



C H I N A A E R O S P A C E
S T U D I E S I N S T I T U T E

Unmasking the Devil in the Chinese Details A Study Note on the *Science of Military Strategy 2020*

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Introduction

We regard the textbook series of *Science of Military Strategy* (战略学/*SMS*) as a valuable reference for the field of People's Liberation Army (PLA) studies.¹ The PLA National Defense University (NDU) edited and published the latest edition of the *SMS* in August 2020.² Although the majority of the text remains consistent across the NDU-edited editions, according to its editing team³, the 2020 edition has gone through “relatively significant revisions from the 2015 edition”ⁱⁱ to “reflect the latest achievements of national defense and military reform.”⁴ This paper, based on a side-by-side study of the Chinese texts of the 2017 and 2020 editions, seeks to put such revisions in perspective. We intend this to article to be used as a reading guide for non-Chinese speakers who may be reading the English translation of the *SMS 2020* edition.

In our attempt to read between the lines and “reverse engineer” the changes of the texts, we discovered over 1,200 edits (including grammatical ones). Compared with the 2017 edition, we noted that the 2020 edition contains fewer details about topics that are likely considered sensitive by the PLA censors, such as counterspace operations, strategic feint,⁵ offensive network operations.⁶ The 2020 edition also deleted certain candid assessments previously contained in the textbook. For instance, in the discussion about advantages in military intelligentization and core technologies, “pay special attention to analysis and screening (分析甄别), do not fall into technology traps hyped by strong military power(s) on so-called new technology and new concept(s)” is no longer included in the 2020 edition.⁷

More importantly, we uncovered several concerning trends of where the PLA strategic thinking may be headed. To be sure, *SMS* is a textbook about military theories and thoughts. While the 2020 edition provides useful insights into PLA strategic guidelines and, given its timing of publication, possibly also into the *Outline of Joint Operations for the PLA* (联合作战纲要) issued in November 2020⁸, it is certainly not a concrete war plan. But the significant changes contained

ⁱ The authors thank Dennis J. Blasko, Joel Wuthnow, and Stein Tønnesson for insightful comments on previous drafts. All errors are the authors' alone.

ⁱⁱ This implies that the changes from the 2015 and the 2017 editions are likely less significant. However, we did not conduct a side-by-side study of the two previous editions for the purpose of this study.

in the 2020 edition unmistakably demonstrate the growing confidence of PLA academics in their assessment of the PLA's overall military capabilities. Such confidence likely reflects the PLA's acknowledgement of having a wider array of military options at its disposal and a greater ability to exercise control of said operations.

Put in U.S. doctrinal terms, the PLA perceives that the competition continuumⁱⁱⁱ has widened. In order to achieve its political objectives, the PLA may become more prone to rely on "strategic use of force" to access the "coercion" spectrum⁹. This is not to say armed conflict/war is imminent, nor does the text we studied suggest fundamental shift of PLA strategic thinking to favor "compellence" over "coercion." Notably, in the updated section on "active defense as a strategic thought" in *SMS 2020*, the authors added that China "must unwaveringly uphold the strategic thought of 'active defense'" as it is beneficial for China to "seize the moral high ground" and "gain political and diplomatic advantages."¹⁰ They further argue that "active defense" is conducive to "using force to stop war (以武止戈)"¹¹ to prevent China from "falling into the quagmire of war."¹²

Like all textbooks, however, the *SMS* is not a bible of Chinese strategic thinking. Although the PLA likely intends for this textbook to be read by senior PLA officers enrolled in their professional military education system, the textbook's influence on current and future PLA leaders is almost impossible to assess. Despite the difficulties in gauging its influence, this piece still merits close examination by PLA researchers mainly for at least two reasons:

First, it provides a unique set of authoritative narratives endorsed by the PLA's sophisticated censorship system. The narratives are carefully crafted, by designated teams of PLA academics, to reflect political and theoretical correctness of the PLA at the time of publication. As such, it establishes a critical baseline for more advanced PLA analyses.

Second, since the release of its first English edition in 2001, the *SMS* has likely assumed a more deliberate role to convey messages to a western readership.¹³ The framing and pruning of narratives contained in the *SMS* presumably reflects how the PLA wants to be seen by the outside world. Therefore, the nuances contained in the *SMS*, particularly changes made by its authors over time, when analyzed in correlation with PLA's activities in the field, can provide clues to the Chinese Communist Party's (CCP) strategic intent and aspirations.

This paper provides assessments for ten key themes for readers of the *SMS 2020* to take into account when reading its English translation. Here is a quick summary of our key findings.

1. In the PLA context, symbolism is substance. Xi Jinping Thought has been systematically integrated into this updated text symbolizing total control of Xi over the PLA. Elevating political work to the level of strategic thinking suggests that Xi's demand for absolute political loyalty of its military to the CCP is above all else;
2. The updated textbook confirms that China has almost certainly dramatically changed its approach to nuclear development and possibly removed virtually all the self-imposed

ⁱⁱⁱ According to *Joint Doctrine Note 1-19*, "Competition Continuum" describes a world of enduring competition conducted through a mixture of cooperation, competition below armed conflict, and armed conflict.

limitations on its nuclear force. However, there is less evidence to suggest the PLA has changed its general view of nuclear weapons or nuclear weapons use;

3. The PLA appears to de-emphasize the home field advantage of “local operations” in the PLA Navy’s (PLAN) service strategy. The 2020 edition introduces the new concept of “strategically important areas”, which suggests a shift in PLAN thinking placing greater focus on far seas operations;
4. An increased sense of confidence permeates the pages of the *SMS 2020*. The authors’ confidence likely came from steady progress made in the PLA’s continuous modernization of military equipment and systems. It also signals that China likely perceives the field in which military power may be applied has expanded.
5. The PLA perceives a noticeable improvement in their ability to control crises as well as conflicts. It likely also has gained higher tolerance for uncertainty and periodic diminished control. Such an improvement possibly partially derives from improved planning processes, deterrence capabilities, and technology.
6. The PLA’s way of waging war is at an inflection point marked by the emergence of “multi-domain integrated joint operations”. Changes in language associated with this term in the 2020 edition suggest that the PLA almost certainly recognizes that they have made sufficient progress in both “joint operations” to warrant discussing what the next stage of guiding operational thought might look like.
7. Nuances contained in the 2020 edition suggest that the PLA may value powerful conventional capabilities as superior to nuclear weapons due to its accuracy and controllability. Yet the PLA’s description of carrying out information attack as a measure of strategic deterrence is inherently risky.
8. Discussions about “intelligentization,” albeit in abstract terms, are key additions to the 2020 edition, and the PLA intends to become a leader in intelligentization. However, it is critical to understand such terms as evolving concepts that have adapted to PLA’s improving capabilities, and it is the “fusion of mechanization, informatization, and intelligentization” that will guide the PLA’s thinking about its future modernization effort.
9. The PLA’s understanding of the critical role of “support and sustainment” in modern warfare has deepened. The 2020 edition contains significant additions on “strategic intelligence support” and “strategic information assurance” as well as “strategic reconnaissance and strategic early warning.” PLA reserve force and militia, key elements of PLA’s “people’s war” strategy, are critical support and sustainment element advancing the PLA’s edge in the age of “informatization and intelligentization.”
10. Despite growing concern about the possibility of the CCP using force against Taiwan in the near future, the *SMS 2020* signals no clear shift in the PLA’s narrative regarding their intent towards Taiwan. Nor does it discuss any timeline for achieving unification with Taiwan, whether by force or not.

A Truckload of Xi Jinping

A PLA textbook is first and foremost a piece of political education material. It is certainly not a surprise that the 2020 edition gives the impression that Xi Jinping Thought has completely dominated China's strategic thinking, at least on paper. In the PLA context, symbolism is substance. The authors have diligently added references to Xi's speeches¹⁴ and catchphrases such as "new era (新时代)"¹⁵ or "profound changes unseen in a century (百年未有之大变局),"¹⁶ to the updated text. While quotes of Mao Zedong largely remain in place, Deng Xiaoping, Jiang Zemin,¹⁷ and Hu Jintao receive only minimum mentions.

