



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

In Their Own Words

**PLA Terms and Concepts:
Training, Exercises, & Education**

培
演军事训
习练

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CASI would like to acknowledge the work and effort of Ken Allen for putting this together and keeping everyone focused on key terms and translations. He always reminds us to look through things through the PLA lens, not a U.S. lens.

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The "In Their Own Words" series is dedicated to translations of Chinese documents in order to help non-Mandarin speaking audiences access and understand Chinese thinking.

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Introduction

One of the most difficult aspects of any study on the People's Liberation Army (PLA) is deciding on the best method to translate key PLA terms and concepts so that they make sense in a U.S. military context. Unfortunately, most Chinese military dictionaries and encyclopedias provide only a direct English translation for key terms. They do not always provide detailed explanations or definitions for those terms. Furthermore, the PLA is not consistent in how it translates terms, so a single term is often translated several different ways. For example, the PLA translates the term *peixun* (培训), which is a short form for *peiyang xunlian* (培养训练), as “cultivation and training,” “development training,” and just “training.” Sometimes, PLA terms cannot be easily translated into English, or the common English translation means something different for the U.S. military than it does for the PLA. For example, a PLA Air Force or Naval Aviation *zhongdui*, which is normally translated as a squadron, has only two to five aircraft, while a U.S. Air Force squadron has 15 to 24 aircraft. Finally, the PLA does not have a term for “professional military education.”

As part of CASI's “In Their Own Words” series, we compiled this list of terms and explanations with a focus on the PLA Air Force (PLAAF) to help English speakers studying the PLA understand key terms and concepts. We hope you find it helpful. Each term will start with the Pinyin followed by the Chinese characters in parenthesis and then the English translation and a brief explanation. However, the format is slightly different for some entries, such that the English term is followed by the Pinyin and Chinese characters.

The report is organized into the following five sections:

- Primary Sources
- Training
- Plans
- Exercises
- Education and Training

Primary Sources

The primary sources for this report are as follows:

- AMS All-Army Military Terminology Management Committee (*People's Liberation Army Military Terminology* (中国人民解放军军语) First Edition, (Beijing: Academy of Military Science Press, December 1997). This dictionary does not English translations.
- AMS All-Army Military Terminology Management Committee (*People's Liberation Army Military Terminology* (中国人民解放军军语) Second Edition, (Beijing: Academy of Military Science Press, December 2011).ⁱ This dictionary has English translations for every term; however, the translations are not always consistent with how the terms are translated in other PLA publications.
- Cui Yafeng, ed., *Military Training* (军事训练), Second Edition, Volume 32 (broken into two volumes), (Beijing: Encyclopedia of China Publishing House, June 2008). Each term has an English translation.
- Dong Huiyu and Mou Xianming, eds., *Dictionary of Modern Military Education* (*sic*) (现代军校教育辞典), Second Edition, (Beijing: National Defense University Press, 2011). Each term is translated into English.
- He Weirong, ed., *Science of Air Force Training* (空军军事训练学), (Beijing: Academy of Military Science Press, 2006).
- Jing Shenhu, ed., *A Guide to Military Exercises* (军事演习指南), (Jinan: Huanghe Publishers, August 2000). This is an 880-page book. The Huanghe Publishing Company belonged to the Jinan Military Region (MR). The book has four main parts: (1) introduction, (2) one-sided (single force) exercises (*danfang yanxi* 单方演习), (3) opposition force exercises (*duikang yanxi* 对抗演习), and (4) logistics exercises (*houqin yanxi* 后勤演习).
- Kenneth W. Allen and Cristina L. Garafola, *70 Years of the PLA Air Force*, (Montgomery, AL: China Aerospace Studies Institute, 21 April 2021).
- Kenneth W. Allen and Mingzhi Chen, *The People's Liberation Army's 37 Academic Institutions*, (Montgomery, AL: China Aerospace Studies Institute, 2020).
- Xu Hezhen, ed., *Chinese-English and English-Chinese Military Dictionary* (汉英英汉军事大辞典), (Beijing, Xueyuan Press, November 2002).
- Xu Yaoyuan, Lin Xianghai, and Mu Song, eds., *Military Cadre Work* (军队干部工作), Second Edition, vol. 39, (Beijing: China Military Encyclopedia Press, 2006),
- Yao Wei, ed., *China Air Force Encyclopedia* (中国空军百科全书), (Beijing: Aviation Industry Press, November 2005, Volume 1 and 2). Each term has an English translation.
- Zhang Qiliang, ed. *A Chinese-English Dictionary of Military Terms* [汉英军事词典]. Beijing: Naval Press, December 2001.
- Zhu Rongchang, ed. *Air Force Dictionary* (空军大辞典), (Shanghai: Shanghai Dictionary Press, September 1996). Each term has an English translation.

ⁱ Most Chinese linguists just refer to this as the *Junyu* (军语).

Training

The PLA has three basic levels of training as shown below:

- ***Junshi xunlian*** (军事训练):¹ This term, which is translated as military training, refers to training in units, academic institutions, and reserves. It is broken into common training subjects, skills training subjects, strategic, campaign, and tactical training subjects, each of which is discussed later.
- ***Yanlian*** (演练):² This term, which is translated as drill, usually refers to a single-unit training drill that rarely goes above the brigade or division level and can last for one or more days or even a few weeks and involves multiple training subjects and training topics. It incorporates several training subjects but is not at the scope of an exercise. According to a 28 July 2005 *Air Force News* article, in a training drill, the training plan sortie time (*xunlian jihua Jiaci shijian* 训练计划架次时间) is arranged in increments called “ge” (*ge* 格). A “small ge” (*xiao ge* 小格) is ten minutes.³
- ***Yanxi*** (演习):⁴ This term, which is translated as exercise, generally involves more than one unit and/or service/branch and reaches up to the former Military Region and now Theater Command level. Exercises can also be further organized into the following categories: tactical, campaign, inspection, research, demonstration, as well as one-sided (single force), opposition-force, live munitions tactical, commanding officer and headquarters staff, Headquarters Department, and logistics.

The following training-related terms are organized alphabetically by the Chinese Pinyin.

Budui (部队): This term is translated as “forces,” “troops,” and “units.”⁵ Historically, this term referred to “units” at the corps, division, brigade, and regiment grade levels; however, it is now associated with the newly-created Strategic Support Force (战略支援部队), which is not a service but has the same grade (TC leader) as the four services.

Changci (场次):⁶ No official translation was found for this term, but based on a review of PLAAF articles over the past 20 years that have used this term, the best translation is “flying period.” The PLA’s *Military Dictionary* states “a flying day is divided into three *changci*, including day, night, and crossing from day into night.” One *Air Force News* article supported this description by stating that from the morning of 17 September 2002 until 0500 on 18 September, one Guangzhou Military Region Air Force (MRAF) fighter division conducted a 24-hour “rolling-type” (*gundongshi* 滚动式) exercise [that actually lasted 20 hours] and consisted of three flying periods—daytime, evening into night, and post-midnight.⁷ One *Air Force News* article noted that one flying period lasted 12 hours.⁸ Three *Air Force News* articles discussed a “rolling-type” exercise, but did not define the term. The articles implied that this type of exercise continued through two or more flying periods. One *Air Force News* article from June 2017 noted that pilots in one unit flew nine flying periods in 12 days, of which five included large flying periods, where they got up at 0450 and didn’t leave the airfield to go back to the barracks until 2000.⁹

Feixing kemu (飞行课目):¹⁰ This term is translated as “flight subject” and refers to a training subject during a flight. Normally, a flight subject, or simply called a subject, includes night and day flying, flying in simple and difficult weather conditions, flight techniques and combat techniques, basic tactics and applied tactics, and different combinations of them.

Feixingri (飞行日):¹¹ This term is translated as a “flying day.” For example, one Guangzhou MRAF air regiment set up strict controls for the flying day and for pilot flying time per day.¹² These numbers are tied directly to the number of *changci* and to the daily flight plan.

Fendui (分队):¹³ This term is normally translated as “element,” but is also often translated as “subunit,” “detachment,” “battery” (SAM or AAA), or “flight” (maintenance); however, this report uses the term “element” for the sake of continuity. It specifically refers to operational and support organizations subordinate to units at the battalion, company, and platoon levels. Occasionally, squads, which are solely manned by enlisted personnel, are identified as an element.

Fenlian (分练):¹⁴ This is translated as “separate training.” The official PLA *Dictionary of Military Terminology* defines “separate training” as training where personnel are divided within their units and elements according to billet and trained separately in groups. In this context, separate training usually refers to training conducted separately by personnel from different branches, specialized units, elements, academies, or different billets based on their respective training content.

Gaodu (高度):¹⁵ This term is translated as “altitude”: .he PLA defines minimum altitude (also identified as extreme low or very low altitude) (*chaodikong* 超低空) as less than 100 meters, low altitude (*dikong* 低空) as 100 to 1,000 meters, medium altitude (*zhongkong* 中空) as 1,000 to 7,000 meters, and high altitude (*gaokong* 高空) as 7,000 to 10,000 meters, and ultra-high altitude (also identified as very high altitude) (*chaogaokong* 超高空) as 15,000 meters and above.

Helian (合练):¹⁶ This term is translated as “combined training.” The official PLA *Dictionary of Military Terminology* defines “combined training” as training where personnel from different billets are combined together within their units and element to conduct training.

Hetong zhandou (合同战斗):¹⁷ This term is translated as “combined-arms combat.” The 2011 *PLA Military Terminology* dictionary defines combined-arms combat as 1) “two or more branches within a single service cooperating to conduct combat”; 2) “combined-arms combat is divided into the Army, Navy, and Air Force”; and “combined-arms combat includes one service and branch as the primary organization that can receive lower-level support from other services and branches. Although combined-arms normally refers to two or more branches working together against a common target, the PLA also uses the term for opposition-force training. For example, *Air Force News* often describes a PLAAF air division vs. SAMs in an opposition-force exercise as “combined-arms” training.

Jiaci (架次):¹⁸ This term is translated as “sortie” and refers to a single aircraft taking off a single time. If four aircraft take off two times each, this counts for eight sorties.” The PLAAF appears to define sortie as a single takeoff, landing, and the activity that occurs between them. The U.S.

Department of Defense's Joint Pub 1-02 defines a sortie as "In air operations; an operational flight by one aircraft."¹⁹

Jichu xunlian (基础训练):²⁰ This term is translated as "foundation training" and is defined as the prerequisite for applied training at the unit and element levels. It includes basic military knowledge, basic maneuvers, and basic skills.

Jixun (集训):²¹ This term is translated as "intensive training" and refers to group training and means short-term training conducted for a group of individuals.

Junshi xunlian (军事训练):²² This term is translated as "military training" and refers to activities designed to teach military theory and develop operational capabilities. Training includes unit training, education in academic institutions, and reserve training. Unit training primarily includes common subject, skills, tactics, and campaign training. Training forms and methods include lessons on theory, map exercises, practical drills, computer simulations, and live exercises. The purpose is to improve the military qualities of service members, improve their operational abilities, and improve unit discipline and combat style.

Junshi xunlian yu kaohe dagang (军事训练与考核大纲):²³ This term is translated as *Outline of Military Training and Evaluation* (OMTE). The OMTE has separate regulations for each service, branch, and piece of equipment and defines how annual training will be done. The last three OMTEs were issued in 2002, 2009, and 2018.

