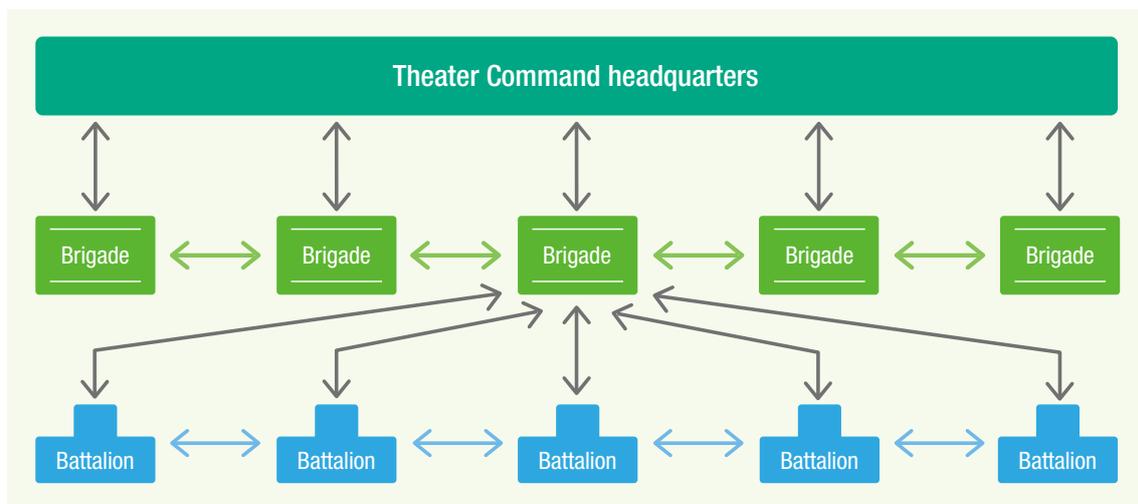
| Basic forms | Description |
|---|--|
| Information-firepower strike | This form of attack combines soft- and hard-kill methods, where information is the initiative and firepower is the mainstay. Use of firepower is focused on long-range precision attacks employing mainly precision-guided munitions. Focus is placed on electronic, cyber, and psychological-cognitive attacks to destroy the enemy's operational Systems. |
| Multi domain-dimensional assault | The forces of multiple services and branches are employed comprehensively to attack an enemy's operational targets in multiple domains, such as land, sea, air, space, electromagnetic, psychological-cognitive, and cyber. This form of attack combines soft- and hard-kill methods in multi-dimensional domains against the key nodes of the enemy's operational Systems and therefore requires advanced C2 capability. |
| Network-electronic integrated confrontation | This is a collective term for activities related to weakening and destroying enemy networks and electronic warfare equipment (systems) and defending friendly units' networks and electronic warfare equipment (systems). It is a means of gaining information dominance, which includes network electronic reconnaissance, network electronic attack, and network electronic defense. It is implemented at all stages from peacetime to wartime and requires a high level of C2 capability. |
| Psychological-cognitive attack | This form of attack aimed at psychological cognition uses the information media as a weapon and employs a variety of means to influence psychological cognition and create a state of psychological cognition that is advantageous to friendly units and disadvantageous to the opponent. The purpose is to cause the enemy's downfall and strengthen one's position. Targets are wide-ranging, including enemy leaders, dignitaries, troops, civilians, enemy allies, and third countries. It can be combined with information-firepower strikes and multi domain-dimensional assaults to enhance its effectiveness. |
| Special operations | This is an irregular operational action conducted against an enemy's strategic and campaign targets or other key targets using special units or specially trained forces for specific military, political, economic, or psychological purposes. Because the operational targets are at the strategic and campaign levels and affect all phases of the war, covert operations are emphasized and implemented under Theater Command command officers (commanders and political commissars). Missions include special reconnaissance, destruction and assault of key targets, seizure and control of key targets, precision attack guidance, psychological disintegration warfare, and cyber attacks. |

Source: Compiled based on 董連山 [Dong Lianshan], ed., 基于信息系统的体系作战研究 [Research on Information System-Based System of Systems Operations] (Beijing: 国防大学出版社 [NDU Press], 2012), pp. 128-153.

campaign level. The PLA considered that joint operations at the strategic level were strategic joint campaign operations conducted by joint campaign formations comprised of services and branches from one or more theater commands (TCs) or from the entire PLA. While the scholars envisaged the establishment of a strategic joint operational campaign command organization, establishing such an organization at the national level was not necessarily considered. In addition, the NDU scholars conceptualized joint combat, stating that more integrated means of command and the further development of weapons and equipment technology have enabled joint operations even at the tactical level. Meanwhile, given the status of the PLA's informatization, the scholars envisioned that joint operations at the tactical level would be virtually impossible for the time being without C2, and supports at the campaign level.²⁵ On the other hand, scholars at the PLA Academy of Military Science (AMS) anticipated the establishment of both a strategic joint operations command organization at the national level and a theater joint operations command organization at the campaign level.²⁶ Such disagreement of views can be attributed to the lack of a standing joint operations command organization, as is discussed later.

Secondly, the PLA went beyond merely imitating Western countries. It made the joint operations concept unique by basing it on the PLA's tradition, and novel by taking new technological developments into account. Specifically, in line with the Hu Jintao regime's call for military-civil fusion from around 2005,²⁷ the PLA stressed the importance of promoting military-civil fusion in joint operations, focusing on space and information technologies. In addition, the PLA identified the "Three Warfares" of public opinion warfare, psychological warfare, and legal warfare²⁸ as critical capabilities. The PLA also directed attention to intelligentization represented by artificial intelligence (AI) and emphasized confrontations in the cyber electromagnetic and cognitive domains, incorporating them

Figure 1.1 Mesh-type Chain of Command of Joint Operations



Source: Compiled based on 马平 [Ma Ping], ed., 联合作战研究 [Joint Operations Research] (Beijing: 国防大学出版社 [NDU Press], 2013), p. 166.

into its joint operations concept.²⁹

Thirdly, the PLA emphasized and developed the notion of Systems confrontation based on the concepts of IJO and “Information System-Based System of Systems Operational Capability.” In Systems confrontation, the military identifies and attacks the enemy’s critical weaknesses while simultaneously building and protecting its combat Systems.³⁰ According to AMS scholars, five major functional systems (intelligence reconnaissance system, C2 system, operational forces system, battlefield system, and integrated support system) and a single common support system (intelligence support system) comprise the essential operations systems of joint operations systems (Table 1.2). The basic operational model of joint operations, consisting of these five major functional and single common support systems, was regarded as Systems confrontation. Emphasis was placed on Systems paralysis, Systems destruction, and Systems defense.³¹

In joint operations characterized by Systems confrontation, the PLA emphasized the “three

Table 1.2 Systems Comprising the IJO Concept

| System | Main role |
|---|---|
| Intelligence reconnaissance system | Its basic task is to collect and provide information. Its components include the PLA-wide unified strategic early warning system, battlefield reconnaissance surveillance system, and information reconnaissance center. It focuses on the mutual coordination of intelligence reconnaissance systems among the PLA services to achieve real-time information sharing. |
| C2 system | This is an organizational System that combines, mutually coordinates, and mutually constrains the multi-layered command organizations of the strategic, TC, and campaign (TC) direction levels based on the demand of joint operational command. It plays a core role in joint operations and is key to turning information dominance into policymaking dominance and action dominance. |
| Operational forces system | It forms the main material foundation for the implementation of joint operations and consists of the PLAA, PLAN, PLAAF, PLASAC, intelligence, special operations, space, and other forces. Militias, reserves, and the People’s Armed Police join as necessary, and emphasis is placed on their integration and modularization. |
| Battlefield system | The battlefield space is expanding, comprised of multiple domains, including the land, sea, air, space, cyber electromagnetic, and cognitive domains, and its boundaries are becoming blurred. The battlefield system is characterized by mechanization and informatization, and emphasizes implementation of asymmetric operations, protection against long-range precision attacks as well as nuclear, chemical, and biological weapons, and increasing military-civil fusion. |
| Integrated support system | It is the foundation that supports joint operations Systems and provides information, materials, and energy to all operational Systems in a sustainable and effective manner. It consists of operational support, logistic support, equipment support, and the local support system through national defense mobilization. In particular, operational support envisions ensuring essential elements for conducting informatized operations, such as reconnaissance and intelligence support, target support, operational digital support, information security support, communications support, surveying, mapping and navigation support, and battlefield control and electromagnetic spectrum management. |
| Intelligence support system | This PLA-wide information infrastructure facility with communication networks as a link and information transmission and processing as its core unifies the battlefields of land, sea, air, space, and cyber electromagnetic spaces and organically interconnects the five major functional systems in all battlefields. It consists of an information transmission system, navigation and positioning system, and information security system. It integrates operational activities, such as intelligence reconnaissance, C2, fire strikes, and troop maneuver, and enables decisions, commands, and communications in real time. It acts as a connector and multiplier to effectively demonstrate the overall operational capability of the armed forces and envisions the Global Information Grid (GiG) maintained by the U.S. forces. |

Sources: Compiled based on 譚亞東 [Tan Yadong], ed., 联合作战教程 [Lectures on Joint Operations] (Beijing: 军事科学出版社 [Academy of Military Science Press], 2012), pp. 20-34; 任连生 [Ren Liansheng], ed., 基于信息系统的体系作战能力教程 [Lectures on the Information System’s System of Systems Operational Capability] (Beijing: 军事科学出版社 [Academy of Military Science Press], 2013), p. 54.

non” warfares of non-contact, nonlinear, and asymmetric operations as well as target-centric warfare. The PLA defined non-contact operations as “offensive operations conducted against an enemy from outside the effective counterattack range of the enemy’s main weapons,” nonlinear operations as “operations based on unified intentions, conducted by irregularly deploying forces throughout the depth of the battlefield with no fixed operation direction or location,” and asymmetric operations as “operations in which opposing forces employ different types of units and different operational means and methods.” Target-centric warfare redefined non-contact operations and referred to operations in which PLA command officers, through the deployment of intelligence, surveillance, and reconnaissance sensors and target analysis, identify and immediately aim to destroy the most critical targets in the enemy’s operational systems.³²

(3) Outcomes and Challenges

Outcomes

The outcomes of the PLA’s joint operations concept during the Hu Jintao era can be summarized into three points. First, joint operations training moved into full swing. The all-PLA military training conference hosted by Hu Jintao in 2006 and the Outline of Military Training and Evaluation released in 2009 emphasized the expansion of joint operations training. In 2009, the PLA conducted as many as 18 large-scale joint operations trainings, focusing on military-civil integration, power projection capability at sea and air, “systemic operations,” the improvement of joint training methods, and C2 at the war zone level. This trend continued thereafter, and joint operations trainings such as Mission Action 2010 and Queshan 2012 were conducted in 2010 and 2012, respectively.³³

Second, the CMC and PLA GSD made personnel changes with a view to joint operations. In September 2004, the commanders of the PLAN, PLAAF, and PLASAC were selected as members of the CMC. In addition, vice chiefs of staff of the PLA GSD were appointed from the PLAN and PLAAF in 2004 and from the PLASAC in 2010.³⁴ Subsequently, Xu Qiliang, commander of the PLAAF; Wu Shengli, commander of the PLAN; Ma Xiaotian, commander of the PLAAF; and Wei Fenghe, commander of the PLASAC, after serving as vice chief of staff of the PLA GSD, were appointed commanders of services and branches and joined the CMC.³⁵

Third, the joint operations structure was strengthened, mainly through the restructuring of the PLA GSD. In June 2011, the Communications Department of the PLA GSD was reorganized into the Information Department. The Information Department dealt with the decentralized information terminals and diversified information formats of various units.³⁶ In November 2011, the Strategic Planning Department of the PLA GSD was established. There was a “need to create an independent department in charge of comprehensive strategic planning across the PLA’s services.”³⁷ In December 2011, the Military Services and Training Department of the PLA GSD was reorganized into the Military Training Department. This was to expand the training and guidance of the PLA GSD, which was heavily weighted toward the PLAA, to include the PLAN, PLAAF, and PLASAC. Furthermore,

the Joint Operation Training Bureau was established in the Military Training Department and given exclusive responsibility for joint operational training.³⁸

Challenges

The PLA achieved many outcomes throughout the Jiang Zemin and Hu Jintao eras. However, some challenges remained. In particular, the PLA faced organizational, primarily C2 structure related issues, which posed a challenge for conducting joint operations for informatized warfare.

The first challenge was the lack of a standing joint operations command organization at the strategic and campaign levels. Due to the lack of standing organizations, the PLA GSD and MRs exercised C2 mainly over the PLAA, while the PLAN and PLAAF headquarters handled their operations respectively during peacetime. As a result, integration at the campaign level was inadequate. In order to overcome this challenge, the PLA decided to set up TCs to serve as temporary joint headquarters during wartime.³⁹ However, as the structures varied between peacetime and wartime, it took time to switch between the two, and problems arose in readiness ability.⁴⁰

The second issue was the PLA's "Big Army" thinking. The PLAA did not have an independent headquarters; instead, the four general departments fulfilled the headquarter function. The PLAA monopolized almost all the commanders and political commissars of the MRs. In this respect, the PLAA was one rank above the other services and branches, including the PLAN, PLAAF, and PLASAC.⁴¹ The PLA was aware of these problems, and observers noted that this structure made it difficult to command "joint operations under the conditions of informationization."⁴²

The third issue was the enlargement of the four general departments including the GSD and the consequent decline in the authority of the CMC. Following the PLA reforms, the *PLA Daily* criticized the concentration of power in the four general departments, with each becoming an independent command organization and taking over the functions of the CMC, stating that it affected the CMC's collective and unified control.⁴³ Especially during the Hu Jintao era, the authority of the CMC chairman is said to have diminished to the extent that the structure was derided as a "CMC Vice Chairman Responsibility System."⁴⁴

Column

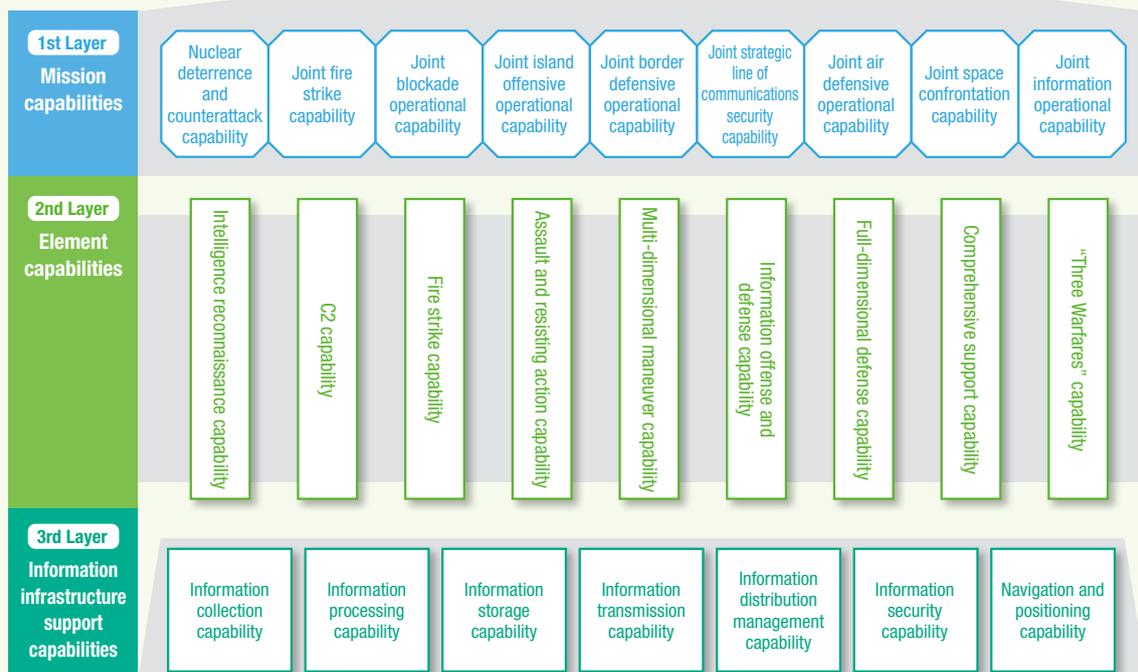
The Three Capabilities of “Information System-Based System of Systems Operational Capability” and Their Impact on Joint Operations Concepts

The PLA has produced numerous research outputs regarding “Information System-Based System of Systems Operational Capability.” This capability as defined by scholars at Nanjing Army Command College mainly targets the PLAA tactics units,⁴⁵ whereas that as defined by scholars at PLA NDU mainly targets the entire PLA.⁴⁶ These studies were interrelated but did not lead to a fixed definition. Furthermore, the definition has been subject to changes.⁴⁷ Against this backdrop, scholars at PLA AMS, led by Ren Liansheng, classified the capabilities of the “Information System-Based System of Systems Operational Capability” into mission capabilities, element capabilities, and information infrastructure support capabilities, noting that these capabilities interact and collaborate to form multi-layered and open capability Systems (Figure 1.2).⁴⁸ Compared to other studies, this classification emphasized the interrelationship of the capabilities and focused on their integration to establish a Systems operational capability. The following is an overview of the capability layers and their component capabilities as presented in the study by Ren et al.

A monograph by Ren et al. defined the first layer, mission capabilities, as “the capabilities to conduct various joint operations based on the mission and duties of the armed forces.”⁴⁹ It consisted of the nine capabilities outlined in Table 1.3.

The second layer, element capabilities, was defined as “general capabilities equipped with elements of various operational forces and functions for different aspects by assistance of information infrastructure support capabilities as well as common capabilities that are necessary for the armed forces to complete various operational missions.”⁵⁰ It consisted of the nine capabilities outlined in Table 1.4.

Figure 1.2 Conceptual Diagram of “Information System-Based System of Systems Operational Capability”



Source: Compiled based on Ren, *Lectures on the Information System's System of Systems Operational Capability*, p. 54.

Table 1.3 Mission Capabilities of the “Information System-Based System of Systems Operational Capability”

| Mission capability | Description |
|--|---|
| Nuclear deterrence and counterattack capability | The capability to operate a range of nuclear weapons to threaten, deter, and counterattack in response to an enemy's intentions and actions involving the use of nuclear weapons. |
| Joint fire strike capability | The capability to operate the firepower of military services and branches comprehensively to attack different targets in different spaces. |
| Joint blockade operational capability | The capability to limit the enemy's freedom of action by disrupting the linkages between the islands occupied by the enemy and outside the islands. |
| Joint island offensive operational capability | The capability to conduct landing operations on large islands. |
| Joint border defensive operational capability | The operational capability to maintain stability in border areas and to protect the territorial sovereignty of a nation. |
| Joint strategic line of communications security capability | An operational capability that is employed to ensure the security of key strategic communications at sea and on land. |
| Joint air defensive operational capability | The capability to resist or counterattack an enemy attacking from the air. |
| Joint space confrontation capability | The confrontation capability to maintain the security and interests of friendly units' space targets and seize dominance in space. |
| Joint information operational capability | The capability to protect the security of information spaces, including cyber electromagnetic space, and seize information dominance. |

Source: Compiled based on Ren, *Lectures on the Information System's System of Systems Operational Capability*, pp. 58-60.

Table 1.4 Element Capabilities of the “Information System-Based System of Systems Operational Capability”

| Element capability | Description |
|---|---|
| Intelligence reconnaissance capability | The capability to comprehensively operate early warning and reconnaissance assets, collect various intelligence on the enemy, and support operational actions and operational command. It consists of intelligence reconnaissance capabilities established on land, at sea, in the air, and in space. |
| C2 capability | The capability of command officers and their staff organization to conduct planning, coordination and control, and counter-command operations for the operational actions of service and branch forces. It constitutes the core of Systems operational capability. |
| Fire strike capability ⁵¹ | The capability to comprehensively operate long-range precision-attack firepower to kill or wound enemy troops, destroy military facilities, weapons, and equipment, and attrit their combat power. Precision-attack firepower is formed by integrating the platforms deployed on land, at sea, in the air, and in space. |
| Assault and resisting action capability ⁵² | The capability to operate operational forces to attack, occupy, or defend key areas and targets. It consists of assault action capability and resisting action capability, which are designed for short-range operations. |
| Multi-dimensional maneuver capability | The capability to ensure the smooth implementation of operational actions and to transport operational units and equipment to designated operational areas in a multi-dimensional, rapid, and safe manner. It consists of land, sea, and air capabilities. |
| Information offense and defense capability | The capability to hinder, suppress, and demolish the enemy's information and intelligence system with soft- and hard-kill methods while protecting friendly units' information and intelligence system. It is employed to conduct asymmetric warfare and is an important means of hindering, destroying and paralyzing the enemy's operational Systems. It is necessary to build information operations Systems that integrate land, sea, air, and space capabilities at the strategic, campaign, and tactical levels and to form an information operational capability that combines offense and defense, integrates cyber and electromagnetic spaces, and combines soft- and hard-kill methods. |
| Full-dimensional defense capability | The capability to prevent an enemy from striking or destroying friendly units' operational Systems. It consists of anti-reconnaissance and surveillance capability, air defense missile capability, and nuclear, biological, and chemical defense capabilities. |
| Comprehensive support capability | The capability to provide operational, logistics, and equipment support for joint operations. It consists of operational support, which aims to facilitate the command officers' decisions and operational actions, and logistics and equipment supports. |
| “Three Warfares” capability | The capability to gain the legal initiative, seize political dominance, and psychologically demolish the enemy's military. It consists of public opinion warfare, psychological warfare, and legal warfare. |

Source: Compiled based on Ren, *Lectures on the Information System's System of Systems Operational Capability*, pp. 61-79.

The third layer, information infrastructure support capabilities, was defined as “capabilities to support the interconnection of the functions of each operational capability and the overall linkage of the operational Systems by relying on the PLA-wide information infrastructure.” The PLA-wide information infrastructure was regarded as the “nerve” of the informatized battlefield and a feature of “Information System-Based System of Systems Operational Capability.”⁵³ It consisted of the following seven capabilities outlined in Table 1.5.

These classifications influenced the joint operations research conducted by other scholars at AMS, prompting them to give nearly identical definitions to element capabilities and information infrastructure support capabilities. Nonetheless, there were some differences between these scholars and Ren Liansheng et al. For example, (1) the scholars described fire strike capability as “fire assault capability” which sets the conditions for achieving certain strategic objectives and subsequent actions by paralyzing the enemy’s operational Systems. In addition, they emphasized space operations, identifying “space dominance” as the commanding point of future warfare. (2) With regard to information offense and defense capability, they established interference by electronic warfare equipment, anti-radar missiles, and cyber penetration/virus attack capability as the specific means. (3) They referred to the use of special operations forces in regard to assault and resisting action capability. Furthermore, (4) they did not list “information collection capability” among the information infrastructure support capabilities.⁵⁴

In addition, AMS scholars considered operational forms and actions of joint operations in response to the mission capabilities. They noted the operational forms of joint firepower strikes, joint island offensive operations, and joint island blockade operations for offensive warfare and the operational forms of joint counter-air raids, joint border area defense operations, and joint anti-landing campaigns for defensive warfare. Furthermore, they envisioned the following operational actions to implement these operational forms: (1) rapid and secure strategic power projection on land, at sea, and in air; (2) space confrontation aimed at destroying the enemy’s space Systems and defending friendly units’ space Systems through a

Table 1.5 Information Infrastructure Support Capabilities of the “Information System-Based System of Systems Operational Capability”

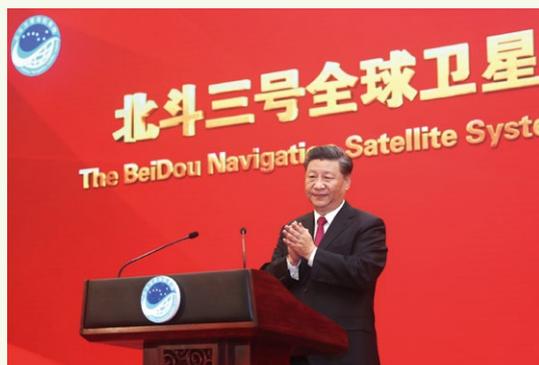
| Information infrastructure support capability | Description |
|--|--|
| Information collection capability | The capability to collect necessary information with sensors. |
| Information processing capability | The capability to support decisions and process various types of information into a format that is suitable for each operational unit. |
| Information storage capability | The capability to store, edit, and process various types of information for information sharing. |
| Information transmission capability | The capability to operate various means of communication in a comprehensive manner and to smoothly transmit battlefield information between the command posts at each level and the units of military services and branches. |
| Information distribution management capability | The capability to provide information access and information transmission to operational units and operational elements in the most practical and effective manner based on operational requirements. |
| Information security capability | The capability to provide full-dimensional, multi-layered, and high-performance information protection, threat detection, and resilience to the information resources of network information systems at each level. |
| Navigation and positioning capability | The capability to provide timely, accurate, and uninterrupted navigation guidance and localization information, such as position, speed, and time, to operational platforms and equipment. |

Source: Compiled based on Ren, *Lectures on the Information System's System of Systems Operational Capability*, pp. 81-84.

combination of hard- and soft-kill; (3) information operations focusing on offensive operations and military-civil fusion; (4) special operations; and (5) the “Three Warfares.”⁵⁵

There were various opinions within the PLA concerning the operational actions of joint operations. Other AMS monographs on joint operations at the campaign level adopted the aforementioned forms of operations but identified the following as operational actions: (1) dealing with the involvement of a strong enemy through intimidation, information offense and defense, and attacks on carrier strike groups and overseas bases; (2) joint campaign information operations; (3) joint campaign special operations; and (4) joint campaign airborne operations.⁵⁶ NDU scholars described operational actions as consisting of operations for gaining command of the air, which combines air forces, land forces, electromagnetic technology and missile capabilities, as well as information operations, space operations, and special operations.⁵⁷ Meanwhile, none of the studies mentioned “nuclear deterrence and counterattack capability” and “joint strategic communications security capability.”

An AMS monograph on joint operations research emphasized space confrontation. However, given its major impact on the international community, the monograph stated that a strategic command organization at the national level was necessary to command the operational actions in space. In addition, it noted that the PLA should consider the implementation of space confrontation, which focuses on the notion of combining peacetime and wartime operations and unifying military and civil resources from peacetime. The monograph expressed the view that, in wartime, the PLA must quickly and covertly deploy the space operational forces required for specific operational targets and key objectives, and coordinate various forces even during the operations. It also stated that space confrontation should focus on Systems destruction by blinding the reconnaissance satellites and jamming the space communications of the enemy, and that the PLA should make a careful decision in physically destroying the satellites of the enemy because of its retaliation and severe criticism from the international community.⁵⁸ These views are believed to have factored into the PLA reforms that established the Strategic Support Force and gave the CMC direct control over them.



