PEOPLE'S LIBERATION ARMY AIR FORCE 2010

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Preface

This handbook is based on information compiled from open source Chinese publications, as well as discussions with Chinese military officials and US academicians. The intent of the study is to educate US Air Force members about China's People's Liberation Army (PLA) Air Force (PLAAF) beyond weapon systems, equipment, and order of battle information. The handbook focuses on the PLAAF's history, leadership, organizational structure, political work system, personnel, education, training, logistics and maintenance, quality-of-life, and foreign relations. It also discusses each of the PLAAF's four branches—aviation, surface-to-air missile, antiaircraft artillery, and airborne, but does not provide information on specific weapon systems and equipment. This handbook complements the Office of Naval Intelligence's handbook on the PLA Navy *China's Navy 2007*, and Dennis Blasko's *The Chinese Army Today*, on the PLA's ground forces.

Much like the PLA as a whole, the PLAAF has been undergoing transformational change over the past decade, transforming itself from a poorly equipped and trained organization into an increasingly capable fighting force. Dramatic changes have occurred, and continue to occur, in the areas of mission, organizational structure, personnel, education, training, and equipment.

Transformation in the PLAAF began with a change in mission and expectations; from a force focused on territorial air defense, to a force with growing regional strike missions and capabilities, and long-term expectations of being able to perform extra-regional missions supporting PRC national objectives.

To help accomplish this growing mission set, the PLAAF has focused on increasing the education and training levels of its officer corps and enlisted force. The PLAAF has become a much more professional force, still working to deal with monumental organizational, cultural and hardware changes.

Since the late 1990s, the PLA as a whole has begun to move toward what it calls integrated joint operations among its three services—Army, Navy, and Air Force—and the Second Artillery Force, which is an independent branch. The trend has moved from creating joint doctrine, to establishing joint command, training, and logistics organizations, and joint training zones. The latest step occurred in 2009, when the PLA implemented a new revision of its *Outline of Military Training and Evaluation (OMTE)*—a series of regulations guiding how training will be organized, implemented, and evaluated. This current *OMTE* emphasizes joint training, training in Complex Electromagnetic Environment (CEME), and realism in training, including increased use of opposition forces (known as Blue Force).

The PLAAF has transformed from an overly-large technologically inferior force, and is emerging as a well equipped and increasingly well trained force, still possessing some identifiable shortcomings and weaknesses. All indicators point to the continued improvement of the PLAAF over the next decade, to the point where China is expected to have one of the world's foremost air forces by 2020.

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Acronyms and Abbreviations

1st Lt	First Lieutenant
2nd Lt	Second Lieutenant
AAA	Antiaircraft artillery
ADF	Air Defense Force
AEW&C	Airborne Early Warning and Control
AFMAN	Air Force Manual
AFSC	Air Force Specialty Code
AFDD	Air Force Doctrine Document
AMS	Academy of Military Science
AOC	Air Operations Center
AOR	Area of responsibility
ASVAB	Armed Services Vocational Aptitude Battery
ATC	Air traffic control
C4ISR	Command, control, communications, computers, intelligence, surveillance, and reconnaissance
CC&D	Camouflage, Concealment, and Deception
CCP	Chinese Communist Party
Cdr	Commander
CGS	Chief of the General Staff
CMC	Central Military Commission
Col	Colonel
CP	Command Post
Capt	Captain
CS	Chief of Staff
CSAF	Chief of Staff, U.S. Air Force
CYL	Communist Youth League
DCGS	Deputy Chief of the General Staff
DPC	Deputy Political Commissar
ECM	Electronic countermeasures
ELINT	Electronic intelligence
FM	Field Manual
GAD	General Armament Department
GCI	Ground controlled intercept
Gen	General
GLD	General Logistics Department
GPD	General Political Department
GS	General Schedule
GSD	General Staff Department
HQ	Headquarters
IFR	Instrument flight rules
JFACC	Joint Force Air Component Commander
KMT	Kuomintang/Chinese Nationalist Party
Lt Col	Lieutenant Colonel
Lt Gen	Lieutenant General
Maj	Major
Maj Gen	Major General
MASINT	Measures and signals intelligence
MND	Ministry of National Defense
MOOTW	Military Operations Other Than War
MR	Military Region
MRAF	Military Region Air Force
MUCD	Military unit cover designator
MWR	Morale, Welfare, and Recreation
N/A	Not applicable; no information available
NCO	Noncommissioned Officer
NDSTC	National Defense Science and Technology Commission
NDU	National Defense University
NPC	National People's Congress
OJT	On-the-job training
OMT	Outline of Military Training
OMTE	*Outline of Military Training and Evaluation*
OPFOR	Opposition force
PACAF	Pacific Air Forces
PAFD	People's Armed Forces Department
PC	Political Commissar
PLA	People's Liberation Army
PLAAF	People's Liberation Army Air Force
PLAN	People's Liberation Army Navy
PME	Professional Military Education
POL	Petroleum, oil, and lubricants
PRC	People's Republic of China
RDA	Research, Development, and Acquisition
RMA	Revolution in Military Affairs
RMB	Renminbi
S&T	Science and Technology
SAM	Surface-to-air missile
SCO	Shanghai Cooperation Organization (China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan)
SLOC	Sea line of communications
SIGINT	Signals intelligence
Sr Col	Senior Colonel
TDY	Temporary duty
UCMJ	Uniform Code of Military Justice
U.S.	United States
USAF	U.S. Air Force
USAFA	United States Air Force Academy
USD	U.S. Dollars
VFR	Visual flight rules

Introduction

Changing PLA, Changing PLA Air Force

...We should keep deepening and broadening preparations for military struggle, quicken the pace of the modernization work of the troops, and keep enhancing the capability of accomplishing diversified military tasks with winning localized wars under informatized conditions as the core…

— Hu Jintao to PLA Air Force Officers Attending
11th PLA Air Force Party Congress
22 May 2009

An Air Force in Transition

The People's Liberation Army Air Force (PLAAF) is an organization undergoing a series of major transitions and significant changes. Like the rest of the Chinese armed forces, change in the PLAAF is happening across a wide front and in myriad endeavors: in operational matters, in institutional affairs, and in the acquisition of new capabilities. Today, the PLAAF is more operationally capable than at any time in its past, and it is enjoying the fruits of years of focused and sustained reform and modernization. Concurrently, the PLAAF is coping with the inevitable dislocations and uncertainties attendant to institutional change on a grand scale, and it remains challenged in many areas.

The subsequent chapters of this handbook will take the reader inside the PLAAF as an institution: its history, organization, personnel, and platforms. It will describe how the PLAAF recruits, educates, and trains its personnel. Also covered will be many of the unique institutional attributes of the PLAAF, such as the role of the Chinese Communist Party (CCP) in the military. Before doing so, however, it is important to provide a larger context for the environment in which the PLAAF operates as an institution, for it does not exist in a vacuum. Many of the most significant reforms and initiatives the PLAAF has undergone in recent years, and which it continues to pursue, are the result of changes mandated from above across all of the organizations that comprise the greater PLA. This chapter provides that larger context.

Retooling the PLA to Engage in 21st Century Operations

The years 1993, 2002, and 2004 represent important benchmarks for Chinese military modernization as well as for the PLAAF. In 1993, the leadership of the Chinese Communist Party (CCP) and the PLA issued to the Chinese armed forces the equivalent of a new national military strategy. The objective in promulgating "The Military Strategic Guidelines for the New Period" was to refocus China's military modernization objectives across, and well into, the new century to enable the PLA to fight and win wars based on high-tech weapons and joint operational concepts. In 2002, the entire PLA was told to rethink how it would incorporate 21st century information technologies and operations in outer space, cyber space, and in the electromagnetic spectrum

to conduct information-intensive operations—"Local Wars Under Informatized Conditions," in the parlance of the PLA. In 2004, the PLA Air Force, for the first time in its history, promulgated a service-specific aerospace strategy known as "Integrated Air and Space Operations, Being Prepared for Simultaneous Offensive and Defensive Operations." Also in 2004, the CMC directed the PLA to develop high-tech conventional warfighting capabilities as well as preparing for nontraditional security operations. "The Historic Missions of Our Military in the New Period of the New Century," articulated by PRC President and CCP leader Hu Jintao in 2004, provided the PLA with a mandate to think beyond conventional warfighting scenarios.

The objective of these important decisions, and subsequent key directives, has been to focus Chinese military modernization and reform efforts on making the PLA a more operationally capable and professional force. Overall, since 1993, the Chinese armed forces have been engaged in a long-term effort to transform the PLA into a force that can do two things. First, on one end of the operational spectrum, the PLA has been retooling to be able to fight and win high-tech 21st century wars. Secondly, at the other end of the operational spectrum, the CMC charged the Chinese armed forces to develop the capacity to engage in nontraditional security operations. The PLA, literally borrowing a term previously used by the U.S. armed forces, now speaks of engaging in "Military Operations Other Than War" (MOOTW).

Drivers of PLA Modernization

The impetus for China's ongoing military modernization program has both capabilities-based and contingency-based dimensions.

Capabilities-based Modernization: Fighting and Winning High-Tech Wars

As a capabilities-based endeavor, PLA modernization is focused on trying to catch up over time with advanced foreign militaries in order to be able to credibly engage in high-tech 21st century combat, as they understand it. In the late 1980s, the Chinese began to study the changing nature of modern warfare as demonstrated by the Europeans and the Americans in small wars (Falklands) and operations (Grenada, Gulf of Sidra). They also carefully followed Soviet operations in Afghanistan. More than anything else, however, American operations in the first Gulf War had a galvanizing impact on PRC military leaders. *OPERATION DESERT STORM* (1991) shocked the PLA into the realization that, if it did not begin to focus on being able to engage in high-tech, information-age warfare, then it would fall even further behind the world's modern militaries than it already had. Hence, the CMC promulgated a new national military strategy, "The Military Strategic Guidelines for the New Period," in 1993, just two years after the first Gulf War concluded. Subsequent lessons learned by PLA analysts following NATO operations in the Balkans (1999) and U.S. and coalition operations in Afghanistan (2001) and Iraq (2003) have also been incorporated into PLA thinking. As a result, the PLA is currently focusing its efforts on equipping and training to wage wars that are:

- Fought for limited political objectives and localized in geographic scope.

- Short in duration but decisive in strategic (political) outcome. A single campaign may decide the entire war.
- Predicated upon mobility, speed, deep reach, and demanding a highly intense tempo of operations.
- Characterized by high-lethality, high-technology "smart" munitions causing high levels of destruction.
- Logistics-intensive with high resource-consumption rates. Success will be as much a function of combat sustainability as capability to inflict damage upon the enemy.
- Critically dependent upon information, C4ISR, and demanding near-total battle space awareness.
- Fought simultaneously in all of the battle space dimensions—to include outer space, cyber space, and the electromagnetic spectrum—and will be fought on nonlinear battle lines with highly vulnerable deep rear areas.