Kemu (课目 and 科目):²⁴ No single entry for these two terms were found; however, each term was found in conjunction with *xunlian* (训练). The PLA translates *xunlian kemu* (训练科目) as "training task" and *xunlian kemu* (训练课目) as "training item." However, I have always translated both of them as "training subjects." Based on a review of PLAAF and Naval Aviation reporting, it clearly appears that only PLAAF aviation and Naval Aviation branches use the first term *kemu* (课目). Meanwhile, all PLAAF and PLAN branches, including aviation, use the other *kemu* (科目). Together, *kemu* are the basic training items required for all officers and enlisted personnel to understand how a particular weapon system works. Furthermore, each individual and operational unit must pass through a set of *kemu* in a specific order before the individuals and unit pass their training certification.²⁵ Each *kemu* is composed of multiple items (*xiangmu* 项目). The PLA has three basic types of *kemu*:²⁶

- Common training subjects (*gongtong keum* 共同科目), which are sometimes referred to as basic training subjects (*jichu kemu* 基础科目)
- Technical training subjects (*jishu kemu* 技术科目)
- Tactical training subjects (*zhanshu kemu* 战术科目)

Keti xunlian (课题训练) aka *xunlian keti* (课题训练):²⁷ This term is translated as "subject-oriented training," but the best translation appears to be "training topic" so as to differentiate it from the various *kemu*. Training topics comprise specific components of a training subject (*xunlian kemu* 训练科目). Aviation *keti* are training topics that can be at the tactical (*zhanshu* 战术), campaign (*zhanyi* 战役), and strategic (*zhanlue* 战略) levels of conflict. For example, training over

water for penetration of defenses at minimum-altitude, attack formations, and air defense suppression formations, airborne early warning and monitoring, avoiding electronic countermeasures (ECM), conducting counter-fighter intercepts, construction of a marine landing corridor with air support, direct-fire preparations toward island reefs, and joint assault on an enemy to guide and protect at-sea formations are considered various types of training topics. For example, infantry element tactical subjects are divided into training topics, such as offensive battles against an enemy who does not have a firm foothold, engagement battles, ambush battles, and amphibious landing battles.

Kuaqu (跨区): No official translation was found for this term; however, it always refers to crossing borders. The borders can be provincial borders or borders between the Theater Commands to include the maritime lines between the Northern, Eastern, and Southern Theater Command Navies. It is not always clear which meaning is being used.

Lianhe xunlian (联合训练):²⁸ This term translates as “joint training.” The PLA does not have a single definition for the term “joint.” The PLA uses the term “joint” to mean: two or more services; one or more services; two or more branches in the same service (e.g., combined arms); combined (e.g., multinational); or civil-military.

Louxun (漏训):²⁹ This term translates as “training missed” and refers to when personnel fail to participate in training or required training subjects (*kemu* 课目) are not completed. This can refer to an individual or to an element/unit. PLA media reports usually refer to this at the end of the year when a particular unit flunks an evaluation because they did not train for that specific area during the year. The PLA also uses this term to explain that some pilots are chosen to compete in an exercise or competition, so they only “train for the test” and, as such, do not train for every required subject on their annual required list. This term is oftentimes linked with *pianxun* (偏训), which is discussed later.

Moni (模拟) and **fangzhen** (仿真):³⁰ The PLA has two different terms that can be translated as simulator or simulation—*moni* (模拟) and *fangzhen* (仿真). It is not exactly clear what the difference between the two terms is³¹, especially because they are sometimes used together as in *fangzhen moni* or *moni fangzhen*, which can be translated as simulation simulator training. *Fangzhen* is often coupled with the term *jishu* (仿真技术), which can best be translated as “simulation technology.” The 20 December 2003 *Air Force News* has a full-page article on aircraft simulators around the world.³² The article briefly mentioned the history of the PLAAF’s flight simulation (*feixing fangzhen* 飞行仿真). The article states the PLAAF has several types of *fangzhen*, including matter simulation (*shiwu fangzhen* 实物仿真), simulator simulation (*moni fangzhen* 模拟仿真), data simulation (*shuzi fangzhen* 数字仿真), multi-media simulation (*duo meiti fangzhen* 多媒体仿真), distributed-type simulation (*fenbushi fangzhen* 分布式仿真), and advanced system organization simulation (*gaoceng tixi jigou fangzhen* 高层体系结构仿真). Beginning in the 1950s, China first used simulation technology for automatic control of airspace (*zidong kongzhi lingyu* 自动控制领域).

Peixun (培训): The PLA translates this term in different ways, including “cultivation and training,”³³ and “development and training,”³⁴ or just “training.”³⁵ The term I have always used is

“cultivation and training,” which is a combination of “cultivation” (*peiyang* 培养)³⁶ and training (*xunlian* 训练). The PLA and U.S. military have similar terms for their education systems, but they have different meanings. Specifically, in the U.S. military, the term “professional military education” (PME) encompasses a range of courses designed for officers and enlisted personnel throughout their careers.^{ii,37} The PLA does not use the term “professional military education.” At times, the PLA also uses *junshi jiaoyu* (军事教育), which is translated as “military education,” or *junshi zhiye jiaoyu* (军事职业教育), which is translated as “military professional education”³⁸ and “education of military profession.”³⁹ These terms refer to the education and training required for NCOs and officers to move up their career ladder. This includes billet training as well as an understanding of theory and technical issues. As a combined term, they refer to the systematic training and education provided at PLA military academic institutions for cadets, as well as junior, mid-level, and senior officers. It is the PLA’s primary means for training and educating officers, civilian cadres, and NCOs.

Pianxun (偏训):⁴⁰ The PLA translates this as “training deviated from program” or simply “deviated training,” which refers to training that diverges from the content mandated in the regulations. This term is oftentimes linked with *louxun* (漏训), which is discussed above. Each term basically means that the person or unit focuses on certain training at the expense of other required training.

Qixiang (气象):⁴¹ This term is translated as “weather” or “weather conditions.” The PLA uses the term “four weather conditions” (*sizhong qixiang* 四种气象) to mean flying during night and day under visual flight rules (VFR) and instrument flight rules (IFR). “Three weather conditions” (*sanzhong qixiang* 三种气象) refers to flying during day and night under VFR conditions and flying during the day under IFR conditions. “Flying in difficult weather conditions” (*fuzha qixiang* 复杂气象) means flying under IFR conditions. “Flying in simple weather conditions” (*jiandan qixiang* 简单气象) refers to flying during the day and night under VFR regulations. These terms are often confused with “flying in weather” or “all-weather” (*quan tianhou* 全天候), which is distinguished by the use of modifiers such as good, poor, cold, hot, rainy, snowy, or minimum. The PLA also uses “complex weather” (复杂气候/复杂气象) when discussing different types of weather.

Renci (人次): No official translation was found for this term, but, based on the way the term is used, the best translation is “people sorties.” PLA newspapers often refer to the term *renci*, such as a particular unit conducted 300 *renci* to a factory or academy for training. Although no PLA or Chinese dictionaries have a translation for this term, what it means is that the unit sent 300 people to visit the factory over a certain period of time. This does not necessarily, but could, mean that 300 separate individuals conducted the visits. It most likely means that a group of X people made Y visits to the factory, which equates to 300 individual visits. For example, 50 people could have visited the factory six times each.

ⁱⁱ U.S. military PME includes pre-commissioning education for officers but does not include education at civilian academic institutions in residence or by correspondence.

Xietong xunlian (协同训练):⁴² This term is translated as “coordination training,” which occurs during joint or combined-arms operations and involves all participating units operating in strict accordance with the coordination plan (*xietong jihua* 协同计划). Coordination training is training to improve the ability of services and branches/service arms, or units, elements, and personnel to coordinate and cooperate with each other in combat operations.

Xunlian (训练):⁴³ This term normally translates as “training,” however, one dictionary translates it as “exercise.” Training is the best translation, though, since *yanxi* (演习) is the best term for exercise.

Xunlian jihua (训练计划):⁴⁴ This term is translated as “training plan.” The training plan is an advance arrangement for organizing military training; it is divided into comprehensive training plans (*zonghe xunlian jihua* 综合训练计划) and special issue training plans (*zhuanxiang xunlian jihua* 专项训练计划).

Yingyong xunlian (应用训练):⁴⁵ This term is translated as “applied training” and means training in the actual application of basic military knowledge and skills. It is usually conducted after foundation training in actual combat conditions. This type of training is divided into applied training on individual subjects and applied training on multiple subjects.

Zhanbei (战备):⁴⁶ The PLAAF translates the term *zhanbei* (战备) “war preparation” as “combat-readiness,” “combat alert,” or “combat preparations,” and uses it in conjunction with the terms “patrol” or “training.” Aircraft are normally on alert status on the ground or in the air in reaction to a specific threat. The term can also be used in terms of military facilities or roads, such as national-defense war-preparation roads (*guofang zhanbei gonglu* 国防战备公路).

Zhanshu (战术) and **zhanfa** (战法):⁴⁷ The PLA translates *zhanshu* as “tactics.”ⁱⁱⁱ The term *zhanfa* (战法) was not found in any dictionaries or encyclopedias, but it has been in multiple articles over the past 30 year. The best translation is “combat methods.” The terms are used either separately or together. Each term refers to some very specific types of training and activities. For example, *Air Force Dictionary* defines tactics as “the principles and methods an air force uses to conduct battles, to include deployment, command, coordination, battle methods, and battle support.”⁴⁸ The PLAAF organizes its air tactics into the following 12 categories: aerobatics, air intercept, emergency take-offs, flying at different altitudes, flying in clouds, flying in different weather conditions, flying over water, formation flying, ground attack, mobility, night flying, and confrontation air combat. The PLAAF considers firing missiles from aircraft or SAM launchers as combat methods and are part of the “three attacks and three defenses.”^{iv} PLAAF writings consistently refer to developing

ⁱⁱⁱ The term “zhanshu” (战术) can be translated as either tactics or tactical, depending on the context.

^{iv} “Three attacks and three defenses”: The PLA considers the three attacks and three defenses as combat methods (*zhanfa*; 战法). *San da* (三打) is best translated as the “three attacks,” but is sometimes translated as the “three strikes” or “three offenses.” Of note, the PLAAF sometimes reverses the order to the “three defenses and three attacks.” The PLA initiated the concept in 1999, which refers to attacks against stealth aircraft, cruise missiles, and armed helicopters. *San fang* (三防) is best translated as the “three defenses.” Originally, this referred to defense against chemical, biological, and nuclear attack. In 1999, the PLA initiated the “new three defenses,” which refer to defense against precision strikes, electronic jamming, and electronic reconnaissance and surveillance. The word “new” is

and employing tactics and combat methods in the same sentence; however, tactics are developed at the Air Force Command College and tested at PLAAF Test and Training Bases, while operational units are responsible for developing combat methods. One PLAAF source, however, states that the biggest difference between combat methods and tactics is that combat methods precede tactics and are the basis for tactics. According to the source, once you develop combat methods, you can then conduct tactics training.⁴⁹ See *70 Years of the PLA Air Force* for detailed information about tactics and combat methods.⁵⁰

Zonghe xunlian (综合训练):⁵¹ This term is translated as “comprehensive training” and “integrated training” During 2002, the PLAAF appears to have added a new category of training called “comprehensive training,” which means that more than one flying subject is included in a single sortie or more than one training subject is conducted at the same time by ground-based forces.

Zonghe xunlian jihua (综合训练计划):⁵² A “comprehensive training plan” details the organization and implementation of multi-item training within a fixed period of time. Types of comprehensive training plans include annual training plans (*niandu xunlian jihua* 年度训练计划), periodic training plans (*jieduan xunlian jihua* 阶段训练计划), monthly training plans (*yue xunlian jihua* 月训练计划), and weekly training plans (*zhou xunlian jihua* 周训练计划).

usually dropped, so it is not always clear which “three defenses” is being discussed, but in today’s context, it generally means the program initiated in 1999.

Plans

The PLA uses at least three different terms when referring to plans: *jihua* (计划), *fang'an* (方案), and *yu'an* (预案). No PLA dictionaries provide an adequate definition for the terms, so the following information is derived from *Air Force News* articles using these terms.

The term *jihua* (计划)⁵³ is used in various administrative organization titles, such as the PLAAF Equipment Department's Comprehensive Planning Department (*zonghe jihua bu* 综合计划部), Comprehensive [Planning] Division (*zonghe chu* 综合处), and Combat Services Plans Division (*zhanqin jihua chu* 战勤计划处).