President Xi Jinping declaring the official commissioning of the BeiDou Navigation Satellite System (BDS-3) (July 2020) (Photo: Xinhua News Agency/Kyodo News Images)

2. The Joint Operations Concept and Its Challenges during the Xi Jinping Regime

(1) Proposal of “Informationized Local Wars”

The Xi Jinping regime, inaugurated in November 2012, advocated “informationized local wars” as an alternative military doctrine to “local wars under the conditions of informationization” since around

2014.⁵⁹ This doctrine had the following characteristics. First, “information dominance,” meaning superior intelligence capabilities, is a prerequisite for achieving dominance in air, sea, and other domains in “informationized local wars.” Second, the battlefield space is larger, more multi-dimensional, and increasingly three-dimensional, with intangible battlefields, such as electromagnetic, cyberspace, and cognitive domains, added to tangible battlefields, such as land, sea, airspace, and space. Furthermore, air and space battlefields are merged and integrated, becoming a strategic commanding point for seizing the initiative in war. Third, IJO is the basic operational form due to the Systems confrontation nature of “informationized local wars.” The operational capabilities of various military services, branches, and domains, seamlessly linked under the command of a unified organization, are integrated. Fourth, war progress, strike target, and means are controlled accurately in “informationized local wars,” leading to a shift to highly efficient, cost-effective, low-risk, and low-cost small and medium precision operations.⁶⁰

The doctrine was a further articulation of the concepts of IJO and “Information System-Based System of Systems Operational Capability.” Indeed, the Xi Jinping regime maintained these two notions. In August 2014, Xi Jinping instructed at the Chinese Communist Party (CCP) Politburo Collective Study Session that the PLA establish an ideological concept for IJO by multiple services and branches.⁶¹ The defense whitepaper, *China's Military Strategy*, released in May 2015 underscored strengthening “capabilities for system-vs-system operations based on information systems” as part of combat readiness, and in this vein, called for the gradual establishment of IJO Systems in which operational elements are seamlessly linked and operational platforms perform independently and in coordination.⁶²

Meanwhile, Xi Jinping carried out drastic reforms in response to the organizational challenges that hampered the realization of the IJO concept. It is argued that the main reason that Xi advocated “informationized local wars” as a new doctrine was to provide an overarching framework for the reform that would be undertaken⁶³ (Xi-led military reforms are discussed in detail in Chapter 2).

(2) “Joint Operations Capability Based on Network Information Systems” and “All-Domain Operations Capability”

The PLA kept the IJO concept even after the military reforms. In April 2017, Xi Jinping instructed the cadres of the PLA, which had been reorganized by the reforms, that it adapt to the requirements of IJO and enhance new-quality operational capability.⁶⁴

In October 2017, Xi, in his political report to the 19th National Congress of the CCP, stressed the significance of the PLA reforms as an outcome of the national defense policy over the past five years. With regard to the future direction of military modernization, he emphasized that China would “make comprehensive adjustments and progress in combat readiness in both traditional and new security fields.” Xi then instructed the PLA to improve its “Joint Operations Capability Based on Network Information Systems” and “All-Domain Operations Capability.”⁶⁵ These were new constructs that would develop the IJO concept by giving further emphasis to the new security domains.

The 2017 edition of *Science of Strategy* edited by NDU presented “joint operations system of systems based on network information Systems” as an alternative concept to “information system-based joint operations system of systems.”⁶⁶ It follows that “Joint Operations Capability Based on Network Information Systems” is a concept which inherited and built on “Information System-Based System of Systems Operational Capability.”

A PLA manual defined “joint operations based on network information Systems” as follows. “They are a series of operational actions that are conducted jointly in all domains and in multi-dimensional spaces to achieve the overall or localized objectives of wars. Relying on PLA-wide information infrastructure facilities and a joint information sharing environment, information systems and weapons and equipment from each level are integrated, and information networks form operational Systems from the dispersed joint operational forces. Under the unified command of a joint command operational organization, these joint operational forces concentrate to deliver operational effects.” It stated that the operational actions under this concept would be carried out as: integrated operations based on networks, cloud, and terminals; multi-dimension and all-domain operations; and integrated information-firepower fusion operations. They are characterized by achieving strategic objectives in short decisive wars, emphasizing precision, stealth, and unmanned operations and the gain of information dominance based on the IJO concept.⁶⁷

“Joint Operations Capability Based on Network Information Systems” was defined as “a system of systems operations capability that integrates operational capabilities, such as real-time sensing, high-efficiency C2, precision attack, rapid maneuver, full-dimensional defense, and comprehensive support in joint operations, with network information systems serving as the link and pillar, thereby doubling the effect.” The specific component capabilities include reconnaissance and patrol capability, C2 capability, precision attack capability, three-dimensional maneuver capability, information offense capability, full-dimensional defense capability, and comprehensive support capability.

These capabilities largely inherited the aspects of the “Information System-Based System of Systems Operational Capability” but differed in that: (1) information offense and defense capability was changed to information offense capability, and information defense capability became part of the full-dimensional defense capability; (2) the manual omitted fire strike capability and assault and resistance counterattack capability and mentioned instead precision attack capability, which integrates land, sea, air, and space domains and combines long-range, medium-range, and short-range operations; and (3) the manual deleted “Three Warfares” capability. With regard to (3), the manual included soft-kill methods in information offense capability, and the concept of “public opinion and legal fight,



China’s new model of stealth attack drone at the country’s 70th anniversary military parade (October 2019) (Photo: Kyodo News)

and psychological offense and defense,” which inherited the “Three Warfares” construct, was identified as an important component of soft kill in joint operations.⁶⁸

“All-Domain Operations Capability” was a concept that the PLAA had used to break away from the traditional MR-centered area defense and to conduct maneuvers beyond the war zones, employing a variety of transportation capabilities with the goal of coping with the weather, geography, electromagnetic requirements, and other complex conditions.⁶⁹ Following the 19th National Congress, “All-Domain Operations Capability” became a PLA-wide concept and was described in the *PLA Daily*.⁷⁰ In these articles, Zhang Qianyi at AMS defined “All-Domain Operations Capability” as “the capability of an armed force to effectively launch hostilities against an enemy and to achieve deterrence and victory in war on domestic and foreign battlefields, or in the full range of space and security domains such as the land, the sea, the air, space, cyberspace, the electromagnetic spectrum, and the cognitive domain, as well as burgeoning domains such as the deep sea, quantum computing, artificial intelligence, and biological security, by layering effects in multiple domains, controlling new domains to gain the strategic initiative, and striving for comprehensive superiority through cross-domain integration.”⁷¹ This notion further expanded the domains of the PLA’s IJO concept and placed even more importance on the combination of domains.

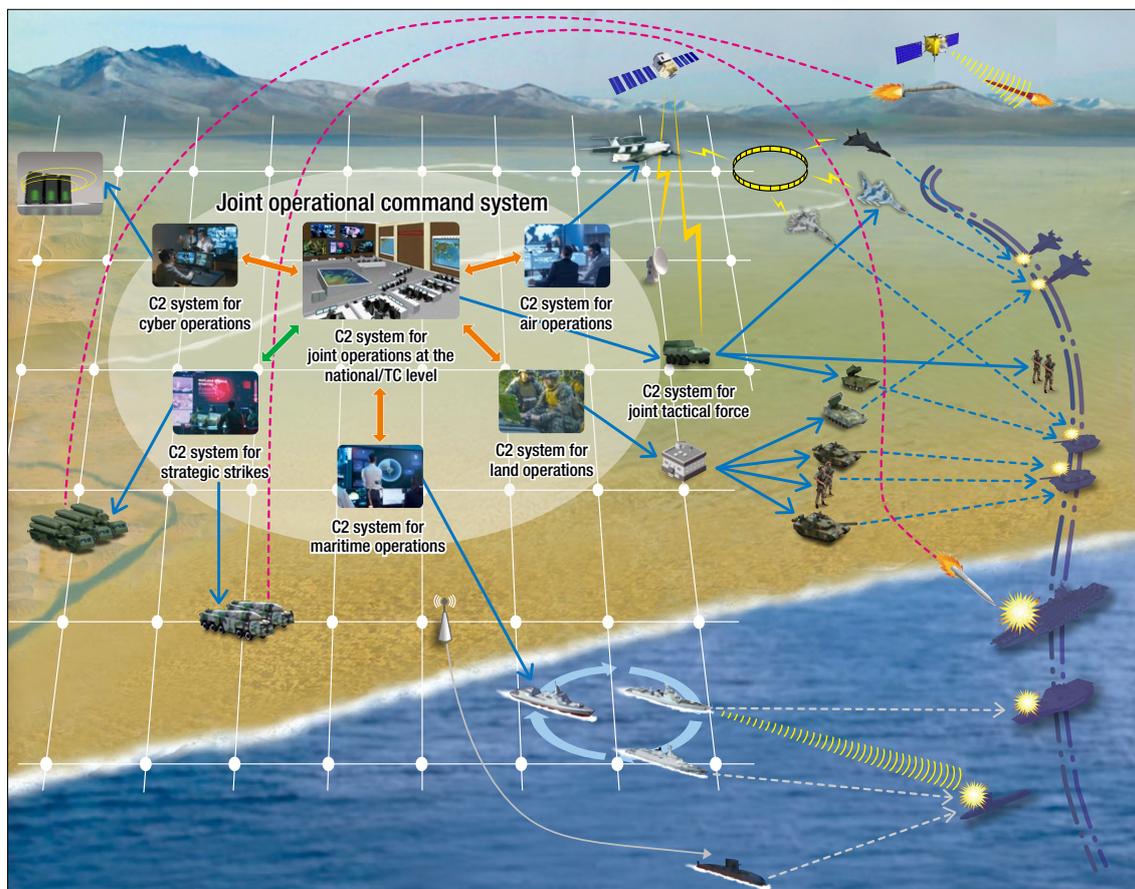
(3) “Intelligentized Warfare” and Reconsideration of Joint Operations Concepts

Xi Jinping stated in his political report to the 19th National Congress that the CCP would “speed up development of intelligent military.” Immediately after the National Congress, Xu Qiliang, vice chairman of the CMC, also instructed the CCP to “seize the important development direction of intelligentization.”⁷² In addition, the 2017 edition of *Science of Strategy* edited by NDU added “military struggle in intelligent domain” as one of the military struggles in the new domains.⁷³

Observers point out that the emphasis on intelligentization gained prominence from 2019. The Xi regime is believed to have adopted the “Military Strategic Guidelines in the New Era” in around January 2019.⁷⁴ In July of that year, the defense white paper, *China’s National Defense in the New Era*, was released. This white paper assessed that

Driven by the new round of technological and industrial revolution, the application of cutting-edge technologies such as artificial intelligence (AI), quantum information, big data, cloud computing and the Internet of Things [IoT] is gathering pace in the military field. International military competition is undergoing historic changes. New and high-tech military technologies based on IT are developing rapidly. There is a prevailing trend to develop long-range precision, intelligent, stealthy or unmanned weaponry and equipment. War is evolving in form towards informationized warfare, and intelligent warfare is on the horizon.⁷⁵

Figure 1.3 Conceptual Image of the PLA's IJO during the Xi Jinping Regime



↔ : The C2 system for strategic strikes concerns the operation of nuclear assets and conventional warhead systems used for strategic targets, such as DF-21D, and is therefore considered to be under the command of the C2 system at the national level, not the TC level.

Source: Compiled based on 蓝羽石、毛永庆、黄强 [Lan Yushi, Mao Yongqing, and Huang Qiang] et al., eds., 联合作战指挥控制系统 [Joint Operations Command and Control System] (Beijing: 国防工业出版社 [National Defense Industry Press], 2019), p. 12.

NDU scholars defined intelligitized warfare as “integrated warfare based on IoT systems that uses intelligent weaponry and equipment and their corresponding operational methods in the land, sea, air, space, electromagnetic, cyber, and cognitive domains.”⁷⁶

As of 2021, the PLA has not established intelligitized warfare as a military doctrine to replace informatized warfare. Even after intelligitized warfare was proposed, the *PLA Daily* has reiterated the importance of integrated development of mechanization, informatization, and intelligitization. At the CCP Politburo Collective Study Session in July 2020, Xi Jinping mentioned “accelerating the integrated development of mechanization, informationization, and intelligitization.”⁷⁷ Moreover, the Xi regime adheres to the IJO concept even after proposing intelligitized warfare. In January 2021, Xi issued the 2021 mobilization order for military training in which he instructed the PLA to accelerate improvement of the IJO capability.⁷⁸

The characteristics of intelligentized warfare as noted by scholars include: (1) C2 through joint decision-making by humans and machines using AI and cloud control; (2) the building of a weapons and equipment System featuring unmanned vehicles, and the realization of “swarm attack”; and (3) further integration and fusion of traditional and new security domains as well as physical (land, sea, air, and space) and non-physical (e.g., cognitive, social, cyber) security spaces, and the need to seize the initiative and control in confrontation operations in cognitive space.⁷⁹

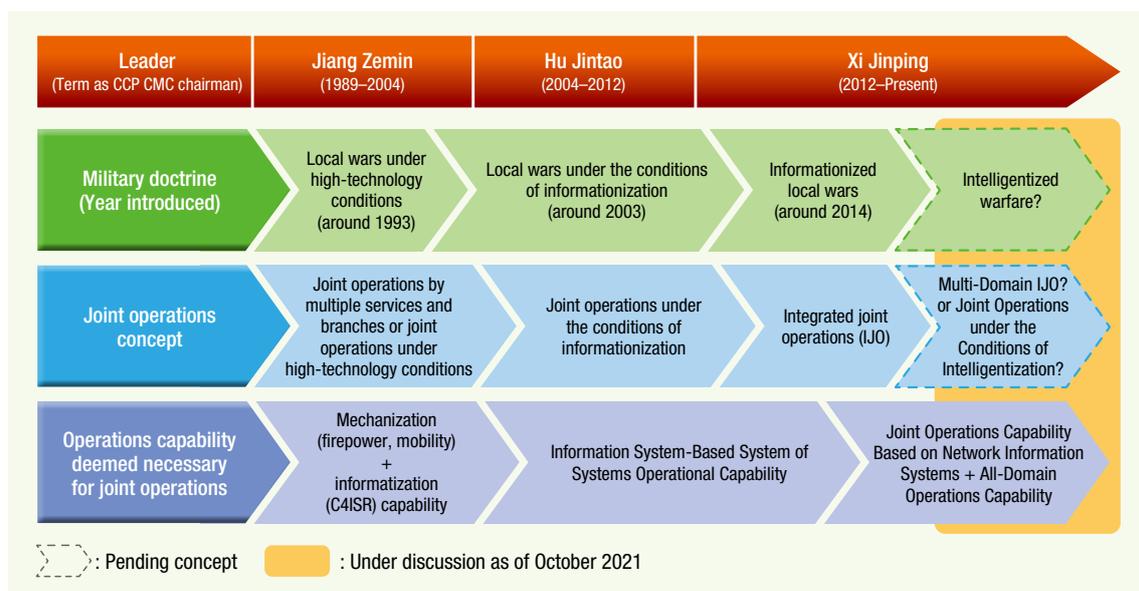
The PLA is now beginning to consider a joint operations concept that can accommodate both informatized warfare and intelligentized warfare. In April 2020, Wei Jianguo, former deputy chief of General Staff of the PLA, noted in the *PLA Daily* that the major battlefield in informatized warfare will be the struggles over information dominance, cognitive dominance, and intelligence dominance. He deemed that the key to winning is to disrupt the opponent’s information communications and achieve secure information communications of one’s military, to disrupt the opponent’s situational awareness and ensure one’s accurate grasp of the situation, and to carry out efficient operations by achieving superiority in system intelligentization. Wei also stressed the following. (1) The concept of battlefield space in joint operations changed from “the three-dimensional spaces of land, sea, and air to multidimensional spaces” and the timeframe from “large-scale continuous operations to instantaneous lethal strikes.” He noted that the boundaries between strategic, campaign, and tactical actions have become blurred, and that warfare has entered the era of “instant defeat” with detection immediately following destruction. (2) The concept of destruction in joint operations changed from “inexact destruction to precise control” and from “hard-kill to soft-kill” approaches and places greater importance on information control capability than firepower. (3) The key factors of victory or defeat in joint operations changed from “physical domains to information and cognitive domains” and from “seizure of spaces and killing or wounding of generals to winning the hearts and minds of the people and stabilizing social order.” Wei argued that total operations would become the basic form of warfare, and that cross-domain operations would lead to winning joint operations.⁸⁰

The 2020 edition of *Science of Strategy* edited by NDU introduced the concept of “Multi-Domain Integrated Joint Operations (MDIJO).” The 2020 edition referred to MDIJO as an advanced stage of joint operations and defined it as “holistically interlinked operations featuring a high level of coordination, which are conducted in many domains, including land, sea, air, space, cyber electromagnetic, and intelligence, in accordance with a unified plan for achieving unified operational objectives, and consist of operational Systems that seamlessly integrate operational forces, operational units, and operational elements through network information systems under a unified command.” It explained that MDIJO: (1) is information leading operations; (2) fuses various forces; (3) realizes C2 integration; (4) consists of interlinked operational actions in multiple domains; (5) wins wars through Systems confrontation; and (6) is characterized by precise support capabilities.⁸¹ Since the 2015 and 2017 editions of *Science of Strategy* did not refer to intelligentization in their explanation of IJO, it can be construed that MDIJO is aimed at multi-domain joint operations in view of intelligentized warfare.⁸²

Many other discussions also transpired in the *PLA Daily*. Various concepts emerged from the discussions, including: (1) “Intelligentized Joint Operations Systems”;⁸³ (2) “Joint Operations under the Conditions of Intelligentization” characterized by shortened operations time, expanded operations space, and intelligentized operational methods;⁸⁴ and (3) “Cross-Domain Joint Operations,” a more advanced form of IJO that combines operational actions, which cut across traditional and new security domains, and joint operations among multiple services and branches.⁸⁵ However, these concepts have vague definitions, and it is unclear whether the PLA has reached a consensus about them.

In addition, the *PLA Daily* has published opinions indicating the possibility of further PLA reforms. First, it proposed the establishment of new services, such as the space force, the network force, and the electronic force.⁸⁶ Second, it proposed the creation of tactical units for joint operations: (1) the multi-domain joint tactical force, which is designed for strategic decision-making, command of theaters, and tactical operations with an emphasis on readiness; (2) the small and multi-task intelligentized new operational unit, which encompasses the strategic, campaign, and tactical levels as well as all services and branches; and (3) the integrated attack battalion, which brings together elements related to precision attack and can carry out precision attack operations independently.⁸⁷ Third, the *PLA Daily* criticized that traditional joint operations employing the forces of services and branches cannot meet the requirements of operations which integrate humans and machines, fuse all domains, and AI conducts autonomously. In order to maximize the efficacy of AI-led human-machine Systems operations, the *PLA Daily* raised the need for bolder organizational reforms, contending that the traditional military unit structure model be abandoned, that the overemphasis on military service

Figure 1.4 Conceptual Diagram of the Evolution of the PLA’s Joint Operations Concept



Source: Compiled by the author.

expertise and pursuit of single-service interests be eliminated, and that a new structure be established that closely integrates systems, such as reconnaissance and intelligence, C2, precision attack, mobile power projection, and support guarantee.⁸⁸

These concepts are the personal views of PLA scholars, and it is unknown whether they will be reflected in the actual joint operations concept. When the “Trial Guidelines on PLA Joint Operations” was promulgated in November 2020, a senior official of the Strategic and Theater Training Bureau of the CMC Joint Staff Department noted that, in developing the guidelines, they took note of the advances in modern science and technology and their application in the military domain, analyzed and studied their impact on warfare, and sought to embody the characteristics of informatization and intelligentization in future warfare in the operational ideology, operational thought, means of command, and operational method.⁸⁹ These statements suggest that the views of PLA scholars may have had some influence on current and future joint operations concepts.

(4) Outcomes and Challenges

Outcomes

The Xi Jinping regime aimed to build a PLA structure that embodied the IJO concept. Moreover, while adhering to this concept, the Xi regime advocated “Joint Operations Capability Based on Network Information Systems” and “All-Domain Operations Capability” and put greater emphasis on new security domains. Furthermore, with the calls for intelligentized warfare, the regime began to consider a new joint operations concept and introduced MDIJO, among other constructs.

Challenges

The realization of these concepts, however, requires overcoming challenges. First, China’s defense science and technology is not necessarily at the level required by such concepts. Following Xi Jinping’s statement at the CCP Politburo Collective Study Session in July 2020 regarding “accelerating the integrated development of mechanization, informationization, and intelligentization,” the *PLA Daily* wrote, “intelligentization cannot be steadily promoted without having some foundation for mechanization and informationization.”⁹⁰ In November 2020, after the Fifth Plenary Session of the 19th CCP Central Committee, an AMS scholar warned, “Intelligentization will become a mirage if we bypass mechanization and informationization and direct all our focus toward intelligentization.”⁹¹ In December 2020, the *PLA Daily* noted the need for the integrated development of mechanization, informatization, and intelligentization, assessing, “At present, our armed forces have basically achieved mechanization, have made significant progress in informationization, and are presented with the opportunities and challenges of intelligentization.”⁹² This wording suggests that mechanization is almost complete, informatization is under development, and intelligentization is in the initial stage.

The second challenge is cultivating joint operations talent with a high level of competence and expertise. As part of the PLA reforms, the PLA reformed its military educational institutions and

strengthened the system for cultivating joint operations talent, where NDU constitutes the central educational institution.⁹³ China promulgated the “Trial Regulation on Military Academy Education for PLA” in June 2020 and the “Trial Regulations on Military Professional Education for PLA” in December.⁹⁴ In this context, Xi visited the Air Force Aviation University in July 2020 and gave important instructions on military academy education and the cultivation of military talent in the new era. In particular, Xi instructed the PLA to accelerate the training of professionals who operate and command unmanned vehicles.⁹⁵ However, as the Chinese government promotes the intelligence industry on a national scale, scholars have noted that the state and the private sector may have to compete for talent in highly versatile fields, such as AI. Training personnel for intelligentized warfare is thus not an easy task for the PLA⁹⁶ (strengthening of talent cultivation programs for joint operations through the PLA reforms is discussed in Chapter 3).

The third challenge is how to reconcile winning modern joint operations with the PLA’s supreme mission of maintaining and strengthening Party-Army relations. Scholars have noted that the various systems for Party-Army relations do not suit the objectives of informatized warfare and the reasonable implementation of joint operations.⁹⁷ For example, the characteristics of the existing Leninist military, represented by the political commissar system and the PLA’s Party committee system, are said to reduce flexibility and autonomy at the operational level and slow down decision-making.⁹⁸ In addition, some believe that the importance of political officers in military operations will decline in intelligentized warfare because: (1) military operations will become more specialized; (2) the tempo of operations will become faster than ever before; and (3) AI tends to assist and substitute operational decision-making (balancing the enhancement of joint operations and the maintenance and strengthening of Party-Army relations is discussed in Chapter 3).⁹⁹

The fourth challenge is possible resistance within the PLA. PLA reforms commenced in November 2013, made changes to the organizational structure that have been called “the most drastic reform since the founding of China,” and are considered to have been completed in 2020. It is undeniable that concepts involving further PLA reforms, such as the establishment of new military services, the downsizing of joint operations tactical units from brigades to battalions, and the fundamental reorganization of the traditional military structure, may provoke resistance from within the PLA, especially the PLAA.

Chapter 2

The Reformed PLA's Joint Operations Structure



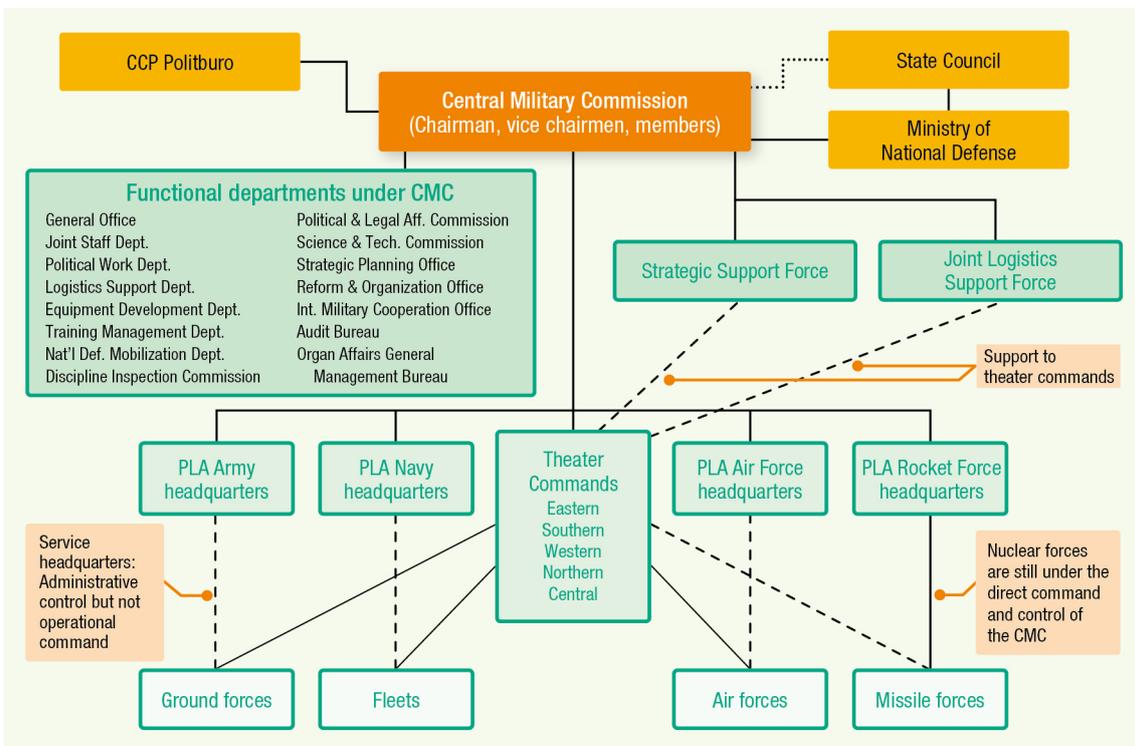
1. The Biggest Organizational and Structural Reforms of the PLA since the PRC's Founding

(1) Background of the Reforms

In November 2013, Xi Jinping, chairman of the Central Military Commission (CMC), announced the pursuit of national defense and military reforms (People's Liberation Army [PLA] reforms) at the Third Plenary Session of the 18th Central Committee of the Chinese Communist Party (CCP).¹ On March 15, 2014, the CMC Leading Group for National Defense and Military Reform held its first meeting. Xi was appointed as its head and two CMC vice chairmen as vice heads. Of the two, it was not Fan Changlong from the PLA Army (PLAA) but Xu Qiliang, the first CMC vice chairman from the PLA Air Force (PLAAF) who was appointed executive deputy leader of the leading group. This suggested that the PLA aimed in these reforms to establish a joint operations structure which put the services on an equal footing.²

The PLA reforms became more explicit following Xi Jinping's announcement of a 300,000 troop reduction on September 3, 2015, at a military parade commemorating the 70th anniversary

Figure 2.1 PLA Organization Chart: After the Military Reforms



Source: Compiled based on Joel Wuthnow and Phillip C. Saunders, "Chairman Xi Remakes the PLA," in Phillip C. Saunders et al., eds., *Chairman Xi Remakes the PLA: Assessing Chinese Military Reforms* (Washington D.C.: National Defense University Press, 2019), p. 6.