Significantly, for the first time in its history, the Chinese military is now focusing on learning how to operate as a joint force conducting joint service campaigns.

These *aspirational* capabilities-based characteristics of modern warfare represent a major challenge to PLA modernizers. Historically, the wars the PRC has engaged in and prepared for have been long wars of attrition that have been manpower and unit intensive; they have been predicated upon an assumption of a land-based invasion of China proper. Consequently, the PLA has traditionally been a ground forces-centric organization.

Contingency-based Modernization: Aerospace and Maritime Intensive

As a function of contingency-based planning, since the 1990s, PLA modernization has been driven to a large extent by the operational requirements of a Taiwan scenario, including the possibility of a U.S. intervention. PRC saw the need to develop credible deterrent options, as well as actual warfighting capabilities should the worst come to pass. Chinese concerns about Taiwan have provided a sense of urgency to military modernization in the PLA, and it has allowed PLA leaders to make bureaucratically tough decisions that otherwise would have met with internal resistance. Examples would be the various downsizings of the PLA, reorganizations that left officers without assignments, and tougher standards for promotion.

Taiwan, however, is not the only regional concern PLA planners believe they face. They worry about Japan. Where the U.S. sees an ally in Tokyo, the Chinese see a regional power with suspect motives and a very capable navy and air force. Regardless of warming political ties, India (a nuclear power since 1998) is also viewed by the Chinese military as a historical nemesis that is growing in technological prowess and whose navy, the Chinese believe, has expansive aspirations in the Indian Ocean—astride the sea line of communications (SLOC) upon which China depends for its imported oil.

Beijing is also one of several claimants in the South China Sea to islands, atolls, and resources. Since the 1970s, the South China Sea has been a locus of military incidents between China, Vietnam, and the Philippines. Also on the minds of PLA planners is the fact that China's economic center is now on its eastern coast. In the course of changing over to an export-driven market economy, Beijing's economic center of gravity has shifted from deep in the Chinese interior, where it would be protected from a potential Soviet land invasion during the 1960s and 1970s, to the eastern seaboard. From Dalian in the north to Hainan in the south, China's eastern seaboard, its gold coast, represents Beijing's strongest element of national power—its economy. This also presents a maritime and aerospace defense challenge for military planners, which is another reason why the PLA Navy has been given the mission of enabling the "…gradual extension of the strategic depth for offshore defensive operations" and the PLA Air Force has been charged

to provide "…early warning and reconnaissance, and strategic projection."

China's Changing National Security Interests

Another factor affecting PLA modernization decisions is Beijing's changing assessment of what constitutes its national security. PRC President and CCP head Hu Jintao's promulgation of "The Historic Missions of Our Military in the New Period of the New Century" in 2004 linked China's growing global economic interests with increasingly global political interests, as well as global security interests. In addition to the PLA's traditional missions (defense of the CCP, defense of Chinese territory, internal stability, and internal humanitarian assistance and disaster relief operations), "The Historic Missions" have an unprecedented external focus. Whereas the PLA traditionally concentrated almost solely on the defense of *Chinese territory,* it is now also being asked to protect *Chinese interests*. As described in Chinese writings, these interests include the protection of Chinese nationals overseas and Beijing's overseas investments, securing resources, the protection of the SLOCs vital to PRC trade and energy imports, as well as defending Chinese equities in cyber space and outer space. The unprecedented anti-piracy operations the PLA Navy began conducting off the Horn of Africa in December 2008 are a clear manifestation of the types of new missions the PLA is being asked to take on and may be a portent of where the PLA and PLAAF could be headed as an incipient expeditionary force.

> "First, compared with the extension of national interests, the means to protect these interests are too weak. The present level of military force can hardly meet demand. China's military forces lag far behind those of developed nations in its ability to tackle traditional security threats, fight terrorism, deliver humanitarian aid in case of international disaster, undertake UN peace-keeping operations, and help overseas Chinese evacuate in an international crisis."
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> RADM Yang Yi, Director, Institute for Strategic Studies, PLA NDU, "Peaceful Development Strategy and Strategic Opportunity," in Contemporary International Relations, Vol. 16, September 2006.

What This Means for the Chinese Armed Forces

The combined demands of (1) the PLA's capabilities-based assessments, (2) its contingency-based assessments, and (3) the operational exigencies associated with the PLA's "new missions" has resulted in portions of the Chinese armed forces undergoing a series of fundamental paradigm shifts.

Strategically: In order to cope with the nature of modern warfare, deal with the PLA's most important operational contingencies (most of which are increasingly maritime and aerospace in nature), and secure China's national interests in a globalized world, the PLA can no longer be merely a continental military power. China must now invest in its maritime and aerospace capabilities.

Organizationally: The PLA Air Force, PLA Navy, and Second Artillery are now being described as "strategic" services ("strategic force" in the case of Second Artillery) with strategic-level missions in their own right. This is in sharp contrast to their past roles, when the navy and air force were viewed as primarily operational and tactical assets to support ground operations. Today, they are increasingly the beneficiaries of state investments in people, weapon systems, and supporting technologies. The PLAAF, PLAN, and Second Artillery are seen by Beijing as essential means to extend the PLA's operational reach.

Doctrinally: The PLA is transitioning from single-service combined-arms operational concepts to joint warfighting concepts that attempt to integrate ground, naval, air, and missile forces, and which include cyber space, outer space, and the electromagnetic spectrum as legitimate battle spaces in which future conflicts may be fought. The PLA has been equipping and training to fight future wars that are short in duration and technology-intensive off the Chinese littoral. This engenders some fundamental doctrinal shifts from the PLA's operational experiences since 1949.

What This Means for the PLA Air Force

The PLA's aspirations to fight as a joint force, the imperative to extend its operational reach, the exigencies of high ops-tempo campaigns, the requirements for precision strike, and the growing importance of cyber space and outer space in Chinese operational thinking are combining to create an environment conducive to change in the PLAAF. Like the PLA Navy, the top military leadership of China is looking to the PLAAF to overcome the traditional lament of Chinese military planners that the PLA suffers from "short arms and slow legs." What follows are examples of key developments in the PLA Air Force in recent years that indicate the PLAAF is attempting to equip, organize, train, and man the force in ways that directly support larger PLA modernization objectives.

PLA Doctrinal Paradigm Shift

From	*To*
Wars of Attrition	Wars of Quick Campaigns
Combined Arms	Joint Operations
Concentration of Force (Mass)	Concentration of Capabilities (Systems)
Focus on Enemy's Weak Points	Focus on Enemy's Strengths
Emphasis on Defense	Primacy of Offense
Ground Force-Centric	Maritime and Aerospace
Absorbing Blows	Operational Preemption

PLAAF Strategy and Doctrine: New Concepts for New-Type Warfare

At the strategic level of discourse, the PLAAF today is beginning to rethink the roles and missions it must assume, and the capabilities it must have, to conduct aerospace operations that will achieve Beijing's larger national objectives. Exactly what is meant when the PLAAF is exhorted to become a "strategic air force" is still unfolding. What is clear at this point is that the PLAAF is no longer viewed as being solely a tactical adjunct to ground force operations or a service mainly concerned with territorial air defense. It is evident that the leadership of the PLA is looking to the PLAAF to be capable in the future of offensive operations in larger joint campaigns and even to "… execute long-range precision strikes and strategic projection operations"—although at the moment, these latter two missions are challenging. In 2004, in recognition of the new emphasis the PLA leadership places on the aerospace dimensions of warfare, the PLAAF was finally given its own service-level strategy, known as "Integrated Air and Space, Being Prepared for Simultaneous Offensive and Defensive Operations." Bureaucratically, this was a big moment for the PLAAF. The PLA Navy was issued its own service strategy in 1986 ("Offshore Active Defense") and the PLAAF had lobbied unsuccessfully since 1987 to follow suit. By 2004, that battle was won.

At the operational level of discourse, 1999 was a watershed year. In 1999, the PLA made major revisions to its long-standing doctrinal concepts and guidance for combat at the operational level of war (campaigns). It did so in order to prepare to fight the type of future conflicts it assessed as most likely.

The *New-Generation Operations Regulations* issued to all of the services were intended to redirect PLA thinking about the operational art into the age of high-tech warfare. In short order, the PLAAF followed suit with the publication of *The Outline of Campaigns of the Chinese People's Liberation Army Air Force*. While not publicly available, this document most likely reflected those new aerospace operational concepts and principles, as well as command and control arrangements, the PLAAF intended to introduce in order to comport with the new trend toward high ops-tempo joint operations. In short, operationally, the PLAAF began to make its leap from a doctrinal mindset of single-service combined-arms operations to the more complex and coordination-intensive realm of joint operations and from a previous focus on the tactical to an added dimension of operational-level awareness.

Air Force Leaders: Beginning to Get Joint Experience

Another noteworthy trend in the past few years is the assignment of PLA Air Force general officers to important national-level military assignments. While this phenomenon does not speak to what the PLAAF as a service is doing to enable the larger objectives of the greater PLA, it does speak to how the PLAAF is beginning to be viewed as an important player. The PLA has traditionally been dominated by "army green" and, to a certain extent, it still is. However, more blue uniforms (PLAAF) and white uniforms (PLA Navy) are showing up in venues that matter as the greater PLA reflects more jointness in the make-up of its national-level leadership relative to the past. In this regard, the air force is showing up in places of note. For example:

Integrated Air and Space Operations

What is meant by the phrase "Integrated Air and Space Operations" is still somewhat unclear. PLAAF writings seem to indicate a desire by the PLAAF to integrate the use of space into their air operations, with a particular emphasis on the informationalization aspect. PLAAF writings indicate a view that they will naturally be users of space-based capabilities; however it is uncertain what role the PLAAF sees for itself in operating and managing space capabilities. Specifically, in March 2004, the PLAAF published *Air and Space Battlefield and China's Air Force*, following in August 2006 with *The Science of Integrated Air and Space Operations*. Although the first book did not provide linkage between space and the PLAAF, the last chapter of the second book, which contains forewords by then PLAAF commander General Qiao Qingchen and political commissar General Deng Changyou, lays out six steps for China in establishing a model in which "the PLAAF is the leading organization for 'integrated air and space', the PLAAF is…the leading organization to manage China's military space force, and the PLAAF is the primary force for [air and space] combat." Though the book focused on managing the "informationalization" aspects of the space program, it does not indicate that the PLAAF wants to manage the launch sites, satellite development, and missile program. Space and counter-space capabilities are still relatively new to the PLA, and a variety of writings would indicate that there remains uncertainty about who within the PLA will ultimately manage and operate space and counter-space capabilities.