Xi's words do not simply receive honorary mentions, as his "new era" redefined the PLA's missions. The 2020 textbook essentially incorporates the key statements from the *National Defense in the New Era*, a defense white paper¹⁸ published in 2019. Still, it is worth highlighting that Xi demands the PLA to transition from a revolutionary army that fights for national independence to a modern force that "focuses on force construction" and serves as "strategic supports (战略支撑)" for his political agenda.¹⁹

Dubbed the "four strategic supports," the PLA is expected to provide strategic support for strengthening CCP leadership and China's socialist system, safeguarding national sovereignty, unification, and territorial integrity; expanding China's overseas interests; and promoting world peace and development.²⁰ Though speculative, such a discussion resembles the contentious debate within the CCP about the party's own transformation from a revolutionary (革命党) to a ruling party (执政党) in the Jiang Zemin era.²¹

Another key update reflecting Xi Jinping's omnipresence in the development of PLA's strategic thinking is the addition of an independent section on political work planning.²² Given that the PLA already has numerous PLA textbooks on this topic, the addition is more symbolic than substantive. Nevertheless, discussing political work as an element of the "strategic planning" process reflects the PLA's effort to better integrate political work in warfighting that has been underway during the military reform. This addition also suggests political loyalty plays an even more prominent role in Xi Jinping's military as most of the wartime political work functions serve internal control purposes.

Gloves Off Nuclear Development

China has almost certainly dramatically changed its approach to nuclear development. However, there is less evidence to suggest the PLA has changed its general view of nuclear weapons or nuclear weapons use. Although the public is now well aware that the PLA is dramatically expanding its nuclear force²³, the 2020 edition of *SMS* makes it clear that the PLA removed virtually all of the self-imposed limitations on its nuclear force.

In previous editions of the *SMS*, the authors emphasized that the PLA's constrained its nuclear force development under some variant of the philosophy of "having some, a bit fewer, but better" (有一点, 少一点, 好一点).²⁴ However, the 2020 edition removes all but two references to the "having a bit fewer" development philosophy. Furthermore, the authors also removed the

following three references that discuss limits to nuclear force development found in the 2017 edition:

Topic	Statement (2017 Edition)
The pursuit of strategic weapons, specifically nuclear weapons	“From an economic basis, our country is a large developing socialist country with relatively insufficient financial and material resources.” ²⁵
Development of nuclear strengths	On the basis of maintaining the current scale... ²⁶
Development of nuclear strengths	Deng Xiaoping emphasized that, We still need to develop nuclear strengths, but this must involve limited development” ²⁷

Furthermore, there are veiled references to the growing importance of developing the PLA’s air and sea-based component of the nuclear triad. The new guidance for PLAN in terms of “strategic strength preparation” prioritizes “strategic deterrence and counterattack” among other capabilities.²⁸ The 2017 edition only discusses the need to focus on near seas defense and far seas protection.²⁹ The 2020 edition now highlights that the PLAAF contributes to “strategic nuclear weapons (deterrence) activities” whereas the 2017 edition only references land and sea based nuclear forces.³⁰

Notably, despite growing discussions about how the PLA’s recent nuclear force modernization points towards its adoption of a “launch on warning (LOW)” posture³¹, the 2020 edition of *SMS* does not discuss such a capability. However, the notion of the PLA wanting to have a “LOW” capability is not new, with the 1988 edition highlighting that if possible, the PLA should conduct a nuclear counterattack against the enemy after the enemy has launched its missiles but before those missiles detonate.³²

The 2020 edition makes no clear statements that directly suggest a PLA’s fundamental view of nuclear weapons or nuclear deterrence has changed. However, two minor changes made to this edition could be subtle indications that the PLA is shifting its view about using nuclear weapons.

In a section that discusses the wartime activity of “strategic strikes” (战略突击), the 2020 edition removed a previously made distinction between “conventional versus nuclear strategic strike”.³³ The authors made a similar removal when discussing the PLAN’s sea-based strategic nuclear deterrence and counterattack capability. The 2017 edition refers to this capability as a “sea-based strategic nuclear deterrence and nuclear counterattack capability” (海基战略核威慑与核反击能力)³⁴ whereas the 2020 edition removes the nuclear references and simply called it a “sea-based strategic deterrence and counterattack capability (海基战略威慑与反击能力).³⁵

The authors’ decision to make these two changes could be based on a desire to remove references to nuclear weapons usage when possible given the PLA’s sensitivity over the topic.

Indeed, the authors' decision to redact some discussion of space operations corroborates this hypothesis. However, it is also possible that the PLA wants to lower or perhaps blur the threshold between the use of "strategic conventional weapons capabilities" and certain "strategic nuclear weapons capabilities". If this is the case, the PLA's view of "no first use" may also be on the chopping block.

De-Emphasizing the Home Field Advantage

The authors make clear changes in the 2020 edition that PLA wartime operations will occur much further away from mainland China, perhaps to the extent that an increasing proportion of operations may no longer be classified as "local operations." Notably, the 2020 edition removes a reference to the asymmetrical advantage of "local operations", introduces the new concept of "strategically important areas (战略重点地区)", and suggests a shift in the PLAN's service strategy placing greater focus on far seas operations.

The PLA persistently emphasizes the importance of conducting "asymmetrical operations" in wartime. In describing this "basic combat thought" (基本作战思想), the 2017 edition describes the PLA should "fully bring into play our reliance on the asymmetric superiority of local operations and lean on land strengths to defeat maritime strengths, and land strengths to defeat air strengths."³⁶ The 2020 edition removes this sentence and simply discusses that the PLA should seek to leverage the comparative advantages of different types of forces. In short, the PLA is moving away from the narrative of using a home field advantage.

A tangible example of this push away from the mainland is the introduction of the new term "strategically important areas". The authors include this phrase almost exclusively in conjunction with references to "main strategic directions" (主要战略方向).³⁷ Main strategic directions historically referenced the direction from which the greatest potential wartime threat comes from. This in turn feeds force disposition, planning, and command structures.³⁸

This concept makes sense given the PLA's historical emphasis on "local wars", but military modernization oriented solely towards strategic directions inevitably hampers the PLA's ability to operate beyond its immediate periphery where dividing lines between strategic directions become vague. This limitation almost certainly drove the PLA towards the concept of "strategically important areas".

The authors highlight that planners should now take "strategically important areas" into consideration, in addition to strategic directions, when developing strategic guidelines (战略方针).³⁹ This in turn drives force allocation in these areas in peacetime and force employment in wartime.⁴⁰ The presence or employment of forces in "strategically important areas" beyond main and other strategic directions demands its own command mechanism. The authors highlight this new requirement in the 2020 edition by mentioning that, "It is necessary to focus on the implementation of military operations in strategically important areas and main strategic directions" and how "it is required to establish a complete command mechanism to realize the integrated command of various forces, levels, and services, and to ensure the coordinated completion of military conflict tasks."⁴¹ This new inclusion of "strategically important areas" in the context of

force disposition, command, and control suggests that the PLA is at least considering the employment and control of forces beyond its theater command structure.

The embracing of “distant operations” appears to be especially prevalent in the maritime domain. In addition to the authors adding “maritime mobile operations” (海上机动作战) as a discrete type of wartime activity in Chapter 11 “War Activities” (战争行动), sections related to the Navy across the 2020 edition embrace this push into the far seas.⁴² Notably, the PLAN’s ability to conduct maritime mobile operations is now a distinct requirement.⁴³

The idea of far seas protection is not new to this textbook, as the term first emerges in the 2013 PLA Academy of Military Sciences (AMS) version of the *SMS*. However, the 2020 textbook takes this idea a step further. In describing the need to accelerate the transformation of the PLAN, the authors now highlight that the PLAN’s development strategy should shift from strengthening the operational capability of “near seas defense (近海防御)” to “far seas protection” (远海防卫).⁴⁴ This same section in the 2017 edition takes a more transitional approach and instead notes that the development strategy should shift from “near seas defense” towards “near seas defense and far seas protection”.⁴⁵ The authors also made numerous other revisions to this chapter that reflect a shift away from a “near seas navy” and towards a “far seas navy”.