Jihua also refers to the PLAAF's annual flight training plan. For example, the term was noted in the following situations:

- Annual training plans (*niandu xunlian jihua* 年度训练计划 or (*quannian feixing jihua* 全年飞行计划)
- Training plan sortie time (*xunlian jihua jiaci shijian* 训练计划架次时间)
- MRAF training event plan (*yanlian jihua* 演练计划)
- Flight plans (*feixing jihua* 飞行计划)
- Unit training plans; main flight plan (*zhu jihua* 主计划) used to guide one day's flight training
- Reserve flight plan (*beifen jihua* 备份计划) used by a unit when the weather turned bad and the flying schedule had to be altered
- Standby plan (*changbei jihua* 常备计划) used by an aviation regiment in case of bad weather and the aircraft could not fly, so they conducted political training on the ground
- Mobile combat plans (*jidong zuozhan jihua* 机动作战计划)
- Implementation Plan for PLA and PLAAF Military Combat Readiness and Combat Medical Readiness (*quanjun he kongjun junshi zhandou zhunbei zuozhan weiqin zhanbei shishi jihua* 全军和空军军事战斗准备作战卫勤战备实施计划)
- Field station support plan (*baozhang jihua* 保障计划)
- Aircraft deployment and takeoff plan (*zhuangbei zhuanchang qifei jihua* 装备转场起飞计划)
- Plan for transitioning to a new aircraft (*xinji gaizhuang jihua* 新机改装计划)

The term *fang'an* (方案) appears to refer to individual components of a larger *jihua*. For example, the term was noted in the following situations:

- Support plans (*baozhang fang'an* 保障方案)
- Ground attack air regiment emergency mobility plan (*jinji jidong fang'an* 紧急机动方案)
- The lead pilot for the Red Force was the regiment deputy commander, Wu Bingjing (吴兵经). Wu and his wingman/wingmen quickly changed their flight route and began using their on board equipment to jam the radars and were able to break the tracking. Wu ordered his wingman/wingmen to "implement plan #2" (*zhixing 2 hao fang'an* 执行2号方案), at which time they began to descend.
- A Nanjing MRAF bomber regiment has 20 plans (*fang'an* 方案) for dealing with night, over-water combat, to include conducting operations in poor weather conditions
- One aviation unit perfected more than 20 sets of training plans (*fang'an* 方案)

- A Guangzhou MRAF headquarters command post allows personnel at the command post to adjust troop deployments according to the needs of a given mission. The system used can also automatically draw up intelligence, communications, navigation management, and radar operations support plans (*zuo zhan bao zhang fang'an* 作战保障方案).
- “Measures and Policies for Units Directly Subordinate to PLAAF Headquarters Department Regarding the Adjustment of Empty PLAAF Housing” (*kong zhi kong yu fang di chan qing cha zheng dun shi shi fang'an* 空置空余房地产清查整顿实施方案).

The term *yu'an* (预案) appears to be best translated as contingency plan. For example, the term was noted in the following situations:

- Command and guidance contingency plans (*zhi hui yin dao yu'an* 指挥引导预案)
- During a SAM training event, a battalion conducted an emergency dispersal of its equipment. Suddenly, the reconnaissance personnel reported the road ahead had been destroyed and had nuclear contamination, so they implemented the #2 contingency plan (*di er tao yu'an* 第二套预案) to reach their destination.
- A brigade and local government created a military-civilian coordination logistics support command department that marked maps with civilian gas stations, vehicle repair shops, transportation units, hospitals, and food stations along the brigade's route. The two sides developed more than 10 joint emergency plans (*lian he jin ji yu'an* 联合紧急预案).
- A bomber subordinate to a Guangzhou MRAF bomber regiment conducted flight training during the day. As the aircraft entered its third turn around the airfield before landing, the pilot notified the flight commander in the tower that oil was leaking from the left engine. The flight commander told him to put the throttle in the slow position. Shortly thereafter, the engine shut off. Because a sister unit had recently had the same problem, the regiment had a contingency plan to deal with the situation (*chu zhi yu'an* 处置预案).

Exercises

This section discusses PLA exercise and key terms taken from the PLA publication entitled *A Guide to Military Exercises*, which begins by stating that a military exercise is the highest phase in the overall process of campaign and tactical training.⁵⁴ Generally, an exercise is the last phase of training that follows the culmination of each type of basic training for “units” (*budui* 部队) and “elements” (*fendui* 分队).⁵⁵ As the last phase, it brings together all of the previous training (*helian jieduan* 合练阶段) into a single event that encompasses the full spectrum of moving (*zou* 走), crossing (*du* 渡), eating (*chi* 吃), housing (*zhu* 住), hiding (*zang* 藏), managing (*guan* 管), and supporting (*bao* 保).

The book arranges PLA exercises into the following eight categories (*zhonglei* 种类) and subcategories by:⁵⁶

- Scale (*guimo* 规模)
 - Tactical exercise (*zhanshu yanxi* 战术演习)
 - Campaign exercise (*zhanyi yanxi* 战役演习)
- Objective and mission (*mudi yu renwu* 目的与任务)
 - Diagnostic exercise (*jiyanxing yanxi* 检验性演习)
 - Research exercise (*yanjiuxing yanxi* 研究性演习)
 - Demonstration exercise (*shifanxing yanxi* 示范性演习)
- Task content (*keti neirong* 课题内容)
 - Single task exercise (*dan keti yanxi* 单课题演习)
 - Multiple tasks exercise (*duo keti yanxi* 多课题演习)
- Training recipients of training (*xunlian duixiang* 训练对象)
 - Headquarters Department exercise (*silingbu yanxi* 司令部); now Staff Department (参谋部)
 - Leaders and headquarters exercise (*shouzhang, silingbu yanxi* 首长, 司令部演习)
 - Leaders and staff exercise (*shouzhang, jiguan yanxi* 首长, 机关演习)
 - Leaders, staff, and some live fire exercise (*shouzhang, jiguan dai bufen shibing yanxi* 首长, 机关带部分实兵演习)
 - Logistics staff exercise (*houqin jiguan yanxi* 后勤机关演习)
 - Live force exercise (*shibing yanxi* 实兵演习)
- Participating service and branch (*canyan de junbingzhong lei* 参演的军兵种类)
 - Infantry elements tactical exercise (*bubing fendui zhanshu yanxi* 步兵分队战术演习)
 - Services and branches special campaign and tactical exercise (*junbingzhong zhuanye zhanyi zhanshu yanxi* 军兵种专业战役战术演习)
 - Combined arms campaign and tactical exercise (*hetong zhanyi zhanshu yanxi* 合同战役战术演习)
 - Joint service campaign and tactical exercise (*lianhe zhanyi zhanshu yanxi* 联合战役战术演习)
- One-sided (single) or opposition force (*shifou juyou duikangxing* 是否具有对抗性)
 - One-sided⁵⁷ exercise (*danfang yanxi* 单方演习)
 - Opposition force exercise (*duikang yanxi* 对抗演习)
- Combat basic type (*zhandou jiben leixing* 战斗基本类型)

- Offensive campaign and tactical exercise (*jingong zhanyi zhanshu yanxi* 进攻战役战术演习)
- Defensive campaign and tactical exercise (*fangyu zhanyi zhanshu yanxi* 防御战役战术演习)
- Exercise medium (*yanxi de zaiti* 演习的载体)
 - Map/chart campaign and tactical exercise (*tushang zhanyi zhanshu yanxi* 图上战役战术演习)
 - Sand table campaign and tactical exercise (*shapan zhanyi zhanshu yanxi* 沙盘战役战术演习)
 - Computer simulation exercise (*jisuanji moni yanxi* 计算机模拟演习)
 - On-site tactical exercise (*xiandi zhanshu yanxi* 现地战术演习)

Military Exercises by Type

The PLA categorizes its exercises by five types: tactical, campaign, inspection, research, and demonstration as shown below. The information is formatted different than the entries above for training. Each entry starts with the English term followed by the Pinyin and characters and a brief explanation:

- **Tactical exercise** (*zhanshu yanxi* 战术演习): A tactical exercise is conducted according to scenario situations (*xiangding qingkuang* 想定情况). The objective is to raise the organizational and command capability of the commanders and command staff, and to raise the combat capability of the “units” and “elements.”
- **Campaign exercise** (*zhanyi yanxi* 战役演习): A campaign exercise is conducted by campaign *juntuan*-level (军团) organizations according to a joint scenario with a definite campaign direction and campaign situation.⁵⁸ Campaign exercises are divided into army, navy, air force, and second artillery campaign exercises. The objective of a campaign exercise is to raise the organizational and command capability of the commanders and command staff, and to raise the combat capability of the “units.”
- **Diagnostic exercise** (*jiyanxing yanxi* 检验性演习): The objective of an inspection exercise, which is also called a “check exercise” (*kaohexing* 考核性演习)⁵⁹, is to (1) inspect “units” and “elements” for their command and political character, (2) discover any problems, (3) synthesize experience, and (4) modify training and combat readiness work. Frequently, the leadership and exercise functions are kept separate to evaluate each part.
- **Research exercise** (*yanjiuxing yanxi* 研究性演习): The objective of a research exercise, also identified as a “trial” (*shiyaxing* 试验性) exercise, is to (1) research and investigate combat and training methods under modern conditions, (2) conduct theoretical evaluation of new organizational structures for military forces, (3) evaluate rules, regulations, and teaching materials, or (4) examine the practicality of combat preparations. The most important objective, however, is to test and evaluate new weapons and technical equipment under tactical and mobile situations, and to investigate problems associated with education and training of the troops to use the equipment. Sometimes a special leadership organization is created to evaluate the testing independently or in conjunction with the exercise organizer. In some cases, when a problem arises, the exercise is repeated or temporarily stopped to test a particular situation.

- **Demonstration exercise** (*shifanxing yanxi* 示范性演习): A demonstration exercise shows a proper organization, command method, and combat activity to students and observers, so they can understand the concepts. It is most commonly used in a tactical environment. The objective is to demonstrate unified tactical concepts, training content, combat activity, and organization implementation methods for the observers to follow. Senior level officers often organize and lead the demonstration.

Military Exercises by Organization

The PLA has six categories for exercises based on how they are organized: one-sided (single force), opposition force (OPFOR), live munitions tactical, commanding officer and headquarters staff, Headquarters Department, and logistics.

- **One-sided (aka single force) exercise** (*danfang yanxi* 单方演习): ^{v,60} A one-sided exercise uses mockups as enemy forces to exercise a small number of troops at the “unit” and “element” level. The objective is to have the participating forces understand tactical principles, raise the proficiency of commanders in their understanding and execution of tactical and campaign concepts, strengthen organizing and command capabilities, exercise the combat capabilities for the participating “units” and “elements,” and prepare the foundation for OPFOR exercises. One-sided exercises can use the method of special subject (*zhuanti* 专题), multiple subject (*duoti* 多题), or progression (*zhuci jinru* 逐次进入) exercises. A special subject exercise is a one-time exercise that tests a single subject or problem. It can be implemented in a sequence or divided into parts. A multiple subject exercise is a one-time exercise for two or more subjects or training problems. During this type of exercise, multiple problems are linked simultaneously or appear in progression. A progression exercise takes place when multiple participants conduct the same exercise using the same terrain and same methods, but at different times.
- **Opposition force exercise** (*duikang yanxi* 对抗演习): An OPFOR exercise tests two sides with each side using the other as a mock enemy to attack and defend. Methods include a war game (*bingqi* 兵棋), computer simulation (*jisuanji moni* 计算机模拟), and maneuver force (*shibing* 实兵) opposition.⁶¹ The goal is for the participants to engage in near-real combat training and to solve the requisite problems, to increase their ability to cope in an exercise, to strengthen their capabilities to think subjectively, and to raise their flexible use of tactics. OPFOR exercises can use Red and Blue forces or Red and Red forces.

The four common types of OPFOR tactical exercises include (1) commander and staff using communications equipment (*shouzhang jiguan dai tongxin gongju* 首长机关带通信工具) exercise, (2) a sand table war game (*shapan bingqi* 沙盘兵棋) exercise conducted on a sand table and/or map/chart, (3) computer simulation exercise involving Red and Blue force commanders and staffs, and (4) live maneuver force (*shibing* 实兵) exercise.

- **Live munitions tactical exercise** (*shidan zhanshu yanxi* 实弹战术演习): A live munitions tactical exercise involves firing live munitions at targets representing the enemy situation. Live munitions tactical exercises are difficult to organize and easily cause injury to troops and damage to equipment. Besides having a group that organizes the exercise, there must be a range safety officer.

^v Although no official translation was found for “single force”, this is a better translation.