- Since 2004, the commander of the PLAAF (along with the commander of the PLA Navy and Second Artillery) has been a member of the Military Commission of the Central Committee of the Chinese Communist Party (CMC)—the national command authority for the PRC.
- In 2003, PLAAF Lieutenant General Zheng Shenxia became the first air force officer appointed as head of the prestigious PLA Academy of Military Science (AMS).[1] The AMS is the PLA's highest-level institution charged with the development of PLA strategy and doctrine. It serves as a think tank directly subordinate to the CMC and both drives and executes major initiatives of PLA-wide reform and modernization in the realms of military strategy, the operational art, and tactics.
- In 2006, PLAAF Lieutenant General Ma Xiaotian became the first air force officer appointed as Commandant of the PLA National Defense University (NDU). The PLA NDU is the highest level of joint professional military education. Its students include general officers and senior field grade officers of all services, and NDU's research institutes are involved in cutting edge work on all aspects of military affairs. In 2007, Ma became one of the four Deputy Chiefs of the General Staff with the important portfolio of intelligence and foreign affairs for the entire PLA.
- In other national-level positions, in the last few years, PLAAF general officers have also been appointed to various Deputy Director positions in the General Political Department (GPD) and General Logistics Department (GLD). Hence, they are increasingly involved in developing PLA-wide policies to a greater relative degree than in the past.
- Moreover, since the early 1990s, the practice of concurrently dual-hatting each Military Region Air Force commander as a Military Region deputy commander has been institutionalized.

[1] His successor in 2007, Lieutenant General Liu Chengjun, is also a PLAAF officer.

Platforms and Weapons: Multirole Aircraft for Expanding Mission Sets

In order to enhance the operational reach of the PLAAF and enable some of the new key doctrinal concepts that operational planners are working with, the air force has been fielding a variety of advanced multirole combat aircraft. These aircraft are better suited to flying in all-weather conditions over long distances, carrying better munitions, and are more adept at operating in a complex electromagnetic environment. For example, the PLAAF has already deployed FB-7A fighter-bombers, as well as other multirole and strike aircraft, such as the F-10 and Su-30MKK. It is now fielding indigenously produced F-11s, variants of the Russian Su-27, which the PLAAF first purchased in the 1990s. The PLAAF is also upgrading its B-6 bomber fleet (originally adapted from the Russian Tu-16 Badger) with a new variant, which, when operational, will be armed with a new long-range cruise missile. In addition, the PLAAF is upgrading its F-8 and F-7 fighter force with new avionics and missiles.

The PLAAF has only a limited aerial refueling capability, which is limited to operating with the F-8 and F-10; however, it has been trying to purchase Il-76 tankers from Russia for several years. It also has a limited number of Il-76 transports that it bought in the early 1990s, but is trying to acquire more from Russia to provide greater strategic airlift capability, including for the airborne forces (which are part of the PLAAF). China's aviation industry is developing several types of airborne early warning and control (AEW&C) aircraft. This includes the KJ-200, based on the Y-8 transport, which will also be able to perform intelligence collection and maritime surveillance missions, and the KJ-2000, based on the Russian A-50 airframe.

On the air defense front, the PLAAF has received eight battalions of upgraded Russian SA-20 long-range (200 km) SAM systems since 2006. The SA-20 system reportedly provides limited ballistic and cruise missile defense capabilities. Russian press reporting suggests the PLAAF could receive another eight battalions by 2012. Overall, the PLAAF is making notable strides in extending its strategic depth and enhancing its operational reach.

Pilots, Crews, and Training: Transitioning to New-Generation Aircraft

It is both an exciting time and a taxing time to be a pilot, flight crewmember, or aircraft maintenance manager in the PLAAF. As the Chinese air force moves out smartly to meet the larger operational objectives of the PLA, change ultimately comes down to pushing the capabilities of airframes and the personnel who fly them or maintain them. For pilots, new training standards and regimens are requiring them to fly longer sorties in terms of time and distance, as well as mastering the abilities to fly over water, fly at night, fly at lower altitudes, and train in a complex electromagnetic environment. They are also flying from airfields other than their home bases. These are all major paradigm shifts for PLAAF pilots.

Overall, for PLAAF air units, the 2000s has been an important period of transition during which older-generation aircraft have been replaced or supplemented by new aircraft with significantly better capabilities. Transitioning to these new-generation aircraft has been one of the more daunting challenges facing PLAAF air units—not only for the pilots, but also for maintenance and logistics support personnel. As new, more complex aircraft have entered the inventory, maintenance demands have gone up, and retraining to fly and maintain these aircraft has been the order of the day. In some cases, the pilots assigned to the new aircraft not only had to fly the aircraft, but they have also had to become qualified as flight instructors and as flight commanders in the tower. Pilots, maintenance, and logistics personnel have all had to help write tailored training manuals for flight operations and maintenance.

Finally, as is the case for the rest of the PLA, the PLAAF is now placing greater emphasis on more realistic combat training regimens than it has in the past, adopting a "train as you will fight" approach. For all of the branches of the PLAAF, this has meant more plausible exercise scenarios, less scripted exercises than had previously been the norm, increasing use of "Blue" OPFOR units, practicing operations in a hostile cyber and electromagnetic environment, expanded use of simulators, and more emphasis on lessons learned.

Personnel: 21st Century Airmen for 21st Century Warfare

Recruiting and retaining the personnel the PLAAF needs to fight high-tech 21st century warfare remains a tough challenge, tougher in some ways than acquiring the airframes the air force must have. That said, like the rest of the PLA, the PLAAF has put programs in place aimed at attracting, educating, and retaining the people it needs—people with increasing levels of technical competency and general education.

On the commissioned side of the house, the PLAAF, mirroring programs throughout the greater PLA, is working to diversify the sources and manpower pools from which it draws its officers. Over the past decade, the old paradigm of officers only coming from PLAAF colleges has been broken. While graduates from the PLAAF's nearly two dozen military colleges still likely comprise the bulk of the officer corps, civilian colleges are increasingly seen as prime suppliers of the tech-savvy officers the PLAAF needs to meet future combat requirements. In 2009, the PLAAF asserted that it had developed programs with eighteen civilian universities and colleges as part of the PLA-wide "National Defense Student" program. Like the PLA as a whole, the PLAAF's goal in 2010 is to have

60% of all new officers come from civilian college graduates. Whether the PLAAF will meet that objective remains an open question.

Another prime example of new personnel policies aimed at improving the human capital of the PLAAF concerns Noncommissioned Officers. In order to retain its most capable enlisted personnel, raise their levels of professional proficiency and general education, and compensate for reductions in the size of the officer corps, the PLAAF has taken advantage of the new professional NCO corps program that the PLA established for all services and branches in 1999. For the first time in PLA history, there is now a 30-year career track for NCOs. This track has codified basic practices such as: assignment and appointment; selection and recruitment; training; education; daily management; evaluation; remuneration and rewards; accompanied family policies; and retirement. This is very different from the ad hoc approach to NCOs previously taken by the PLA in which no NCO could serve more than 16 years on active duty. Moreover, since 2003, the PLAAF has established programs for the direct recruitment of civilian college graduates into the PLAAF NCO corps to supplement the stream of NCOs coming from the conscription base.

Concluding Comments

It is clear that the PLAAF is going to become more operationally capable over time. That said, its transition from a primarily tactical asset to a "strategic air force" will not happen overnight or without problems along the way; there are weighty systemic and technological challenges that will guarantee a certain amount of friction. What we can state with some certainty is the following:

- The fundamental decisions the Central Military Commission makes for the entire PLA will continue to shape the major contours of future PLAAF reform and modernization programs—administratively and operationally. Therefore, any understanding of where the PLAAF will be in 5 to 10 years must factor in the bigger picture of where the PLA will be and why.
- Bureaucratically, because of historical precedents and how the Chinese defense establishment continues to be organized and managed, the PLAAF (like the PLA Navy) is unlikely to develop the very unique service persona or accrue the same degree of independence that characterize the services in the United States. That said, if the PLAAF links its institutional stature in the PLA system to where its general officers are placed at the national level, the importance of the battle space dimensions being managed, and the capabilities and contingencies the greater PLA is concerned about, then the PLAAF is going to continue to accrue bureaucratic gravitas over time.
- Operationally, the PLAAF is going to aim to extend its reach and its lethality in order to enable the joint operational concepts the greater PLA is adopting as it thinks through how to fight and win high-tech 21st century wars. Regardless of the shortcomings it may exhibit today, the vector clearly points towards enhanced range and capabilities.
- Finally, the PLAAF is a service the USAF must take seriously. It has the potential to be an air force, among other regional air forces, that will shape the future operational environment in the Asia-Pacific region and, perhaps one day, even beyond.

Chapter 1
Brief History

空军历史概论

The People's Republic of China established the PLAAF on 11 November 1949. Since then, it has established a headquarters in each military region. It has created fighter, bomber, ground attack, reconnaissance, and transport units, airborne forces, and a number of educational institutions. It merged with the Air Defense Force in 1957 and adopted a system of combining air operations with air defense. In the 1960s and 1970s, the Air Force developed the guiding principle of giving priority to the development of air defense forces, and gradually grew into an air force for territorial air defense. Since the 1990s, it has been in a phase of rapid development.

— China's National Defense in 2008

This chapter provides a brief history of the Chinese People's Liberation Army Air Force (中国人民解放军空军) or PLA Air Force (PLAAF). The chapter divides the information into two parts: the five periods of PLAAF history, and the four periods of combat history.

The PLAAF's history can be examined in terms of doctrine, leadership, organizational structure, personnel, training and education, combat operations, weapon systems and equipment, logistics and maintenance, and foreign relations. This chapter briefly discusses PLAAF historical highlights in some of these areas. Other chapters cover the details.

Although China did not formally establish the PLAAF until 1949, the Chinese Communist Party (CCP) became involved in aviation as early as the 1920s. The concept for the PLAAF did not actually take shape, however, until the early 1940s at Yan'an. The USSR greatly influenced the PLAAF's development by providing it with aircraft in the early 1950s. The Soviets also helped the PLAAF structure its organization, including its flight schools and operational units.

The Five Periods of PLAAF History

According to the *China Air Force Encyclopedia* and other PLAAF publications, the PLAAF organizes its history into the following five periods:

- Early Years: 1924 to 1949
- Founding Period: January 1949 to December 1953
- Overall Development: January 1954 to April 1966
- Cultural Revolution: May 1966 to October 1976
- Modernization: October 1976 to the Present.

The Early Years (1924-1949)

In September 1924, the Chinese Nationalist Party (Kuomintang/KMT) and CCP formed a united front to defeat the warlords and attempt to unify China. As part of that front, Sun Yat-sen's Guangzhou Revolutionary Government established an Aviation Bureau and a military flight school

Services and Branches

The PLA has three services (军种): Army, Navy, and Air Force, which are always listed in protocol order based on the date they were founded.