There are also several other changes throughout the 2020 edition that reflect the PLA’s desire to push operations further from the mainland. One example is the authors modifying the description of deep sea domain sensors. In the 2017 edition, the authors highlighted the need to “establish seabed defensive positions” (海底防御阵地).⁴⁶ They modified this phrasing slightly in the 2020 edition to state, “establish deep sea defensive positions” (深海防御阵地).⁴⁷ This minor revision suggests that the PLA must consider deep sea sensors beyond seabed acoustic arrays. Such seabed arrays must be placed in proximity to shore and are typically impractical in waters further away from the mainland.

A Strong Military is (Almost) Here

An increased sense of confidence permeates the pages of the 2020 *SMS* when the authors discussed China’s “expanding security and development interest.”⁴⁸ Their confidence likely came from steady progress made in the PLA’s continuous modernization of military equipment and systems. It also signals that China likely perceives the field in which military power may be applied has expanded.

One notable change is the deletion of one of the “key characteristics of future wars that China may face,”⁴⁹ namely, China should fully use “asymmetric advantages (非对称优势),” dubbed the “assassin’s mace” strategy, due to “weapon system (capability) gap.”⁵⁰ This “gap”, according to previous text, refers to mechanized weapon systems dominating the PLA arsenal, a lack of integration (一体化程度不高) of intelligence, command and control (C2), fire, and comprehensive support, weakness in controlling the space, electromagnetic spectrum (EMS), and network domains, and shortcomings in providing timely battlefield intelligence support and conducting damage assessment.⁵¹

This is a rather significant shift, particularly when read in juxtaposition to updated discussions of specific “gap” issues. Take network control capability for example, the PLA now discusses not just demonstrating “network attack capability” as a deterrence measure,⁵² it places equal importance on showcasing “destruction effects (of such attacks).”⁵³ This likely represents more matured capability in their network operations.

The creation and development of the PLA Strategic Support Force (PLASSF) likely addressed the other “gap” issues. The 2020 edition adds references to Xi Jinping’s guidance on achieving major breakthroughs in “foundational, forward-leaning, strategic, and disruptive technologies”,⁵⁴ which closely resembles the official description associated with the PLASSF’s mission sets.

Furthermore, the authors appear more comfortable with modern strategic concepts of western origin. One interesting update throughout the 2020 edition is the removal of numerous quotation marks previously associated with key terms of western strategic concepts.⁵⁵ Terms such as “space dominance” or “information dominance,” originally borrowed from western lexicons and translated into Chinese, have informed PLA strategic thinking for decades. The grammatical update in the 2020 edition demonstrates that PLA academics now see the need to further integrate and internalize such terms, in other words, de-westernize them.

Beyond nuances reflected in words, there are a few more examples reflecting more maturity of how the PLA thinks about strategic planning processes and resources management. Instead of vaguely discussing “planning and preparation (筹划准备),”⁵⁶ the authors in the 2020 edition adds “requirement analysis (需求分析)” and “assessment and validation (评估论证)” at the beginning and end phase of strategic planning respectively.⁵⁷ In terms of resource management, more emphasis is placed on “allocation (配置)” rather than “distribution (分配).”⁵⁸ This suggests the PLA has likely become more cost conscious and possibly gained more control over expenditures of resources.

While discussions about “new emerging domains (新兴领域)”^{iv} such as space, network, deep sea, polar issues, biosecurity, and intelligent (technology) already existed in the textbook’s previous editions,⁵⁹ the authors adds in 2020 that “relevant strategies should be developed”⁶⁰ so that proper “theoretical guidance could be formulated to facilitate both the “struggle” (in these domains) and force building.⁶¹ This change almost certainly shows the PLA has developed a more mature understanding of operations in such domains as their overall capability in conducting MISO, discussed earlier, has improved.

Finally, the 2020 edition summarizes the PLA organizational reform that began in 2015-16 and provides a few useful clues to where future steps may be taken. A new chapter on Joint Logistic Support Force (JLSF)⁶² was added. The People’s Armed Police (PAP) chapter now properly reflects that it is under the sole leadership of the Central Military Commission (CMC) from a dual-command structure, a change that occurred in December 2017.⁶³ The authors also

^{iv} It is also important to note that although it is just a one-character difference in Chinese (with similar pronunciations despite a tonal difference) from “新兴” to “新型”, the English meaning is totally different. The former is translated into “emerging” while the latter term means “new type,” which suggests that such issues are in a sense already “emerged” and their understanding of them have become more mature.

diligently added discussions about expanded missions of the PAP to include “maritime rights protection and law enforcement” - a clear reflection of the fact that the China Coast Guard (CCG) has become an active component of the PAP since 2018.⁶⁴

Although it is not a distinctive update from previous texts, it is worth noting that the authors continue to advocate for deepened understanding of the modernization of military theories and organizational change,⁶⁵ and call for a shift away from technology-centric thinking⁶⁶ about military modernization. In their own words,

“The modernization of military forces is mainly manifested in the modernization of military theory, the modernization of military organization, the modernization of military personnel, and the modernization of weapons and equipment. These aspects are interrelated. If the organizational structure is unreasonable, the functions are not complete, and the technology is not advanced, even if you have a few advanced weapons, you will not be able to form a powerful combat capability.”⁶⁷

Improved Control and Tolerance of Uncertainty?

The PLA likely perceives a noticeable improvement in their ability to control crises as well as conflicts. The ability to exercise a greater level of control appears to partially derive from improved planning processes, deterrence capabilities, and technology. Perhaps due to this perceived improved ability to exercise overall control over these events, the PLA may also have gained higher tolerance for uncertainty and periodic diminished control.

The perceived improvement in control likely stems from a foundational approach of being more proactive in shaping the strategic environment. Despite minor wording changes, both 2020 and 2017 editions of *SMS* place importance to “paying attention to create and shape (营造) the environment and situation (环境和态势)”.⁶⁸ But the authors in 2020 no longer discuss “coping with various security threats (应对多种安全威胁) and conduct diversified military missions,”⁶⁹ instead, they now argue “effectively shape the situation (塑造态势), manage and control crisis (管控危机), contain wars (遏制战争), and win wars.”⁷⁰

This change reflects a greater proactive approach in the use of military force in peacetime to set conditions for success in crisis or wartime. Increased PLA activities near Taiwan in recent years, artificial island expansions in the South China Sea, and ongoing PLA Army (PLAA) operations in Aksai Chin may be good examples of such efforts.

Perhaps related to the PLA’s perceived improvement in control is a likely greater tolerance for uncertainty. This is most evident in the use of more flexible language that reflects some acceptance of undesirable outcomes. For example, in their discussion of crisis management, the 2017 edition discusses that the PLA should strive to “control crisis” (控制危机), whereas the 2020 edition revises this phrase to “manage and control crisis”.⁷¹ Similarly, in Chapter 12 on Battlefield Control, the authors change the phrasing when describing initiative from “oppose (反对) being

good at controlling when doing well and giving up control when doing badly” to “strive to avoid (力避)” such a tendency,⁷² showing increased flexibility in thinking about war control.

Word (character) choices in Chinese doctrinal writings are deliberate. The change from “control” to “management and control,” though a one-character difference in Chinese, reflects the authors’ mental acceptance of “things could go wrong or not as planned.” Instead of insisting on absolute control, “management,” in other words, “living with” crises, is perhaps more realistic. This reflects greater tolerance in dealing with uncertain situations. This is not to say that the PLA believes that relinquishing control is now desirable, but rather that despite improved control mechanisms, occasional degradation in control is acceptable.