- **Commanding officer and headquarters staff exercise** (*shouzhang, jiguan yanxi* 首长, 机关演习): A commanding officer and headquarters staff exercise is conducted by regiment and above organizations. This type of exercise takes place within a single headquarters. Participants include the commander, headquarters department, political department/division, logistics department/division, and equipment department/division. This type of exercise normally involves using communications equipment in the field or in an office. The purpose is to raise the organization and command capability of the commander, and to enhance the functional and planning capability vertically within each of the departments and their subordinate divisions and laterally among the four first-level departments.
There are two types of commanding officer and headquarters staff exercises: single level (*danji* 单级) and multiple levels (*duoji* 多级). A regiment, division, or brigade can organize a single level exercise. A group army, division or brigade, and regiment can organize a three-level exercise. Normally, multiple-level exercises are conducted in the field using communications equipment and can involve some live troop maneuvers.
- **Headquarters Department exercise** (*silingbu yanxi* 司令部演习): A Headquarters Department (now a Staff Department since 2016) exercise involves only the Headquarters Department and its subordinate second- and third-level organizations. The purpose is to raise the level of coordination, command, and organizational capabilities among all parts of the Headquarters Department to support the commander. This type of exercise can be conducted in the field or in-house. This exercise can involve a single level or multiple levels [This sentence is not clear whether it means multiple levels within a single Headquarters Department (e.g., within a single group army, division, or regiment) or among Headquarters Departments at multiple levels (e.g., a group army, division, and regiment). It most likely means the latter].
- **Logistics exercise** (*houqin yanxi* 后勤演习): A logistics exercise involves the logistics headquarters staff, plus logistics “units” and “elements.” Normally, the exercise is part of a combined arms exercise, but can also be organized independently. It usually relies on a combined arms or joint service campaign or tactical situation and tests logistics command, support, and defense methods.

Exercise Ratings

The CMC Joint Staff Department (formerly the General Staff Department) assigns one of four performance ratings (*chengji dengji* 成绩等级) for exercises, which are published in *Military Training Rating Standards* (*Junshi Xunlian Chengji Pingding Biaozhun* 军事训练成绩评定标准):

- Grade 1 (*diyi dengji* 第一等级) is excellent (*youxiu* 优秀)
- Grade 2 (*dier dengji* 第二等级) is good (*lianghao* 良好)
- Grade 3 (*disan dengji* 第三等级) is pass (*jige* 及格)
- Grade 4 (*disi dengji* 第四等级) is fail (*bujige* 不及格)

Exercise Timing and Duration

Normally, an inspection exercise (also called a checking exercise) occurs after a unit has completed its basic technical and tactical training. Research and demonstration exercises take place as needed. The duration of an exercise is determined by the subject matter and scale.

- A division- or brigade-scale maneuver exercise usually lasts about five days and nights.

- A regiment-scale maneuver exercise lasts about three days and nights.

Four Exercise Preparation Phases

The four exercise preparation phases are as follows [The sample chart in the book for a notional exercise shows a five-month process, lasting from early July through mid-November]:

- Phase 1: Initial preparation (*chushi zhunbei* 初始准备), which includes establishing the exercise organizational structure, selecting an exercise site, preparing materials, becoming familiar with the situation, creating the tactical exercise scenario, and predicting the forces and usage rates.
- Phase 2: Writing the exercise document (*bianxie yanxi wenshu* 编写演习文书), which includes the commander approving the scenario, creating the exercise basic and support material, creating the exercise implementation plan, creating the situational display and estimated enemy activity plan, and creating the exercise rules, standards, and leadership implementation plan.
- Phase 3: Organizing the training and exercise preparation materials (*zuzhi xunlian ji zhunbei yanxi wuzi qicai* 组织训练及准备演习物资器材), which includes organizing training for the exercise leadership, the false enemy *fendui*, the situational display *fendui*, communications support *fendui*, and the warning adjustment support *fendui*, as well as organizing preparations for the leadership, participating “units,” and materials.
- Phase 4: Final preparation (*zhiqian zhunbei* 直前准备), which includes issuing the exercise orders, setting up the exercise area, and organizing the exercise “units” to begin moving to the exercise area.

The Exercise Leadership Structure

As discussed below, the Exercise Leadership Department (*daoyanbu* 导演部) consists of five groups (*zu* 组)—political works, headquarters department, logistics, services [army, navy, air force], and technical—and their subordinate groups. Personnel for each of the five groups are drawn from the command staff at higher headquarters. The number of personnel involved is flexible and depends on the exercise scale, character, and methods employed. The groups and personnel involved are discussed below.

Exercise director (*daoyan* 导演): When higher headquarters is in charge of an exercise, the exercise leader is normally the higher headquarters commander (*shouzhang* 首长). When higher headquarters is not in charge, the commander comes from the organization being exercised.

Exercise deputy leader (*fudaoyan* 副导演): The exercise deputy leader is a deputy commander or chief of staff [director of the Headquarters Department] from the headquarters in charge of the exercise. Each participating service provides its own exercise deputy leader. On behalf of the exercise leader, the deputy leader is responsible for the four phases of the exercise noted above. When more than one service is involved in the exercise, each participating service provides a deputy leader.

Regulator group (*tiaoli zu* 调理组)(these can all also be referred to as ‘coordinators’⁶²): Each of the five groups within the leadership department has a regulator group, which serves as the exercise leader’s representative to coordinate with all participating subordinate “units” and “elements.”⁶³

The regulator group consists of six types of people who are responsible for guiding different parts of the exercise.

- **The commander's regulator** (*zhihuoyuan tiaoliyuan* 指挥员调理员) is assigned to each regiment and above organization to coordinate among every command level involved in the exercise.
- **Headquarters staff regulators** (*jiguan tiaoliyuan* 机关调理员) come from each regiment and above headquarters department, political department/division, logistics department/division, and equipment department/division and are responsible for coordinating among their respective organizations at every level.^{vi}
- **Element regulators (i.e., coordinators)** (*fendui tiaoliyuan* 分队调理员) are assigned to all battalion and below “elements.”
- **Exercise site regulators** (*diduan tiaoliyuan* 地段调理员 or *didian tiaoliyuan* 地点调理员) control and coordinate all tactical activities for “elements” involved in live maneuver and OPFOR exercises. The regulators are equipped with communications equipment.
- **Substitute regulators** (*duan mo tiaoliyuan* 端末调理员) are available at the last minute to fill in for any other regulators in the tactical exercise chain of command.⁶⁴
- **The live munitions firing regulators** (*shidan sheji tiaoliyuan* 实弹射击调理员) are responsible for making sure all of the teaching materials are accurate, inspecting all the weapons and munitions, and ensuring live munitions safety measures are followed during the exercise. They have the authority to stop activity for safety reasons if necessary.

Political work group (*zhenggong zu* 政工组): The political work group consists of representatives from the political department at higher headquarters. Besides the regulator group, the political works group can have a subordinate propaganda group (*xuanchuan zu* 宣传组) and mass works group (*qungong zu* 群工组).

Headquarters Department group (*silingbu zu* 司令部组): The headquarters department group has five subordinate groups—regulator group; situation display group; communications liaison group; security, adjustment, and services group; and exercise site equipment group.

- **The situation display group** (*qingkuang xianshi zu* 情况显示组) is responsible for providing the exercise leader with the approximate real world situation of the exercise. The way this group functions is critical in closing the gap between training and real war (e.g. providing commanders with near-real time situational analysis). This group is normally composed of representatives from the infantry, chemical defense, and reconnaissance offices, as well as representatives from the simulated enemy “units” and “elements.” As the scale of the exercise increases, representatives from more services and branches become involved in the group.
- **The communications liaison group** (*tongxin lianluo zu* 通信联络组) is composed of communications staff personnel and communications *fendui* and varies in size depending on the exercise's scale and methods employed. This group is responsible for surveying the exercise area, establishing radio and landline communications, arranging simple signal

^{vi} Under the current PLA reorganization that began in 2016, all Logistics Departments and Equipment Departments below the Army, Navy, Air Force, and Rocket Force Headquarters have been merged as a Support Department (*baozhang* 保障部).

methods, organizing communication troops training, and making sure the communications network functions properly.

- **The security, rectification, and services group** (*jingjie tiaozheng qinwu zu* 警戒调整勤务组) is usually organized by the various military affairs staff offices (*junwu bumen* 军务部门) and includes the necessary representatives from the political, logistics, and equipment departments. This group is responsible for security of the exercise area, transportation procedures in the exercise area, adjusting the order and speed for “units” and “elements” involved in the exercise according to regulations, maintaining troop discipline and rights of the civilians in the area, and moving people out of the path and impact area of missiles.
- **The exercise site equipment group** (*changdi qicai zu* 场地器材组) is organized by the various operations and training staff offices (*zuoxun bumen* 作训部门) and is responsible for activities in the exercise area including equipment support and planning; building fortifications, obstacles, false targets; and building and repairing roads, bridges, command posts and observations posts.

Logistics group (*houqin zu* 后勤组): The logistics group consists of personnel from the logistics department at higher headquarters and is responsible for all logistics support for the exercise. The group has two subordinate groups—a regulator group and a daily necessities support group (*shenghuo baozhang zu* 生活保障组).

The technical group (*jishu zu* 技术组): The technical group consists of personnel from the equipment department at higher headquarters and is responsible for all technical support for the exercise. Besides the regulator group, the technical group has a subordinate technical support group (*jishu baozhang zu* 技术保障组).

Other Exercise Terms

Junshi yanxi (军事演习):⁶⁵ This term is translated as “military exercise,” which are called exercises for short. Exercises are training events that involve operational command and maneuvers under notional scenarios. They are the advanced phase of military training, conducted after units have completed theoretical study and foundation training, and they are comprehensive training activities that simulate the conditions of actual warfare. Depending on the scale of the exercise, there are tactical exercises and campaign exercises; according to who is involved, there are commander and staff exercises (*shouzhang jiguan yanxi* 首长机关演习) and exercises with actual troops (*shibing yanxi* 实兵演习); depending on the exercise type, there are indoor (*shinei yanxi* 室内演习) and field exercises (*yewai yanxi* 野外演习), one-sided / single-force exercise (*danfang yanxi* 单方演习) and opposition-force exercises (*duikang yanxi* 对抗演习), live-fire exercises (*shidan yanxi* 实弹演习) and non-live-fire exercises (*fei shidan yanxi* 非实弹演习), and phased exercises (*fenduan yanxi* 分段演习) and comprehensive exercises (*zonghe yanxi* 综合演习); and according to objectives, there are demonstration exercises (*shifan xing yanxi* 示范性演习), experimental (research) exercises (*shijian(yanjiu)xing* 试验(研究)性演习), and diagnostic (or testing) exercises (*jiyan(kaohe) xing yanxi* 检验(考核)性演习).

Duikang yanxi (对抗演习):⁶⁶ This term is translated as “force-on-force exercises” are ones in which each side treats the other as the enemy and conducts offensive and defensive operations against them. Opposition-force exercises can take the form of live-force training, war games, map assignments, and computer simulations.

Jianyan xing yanxi (检验性演习):⁶⁷ This term is translated as “diagnostic exercises,” which are also called “assessment exercises,” focus on inspecting and assessing unit combat capabilities.

Lianhe yanxi (联合演习):⁶⁸ This term is translated as “joint exercises,” which are military exercises jointly conducted by two or more services (*junzhong* 军种) or militaries (*jundui* 军队).

Moni yanxi (模拟演习):⁶⁹ This term is translated as “simulated exercises” or “simulation exercises” use computers and imitations of real devices to simulate weapons capabilities, the battlefield environment, and operational activities.

Shibing yanxi (实兵演习):⁷⁰ This term is translated as “live-force exercises” are military exercises conducted by a unit or element on-site, according to a given scenario.

Shidan yanxi (实弹演习):⁷¹ This term is translated as “live-fire exercise” or “live-munitions exercises” are conducted according to notional scenarios and use actual forces to drill combat actions. These events are predominantly conducted during one-sided exercises (*danfang yanxi* 单方演习)⁷² that are tactical in scope.

Shifan xing yanxi (示范性演习):⁷³ This term is translated as “demonstration exercises” are military exercises at the tactical level to demonstrate proper organization and command methods and battle maneuvers for observers to watch and emulate.