Figure 2.2 Newly Established Five Theater Commands



Notes: 1. 🚩 Theater Command headquarters ■ Theater Army headquarters ▲ Theater Navy headquarters
 2. Theater boundaries have not been officially announced. The above map was created based on U.S. Department of Defense reports, media reports, etc.

Source: Compiled based on Ministry of Defense of Japan, *Defense of Japan 2021* (Tokyo: Ministry of Defense of Japan, 2021), p. 66.

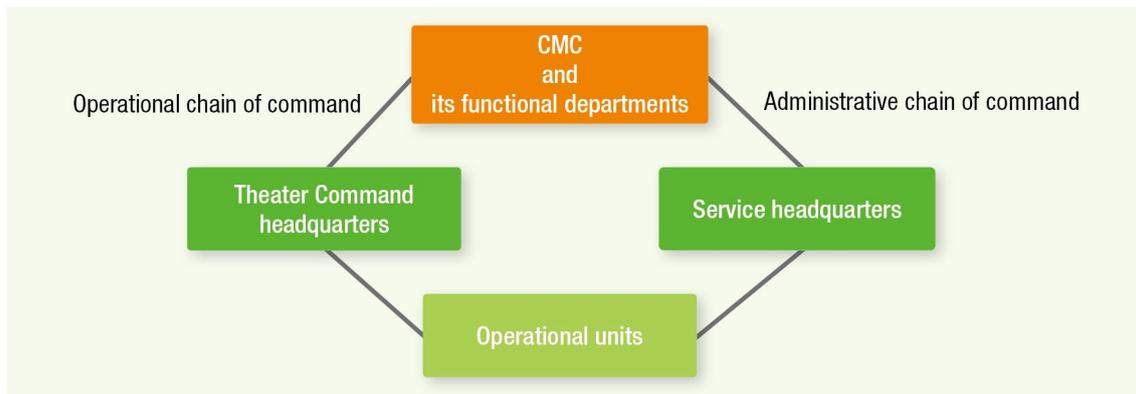
of China's victory over Japan in World War II.³ In November 2015, the CMC work conference on military reform was held in Beijing. At this meeting, Xi expressed determination to carry out the PLA reforms, referring to: (1) the establishment of the PLAA headquarters; (2) the CMC's incorporation of the functions of the four general departments to strengthen its authority; (3) the establishment of the operational chain of command (CMC-Theater Command [TC] headquarters-operational units) and the administrative chain of command (CMC-service headquarters-operational units); and (4) the reorganization of the CMC Discipline Inspection Commission and the CMC Political and Legal Affairs Commission.⁴

The details of the PLA's organizational and structural reforms were unveiled between the end of 2015 and February 2016. On December 31, 2015, the PLA announced: (1) the establishment



CMC Chairman Xi Jinping conferring military flags to TC commanding officers at a TC establishment ceremony (February 2016) (Photo: Xinhua News Agency/Aflo)

Figure 2.3 Conceptual Diagram of the Basic Reform Policy



Source: Compiled based on Joel Wuthnow and Phillip C. Saunders, *Chinese Military Reforms in the Age of Xi Jinping: Drivers, Challenges, and Implications* (Washington D.C.: National Defense University Press, 2017), p. 22.

of the PLAA headquarters; (2) the renaming of the PLA Second Artillery Corps (PLASAC) as the PLA Rocket Force (PLARF) and its upgrading from the status of “independent branch” to the status of a full service; and (3) the creation of the PLA Strategic Support Force (PLASSF). Xi Jinping then conferred PLA flags to the commanding officers of these new units. On January 1, 2016, the CMC promulgated the “CMC Opinions on Deepening National Defense and Military Reforms” [*Zhongyang junwei guanyu shenhua guofang he jundui gaige de yijian*, 中央军委关于深化国防和军队改革的意见].⁵ On January 11, the four general departments were dissolved, and the CMC multi-department system was established, with a total of 15 functional departments all under the CMC (Figure 2.1).⁶ On February 1, the abolition of the seven military regions (MRs) and the creation of five TCs were announced, and a joint operations command organization (JOCO) was established in each TC (Figure 2.2).⁷

(2) Basic Reform Policy

The basic policy on PLA reforms was that “the CMC performs general management, the theaters are mainly in charge of operations, and the services are mainly in charge of force building” [*junwei guanrong*, 军委管总; *zhanqu zhuzhan*, 战区主战; *junzhong zhujian*, 军种主建] (Figure 2.3).⁸ This policy had the following characteristics.

First, the PLA reforms made a clear distinction between operational and administrative chains of command. Hu Guangzheng at the PLA Academy of Military Science (AMS) and Xu Jinzhao at the Xi’an Politics Institute explained the TCs are responsible for the output of combat power, including joint operational planning and command at the strategic and campaign levels, while the services are responsible for the input of combat power, such as deploying personnel, procuring equipment, and training.⁹

The TC headquarters appear to have greater authority over the operational actions of the troops than the previous MR headquarters. Hu Guangzheng and Xu Jinzhao explained that, under the strategic and overall control of the CMC, TCs centralize command authority over joint operations at the

strategic and campaign levels. The TCs are in charge of strategy and campaign planning, along with commanding joint operations for their assigned strategic direction. On the other hand, the service headquarters became responsible mainly for the administrative chain of command and saw their previously held operational authority diminish. According to the policy, the services exercise administrative control under the CMC's political control and strategic unified planning and guidance, and the services may not manage force building arbitrarily and independently.¹⁰

Second, the chain of command and control (C2) was streamlined based on the concept of “unification of peacetime structure and wartime structure” [*Ping Zhan Yiti*, 平战一体]. In this process, the CMC Joint Operations Command Center (CMC JOCC) and the TC JOCOs were established as standing organs, the lack of which had been a longstanding issue. On April 20, 2016, Xi Jinping visited the CMC JOCC where he stated, “Instituting the CMC JOCC is a critical element of deepening national defense and military reform and an important measure to strengthen the strategic command function of the CMC.” In addition, “commander-in-chief of the CMC Joint Operations Command Center” was added to Xi’s list of titles.¹¹ Later, in his political report to the 19th National Congress of the CCP, Xi instructed the CMC to create TC JOCOs reliably and effectively.¹²

Third, the PLA’s traditional “Big Army” thinking was rectified, albeit imperfectly. At a meeting in the Jinan MR in November 2013, Xi Jinping stated, “We will abandon the ‘Big Army’ thinking and seek to position the Army in the joint operations Systems.” “The CMC will strengthen research on the reform of the Army’s chain of command and administration and complete the overall planning and guidance for the Army’s model change.”¹³ The PLA reforms established the PLAA headquarters. This implies that the PLAA’s priority relative to the other services receded, considering that until then the PLAA’s headquarters function was carried out by the four general departments, especially the General Staff Department (GSD).¹⁴ Furthermore, although the MR headquarters had been the de facto Army headquarters in the seven MR system, an Army headquarters was also established under each TC. These TC Army headquarters were considered equivalent in rank to the TC headquarters of the PLA Navy (PLAN) and the PLAAF, and here again, the PLAA decreased in priority.¹⁵

(3) Main Highlights of the Organizational and Structural Reforms

The series of organizational and structural reforms brought about wide-ranging changes. Attention was focused on the following in regard to strengthening the joint operations structure.

Xi Jinping’s Strengthened Command and Control Authority over the PLA

The PLA reforms strengthened Xi Jinping’s power and authority as chairman of the CMC. The “CMC Opinions on Deepening National Defense and Military Reforms” set forth the following basic principle: to fully implement the CMC chairman responsibility system and concentrate the supreme leadership and command right of the armed forces in the hands of the Party leaders and the CMC.¹⁶ According to a *PLA Daily* commentary with the General Political Department byline, which was reported at the CMC

work conference on military reform held in November 2015, the guiding principle of the reforms was “to strengthen collective leadership by the CMC, comprehensively implement the CMC chairman responsibility system, and concentrate the supreme leadership right and command right of the armed forces in the Party leaders, CMC, and Chairman Xi Jinping.”¹⁷

Observers note that reinforcing the CMC chairman responsibility system will lead to strengthening Xi Jinping’s control over the PLA and increase his C2 authority.¹⁸ Hu Guangzheng and Xu Jinzhao, too, stressed the importance of the CMC chairman responsibility system, calling it “the highest form of the Party’s absolute leadership over the military.”¹⁹ At the 19th CCP National Congress in October 2017, the CMC chairman responsibility system was included in the Constitution of the Chinese Communist Party.²⁰ While the CMC chairman responsibility system was mentioned in the 1982 Constitution of the People’s Republic of China (PRC),²¹ its mention also in the CCP Constitution gave further importance to the system. When the “Political Work Regulations of the PLA” was revised for the first time in a decade in February 2021, the *PLA Daily* and the leadership of the Political Work Department emphasized adherence to “Xi Jinping Thought on Strengthening the Military” and the CMC chairman responsibility system.²²

As a result of the reforms, the Discipline Inspection Commission, which was a division of the General Political Department, became an independent CMC Discipline Inspection Commission. This commission in charge of the anticorruption campaign within the PLA is said to provide an independent assessment of the performance of commanders, political commissars, and the PLA’s Party committees directly to Xi Jinping.²³

The CMC General Office is the staff organization that conducts document and information management, and is the key entity in enforcing the CMC chairman responsibility system. It is headed by Lieutenant General Zhong Shaojun. He served under Xi Jinping since Xi held positions in Zhejiang Province and accompanied Xi both when he became secretary of the Shanghai Municipal Party Committee and member of the Politburo Standing Committee in Beijing. When Xi was appointed CMC chairman, Zhong Shaojun joined the PLA with a senior colonel rank and was appointed vice director of the CMC General Office and director of the CMC Chairman Office. Zhong is considered one of Xi Jinping’s most trusted figures within the PLA²⁴ and is thought to be contributing to Xi’s strengthening of control over the PLA.

Creation of the CMC Multi-Department System

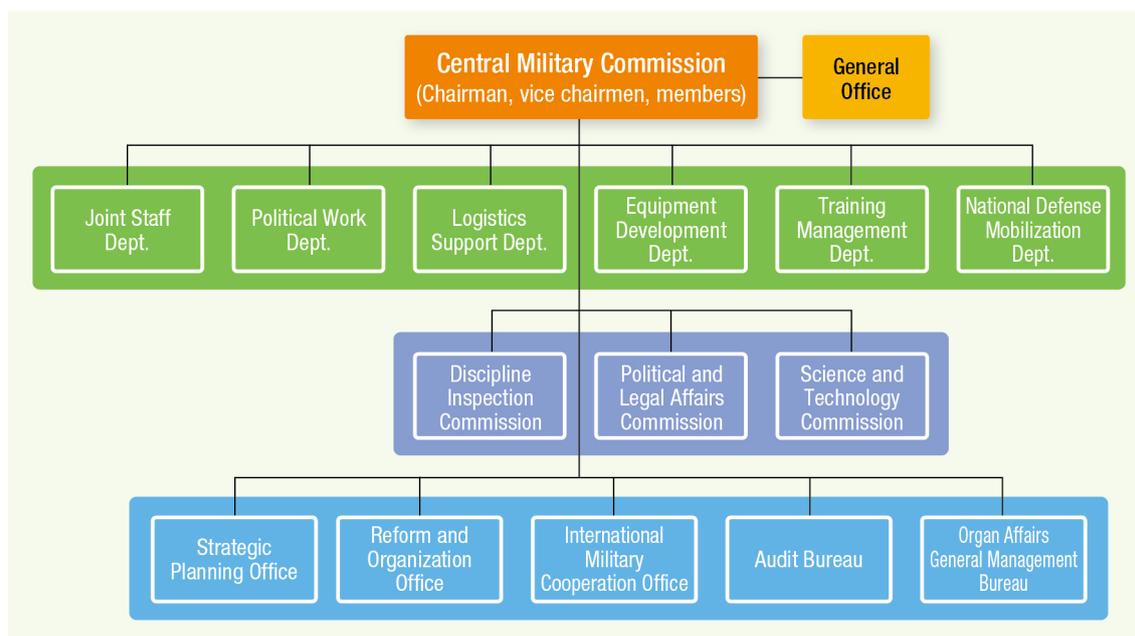
The PLA reforms dissolved the four general departments and created the CMC multi-department system consisting of seven departments, three commissions, and five subsidiary organs (Figure 2.4). The GSD, which had been expanding its functions and roles under the Hu Jintao regime, was subdivided into the Joint Staff Department, the Training Management Department, the National Defense Mobilization Department, the Strategic Planning Office, and the International Military Cooperation Office, while the Army’s headquarters functions were transferred to the PLAA headquarters. Of the

intelligence departments under the GSD, part of the Technical Reconnaissance Department (Third Department) and the Electronic Countermeasures Department (Fourth Department) was transferred to the newly established PLASSF.²⁵

The Joint Staff Department forms the nucleus of joint operations in the CMC. Although the details of the Joint Staff Department have not been revealed, it is believed to have assumed some of the functions of the former GSD, including those of the Operations Department (First Department), the Intelligence Department (Second Department), the Electronic Countermeasures Department, and the Information Department. Furthermore, it appears that the Joint Training Bureau of the Military Training Department of the former GSD was incorporated into the Joint Staff Department as the Strategic and Theater Training Bureau, as well as some organizations of the Operations Bureau of the Staff Department of the services.²⁶ The function of the Joint Staff Department is “to mainly implement operational planning, command and control, and operations command support,” “to study and formulate military strategies and requirements,” “to carry out operations capability assessments,” and “to organize and guide joint operations training, force building for combat readiness, and day-to-day combat readiness duties.”²⁷

The Training Management Department was established based on the Military Training Bureau of the former GSD and is in charge of training and education. It appears to be responsible for further developing joint operations training and assessing training programs in coordination with the Joint Staff Department, the TC headquarters, and the service headquarters.²⁸ The explanation for the creation of the Training Management Department was that “it would be advantageous for unified planning and

Figure 2.4 Structure of the CMC Multi-Department System



Source: Compiled based on Wuthnow and Saunders, *Chinese Military Reforms in the Age of Xi Jinping*, p. 11.

systematic guidance of PLA-wide military training, and advantageous for strengthening the management of operational units and military educational institutions.” The department’s role was set forth as organizing and guiding military training, training supervision, troops administration, and management of educational institutions across the PLA.²⁹

Upgrading of the Second Artillery Corps to the Rocket Force and Establishment of the Strategic Support Force and the Joint Logistics Support Force

A) Rocket Force

The PLASAC, created in 1966, long had the status of “independent branch.” In December 2015, the PLASAC was renamed the PLARF and upgraded to full service on par with the PLAA, the PLAN, and the PLAAF.³⁰ In January 2016, Xi Jinping noted that the PLARF is a “core force of strategic deterrence, a strategic buttress to the country’s position as a major power, and an important building block in upholding national security.”³¹ The National Defense White Paper *China’s National Defense in the New Era* released in July 2019 (NDWP 2019) stated: “In line with the strategic requirements of having both nuclear and conventional capabilities and deterring wars in all battlespaces, the PLARF is enhancing its credible and reliable capabilities of nuclear deterrence and counterattack, strengthening intermediate and long-range precision strike forces, and enhancing strategic counter-balance capability.”³²

The PLARF is (1) under the direct C2 of the CMC, same as when the PLARF was the PLASAC, and (2) the bases across China are under the C2 of the PLARF headquarters. Based on these observations, some say that the PLARF headquarters has greater independence than other service headquarters in terms of operational authority. On the other hand, after the PLA reforms, the PLA stepped up the PLARF’s participation in the joint operations structure. Unlike the other services, the PLARF has not secured the post of deputy commander of TC headquarters. Nevertheless, it has been reported that the PLARF has sent more than 100 staff members to the TC headquarters, and the PLARF’s participation in joint operations training is increasing (see Chapter 3 for more information on joint operations training following the PLA reforms). Furthermore, observers have noted that the PLARF conventional warhead units may have been placed under the C2 of TC JOCOs, strengthening their relationship with the TC headquarters and other services.³³

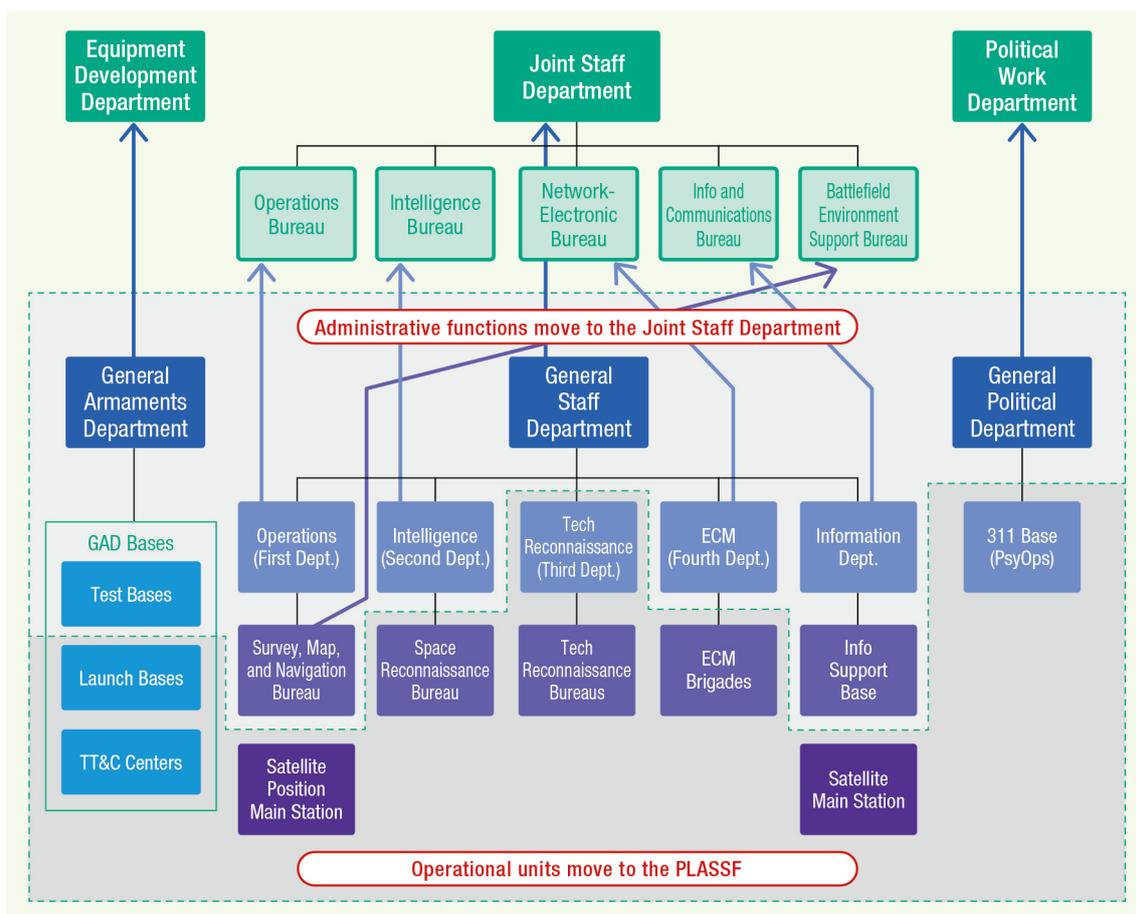
B) Strategic Support Force

In January 2016, Xi Jinping stated, “The PLASSF is a new type of combat force for safeguarding national security and an important driver for the growth of new combat capabilities.”³⁴ NDWP 2019 used the same wording and added: “[The PLASSF] comprises supporting forces for battlefield environment, information, communications, information security, and new technology testing. The PLASSF provides the entire military with accurate, highly efficient, and reliable information support and strategic support. In line with the strategic requirements of integrating existing systems and aligning civil and military endeavors, the PLASSF is seeking to achieve big development strides in key areas and

accelerate the integrated development of new-type combat forces, so as to build a strong and modernized strategic support force.”³⁵ Based on this description, the PLASSF is said to have the following basic mission: win informatized warfare by (1) providing strategic information support for joint operations, including in the new operational domains of space and cyber electromagnetic, (2) achieving information dominance, and (3) converting advanced technologies into military capabilities.³⁶

Although China has not disclosed the structure of the PLASSF, it is believed to have been established primarily from the space units under the former General Armaments Department and from the Technical Reconnaissance Department under the former GSD. The PLASSF includes part of the Operations, Intelligence, and Electronic Countermeasures Departments under the former GSD as well as the psychological warfare units under the former General Political Department (Figure 2.5). This reorganization is considered to have largely consolidated the disparate space and intelligence

Figure 2.5 PLA Reforms: Restructuring of the Space and Cyber Units of the Former Four General Departments



Note: ECM: electronic countermeasures; GAD: General Armaments Department; PsyOps: psychological operations; TT&C: telemetry, tracking, and control.

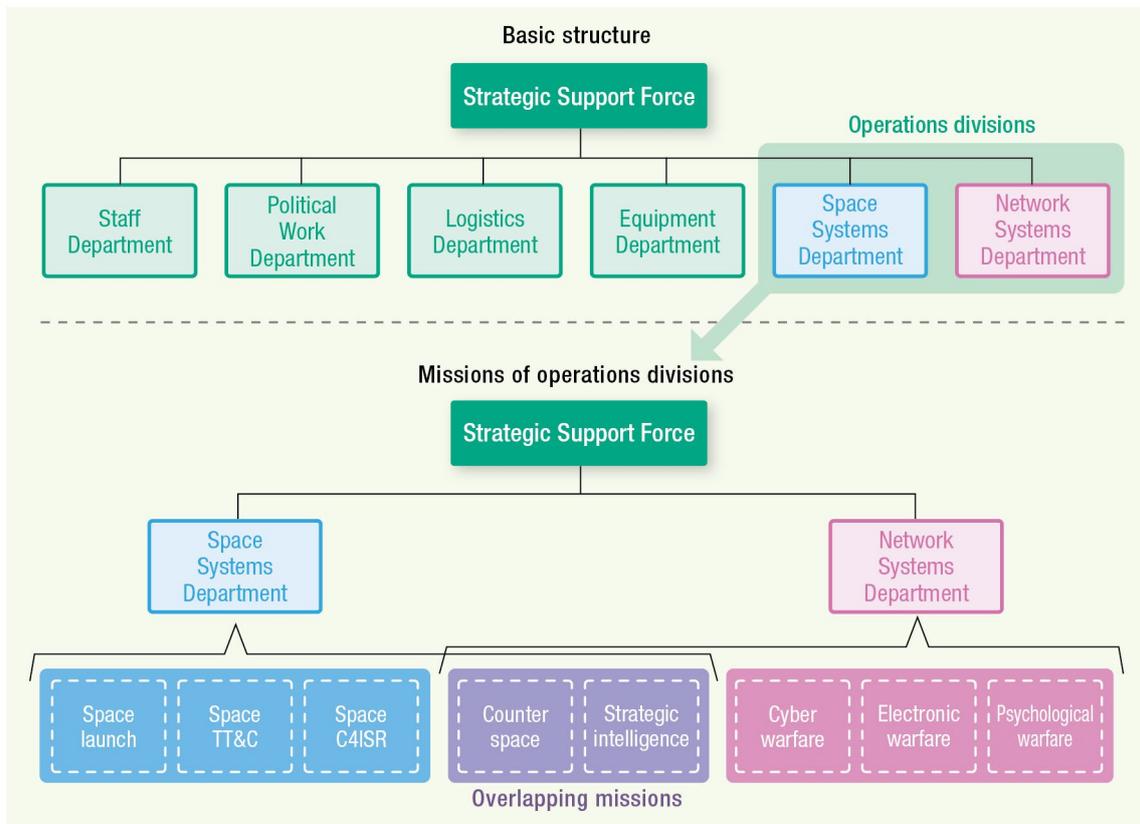
Source: Compiled based on John Costello and Joe McReynolds, *China's Strategic Support Force: A Force for a New Era* (Washington D.C.: National Defense University Press, 2019), p. 10.

operational functions of the PLA. On the other hand, the Joint Staff Department inherited the Information Department under the former GSD, which was in charge of information system defense, and some note that this presents challenges for consolidating the functions of cyber operations.³⁷

A characteristic of the PLASSF structure is that the Staff, the Space Systems, and the Network Systems Departments are equal in status, and some of the missions of the Space Systems and the Network Systems Departments overlap. In addition, according to a U.S. Department of Defense report and U.S. scholars, the Network Systems Department incorporated the 311 Base, which was in charge of psychological warfare in the former General Political Department, and in turn, the PLASSF could be supervising psychological warfare (Figure 2.6).³⁸

The PLASSF, like the PLARF, seems to be under the direct C2 of the CMC and not included in the chain of command of the TCs. According to some observers, the PLASSF, contrary to the other services, is unique in having not only the role of a force provider but also the nature of a force user, conducting asymmetric warfare, such as cyber-electromagnetic confrontation and space-electronic confrontation. The PLASSF is thought to support the cyber operations of the TCs under the CMC's order. However, the relationship between the PLASSF and the TC headquarters is unclear, and some

Figure 2.6 Strategic Support Force Organization Chart



Note: TT&C: telemetry, tracking, and control; C4ISR: command, control, communications, computers, intelligence, surveillance, and reconnaissance.