The text provides less detail on how the PLA achieves greater levels of control. One possible driving factor is an improvement in strategic early warning. Under Chapter 13 on Operational Guidance, in discussing “Grasping the situation”, the authors now include needing to understand “the opening of the war (开局)” in addition to the control and closing of war (控局收局).⁷³ This could suggest that commanders now have sufficient early warning to understand the path leading to conflict but could also suggest greater proactive intent to control the start of the war.

Another potential contributor to the perceived improvements in control is a demonstrable maturity in “planning concepts.”⁷⁴ For example, the 2020 edition showcases a revamped strategic planning process, standardized conduct of system architecture analysis during planning, and wargaming to assist with planning.⁷⁵ These planning improvements may in turn be made possible by improved access to command decision making aids and intelligence information. The 2020 edition also hints at improvements on planning control and coordination mechanisms for comprehensive battlefield dominance, air/missile defense, network, and electromagnetic spectrum (EMS) confrontation.⁷⁶

Last but not least, although the narratives have been consistent across the *SMS* texts, a somewhat overlooked yet possibly important concept about “hot shelving (热搁置)”⁷⁷ is worth highlighting to understand PLA’s tolerance for uncertainty in crisis scenarios. PLA authors argue for deliberately keeping disputes with no easy short-term solutions “hot and active,” for the purposes of “alarming their own nationals (警示国民), constraining adversaries (规制对方), and reminding international community [possibly of China’s concerns]”⁷⁸ China’s behaviors in the East and South China Sea over the past decade may be explained by such a logic. China’s increased coercive behavior against Taiwan since Tsai Ying-wen took office in 2016 may be another example. More in-depth case studies are needed to explore this line of possibly influential strategic thinking.

The Next Phase of Jointness is Coming?

The PLA’s way of waging war is at an inflection point marked by the emergence of “multi-domain integrated joint operations (多域一体联合作战/MIJO)”. The idea of multi-domain or all-domain operations is certainly not new to the PLA. In fact, various elements of the PLA have conducted theoretical research and discussions on this very topic.⁷⁹ However, the changes in

language used in the 2020 edition of *SMS* suggest that the PLA almost certainly recognizes that they have made sufficient progress in both “joint operations” to warrant discussing what the next stage of guiding operational thought might look like.

MIJO is a new phrase introduced in the 2020 edition and essentially replaces all references to “integrated joint operations (IJO)” found in the 2017 and 2015 editions. Nevertheless, the authors provide only a limited indication about how MIJO is different or what “multi-domain” entails.

Some references suggest that MIJO may in fact be a revised name for “network information system based joint operations” (基于网络信息体系的联合作战) given that MIJO replaces this term in some parts of the 2020 edition.⁸⁰ However, in other parts, the authors modify the term “network information based joint operations” to “network information system based multi-domain integrated joint operations” (基于网络信息体系的多域一体联合作战).⁸¹ This alone provides inconclusive information about MIJO.

The only direct substantive distinction that the authors make is that MIJO entails the linking of actions in the “land, maritime, air, space, network, electromagnetic spectrum, and other battlefields”⁸² However, the authors make at least two indirect references to capabilities that likely help contribute to the PLA’s ability to operate “across domains (跨域)”.

First, the authors now note in the 2020 edition that when forming joint operations strengths, joint formations can now be built by aggregating multiple tactical formations (集群)⁸³ whereas the 2017 edition only references the aggregation of multiple operational groups (作战集团).⁸⁴ This highlights greater flexibility in forming truly joint formations that can more easily create effects across domains.

Second, the authors now almost universally use the phrase “C4ISRK system” rather than “C4ISR (command, control, communications, computer, intelligence, surveillance, reconnaissance) system”, adding “kill (platforms)” to the mix.⁸⁵ Most references to “C4ISRK” appear in the context of “networking systems”, suggesting a growing need to also network weapon systems.⁸⁶ This in turn should improve the PLA’s ability to execute a notional “cross domain kill-chain”.

Taken in aggregate, MIJO appears to be a proposed improved version of IJO that places greater emphasis on cross-domain effects, organization of both operational and tactical formations in a way such that they can create optimal effects, and networking of as much of the PLA as possible to technically enable rapid execution of intended cross-domain effects. However, it does not appear to be a fully mature or adopted concept across the entire PLA.

Strong Conventional Deterrence Better than Nuclear Weapons?

Broadly speaking, PLA writings have consistently favored deterrence over combat operations thanks to the former’s relative “low intensity, low cost, and better maneuverability (回

旋余地)。”⁸⁷ But the 2020 edition demonstrates that the PLA’s ability to help the CCP achieve political objectives is increasingly reliant on means other than full-on conflict.

While the PLA definition of strategic deterrence, as a comprehensive struggle that integrates military, politics, economy, technology, and culture,⁸⁸ has not changed, the *SMS* 2020 shows that it has evolved from being an “optional way (备选方式)”⁸⁹ to a “key measure (重要方式)”⁹⁰ of the military struggle to safeguard national security. “Strategic” in Chinese covers more than nuclear weapons, and its exact meaning must be interpreted in accordance to the specific context where it is used. Reflecting more willingness to apply deterrence to protect China’s security and development interest, PLA authors added in the 2020 edition, that China should “employ deterrence measures with flexibility so as to create and shape (营造) favorable strategic conditions.”⁹¹

Such an attitudinal shift towards strategic deterrence is likely driven, first and foremost, by the improvement of capabilities of PLA’s “advanced and new”⁹² technology (高新技术) conventional weapon systems.⁹³ Although PLA authors do not specify what constitutes such systems, the Chinese defense community’s research record on so-called “new concept weapons”⁹⁴ and relevant discussions in other sections of the *SMS* directs our attention to the network (cyber) and EMS domains.⁹⁵ PLA authors explicitly note, both in 2017 and in 2020, that:

“Network and EMS warfare seeks to use information control measures to control enemy’s C2 links and joint operations systems, and its effects can be *as powerful as a nuclear strike* to produce a powerful deterrent, and even directly achieve the objective of war.”⁹⁶

Moreover, nuances of *SMS* texts suggest that PLA academics, and possibly also practitioners, value the “accuracy and controllability”⁹⁷ of powerful conventional capabilities as superior to nuclear weapons, and they may also be considering pairing it with “long-range strike” to deliver “destructive effects equivalent to nuclear weapons.”⁹⁸ It is not clear, however, if such an assessment suggests that Chinese strategists perceive conventional deterrence as posing inherently lower escalation risks than nuclear weapons.

In the 2020 edition, the authors appear to have adopted a slightly different view about the escalation risk of information attack, nonetheless. While they continue to be cognizant of the inherent high risks of network and EMS attacks due to the “uniqueness of the targets” and “highly visible efficacy” of such attacks, they no longer equate such operations with escalation.⁹⁹ This nuanced change is possibly supported by increased confidence in their own capabilities to ensure “accuracy” of the strike and “control” the scale of destruction. But more evidence of the PLA’s capabilities is certainly needed to draw any conclusive assessment.

Though not a significant change, it is worth noting that the 2020 edition continues to discuss “carrying out information attack” against adversary “command and early warning, air and missile defense systems” by military and civilian actors, as an acceptable “measure of strategic deterrence.”¹⁰⁰ To be sure, the context of this section suggests the authors’ definition of “information attack” is most likely centered on jamming and non-kinetic activities. But they do not clearly distinguish the “target” of such information attacks being command systems for

conventional forces or nuclear forces or even both. Such broad-brushed discussion about information deterrence leaves a lot to be desired. Lacking credible strategic communications mechanisms, such an analysis, if translated into actions, may only exacerbate confusions about China's intentions.

Finally, a minor change in the wording of how PLA authors discuss the relationship between space deterrence and space operations suggests (conventional) deterrence may be the primary desired method. The narratives have prioritized the role of deterrence in the space domain,¹⁰¹ possibly driven by China's own increasing reliance on space-based systems to conduct military operations. In the 2020 edition, PLA authors added more emphasis on adopting more defensive measures in space operations as well as claiming that unless it "absolutely must (不得不),"¹⁰² kinetic war in space will remain a secondary consideration.