Shiyan xing yanxi (试验性演习): This term is translated as “experimental exercises,” which are also called “research exercises,” are used to study and prove concepts for new operational methods (*zuozhan fangfa* 作战方法) and training methods (*xunlian fangfa* 训练方法); to test new regulations, teaching orders, and operations contingency plans; and to assess new tables of organization and equipment.⁷⁴

Xietong zuozhan yanxi (协同作战演习):⁷⁵ This term is translated as “coordination operations exercises” and are military exercises conducted between different services and/or the Second Artillery (Rocket Force), or between different units or elements, which are designed to increase coordination and cooperation (*xietiao peihe nengli* 协调配合能力) between these organizations during operations.

Zhanlue yanxi (战略演习):⁷⁶ This term is translated as “strategic exercise” and refers to strategic commanders and his staff conducting a strategic exercise.

Zhanshu yanxi (战术演习):⁷⁷ This term is translated as “tactical exercises” are military exercises conducted under a tactical scenario. The objectives are to improve commanders and headquarters organization and command abilities, as well as units’ combat capabilities.

Zhanyi yanxi (战役演习):⁷⁸ This term is translated as “campaign exercises” are military exercises conducted by campaign-level organizations (including Military Regions, Fleets, and Military Region Air Forces) based on a scenario, in which a certain campaign direction (*yiding zhanyi fangxiang* 一定战役方向) is combined with the conditions of the campaign zone (*zhanyi difu qingkuang* 战役地幅情况). Campaign exercises are divided into ground-force campaign exercises, Navy campaign exercises, Air Force campaign exercises, and Second Artillery campaign exercises. The objectives of campaign exercises are to improve commanders’ and staff’s organization and command abilities, as well as units’ operational capabilities.

Education and Training

This section covers key PLA academic institution terminology.⁷⁹ Terminology associated with the PLA's academic institutions is complicated. Two key terms are as follows:

- **Peiyang** (培养) is usually translated as “cultivation” and generally refers to the theory and basic education component. The PLA's *Modern Military Academic Institution Education Dictionary* translates this as “nurturing.”⁸⁰
- **Xunlian** (训练) is translated as “training” and refers to the basic military training and specialty training component.

In addition, as noted earlier, the PLA has never used the term “professional military education” or the acronym PME. The closest term used for this foreign concept is *peiyang xunlian* (培养训练) or just *peixun* (培训), which the PLA translates as “cultivation and training,”⁸¹ “development and training,”⁸² or just “training.”⁸³ At times it also uses *junshi jiaoyu* (军事教育), which is translated as “military education,” or *junshi zhiye jiaoyu* (军事职业教育), which it translates as “military professional education”⁸⁴ and “education of military profession.”⁸⁵ These terms refer to the education and training required for NCOs and officers to move up their career ladder. This includes billet training as well as an understanding of theory and technical issues. For purposes of this paper, the term “military education” or just “education” will be used.

The PLA defines “military professional education” as “education outside of military academic institutions.”⁸⁶ Under this concept, the PLA system offers continuous education, including mostly internet-based long-distance learning, to all PLA personnel. It also includes the National Defense Student undergraduate and graduate program as well as some graduate programs at civilian academic institutions for certain officers. In other words, it does not involve education within the PLA academic institutions discussed in this paper.

The PLA also uses the terms *xueli jiaoyu* (学历教育) and *renzhi jiaoyu* (任职教育) that it translates as follows:⁸⁷

- **Xueli jiaoyu** is translated as “academic credential education,” “academic education,” or “education of officer candidates for academic credentials, which offers undergraduate education for pre-commissioned officers and graduate education for officers” in military academic institutions.⁸⁸ In other words, this is the basic education component for theory, such as that which is received for four years at the Air Force Aviation University.
- **Renzhi Jiaoyu** is translated as “professional education in military academic institutions” and “pre-assignment education,” which consists of basic-, intermediate-, and advanced-level officer institutions and NCO schools, and offers pre-assignment training and rotational training for active-duty officers and NCOs at each level (basic, intermediate, and advanced) of their career before they assume their billet. It is also translated as “vocational education.”⁸⁹ For purposes of this paper, it is identified as “pre-assignment education.” Some pre-assignment educational institutions also offer graduate courses in military science as officers move up their career ladder.⁹⁰ In other words, this component provides the technical and the command component of their pre-assignment education and training.

The PLA's academic education system also has two levels of education and training: basic and specialized education (*jichu yu zhuan ye jiaoyu* 基础与专业教育) and advanced education (*shenzao jiaoyu* 深造教育⁹¹). All PLA cadets receive both their basic education and specialty

training before they graduate and are then assigned directly to their operational unit or begin graduate study.

Advanced education for intermediate- and senior-level officers (lieutenant colonels, colonels, senior colonels, and major generals) is conducted in only a few military academic institutions. It appears that only some officers have the opportunity to receive advanced education or a graduate degree. For example, command track officers receive intermediate- and senior-level education at one of the PLA's Command Colleges, which does not appear to result in a graduate degree, while some technical officers attend specialized programs in various PLA *xueyuan* for two or more years to obtain graduate degrees. Command track officers can, however, attend certain graduate programs where they receive an advanced degree. Some officers (senior colonels and major generals) receive their senior-level education at the PLA's National Defense University; however, the one-year program does not result in a master's degree.

The Meaning of *Zhihui*: To understand what the service Command Colleges do, it is important first to know what the term *zhihui* (指挥) means in the context of academic institutions, career tracks, organizational structure, and operations. With this as a basis, it is also important to know what the PLA's five career tracks are and how the PLA defines and organizes its "commanding academic institutions" (*zhihui yuanxiao* 指挥院校).

Most importantly, no available PLA dictionary or encyclopedia has a single entry or translation for the term *zhihui* (指挥); however, every PLA dictionary and encyclopedia uses this term in multiple combinations, including *zhihuiyuan* (指挥员) *zhihui junguan* (指挥军官) and *zhihui yuanxiao* (指挥院校) discussed below. The best translation for *zhihui* is "command."

Commander (*zhihuiyuan* 指挥员): *Zhihuiyuan* appears to be the generic term for commander compared to specific terms such as *silingyuan* (司令员) or *zhang* (长), as in division commander (*shizhang* 师长). Based on how *zhihuiyuan* is used, it sometimes refers to a single person and other times it refers to the leaders (*lingdao* 领导) and principal officers (*zhuguan* 主官) as a group, to include the commander, political commissar, deputy commanders, deputy political commissars, and directors of the four first-level departments (Headquarters, Political, Logistics, and Equipment). The *Air Force Dictionary* translates *zhihuiyuan* as commander and defines it as the leading cadre (*lingdao ganbu* 领导干部) at each level who are responsible for combat/operations command (*zuo-zhan zhihui* 作战指挥). The commander's primary combat/operations responsibilities are: organizing intelligence and reconnaissance (*qingbao zhencha* 情报侦察), issuing decisions (*dingxia juexin* 定下决心), clarifying missions/tasks (*mingque renwu* 明确任务), formulating combat plans (*zhiding zuozhan jihua* 制定作战计划), organizing coordinated actions and support (*zuzhi xietong dongzuo he ge zhong baozhang* 组织协同动作和各种保障) [within the PLAAF and with other services and branches], inspecting combat preparations situation (*jiancha zuozhan zhunbei qingkuang* 检查作战准备情况), and implementing battlefield coordination and control (*shishi zhanchang xietiao yu kongzhi* 实施战场协调与控制).⁹² According to the *PLA Military Dictionary*, which does not translate each term into English, *zhihuiyuan* is: 1) The principal military [track] officer(s) (*junshi zhuguan* 军事主官) at every level in the military; 2) The leading cadre (*lingdao ganbu* 领导干部) at each level who is/are responsible for combat/operations command (*zuo-zhan zhihui* 作战指挥) or military functional work (*junshi xingzheng gongzuo* 军事行政工作); 3) The general term (*fancheng* 泛称) for military officer.⁹³

It is also defined as the officer(s) who is/are responsible for all command of combat/operations at a particular level (*dui benji zuozhan fuze quanbu zhihui fuze de junguan* 对本级作战负责全部指挥负责的军官).⁹⁴

Commanding Officer(s)/Cadre (*zhihui junguan* 指挥军官 / *zhihui ganbu* 指挥干部): According to various PLA publications, such as the *Military Cadre Work* volume of the *China Military Encyclopedia*, *zhihui junguan* is translated as “commanding officer” and is defined as officers who have the grade of platoon leader and above and are in one of the four PLA officer career tracks—military, political, logistics, and equipment—and are identified as military commanding officers (*junshi zhihui junguan* 军事指挥军官), political commanding officers (*zhengzhi zhihui junguan* 政治指挥军官), logistics commanding officers (*houqin zhihui junguan* 后勤指挥军官), and equipment commanding officers (*zhuangbei zhihui junguan* 装备指挥军官). These tracks are discussed later in Part 1. Commanding officers are categorized by their career track, grade, missions/tasks, and by their service and branch.⁹⁵

Staff Officers (*canmou junguan* 参谋军官): The term *canmou junguan* is the generic term for staff officers in all four departments (Headquarters, Political, Logistics, and Equipment); however, three other terms also refer to specific types of staff officers: *canmou* (参谋), *ganshi* (干事), and *zhuli* (助理). *Canmou* and *zhuli*, sometimes referred to as assistants, refer specifically to staff officers in the Headquarters Department, Logistics Department, and Equipment Department, while *ganshi* refers only to staff officers in the Political Department.⁹⁶

Commanding College (*zhihui yuanxiao* 指挥院校): According to the *Modern Dictionary of Military Education Institutions*, a commanding college is an educational organization provides basic training and education for pre-commissioned cadets (*shengzhang ganbu* 生长干部) who will serve in commanding officer (*zhihui junguan* 指挥军官) and staff officer (*canmou junguan* 参谋军官) billets and provides professional military education (PME / 培训) to post-cadet commanding officers and staff officers. Prior to the 14th All-Army Academic Institution Conference in June 1999, the PLA had three levels of commanding academic institutions: senior/advanced-level, intermediate/mid-level, and basic level as shown below.⁹⁷ [Note: Commanding colleges do not necessarily have to have the word “command” in their name but do have to provide training and/or education for commanding officers and staff officers.] Following the 14th Conference, however, all basic-level colleges were identified as specialty colleges (*zhuanye yuanxiao* 专业院校), leaving only two levels: senior/advanced- and intermediate/mid-level.

- Senior/advanced-level commanding college (*gaoji zhihui yuanxiao* 高级指挥院校): The PLA National Defense University (*guofang daxue* 国防大学) is the only institution that fits in this level.
- Intermediate/mid-level commanding college (*zhongji zhihui xueyuan* 中级指挥学院): Most, but not all, of these colleges have the word *zhihui* in their names, such as the Air Force Command College. Although various logistics colleges provide this level of command PME, they do not have *zhihui* in their name. These colleges are responsible for providing combined arms PME as well as individual service and branch PME for regiment-level military, political, logistics, and equipment track officers. They also provide PME for staff officers serving in the Headquarters Department at the group army, division, and

brigade levels, as well as for political and logistics personnel working in the headquarters. Finally, they provide PME for combined arms combat, political, and logistics instructors.

- Senior/advanced- and intermediate/mid-level commanding colleges also provide graduate student degrees.
- Basic-level commanding college (*chujī zhīhuī yuánxiào* 初级指挥学院): This level includes each Army college; the PLA Navy's surface vessel colleges, submarine college, and service colleges; and the PLAAF's flight academies, navigation, AAA, and service colleges. They are divided according to institutions that provide four-year bachelor's degrees (*benke* 本科) and three-year post-secondary education programs (*zhuanke* 专科). They recruit high school graduates and enlisted personnel. Upon graduation, they serve as platoon and company commanders, vessel branch chiefs (*bumenzhang* 部门长), and Air Force pilots and navigators. Even though this level was re-designated as specialty colleges in 1999, certain colleges still identify themselves as basic-level command colleges. Of note, not all officers, including pilots, who receive their bachelor's degree have the opportunity to return to this level of college for PME.