The PLAAF has four branches (兵种): aviation, surface-to-air missiles (SAMs), antiaircraft artillery (AAA), and airborne, which are always listed in protocol order based on what appears to be their importance.

The Second Artillery Force is an "independent branch" treated as a service.

Combined arms (合成 or 合同) means more than one branch within a service.

Joint (联合) means: two or more services; one or more services plus Second Artillery; two or more branches in the same service (combined arms); combined (multinational); or civil-military.

in Guangzhou, where two classes received a year of training. Following their graduation, China sent 18 cadets (9 KMT and 9 CCP) to the Soviet Union for 2 years of advanced flight training.

Two of those CCP cadets, Chang Qiankun (常乾坤) and Wang Bi (王弼), helped shape the PLAAF's future. They both served in the Soviet Air Force until September 1938, when they went to Dihua (today's Wulumuqi) in Xinjiang to serve as military instructors. In 1940, they transferred to Yan'an, where they later helped found the PLAAF.

In January 1941, the CCP's Central Military Commission (CMC) established the Air Force Engineering School, even though the CCP had no aircraft or airfields.[2] Wang Bi was the first commandant, and Chang Qiankun was the chief instructor. At Yan'an in May 1944, the CMC established a subordinate Aviation Section with Wang and Chang as the director and deputy director, respectively.

In May 1946, the CMC established the Northeast Old Aviation School in Mudanjiang, Jilin Province. The first class began in July 1946 with four basic trainers and a few advanced trainers. Many of the initial instructors and ground support personnel were Japanese Air Force members who had remained in China after Japan surrendered at the end of World War II in 1945. By July 1949, the school had trained 560 people (125 pilots and 435 ground support personnel). In late 1949, the CMC approved seven flight schools and the Soviet Union agreed to sell China 435 aircraft and to provide advisors for the schools. By then, the Chinese had also acquired 115 abandoned Nationalist aircraft.

In March 1949, the CMC upgraded the Aviation Section to an Aviation Bureau, with Chang as the director and Wang as the political commissar. On 11 November 1949, the CMC abolished the Aviation Bureau and formally established the PLAAF, which initially consisted of elements of various Army units. The PLAAF began to create subordinate departments within the headquarters and corresponding administrative Aviation Divisions in each of the existing military regions.

Liu Yalou (刘亚楼), who at the time was an Army unit commander, became the first PLAAF com-

[2] The actual name for the Central Military Commission (CMC) is the Military Commission of the Central Committee (中央军事委员会 or 中央军委) of the Chinese Communist Party.

mander, and Xiao Hua (肖华), who had experience as both an Army commander and political commissar, became the first PLAAF political commissar. The PLAAF appointed Chang Qiankun as a deputy commander and director of the Training Department. It also appointed Wang Bi as the deputy political commissar and director of the Aeronautical Engineering (aircraft maintenance) Department.

Founding Period (1949-1953)

During the Founding Period, the PLA was engaged in the Korean War. China referred to PLAAF units that participated in the war as the Chinese People's Volunteer Air Force. At the same time, the PLAAF was building up its organizational structure, personnel, equipment, logistics and aircraft maintenance support structure, and training and education institutions. For example, by 1953, the PLAAF had established 13 aviation schools, which had trained 5,945 flight crewmembers and more than 24,000 maintenance personnel. In addition, it had 28 air divisions and about 3,000 aircraft. The PLAAF also created its first airborne unit in 1950; it continued to expand until it was formally designated an airborne corps in 1960.

Overall Development Period (1954-1966)

Highlights during this period include:

- Merging the PLA Air Defense Force into the Air Force in 1957
- Moving forces into Fujian Province and engaging in air combat with Nationalist forces in the Taiwan Strait in 1958
- Creating the PLAAF's SAM forces in 1958
- Expanding the PLAAF Headquarters structure
- Establishing regional headquarters and air corps in various areas throughout China.

The number of PLAAF schools increased to 29. At this point, the PLAAF began writing regulations and teaching materials based on its own experience.

Cultural Revolution Period (1966-1976)

According to PLAAF writings, the force increased in size during the Cultural Revolution, but its overall development suffered.

The force's development suffered because of PLAAF commander Wu Faxian's (吴发宪) involvement with Defense Minister Lin Biao (林彪). Wu Faxian, who had been the PLAAF political commissar from 1957 to 1965, became the PLAAF commander in May 1965. He was concurrently a deputy chief of the general staff and a deputy director of the General Office in the CMC. While in these positions, he became a member of Defense Minister Lin Biao's clique. In Sep-

PLA Air Defense Force (1948-1957)

In 1948-1949, the PLA ground forces began deploying AAA units to various cities and established a subordinate Air Defense Department in each Military Region (MR). In October 1950, the CMC established the Chinese People's Volunteer Air Defense Force (中国人民志愿军防空军) and began deploying its AAA, radar, searchlight, and air surveillance units into Korea. In August 1955, the CMC formally established the PLA Air Defense Force (解放军防空军) as the PLA's fourth service. On 17 May 1957, the CMC merged the Air Defense Force and the Air Force into a single service with both aviation and air defense units. This is why the PLAAF still divides its combat forces into aviation and air defense (SAM, AAA, and radar).

PLAAF Functional and Administrative Departments

- 1949 to May 1955: The PLAAF had 6 first-level functional and administrative departments—Headquarters, Political, Training, Engineering, Logistics, and Cadre (Officer Personnel).
- May 1955: Added 4 departments—Schools Management, Procurement, Repair, and Finance.
- 1969: Reduced to 3 departments—Headquarters, Political, and Logistics.
- May 1976: Aeronautical Engineering Department became the fourth department—responsible for aircraft procurement and maintenance. In 1992, the name changed to the Equipment and Technology Department. In 1998, the name changed to the Equipment Department—responsible for development, procurement, and maintenance of all PLAAF weapon systems.
- Today, the PLAAF has 4 departments—Headquarters, Political, Logistics, and Equipment.

tember 1971, Lin Biao was involved in an alleged coup attempt against Mao Zedong. He reportedly fled in a PLAAF aircraft, which crashed in Mongolia. The CCP accused Wu Faxian of complicity and had its security forces immediately arrest him. The CCP tried him 10 years later and sentenced him to 17 years in prison. The PLAAF did not have a new commander until May 1973, when the CMC appointed Ma Ning (马宁), who was a Lanzhou MRAF deputy commander. Ma remained as the commander until March 1977.

During the 1960s, the PLAAF added new AAA, SAM, and radar units to its air defense force. In late 1965, it began deploying AAA units to North Vietnam. From January 1954 to 1971, the PLAAF created an additional 22 air divisions throughout China, for a total of 50. Although the PLAAF still had 50 air divisions during the 1980s, it has gradually reduced the number to 29.

Although the PLAAF has not provided specific numbers for its personnel for any given period, analysis of available data indicates that it had about 760,000 personnel in 1972, which the PLAAF states was the highest number in its history. During 1976, the PLAAF implemented a 190,000-man force reduction, bringing it down to around 570,000 by the end of the year.

Even though the size of the force grew from 1966 to 1976, its training and education institutions suffered serious setbacks. Prior to the start of the Cultural Revolution, the PLAAF had 29 schools. In 1969, the PLAAF shut down 12 of them and reduced flight training and exercises.

According to the PLAAF, the number of hours its fighter pilots flew annually during this decade hit record lows. Although regulations required about 123 flight hours annually, the actual number flown in 1970 was down to 30 to 40 hours. By 1977, however, flight hours had increased to an average of about 80 hours. The driving factors for the reduction in flight hours were the lack of training guidance from Beijing, lack of fuel and spare parts, and maintenance problems. In addition, the lack of political trust in the PLAAF during the Cultural Revolution negatively affected flight training.

Modernization Period (1976-Present)

In 1977, the CMC began implementing a major readjustment of the PLAAF in the areas of leadership, regulations, training, combat readiness, political work, discipline, aircraft maintenance, logistics, and headquarters staff work. The first step was to appoint Zhang Tingfa (张廷发), who had been the PLAAF political commissar since 1975, as the new PLAAF commander.

Under Zhang and Wang Hai (王海), who succeeded him in 1985, the PLAAF began reestablishing its training and education systems. Initially, during the early 1980s, PLAAF schools and colleges offered only 2-year secondary technical and 2-to-3-year senior technical degrees to its officers. Then, in 1982, the PLAAF awarded its first 4-year bachelor's degrees for officers. The PLAAF followed this by awarding its first master's degrees and first doctoral degrees in 1988 and 1990, respectively. However, even today, most officers not in the command track receive only a senior technical degree.

By 1986, the PLAAF had redesignated all of its remaining officer schools as colleges. In August 1986, it also created the PLAAF Dalian Communications Noncommissioned Officer (NCO) School, which remains its only NCO school today. In addition, various officer colleges offer secondary and senior technical degree programs for enlisted personnel.

Throughout its history, the PLAAF purchased most of its weapon systems from abroad or purchased Chinese-made systems that were based on foreign systems or included key foreign subsystems. During its formative years, the PLAAF acquired primarily defensive weapon systems to be able to provide an adequate air defense capability for major cities and industrial areas. In the late 1980s, as the PLAAF's operational-level doctrine began shifting toward the goal of being prepared for simultaneous offensive and defensive operations, it systematically sought to acquire specific weapons to meet these new requirements. For example, when the Russian arms market opened up in the early 1990s, the PLAAF began to purchase full systems, such as the Su-27, Su-30, and S-300 SAM. China's defense industry also purchased

PLAAF Academic Degrees

PLAAF officer colleges offer five types of degrees:

- Secondary technical degree (中专): A 2-year high school equivalency degree that is available only to enlisted personnel.
- Senior technical degree (大专): A 2- or 3-year degree equivalent to a U.S. associate's or vocational degree that is available to all enlisted personnel, as well as officers (primarily in the maintenance, support, and technical specialties).
- Bachelor's degree (本科): A 4-year degree that is available primarily for officers in the military/command track, as well as some officers in the maintenance, support, and technical tracks.
- Master's degree (硕士): Available to officers.
- PhD (博士): Available to officers.

technology from various countries to incorporate into the PLAAF's weapon systems and equipment.

The Four Periods of Combat History

Based on a review of Chinese military publications, the PLAAF organizes its combat history into the following four time frames:

- Korean War (December 1950 to July 1953)
- Territorial Air Defense of China (1954 to 1969) against American and Chinese Nationalist manned and unmanned aircraft[3]
- Air Defense in Vietnam (August 1965 to March 1969)
- Air Defense in Laos (1970 to November 1973).