Getting the Fusion of "Three -izations" Right

PLA writers often use terms such as "mechanization", "informatization", and in recent years, "intelligentization", to characterize the nature of warfare or describe the state of its strategic modernization. But the exact meanings of such terms remain elusive.¹⁰³ Discussions about "intelligentization," albeit in abstract terms, are key additions to the 2020 edition.¹⁰⁴

Throughout the book, "informatization" is no longer described as the sole condition of warfare, it is the "informatization" and "intelligentization" that defines the nature of warfare.¹⁰⁵ This demonstrates the "rolling" nature of doctrine development and is consistent with the PLA's long-held belief that "technology determines tactics (技术决定战术)."¹⁰⁶ The authors also suggest that China has shifted its objective of being a follower who learn from the best practices in the field¹⁰⁷ to seeking to lead and shape¹⁰⁸ the standard of intelligent warfare.

Interestingly, in a paragraph¹⁰⁹ tucked in Chapter 16 on Strategic Guidance for Military Force Construction and Development, the authors also offer important insights into how intelligentization should be approached in the overall planning.¹¹⁰ Directly referencing Xi Jinping,¹¹¹ they highlighted the importance of understanding "mechanization, informatization, and intelligentization", or the "three -izations" for short, as a holistic concept centered on the *fusion* of the three ("三化"融合)¹¹². To accelerate the holistic development of the "three -izations", "mechanization" is the foundation, "informatization" is the lead (主导), and "intelligentization" is the direction."¹¹³ The authors also noted, likely echoing General Xu Qiliang¹¹⁴, Vice Chairman of the CMC, who argued elsewhere that "intelligentization does not eliminate (排斥) mechanization and informatization," that the "three -izations" are co-dependent and "stacking them up" helps enhance combat power.¹¹⁵

Xi's call for the fusion of "three -izations" is likely mainly driven by cost and benefit calculations and how PLA perceives its own strengths and weaknesses. The "three -izations" are not linear. While acknowledging the PLA's intelligentization remains at a primitive stage, the PLA is eager to use it - applying AI, machine learning, and big data analysis - as a lever to accelerate its "informatization" process.¹¹⁶ "Mechanization", or the development and advancement of

mechanized weapon systems, continue to play a critical role in offsetting an adversary's information advantage.

As some PLA analysts pointed out elsewhere, missiles that can travel at hypersonic speed are categorized as a mechanized achievement; and high-powered microwave weapons that can directly destroy enemy networks and electronic devices also belong to the mechanization category.¹¹⁷ More importantly, PLA writers argue that what drives Russia's pursuit of hypersonic weapons is that Russia was using "mechanization" to make up for its lack of "informatization." Does this shed light on the Chinese thinking about its own DF-17 program?

Strategic Support as the Secret Sauce

While the Chinese terms of *bao zhang* (保障) and *zhi yuan* (支援) are sometimes used interchangeably, they may carry different connotations in the military context.¹¹⁸ In the PLA parlance, *bao zhang* is closest in meaning to "sustainment" or "assurance," whereas *zhi yuan* means "support" or "assistance" in its generic sense and has a wider scope of usage.

For instance, *fire support* is often translated into *huoli zhi yuan* (火力支援), but never as *huoli bao zhang* (火力保障). "Support" has been codified in the English translations of both the PLA's Strategic Support Force (战略支援部队/SSF) and the Joint Logistic Support Force (联勤保障部队/JSLF), despite the fact that their Chinese names use *zhi yuan* and *bao zhang* respectively. Adding confusions, official PLA source describes the PLASSF as a force that is composed of "capabilities that provide assurances/support (保障力量)" such as "battlefield environment assurance/support (战场环境保障), information communications assurance (信息通信保障), information security protection, and new technology testing."¹¹⁹

The creation of the PLASSF in 2015-16 and the JLSF in 2016 showcases the PLA's deepened understanding of the critical role of "support and sustainment" in modern warfare. The 2020 edition has finally caught up with these on the ground changes. The authors rewrote the section on "strategic support planning (统筹战略保障)" in which "strategic operational support (战略作战保障)"¹²⁰ has been replaced by "strategic intelligence support" and "strategic information assurance".¹²¹ They also redefined the role of the PLA reserve force and militia from merely "participating in war and supporting the troops (参战支前)"¹²² to "support and sustainment (支援保障),"¹²³ signaling a shift from relying on "people's war" to seek quantitative advantage to building a qualitative edge in the age of "informatization and intelligentization."¹²⁴

At the strategic level, "strategic reconnaissance and strategic early warning,"¹²⁵ a key addition to the 2020 edition, now features prominently in Chapter 11 on War Operations. This shows the PLA is placing more importance to intelligence, surveillance, and reconnaissance (ISR) as a prerequisite for strategic decision-making. Although it is not stated explicitly, this section likely provides useful insights into some of the key missions of the PLASSF. This addition likely also demonstrates maturing of certain, likely space-based¹²⁶ and other technical reconnaissance capabilities via cyber and spectrum, as well as increased confidence in PLASSF's operational proficiencies.

No Change in Intent Towards Taiwan

The PLA threat to Taiwan is increasing, although the growing threat appears to be mostly attributed to changes in capability rather than intent. Despite growing concern about the possibility of the CCP using force against Taiwan in the near future, the 2020 *SMS* signals no clear shift in the PLA's narrative regarding their intent towards Taiwan. Nor does it discuss any timeline for achieving unification with Taiwan, whether by force or not. However, the PLA does signal discrete progress in its capability to execute missions in support of CCP political objectives vis-a-vis Taiwan.

There are two substantive narrative changes in the 2020 edition. The first change is that the authors explicitly highlighted the “‘Taiwan independence’ secessionist forces (‘台独’分裂势力)” as something to consider when evaluating the domestic security environment.¹²⁷ Previous editions made no clear reference to considering the situation in Taiwan in the same section, referencing only the “Three Evils (三股势力),”¹²⁸ which refers to international terrorist groups (国际恐怖势力), ethnic separatists (民族分裂势力) and religious radical groups (宗教极端势力).¹²⁹ It is unclear what exactly is the intent behind this addition. The CCP's official use of the term “Taiwan independence secessionist forces” can be traced back to the *Anti-Secession Law* (反分裂国家法) adopted as a domestic law in 2005.¹³⁰ It is in line with the official discourse that hostile “secessionists” should be differentiated from the friendly compatriots in Taiwan,¹³¹ a rhetorical tactic seeking to “disintegrate”¹³² the Taiwanese population from within. It may be speculated that, however, placing the “Taiwan secessionists” before the “three evils” in the 2020 edition signals a perception of elevated threat posed by the democratically-elected Democratic Progressive Party (DPP) government that has been governing Taiwan since 2016.

The second change is the authors adding “national unity” (国家统一) as a requirement for military modernization.¹³³ This appears to be an editorial change, given that the PLA's ability to support Taiwan operations has long been a major driving factor in PLA modernization. Furthermore, previous versions of the *SMS* still referenced “national sovereignty” (国家主权) which sometimes broadly encompasses issues surrounding Taiwan.¹³⁴

Besides these two changes, there are no apparent changes between the two editions when discussing “national unity”, “secession”, or other terms that the PLA typically uses when referring to Taiwan issues.

Despite the PLA's discussion on intent remaining mostly consistent, their narrative regarding capabilities vis-a-vis Taiwan suggests that the PLA perceives notable self-improvement. For example, when discussing PLA Air Force (PLAAF) capability requirements, the 2017 edition highlighted that “to *have the ability to conduct* large scale offensive air capabilities” (具备进行大规模空中进攻作战能力) could “effectively contain (有效遏制) secessionist activities.”¹³⁵ In the same topic section of the 2020 edition, the authors replaced the specific reference to “secessionist activities” with generic description of “strategic deterrence and winning wars.”¹³⁶ In light of maturing PLAAF capabilities in this realm, they modified the 2017 narrative to state “to *increase* the scale of air offensive strengths and *improve* large scale offensive air capabilities” (加大空中进攻力量的规模, 提高大规模空中进攻作战能力),¹³⁷ This minor shift likely reflects that the

PLA has now acquired some baseline offensive air capability that can “contain secessionist activities”, but still must improve both the scale and quality of this capability to achieve the CCP’s political objectives.