The following bullets provide several other relevant terms for the report. The terms are organized in alphabetical order in English followed by the Chinese term:

- Academic degrees (*xueshu xuewei* 学术学位).⁹⁸
- Academic department (*xi* 系),⁹⁹ which is short for “*xuexi* 学系” [Note: In some cases, this is translated as a school, such as the Nursing School (*huli xi* 护理系)]¹⁰⁰
- Administrative and functional department (*bu* 部 / *bumen* 部门)
- Associate professor (*fu jiaoshou* 副教授)¹⁰¹
- Authorized disciplines (*shouquan dian* 授权点)¹⁰²
- Bachelor's degree majors (*benke zhuanke* 本科专业)¹⁰³
- Commanding officer (*zhīhuī lei* 指挥类 / *zhīhuī jūnguān* 指挥军官)¹⁰⁴ refers to anyone who will serve in a leadership billet at any level, such as the deputy in an office
- Cultivation and training (*peixun* 培训 / *peiyang xunlian* 培养训练)¹⁰⁵
- Defense vs Defence (*guofang* 国防):¹⁰⁶ The PLA translates *Guofang* as both defense and defence and is not consistent between publications about which translation it uses.
- Degrees (*xuewei* 学位)¹⁰⁷: bachelor's (*benke* 本科), master's (*shuoshi* 硕士), PhD/doctorate (*boshi* 博士)
- Diploma (*xueli* 学历):¹⁰⁸ Educational experience, which means not a degree (*xuewei* 学位)¹⁰⁹
- Direction for each specialty (*fangxiang huafen* 方向划分)
- Discipline categories (*kexue menlei* 科学门类)¹¹⁰
- First-level master's degree authorized disciplines (*yiji xueke Shuoshi xuewei shouquan dian* 一级学科硕士学位授权点)¹¹¹
- Full-time studies (*quanri zhi* 全日制)¹¹²
- Majors/Disciplines (*xueke* 学科)¹¹³:
 - Economics (*jingji xue* 经济学)
 - Engineering (*gong xue* 工学)
 - Law (*fa xue* 法学)

- Literature (*wen xue* 文学)
- Management (*guanlie xue* 管理学)
- Military Science (*juinshi xue* 军事学)
- Philosophy (*zhe xue* 哲学)
- Science (*li xue* 理学)
- Master's degree advisor (*shuoshi daoshi* 硕士导师)¹¹⁴
- Master's degree authorized disciplines (*shuoshi shouquan lingcheng* 硕士授权领域)¹¹⁵
- Non-commanding officer (*feizhahui lei* 非指挥类 / *feizhahui junguan* 非指挥军官) is anyone who will not serve in any leadership billet
- Part-time studies (*fei quanri zhi* 非全日制)¹¹⁶
- PhD advisor (*boshi daoshi* 博士生导师)¹¹⁷
- Post-doctoral (*boshi hou* 博士后)¹¹⁸
- Post-doctoral research station (*buoshi hou liudong zhan* 博士后流动站)¹¹⁹
- Post-secondary educational program/diploma (*dazhuan xueli* 大专学历)¹²⁰
- Professional degrees (*zhuan ye xue wei* 专业学位)¹²¹
- Professor (*jiaoshou* 教授)¹²²
- Secondary professional program/diploma (*zhongzhuan* 中专)¹²³
- Specialties (*zhuan ye* 专业)¹²⁴
- Specialty codes (*zhuan ye dai ma* 专业代码)
- Specialty master's authorized discipline (*zhuan ye shuoshi shouquan dian* 专业硕士授权点)¹²⁵
- Specialty types (*zhuan ye leibie* 专业类别)
- Teaching and research department (*jiaoyan shi* 教研室), which is simply identified as a department¹²⁶ and are subordinate to academic department (*xi* 系)
- Training type (*peiyang leixing* 培养类型)

Generic civilian and military academic institutions: China has several terms for civilian academic institutions as shown below:

- **Civilian schools:** *Difang xuexiao* (地方学校) is the generic term for civilian academic institutions at all levels.
- **Graduates:** The term *biyesheng* (毕业生) refers to someone who has graduated from high school or college.
- **High schools [senior middle schools]:** The terms *gaozhong* (高中) and *putong gaozhong* (普通高中) refer to high schools [grades 10-12]
- **Junior middle school:** The term *chuzong* (初中) refers to junior middle schools [grades 7-9]
- **Institutes of higher learning:** The term *gaodeng xuexiao* (高等学校) refers to civilian and military colleges and universities. The terms *putong gaodeng xuexiao* (普通高等学校) and *difang daxue* (地方大学) refer only to civilian colleges and universities.
- **Soon-to-graduate students:** The term *yingjie biyesheng* (应届毕业生) refers to high school and college students who are in their last year and preparing to graduate.

Professional Military Education: As noted earlier, the PLA does not have a term that translates to the U.S. military's "professional military education" (PME).

Military schools: Most of the PLA's academic institutions through the mid-1980s, including the flight cadet academic institutions, were schools (*xuexiao* 学校). Around 1986, the PLA began upgrading all of its schools, except NCO schools, to *xueyuan* (学院). Today, the only PLA schools are NCO schools.

Senior technical degree: The PLA uses the term *dazhuan* (大专) to refer to a three-year associate's degree.

Military universities: In the PLA, the highest academic tier consists of universities (*daxue* 大学), including the Air Force Aviation University (*kongjun hangkong daxue* 空军航空大学).

Military xueyuan: The second tier of academic institutions consists of *xueyuan* (学院), which the PLA translates as academy and college.¹²⁷ This includes the PLAAF's three flight academies (*feixing xueyuan* 飞行学院).

Three Levels of PLAAF Cultivation and Training

The information in this section discusses the PLAAF's three levels of cultivation and training (*peixun* 培训). The information comes primarily from *Science of Air Force Training* (2006).¹²⁸

Science of Air Force Training states that PLAAF commanding colleges, which includes any college that provides “commanding officer” cultivation and training, use a three-level cultivation and training structure (*peixun tizhi* 培训体制) that includes:¹²⁹

- Basic-level (*chuji* 初级) program [Note: Even though the PLA re-designated this level in 1999 as the specialty level, certain PLAAF publications continue to refer to it as basic-level cultivation and training.]
- Intermediate/mid-level (*zhongji* 中级) program
- Senior/advanced-level (*gaoji* 高级) program.

The information available about the content of each of these levels is somewhat complicated and often contradictory. Unlike the USAF's Air University, which provides in-residence cultivation and training in a single location for officers based on their rank and regardless of their specialty, the PLAAF provides in-residence cultivation and training for its officers in several separate locations based on their grade level and specialty.¹³⁰ Depending on one's career track and the type of commanding college, the three levels can equate to the grades discussed below.¹³¹

Basic-level Cultivation and Training

Due to a lack of information and inconsistent data, it is difficult understanding exactly which PLAAF officers receive any basic-level cultivation and training and where they receive it. Whether they receive it and what types all depends on their career track and specialty. Some PLA publications indicate that undergraduate education and training for cadets (*shengzhang ganbu* 生长干部) is considered part of basic-level cultivation and training. Basically, however, commanding officers who do receive basic-level cultivation and training are at the battalion and below (e.g., company and platoon) levels and receive it at their original academic institution.¹³² For example, radar commanding officers return to the Air Force Early Warning [Radar] Academy (空军预警学院) for their basic-level cultivation and training, while logistics officers return to the Xuzhou Air Force Logistics College (空军勤务学院) for their basic-level cultivation and training.¹³³ It is not clear how long this cultivation and training takes, but it is probably for only a few months.

Intermediate/Mid-level Cultivation and Training

Intermediate/mid-level cultivation and training is for officers who serve as regiment-, brigade-, and division-level commanding officers.¹³⁴ All commanding officers in the military, political, logistics, and equipment tracks, along with certain staff officers and secretaries (秘书) in each track, attend the Air Force Command College for one year to receive their intermediate/mid-level cultivation and training certificate. Until the late-2000s, these students were separated by their specialty during the one-year course; however, the college has begun to experiment with separating them for part of the year and to combining them for the remainder of the year. It is not clear how many students are in this course at any given time; however, one article noted 300 students, all of whom were PLAAF officers. More information on this is provided later.

Equipment, logistics, and technical officers who do not serve in leadership/commanding positions receive their cultivation and training, which usually involves a master's or doctorate degree, at the

specialty college where they received their undergraduate education and training, such as the Air Force Logistics College, Air Force Early Warning [Radar] College, and Missile (SAM) College. All pilots who assume leadership positions or become staff officers in aviation units are military track officers and attend the Command College for their intermediate/mid-level cultivation and training.

Senior/Advanced-level Cultivation and Training

Senior/advanced-level cultivation and training is for officers who serve in corps and above billets.¹³⁵ Although the PLA's National Defense University (NDU / *guofang daxue* 国防大学) is the only academic institution that is identified as a senior/advanced-level commanding institution, it appears the Air Force Command College, which is not identified as a senior/advanced-level commanding college, also provides some cultivation and training at this level, but little information is available. It is not clear which specialties are taught and how long the courses are; however, many of the courses at this level are rotational training that last for only a few days (up to two weeks) or are special courses that may last for a few months. Whereas NDU's courses are for all services and branches, it appears that the Air Force Command College's senior/advanced-level courses are for PLAAF officers only.

Graduate Education

The Air Force Command College also provides two and a half year programs each for master's and doctoral degrees, as well as post-doctorate education for a small number of commanding officers. Other PLAAF academic institutions also provide master's and doctoral degrees for non-commanding officers in the logistics equipment tracks, as well as the technical track.

Academic Institution Terminology

- **Yuanxiao** (院校): This is the generic term for all of the military's education organizations. It is often translated as universities and colleges, universities and schools, colleges and schools, or academies and schools, etc. The best translation is academic institutions. It is often seen as *jundui yuanxiao* (军队院校), which is best translated as military academic institutions, because it also includes the PAP as well as the PLA.
- **Daxue** (大学): This is best translated as university.
- **Xueyuan** (学院): This is the most confusing of all the institution names. Although it is simply a xueyuan in Chinese, it is often translated in English as college, academy, institute, or school. Therefore, the problem is not the Chinese term but the English translation. You will find a combination of all of them in the China National Knowledge Infrastructure (CNKI) database and on the web. For example, *gongcheng xueyuan* (工程学院) might be noted as the College of Engineering, Engineering Academy, Institute of Engineering, and School of Engineering. Therefore, do not take any of these as the official name. The best place to find the "official" English name is the institutions' website; however, not every institution has its own website, and many of those that do have one do not have an English translation. Even though several PLA dictionaries and encyclopedias have entries for some or all of the institutions, there is oftentimes a lack of consistency in the translation. As a result, you will have to make a decision on which one to use based on all of the sources you have.

- **Xuexiao** (学校): The best translation is school. In the mid-1980s, the PLA upgraded all of its existing officer xuexiao to xueyuan. Today, the only remaining xuexiao are the six noncommissioned officer (NCO) schools (*shiguan xuexiao* 士官学校). Each NCO school specializes in only a few areas, such as the Air Force Communication NCO Academy (*kongjun tongxin shiguan xuexiao* 空军通信士官学校)^{vii} and the Wuhan Ordnance NCO School, and offers only secondary and senior technical degrees, not bachelor's degrees; however, 29 officer institutions offer secondary and/or senior technical degree programs for NCOs.

^{vii} Although the PLA translates *xuexiao* (学校) as “school,” the PLAAF has translated it as “academy” for the Communication NCO Academy.