The PLA Air Force has published two different sets of figures for the number of aircraft it claims to have shot down and damaged during these four periods:

The primary reason for the discrepancy appears to be the fact that the PLA had a separate Air Defense Force until February 1957, when it merged with the PLAAF. The Air Defense Force consisted of AAA, radar, searchlight, and air surveillance units. The number 3,818 includes aircraft shot down and damaged by both the Air Force and Air Defense Force. The smaller number (1,651) does not include aircraft shot down by the Air Defense Force prior to its merger with the PLAAF. No single PLAAF publication provides a consolidated breakdown of the total that equals 3,818. Based on a compilation of multiple PLAAF sources, Figure 1 summarizes the data available for each of the four periods and shows the breakdown between aviation and air defense forces. Based on this information, the PLAAF shot down and damaged 3,781 aircraft.

[3] From September 1959 to September 1967, Nationalist pilots reportedly flew 110 U-2 sorties over the mainland. The PLAAF claims that its SAMs shot down five U-2s flown by Nationalist pilots from September 1962 to September 1967.

There are also discrepancies between PLAAF and USAF reporting on the number of aircraft shot down and damaged by all sides during each period. The PLAAF claims that, during the Korean War and the 1958 Taiwan Strait Crisis, 236 of its own aircraft were shot down and 156 damaged by enemy fire. According to the USAF, United Nations forces shot down 976 enemy aircraft and lost 1,041 aircraft because of hostile action. However, Soviet pilots may have flown some of the aircraft shot down. For example, in 1993, a pair of Russian authors stated that Soviet losses totaled 345 MiGs. In addition, USAF reporting states that, in 1958, Nationalist pilots destroyed 32 aircraft and damaged 10 more, while losing only 4 of their own aircraft.

1979 Sino-Vietnam Border Conflict

Only a few PLA and PLAAF books have briefly discussed the PLAAF's role during the 1979 border conflict with Vietnam. One PLA history book states, "Based on the CMC's guidance, PLAAF units conducted patrols within China's territory." Although

Figure 1. Combined Air Force and Air Defense Force Data for 1950-1973

	Shot Down	Damaged
Korean War		
PLA Air Defense Force	413	1,559
PLAAF Aircraft	330	95
Territorial Air Defense		
PLAAF Aircraft	23	16
PLAAF Air Defense	90	177
Vietnam War		
PLAAF Air Defense	579	479
Laos		
PLAAF Air Defense	17	3
Total (3,781)	**1,452**	**2,329**

the PLAAF reportedly deployed about 1,000 aircraft to the border area, neither the PLAAF nor the Vietnamese Air Force flew any combat missions in direct support of their ground troops; nor did the PLAAF's air defense forces engage any Vietnamese aircraft along the border.

One PLAAF history book states, "From 17 February to 16 March 1979, the PLAAF dispatched 3,131 groups of aircraft and flew 8,500 sorties on the Chinese side of the border." According to the *China Air Force Encyclopedia:* "Transport aircraft performed a very crucial logistics support function, flying 228 sorties, carrying 1465 troops and 151 tons of materiel. The number of sorties also included a large number of helicopter sorties, including those used to transport over 600 wounded soldiers from frontline hospitals to Nanning."

One possible explanation for the relative scarcity of reporting on the 1979 border conflict with Vietnam is that the PLA has yet to agree upon an approved history of the event. Former PLAAF commander Wang Hai's autobiography did not contain any reference to the conflict, even though he was the Guangzhou MRAF commander at the time.

Last Combat Engagements

The last time PLAAF aircraft, SAMs, or AAA shot down an enemy aircraft was over two decades ago. According to PLAAF data, the PLAAF's last combat engagements with various weapon systems were as follows:

- The last time a PLAAF aircraft shot down a manned aircraft was in April 1967, which involved a U.S. Navy F-4 near Guangxi Province in southern China.
- The last time a PLAAF AAA unit stationed inside China shot down a manned aircraft was May 1967, which involved a U.S. Navy A-4 near Guangxi Province.
- The last time a PLAAF SAM shot down an aircraft was on 5 October 1987, when a Vietnamese MiG-21 crossed the border of Guangxi Province.

Because it has been so long since the PLAAF has engaged in combat, very few, if any, of its senior leaders possess combat experience. For example, the current PLAAF commander, General Xu Qiliang, joined the PLAAF in 1966 at the age of 16—and the last time PLAAF aircraft participated in large-scale air-to-air combat was in 1958, when they fought Nationalist forces over the Taiwan Strait.

Chapter 2
Organizational Structure

空军组织体制

In peacetime, the PLA Air Force practices a leadership system that combines operational command with Air Force development and management. This system consists of the Air Force Headquarters, seven military region air force headquarters, and corps- and division-level command posts, plus operational divisions, brigades, and regiments. It also has an airborne corps, as well as various education, research, and testing institutions.

— China's National Defense in 2008

This chapter examines the PLA Air Force's organizational structure, to include the following four topics:

- The PLA's grade and rank system
- Leadership and command structure
- Headquarters' organizational structure
- Unit designators.

The organizational structure for the PLAAF's four branches—aviation, surface-to-air missile (SAM), antiaircraft artillery (AAA), and airborne—and the five types of specialized units—communications, radar, electronic countermeasures, chemical defense, and technical reconnaissance—are covered in separate chapters.

As a starting point, it is important to know that officer grades, not ranks, are the key to understanding the PLA and PLAAF's organizational structure. The PLA has 10 officer ranks and 15 grades. The PLA assigns grades not only to officers and billets, but also to every PLA organization. This system, which all PLA services and branches use, is based on ground force terminology. Familiarity with this system is the key to understanding the PLAAF's organizational structure. The PLA's grade system parallels the civilian government cadre system of grades, so that PLA officers and their government counterparts are aware of each other's place in the bureaucracy. It also allows officers to transfer to comparable-grade civilian positions if they leave the military before their mandatory retirement date.

There are four key differences between the U.S. military and the PLA in terms of their use of rank and grade:

- First and most importantly, in the PLA, rank is not as important as grade. The PLA uses rank insignia primarily as a visual cue to rapidly determine where one's approximate status is within a group and for interacting with foreign militaries.
- Second, the PLA assigns billets based on one's grade, not rank.
- Third, promotion in grade, not rank, is what determines how one moves up the career ladder. For example, moving from senior colonel to major general while remaining in the same grade is not as important as moving from one grade to the next, even if you retain the same rank.

- Finally, the PLA assigns every organization, not just officers and billets, a grade. Therefore, the grade system is what defines the relationship among organizations.

The PLA's Grade and Rank System

Figure 2 shows the 10 PLAAF officer ranks and their distribution within the flag-rank, field-grade, and company-grade categories.

Figure 2. Ten Officer Ranks and Categories

Flag-Rank Officer (将官)	General (上将) ★ ★ ★
	Lieutenant General (中将) ★ ★
	Major General (少将) ★
Field-Grade Officer (校官)	Senior Colonel (大校)
	Colonel (上校)
	Lieutenant Colonel (中校)
	Major (少校)
Company-Grade Officer (尉官)	Captain (上尉)
	1st Lieutenant (中尉)
	2nd Lieutenant (少尉)

Since 1979, the PLA assigns *all* officers and organizations one of 15 grades. Figure 3 shows the current grade and rank system as it applies to the PLAAF. This book uses the word "leader" rather than "commander" because, in the PLA, the commander and political officer are co-equals and have the same grade.

As noted in Figure 3, each grade has an assigned name, such as "division leader." The PLA does not assign numbers to each grade. In addition, the PLA rarely refers to its officers by their rank verbally or in the media. They are usually addressed or identified by their position, such as Deputy Commander Zhang

History of the PLA's Grade and Rank System

Since the Chinese Red Army was founded in 1927, the PLA has always had a grade system for its officers, who are also referred to as "cadre" (干部). The first rank system was not introduced until 1955, and it was abolished between 1965 and 1988. Significant changes in the grade and rank system are shown below:

- 1927: Simple grade structure introduced
- 1952: 21-grade structure implemented
- 1955: 20-grade and 15-rank structure implemented
- 1965: Ranks abolished; National Administrative Cadre 27-grade system used
- 1972: 23-grade structure implemented
- 1979: 15-grade structure implemented
- 1988: 10-rank structure implemented to complement the 15-grade structure

or Operations Division Director Wang. The Chinese media do, however, occasionally identify them by their rank.

Grade-to-Rank Relationship

As Figure 3 shows, each of the grades from MR leader down to platoon leader has two ranks assigned. The ranks in the left column are the most common. The reason why each grade has two possible ranks is that rank and grade promotions rarely occur at the same time. Specifically, company and field grade officers receive their next higher rank about every three years and receive a promotion in grade every four years.

On the other hand, as illustrated in Figure 4, each rank can have from one to four grades associated with it. For example, the PLAAF can assign a major general to a billet in one of four grades: military region deputy leader, corps leader, corps deputy leader, or division leader.

Organizations and Assigned Grades

Besides assigning grades to individuals and billets, the PLA also assigns grades to every organization. The grade for all PLAAF organizations is the same as that of the commander and political officer.[4] For example, each air division commander and political commissar is a division leader-grade officer, and the PLAAF considers each air division as a division leader-grade organization. Figure 5 provides a representative sample of the PLA's grade structure and shows which types of organizations the PLAAF assigns to each grade.

Leadership and Command Structure

Historically, the PLAAF has had a five-tiered vertical command structure for its aviation and air defense troops, but it currently has only four tiers. The change occurred in late 2003, when the PLAAF abolished the

Figure 3. Officer Grades and Ranks (Most Grades Have 2 Ranks)

Grade	Rank	
CMC Chairman (军委主席)	N/A	
Vice Chairmen (军委副主席)* CMC Member (军委委员)	Gen	
MR Leader (大区正职)	Gen	Lt Gen
MR Deputy Leader (大区副职)	Lt Gen	Maj Gen
Corps Leader (正军职)	Maj Gen	Lt Gen
Corps Deputy Leader (副军职)	Maj Gen	Sr Col
Division Leader (正师职)	Sr Col	Maj Gen
Division Deputy Leader (副师职) (Brigade Leader)	Col	Sr Col
Regiment Leader (正团职) (Brigade Deputy Leader)	Col	Lt Col
Regiment Deputy Leader (副团职)	Lt Col	Maj
Battalion Leader (正营职)	Maj	Lt Col
Battalion Deputy Leader (副营职)	Capt	Maj
Company Leader (正连职)	Capt	1st Lt
Company Deputy Leader (副连职)	1st Lt	Capt
Platoon Leader (排职)	2nd Lt	1st Lt

* Note: A CMC civilian vice chairman does not have a rank.

[4] The only exception is PLAAF Headquarters, where the commander is a CMC member and the PLAAF Headquarters is an MR leader-grade organization.