Source: Compiled based on Costello and McReynolds, *China's Strategic Support Force*, p. 11.

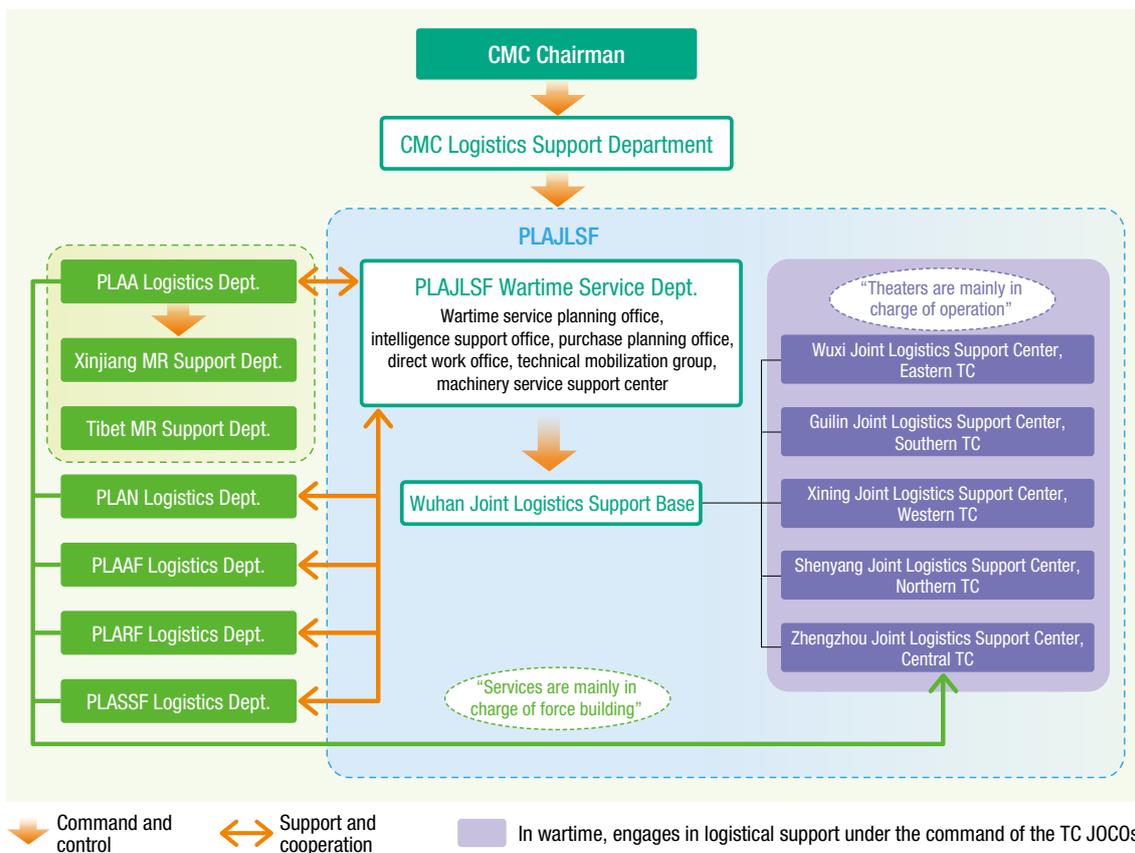
view that the command relationship is gradually forming as the PLA reforms make progress.³⁹

C) Joint Logistics Support Force

The PLA Joint Logistics Support Force (PLAJLSF) was created in September 2016 as part of the PLA reforms. It consists of the Wuhan Joint Logistics Support Base and the joint logistics support centers in Wuxi, Guilin, Xining, Shenyang, and Zhengzhou, with each center in charge of logistics support in their home TCs. Xi Jinping stated that the PLAJLSF “is the main force to conduct joint logistics support as well as strategic and campaign level support and is an important component of the modern military force System with Chinese characteristics.”⁴⁰ NDWP 2019 used the same wording and noted, “In line with the requirements of joint support for joint operations and joint training, the PLAJLSF is being integrated into the joint operations system to enhance the capabilities of integrated joint logistics.”⁴¹

It is unclear why the creation of the PLAJLSF was delayed relative to other reforms; the PLA had sought to integrate the logistics support system since the 1990s. The PLAJLSF, like the PLARF and the PLASSF, reports directly to the CMC, and is believed to be under the jurisdiction of the CMC

Figure 2.7 Chain of Command of the Joint Logistics Support Force



Source: Compiled based on 董慧明 [Dong Huiming], “共军联勤保障部队战略与建设 [Strategy and Construction of the Communist Army’s Joint Logistics Support Force],” 中共研究 [Studies on Chinese Communism], Vol. 54, No. 5, 2020, p. 92.

Logistics Support Department, which inherited many of the divisions of the former General Logistics Department. The PLAA, PLAN, PLAAF, PLARF, and PLASSF units in the respective TCs as well as the Xinjiang and Tibet MRs directly under the PLAA headquarters are noted to have logistics and support departments even after the PLA reforms.⁴² The PLAJLSF centers are under the command of the Wuhan Joint Logistics Support Base in peacetime. In wartime, they are thought to be under the command of the TC JOCOs and provide logistics support to the operational units in the TCs. The PLA, led by the PLAJLSF, is thereby working to build an integrated logistics support system in line with the basic policy, “the CMC performs general management, the theaters are mainly in charge of operations, and the services are mainly in charge of force building” (Figure 2.7).⁴³

Reorganization of the Navy, the People's Armed Police, and the China Coast Guard

The PLA cut 300,000 personnel under its reforms. Meanwhile, it decided to add personnel to the Navy based on Xi Jinping's strategic consideration that national security threats mainly emanate from the sea. As a result, the number of PLAN personnel is estimated to have increased from 230,000 to 300,000.⁴⁴

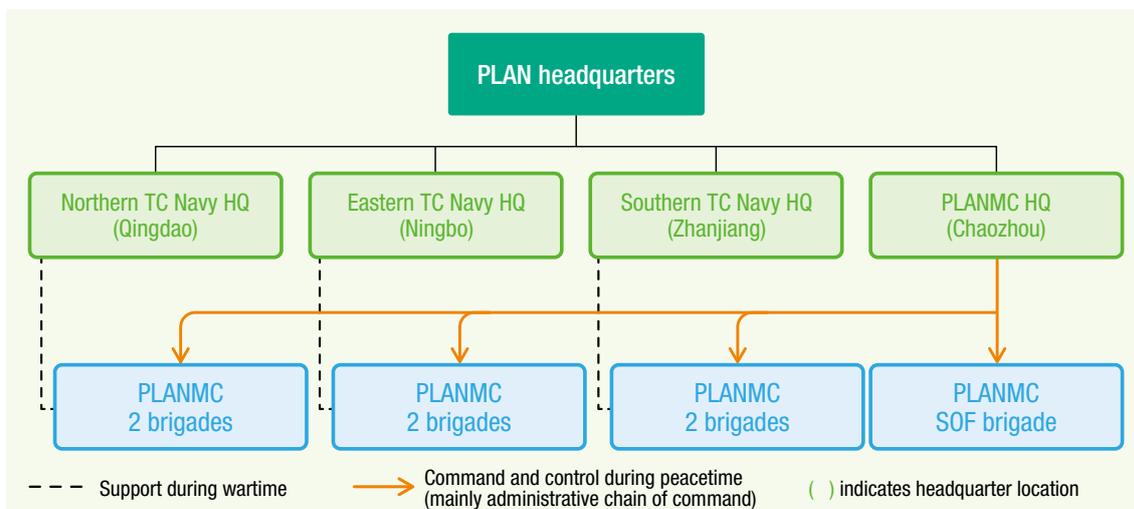
Among the PLAN branches, the PLA Navy Marine Corps (PLANMC) underwent a significant expansion due to the PLA reforms. The PLANMC was previously under the South Sea Fleet, consisting only of two brigades and approximately 10,000 personnel. Through the PLA reforms, the PLANMC incorporated a motorized infantry brigade and coastal defense units of the PLAA, as well as a special operations force (SOF) and a helicopter unit of the PLAN, increasing the number of brigades to eight (six combined arms brigades, one SOF brigade, and one shipborne aviation (helicopter) brigade). The PLANMC appears to have also added personnel, but the number is not known. In addition, the PLANMC headquarters was newly established in Chaozhou, Guangdong Province and was given the same status as the headquarters of the North Sea, East Sea, and South Sea Fleets (Figure 2.8).⁴⁵

The PLANMC, like the service headquarters, is deemed to have an administrative role, which includes coordination of personnel assignments, training, political indoctrination, logistics, and equipment support. The PLANMC brigades likely are intended to be employed relatively independently, with support received from other elements of their parent service. The role of the expanded PLANMC is said to place emphasis on first attacks in landing operations, such as reconnaissance, small-scale raid, infiltration, and special operations attack, as well as on swift overseas deployments, in addition to existing operations—amphibious operations, which focus



CMC Chairman Xi Jinping giving remarks to the PLANMC (October 2020) (Photo: Xinhua News Agency/Kyodo News Images)

Figure 2.8 Post-Reform Chain of Command of the PLA Navy Marine Corps



Note: Respective Theater Command headquarters appear to be responsible for the wartime operations of the SOF brigade.

Sources: Compiled based on 董连山 [Dong Lianshan], ed., *基于信息系统的体系作战研究 [Research on Information System-Based System of Systems Operations]* (Beijing: 国防大学出版社 [NDU Press], 2012), p. 148; Dennis Blasko and Roderick Lee, “The Chinese Navy’s Marine Corps, Part 1: Expansion and Reorganization,” *China Brief*, Vol. 19, No. 3, 2019; Blasko and Lee, “The Chinese Navy’s Marine Corps, Part 2: Chain-of-Command Reforms and Evolving Training,” *China Brief*, Vol. 19, No. 4, 2019; 黄郁文 [Huang Yuwen], “中共军改后海军陆战队的建构与发展 [The Establishment and Evolvement of the PLA Navy Marine Corps after Chinese Military Reforms],” *海军学术双月刊 [Navy Professional Journal]*, Vol. 53, No. 5, 2019, p. 70; among others.

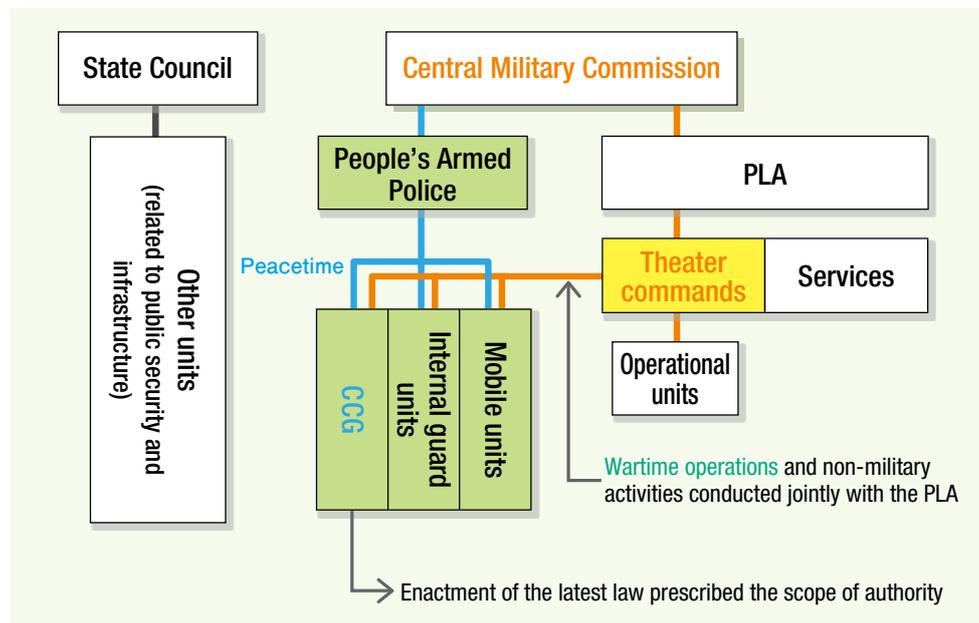
on securing bridgeheads for large-scale landing operations, and island defense in the South and East China Seas. On the other hand, the PLAA’s amphibious operations brigades have not been reorganized, raising speculation that the PLAA’s amphibious operations brigades will play the main role in large-scale landing operations.⁴⁶

The People’s Armed Police (PAP) was under the dual command of the CMC and the State Council. However, in January 2018, the chain of C2 was centralized by placing the PAP under the CMC.⁴⁷ In the same month, Xi Jinping instructed that the PAP speed up its integration with the PLA-wide joint operations structure.⁴⁸

In March 2018, the units of the China Coast Guard (CCG) under the State Oceanic Administration were placed under the command of the PAP as part of the institutional reforms announced after the National People’s Congress (NPC) opened.⁴⁹ The CCG units were reorganized into the PAP Maritime Police Contingent and kept the China Coast Guard name for common use.⁵⁰ This established a new maritime border security management system comprised of the CMC, the PAP, and the Maritime Police Contingent (CCG). This move was in line with the decision to coordinate and streamline the mechanisms for border security management at sea and in the air proposed when the PLA reforms were announced in November 2013.⁵¹

The reformed CCG is described to have a dual identity: an identity as a component of China’s

Figure 2.9 CMC-PAP-CCG Chain of Command Following the Entry into Force of the Coast Guard Law



Source: Compiled based on the website of the Ministry of Defense of Japan.

“armed forces” and an identity as a domestic law enforcement agency. The CCG has strengthened its collaboration with the PLAN, with PLAN officers serving as the director-general of the CCG Bureau and as directors-general of the CCG regional branch bureaus in the north, sea, and south seas.⁵² The 2020 edition of *Science of Strategy* noted that the CCG shall be incorporated into the PLA and PAP network information Systems and develop institutional mechanisms for joint monitoring, joint command, and joint actions with the PLAN.⁵³ Pursuant to Article 83 of the Coast Guard Law of the PRC, which entered into force in February 2021, the CCG is to conduct defensive operations and other missions in accordance with relevant laws, including the National Defense Law of the PRC and the People’s Armed Police Law of the PRC, as well as military regulations and CMC orders.⁵⁴ The CCG has thus deepened cooperation with the PLA via the PAP (Figure 2.9).

2. Personnel System of Senior PLA Officers for Enhanced Joint Operations

(1) Members of the PLA Leadership as of the 19th National Congress

Xi Jinping aims to strengthen his power base in the PLA by demonstrating authority over personnel appointments. He personally reviews appointments to the MR (TC) leadership⁵⁵ (generals and lieutenant generals) and conducts meetings with every officer who is to be promoted to MR (TC) leader,

corps leader of operational units (major generals and lieutenant generals), and key positions in CMC departments.⁵⁶ Around the time of the 19th National Congress, Xi conducted a major reshuffle of the PLA leadership (CMC members, TC commanders and political commissars, and service commanders and political commissars). At that time, Xi established four criteria for selecting the new CMC members: (1) uphold political standards; (2) concentrate on preparing for war and winning battles; (3) optimize the balance between the services; and (4) prioritize the age distribution. He then appointed the members shown in Table 2.1.⁵⁷ The characteristics of these personnel appointments can be summed up into the following three points.

Politics Is Given the Highest Priority

As evidenced by the fact that “uphold political standards” was set forth as the first CMC member selection criterion, “politics” was given top priority in selecting officers, i.e., the strength of their loyalty to the CCP and Xi Jinping. The relationship between Xi and military personnel can be divided into three broad categories.

The first category of personnel is those who have a close personal relationship with Xi Jinping because of their family background. Zhang Youxia, vice chairman of the CMC, is in this category. His father, General Zhang Zongxun, was a comrade of Xi’s father, Xi Zhongxun.⁵⁸

The second category is those who worked with Xi Jinping when he was in Fujian and Zhejiang Provinces, Shanghai City, and other locations before he was appointed member of the Politburo Standing Committee. Such officers include Xu Qiliang, vice chairman of the CMC; Miao Hua, director of the Political Work Department; Han Weiguo, former PLAA commander; and Ding Laihang, former

Table 2.1 Members of the CMC Decided at the 19th National Congress

| Title | Name | Position, rank, and service |
|---------------|-------------------------|--|
| Chairman | Xi Jinping (age 67) | CCP general secretary and president of the PRC |
| Vice chairman | Xu Qiliang (age 70) | Member of the Politburo of the CCP Central Committee; general; PLA AF |
| Vice chairman | Zhang Youxia (age 70) | Member of the Politburo of the CCP Central Committee; general; PLAA |
| Member | Wei Fenghe (age 66) | Minister of national defense and member of the CCP Central Committee; general; PLARF |
| Member | Li Zuocheng (age 67) | Chief of the Joint Staff Department and member of the CCP Central Committee; general; PLAA |
| Member | Miao Hua (age 65) | Director of the Political Work Department and member of the CCP Central Committee; admiral; transferred from PLAA to PLAN |
| Member | Zhang Shengmin (age 62) | Secretary of the CMC Discipline Inspection Commission, deputy secretary of the CCP Central Commission for Discipline Inspection, and member of the CCP Central Committee; general; PLARF |

Note: Ages as of January 2021.

Source: Compiled based on media reports.

PLAAF commander. Miao Hua has contributed to increasing Xi's influence in the PLA by expressing his loyalty to Xi Jinping in the *PLA Daily* in April 2014, and at the 11th Plenary Session of the 11th PLAN Party Committee in March 2016, stating, "I pledge absolute obedience to President Xi Jinping, the core leader."⁵⁹

The third category is those who were promoted to general or selected for key posts after Xi Jinping became chairman of the CMC. They include Wei Fenghe, state councilor and minister of national defense; Li Zuocheng, chief of the Joint Staff Department; and Zhang Shengmin, secretary of the CMC Discipline Inspection Commission.⁶⁰

Selecting Younger Officers with Military Expertise

Priority was also given to selecting officers who have military expertise, in keeping with strengthening the joint operations structure.⁶¹ CMC members were selected from the PLAA, the PLAN, the PLAAF, and the PLARF.⁶² Even for selecting TC commanders, a position dominated by the PLAA, Yuan Yubai became the first PLAN officer to be appointed commander of the Southern TC and Yi Xiaoguang the first PLAAF officer to be appointed commander of the Central TC in 2017.⁶³ These appointments likely reflect the Xi leadership's desire to strengthen the joint operations structure to correct the "Big Army" thinking.⁶⁴

In addition, Xi Jinping has been noted to be actively engaged in selecting young military personnel as he sought to eliminate the influence of Guo Boxiong and Xu Caihou in the military.⁶⁵ In fact, in 2017, Li Qiaoming (then age 56), who had just been promoted to lieutenant general, was appointed commander of the Northern TC.

Elevating the CMC Discipline Inspection Commission and Continuing the Anticorruption Campaign

In the course of the PLA reforms, Xi Jinping focused on the anticorruption campaign as a way to build his power base within the military.⁶⁶ For example, Xi intentionally referred to the issue of discipline within the PLA at the end of his speech, which was delivered at the first plenary session of the CMC Leading Group for National Defense and Military Reform on March 15, 2014.⁶⁷ Considering Xu Caihou was arrested on the same day, Xi presumably was indicating to PLA officers that those who oppose the PLA reforms would be severely punished in the anticorruption campaign. Furthermore, just prior to the 19th National Congress, Fang Fenghui, chief of the Joint Staff Department, and Zhang Yang, director of the Political Work Department, lost



CMC ceremony promoting officers to generals in July 2021 (Photo: Xinhua News Agency/Kyodo News Images)

their posts.⁶⁸

Zhang Shengmin's appointment as a CMC member signifies a rise in status of the CMC Discipline Inspection Commission. These measures suggested that Xi Jinping would continue to strengthen his power base within the military through the anticorruption campaign.

(2) TC Headquarters and Service Headquarters on Equal Footing

In the 2017 reshuffle of senior PLA officers, service commanders who were granted CMC membership during the Hu Jintao era lost their status. All commanders of the TCs and services were selected as CCP Central Committee members. Whereas all political commissars of the services were selected as members of the 19th CCP Central Committee, some of the political commissars of the TCs were not selected as members. Thirteen CCP Central Committee members were from service headquarters and 12 from TC headquarters,⁶⁹ demonstrating that the two headquarters have become nearly equal in status. There has been no significant change in this trend as of September 2021, even while reshuffles continued in the TC and service headquarters following the 19th National Congress (Table 2.2).

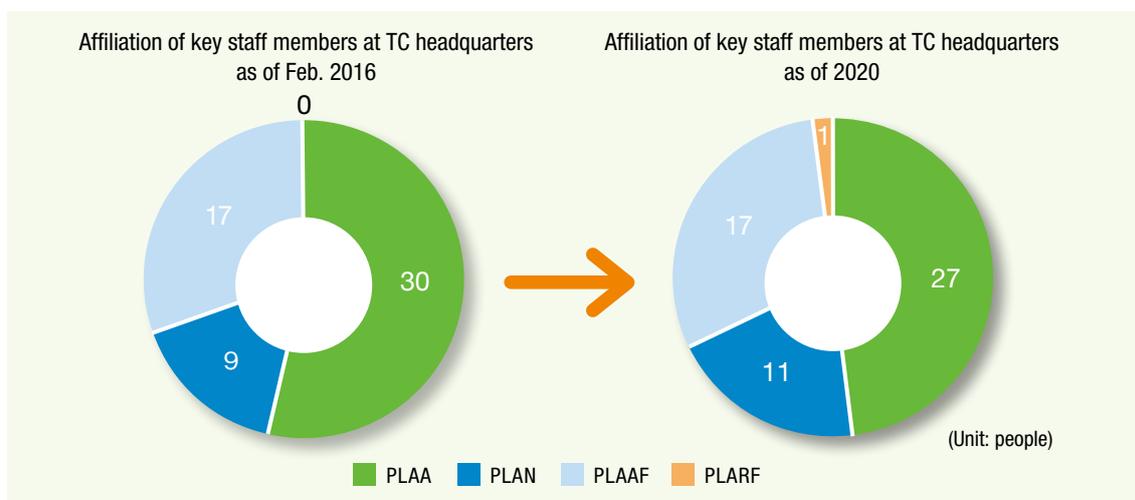
As regards the officers' speaking order at a PLA delegates' meeting of the 19th National Congress, the commanders and political commissars of the TCs spoke before the commanders and political commissars of the services.⁷⁰ This is thought to signify a rise in status and authority of the TCs.

Table 2.2 Members of TC Headquarters and Service Headquarters as of September 2021

| TC | Commander (rank, service) | Political commissar (rank, service) |
|-------------|---|---|
| Eastern TC | He Weidong (general, PLAA) | He Ping (general, PLAA) CCP Central Committee member |
| Southern TC | Wang Xiubin (general, PLAA) CCP Central Committee candidate member | Wang Jianwu (general, PLAA) CCP Central Committee member |
| Western TC | Wang Haijiang (general, PLAA) | Unknown |
| Northern TC | Li Qiaoming (general, PLAA) CCP Central Committee member | Fan Xiaojun (general, PLAAF) CCP Central Committee member |
| Central TC | Lin Xiangyang (general, PLAA) | Zhu Shengling (general, PLAA) CCP Central Committee member |
| Service | Commander (rank) | Political commissar (rank) |
| PLAA | Liu Zhenli (general) CCP Central Committee member | Liu Lei (general) CCP Central Committee member |
| PLAN | Dong Jun (admiral) | Qin Shengxiang (admiral) Transferred from PLAA; CCP Central Committee member |
| PLAAF | Chang Dingqiu (general) CCP Central Committee candidate member | Yu Zhongfu (general) CCP Central Committee member |
| PLARF | Zhou Yaning (general) CCP Central Committee member | Xu Zhongbo (general) CCP Central Committee candidate member |
| PLASSF | Ju Qiansheng (general) | Li Wei (general) |

Source: Compiled based on media reports.

Figure 2.10 Shift in Composition of Key Posts at TC Headquarters



Note: Key posts at TC headquarters refers to commander, political commissars, deputy commanders (including TC chief of staff), and deputy political commissars (including director of the TC Political Work Department).

Sources: Compiled based on 中共研究杂志社 [Studies on Chinese Communism Publishing Co.], ed., 军改后共军重要领导人评析专辑 [Collection of Evaluations of Important Leaders of the Communist Military after the Military Reforms] (Taipei: 中共研究杂志社 [Studies on Chinese Communism Publishing Co.], 2016), pp. 69-101; 中共研究杂志社 [Studies on Chinese Communism Publishing Co.], ed., 2020年共军人事专辑 [Feature: 2020 Communist Army Personnel] (Taipei: 中共研究杂志社 [Studies on Chinese Communism Publishing Co.], 2020), pp. 110-147.