Conclusion

While we acknowledge that PRC’s lectures on military strategy do not often align with its military operations in the field, the changing narratives intended to be used to educate PLA officers convey messages that are rather concerning when viewed from the U.S. perspective. The devil is in the details. We urge the PLA research community and policy makers to take them seriously.

Xi Jinping’s PLA is undoubtedly becoming more self-assured and is expected to provide more strategic support for advancing the CCP’s political agenda and safeguarding China’s perceived overseas “security and development” interests.¹³⁸ The PLA views itself as having a wider array of military options at its disposal and a greater ability to exercise control of said operations. Under this frame of mind, potential situations where military power will be needed has also increased. We draw three preliminary assessments based on our reading of the changes contained in the latest edition of the *SMS*:

First, the PLA’s competition continuum,¹³⁹ particularly from “competition below armed conflict” to “armed conflict/war,” is now inherently wider because of expanding nuclear capabilities and high-end conventional capabilities.

Second, they can now access larger portions of that continuum due to improved strategic awareness, integration of forces, planning processes, control of forces, and technologies.

Third, because of same improvements that unlock portions of the competition continuum, the PLA likely also thinks that they can now more precisely control where in the competition continuum their activities fall.

There is little discussion in this textbook, or even previous editions, about the PRC’s intent or willingness to use force. The brief highlighting of “profound changes unforeseen in a century” and “Taiwan independence forces” may allude to the belief that crises will be a more frequent occurrence in the future, but there is insufficient evidence to reach a definitive conclusion.

In the face of this uncertainty, let us assign equal probabilities that the PRC uses various forms of military force along the competition continuum. Inherently, because the PLA believes that they now have more options and controllability in the competition and conflict portions of the continuum, there are now more “military options” that involve some use of force than there were previously.

Of course, such a use of force will not necessarily be an all-out invasion. On the contrary, the PLA’s apparent growing confidence that deterrence activities can achieve the desired political effects points towards “struggles,” confrontations, and coercion, short of war. However, other parties may view the PLA’s use of military power as far more escalatory than anything seen since

the 1980s. This could range from various forms of deterrence activities like information attacks or demonstrative strikes, more escalatory non-war military activities, or potentially even a full war.¹⁴⁰

These factors are not limited to a few years. The highlighting of Xi Jinping as the paramount political figure controlling the PLA and continued demand for further modernization suggests this trend of growing confidence and worldview will likely not change even after Xi chooses to or is forced to retire. While the realities of China's stagnating growth and closing strategic windows may be apparent to most western observers, they are not apparent in this widely read and possibly influential PLA narrative we studied.

Opinions, conclusions, and recommendations expressed or implied within are solely those of the authors and do not necessarily represent the views of the Air University, the Department of the Air Force, the Department of Defense, or any other U.S. government agency. Cleared for public release: distribution unlimited.

ENDNOTES

¹ Andrew S. Erickson, "The Science of Military Strategy," *Naval War College Review*, Vol. 60, No. 3, Article 11. 2007. Accessed at: <https://digital-commons.usnwc.edu/nwc-review/vol60/iss3/11>. Joe McReynolds, "China's Evolving Perspectives on Network Warfare: Lessons from the Science of Military Strategy," *China Brief*, Vol 15, Issue 8, accessed at: <https://jamestown.org/program/chinas-evolving-perspectives-on-network-warfare-lessons-from-the-science-of-military-strategy/>. Also see Peter Mattis, "So you want to be a PLA expert?" *War on the Rocks*, June 2, 2015. Accessed at: <https://warontherocks.com/2015/06/so-you-want-to-be-a-pla-expert/>.

² For an excellent overview of the structure and key contents of the 2020 edition, see: Joel Wuthnow, "What I Learned from the PLA's Latest Strategy Textbook" *China Brief*, Volume 21, Issue 11, 2021. Accessed at: <https://jamestown.org/program/what-i-learned-from-the-plas-latest-strategy-textbook/>.

³ The editing team remains the same from the 2015 and 2017 editions except for the addition of a new author named Zhong Jing (仲晶). Dr. Zhong, a co-writer and editor of Chapter 11 on War Operations, appears to be an expert on topics related to emerging military technology who served on national defense industry S&T expert committees, and was a visiting scholar at Oxford University and Australian Defense College. See: "Professor Zhong Jing from the College of National Security of NDU Visits Our University to Give Lectures on December 3 (12月3日国防大学国家安全学院仲晶教授来校讲学)," accessed at: https://www.nchu.edu.cn/xwzx/jzyg/content_95652.

⁴ Xiao Tianliang (肖天亮), ed., *Science of Military Strategy* (战略学) (Beijing: National Defense University Press (国防大学出版社), 2020), p.452.

⁵ Xiao Tianliang (肖天亮), ed., *Science of Military Strategy* (Beijing: National Defense University Press, 2017), p.82.

⁶ *SMS* 2017, p.152.

⁷ *SMS* 2017, p.177. For relevant discussion about the same topic in 2020 without the assessment, see *SMS* 2020, pp.178-79.

⁸ “Approved by CMC Chairman Xi Jinping, CMC Distributes PLA Outline of Joint Operations (Trial) [经中央军委主席习近平批准, 中央军委印发《中国人民解放军联合作战纲要(试行)》,” *Xinhua Net* (新华网), November 13, 2020. Accessed at: http://www.mod.gov.cn/topnews/2020-11/13/content_4874081.htm. For a useful discussion about the significance of this document in English, see: M. Taylor Fravel (@Fravel) Twitter thread at: <https://twitter.com/fravel/status/1327227647710158849>.

⁹ *Joint Concept for Integrated Campaigning*, March 16, 2018. At: https://www.jcs.mil/Portals/36/Documents/Doctrine/concepts/joint_concept_integrated_campaign.pdf; Air Force Doctrine Publications (AFDP) 3-05, “Special Operations Forces within the Competition Continuum,” at: https://www.dctrine.af.mil/Portals/61/documents/AFDP_3-05/3-05-D03-SOF-Competition-Continuum.pdf

¹⁰ *SMS* 2020, p.31.

¹¹ It is worth noting that “using force to stop war” was also referenced by Xi Jinping in his Korean War speech delivered in October 2020, and it was used alongside “fight to stop fighting (以战止战).” Xi Jinping, *Speech at the Commemoration of the 70th Anniversary of the Chinese People's Volunteers' War to Resist U.S. Aggression and Aid Korea* (在纪念中国人民志愿军抗美援朝出国作战 70 周年大会上的讲话), October 23, 2020. *Xinhua Net*, at: http://www.xinhuanet.com/politics/2020-10/23/c_1126647316.htm.

¹² *SMS* 2020, p.31.

¹³ Erickson, p.134.

¹⁴ *SMS* 2020, p.181.

¹⁵ See, for example, *SMS* 2020, p.3, p.6, p.290, p.335, among others.

¹⁶ See, for example, *SMS* 2020, p.41, p.312, among others.

¹⁷ For instance, at least one of Jiang Zemin’s signature terms, “keeping up with times (与时俱进),” has been deleted in 2020. See: *SMS* 2017, p.329. For background on the use of the term, see “Liberate Thought, Keep Up with Times (解放思想, 与时俱进),” at: <http://theory.people.com.cn/GB/40557/350432/350532/index.html>; Wu Wei (吴为), Li Yukun (李玉坤), “Keeping Up with the Times Formation Marches on, Jiang Zemin’s Portrait Emerges (‘与时俱进’ 方阵走来, 江泽民巨幅画像出现),” *Beijing News* (北京新闻), 2019. At: <https://m.bjnews.com.cn/detail/156989092515090.html>.