ENDNOTES

- ¹ *Military Training* (军事训练), AMS All-Army Military Terminology Management Committee (*People's Liberation Army Military Terminology* (中国人民解放军军语) Second Edition, (Beijing: Academy of Military Science Press, December 2011). Hereafter referred to as *PLA Military Terminology*, 2011, 299. *Military Training* (军事训练), Cui Yafeng, ed., *Military Training* (军事训练), Second Edition, Volume 32 (broken into two volumes), (Beijing: Encyclopedia of China Publishing House, June 2008), 1-21. Hereafter referred to as *Military Training 2008*.
- ² “Drill” (演练), *PLA Military Terminology*, 2011, 311.
- ³ *Air Force News*, 28 July 2005, 1.
- ⁴ “Exercise” (演习), *PLA Military Terminology*, 2011, 313.
- ⁵ “Forces, troops, units” (部队) in *PLA Military Terminology* dictionary, 2nd ed., 2011, 332.
- ⁶ “Flying day” (飞行日), *PLA Military Terminology*, 2011, 996.
- ⁷ *Air Force News*, 17 October 2002, 2.
- ⁸ *Air Force News*, 7 March 2002, 2.
- ⁹ *Air Force News*, 22 June 2017, 4.
- ¹⁰ “Flight subject” (飞行课目), Zhu Rongchang, ed., *Air Force Dictionary* (空军大辞典), (Shanghai: Shanghai Dictionary Publishing House, September 1996), 183. Hereafter referred to as *Air Force Dictionary*.
- ¹¹ “Flying day” (飞行日), *PLA Military Terminology*, 2011, 996.
- ¹² *Air Force News*, 28 December 2002, 1.
- ¹³ “Element” (分队), *PLA Military Terminology*, 2011, 332-333.
- ¹⁴ “Separate training” (分练), *PLA Military Terminology*, 2011, 312. AMS All-Army Military Terminology Management Committee, *People's Liberation Army Military Terminology* (中国人民解放军军语) First Edition, (Beijing: Academy of Military Science Press, December 1997), 185. Hereafter referred to as *PLA Military Terminology*, 1997.
- ¹⁵ *Air Force Dictionary*, 728. Yao Wei, ed., *China Air Force Encyclopedia* (中国空军百科全书), (Beijing, Aviation Industry Press, November 2005), Volume 2, 800. Hereafter referred to as *China Air Force Encyclopedia*.
- ¹⁶ “Combined Training” (合练), *PLA Military Terminology*, 2011, 312. He Weirong, ed., *Science of Air Force Training* (空军军事训练学), (Beijing: Academy of Military Science Press, 2006), 185. Hereafter referred to as *Science of Air Force Training*.
- ¹⁷ “Combined-arms combat” (合同战斗), *PLA Military Terminology*, 2011, 130.
- ¹⁸ “Sortie” (架次), *PLA Military Terminology*, 2011, 968.
- ¹⁹ http://www.dtic.mil/doctrine/jel/new_pubs/jp1_02.pdf.
- ²⁰ “Basic training” (基础训练), *PLA Military Terminology*, 2011, 306.
- ²¹ “Intensive training” (集训), *PLA Military Terminology*, 2011, 308-309.
- ²² “Military Training” (军事训练), *PLA Military Terminology*, 2011, 299.
- ²³ 2002 PRC Defense White Paper in Chinese and English. *PLA Military Terminology*, 1997, 170. The 2011 *PLA Military Terminology* does not have an entry for this term.
- ²⁴ “Training task” (训练科目) and “Training item” (训练课目), *PLA Military Terminology*, 2011, 317.
- ²⁵ Zhou Keyu, ed. *China Today: Navy*, (*Dangdai Zhongguo Haijun* 当代中国海军), Beijing: China Social Sciences Press, 1987, 99.
- ²⁶ Wu Quanshu, ed., *The Study of Military Training* (军事训练学), (Beijing: Academy of Military Science Publishers, January 2003, 203.
- ²⁷ “Subject-oriented training” (课题训练), *PLA Military Terminology*, 2011, 304.
- ²⁸ “Joint training” (联合训练), *PLA Military Terminology*, 2011, 302.
- ²⁹ “Training missed” (漏训), *PLA Military Terminology*, 2011, 318.
- ³⁰ “Simulation training” (模拟训练), *PLA Military Terminology*, 2011, 30. “Simulation” (仿真), *English-Chinese Military Dictionary*, 2002, 163-164.
- ³¹ The 2011 Junyu has an entry for 模拟训练 as simulation training (p. 309) and 仿真技术 as simulation technology (p. 586). This dictionary also uses simulation for fangzhen -- Zhang Qiliang, ed. A Chinese-English Dictionary of Military Terms [汉英军事词典]. Beijing: Naval Press, December 2001, 209.

Some Zhihu answers suggest that:

模拟: simulation, 是抽象出一个物理的或系统的某些行为特征, 用另一系统来表示他们的过程并产生结果, 倾向于对抽象系统的设计。

仿真: emulation, 是在原来的硬件基础上, 对现实输入信号的模仿, 使系统执行同样的程序, 获取同样的结果, 倾向于对输入信号的测试。

<https://www.zhihu.com/question/38139560/answer/153177971>

³² *Air Force News*, 20 December 2003, 2.

³³ “Cultivation and training” (培训), *Air Force Dictionary*, 181; “Cultivation and Training” (培训), *Military Training* 2008, 563-564; “Development and training” (培训), *PLA Military Terminology*, 2011, 323; and “Training” (培训), Dong Huiyu and Mou Xianming, eds., *Dictionary of Modern Military Education (sic)* (现代军校教育辞典), Second Edition, (Beijing: National Defense University Press, 2011), 223. Hereafter referred to as *Dictionary of Modern Military Education*. “Cultivation and Training” (培训) in *Military Training* 2008, 563-564. “Development and Training” (培训) in *PLA Military Terminology*, 2011, 323.

³⁴ “Development and Training” (培训) in *PLA Military Terminology*, 2011, 323.

³⁵ “Training” (培训), *Dictionary of Modern Military Education*, 223.

³⁶ The PLA also translates *peiyang* (培养) as “nurture.” See *Dictionary of Modern Military Education*, 222-223.

³⁷ *Enlisted Professional Military Education Policy*, Joint Staff, CJCSI 1805.01B, 15 May 2015, www.jcs.mil/Portals/36/Documents/Doctrine/education/cjcsi1805_01b.pdf?ver=2017-12-29-142216-520.

³⁸ *China's Military Strategy* (中国的军事战略), (Beijing: The State Council Information Office of the People's Republic of China, May 2015), accessed at www.81.cn/dblj/2015-05/26/content_6507373.htm and www.china.org.cn/china/2015-05/26/content_35661433.htm.

³⁹ “Education of Military Profession” (军事职业教育), *Dictionary of Modern Military Education*, 89-90.

⁴⁰ “Training deviated from program” (偏训), *PLA Military Terminology*, 2011, 318.

⁴¹ Wang Dinglie, ed., *China Today: Air Force* (当代中国空军), (Beijing: China Social Sciences Press, 1989), 502-507.

⁴² “Coordination training” (协同训练), *PLA Military Terminology*, 2011, 304.

⁴³ *PLA Military Terminology*, 2011. This dictionary has multiple terms that include *xunlian* (训练), but it doesn't have a single entry for just this term. “Exercise” (训练), *Dictionary of Modern Military Education*, 222.

⁴⁴ *PLA Military Terminology*, 2011, 316.

⁴⁵ “Applied Training” (应用训练), *PLA Military Terminology*, 2011, 306-307.

⁴⁶ “War preparation” (战备), *PLA Military Terminology*, 2011, 191.

⁴⁷ “Tactics” (战术), *PLA Military Terminology*, 2011, 137-138.

⁴⁸ “Air Force tactics” (空军战术), *Air Force Dictionary*, 23.

⁴⁹ *Air Force News*, 8 January 2004, 2. The source of the quote was Li Jinggao, who was the Commander of a Nanjing MRAF regiment.

⁵⁰ Kenneth W. Allen and Cristina L. Garafola, *70 Years of the PLA Air Force*, (Montgomery, AL: China Aerospace Studies Institute, 21 April 2021), Chapter 6,

⁵¹ “Integrated training” (综合训练), Xu Hezhen, ed., *Chinese-English and English-Chinese Military Dictionary* (汉英英汉军事大辞典), (Beijing, Xueyuan Press, November 2002), 677. “Comprehensive training” (综合训练), *PLA Military Terminology*, 316.

⁵² “Integrated training” (综合训练), Xu Hezhen, ed., *Chinese-English and English-Chinese Military Dictionary* (汉英英汉军事大辞典), (Beijing, Xueyuan Press, November 2002), 677. “Comprehensive training” (综合训练), *PLA Military Terminology*, 316. 232-233.

⁵³ “Plan” (计划), *PLA Military Terminology*, 2011, 180.

⁵⁴ Jing Shenhu, ed., *A Guide to Military Exercises* (军事演习指南), (Jinan: Huanghe Publishers, August 2000).

⁵⁵ The PLA defines “units” as regiment and above organizations, and “elements” as battalion and below organizations. The PLA often uses the term *danwei* (单位), which is also translated as unit, to mean a generic organization. In this memo, however, the term “unit” refers to regiment and above combat organizations in every case.

⁵⁶ Each of the exercises in this section are fund in *PLA Military Terminology*, 2011, 313-314.

- ⁵⁷ “One-sided; unilateral” (单方), Xu Hezhen, ed., *Chinese-English and English-Chinese Military Dictionary* (汉英英汉军事大辞典), (Beijing, Xueyuan Press, November 2002), 75. “One-sided exercise” (单方演习), Zhang Qiliang, ed. *A Chinese-English Dictionary of Military Terms* [汉英军事词典]. Beijing: Naval Press, December 2001, 109.
- ⁵⁸ Within the PLA Navy, a *juntuan*-level organization basically refers to a fleet (North, South, and East Sea).
- ⁵⁹ “Check exercise” (考核行演习), Zhang Qiliang, ed. *A Chinese-English Dictionary of Military Terms* [汉英军事词典]. Beijing: Naval Press, December 2001, 489. This dictionary also translates *kaohe* (考核) as “examination” in “examination method” (考核办法) and “content of examination” (考核内容) and “examination system” (考核制度), and “check” in “check flight” (飞行考核).
- ⁶⁰ “One-sided; unilateral” (单方), Xu Hezhen, ed., *Chinese-English and English-Chinese Military Dictionary* (汉英英汉军事大辞典), (Beijing, Xueyuan Press, November 2002), 75. “One-sided exercise” (单方演习), Zhang Qiliang, ed. *A Chinese-English Dictionary of Military Terms* [汉英军事词典]. Beijing: Naval Press, December 2001, 109.
- ⁶¹ The PLA and PLAN translate *shibing* in different ways, including live troops, actual troops, maneuver forces, and live maneuver forces.
- ⁶² The translation of “regulator” is used in Xu Hezhen, ed., *Chinese-English and English-Chinese Military Dictionary* (汉英英汉军事大辞典), (Beijing, Xueyuan Press, November 2002)s, p. 513.
- ⁶³ The translation of *tiaoliyuan* as regulator and the definition comes from the *Navy Dictionary* (海军大词典) (Shanghai: Shanghai Dictionary Publishing House, October 1993), 245. These individuals make up the control team, which plans, coordinates, and guides every phase of the exercise.
- ⁶⁴ The combined characters *duan mo* are not in the dictionary, but the definition of the duties provided in the exercise book can best be translated as substitute or fill in.
- ⁶⁵ “Military Exercise” (军事演习), *PLA Military Terminology*, 2011, 313.
- ⁶⁶ “Force-on-force exercise” (对抗演习), *PLA Military Terminology*, 2011, 314.
- ⁶⁷ “Diagnostic exercise” (检验性演习), *PLA Military Terminology*, 2011, 313.
- ⁶⁸ “Joint exercise” (联合演习), *PLA Military Terminology*, 2011, 313.
- ⁶⁹ *PLA Military Terminology*, 1997, 181.
- ⁷⁰ “Live exercise” (士兵演), *PLA Military Terminology*, 2011, 313.
- ⁷¹ “Live-fire exercise” (实弹演习), *PLA Military Terminology*, 2011, 313.
- ⁷² *Danfang* (单方) is translated as “one-sided” and “unilateral.” Xu Hezhen, ed., *Chinese-English and English-Chinese Military Dictionary* (汉英英汉军事大辞典), (Beijing, Xueyuan Press, November 2002), 75. “One-sided exercise” (单方演习), Zhang Qiliang, ed. *A Chinese-English Dictionary of Military Terms* [汉英军事词典]. Beijing: Naval Press, December 2001, 109.
- ⁷³ “Demonstration exercise” (示范性演习), *PLA Military Terminology*, 2011, 313.
- ⁷⁴ (实验性演习), *PLA Military Terminology*, 1997, 181.
- ⁷⁵ (协同作战演习), *PLA Military Terminology*, 1997, 181.
- ⁷⁶ “Strategic exercise” (战略演习), *PLA Military Terminology*, 2011, 313.
- ⁷⁷ “Tactical exercise” (战术演习), *PLA Military Terminology*, 2011, 314.
- ⁷⁸ “Campaign exercise” (战役演习), *PLA Military Terminology*, 2011, 314.
- ⁷⁹ The primary source for this section is Kenneth W. Allen and Mingzhi Chen, *The People’s Liberation Army’s 37 Academic Institutions*, (Montgomery, AL: China Aerospace Studies Institute, 2020).
- ⁸⁰ “Cultivation and training” (培训), *Air Force Dictionary*, 181. “Nurturing” (培养), *Dictionary of Modern Military Education*, 222-223.
- ⁸¹ “Cultivation and Training,” in *China Military Encyclopedia* (中国军事百科全书), vol. 3 (Beijing: Encyclopedia of China Publishing House, 2007), 563-564. “Cultivation and training” (培训), *Air Force Encyclopedia*,
- ⁸² “Development and Training” (培训), in *PLA Terminology* (中国人民解放军军语) (Beijing: Academy of Military Sciences Press, December 2011), 323; “Army Aviation” (陆军航空兵), in *PLA Terminology* (中国人民解放军军语) (Beijing: Academy of Military Sciences Press, December 2011), 780.
- ⁸³ “Training” (培训), in *Dictionary of Modern Military Education*, 223.
- ⁸⁴ State Council Information Office, “China’s Military Strategy” (中国的军事战略), May 2015, http://www.mod.gov.cn/auth/2015-05/26/content_4586723.htm. For the English version of the military strategy, see State Council Information Office, “China’s Military Strategy,” May 2015, www.china.org.cn/china/2015-05/26/content_35661433.htm.