(3) Appointment of Joint Operations-Oriented TC Headquarter Officers

On February 1, 2016, it was announced that the seven MRs would be dissolved and five TCs would be created. All commanders of the TCs were from the Army, and all the political commissars, except for Zhu Fuxi (Western TC) of the Air Force, were from the Army.⁷¹ Meanwhile, commanders of the TC Army, the TC Navy, and the TC Air Force were appointed as TC deputy commanders. In addition, full-time TC deputy commanders were appointed from the PLAA, the PLAN, and the PLAAF. As for the chiefs of staff of the TCs selected from among the deputy commanders, Rear Admiral Wai Gang of the Navy was appointed to the Southern TC and Major General Li Fengbiao of the Air Force was appointed to the Central TC.⁷²

In 2017, the PLAA's dominance of TC commanders ended with the appointment of TC commanders from the PLAN and the PLAAF. As mentioned earlier, these selections likely reflected Xi Jinping's wishes, as he himself was engaged in the review of TC-level officer candidates. Furthermore, although no PLARF general has been appointed as a commander, political commissar, or deputy commander, they appear to have been appointed as TC deputy political commissars (lieutenant general level) and deputy chiefs of staff and assistant chiefs of staff (major general level).⁷³ The officers comprising the TC headquarters are thus increasingly, albeit gradually, more mindful of joint operations (Figure 2.10). However, in July 2021, the PLAA's Wang Xiubin was appointed commander of the Southern TC, replacing Yuan Yubai, while in September, Lin Xiangyang, also from the PLAA,

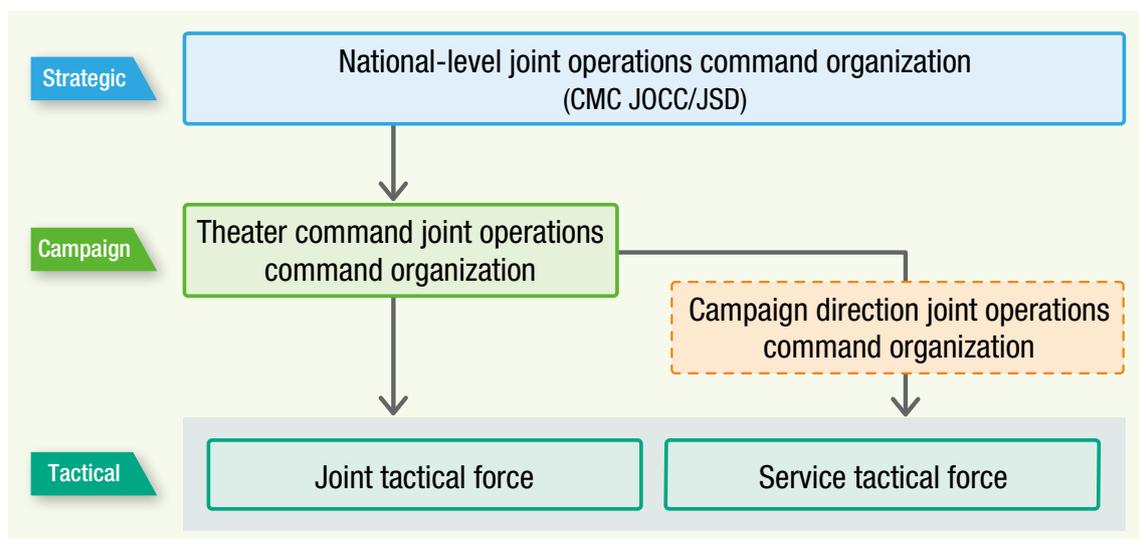
was appointed commander of the Central TC, replacing Yi Xiaoguang. Consequently, PLAA officers once again dominate all TC commander posts.⁷⁴

3. Situation of the PLA's Joint Operations Command Structure and C2 Systems for Joint Operations

(1) Multi-Layered Joint Operations Command Structure Headed by the CMC Joint Operations Command Center

The PLA has established a multi-layered joint operations command structure consisting of the strategic, TC (campaign), and tactical levels. The CMC JOCC is a standing organization at the strategic level and the TC JOCO a standing organization at the TC (campaign) level. At the tactical level, brigade-size tactical units of the services form the base of a standing organization. When necessary, a joint tactical force is established, and the services supply forces suited to the mission. In addition, if necessary, a temporary JOCO of the campaign (TC) direction level is established between the TC (campaign) and tactical levels (Figure 2.11).⁷⁵ In fact, in 2012, the PLA established the East China Sea Joint Operations Command Center in the East Sea Fleet headquarters amidst the increasingly tense situation surrounding the Senkaku Islands. The center commands the PLAN and the PLAAF as the

Figure 2.11 The Layers of the PLA's Joint Operations Command Structure



Sources: Compiled based on 谭亚东 [Tan Yadong], ed., 联合作战教程 [Lectures on Joint Operations] (Beijing: 军事科学出版社 [Academy of Military Science Press], 2013), pp. 88-92; 蓝羽石、毛永庆、黄强 [Lan Yushi, Mao Yongqing, and Huang Qiang] et al., eds., 联合作战指挥控制系统 [Joint Operations Command and Control System] (Beijing: 国防工业出版社 [National Defense Industry Press], 2019), p. 47.

campaign direction-level JOCO.⁷⁶

The details of the CMC JOCC and the relationship between the CMC JOCC and the Joint Staff Department are unknown.⁷⁷ However, some believe that the Joint Staff Department is responsible for operational planning, preparation for war, strategic research, guidance on joint operations training, and command of overseas non-war military operations, while the CMC JOCC provides strategic command to the TCs in wartime.⁷⁸

In a book published before the PLA reforms, scholars at the AMS defined the strategic-level JOCO, which is believed to have the CMC JOCC in mind, as “an organization in which the supreme command provides strategic command over joint operational actions.” They set forth its basic mission as “to determine the war situation, finalize strategic guidance policies, make strategic decisions, formulate strategic plans, organize strategic support, coordinate military combat actions in strategic directions and actions implemented through PLA-local government collaboration, and realize the objective of the war, based on decision-making and the intentions at the highest level.”⁷⁹

The main command post forms the basis of the strategic-level JOCO, and forward and special command posts are established as needed. The main command post is comprised of supreme command officers, and based on the situation, calls upon officers from the services. A monograph by AMS published before the PLA reforms notes that the main command post of the strategic-level JOCO consists of various departments, including the C2 Center, the Intelligence Department, the Informatization (Communications) Department, the Military Affair and Mobilization Department, the Political Work Department, the Logistic Support Department, and the Equipment Support Department. However, a monograph by the PLA National Defense University (NDU) published in April 2016 noted that, while this model represents the trend into the future, the current CMC JOCC consists of general departments, service departments, and other specialized departments, and the extent of their integration is little.⁸⁰ It suggests that the CMC JOCC was not necessarily perfected at its inception and is exploring ways to approach its ideal form through various operations.



CMC Chairman Xi Jinping visiting the Southern TC (October 2018) (Photo: Xinhua News Agency/Kyodo News Images)

(2) Characteristics of the TC Joint Operations Command Structure

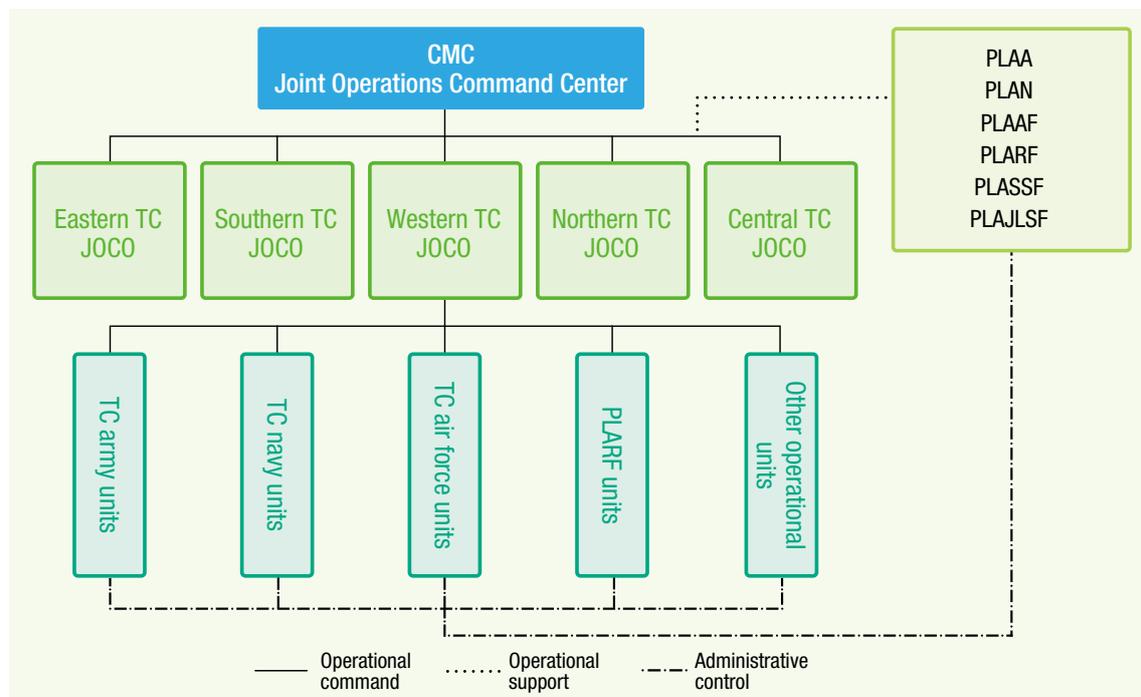
In February 2016, Xi Jinping stated that TCs “have a pivotal role in safeguarding the country’s overall national security and military strategies in dealing with security threats, maintaining peace, containing wars, and winning wars in their respective strategic directions.” A spokesperson for China’s Ministry of National Defense described TCs as “the only supreme joint operations command organization in their respective strategic directions.” A monograph by NDU proposed “centralized unity” as one of

the key principles of commanding joint operations in TCs. It denied the service headquarters' C2 authority over operational units in the execution of joint operations, noting that no one but the supreme command (CMC) can engage in the command of operational units by the commanding officers in TC JOCOs (commander and political commissars of TCs). Thus, TCs have significant power and C2 authority in the conduct of joint operations. However, the monograph does not deny that, in large-scale joint operations, PLA leaders may dispatch a senior officer above the rank of deputy chief of staff of the Joint Staff Department as the command officer for a joint operation.⁸¹

TC JOCOs appear to command the theater armies, navies, and air forces, and in wartime, the PLARF conventional warhead units and other operational forces (e.g., PLASSF, PLAJSF, PAP, CCG, militias) (Figure 2.12). The PLARF is a subsidiary service of the CMC. Although there have been no moves to establish a TC PLA Rocket Force headquarters or to secure a deputy commander post, observers note that TC JOCOs will command the PLARF conventional warhead units deployed to theaters in wartime. Meanwhile, the CMC is said to be holding off on delegating the command authority over conventional warhead systems used for strategic targets, such as DF-21D and DF-26, to the TC headquarters.⁸²

For the time being, TC JOCOs will likely conduct joint operations through the TC service headquarters due to constraints in the resources for command means and command personnel. At the same time, the PLA envisages that, depending on the situation, a specific operational group command

Figure 2.12 The PLA's Joint Operations Command Structure



Source: Compiled based on 刘伟 [Liu Wei], ed., 战区联合作战指挥 [Theater Command Joint Operations Command] (Beijing: 国防大学出版社 [NDU Press], 2016), p. 340.

organization will put forces of other services under its command. In air operations, for instance, the PLAAF-led Air Operations Group Command Department will command not only PLAAF air units but also PLAN air units. In landing operations, the Land Operations Group Command Department will command PLANMC and PLAAF airborne units in addition to PLAA units.⁸³

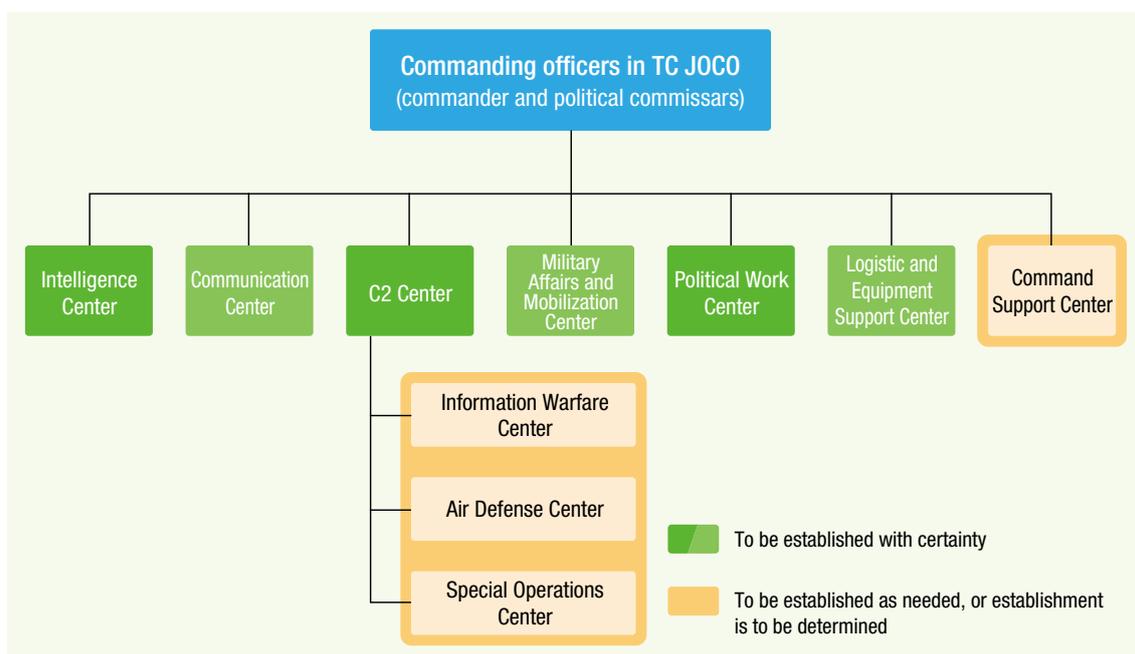
TC JOCOs consist of a main command post, an alternate command post, a rear command post, a direction command post, and a forward command post. The main command post is always established. The alternate and rear command posts are established in many circumstances, whereas the direction and forward command posts are established as the situation demands. The main command post is the central command organization and consists of the TC JOCO commanding officer, the TC JOCO chief of staff, and key staff officers and staff for rear support (logistics and equipment support). The main command post is likely to be set up in underground locations. The alternate command post consists of

Table 2.3 Role of Departments of Main Command Post of TC Joint Operations Command Organization

| Department | Main role |
|--|--|
| Command & Control Center | It is in charge of advising TC JOCO commanding officers (commanders and political commissars) for their decision-making on joint operations, formulating joint operation plans, and coordinating and controlling the actions of the services. |
| Intelligence Center | It establishes joint intelligence and reconnaissance Systems, provides guidance on intelligence activities by the services, comprehensively processes information from the services, and transmits it to the C2 Center and related departments. |
| Communication Center | It is responsible for planning and building joint communications Systems and command information system, unifying and distributing communications frequency resources, guiding the systematic operation of communications and command information systems used by the services, and enabling information sharing among the services. |
| Military Affairs and Mobilization Center | It is responsible for battlefield control, military affairs, and operational system mobilization. |
| Political Work Center | It is responsible for political work in the services, and conducts psychological warfare and other operations. * See Chapter 3, Section 3 for more information on wartime political work. |
| Logistic and Equipment Support Center | It is responsible for logistics and equipment support. |
| Command Support Center | It is comprised of the meteorological, hydrological, positioning navigation, and general information command support staff, and is responsible for providing command support that cannot be provided by the Intelligence and Communication Centers. |
| Information Warfare Center | It is responsible for planning and building the joint information warfare Systems, drafting the joint information warfare plan, and guiding the information warfare conducted by the services. |
| Air Defense Center | It is responsible for planning and building the joint air defense operational Systems and planning and organizing air defense operational actions. It guides and coordinates the air defense operational actions of the operational groups, helps organize civil air defense in various locations, and organizes and orchestrates air defense operations under the instruction of the command officers of its operational units and the air defense command centers of senior units. |
| Special Operations Center | It is responsible for drafting plans and arranging actions for joint special operations. |

Sources: Compiled based on 刘伟 [Liu Wei], 联合作战指挥 [Joint Operations Command] (Shenyang: 白山出版社 [Baishan Publishing House], 2010), pp. 50-53; Liu, *Theater Command Joint Operations Command*, pp. 83-84; Jeffrey Engstrom, *Systems Confrontation and System Destruction Warfare: How the Chinese People's Liberation Army Seeks to Wage Modern Warfare* (Santa Monica: RAND Corporation, 2018), pp. 39-41.

Figure 2.13 Internal Structure of Main Command Post of TC Joint Operations Command Organization



Sources: Compiled based on Liu, *Joint Operations Command*, pp. 50-53; Liu, *Theater Command Joint Operations Command*, p. 82.

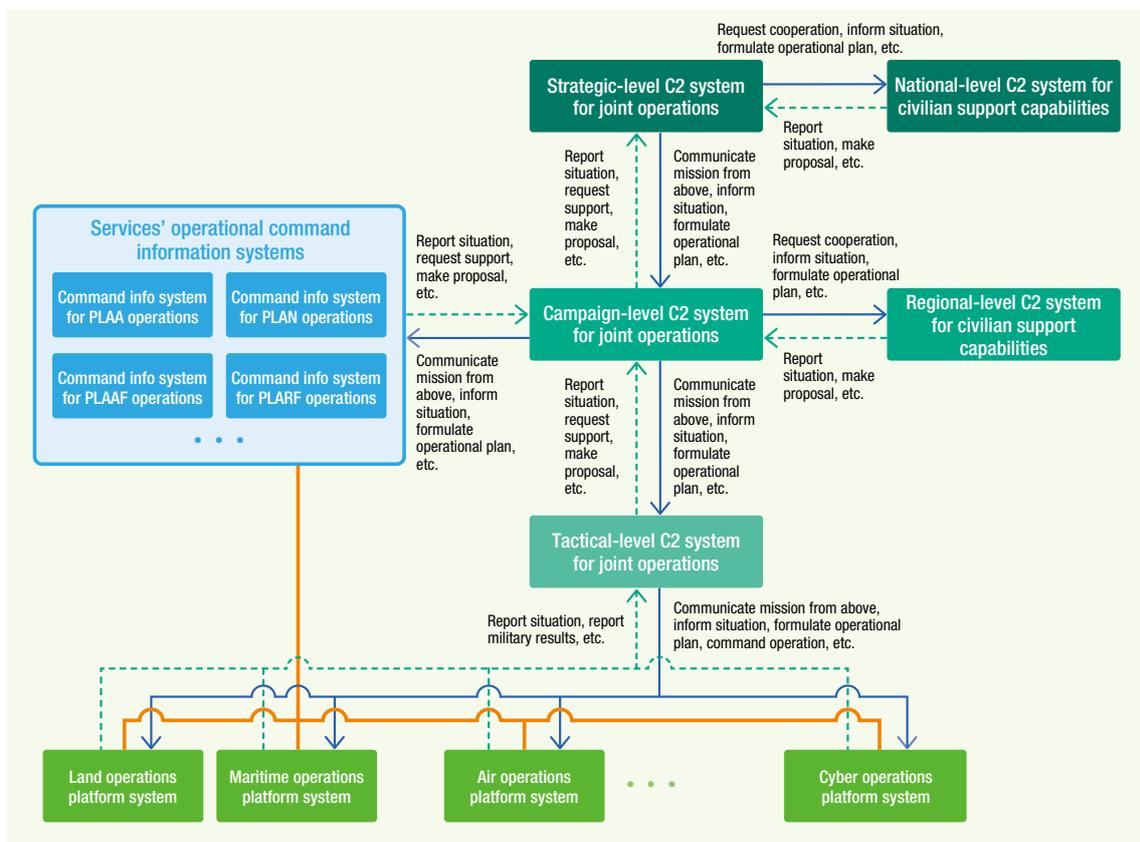
the TC JOCO deputy command officer as well as the operations, reconnaissance, and communications staff of the services. Political and logistics staff are also assigned as necessary. The rear command post consists of the TC JOCO deputy command officer as well as staff dispatched by the rear support divisions of the services and by local governments. It is responsible mainly for rear support operations and provides support for rear defense, rear political work, coordination with local governments, and securing systems for military traffic as well as rear communications and command information.⁸⁴

There are no specific regulations regarding the composition of the main command post of TC JOCOs. However, the Regulations of the PLA Headquarters states that, in principle, the main command post may establish departments, such as C2, intelligence, communication, military affairs and mobilization, political work, logistics support, and equipment support centers, and form other organizations as necessary. Liu Wei, a senior colonel engaged in joint operations research at NDU, notes that the main command post of TC JOCOs consists of the C2 Center, Intelligence Center, Communication Center, Military Affairs and Mobilization Center, Political Work Center, and Logistic and Equipment Support Center, and may sometimes establish a Command Support Center. In a monograph published before the PLA reforms, Liu Wei states that in addition to these centers, the main command post will establish the Information Warfare Center, Air Defense Center, and Special Operations Center separately or inside the C2 Center. A monograph by NDU published after the PLA reforms notes that an information warfare organization will be established under the C2 Center (Figure 2.13).⁸⁵ The main roles of the respective departments are shown in Table 2.3.

(3) Evolution of the C2 Systems for Joint Operations

A Chinese monograph, commissioned by the Equipment Development Department, defines C2 systems for joint operations as “systems to improve the ability to conduct joint operations and diversified missions, in which functions are provided such as comprehensive analysis of battlefield situations, joint planning by multiple services and branches, joint operational command, and control of operational joint actions, and in which joint operations command personnel conduct command, control, coordination, and information sharing for units participating in joint operations, including services and branches and other operational forces.” The monograph explains the role of the C2 systems is to integrate real-time sensing, efficient C2, precision attack, full-dimensional defense, and comprehensive support by interfusing operational elements, operational units, and operational systems in joint operations and, based on information systems, provide Systems operational capabilities that “are fully integrated across all domains, consolidate services, are seamlessly connected, and are secure and reliable.” The systems are described as consisting of a joint situation sensing capability, joint command and decision-making capability, joint action control capability, and joint support capability.⁸⁶ Such C2 systems for joint operations are said to be the central subsystem of as well as the heart and brain of the

Figure 2.14 The External System Relationship of the C2 Systems for Joint Operations in the PLA



Source: Compiled based on Lan, Mao, and Huang et al., *Joint Operations Command and Control System*, p. 50.

command information systems.⁸⁷

There are many unknowns about the PLA's C2 systems for joint operations. However, the aforementioned monograph reveals the following points. First, the C2 systems for joint operations have a three-tier structure comprised of the strategic, campaign, and tactical levels. If necessary, C2 systems for campaign direction operations are established between the campaign and tactical levels⁸⁸ (Figure 2.14).

The strategic level of C2 system for joint operations is responsible for strategic operational command, dealing with emergencies affecting all phases of operations, and planning and commanding strategic military actions by national command authorities. Its basic mission is to support routine military operations, including intelligence gathering and processing, emergency response to crisis situations, and C2 of strategic activities by operational units in wartime. It is normally located in a fixed command post above ground or underground, but in an emergency, it is installed on air, sea, or ground mobile platforms. This system consists of a PLA-wide service center and the command departments for airborne, maritime, land, space, and cyber operations that affect the entire military. The PLA-wide service center will be interconnected with the systems of the nation's highest-level intelligence, communication, and support centers, as well as the systems of TCs' C2 service centers for joint operations, and will have control over the operational structure covering the entire country and all dimensions.⁸⁹

The campaign level of C2 system for joint operations is used in TCs for military actions, such as joint operations of the services, military training, and joint military activities with foreign countries, as well as for non-military actions, such as emergency disaster dispatch. The main missions of the system are: (1) to grasp the crisis situation in all domains of the TC; (2) to have a real-time control of the operational assignment, training, support, and capability dynamics of the TC's services, branches, and operational units; (3) to assign missions to joint functional units, such as air, sea, land, special operations, and cyber operations units, to monitor in real time the implementation of military operations and military operations other than war and troop movement dynamics in the TC; and to retain capabilities to directly command and control its operational platforms. The system consists of the TC service center and the air, sea, land, special operations, cyber operations, and other departments in the TC. The TC service center is interconnected with the systems of the intelligence center, communication center, and support center in the TC, as well as the systems of the air, sea, land, special operations, cyber operations, and other sub-centers. The service center is in charge of controlling troop movements in the TC, as well as unifying the formation and distribution of operational structures. The campaign level of C2 system for joint operations is also connected to the C2 system of the PLARF.⁹⁰

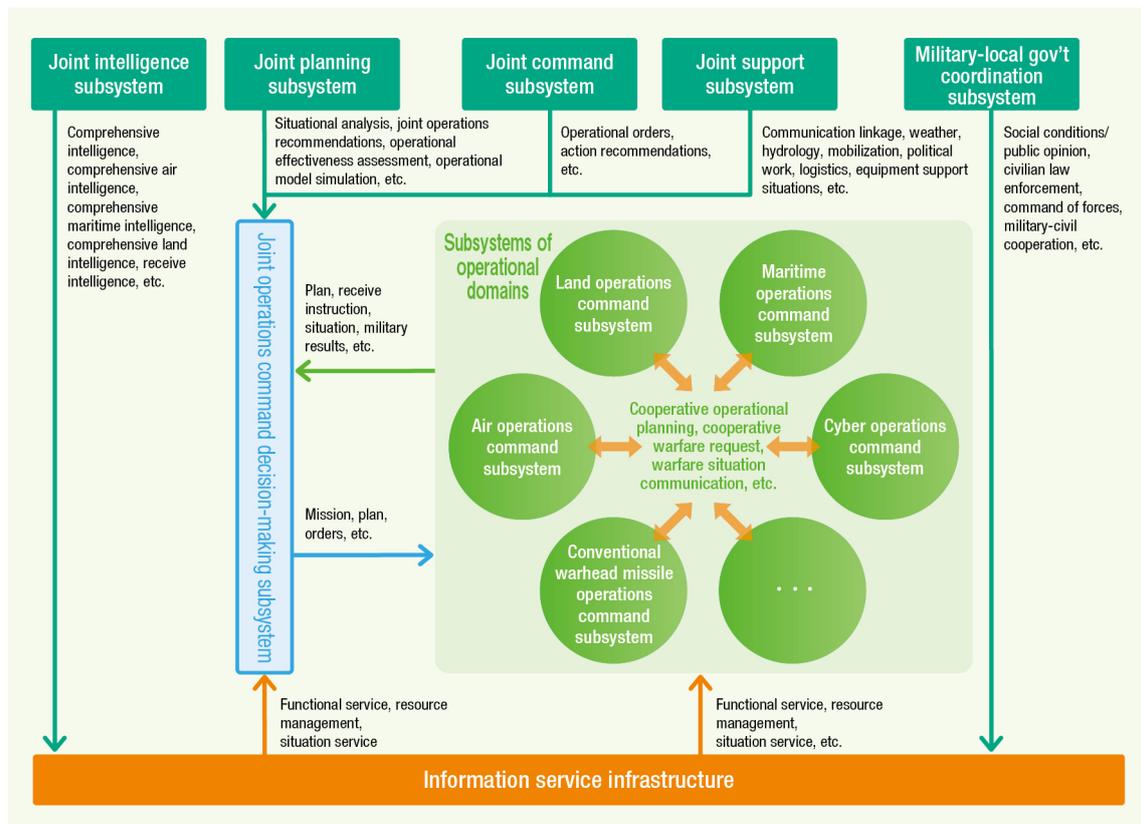
The tactical level of C2 system for joint operations (C2 system for joint tactical force) is a system for C2 of integrated joint operations [*Yitihua Lianhe Zuozhan*, 一体化联合作战] (IJO) by brigades at the tactical level, and is based on mobile systems, such as the PLAAF's airborne early warning and control (AEW&C) aircraft and the PLAA's command vehicles. Tactical-level joint operations are described as

proof of the high level of integration achieved by joint operations. Nevertheless, the details of its C2 system are uncertain.⁹¹

One of the characteristics of the PLA's C2 systems for joint operations is that they are linked to the C2 systems of government organizations and the civilian sector at the national level in the case of strategic operations and at the relevant regional level in the case of campaign operations. The C2 systems thereby realize joint actions between the military on the one hand and the local government and the civilian sector on the other. It appears that this trend of military-civil fusion in C2 systems for joint operations will continue to gain traction.⁹²

The C2 systems for joint operations adopt the method of combining joint command and command of operational domain units. The systems support collaboration between the command elements and cooperate with local governments and the civilian sector. The internal system relationship consists of: information service infrastructure; joint intelligence; joint planning; joint command; joint decision-making on operational command; joint support; coordination between the military and local governments; and subsystems of operational domains (Figure 2.15). The information service infrastructure serves as a support platform for all systems, providing functional services, resource

Figure 2.15 The Internal System Relationship of the C2 Systems for Joint Operations in the PLA



Source: Compiled based on Lan, Mao, and Huang et al., *Joint Operations Command and Control System*, p. 51.

management, and situation services to each subsystem. The joint intelligence subsystem is responsible for receiving information from the sea, air, and land and providing comprehensive intelligence support for decision-making by the command officers. The military-local government coordination subsystem provides support for decision-making by the command officers, including information on social conditions and public opinion, along with command of civilian forces. The joint planning subsystem establishes the joint operations program. The joint command subsystem is responsible for the implementation of joint operations actions. The joint support subsystem is responsible for providing communications, equipment, weather, and other information to support command decisions.⁹³

As shown above, the PLA is developing C2 systems for joint operations in line with the progress of the PLA reforms. It is unknown what capabilities such systems will actually possess. However, as Chapter 3 will note, real-time information sharing has been achieved between the services in post-PLA reform joint operations training, and it can be assessed with certainty that such capabilities are becoming more advanced.⁹⁴ If joint operations training at each level is further enhanced, the PLA's C2 systems for joint operations will likely become more complete.