¹⁸ “The Mission in the New Era is to Provide ‘Four Strategic Supports’ (新时代军队使命任务是提供‘四个战略支撑”),” *Xinhua Net*, July 24, 2019, accessed at: http://www.xinhuanet.com/politics/2019-07/24/c_1124792256.htm.

¹⁹ *SMS* 2020, p.337.

²⁰ *SMS* 2020, p.110.

²¹ Xu Li (徐黎), “Why is the Statement that ‘the CCP is transitioning from a Revolutionary Army to a Ruling Party is Wrong’? (为什么说中国共产党‘从革命党向执政党转变’这种说法是错误的?)” *Study Times* (学习时报), November 8, 2019. Accessed at: http://152.136.34.60/images/2019-11/18/A4/20191118A4_pdf.pdf.

²² For a useful discussion about this change, see: Joel Wuthnow, “What I Learned from the PLA’s Latest Strategy Textbook” *China Brief*, Volume: 21 Issue: 11, 2021. Accessed at: <https://jamestown.org/program/what-i-learned-from-the-plas-latest-strategy-textbook/>.

²³ Office of the Secretary of Defense, *Military and Security Developments Involving the People’s Republic of China 2021 Annual Report to Congress*, p.VIII. p.60. Accessed at: <https://media.defense.gov/2021/Nov/03/2002885874/-1/-1/0/2021-CMPR-FINAL.PDF>

²⁴ *SMS* 2017, p.130; *SMS* 2013, p.141.

²⁵ *SMS* 2017, p.130

²⁶ *SMS* 2017, p.385

²⁷ *SMS* 2017 p.385.

²⁸ *SMS* 2020, p.80

²⁹ *SMS* 2017, p.74.

³⁰ *SMS* 2020, p.137; *SMS* 2017, p.133.

³¹ Office of the Secretary of Defense, *Military and Security Developments Involving the People’s Republic of China 2021 Annual Report to Congress*, p.VIII.

³² *SMS*1988, p.116.

³³ *SMS* 2017 p.218. And *SMS* 2020 p.225.

³⁴ *SMS* 2017 p.359.

³⁵ *SMS* 2020, p.362.

³⁶ *SMS* 2017, p.257.

³⁷ *SMS* 2020, p.59.

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- ³⁸ SMS 2013, pp.101-102.
- ³⁹ SMS 2020, p.59.
- ⁴⁰ SMS 2020, p.61 and p.63.
- ⁴¹ SMS 2020, p.93.
- ⁴² SMS 2020, p.233.
- ⁴³ SMS 2020, p.80.
- ⁴⁴ SMS 2020, p.365.
- ⁴⁵ SMS 2017, p.363.
- ⁴⁶ SMS 2017, p.158.
- ⁴⁷ SMS 2020, p.160.
- ⁴⁸ SMS, p.126.
- ⁴⁹ SMS, 2017, pp.184-87.
- ⁵⁰ SMS 2017, p.185.
- ⁵¹ SMS 2017, p.186.
- ⁵² SMS 2017, p.150.
- ⁵³ SMS, 2020, p.152.
- ⁵⁴ SMS 2020, p.33, p.35. Also see: “Xi Jinping Emphasized the Unification of Thinking, Firm Confidence and Enthusiasm, and Work Hard to Promote the Modernization of National Defense and the Military during the Politburo’s 22nd Collective Study Session (习近平在中央政治局第二十二次集体学习时强调, 统一思想坚定信心 鼓足干劲抓紧工作 奋力推进国防和军队现代化建设),” July 31 2020, *Xinhua Net*, accessed at: http://www.xinhuanet.com/politics/leaders/2020-07/31/c_1126310486.htm.
- ⁵⁵ See SMS 2020, p.148 and p.149, among others.
- ⁵⁶ SMS 2017, pp.66-67.
- ⁵⁷ SMS 2020, pp. 71-72.
- ⁵⁸ SMS 2017, p.60, p.62. SMS 2020, p.66, p.68.
- ⁵⁹ Topics of space, network, deep sea, and polar issues were added in 2015; and topics of intelligent technology and biosecurity were added in the 2017 edition.
- ⁶⁰ SMS 2020, p.7.
- ⁶¹ Ibid.
- ⁶² SMS 2020, pp.413-422.
- ⁶³ “The CCP Central Committee Adjusts the Leadership and Command System of the PAP (中共中央决定调整中国人民武装警察部队领导指挥体制),” *Xinhua Net*, December 27, 2017. at: http://www.xinhuanet.com/politics/2017-12/27/c_1122175909.htm.
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- ⁶⁵ SMS 2020, p.333.
- ⁶⁶ SMS 2017, p.341.
- ⁶⁷ SMS 2020, p.345.
- ⁶⁸ SMS 2020, p.109. SMS 2017, p.102.
- ⁶⁹ SMS 2017, p.105.
- ⁷⁰ SMS 2020, p. 109.
- ⁷¹ SMS 2017, p.107. SMS 2020, p.111.
- ⁷² SMS 2017, p.240 and SMS 2020, p.248.
- ⁷³ SMS 2020, p.275.
- ⁷⁴ SMS 2020, p.66.
- ⁷⁵ SMS 2020 p.71. SMS 2020 p.75.
- ⁷⁶ SMS 2020, p.199.
- ⁷⁷ SMS 2020, p.125. SMS 2017, p.121. Also see, Yang Yucai (杨育才), “Seeking First Mover’s Advantage with ‘hot shelving’ (用“热搁置”争取主动权),” *Global Times* (环球时报), November 19, 2012. Accessed at: <https://mil.huangqiu.com/article/9CaKrnJxNsx>. The author is a professor affiliated with the Crisis Management Center (危机管理中心) of the College of National Security (国家安全学院) at NDU, and continues to be actively writing and analyzing U.S. strategies in the Asia-Pacific region as of 2020. See, for example, Yang Yucai, Yuan Yi

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⁷⁸ Ibid.

⁷⁹ Derek Solen, “Chinese Views of All-Domain Operations”, China Aerospace Studies Institute (CASI), June 30, 2020, at: <https://www.airuniversity.af.edu/Portals/10/CASI/documents/Research/CASI%20Articles/2020-06-30%20Chinese%20Views%20of%20All-Domain%20Operations.pdf?ver=0gVa73tTs6oxBmMIQnTYxg%3D%3D>.

⁸⁰ *SMS* 2017, p.182; *SMS* 2020, p.183.

⁸¹ *SMS* 2020, p.190-91.

⁸² *SMS* 2020, p.265.

⁸³ *SMS* 2020 p.80.

⁸⁴ *SMS* 2017 p.74.

⁸⁵ *SMS* 2020 p.152.

⁸⁶ *SMS* 2020, p.247, p.402.

⁸⁷ *SMS* 2017, p.123; *SMS* 2020, p.126.

⁸⁸ *SMS* 2020, p.139. *SMS* 2017, p.135. Also see *SMS* 2005 (English), p.214.

⁸⁹ *SMS* 2017, p.123.

⁹⁰ *SMS* 2020, p.126.

⁹¹ Ibid.

⁹² The 2020 text added “new (新)” to the 2017 text of “advanced (高)” technology, possibly reflecting the reality that the PLA has acquired breakthrough capabilities in recent years since the last edition of *SMS* was written. See: *SMS* 2017, p.125, and *SMS* 2020, p.129.

⁹³ *SMS* 2017, p.125; *SMS* 2020, p.129.

⁹⁴ Marcus Clay, “New Concept Weapons: China Explores New Mechanisms to Win War,” *China Brief*, April 23, 2021. <https://jamestown.org/program/new-concept-weapons-china-explores-new-mechanisms-to-win-war/>.

⁹⁵ *SMS* 2017, p.228; *SMS* 2020, p.235.

⁹⁶ Italics added by authors. *SMS* 2017, p.228; *SMS* 2020, p.235.

⁹⁷ *SMS* 2017, p.125; *SMS* 2020, p.129.