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- ⁸⁵ “Education of Military Profession” (军事职业教育), *Dictionary of Modern Military Education*, 89-90.
- ⁸⁶ “Focus on the key! Military professional education is closely related to you and me” (划重点! 军事职业教育与你我息息相关), *PLA Daily*, reprinted in *Xinhua*, 1 March 2018, www.xinhuanet.com/mil/2018-03/01/c_129819877.htm; Ni Hai, Xu You, and Li Xiaoliang, “Military vocational education: closely related to you and me—Interpretation of the military professional education of our army by experts from relevant departments of the Military Commission” (军事职业教育: 与你我息息相关—军委机关有关部门专家解读我军军事职业教育), *PLA Daily*, 1 March 2018, www.81.cn/jfjbmap/content/2018-03/01/content_200638.htm.
- ⁸⁷ The PLA is not consistent in how it translates each term.
- ⁸⁸ “Academic Credential Education” (军队院校学历教育), *Military Training* 2008, 539-540. For information on the Chinese Higher Education law, see National People’s Congress Standing Committee, *Higher Education Law of the People’s Republic of China* (中华人民共和国高等教育法), passed 29 August 1998, effective 1 January 1999, http://www.foreignercn.com/index.php?option=com_content&view=article&id=1224; “Academic Education” (学历教育), *Dictionary of Modern Military Education*, 111; State Council Information Office, “China’s National Defense in 2006” (2006年中国的国防), December 2006, http://www.gov.cn/zwgc/2006-12/29/content_486759.htm.
- ⁸⁹ “Military Vocational Education” (军队院校任职教育), *Military Training* 2008, 322.
- ⁹⁰ “Professional Education in Military Colleges and Schools” (军队院校任职教育), 2008, 538-539; “Professional Education College” (任职教育院校), *Dictionary of Modern Military Education*, 144-145; State Council Information Office, “China’s National Defense in 2006.”
- ⁹¹ He Weirong, ed., *Science of Air Force Training* (空军军事训练学), (Beijing: Academy of Military Science Press, 2006), 252. (first sentence).
- ⁹² *Air Force Dictionary*, 71.
- ⁹³ *PLA Military Terminology* (中国人民解放军军语) (Beijing: Academy of Military Science Press, September 1997), 132. This publication is “For Internal Distribution Only” (*neibu faxing* 内部发行) and is simply identified as the *Junyu* (军语).
- ⁹⁴ Sun Ruling, *Basic Introduction to Combat/Operations Command* (作战指挥基础概论) (Beijing: National Defense University Press, May 2011), 101.
- ⁹⁵ Xu Yaoyuan, Lin Xianghai, and Mu Song, eds., “Commanding Officer” (指挥军官), in *Military Cadre Work* (军队干部工作), Second Edition, vol. 39 (Beijing: China Military Encyclopedia Press, 2006), 84. Identified hereafter as *Military Cadre Work*, 2006. Shu Shubo et al., eds., *Military Cadre Work Handbook* (军队干部工作手册) (Beijing: National Defense University Press, 2011), 35-36.
- ⁹⁶ “Staff Officers Contingent” (参谋军官), *Military Cadre Work* 2006, 72-73.
- ⁹⁷ “Establishment of rank of military college” (军校编制等级), in *Dictionary of Modern Military Education*, 112-113.
- ⁹⁸ “Academic” (学术), *Dictionary of Modern Military Education*, 295-297; “Air Force Logistics College 2019 Master’s Student Recruitment Guide” (空军勤务学院 2019 年硕士研究生招生简章), *Yanzhao Net*, accessed 5 December 2019, <https://yz.chsi.com.cn/sch/viewZszc--infoId-2112358079,categoryId-10462725,schId-368174,mindex-12.dhtml>; “Air Force Logistics College 2019 Master’s Graduate Student Recruitment Guide” (空军勤务学院 2019 年硕士研究生招生简章), *Sohu*, 28 September 2018, http://www.sohu.com/a/256815537_672309; “Air Force Logistics College 2016 Master’s Student Recruitment Guide” (空军勤务学院 2016 年硕士研究生招生简章), *Yanzhao Net*, accessed 5 December 2019, <https://yz.chsi.com.cn/sch/viewZszc--infoId-1588670105,categoryId-10462725,schId-368174,mindex-12.dhtml>.
- ⁹⁹ “Department” (系), *Dictionary of Modern Military Education*, 168.
- ¹⁰⁰ Air Force Medical University, “Air Force Medical University,” accessed 7 November 2019, <https://www.fmmu.edu.cn/en/>; Air Force Medical University, “Academic Departments,” accessed 7 November 2019, <https://www.fmmu.edu.cn/jgsz/yx1.htm>.
- ¹⁰¹ *Ibid.* Note that the PLA education dictionary translates this term as “vice-professor,” which is not correct.
- ¹⁰² Air Force Medical University, “Air Force Medical University”; Air Force Medical University, “Academic Departments.”
- ¹⁰³ Air Force Medical University, “Establishment of Majors” (学科建设), accessed 4 December 2019, <https://www.fmmu.edu.cn/jyx2/xkjs1.htm>; Air Force Medical University, “Teaching & Learning,” accessed 4 December 2019, https://www.fmmu.edu.cn/en/Teaching_Learning1.htm.
- ¹⁰⁴ “Commanding Officer,” *Military Cadre Work*, 2006, 85; Su et al., *Military Cadre Work Handbook*, 35-36.

¹⁰⁵ “Development and Training” (培训), in *PLA Military Terminology* (中国人民解放军军语) (Beijing: Academy of Military Science Press, December 2011), 323; “Training” (培训), in *Dictionary of Modern Military Education*, 223. Peiyang (培养) is usually translated as “cultivation.” The definition for each entry states that this includes education and training, not just training, and is focused in academic institutions (院校) and training organizations (训练机构).

¹⁰⁶ “National Defense University” (国防大学), in *Dictionary of Modern Military Education*, 460; “National Defence University,” in *PLA Military History*, 665-667.

¹⁰⁷ “Degree” (学位) in *Dictionary of Modern Military Education*, 325.

¹⁰⁸ “What’s the difference between a bachelor’s degree program and a professional education program?” (本科和专科有什么区别?), *Sohu*, 11 August 2016, http://www.sohu.com/a/110053909_175741. According to the source, the professional education programs (*dazhuan* 大专) takes three years to complete, while the bachelor’s degree program (*benke* 本科) takes four years to complete. Graduates of *benke* programs receive bachelor’s degrees, while graduates of *zhuanke* programs do not receive a degree. (本科学制比专科学长, 一般专科三年, 本科四年(医学有五年的)专科就是大学专科, 简称大专; 本科就是大学本科, 一般称为大学就是指本科, 本科毕业达到一定的要求可以授予学士学位, 而大专是没有学位的).

¹⁰⁹ In China’s educational system, having a certain level of educational experience (学历) does not equate having a degree (学位). For example, both the three-year professional education program (大专) and the bachelor’s degree program (本科) provide undergraduate or college level educational experience, but only graduates of a bachelor’s program may receive a degree, while those who graduated from the three-year professional education programs do not.

¹¹⁰ “Discipline” (学科), in *Dictionary of Modern Military Education*, 174. This is a combination of “discipline” found in the dictionary and the translation of *menlei* (门类) as categories.

¹¹¹ Air Force Medical University, “Introduction on the University” (学校简介), accessed 4 December 2019, <https://www.fmmu.edu.cn/xxgk/xxjj.htm>; Air Force Medical University, “Establishment of Majors.”

¹¹² “Full time” (全日制), in *Dictionary of Modern Military Education*, 336.

¹¹³ “Discipline” (学科), in *Dictionary of Modern Military Education*, 174. Note: The dictionary does not have an entry for “major.” However, the PLA has translated “major” as *zhuanye* (专业). See Air Force Medical University, “Teaching & Learning”; Air Force Medical University, “Academic Departments.”

¹¹⁴ Air Force Medical University, “Air Force Medical University.” Note that this source uses “supervisor” instead of advisor. This report uses advisor. Air Force Medical University, “Introduction on the University.”

¹¹⁵ Air Force Medical University, “Introduction on the University”; Air Force Medical University, “Establishment of Majors.”

¹¹⁶ “Party-time studies” (非全日制), in *Dictionary of Modern Military Education*, 336.

¹¹⁷ Air Force Medical University, “Air Force Medical University.” Note that this source uses “supervisor” instead of advisor; however, this report uses advisor. Air Force Medical University, “Introduction on the University.”

¹¹⁸ “Post-doctoral” (博士后), in *Dictionary of Modern Military Education*, 331.

¹¹⁹ Air Force Medical University, “Air Force Medical University”; Air Force Medical University, “Academic Departments.”

¹²⁰ The three-year professional education program known as (大专) is a post-secondary educational program in China that grants a non-degree diploma upon completion of all requirements. It is roughly an equivalent to the Associate’s Degree granted in the United States.

¹²¹ “Professional Degree” (专业学位), in *Dictionary of Modern Military Education*, 326.

¹²² “Professor” (教授), in *Dictionary of Modern Military Education*, 407.

¹²³ The two-year educational program known as (中专) is a secondary vocational educational program that grants a diploma upon completion of all requirements. It focuses on providing vocational and technical job training.

¹²⁴ “Specialties” (专业), in *Dictionary of Modern Military Education*, 175.

¹²⁵ Air Force Medical University, “Air Force Medical University”; Air Force Medical University, “Academic Departments.”

¹²⁶ *Ibid.*

¹²⁷ Civilian academic institutions, as well as the PLA, also translate *xueyuan* as school and institute. The translation is not always consistent, even in the organization’s official website that has an English tab, which often causes confusion in English-language articles, whereby one article will use academy and another will use college or school.

¹²⁸ *Science of Air Force Training*.

¹²⁹ *Science of Air Force Training*, 252.

¹³⁰ The Air University's Air and Space Basic Course is for second lieutenants, Squadron Officer School for captains, Air Command and Staff College for majors, and Air War College primarily for lieutenant colonels. See <http://www.au.af.mil/au/facts.asp>.

¹³¹ Yuan Wei, Zhang Zhuo, ed. *History of the Development of Chinese Military Academies and Schools* (Beijing: National Defense University Publishing House, July 2001), 914-915. *Science of Air Force Training*, 252-253.

¹³² "System of Cadre Training at Different Levels," *Military Cadre Work* 2006, 119.

¹³³ "Air Force Radar College" and "Guilin Air Force College," in *People's Liberation Army Air Force Officer's Handbook* (中国人民解放军空军军官手册) (Beijing: Blue Sky Press, November 2006), 334-337.

¹³⁴ "System of Cadre Training at Different Levels," *Military Cadre Work* 2006, 119.

¹³⁵ "System of Cadre Training at Different Levels," *Military Cadre Work* 2006, 119.