4. Outcomes and Challenges

(1) Outcomes

The PLA aimed to strengthen the joint operations structure by carrying out large-scale organizational and structural reforms. The outcomes of these reforms were wide-ranging and include: (1) strengthening Xi Jinping's power base by enforcing the CMC chairman responsibility system; (2) launching the CMC multi-department system and the five TC structure; (3) realizing Xi-led appointment of senior PLA officers who are useful for joint operations; (4) establishing a standing joint operations command structure comprised of the CMC JOCC and TC JOCOs; and (5) the introduction and development of C2 systems for joint operations. Through these outcomes, the PLA is gradually putting in place a structure that can realize the IJO concept.

(2) Challenges

On the other hand, even under the new structure, the PLA still faces challenges with the division of roles among the CMC, TCs, and services. In September 2020, the "CCP Regulations on Party Building in the Military" entered into force. A commentary in the *Study Times*, which was written by Commander He Weidong and Political Commissar He Ping of the Eastern TC, noted that one of the purposes of the regulations was to ensure adherence to the principle, "the CMC performs general management, the theaters are mainly in charge of operations, and the services are mainly in charge of force building." In regard to the operational and administrative chains of command, the commentary highlighted the need

to clarify the relationship between the TC Party committee, service Party committee, and TC service Party committee.⁹⁵ Specifically, the following problems can be identified.

The CMC's Delegation of Command Authority to TCs

A key question regarding the CMC and the TCs is to what extent the CMC will delegate command authority to the TCs as external crises increase.⁹⁶ The fact that the CMC made TCs the only supreme JOCO in their respective strategic directions is testament that the CMC seeks to enhance the emergency response capability of the PLA by delegating its C2 authority to the TCs.

On the other hand, in July 2016, after the arbitral award invalidated China's claims and activities in the South China Sea as illegal, the PLA leadership, including Fan Changlong, vice chairman of the CMC; Ma Xiaotian, PLAAF commander; Wei Fenghe, PLARF commander; Miao Hua, PLAN political commissar; and Yi Xiaoguang, deputy chief of the Joint Staff Department, visited the Southern TC. On this occasion, Fan Changlong said, "You must earnestly study and ensure implementation of Chairman Xi Jinping's significant strategic thoughts and important decisions and instructions, and firmly maintain the Party's absolute leadership over the military."⁹⁷ These remarks suggest that, as the South China Sea dispute becomes more serious, Fan was sounding the alarm to ensure that operational actions in the Southern TC do not disregard the command of the Party Central Committee, the CMC, and Xi Jinping.

The CMC placed the PLARF and the PLASSF under its direct command and has not delegated C2 authority to the TCs. While the PLARF's conventional warhead units are being incorporated into the TC joint operations command structure, they do not include the units that operate the DF-21D and DF-26. The benefit of this approach is that the Party's central leadership retains control over critical capabilities. The downside, however, is that this may weaken the ability of TC commanders to quickly employ the full range of capabilities to deter or defeat adversaries.⁹⁸ In this light, the Xi-led CCP leadership appears undecided still as to what extent it should delegate authority to the TCs in the event of external crises.

Clarifying the Division of Roles between TCs and Services

A challenge for the TCs and services is to clearly delineate, as well as to strengthen cooperation between, the operational and administrative chains of command under the centralized and unified guidance of the CMC.⁹⁹ Particularly important are: (a) coordinating between the TCs' command authority over joint operations and the services' trainings; (b) maintaining authority over the operational actions of service operational units; and (c) managing the budget and personnel.

With regard to (a), the PLAN retains authority to lead joint exercises by the three fleets. The Joint Staff Department, the Training Management Department, and the leadership of the Southern TC participated in the three-fleet joint confrontation exercise held by the East, South, and North Sea Fleets in the South China Sea in July 2016. However, it was the PLAN headquarters under PLAN Commander Wu Shengli and PLAN Political Commissar Miao Hua that led the exercise.¹⁰⁰ The PLAN

also led the joint exercises of the three fleets in the East China Sea in the following month.¹⁰¹

Since training is part of the administrative chain of command,¹⁰² it is not necessarily a problem that the PLAN take initiative for the three-fleet joint confrontation exercise. In addition, the PLAN recognized that, following the reforms, its role changed from “combination of force building and operation” to “mainly force building,” and that as the respective fleets would be under the dual command of the TC and the PLAN, the administrative chains of command of the PLAN and the fleets on the one hand and the operational chains of command of the TCs and the fleets on the other should be organized.¹⁰³ However, if involvement in large-scale exercises is limited, the question remains as to how TCs will secure authority to command and control fleet operations.

With regard to (b), the PLAN retains the authority to conduct far-sea patrols. Observers note, “This could be a product of the reality that services have the experience to manage certain missions better than joint headquarters (who may be led by personnel from different services) and the bureaucratic impulse not to cede responsibility.” According to them, “Whether service headquarters will be willing to sacrifice vestigial operational roles—and refrain from interfering with the employment of assets during a crisis—is an open question.”¹⁰⁴

With regard to (c), a PLA monograph published before the PLA reforms proposed that TCs be given authority over command, personnel appointments, and budget in order to strengthen unity and authority in joint operations command.¹⁰⁵ While TCs secured command authority as a result of the PLA reforms, authority over personnel appointments and budget was considered to belong to the administrative chain of command¹⁰⁶ and was retained by the services. Without authority over personnel appointments and budget, it is questionable as to what extent the TC headquarters can exercise authority over the services and the service headquarters in the TCs in peacetime.

Inadequate Joint Operations Mindset and Service Parochialism

The third challenge concerns the PLA’s mindset after many years of the four general department, MR, and “Big Army” systems. In this regard, a Taiwanese scholar has noted that interservice barriers have not been completely eliminated, and that while the “body” has entered the TCs, the “brain” remains in the services. According to him, a mindset for integration and fusion in the true sense has not been developed, and integration of the TC organs is still “shallow.”¹⁰⁷

In addition, scholars have noted the existence of service parochialism in the PLA. This owes to opposition to the joint operations structure of the services, as was seen in the United States and India, and to China’s long-standing lack of standing JOCOs at the strategic and campaign levels. For example, the continued exercise of operational control by the PLAN headquarters in some instances even after the PLA reforms is seen as a case of service parochialism.¹⁰⁸ Some have also noted that, if defense budget growth slows down, interservice competition over missions and resources may impede operational cooperation and affect efforts to rationalize C2 relationships.¹⁰⁹

It is difficult to make observations about mindset issues from the outside. Conversely, Xi

Jinping's reiteration of the importance of joint operations training and cultivation of talent for joint operations seems to be aimed at further developing the PLA's joint operations mindset. However, it suggests also that the PLA has not overcome mindset issues even after the reforms.

Chapter 3

The Transformation of Joint Operations Training and Talent Cultivation Programs through the PLA Reforms, and the Quest for Strengthening Party-Army Relations



1. Transformation of Joint Operations Training in Light of the PLA Reforms

(1) Exploring Joint Operations Training under the Theater Command Structure

Xi Jinping assumed the chairmanship of the Central Military Commission (CMC) in November 2012. Since then, he has advocated the importance of an armed forces that is “ready to fight and win wars” and repeatedly instructed the People’s Liberation Army (PLA) to conduct real combat-oriented training.¹ With the PLA reforms dissolving the General Staff Department (GSD), the CMC’s Joint Staff Department and Training Management Department now play a central role in planning and coordinating joint operations training at the PLA’s central level.² The theater commands (TCs) are responsible for implementing joint operations training, whereas the service headquarters are for training their respective services.

Xi Jinping has emphasized strengthening TC joint operations training, stating at a key PLA meeting in September 2016, “The establishment of theater commands has removed organizational and structural obstacles to joint operations training.” He instructed that the PLA should properly define the relationship between joint operations training and services training and make integration the main focus. He further ordered that joint operations training drive services training and that the latter support the former.³ At an expanded meeting of the CMC in February 2017, Xi instructed, “We need to give top priority to strengthening joint operations training, enhance training with new equipment and new forces, and incorporate new-type operational forces into the joint operations System.”⁴

Command post exercises (CPX) were carried out in the TCs in February 2016, shortly after the TCs were established. In the Eastern TC, a CPX was held for integrating information systems. It was participated by officers and troops from the PLA Army (PLAA), Navy (PLAN), Air Force (PLAAF), and Rocket Force (PLARF), which were under the command of the TC Joint Operations Command Center (JOCC) in accordance with the “Operational Norms of Joint Operations Command Centers.”⁵ The Southern TC JOCC conducted a CPX focusing on joint operations between the PLAN and the PLAAF.⁶ In that same month, the Western TC JOCC held a CPX participated by the PLAA, the PLAAF, the PLARF, and other units.⁷ In March, it conducted another CPX to strengthen joint operations readiness capability.⁸ The Northern TC carried out a CPX participated by the PLAA, the PLAN, the PLAAF, and the PLARF in March 2016.⁹

(2) Promulgation of the New “Military Training Regulations” and “Military Training Outline”

At the end of December 2017, Xi Jinping signed the “Trial Regulations of the PLA on Military Training” (hereafter referred to as the “Military Training Regulations”), which came into effect on

January 1, 2018. This was the first revision of the “Military Training Regulations” since 2002. Although the content of the regulations was not disclosed, a senior official of the CMC Training Management Department explained that it is intended to create world-class forces, as instructed in the political report of the 19th National Congress of the Chinese Communist Party (CCP).¹⁰

The CMC promulgated the new “Military Training Outline” on January 25, 2018. The details have not been made public.

According to a *PLA Daily* report, the Outline mainly focuses on building the training System and related institutional mechanisms that emphasize real combat-oriented training, joint operation, scientization, and normalization for adapting to the PLA reforms. Furthermore, it noted that the promulgation of the Outline would elevate the level of the PLA’s readiness for real combat and significantly help enhance its “Joint Operations Capability Based on Network Information Systems” and “All-Domain Operations Capability.” A senior official of the CMC Training Management Department stated the Outline emphasizes joint operations training and would strengthen not only services training but also campaign-level joint operations training.¹¹

Based on these revisions of the training regulations, the PLA actively conducted joint operations exercises in 2018. On January 3, the CMC convened the 2018 Mobilization Meeting for the Commencement of Training for the Whole Armed Forces. During the meeting, Xi instructed the PLA to improve its war-winning capability by strengthening real combat-oriented military training, giving particular emphasis to the importance of joint operations training.¹² That April, the PLAAF conducted training in the airspace around Taiwan, participated by fighters, such as Su-35, J-11, and J-10, as well as the H-6K bomber and KJ-2000 airborne early warning and control (AEW&C) aircraft. At this time, the PLAAF formed a joint operations structure, which included real-time information sharing with the PLAN, coordinating with the PLAA’s air unit, and receiving support from the PLAA’s radar, ground missile, and electronic confrontation units.¹³ In June, the PLAA, the PLAN, and the PLARF participated in the PLAAF-led Blue Shield-18 joint air defense exercise.¹⁴

In September 2018, the PLA participated in the Vostok-2018 exercise held in Russia’s Eastern Military District. In this exercise, the Chinese and Russian armed forces established a strategic-level joint operational command system comprised of the Joint Staff Department of China’s CMC and the General Staff of Russia’s Armed Forces, as well as a joint operational command post consisting of the Northern TC of the Chinese PLA and the Eastern Military District of the Russian Armed Forces.¹⁵ The Chinese side stated that, through the exercise, they were able to improve their joint operational



China-Russia joint military exercise at Vostok-2018 (September 2018) (Photo: Xinhua News Agency/Kyodo News Images)

command and control (C2) capabilities, which is an objective of the PLA reforms, and learn a lot about operations and training from the Russian armed forces that has considerable actual combat experience.¹⁶

(3) Promulgation of the “Trial Guidelines on PLA Joint Operations” and Holding of the CMC Military Training Conference

In 2020, China stepped up its training activities notwithstanding the coronavirus disease (COVID-19) pandemic. In February, the PLA conducted joint operations training between the PLAN and the PLAAF in waters south of Taiwan’s main island.¹⁷ At around the same time, the Southern TC Navy conducted a far-sea joint operations training for over 30 days in the Pacific Ocean.¹⁸ At the National People’s Congress (NPC) in May, Commander Yuan Yubai of the Southern TC reported that it steadily carried out TC-level joint operational command exercises.¹⁹ The PLAA and the PLAAF frequently conducted war gaming style joint anti-aircraft exercises, including sharing operational information in real time and connecting C2 systems.²⁰ The PLAN and the PLAAF carried out anti-submarine training involving real-time information sharing via airborne early warning (AEW) aircraft and unmanned aircraft.²¹ In a joint landing campaign training by the PLAA and the PLAN, the two services set up a temporary joint Party committee.²² In addition, the PLA conducted frequent military exercises in the South China Sea. Notably, during the drills in August, the PLA fired a DF-26B missile, known as the “Guam killer,” and a DF-21D missile, known as the “carrier killer,” that struck their target.²³

In November 2020, the CMC promulgated the “Trial Guidelines on PLA Joint Operations.” According to a *PLA Daily* report, the guidelines, the content of which was not made public, adheres to “Xi Jinping Thought on Strengthening the Military” and “The Military Strategic Guideline for a New Era,” and clarifies the key principles, requirements, and basic procedures for the command, operational actions, operational support, national defense mobilization, and political maneuvers of joint operations.²⁴

A *PLA Daily* commentary appreciated the promulgation of the guidelines, saying it was an important achievement for the laws, regulations, and systems of joint operations and strengthens the joint operations capabilities of the PLA. It then noted that military training needs to: (1) transition from passively adapting to war to actively leading war planning; (2) shift from the System in which the services and branches train individually to joint operations-focused training; and (3) promote a shift from mechanization-informatization hybrid development to intelligentization-driven development, alongside improving “Joint Operations Capability Based on Network Information Systems” and “All-Domain Operations Capability.”²⁵

A senior official at the Strategic and Theater Training Bureau of the CMC Joint Staff Department underscored the importance of promulgating the guidelines, stating that it would elevate the level of joint operations in the new era and help clarify the nature of the training, training requirements, and training standards for operational units.²⁶ A CMC Training Management Department official echoed

that the integration was still formalistic, despite the PLA reforms creating a new joint operations structure. He stressed the PLA should enhance joint operations training to accelerate the building of the joint operations command System and strengthen new-type operational forces.²⁷

A CMC military training conference was held in November 2020, shortly after the promulgation of the guidelines. At the conference, Xi Jinping referred to the changes in: the security environment surrounding China; the military combat situation; the mission of the PLA; forms of modern warfare; the organizational status of the PLA; and the mission objectives of national defense and military modernization. Xi instructed the PLA to accelerate the creation of the new military training System and improve the training level and the PLA's war-winning capability. In particular, he stressed strengthening joint operations training, developing the PLA's characteristic joint operational training System, and improving the capability for integrated joint operations [*Yitihua Lianhe Zuozhan*, 一体化联合作战] (IJO).²⁸ In reference to Xi Jinping's remarks, a *PLA Daily* commentary also reiterated the need to strengthen joint operations training.²⁹ In December 2020, a spokesperson for China's Ministry of National Defense stated that Xi attaches importance to military training, and that the CMC military training conference reviewed the military training experience since the 18th National Congress of the CCP in 2012 and was an important milestone in realizing a strong military in the new era.³⁰

In 2021, the PLA has continued to maintain a training-oriented approach that focuses on joint operations training. The 2021 New Year's Day editorial in the *PLA Daily* proposed accelerating the change in military training model in the spirit of the CMC military training conference.³¹ A mobilization order for military training, the first CMC order in 2021, was issued on January 4. This order emphasized upholding the spirit of the CMC military training conference. It instructed the PLA to accelerate capability strengthening for IJO, while keeping in line with the concept that joint operations training drives services training and services training supports joint operations training.³² On February 20, the CMC issued the "Decision on Fostering a New-Type Military Training System." While its details are unknown, the strengthening of joint operations training was underlined as one of the hallmarks of the decision in the *PLA Daily*.³³

In March 2021, Xi Jinping attended a plenary meeting of the delegation of the PLA and the People's Armed Police (PAP) of the NPC. At the meeting, he pointed to the relatively unstable and uncertain security situation in China, and instructed the PLA to step up the building of high-caliber strategic deterrence and the joint operations System. In response, the PLA delegates made references to strengthening joint operations training.³⁴

Based on these instructions, the PLA has continued to actively engage in joint operations training in 2021. In January, battalions from the Eastern TC Army conducted joint operations training, in which it mutually exchanged personnel with the Navy and Air Force. In the same month, the command post of the Northern TC Air Force conducted joint operations CPX with the PLAA's group armies at the group army and brigade levels. The exercises reviewed the IJO capabilities of the command post staff.³⁵ During the NPC in March, the English edition of the *Global Times* reported that the PLAN

Marine Corps of the Southern TC conducted a joint landing campaign training participated by the Army's amphibious units; the Navy's surface vessels consisting of a destroyer, frigate, dock landing ship, replenishment ship, and intelligence gathering ship; the Air Force's Su-30 fighters and H-6K bombers; the PLARF; and the PLA Strategic Support Force (PLASSF).³⁶

(4) Outcomes of Post-PLA Reform Joint Operations Training

As shown, the PLA has steadily strengthened joint operations training after the reforms. In October 2020, the *PLA Daily* reported that, during the 13th Five-Year Plan period following the PLA reforms, the PLA conducted more than 100 joint operations trainings involving mobilization of actual personnel.³⁷

The series of joint operations trainings had the following outcomes. First, they steadily increased the PLA's proficiency in real-time information sharing among the services and connecting their C2 systems, which are key to the execution of joint operations. Furthermore, the PLA proactively conducted tactical-level joint operation trainings. While these efforts were initiated before the PLA reforms, the reforms provided an impetus for further improvement.

Second, the PLA revised and enacted laws and regulations on military training based on the outcomes of joint operations trainings, such as amending the "Military Training Regulations," updating the "Military Training Outline," and promulgating the "Trial Guidelines on PLA Joint Operations." The *PLA Daily* reported that the PLA promulgated more than 2,000 training outlines and updated more than 760 training outlines, and published more than 7,500 teaching materials, creating joint training scenarios that reflect real combat, science, and norms.³⁸

Third, the "Trial Regulation of the PLA on the Supervision of Military Training," promulgated in February 2019, strengthened the training supervision structure and improved training quality. The *PLA Daily* reported that, following the military reforms, the PLA has supervised more than 1,000 brigade and higher level units, more than 150 military educational institutions, and nearly 100 key drills. More than 180 units and over 730 people have been censured and 375 people punished, according to the report.³⁹ After its reforms, the PLA can be assessed to have made many achievements in joint operations training in the realms of interservice information sharing, laws and regulations on military training, and training supervision.

2. Transformation of Joint Operations Talent Cultivation in Light of the PLA Reforms

(1) The Triad Training System for New-Type Military Personnel and “Military Education Policy in the New Era”

Scholars have noted the PLA’s weakness in not being able to secure high-quality personnel who can handle informatized warfare and joint operations, despite the rise in the education level of personnel.⁴⁰ The PLA itself has acknowledged this deficit of talent. At the Joint Action-2015D joint operations training held in September 2015, participant Zhang Yuansong, deputy chief of staff of the 14th Group Army, remarked, “Joint training is increasing, but there is a shortage of staff officers who can conduct them.”⁴¹ These issues were not immediately resolved even after the PLA reforms. According to the *PLA Daily*, command officers still tended to overemphasize the use of a single service or branch during a joint operations training in the Southern TC.⁴² The PLAAF also recognized that talent cultivation posed as a challenge for joint operations training.⁴³

The CCP leadership and the PLA leaders gauged this situation and emphasized strengthening the talent cultivation System of the PLA. At the Third Plenary Session of the 18th CCP Central Committee in November 2013, Xi Jinping indicated an intention to enhance cultivation of PLA personnel for joint operations, stating he would deepen the reform of military educational institutions and complete the creation of the “triad” System for training new types of military personnel.⁴⁴ The triad consists of military institutional education, unit training practice, and military professional education. The “CMC Opinions on Deepening National Defense and Military Reforms” [*Zhongyang junwei guanyu shenhua guofang he jundui gaige de yijian*, 中央军委关于深化国防和军队改革的意见], promulgated in January 2016, articulated improving the triad System, completing a CMC-service two-level system for managing military educational institutions, establishing three levels [*dengji*, 等级] of training comprised of basic [*chuji*, 初级], intermediate [*zhongji*, 中级], and advanced [*gaoji*, 高级], and adjusting and optimizing the scale of military educational institutions.⁴⁵ A *PLA Daily* commentary stated that the triad System, in principle, “focuses on military institutional education, is complemented by unit training practice, and supplements [the lack thereof] with military professional education.” The column noted that the division of work and responsibilities between the three components should be clarified to demonstrate their respective strengths and that their efforts should be combined to cultivate personnel.⁴⁶

In November 2019, Xi Jinping attended an opening of a training session for heads of military academies and schools held at the PLA National Defense University (NDU) and presented the “Military Education Policy in the New Era.” Albeit the details are unknown, the *PLA Daily*’s explanation was that the policy “upholds the Party’s absolute leadership over the PLA, serves the goal of building a strong country with a strong military, and aims to train a new type of military personnel who are competent, professional and possess both integrity and ability in which integrity educates people

and personnel are trained for war.”⁴⁷

In May 2020, Li Keqiang stated at the NPC in his report on the work of the government: “We will thoroughly implement Xi Jinping’s thinking on strengthening the armed forces and the military strategy for the new era. We will continue to enhance the political loyalty of the armed forces, strengthen them through reform, science and technology, and the training of capable personnel, and run the military in accordance with law.”⁴⁸ The training of personnel was newly added to “Xi Jinping Thought on Strengthening the Military,” which, at the 19th National Congress in October 2017, was defined as “enhancing [the PLA’s] political loyalty, strengthening it through reform and technology, and running it in accordance with the law.”⁴⁹

At an NPC plenary meeting of the delegation of the PLA and the PAP, Xi himself stressed the importance of cultivating personnel based on the “Military Education Policy in the New Era,” stating, “We need to create the triad System for cultivating talent and establish a structure for training new types of military personnel who are competent and professional, possessing both integrity and ability.” The military representatives at the NPC repeatedly voiced support for Xi’s remark.⁵⁰ At a group study session of the CCP Politburo held in July, Xi once again called for adherence to the “Military Education Policy in the New Era” and completing the creation of the triad military personnel training System.⁵¹

In October 2020, the CMC approved the “Decision on Advancing the Triad System to Cultivate New-Type Military Personnel.” Although the details are not known, according to reports the decision instructed the PLA to accelerate the construction of the triad training System for new-type military personnel by delving deeper into “Xi Jinping Thought on Strengthening the Military” and ensuring the implementation of the “Military Education Policy in the New Era.”⁵² Since the PLA reforms, the PLA has made efforts to build the triad training System for new-type military personnel and emphasized thorough implementation of the new “Military Education Policy in the New Era.”

(2) Reorganization of Military Educational Institutions and the Role of PLA National Defense University

The *PLA Daily* explained that education at military educational institutions is the main channel to cultivate military talent, and the role of the institutions is to teach basic theory, basic knowledge, and basic skills and to develop personnel’s thinking methods, learning ability, and mindset for creating new innovations. It also stated that priority be given to improving the cultivation of personnel for joint operations.⁵³

Among the military educational institutions, NDU is the central academy for personnel cultivation for commanding joint operations. In March 2016, Xi Jinping led a group of CMC members, including Fan Changlong and Xu Qiliang, on a visit to NDU. There, Xi referred to the policy that NDU should play an important role in the cultivation of talent for joint operations, stating, “National Defense University is the only comprehensive joint command university of the entire armed forces, and the cultivation of personnel for commanding joint operations is its core function.” In light of the

establishment of the joint operations command organizations (JOCOs) of the CMC and TCs, he noted that it was necessary to improve the command capabilities of command officers and staff officers at all levels, and that this was an urgent task.⁵⁴

Table 3.1 PLA Military Educational Institutions Following 2017 Reforms

| | Name | Subordination | Grade |
|----|--|---------------|---|
| 1 | National Defense University | CMC | TC deputy leader (lieutenant generals and major generals) |
| 2 | National University of Defense Technology | | Corps leader (major generals and lieutenant generals) |
| 3 | Army Command College | PLAA | Corps deputy leader (major generals and senior colonels) |
| 4 | Army Engineering University | | |
| 5 | Army Infantry College | | |
| 6 | Army Academy of Armored Forces | | |
| 7 | Army Academy of Artillery & Air Defense | | |
| 8 | Army Aviation Academy | | |
| 9 | Army Special Operations Academy | | |
| 10 | Army Academy of Border and Coastal Defense | | |
| 11 | Army Institute of NBC Defense | | |
| 12 | Army Medical University | | |
| 13 | Army Logistic University | | |
| 14 | Army Military Transportation University | | |
| 15 | Naval Command College | PLAN | Corps deputy leader (rear admirals and senior captains) |
| 16 | Naval University of Engineering | | |
| 17 | Dalian Naval Academy | | |
| 18 | Navy Submarine Academy | | |
| 19 | Naval Aviation University | | |
| 20 | Naval Medical University | | |
| 21 | Naval Service Academy | | |
| 22 | Naval NCO School | | |
| 23 | Air Force Command College | PLAAF | Corps deputy leader (major generals and senior colonels) |
| 24 | Air Force Engineering University | | |
| 25 | Air Force Aviation University | | |
| 26 | Air Force Early Warning Academy | | |
| 27 | Air Force Harbin Flight Academy | | |
| 28 | Air Force Shijiazhuang Flight Academy | | |
| 29 | Air Force Xi'an Flight Academy | | |
| 30 | Air Force Medical University | | |
| 31 | Air Force Logistics College | | |
| 32 | Air Force Communication NCO Academy | | |
| 33 | Rocket Force Command College | PLARF | Corps deputy leader (major generals and senior colonels) |
| 34 | Rocket Force University of Engineering | | Division leader (senior colonels and major generals) |
| 35 | Rocket Force NCO School | | |
| 36 | Strategic Support Force Space Engineering University | PLASSF | Corps deputy leader (major generals and senior colonels) |
| 37 | Strategic Support Force Information Engineering University | | |

Sources: Compiled based on Ying Yu Lin, "One Step Forward, One Step Back for PLA Military Education," *China Brief*, Vol. 18, No. 7, 2018; Kenneth Allen and Mingzhi Chen, *The People's Liberation Army's 37 Academic Institutions* (Montgomery: China Aerospace Studies Institute, 2020), pp. 234-235.