Figure 4. PLA Ranks and Grade Relationship (Each Rank Can Have 1-4 Grades)

Ranks / Grades	Gen	Lt Gen	Maj Gen	Sr Col	Col	Lt Col	Maj	Capt	1st Lt	2nd Lt
CMC Vice Chairman	■									
CMC Member	■									
MR Leader	■	■								
MR Deputy		■	■							
Corps Leader		■	■							
Corps Deputy			■	■						
Division Leader			■	■						
Division Deputy / Brigade Leader				■	■					
Regiment Leader / Brigade Deputy					■	■				
Regiment Deputy						■	■			
Battalion Leader						■	■			
Battalion Deputy							■	■		
Company Leader								■	■	
Company Deputy								■	■	
Platoon Leader									■	■
Grades per Rank	**3**	**3**	**4**	**3**	**2**	**3**	**3**	**3**	**3**	**1**

Figure 5. Organizations and Associated Grades

Grade	PLAAF Organizations
Military Region Leader	PLAAF HQ
Military Region Deputy Leader	MRAF HQ
Corps Leader	15th Airborne Corps; Air Force Equipment Research Academy; some PLAAF universities and colleges
Division Leader	Air divisions; pilot transition training bases; the SAM division; command posts; airborne divisions; some PLAAF colleges and research institutes
Division Deputy Leader (Brigade Leader)	SAM brigades; AAA brigades; radar brigades
Regiment Leader	Air regiments; SAM, AAA, radar, communications, and airborne regiments; field stations; composite depots; training groups
Battalion Leader	Flight and maintenance groups; SAM, AAA, airborne, radar, and communications battalions; some depots
Company Leader	Flight and maintenance squadrons; SAM, AAA, airborne, radar, and communications companies; radar and communication stations

air corps level, created several division-level command posts (CPs), and consolidated the operational chain of command for aviation and air defense troops under the seven MRAF Headquarters. Figure 6 shows a comparison of the two structures.

Although the PLAAF downgraded all of the air corps-level organizations as a means to simplify the command structure, it actually complicated the situation. The primary reason it became complicated is that the PLA's organizational structure, in general, does not allow for an organization of one grade to be subordinate to another organization of the same grade. In other words, an air or SAM division cannot be subordinate to a division-grade command post. To help solve this dilemma, PLAAF writings state that each MRAF now commands all operational organizations in its area of responsibility (AOR), and that each command post acts on behalf of the MRAF to command combat organizations in its AOR.

A second problem arose concerning coordination between the command posts and the ground forces. Whereas the air corps and group armies previously worked as equals to plan, organize, and implement joint training, now the command posts no longer have the same equal relationship. As a result, coordination has become more difficult.

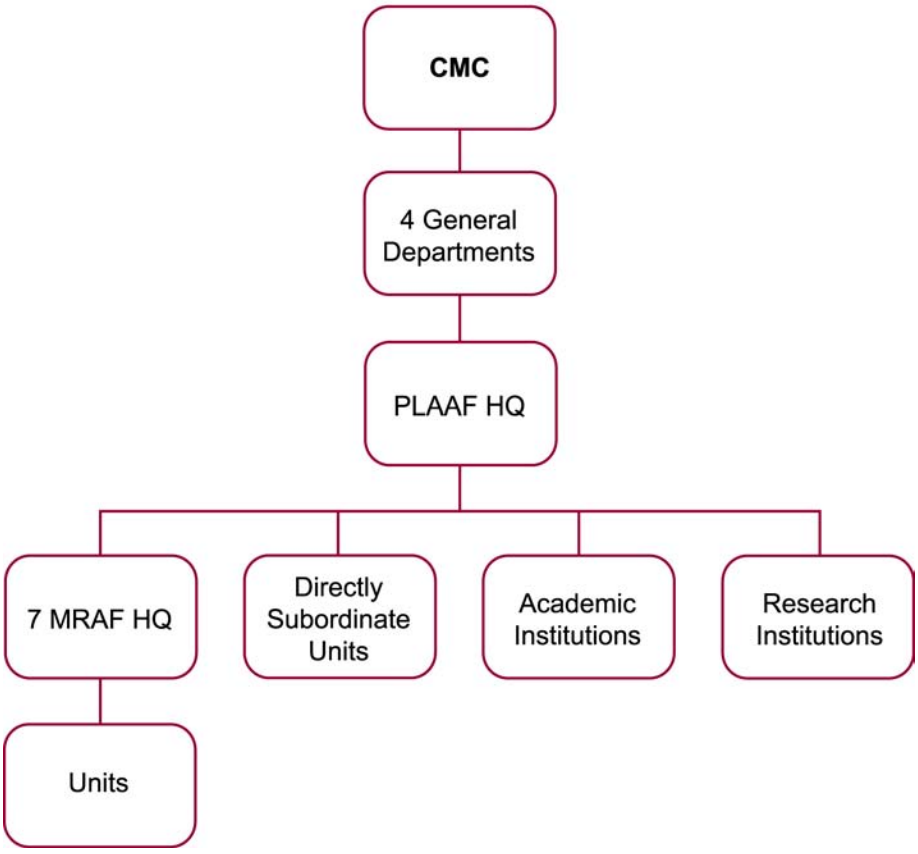
PLAAF Headquarters Tier

PLAAF Headquarters (空军) is the highest leadership organization in the PLAAF. As shown in Figure 6a, the PLAAF is under the leadership of the CMC and four General Departments (General Staff Department, General Political Department, General Logistics Department, and General Armament Department). Its primary missions during peacetime are to manage and oversee Air Force reform and modernization and to execute direct operational command

Figure 6. Aviation and Air Defense Command Structure

Pre-2003	Current
PLAAF HQ (空军)	PLAAF HQ
MRAF HQ (军区空军)	MRAF HQ
Air Corps (空军军)	Abolished
Units (部队)	Units
Subunits (分队)	Subunits

Figure 6a. Organizational Structure



authority over some PLAAF units, such as the 15th Airborne Corps and the 26th Air Transport Division in Beijing.[5]

It is not clear what PLAAF Headquarters' exact roles will be during wartime. Most likely, however, it will be responsible for having a full picture of the situation, assigning forces to the different theaters, and providing personnel to staff the Air Operations Groups (AOG) at the national-level and theater headquarters. The Air Operations Group (AOG) would serve as a rough equivalent to the staff supporting a USAF's Joint Forces Air Component Commander (JFACC) for the Theater Command. The AOG would be staffed by PLAAF personnel, and possibly Naval Aviation and Army Aviation personnel.

MRAF Headquarters Tier

The seven MRAF Headquarters (军区空军) make up the second tier.[6] The PLAAF organizes each MRAF according to its missions and battlefield environment. In other words, the PLAAF does not organize each MRAF the same way. However, each MRAF has subordinate air divisions, SAM brigades or regiments, and AAA regiments, as well as radar, communications, and support units and subunits. Following the PLA's 2003-2004 force reduction (200,000 personnel), all combat units in each MRAF, with the exception of the 15th Airborne Corps and 26th Air Division, are now under the direct leadership of the MRAF Headquarters.

Air Corps Tier

With the exception of the 15th Airborne Corps, which is directly subordinate to PLAAF Headquarters, the PLAAF abolished the air corps (空军军) tier during the PLA's 2003-2004 force reduction. Prior to the force reduction, the PLAAF had five corps leader-grade air corps, six corps leader-grade bases (基地), and three division leader-grade command posts (指挥所), all of which were subordinate to their respective MRAF headquarters. These organizations were responsible for commanding the PLAAF aviation and air defense organizations in their area of responsibility on behalf of the MRAF headquarters.[7]

During the force reduction, the PLAAF reduced the grade for most, if not all, of the air corps and bases to division-leader grade, redesignated them as command posts, and consolidated leadership for all aviation and air defense organizations in each MRAF directly under the respective MRAF headquarters. The list below shows the 7 MRAFs and 14 current PLAAF command posts, as well as the former name for each command post:

- Beijing MRAF
  - Datong CP (former 10th Air Corps)
  - Tangshan CP (former Tangshan Base)

What Is a Corps?

In the PLA's grade structure, a corps (军) is an organizational headquarters between a military region and a division. The PLAAF has two types of organizations with "corps" in their name:

- Air Corps (空军军)
- Airborne Corps (空降兵军)

The PLAAF also has several corps-level organizations, including the Air Force Command College (空军指挥学院) and Air Force Equipment Research Academy (空军装备研究院).

[5] The use of the word "some" probably indicates that PLAAF Headquarters has control over certain operational units, such as the 15th Airborne Corps and 26th Air Division, that are directly subordinate to PLAAF Headquarters, while the MRAF Headquarters have operational control over the aviation, SAM, AAA, radar, and communications units in their areas of operations.

[6] The seven MRAFs, listed in protocol order, are Shenyang, Beijing, Lanzhou, Jinan, Nanjing, Guangzhou, and Chengdu.

[7] Units located in the same province as the MRAF headquarters are directly subordinate to it. Liaoning Province is an exception, because it contains both the Shenyang MRAF and the Dalian Command Post.

- Chengdu MRAF
  - Kunming CP (former Kunming Base)
  - Lhasa CP
- Guangzhou MRAF
  - Nanning CP (former 7th Air Corps)
  - Wuhan CP (former Wuhan Base)
- Jinan MRAF
  - No command posts or former air corps or bases
- Lanzhou MRAF
  - Hetian CP
  - Wulumuqi CP (former 9th Air Corps)
  - Xi'an CP (former Xi'an Base)
- Nanjing MRAF
  - Fuzhou CP (former 8th Air Corps)
  - Shanghai CP (former Shanghai Base)
  - Zhangzhou CP
- Shenyang MRAF
  - Changchun CP (former 1st Air Corps)
  - Dalian CP (former Dalian Base)

PLAAF Brigades

PLA brigades are assigned the grade of division deputy leader. Within the PLAAF:

- There are SAM, AAA, radar, and college cadet brigades
- No brigades are subordinate to a division
- Brigades do not have subordinate regiments
- Brigades have subordinate battalions and/or companies.

Unit and Subunit Tiers

The next tier consists of PLAAF units (部队), which the PLA defines as organizations at the corps, division, brigade, and regiment level. For example, air divisions and regiments, SAM brigades, and communications regiments are units.

The final tier includes subunits (分队), which the PLA defines as organizations at the battalion, company, and platoon level. Subunits can be either permanent, or they can be ad hoc organizations. Examples include communications, radar, vehicle, maintenance, or launch/firing subunits. The PLA identifies this tier as the "grassroots" (基层) level.

Headquarters Organizational Structure

Since 1969, the overall organizational structure from PLAAF Headquarters down to the regiment level has not changed significantly, even though the PLAAF transferred some components between different departments. PLAAF Headquarters, located in Beijing, is equivalent to the U.S. Air Force's Air Staff and is organized into four first-level departments—Headquarters Department (司令部), Political Department (政治部), Logistics Department (后勤部), and Equipment Department (装备部). Each can have subordinate second- and third-level functional and administrative departments (部), bureaus (局), divisions (处), offices (科), sections (组), and/or branches (股). The PLA identifies all of these organizations under the generic term "departments" (部门).