⁹⁸ *SMS* 2017, p.125. Note that the US Air Force and Navy have both studied the possible deployment of conventional warheads on their long-range ballistic missiles. See: <https://sgp.fas.org/crs/nuke/RL33067.pdf>.

⁹⁹ *SMS* 2017, p.229. In 2020, the authors deleted the Chinese words associated with “equivalent to (就意味着).” See *SMS* 2020, p. 236.

¹⁰⁰ *SMS* 2017, pp.133-134; *SMS* 2020, p.137.

¹⁰¹ *SMS* 2017, p.144.

¹⁰² *SMS* 2020, p.147. *SMS* 2017, p.144.

¹⁰³ Xu Qiliang (许其亮), “Accelerate National Defense and Military Modernization - Study and Implement the Spirit of the Party’s Fifth Plenum of the 19th Congress [加快国防和军队现代化(学习贯彻党的十九届五中全会精神),” *People’s Daily*, November 26, 2020, accessed at: <http://politics.people.com.cn/n1/2020/1126/c1001-31944881.html>.

Also see: Yuan Yi (袁艺), Gao Dongming (高冬明), Cao Shixin (曹士信), “What Are the Differences of Mechanization, Informatization, and Intelligentization (机械化信息化智能化有哪些不同),” *PLA Daily*, August 1, 2019. Accessed at: http://www.81.cn/bqtd/2019-08/01/content_9581671.htm. Wu Zhizhong (吴志忠), “Accelerate the Fusion of Mechanization, Informatization, and Intelligentization (加快机械化信息化智能化融合发展-学习贯彻党的十九届五中全会精神),” *Guangming Daily* (光明日报), November 8, 2020. p.5. Accessed at: <https://news.cctv.com/2020/11/08/ARTIbJCFsheXILVVMqLH7XXQ201108.shtml>.

¹⁰⁴ Chapter 10 has a new section on the characteristics of “informatized local wars” that describes a “rapid development of military intelligentization” and notes that “intelligentized features of informationized local wars are becoming steadily more apparent” *SMS* 2020, p.185. Most of the service chapters in Part Three of the textbook now feature intelligentization as a requirement for capabilities development. For an excellent summary of this change, see: Joel Wuthnow, “What I Learned from the PLA’s Latest Strategy Textbook.”

¹⁰⁵ See, for example, *SMS* 2020, p.51, p.69, p.88, p.92, p.130, p.184, among many others.

¹⁰⁶ See for example, “The development of science and technology led to the change of mode and way of operations.” in *SMS* (English) 2005, p.102.

¹⁰⁷ *SMS* 2017, p.179.

¹⁰⁸ *SMS* 2020, p.180.

¹⁰⁹ *SMS* 2020, p. 342. In 2017, the same paragraph could be found on p.330.

¹¹⁰ SMS 2020 p. 334.

¹¹¹ “Xi Jinping Emphasized the Unification of Thinking, Firm Confidence and Enthusiasm, And Work Hard to Promote the Modernization of National Defense and the Military During the Politburo’s 22nd Collective Study Session.”

¹¹² SMS 2020, p.342. Also see: Yuan Yi, Zhu Feng(朱丰), Zhang Yujun(张玉军), “Accurately Grasp the Fundamental Principles of Mechanization, Informatization, and Intelligentization (把准机械化信息化智能化融合发展的基本原则),” *PLA Daily*, December 8 2020. Accessed at: http://www.81.cn/yw/2020-12/08/content_9949155.htm.

¹¹³ SMS 2020, p.342. Also see: Xu Qiliang, “Accelerate National Defense and Military Modernization - Study and Implement the Spirit of the Party’s Fifth Plenum of the 19th Congress.”

¹¹⁴ Xu Qiliang, “Accelerate National Defense and Military Modernization.”

¹¹⁵ SMS 2020, p.342.

¹¹⁶ Yuan Yi (袁艺), Xu Jinhua (徐金华), Zhu Feng (朱丰), “Grasp the Pathways to Achieve the Fusion of ‘Three - zations’ (把握‘三化’融合发展的实现途径),” *Study Times* (学习时报), December 1, 2019. Accessed at: <http://theory.worker.cn/256/201912/16/191216095641216.shtml>.

¹¹⁷ Ibid.

¹¹⁸ For instance, in recent years, the PLA created new “support and sustainment companies (支援保障连)” within its combined arms brigades. These “new” companies integrated previously dispersed reconnaissance, communications, engineering, and transportation specialties. However, even many service members were reportedly unclear about what their newly-assigned duties should be, partially due to confusions about the terms of *zhi yuan* and *bao zhang*. See: Zhang Yanhua (张延华), Wang Lijun (王立军), Zhao Kun(赵坤), “Support and Sustainment Company: How to Transform from “Doing Chores” to “Fighting Wars” (支援保障连: 从‘打杂’到‘打仗’要跨越啥),” *PLA Daily*, June 27, 2018, p.5. Accessed at: http://www.81.cn/jfjbmmap/content/1/2018-06/27/05/2018062705_pdf.pdf.

¹¹⁹ “The White Paper Systematically Introduces the Post-Reform Military Services and Branches and the PAP (白皮书系统介绍调整改革后的军兵种和武警部队),” *Xinhua Net* (新华网), July 24, 2019. Accessed at: http://www.xinhuanet.com/politics/2019-07/24/c_1124792580.htm.

¹²⁰ SMS 2017, p.207.

¹²¹ SMS 2020, p.204.

¹²² SMS 2017, p.434 and p.436.

¹²³ SMS 2020, p.444.

¹²⁴ SMS 2020, p. 442, and p.446.

¹²⁵ SMS 2020, p.193, also, pp. 217-19.

¹²⁶ SMS, 2020, p.375. SMS, 2017, p.372-373; also see: SMS 2017, p.387; 2020, p.388.

¹²⁷ SMS 2020, p.41.

¹²⁸ SMS 2017, p.37.

¹²⁹ SMS 2020, p.41.

¹³⁰ Full text of the *Anti-Secession Law*, adopted at the Third Session of the Tenth National People's Congress on March 14, 2005, at: <https://www.fmprc.gov.cn/ce/cggb/chn/ztlm/twwt/bjzl/t215245.htm>.

¹³¹ Xi Jinping, Speech at the Meeting Marking the 40th Anniversary of the Issuance of *the Message to Compatriots in Taiwan* (习近平: 在《告台湾同胞书》发表40周年纪念会上的讲话), January 2, 2019. *Xinhua Net* (新华网), Accessed at: <http://cpc.people.com.cn/n1/2019/0102/c64094-30499664.html>.

¹³² “To disintegrate enemy forces (瓦解敌军)” is regarded as one of the so-called “three cardinal principles” of PLA Political Work. See: “What are the Three Principles of People’s Military’s Political Work (人民军队政治工作的三大原则是什么)?”, *CCP News Net* (共产党新闻网), at: <http://cpc.people.com.cn/GB/64156/64157/4418380.html>. With regard to the application of this “principle” to the PLA’s “Taiwan work,” see: Article 14, *PLA Political Work Regulations (2003)*, accessed at: <https://dysw.cnki.net/jd/djzs/> 《中国人民解放军政治工作条例》.pdf.

¹³³ SMS 2020, p.329.

¹³⁴ SMS 2017, p.325.

¹³⁵ SMS 2017, p.372.

¹³⁶ SMS 2020, p.375.

¹³⁷ SMS 2020, p.375.

¹³⁸ The State Council Information Office of the People’s Republic of China, *National Defense in the New Era* (新时代的中国国防), July 24, 2019. Accessed at: http://www.xinhuanet.com/politics/2019-07/24/c_1124792450.htm.

¹³⁹ Air Force Doctrine Publications (AFDP) 3-05, “Special Operations Forces within the Competition Continuum,” at: https://www.doctrine.af.mil/Portals/61/documents/AFDP_3-05/3-05-D03-SOF-Competition-Continuum.pdf

¹⁴⁰ *SMS* 2020, pp.136-138.