At that time, Xi Jinping mentioned the following as challenges facing the PLA's cultivation of joint operations personnel: (1) the ways to cultivate personnel are unclear due to lack of real combat experience; (2) instructors at the military educational institutions have backgrounds solely within their specialties and do not have sufficient interaction with senior officers of organs and units; (3) the units do not admit talented personnel to the military educational institutions, and there are differences in expertise among the students who enroll in the institutions; and (4) it is difficult to conduct joint education and training between the military educational institutions and the units. Xi then instructed the PLA to overcome the first challenge by learning from the experience of foreign armies and integrating those lessons into the actual situation of the PLA. For the other challenges, he ordered the PLA to resolve them by strengthening the CMC's unified planning and coordination and ensuring that the organs, units, and military educational institutions fulfill their respective responsibilities. Xi also vowed that military educational institutions would be reformed in 2016.⁵⁵



Members of the PLA NDU's Joint Operations College visiting the National Institute for Defense Studies (NIDS) (November 2019) (Photo: NIDS)

The details of the reform of military educational institutions came to light in June 2017. The reform reduced the number of the PLA's military educational institutions from 67 to 37 (Table 3.1). Furthermore, the grades of many military educational institutions were lowered. This included NDU, which was downgraded from TC leader grade (generals and lieutenant generals) to TC deputy leader grade (lieutenant generals and major generals). Meanwhile, although many military educational institutions were consolidated and abolished, the reform kept the enrollment system for basic officer educational institutions in which officer cadets have to choose not only their service but also their occupation prior to enrolling. In addition, the abolishment of the National Defense Student Program⁵⁶ was announced. This Reserve Officers' Training Corps program in the PLA was adopted on a trial basis in 1998 and was ready for institutionalization in around 2000.⁵⁷

Joint Operations College and Joint Services College are the central institutions for cultivating personnel for joint operations at NDU. Joint Operations College was formed by reorganizing Shijiazhuang Army Command College, and Joint Services College by reorganizing Logistics College, both of which have been placed under NDU. The former trains command officers and staff officers, while the latter trains logistics personnel.⁵⁸

In November 2019, Xi Jinping presented the "Military Education Policy in the New Era" at the opening of a training session for heads of military academies and schools. At the time, a *PLA Daily* commentary noted that the PLA reforms formed a new structure of military educational institutions,

with the joint operations military educational institutions as the core, the branches/services specialized military educational institutions as the foundation, and the military-civil fusion cultivation as the supplement.⁵⁹ The new “Trial Regulations on the Education in Military Academies” was promulgated in June 2020 and entered into force on July 1 of the same year. The details of the regulations have not been announced. The *PLA Daily* described the regulations as a concrete measure for accomplishing the “Military Education Policy in the New Era.”⁶⁰ Following the PLA reforms that restructured the military academies, military educational institutions centering on NDU appear to have finished establishing systems for training personnel for joint operational command.

(3) Cultivation of Joint Operations Personnel in the Units

The *PLA Daily* explained that unit training focuses on the practice and application of the theory, knowledge, and skills learned at military educational institutions. The main role of training was described as turning theory into practice and dramatically transforming the acquired knowledge into operational capabilities for the units.⁶¹

After the TC structure was established, the respective TCs have sought to strengthen their own programs for cultivating joint operations personnel. In March 2016, the Western TC JOCC held tests two times for cultivating personnel for joint operations and conferred more than 300 participants with “certificates,” which demonstrate that they are qualified to serve in joint operations.⁶² Also in March, the Southern TC held a test to cultivate talent for joint operations.⁶³ The Northern TC prepared the “Three-year Plan for the Training of Personnel for Commanding Joint Operation” and developed a curriculum for joint operations education. The TC aims for its rigorous implementation, for example, not allowing personnel to become staff officers unless they pass the curriculum.⁶⁴ In this way, each unit, mainly at the TC level, is promoting efforts to cultivate joint operational personnel.

(4) Development of Military Professional Education

A dictionary on military institutional education compiled by NDU defines “military professional education” [*junshi zhiye jiaoyu*, 军事职业教育] as “a step-by-step, lifetime career-oriented military vocational education and training activity founded on military higher education, which is offered to officers and non-commissioned officers in accordance with the methods for developing military professional education personnel and the needs of the posts appointed by the armed forces.”⁶⁵ The *PLA Daily* explained that military professional education constitutes a major platform for cultivating personnel and emphasizes supplying, exploring, and developing talent. It stated that the main role of military professional education is to develop the military expertise of personnel through learning new knowledge, theories, techniques, and equipment in line with the changes in the times and the needs of the respective posts.⁶⁶

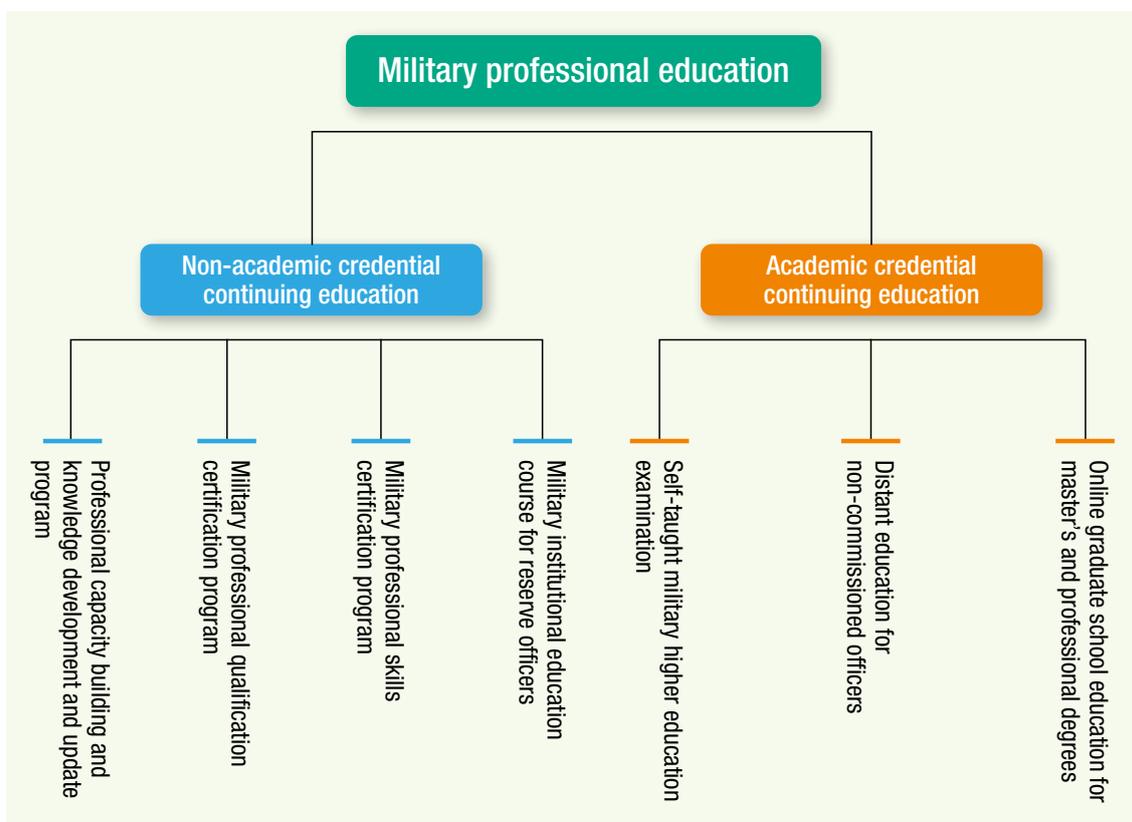
In 2017, the CMC officially launched military professional education reform by promulgating the “Implementation Plan on Military Professional Education Reform.” Although the details are not

known, the *PLA Daily* explained that the plan set three objectives of the reform: (1) making the improvement of professional capabilities and professional grounding the core mission of military professional education; (2) integrating non-academic credential and academic credential continuing education; and (3) mainstreaming non-academic credential continuing education, providing continuing education suited to the respective posts by domain, category, and level, and completing the PLA lifetime education System. The *PLA Daily* called for actively combining online and in-person education in order to achieve the above objectives. A *PLA Daily* commentary noted that the enactment of the plan was underpinned by the rapid changes in military domains as well as substantial changes in warfare form, operational styles, command methods, and weapons and equipment.⁶⁷

An official from a related CMC department stated that the new military professional education is unlike the preassignment education⁶⁸ offered by the PLA, the professional military education of foreign armies, and the professional education provided by local institutions. He explained that military professional education features diverse online learning methods, although it does not exclude other methods, such as reading and offline in-person education. Military professional education was identified as a form of continuing education that fosters the capabilities necessary for a post. In addition to acquiring military expertise, military professional education includes pursuing academic credentials at a graduate school or other institutions (Figure 3.1). The official explained that the objective of military professional education is to produce talent necessary for world-class forces, namely, by promoting and providing organized and systematic self-taught education so that all people can receive education continuously at any time and place. The educational offerings focus on building knowledge that is the most critical and most urgent for the respective posts. Theater command organizations at the group army level or higher, for example, give top priority to developing the personnel's strategic grounding and thinking abilities, while headquarters at the division and brigade levels prioritize basic knowledge on joint operations, the "three information (enemy information, ally information, and battlefield environment information)"⁶⁹ and tactical research, implementation of operations by services and branches, knowledge on weapons and equipment, and advanced organizational training. Furthermore, online education uses the military comprehensive network service platform, designed for content classified as "confidential" and below, as well as the interconnected service platform that has collected superior educational materials from the military and local educational institutions.⁷⁰ As illustrated, post-PLA reform military professional education emphasized the use of information systems to continuously deepen advanced military knowledge.

In May 2019, the CMC approved "Several Opinions on Accelerating Military Professional Education Promotion," the details of which are unknown. The *PLA Daily* reported that the opinions normalized the main missions and basic requirements for the promotion of military professional education. A senior official of the CMC Training Management Department mentioned that the opinions was enacted due to the underlying shortage of personnel capable of conducting joint operations and of operating new-type operational forces.⁷¹

Figure 3.1 Main Types of Military Professional Education



Source: Compiled based on *PLA Daily*, March 1, 2018.

In July 2020, a military professional education network exchange activity was conducted across the PLA, using the military professional education military comprehensive network service platform. A senior official from the CMC Training Management Department described that the exchange activity was an important measure for ensuring implementation of the “Military Education Policy in the New Era” and deepening military professional education.⁷²

In December 2020, the PLA promulgated the “Trial Regulations on Military Professional Education for Armed Forces.” The details of the regulations have not been disclosed; the explanation was it would have great significance for the development of military professional education and the creation of a structure for cultivating new types of military personnel.⁷³ As the PLA had previously raised the need for their enactment,⁷⁴ the promulgation meant the PLA had made some achievement to establish a military professional education system.

(5) Outcomes from Creating the Talent Cultivation System

Through its reforms, the PLA sought to create the triad training System for new-type military personnel. The main outcomes were as follows.

First, the “Military Education Policy in the New Era” was established, and in accordance

with this policy, the PLA revised and enacted some military laws and regulations, including the new “Trial Regulations on the Education in Military Academies” and the “Trial Regulations on Military Professional Education for Armed Forces.” By enacting these policies as well as PLA laws and regulations, the PLA clarified the capabilities required for new types of military personnel and normalized the System for cultivating such personnel. Such enactments are expected to enable the PLA to strengthen the cultivation of personnel for joint operations and secure many outstanding talent.

Second, the PLA established NDU-centered joint operations curricula. Joel Wuthnow and Phillip Saunders noted that the reform of military educational institutions resulted in: (1) the NDU senior commanders’ course being divided into the joint operational command track and the leadership management track, where the former focused on joint operations; (2) military educational institutions directly under the CMC expanding their joint operations courses, including creating a 10-month joint operations course at NDU for lower level officers and courses on joint operations intelligence support at National University of Defense Technology (NUDT); (3) military educational institutions of the services strengthening their joint operations curricula; and (4) strong partnerships being established among military educational institutions, TC headquarters, and service headquarters.⁷⁵

Third, joint operations personnel trained at NDU and other institutes were assigned to operational units. The *PLA Daily* explained that 98% of the command officers and staff officers of the major joint operations trainings in 2020 were trained at NDU.⁷⁶

Following its reforms, the PLA is assessed to have produced many outcomes in cultivating personnel for commanding joint operations, mainly by strengthening the curricula of military educational institutions. On the other hand, new military professional education programs have started only recently, and their outcomes are yet to be confirmed.

3. Exploring the Strengthening of Party-Army Relations in the New Joint Operations Structure

(1) The PLA as the “Party’s Army”

The PLA has remained the “Party’s Army” of the CCP since its predecessor, the Red Army, was founded in 1927. Of particular importance in understanding Party-Army relations is the principle of “the Party’s absolute leadership over the PLA,” which is enshrined in the CCP Constitution and the National Defense Law of the People’s Republic of China.⁷⁷

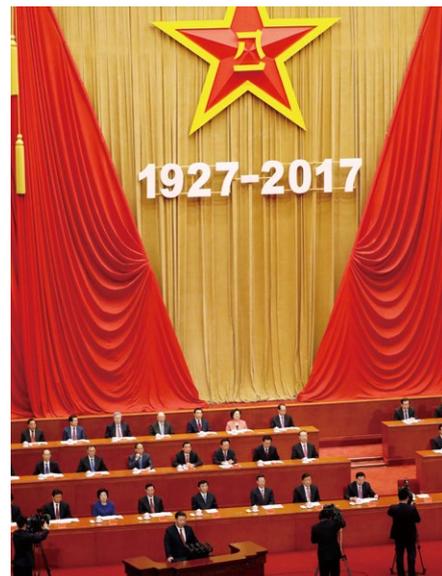
“Political work” is the method for infiltrating the will of the Party into the army based on this principle. Article 5 of the “Political Work Regulations of the PLA” (hereafter referred to as the “Political Work Regulations”) defines political work as “the ideological and organizational work of

the CCP within the army, an important component of the army's combat power, a fundamental guarantee for the Party's absolute guidance over the PLA and for the army to fulfill their role and mission, and the lifeline of the PLA." The content of political work is wide-ranging and includes ideological and political education; Party organization building; cadres contingent building (appointment of cadres); Communist Youth League of China construction and youth work (unifying and educating young soldiers); democratic systems construction (holding of Party meetings); discipline inspection and supervision; public security, procuratorial and judicial work (military prosecutions and trials); security work (counter intelligence); military publicity work (propaganda); scientific and cultural education; cultural and sport work; mass work (military-civil cooperation, national defense education, ethnic issues, etc.); liaison work (intelligence); and the "Three Warfares" (public opinion warfare, psychological warfare, and legal warfare).⁷⁸

The organizational systems for accomplishing this political work consist of the system of the Party committee of the PLA (Party committee system), the political commissar system, and the system of political leading organ. The three are positioned as systems that play a decisive role in political work.⁷⁹

Regarding the Party committee system, Article 8 of the "Political Work Regulations" stipulates, "The CCP shall establish committees in units of regiments and above of the PLA and their corresponding units, establish grass-roots Party committees in battalions and their corresponding organizations, and establish Party branches in companies and their corresponding organizations." "The Party committees at each level (branches) are the core of the unified leadership and unity of the unit."⁸⁰ The Party committees at each level are the central organ for the Party's absolute leadership over the PLA, and in particular, the Party's standing committees are the supreme decision-making bodies of the units.⁸¹

With regard to the political commissar system, Article 9 of the "Political Work Regulations" stipulates, "The PLA shall have political commissars in units of regiments and above, political directors in battalions, and political instructors in companies."⁸² A political commissar must have been a CCP member for five years or more, a political director must have been a CCP member for three years or more, and a political instructor must be a member of the CCP.⁸³ The political officers of the former Soviet Union army after World War II and the Republic of China army after the defeat of Taiwan served the unit commanders and had limited operational authority. However, the political commissars of the PLA are of the same rank as the military command officers, and both of their signatures are required



CMC Chairman Xi Jinping underscoring the "Party's Army" (August 2017) (Photo: Reuters=Kyodo)

for the operational actions of units. Normally, the political commissar concurrently serves as the secretary of the Party committee at each level, and the military command officer the deputy secretary.⁸⁴

With regard to the system of political leading organ, Article 10 of the “Political Work Regulations” stipulates, “Political departments shall be established in units of brigades and above, and political divisions shall be established in regiments.”⁸⁵ The Political Work Department of the CMC is at the top of the political organs. The main functions of the organs are to support the work of the Party committee and political commissars, to guide the political work of the units, and to ensure that this is carried out thoroughly. The political organs at each level must not only follow the guidance of the Party committees and political commissars at the same level, but also follow the guidance of senior political organs, carry out their instructions, and report and make recommendations.⁸⁶

(2) Issues Surrounding Party-Army Relations and the Efficiency of Joint Operations

Following reforms, the PLA is strengthening the joint operations structure with informatized warfare in mind. Some scholars note, however, that this effort will suffer a setback from the above traditional system for maintaining Party-Army relations. For example, Saunders and Wuthnow state that the PLA retains characteristics of a Leninist military even after the recent reforms, such as the political commissar system and the Party committee system, and give this as a reason why the PLA cannot have a C2 system like the U.S. forces. They argue that, while the shortcomings should not be overestimated, these systems reduce the flexibility and autonomy of commanders especially at the operational level and “decision-making could be slowed both vertically, as commanders and their subordinates seek approval from party committees at higher echelons, and horizontally, insofar as there might be disagreements between commanders and political commissars.”⁸⁷ Jeff Benson and Zi Yang concur that “In a dual-command system, the commanding officer potentially has less autonomy in his or her ability to act because of Party control,” pointing to concrete issues such as: (1) administrative and operational delays due to a formal process with a hierarchy of authority; (2) the political commissar’s ability to vote and change military decisions made by a PLAN command officer; (3) limited flexibility and crew initiative under a dual-command system; and (4) mistakes in communication between the command officer and political commissar.⁸⁸

Meanwhile, the PLA aims to develop these systems through its reforms in order to strengthen Party-Army relations. The “Opinions on Deepening National Defense and Military Reforms” promulgated by the CMC on January 1, 2016 sets out the following first basic principle for the PLA reforms: “strengthen and perfect the principle and system of the Party’s absolute leadership over the PLA.”⁸⁹ In his explanation of the PLA reforms, Wu Jian, a spokesperson of the Ministry of National Defense, stated that with regard to the reorganization of the General Political Department into the Political Work Department, the PLA will strictly implement the Party committee system, political commissar system, and system of political leading organ in order to uphold the principle that the Party commands

the military.⁹⁰ The PLA strives to reconcile the IJO concept with the Party committee system, political commissar system, and system of political leading organ through the three methods discussed below.

(3) Wartime Party Committee System and Its Role

In order to reconcile the Party committee system and the IJO concept, the PLA is enforcing the “system of division of the leader’s responsibilities under the unified collective leadership of the Party committee.”⁹¹ This system consists of three principles. (1) Unified leadership: The Party committee provides centralized and unified leadership to all organizations, departments, personnel, and operations of the units affiliated with the committee. All major issues are decided through discussion by the Party committee. In emergency situations, although commanding officers (military command officers or political commissars) can make and issue their own decisions and orders, they have to report back to the Party committee and receive its inspection. (2) Collective leadership: All major issues are discussed democratically by the Party committee. “The minority has to obey the majority’s opinion” principle will always be followed, not allowing any individual to take sole responsibility. (3) Division of responsibility system: After the Party committee makes a decision, the military command officer and political commissar will share responsibility for executing the decision. Military-related affairs are organized and carried out under the responsibility of the military command officer, while political work is organized and carried out under the responsibility of the political commissar.⁹²

The three principles are inextricably linked and were articulated at a conference of senior Party cadres in the national military system held from the end of 1953 to January 1954.⁹³ At the Political Work Conference of the PLA in October 2014, Xi Jinping criticized the lack of understanding and ambiguity of the “system of division of the leader’s responsibilities under the unified collective leadership of the Party committee” and instructed its thorough implementation.⁹⁴

Scholars at the Academy of Military Science note that a wartime Party committee usually consists of a military command officer, political commissar, deputy military command officer, deputy political commissar(s), deputy chief of staff in each department under the headquarters, and military command officers and political commissars of lower grade units. The scholars note that, as necessary, the Joint Campaign Organization (TC) Party Committee also includes leaders of local Party committees and local governments of the area of operation. The members of the TC Party committees during wartime must be agreed upon by the Party Central Committee and the CMC. The Party Central Committee and the CMC also appoint the secretary and deputy secretary. The composition of the wartime Party committee of the operational groups/units below the TCs must obtain the consent of a higher grade Party committee. The secretary and deputy secretary are also appointed by the higher grade Party committee. Any wartime vacancies are filled according to a predeveloped plan.⁹⁵ The Party Standing Committee (PSC) aboard a PLAN vessel is said to consist of the command officer, executive officer (operations), executive officer (administrative/logistics), political commissar, and one or two deputy political commissars.⁹⁶ Such members of the PSC are thought to make up a majority

of the wartime Party committee membership.

The unified leadership of the Party committee in wartime does not mean that it should cover all matters, but that it should control overall situations, grasp the whole picture of operation from beginning to end, and concentrate its efforts on the major issues that will determine victory or defeat. The major issues to be discussed by the Party committee in wartime are: (1) the implementation of the principles of the Party Central Committee and the CMC's operational policy principles and the orders issued by the higher levels; (2) the overall coordination of the operational missions in charge and the completion of those missions; (3) the shift of the operational phase and the major adjustment of the operational direction and operational forces; (4) the arrangements for the ideological and political education of the units; (5) issues related to the unity and cooperation of affiliated units; (6) appointment, dismissal, and adjustment of cadres and awards and punishments for affiliated units and individuals under the authority of the Party committee; (7) coordination of important issues related to operational support with local Party committees and the people's government; and (8) other important issues to be decided by the Party committee. The Party committee always reports to the senior Party committee on the decisions and execution of major issues.⁹⁷ In addition, in wartime, major issues are discussed based on the situation in online Party committees using the command and information system, in accordance with the provisions of the "Relevant Issues concerning Wartime Party Committee Meetings and Operation Meetings" prepared by the GSD and the General Political Department.⁹⁸

In this way, the PLA aims to maintain the principle that the Party committee has centralized decision-making authority over major issues in wartime and makes decisions regarding major issues through collective discussion by thoroughly implementing the "system of division of the leader's responsibilities under the unified collective leadership of the Party committee." Once the policy is decided, however, military command officers bear responsibility for operational actions, while the political commissars are to concentrate on wartime political work, except for signing orders of the military command officers. Accordingly, it seeks to ensure both the effectiveness of the Party committee system and the effective execution of IJO.