Each organization down to the regiment level has the same basic departmental structure. At the division and regiment levels, the PLAAF combined many departments into smaller functional and administrative organizations, such as combining operations and training into a regiment's Operations and Training Branch. The PLAAF, like the PLA as a whole, does not have any functional and administrative organizations below the regiment level.

The following subsections provide information on the organizational structure at PLAAF Headquarters, including information on the command staff and key second-level departments.

PLAAF Headquarters Leadership

The PLAAF Headquarters leadership consists of the following personnel:

- Commander (司令员)
- Political commissar (政委)
- Four deputy commanders (富司令员)[8]
- Two deputy political commissars (副政委)[9]
- Chief of staff (参谋长), who is the director of the Headquarters Department[10]
- Director, Political Department (政治部主任)
- Director, Logistics Department (后勤部部长)
- Political commissar, Logistics Department (后勤部政委)
- Director, Equipment Department (装备部部长)
- Political commissar, Equipment Department (装备部政委).

Headquarters Department

The Headquarters Department (空司) is the highest-level functional and administrative organization within PLAAF Headquarters that is responsible for what the PLAAF calls military (军事) or command (指挥) work on behalf of the PLAAF's Party committee and leadership.[11] Its primary responsibilities include managing air force unit deployments, battlefield development, and combat command. It is also responsible for the PLAAF's organizational structure, personnel management, enlisted force personnel records, intelligence, communications, radar, air traffic control, and weather support, as well as researching air force military theory, and managing education and safety.

The leadership of the PLAAF's Headquarters Department includes the chief of staff (参谋长), who is the department director, and several deputy chiefs of staff (副参谋长). The Headquarters Department's primary second-level departments are:

- General Office (办公室)
- Directly Subordinate Work Department (直工部)[12]
- Operations Department (作战部)[13]
- Intelligence Department (情报部)
- Communications Department (通信部)
- Military Training Department (军训部)
- Military Affairs Department (军务部)
- Ground-based Air Defense Troops Department (地面防空兵部)

[8] Every deputy commander is responsible for several issue areas that can include issues in each of the Headquarters, Logistics, and Equipment Departments.

[9] The deputy political commissars are responsible for political work issues primarily in the Political Department, but they are also responsible for supervising political work in the second-level Political Department in the Headquarters, Logistics, and Equipment Departments.

[10] The chief of staff is roughly equivalent to the USAF's Deputy Chief of Staff, Operations, Plans & Requirements (HQ USAF/A3/5).

[11] The PLAAF often refers to certain officers as "military officers" or "military cadre." This means that they are in the military/command track. The PLAAF traces this concept back to the early days of the Red Army, when officers were designated as either military/command cadre or political cadre in order to differentiate between them and the peasants who made up the remainder of the force.

[12] This department was created by merging two organizations within the Headquarters Department: The Political Department (政治部) and the Management Bureau (管理局), which was the logistics organization for the Headquarters Department. Part of the new department's responsibilities includes managing the headquarters staff's directly subordinate organizations.

[13] The Operations Department and Training Department are combined at the regiment level as the Operations and Training Branch (作训股). They are sometimes, but not always, combined at the division and brigade levels as the Operations and Training Office (作训科).

- Electronic Countermeasures and Radar Department (电子对抗雷达部)
- Air Traffic Control Department (航空管制部)
- Military Theory Research Department (军事理论研究部)
- Pilot Recruitment Bureau (招飞局)
- Technology Bureau (技术局)
- Weather Bureau (气象局)
- Flight Safety Bureau (飞行安全局).

Political Department

The Political Department (空政) is the highest-level functional and administrative organization within PLAAF Headquarters for political work. The Political Department is responsible for officer personnel records, propaganda, security, education, cultural activities, civil-military relations, Party discipline, and Party organizations within the PLAAF. Chapter 6 discusses Political work in more detail.

The leadership of the PLAAF's Political Department includes the director (主任) and several deputy directors (副主任). The main second-level departments are:

- Headquarters Department (司令部)
- Organization Department (组织部)
- Cadre Department (干部部)
- Propaganda Department (宣传部)
- Security Department (保卫部)
- Discipline and Inspection Department (纪检部)
- Liaison Department (联络部).

Logistics Department

The Logistics Department (空后) is the highest-level functional and administrative organization within PLAAF Headquarters for logistics work, which includes overseeing transportation, finances, materials and supplies, POL, and medical care.

The leadership of the PLAAF's Logistics Department includes the director (部长), political commissar (政委), deputy directors (副部长), deputy political commissar (副政委), chief of staff (参谋长) (i.e., director of the Headquarters Department), and director of the Political Department (政治部主任). The main second-level departments are:

- Headquarters Department (司令部)
- Political Department (政治部)
- Finance Department (财务部)
- Quartermaster, Materials, and POL Department (军需物资油料部)
- Health Department (卫生部)
- Military Transportation Department (军交运输部)
- Airfield and Barracks Department (机场营房部)
- Directly Subordinate Supply Department (直属供应部)
- Air Force National Defense Engineering Development Command Department (空军国防工程建设指挥部)
- Audit Bureau (审计局)
- Real Estate Management Bureau (房地产管理局)
- Air Force Engineering and Design Research Bureau (空军工程设计研究局).

Equipment Department

The Equipment Department (空装) is the highest-level functional and administrative organization within PLAAF Headquarters for equipment work, which includes the birth-to-death life-cycle management, repair, and maintenance of all PLAAF weapon systems and equipment.

The leadership of the PLAAF's Equipment Department includes the director (部长), political commissar (政委), deputy directors (副部长), deputy political commissar (副政委), and director of the Political

Department (政治部主任). The main second-level departments are:

- Comprehensive Planning Department (综合计划部), which also serves the function of a Headquarters Department
- Political Department (政治部)
- Field Maintenance Department (外场部)[14]
- Scientific Research and Procurement Department (科研订货部)
- Air Materiel Department (航材部)
- Aviation Engineering Management Department (航空工程管理部)
- Armament Common-Use Equipment Department (军械通用装备部)
- Air Force Armament General-Use Equipment Military Representative Bureau (空军军械通用装备军事代表局).

Unit Designators

Every PLAAF platoon and above unit has a true unit designator (部队番号), such as the 1st Air Division or the Shanghai Command Post. However, the PLAAF rarely reveals the true unit designators publicly in the media or on official letterhead. Rather, the PLAAF either vaguely refers to a unit as a "certain unit" (某部队) or refers to it by a five-digit "unit designator code" (部队代号) assigned to regiment and above organizations. English-language sources refer to the "unit code designator" as a Military Unit Cover Designator or MUCD.

[14] The Field Maintenance Department is responsible for all first- and second-level maintenance at the aviation division and regiment level. This department also has directly subordinate repair and spare-parts factories for second-level maintenance in each Military Region.

Chapter 3
Officer Corps

空军干部

The PLAAF has fostered a group of core personnel with a good command of information technology and a contingent of new types of high-caliber personnel as represented by inter-disciplinary commanding officers, first-rate pilots, leaders in scientific and technological research, and technical experts.

— China's National Defense in 2008

This chapter examines the PLAAF's personnel management system and officer recruitment. It is important to note, however, that the PLA does not publish specific figures about the composition of its 2.3 million-man force. It is not clear how many total personnel are in the PLAAF, let alone how many officers, NCOs, and conscripts are in each grade, rank, or specialty.

Personnel Management

Various PLAAF organizations, such as the Headquarters Department's Pilot Recruitment Bureau (招飞局), are responsible for officer recruitment.

The PLAAF Political Department's Cadre Department and its subordinate functional and administrative organizations in all PLAAF headquarters down to the regiment level are responsible for PLAAF officer promotion, assignment, and retirement issues. PLAAF political officers at the battalion and company levels are responsible for managing officer personnel issues in their units, while the regiment level keeps the personnel records.

The PLAAF Headquarters Department's Military Training Department is primarily responsible for officer training and education.

The PLAAF Headquarters Department's Military Affairs Department is responsible for the Table of Organization.

Officer Career Tracks

All PLAAF officers serve in one of five career tracks:

- Military officer (军事军官) track, also identified as the command officer (指挥军官) track: Military officers serve as unit commanders, deputy commanders, and staff officers in the Headquarters Department. They are responsible for operations, intelligence, training, unit organizational structure, enlisted force records, and communications.
- Political officer (政治军官) track: Political officers serve as unit political commissars, deputy political commissars, and staff officers in the Political Department. They are responsible for conducting political work, which includes officer personnel records, propaganda, security, cultural activities, civil-military relations, Party discipline, and Party organizations.
- Logistics officer (后勤军官) track: Logistics officers serve as the director, deputy director, and staff officers in the unit's Logistics Department. They are responsible for managing logistics

PLAAF Academic Degrees

PLAAF officer colleges offer five types of degrees:

- Secondary technical degree (中专): A 2-year high school equivalency degree that is available only to enlisted personnel.
- Senior technical degree (大专): A 2- or 3-year degree equivalent to a U.S. associate's or vocational degree that is available to all enlisted personnel, as well as officers (primarily in the maintenance, support, and technical specialties).
- Bachelor's degree (本科): A 4-year degree that is available primarily for officers in the military/command track, as well as some officers in the maintenance, support, and technical tracks.
- Master's degree (硕士): Available to officers.
- PhD (博士): Available to officers.

support, which includes overseeing transportation, finances, materials and supplies, POL, housing, airfields, and medical care.

- Equipment officer (装备军官) track: Equipment officers serve as the director, deputy director, and staff officers in the unit's Equipment Department. They are responsible for managing the development, acquisition, maintenance, and repair of all equipment and weapon systems. They also serve as representatives in civilian factories that produce aviation systems and equipment.
- Technical officer (技术军官) track: Technical officers serve primarily as engineers, weapon systems and equipment maintenance and repair officers, computer technicians, academics, and doctors. A high percentage of civilian college graduates who join the PLAAF as officers serve in this track.

Each career track has several specialties. With the exception of the political officer career track, the PLAAF assigns officers to their career track and specialty when they enter an officer college as a cadet. It is not clear when the PLAAF assigns civilian college graduates to a career track.

Most PLAAF colleges have separate tracks for command and technical personnel. For example, the primary missions of the PLAAF Radar College are to educate and train radar and ECM technical officers and NCOs, and to provide basic- and intermediate-level PME for command officers. Most officers in the command track receive a 4-year bachelor's degree, while technical officers receive a bachelor's degree or a 3-year senior technical degree.

The PLAAF normally selects officers in the political officer career track from military career track personnel at the platoon or company level, but it also selects some political officers from the other three career tracks. Once they enter the political career track, they receive some type of training as political officers.

Officers in the logistics, equipment, and technical officer career tracks attend specialty academies, such as the Xuzhou Air Force College or the Air Force Engineering College.