This policy can be seen in the PLAN's counterpiracy operations in the Gulf of Aden. The PLA grants the temporary Party committee for dispatched fleets sufficient rights for decision-making, command, and actions and gives them certain discretion at the field level. In addition, major issues are discussed collectively by the temporary Party committee, which is composed of a command officer, political commissar, deputy chief of staff under headquarters, and those in charge of vessels, helicopters, and special forces. On the other hand, in emergencies that require an immediate response, a command officer can act on their own initiative under a preexisting policy. When Chinese ships were attacked by pirates in November 2010, the command officer conducted rescue operations.⁹⁹ The lessons learned from these counterpiracy operations in the Gulf of Aden are being fed back into the creation of the C2 system in the PLAN's operational actions.¹⁰⁰

(4) Political Officer Cultivation Focusing on Military Expertise and Scientific and Technical Knowledge

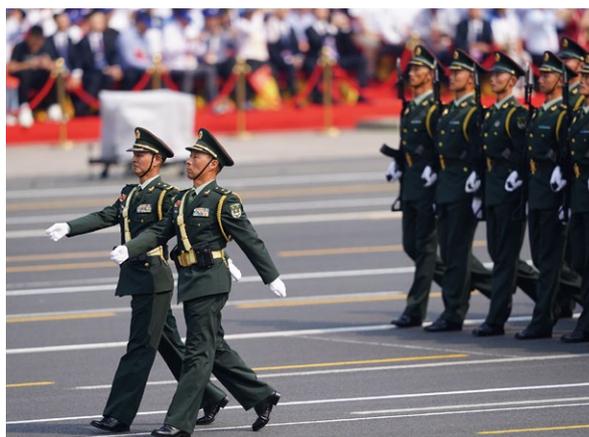
In cultivating political officers, the PLA emphasizes not only ideological and political competence, political work, and grounding in the humanities and social sciences, but also modern military competence, grounding in scientific and technical knowledge, and physical and psychological competence. Having a modern military background requires an understanding of informatized warfare theory and joint operations theory at the strategic, campaign, and tactical levels; ability to command operations conducted in cooperation with military command officers; and ability to execute public opinion, psychological, and legal warfares. As regards grounding in scientific and technical knowledge, it is critical for political officers to have information technology knowledge, especially adequate understanding of military information technology, and they have to comprehend advanced new technologies, such as computers, networks, communications, artificial intelligence (AI), automatic command systems, positioning and navigation systems, radio frequency identification, and laser range scanner.¹⁰¹ In addition, in light of Xi Jinping's calls for the integrated development of mechanization, informatization, and intelligentization, the PLA advocates the cultivation of personnel who can perform intelligentization political work.¹⁰² On the other hand, political officers' intelligence abilities are allegedly not at a sufficient level to carry out information duties, and PLA researchers call for an improvement in such abilities of the officers.¹⁰³

Against this backdrop, the PLA places importance on selecting and cultivating highly educated and talented personnel based on a strict set of criteria, especially cadres with a strong background in intelligence, and developing them into political officers. Field experience is emphasized in selecting and cultivating political officers. Moreover, the PLA strives to strengthen personnel exchanges among the services, among operational units, between operational units and military educational institutions, between political organs and field units, and between wealthy coastal areas and impoverished inland areas. Through such selection and training, the PLA aims to cultivate hybrid political officers "who are well versed in both military and political affairs, are equipped with a combination of command and technical abilities, and have one specialty and multiple skills."¹⁰⁴ In October 2014, Xi Jinping stated at the Political Work Conference of the PLA, "It is the tradition of the PLA that political cadres can not only conduct ideological work but also command wars," and instructed political officers to acquire military knowledge, command capabilities, and scientific knowledge.¹⁰⁵

The PLA has taken the following initiatives to cultivate hybrid political officers. First, it emphasizes the participation of political officers in military training in order to improve their command capabilities. The *PLA Daily* reported that the PLAA's brigade political commissars participated in platoon-level training,¹⁰⁶ and that political officers at the brigade, regiment, battalion, and company levels participated in PLAA brigade training to improve their command capabilities, with 41 of them achieving excellent results.¹⁰⁷

Second, the PLA is strengthening education programs for increasing the military expertise

and scientific and technical knowledge of political officers. The *PLA Daily* reported that cadres from the political department of NUDT attended the All-PLA 11th Senior Cadre Military Informatization Construction and Training Group, which met at NUDT in May 2015, and that they acquired expertise and skills in informatized warfare.¹⁰⁸ In addition, in order to retain their positions, PLAN political officers are said to have to learn about operational command, handling emergency situations, psychological warfare, and technical details and pass tests modeled upon a captain's examination.¹⁰⁹



A military command officer and a political officer marching side by side at China's 70th anniversary military parade (October 2019) (Photo: Xinhua News Agency/Kyodo News Images)

Third, ever since the Political Work Conference of the PLA in October 2014, the PLA has focused on political officers who can command units based on past tradition. The *PLA Daily* reported that a political commissar of the fleet in the Gulf of Aden led a training exercise,¹¹⁰ and that a political instructor commanded a PLARF training exercise in place of a military command officer.¹¹¹ Furthermore, scholars have noted that PLAN political officers have been officially designated “mission commander [*renwu zhihuiyuan*, 任务指挥员]” along with the captain in PLAN surface units at least since mid-2018, and that political commissars who had desk positions have been assigned to PLAN combat units to gain direct combat experience.¹¹²

(5) Emphasis on the “Three Warfares” and the Promotion of Informatization in Wartime Political Work

The “Political Work Regulations” defines wartime political work as “strengthening the unified leadership of Party committees over operations and ensuring that units will carry out the strategic intentions and operational policies of the CCP Central Committee and CMC and the resolutions, orders, and instructions of the upper echelon.”¹¹³ They are elaborated in Table 3.2.¹¹⁴

The PLA is promoting the informatization of wartime political work keeping in line with the IJO concept. In October 2014, Xi Jinping instructed the Political Work Conference of the PLA to raise the level of informatization, law abidance, and scientification of political work, study the characteristics and discipline of political work in the information network era, make appropriate use of network platforms, highly integrate the traditional dominance of political work and information technology, and strengthen the initiative and effectiveness of political work.¹¹⁵ The 2020 edition of *Science of Strategy* edited by NDU added wartime political work as a new item and pointed out the need to revamp wartime political work through informatization.¹¹⁶ Members of the PLA have also suggested

Table 3.2 List of Wartime Political Work

| Wartime political work | Description |
|--|--|
| Wartime publicity (propaganda) and education work | Conducts political mobilization and ideological education for the purpose of completing operational missions, and carries out wartime publicity activities to raise the morale of participants. |
| Wartime organization work | Organizes CCP and Chinese Communist Youth League groupings of the participating units, promotes military democracy, turns those who have made outstanding achievements into examples and commends them, selects heroes, and provides care for the wounded and sick soldiers. |
| Wartime cadre work | Makes personnel appointments, including selection of officers for war and the filling of vacant positions during a war. |
| Execution of the “Three Warfares” | Performs public opinion warfare, psychological warfare, and legal warfare (more information provided in the main text). |
| Wartime mass work | Conducts mass mobilization at the local level including militias, conducts ideological and political work and discipline maintenance for mobilized personnel, and addresses masses and minorities in other countries during wartime. Forms militia units that provide information support to engage in cyber operations. |
| Wartime public security, procuratorial and judicial work | Guards key headquarters staff, performs political reviews, conducts counterintelligence activities, and prevents and deals with military crimes. |
| Wartime liaison work | Conducts intelligence activities, such as intelligence collection on the enemy, clandestine dismantling (infiltration) work, and the management, education, and return of prisoners of war. |

Source: Compiled based on 吴志忠 [Wu Zhizhong], ed., 战时政治工作教程 [Lectures on Wartime Political Work] (Beijing: 军事科学出版社 [Academy of Military Science Press], 2013), pp. 105-128.

that wartime political work training should be incorporated into PLA-wide training and TC joint operations political work training, in order to examine the nature of wartime political work in the new era.¹¹⁷

Among wartime political work, the “Three Warfares” have been particularly emphasized in recent years. The “Three Warfares” are an integral means by which political work directly exerts its operational function, are an essential nexus for the operational system, and are a basic component of Systems operational capability. The “Three Warfares” are considered to be a single holistic, interconnected concept.¹¹⁸

Public opinion warfare is hostilities in which both sides in a war use mass media, such as television, cable broadcasting, the Internet, and newspapers, as the primary channels to systematically and purposefully convey selected information to the enemy side, induce and control social opinion, and shape public opinion that is favorable to oneself and unfavorable to the enemy. Public opinion warfare is intended mainly to: (1) explain the rationality and legality of friendly operational actions and win the moral high ground; (2) display the military power of the friendly side to startle the enemy; and (3) counterattack the enemy’s propaganda campaign and seize the initiative of public opinion.¹¹⁹ Public opinion warfare focuses on combining peacetime and wartime operations, and emphasizes the military-civil integration of resources [*junmin jiehe*, 军民结合] and the unification of military and local resources [*jundi yiti*, 军地一体].¹²⁰ Moreover, advances in network technology have created many methods and means for public opinion warfare. The PLA emphasizes using these methods and means to take the initiative in launching offensives. Public opinion warfare envisions three scenarios:

(1) attacking the enemy's central figures; (2) attacking specific situations; and (3) propagating the enemy's military predicament.¹²¹

Psychological warfare is hostilities in which both sides in a war use an array of methods to influence and stimulate the enemy's mind and psychology, to effectively undermine the enemy's operational functions, and to cement the psychological defense line of allies. This warfare is waged to achieve a large victory for a small price. It is mainly designed to: (1) fully demonstrate the political superiority of one's own side to launch psychological propaganda; (2) utilize the psychological characteristics and weaknesses of the enemy to trigger division and downfall; and (3) emphasize the strengthening of the psychological defense line of one's own side.¹²² Psychological warfare is positioned as the central element of the "Three Warfares," and it is considered essential to lay the groundwork for this warfare from peacetime.¹²³ Scholars note that the intelligentization of the military has increased the importance of public opinion warfare and psychological warfare, and accordingly, the means of psychological offense must be revamped.¹²⁴

Legal warfare is hostilities in which both sides in a war apply relevant domestic and international laws, especially the laws and regulations of war. Such laws are used as weapons to secure a legal basis and propagate the legality of the use of force and the operational actions of friendly forces in order to suppress, expose, and eliminate the enemy's illegal use of force and unlawful operational actions. Legal warfare also uses the law to enhance and enlarge the results of victory and achieve the political objectives of the war. Legal warfare is mainly intended to: (1) startle and restrain the enemy based on law; (2) proactively launch legal offensives against the enemy's unlawful actions; (3) based on law, refute and counterattack the enemy's legal condemnation of friendly military actions; (4) use legal means to constrain the enemy's military actions; (5) use wanted persons and war crimes tribunals to hold third countries legally accountable for violations of their obligations under international law; and (6) provide a legal basis and legal protection for friendly operational decisions and actions.¹²⁵ Legal warfare plays an important role in peacetime, wartime, and after the war.¹²⁶

Political officers carry out the wartime political work. Political commissars carry out all of the work listed above. Political directors and political instructors, on the other hand, do not perform everything. For example, political commissars conduct all Three Warfares. However, political directors engage in ideological and political education, psychological service work, and the strengthening of psychological defense work. Political instructors engage in ideological and political education and psychological service work and help solve the ideological and psychological issues of individual troops.¹²⁷

The PLA will establish a wartime political organ in a contingency. In accordance with the decisions, orders, and instructions of the senior Party committees and political organs as well as those of the Party committees and commanding officers (military command officers and political commissars) of the affiliated units, a wartime political organ will be tasked with planning wartime political work based on the actual situation of the units, translating the plan into action, guiding the political work of the affiliated units, and completing the tasks within the scope of the units' authority, pursuant to the

basic missions and main contents of wartime political work.¹²⁸

Wartime political organs can be divided into the campaign level, the operational group level, and the operational unit level. The wartime political organ or political work center within the campaign (TC) JOCO consists of a human affairs center, a publicity (propaganda) and mobilization center, a military legal affairs center, a political warfare center, and the joint campaign formation Party committee (wartime TC Party committee) general office. These organs, in cooperation with other departments of the TC JOCO, work under the unified leadership of the TC Party committee and achieve unified command (see Chapter 2, Section 3 regarding the composition of the TC JOCO). The political organ of the operational group is formed based on the standing political organs of the services and consists of several offices, including a service campaign formation (group army level) Party committee general office, an organization and human affairs office, a publicity (propaganda) and mobilization office, a military law protection office, and a political work and warfare office. Under the guidance of the affiliated service campaign formation Party committee and its political commissars, the political organ of the operational group guides the wartime political work of their units. The political organ of the operational unit consists of the political work teams of the main command post, forward command post, alternate command post, and rear command post. The political work team of the main command post is composed of three to five political officers who are commanded by the head of the political department of their unit.¹²⁹

The PLA uses a command information system software called the “Integrated Command Platform Wartime Political Work Component” for the wartime political work of joint operations. This software, which is shared by the entire PLA, is comprised of 13 specialized components: political work command; organizational work; cadre work; publicity (propaganda) work; public opinion warfare; psychological warfare; legal warfare; security work; discipline inspection work; mass work; battlefield situation display; document graphic processing; and wartime political work database.¹³⁰ A researcher from the PLAA notes that the software should be used to conduct simulation training on political work information processing and command.¹³¹ PLA scholars also point out that such political work command information systems need to be integrated with intelligence reconnaissance systems, C2 systems of military command officers, information offense and defense systems,¹³² and integrated support systems, alongside conducting real-time information sharing between political officers and officers in the operational divisions, in order to keep pace with wartime political work and military actions.¹³³

All 13 specialized components are operated by the political work center and above at the group army level and above, while the specialized components of public opinion warfare, legal warfare, and discipline inspection are not operated in division- and brigade-level units.¹³⁴ Among the “Three Warfares,” public opinion warfare and legal warfare are thus conducted by wartime political organs at the group army level and above.

Psychological warfare is conducted at a range of levels, from the TC level to the unit level.

In psychological warfare, political officers, led by the political commissar and head of the political department, work closely together with the operations division, led by the military command officer and chief of staff. Both parties must agree on the formulation of operational plans and the implementation of operational actions.¹³⁵ Psychological warfare units have the 311 Base at the strategic level and psychological warfare regiments at the campaign level.¹³⁶ These units are noted to have been placed under the command of PLASSF as a result of the PLA reforms (see Chapter 2, Section 1). Public opinion warfare is conducted by wartime political organs at the group army level and above. Moreover, operational units below the division and brigade level also emphasize strengthening the capabilities of officers and troops to identify public opinion information.¹³⁷ Legal warfare is conducted by political organs at the group army level and above, and there are no particular scenarios involving operational units.¹³⁸

(6) Outcomes from Strengthening Party-Army Relations

As shown above, the PLA has instituted a variety of measures to win wars through the realization of the IJO concept while maintaining the “Party’s Army” absolute principle. Due to material constraints, the outcomes of these measures are difficult to observe.

Against this backdrop, the results that are relatively easy to ascertain are the promulgation of the “CCP Regulations on Party Building in the Military” in September 2020¹³⁹ and the promulgation of the new “Political Work Regulations” in February 2021,¹⁴⁰ the details of which have not been disclosed. The former is a fundamental and major internal Party regulation that fully normalizes Party building in the military and is considered an important outcome of the reform of the military policy system. The *PLA Daily* mentioned one of the principles of the regulations as “to firmly concentrate on the primary responsibility and task of preparing for war and waging war,” and advocated joint operational command led by the TC Party committee.¹⁴¹

The latter regulations, which was revised for the first time in ten years, was likewise considered an integral outcome of the military policy system reform. A senior official of the CMC Political Work Department noted that the revisions were made because of serious changes in the situation and the mission of the political work of the PLA. The official also explained the new “Political Work Regulations” as follows: (1) it added chapters on “Guidance on the Political Work of the Central Military Commission” and “Guidance on the Political Work of Party Committees at All Levels”; (2) it adjusted the content of army building by the political organs and political officers, normalized the main responsibilities and the required qualities of political officers, and strengthened the command capability and military grounding of political officers, requiring political officers to carry out both political work and military work; (3) it clarified the nature of political work by removing content that was not included yet, and supplemented and normalized political work at the unit of TCs, services within TCs, PLASSF, and PLA Joint Logistics Support Force; and (4) it maintains the Party committee system, the political commissar system, and the system of political leading organ.¹⁴²

4. Challenges Surrounding Joint Operations Training, Talent Cultivation, and Party-Army Relations

Through its reforms, the PLA has thus strengthened joint operations training and the structure for cultivating personnel for joint operations and has made achievements in these areas. Furthermore, with regard to the execution of modern warfare, i.e., the IJO concept, and the issue of maintaining and strengthening Party-Army relations, the PLA has produced outcomes in the form of enacting the “CCP Regulations on Party Building in the Military” and revising the “Political Work Regulations.” However, the PLA still faces the following challenges.

(1) Challenges of Joint Operations Training

In November 2020, the *PLA Daily* published an article summarizing the Xi-led military training, ahead of the CMC military training conference. The article described many achievements but also pointed out the need to revamp the content and methods of military training. As an example of a concrete issue, it mentioned shifting the emphasis from combined-arms training to joint operations training and improving “Joint Operations Capability Based on Network Information Systems” and “All-Domain Operations Capability.”¹⁴³

The *PLA Daily* published articles before and after the CMC military training conference that noted the challenges of joint operations training. Specifically, the articles stated that: (1) the level of PLA training has not reached the goal of building world-class forces, and the PLA should strengthen the linkage between the TC-centered joint operations training and troop training by the services;¹⁴⁴ (2) the PLA should reform the training methods adopted at training bases, and enhance the Systems training, war gaming, and joint exercises with foreign countries to improve the training methods of joint operations training;¹⁴⁵ and (3) the PLA should improve the scientific and technical level of military training, adjust new-type operational domains and traditional operational domains, strengthen multi-dimensional and three-dimensional joint operations training, and improve “All-Domain Operations Capability.”¹⁴⁶

As can be observed, the PLA still faces challenges in joint operations training, and the *PLA Daily* has raised the need to strengthen the development of the “joint operations training System with Chinese characteristics.”¹⁴⁷ The frequent enactment of regulations and laws on military training may suggest that these challenges are not easy to overcome.

(2) Challenges of Talent Cultivation

Cultivating talent also has some challenges. First, it is difficult to promote officers excessively. Doing so may create a new surplus of senior personnel at the PLA, which has already downsized by 300,000,

and present a setback for maintaining a balance of senior and junior officers.¹⁴⁸

Second, it is difficult to secure scientifically and technically competent talent. In October 2020, an official from the CMC Training Management Department stated that the 2021 recruitment work for military graduate students was revamped in order to cultivate personnel of a new quality who are urgently needed. The official announced that the PLA has established more programs for cultivating talent in new security domains, such as space and cyber electromagnetic domains, and the joint operations support domain.¹⁴⁹ However, the PLA competes with the private sector for personnel skilled in science and technology, and according to scholars, the PLA is disadvantaged because it cannot match the salaries.¹⁵⁰

The third challenge is improving the level of faculty at military educational institutions. At NDU, education and training is provided not only for students but also for faculty engaged in joint operations education. These measures suggest even faculty of NDU, the highest academic institution of the PLA, still face a number of challenges in conducting joint operations education.¹⁵¹

(3) Challenges of the Political Commissar System and Wartime Political Work

The political commissary system also has several challenges. For example, if the military command officer or political commissar were wounded or killed, it is unclear how the roles will be divided between the political commissar and the deputy military command officer, or between the deputy military command officer and the deputy political commissar.¹⁵² At this stage, it is unknown whether strengthening the political commissar's command capability will solve these problems or bring confusion to the units, as the political commissar commands them with smattering of expertise and experience.

Another challenge of wartime political work is ambiguity over whether the main implementer of psychological warfare is the wartime political organ or the PLASSF. Following the PLA reforms, PLA monographs have tended to avoid the term, "Three Warfares." For example, the 2017 edition of NDU's *Science of Strategy* changed the wording from "public opinion warfare, psychological warfare, and legal warfare" used in the 2015 edition of *Science of Strategy* to "public opinion and legal fight, and psychological offense and defense."¹⁵³ Since the two are almost equivalent in description and definition, this change in notation may suggest that the main body for conducting psychological warfare among the "Three Warfares" was transferred from the Political Work Department to the PLASSF.

In addition, PLA researchers pointed out that the lack of laws and regulations, which political officers can rely on for the execution of wartime political work, caused uncertainty over how political officers, especially those of the terminal units, should perform wartime political work. This has raised calls within the PLA for the enactment of "Wartime Political Work Regulations," "Guidelines on Joint Operations Political Work," and laws and regulations on wartime political work for conducting joint operations training.¹⁵⁴

Conclusions



Conclusions

The Chinese People's Liberation Army (PLA) began to research joint operations in earnest in the wake of the Gulf War and advocated the concept of integrated joint operations [*Yitihua Lianhe Zuozhan*, 一体化联合作战] (IJO) from the mid-2000s. To win informatized warfare, the IJO concept envisaged conducting joint operations in operational spaces encompassing not only the traditional security domains of land, sea, and air but also the new security domains of space, cyber electromagnetic, deep sea, and the cognitive domain. Aiming to realize the IJO concept, Xi Jinping launched organizational and structural reforms in November 2013, which were the biggest since the founding of the People's Republic of China, and sought to strengthen the PLA's joint operations structure.

Under a new joint operations structure, the PLA stepped up its joint operations training alongside strengthening personnel cultivation programs that are indispensable for the execution of joint operations. In addition, keeping steadfast to the principle of "the Party's absolute leadership over the PLA," the PLA explored new ways to operationalize the traditional systems of Party committees, political commissars, and political leading organs to be compatible with the IJO concept. In this way, the PLA aspired to enhance joint operations capabilities on multiple fronts, including the concept, structure, education and training, and Party-Army relations. The outcomes of these PLA reforms, which were planned and implemented for completion in 2020, are summarized below.

First, to further develop the IJO concept, the joint operations concept proposed "Joint Operations Capability Based on Network Information Systems" and "All-Domain Operations Capability." Based on these concepts, the PLA is shifting the focus of joint operations to making new security domains the main battlefields and making new types of security forces the main forces. Furthermore, the PLA contends that intelligitized warfare will become the future warfare and has begun to consider joint operations concepts that can accommodate it.

Second, the joint operations structure created a command system whose core components are: the Central Military Commission (CMC) multi-department system; the five-theater command (TC) structure; and the PLA's four services (Army, Navy, Air Force, and Rocket Force) and two sub-service forces (Strategic Support Force and Joint Logistics Support Force). Standing joint operations command organizations (JOCOs) were established in the CMC and the TCs. The PLA Navy Marine Corps was upgraded, including the establishment of a new headquarters. Furthermore, the China Coast Guard became part of the People's Armed Police, suggesting that it was integrated into the PLA's joint operations structure. The PLA's upper echelons have been increasingly filled with personnel who are inclined toward joint operations. In addition, the PLA established a command and control (C2) system for joint operations consisting of the three levels of strategic, campaign, and tactical. At the campaign level, the C2 systems for joint operations of the TCs are linked with the C2 systems of the services. Additionally, the C2 systems of the government and civilian sectors are being integrated into the

strategic and campaign-level C2 systems for joint operations.

Third, the PLA made significant strides in training and cultivating personnel for joint operations. In the realm of training, the PLA strengthened real-time information sharing and the linkage of C2 systems, revised and enacted training laws and regulations, such as the “Trial Guidelines on PLA Joint Operations,” and aimed to improve the quality of training by strengthening the training supervision system. In the realm of personnel cultivation, the PLA established the “triad” System for training new types of personnel comprised of three components: military institutional education; unit training practice; and military professional education. In addition, the PLA put forward the “Military Education Policy in the New Era,” revised and enacted internal regulations, such as the “Trial Regulations on the Education in Military Academies” and the “Trial Regulations on Military Professional Education for Armed Forces,” developed curricula for joint operations, and assigned many joint operations personnel to operational units.

Fourth, the PLA began to reorganize traditional systems in order to reconcile the IJO concept and the maintenance and strengthening of Party-Army relations. Specifically, it sought to: (1) ensure the “system of division of the leader’s responsibilities under the unified collective leadership of the Party committee”; (2) give weight to military expertise and scientific and technical knowledge in selecting and cultivating political officers; and (3) emphasize the “Three Warfares” and promote informatization in wartime political work. While it is difficult to determine the result of these efforts, the promulgation of the “Chinese Communist Party Regulations on Party Building in the Military” and the revision of the “Political Work Regulations” are regarded as moves to institutionalize outcomes of some kind.

As shown above, the PLA made many achievements through its reforms, which were mainly aimed at strengthening joint operations capabilities. It can therefore be assessed that the PLA succeeded in deepening its joint operations through the reforms. The PLA’s reforms and efforts to strengthen joint operations capabilities were marked by the following features. (1) The IJO concept, being a broad concept, was able to adapt flexibly to the developments in U.S. military theories and science and technology. (2) The PLA pursued uniqueness in deepening an IJO concept that prioritized both tradition (e.g., the “Three Warfares,” emphasis on military-civil fusion, and maintenance and strengthening of Party-Army relations) and innovations (e.g., emphasis on long-range precision attack capability, shift to new security domains, and intelligentized warfare). (3) Under the initiative of the strong leader, Xi Jinping, a comprehensive set of reforms was undertaken covering the PLA’s structure, training, personnel cultivation, and Party-Army relations.

Meanwhile, challenges remain in the PLA’s joint operations capability. The joint operations concept is presented with: (1) deficiencies in defense science and technology as well as personnel capable of realizing the concept; (2) difficulties reconciling the IJO concept, which is headed toward intelligentized warfare, and the maintenance and strengthening of Party-Army relations; and (3) possible resistance to further reforms triggered by new concepts. These challenges were of a nature that should have been overcome by PLA reforms to some extent, with the exception of defense science

and technology. However, this report has examined the post-PLA reform joint operations structure, joint operations training, cultivation of personnel for joint operations, coexistence of the promotion of the IJO concept and the maintenance and strengthening of Party-Army relations, and it can be deduced that the challenges have not been overcome.

First, the post-PLA reform joint operations structure faces challenges relating to: the transfer of command authority over wartime actions from the CMC to the TCs; coordination of the division of roles between the TC headquarters and the service headquarters in peacetime and wartime; and insufficient awareness of joint operations and service parochialism. Second, joint operations training is also challenged by its formalism and by issues of coordination between joint operations training led by the TCs and training of the services and branches. Third, cultivating personnel entails difficulties with giving quick promotions to officers, and with recruiting, cultivating, and retaining personnel skilled in science and technology, while the PLA has to raise the level of faculty at military educational institutions. Fourth, maintaining and strengthening Party-Army relations is also faced with issues such as the command authority and capability of political commissars when military command officers are absent; lack of clarity on whether the main body waging psychological warfare is the wartime political organ or the Strategic Support Force; and inadequate laws and regulations for wartime political work.

The outbreak of the coronavirus disease in 2020 plunged the United States and other Western industrialized countries into negative economic growth, whereas China was the only major power to achieve positive economic growth. Underpinned by such growth, China's defense spending in both 2020 and 2021 increased at almost the same rate as in previous years.¹ The PLA will likely use these ample funds to overcome its challenges. However, the three challenges—recruiting, cultivating, and retaining superior talent; creating an organizational culture that prioritizes joint operations over the services; and maintaining and strengthening Party-Army relations in modern warfare—are difficult to evaluate by quantification and visualization and are not problems that can be solved solely by increasing the budget or improving defense science and technology. Overcoming these challenges is therefore expected to take more time.

As of this writing, the PLA has set 2027 as “the year by which to ensure the achievement of the military's centenary goal.”² It aims to basically complete the modernization of national defense and the military by 2035 and transform itself into world-class forces by the middle of this century.³ Considering these timelines for modernization, it appears that the PLA establishes 2027 as a short-term target and aspires to basically overcome the challenges by 2035 and acquire capabilities that match or surpass the U.S. forces' by 2050.

Therefore, when formulating security policy, it will become even more important that Japan objectively estimates the PLA's joint operations capabilities as accurately as possible, based on a variety of information sources. In doing so, it will be imperative to continuously assess the PLA's capabilities by closely monitoring not only the growth rate of Chinese defense spending, China's introduction of new equipment, and its statements and actions directed at other countries, but also the

PLA's actual situation from multiple perspectives, including its joint operations concept, organizational and structural reforms and the accompanying changes in organizational culture, development of education and training, qualitative improvements in personnel, and Party-Army relations.

Introduction

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Conclusions

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