Each career track has sub-specialties, which are associated with the appropriate department within the four General Departments and PLAAF Headquarters. For example, logistics officers at the Xuzhou Air Force College specialize in such areas as finance, quartermaster, transportation, materials, or fuel, and then serve in the appropriate functional and administrative departments or support units in the logistics system.

Officer Ranks

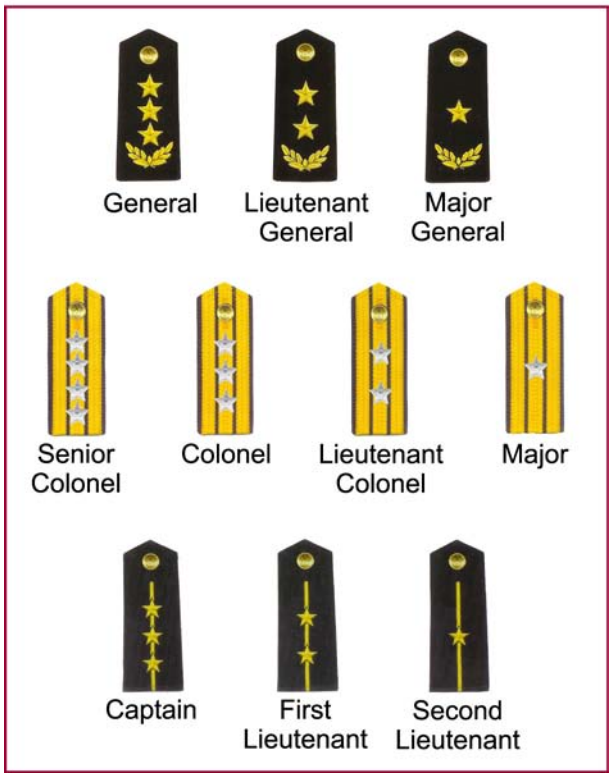
Figure 7 shows the epaulets for the PLAAF's ten officer ranks, from left to right: general, lieutenant general, major general, senior colonel, colonel, lieutenant colonel, major, captain, 1st lieutenant, and 2nd lieutenant.

Technical Officers

The PLA introduced the technical officer system in 1980. Since 1988, technical officers have been divided into three categories (junior, intermediate, and senior), 14 grades (platoon leader to CMC member), and 10 ranks (second lieutenant/ensign to lieutenant general/vice admiral).

Technical officers wear the same rank insignia as regular officers, but they also wear special technical officer insignia on their collars.

Figure 7. Officer Rank Insignia



Evaluation, Promotion, and Assignment Procedures

The political work system manages officer promotions and assignments through a 3-step process:

- First, a unit's political officer gathers information on an officer, including interviews with the officer's subordinates, co-workers, and bosses. Each officer receives three evaluations, including a regular evaluation every 2 to 3 years, an annual evaluation, and a promotion evaluation. The evaluations focus on four areas: political character, general military and billet knowledge, achievements, and physical fitness.
- Second, the political officer makes a recommendation to the organization's Party committee. Depending on its level within the chain of command, the Party committee can either authorize the promotion or assignment or send the recommendation to the Party organization at the next-higher level command for approval.
- Finally, the Party committee announces the promotion or assignment.

The PLAAF does not have a central promotions board for officers or enlisted personnel. Based on the officer's grade, the PLA approves promotions and assignments at different levels as follows:

- The Chairman of the CMC approves all promotions and assignments for officers at the division-leader grade (senior colonels) and above, including PLAAF Headquarters and MRAF Headquarters commanders, political commissars, deputy commanders, and deputy political commissars.
- The four General Departments and PLAAF leaders approve all promotions for officers at division-deputy-leader (brigade-leader) and regiment-leader grades (colonels).
- Corps-level leaders approve all promotions for officers at regiment deputy-leader (lieutenant colonels) and battalion-leader grades (majors).

- Division or brigade leaders approve promotions for officers at battalion deputy-leader grades (captains) and below.

Promotion Cycle

PLA regulations specify the time-in-rank and time-in-grade requirements for officers before the PLAAF promotes them to the next rank and grade. Officers from first lieutenant to senior colonel must serve for 4 years in rank before the PLAAF can promote them to the next rank. However, the PLAAF promotes officers up to division leader in grade every 3 years. As a result, rank and grade promotions do not necessarily occur simultaneously. Furthermore, in the PLA, time in service includes the three to four years spent as a cadet.

Figure 8. Mandatory Retirement Ages

Grade	Retirement Age
CMC Chairman and Vice Chairmen	N/A
CMC Member	(70)
Military Region Leader	65
Military Region Deputy Leader	63
Corps Leader	55
Corps Deputy Leader	
Division Leader	50
Division Deputy Leader (Brigade Leader)	
Regiment Leader	45
Regiment Deputy Leader	
Battalion Leader	40
Battalion Deputy Leader	
Company Leader	35
Company Deputy Leader	
Platoon Leader	30

Mandatory Retirement Ages

As shown in Figure 8, the PLA bases the mandatory retirement ages for PLA officers on their grade, not their rank or time in service. In 1994, the PLA implemented retirement ages for military region deputy leader- and military region leader-grade officers—63 and 65, respectively. CMC vice chairmen do not have an official mandatory retirement age; however, since the 16th Party Congress in 2002, it appears that CMC members are required to retire at age 70.

The mandatory retirement age for technical officers is slightly higher for each grade than for officers in the other career tracks.

Officer Recruitment

Officer Recruitment

Historically, the PLAAF recruited its officers from the enlisted force or from high school graduates. This process began to change in the early 1990s under Jiang Zemin, who was the chairman of the CMC, when the PLA started recruiting civilian college graduates to fill academic, research, support, and technical officer billets.

Since 1998, the PLAAF has recruited more than 15,000 civilian university and college students and graduates as officers from the following three programs:

- First, the PLAAF recruits students after they have already graduated with a bachelor's degree, and, in some cases, a master's degree. Since 1998, more than 5,000 graduates have joined the PLAAF. Many of these students were enrolled in the "211 Project," which is a civilian education reform program that was part of China's 9th Five-Year Plan (1996–2000). Its goal was to enhance the level of civilian higher education in support of national economic development and to raise the level of China's college graduates to deal with new global technological advances.

- Second, since 2000, the PLAAF has created National Defense Student (国防生) programs in 18 civilian universities and colleges. From 2000 to mid 2009, about 10,000 students enrolled in this program. While enrolled, the students are called reserve officers (后备军官).
- Third, the PLAAF recruits college students who spend their first 2 or 3 years at a civilian university, and then spend 1 or 2 years at an Air Force college, where they receive their degree. The PLAAF pays all of the expenses for the student while attending the civilian institution. Upon graduation, these students receive about three months of military-political training at a PLAAF college, training unit, or operational unit. Upon completion of their basic training, the PLAAF assigns them to an operational unit, where they receive on-the-job training.

Most of the students enrolled in the PLAAF's National Defense Student program major in science and engineering disciplines, such as aviation and aerospace, electronics, weapon systems, instruments, atmospheric science, and mechanical engineering. They receive military-related training throughout the school year, as well as during the summer. Summer training includes 2 to 4 weeks of what the PLAAF calls "military-political training," which includes marching, firing weapons, and physical training. This training can take place at a PLAAF college, training unit, or operational unit.

When the National Defense Students graduate, they receive some additional military-political training before the PLAAF assigns them to their permanent unit, where they receive on-the-job training. It appears that some, but not all, students also receive a short period of specialty training, such as radar, communications, or aircraft maintenance, before they are assigned to their permanent unit.

Given the National Defense Student program's alleged success, the PLA's overall goal and the PLAAF's goal are to have 60% of all new officers in 2010 come from recruitment of civilian college students and graduates. Of this figure, two-thirds will come from the National Defense Student program.

See Chapter 8 for information about recruiting civilian college graduates and third-year students as pilots.

Commissioning Enlisted Troops as Officers

Since 2000, the quota for enlisted troops to attend PLAAF colleges to become officers has fallen significantly. For example, the PLAAF reduced the quota for male enlisted troops to become officers by attending a PLAAF college by half—from 2,000 in 2002, to just 1,000 in 2003. The two primary reasons for this reduction are that the PLAAF is recruiting more civilian college students and graduates to fill officer billets and that it is trying to retain the best conscripts as NCOs.

Officer Academic Institutions

The PLAAF has 3 universities, 15 colleges, and 1 NCO school.[15] See Appendix B for further information.

[15] Since the late 1990s, several PLAAF colleges, such as the Meteorology College, Medical College, and Political College have been merged into PLA universities.

Chapter 4
Enlisted Force

空军士兵

Centering on improving the capabilities and quality of its personnel, the PLAAF pursues a road of personnel development that takes new- and high-tech talents as the driving force, makes breakthroughs in critical areas and aims at overall improvement.

— China's National Defense in 2008

This chapter begins by examining some of the personnel reforms that have transformed the PLA's enlisted force over the past decade. It then addresses the PLAAF's enlisted personnel management system, as well as its conscription and training process. This chapter also discusses the PLAAF's NCO selection process and examines the wide array of opportunities for NCO professional military education.

All of the PLA's services and branches, including the PLA Air Force, use Army terminology for their enlisted personnel.[16] The PLA's generic term for enlisted personnel is "soldiers" (士兵 or 战士), which includes:

- Conscripts (义务兵), who are also identified as new soldiers (新兵 and 新战士)
- Noncommissioned officers or NCOs (士官).

Although the PLA has disclosed only a limited amount of information about the size and composition of its enlisted force, *PLA Daily* has provided some overall numbers. In November 2008, *PLA Daily* stated that the enlisted force comprised approximately 1.6 million of the 2.3 million-man PLA, and that the proportion of conscripts and NCOs was roughly identical. In April 2009, *PLA Daily* stated that the PLA had more than 800,000 NCOs. In July 2009, *PLA Daily* reported that the PLA would implement reforms to the NCO system in December 2009. The reforms would increase the number of NCOs to 900,000 personnel as the number of conscripts decreases in proportion. Once the PLA reaches the figure of 900,000 NCOs, the approximate percentage of personnel in the PLA will be 26% officers and civilian cadre, 39% NCOs, and 35% conscripts.

Although the percentage of NCOs and conscripts within the PLA's overall enlisted force are about equal, the *Air Force Enlisted Force Handbook* states that NCOs comprise about 60% of the PLAAF's enlisted force. The primary reason for this discrepancy is that the PLAAF, like the PLA Navy and Second Artillery Force, has a higher percentage of billets that require enlisted personnel with technical skills than does the ground forces. However, not all PLAAF branches have the same ratio of conscripts to NCOs. For example, the airborne and AAA forces appear to have a higher percentage of conscripts to NCOs than does the aviation branch, where NCOs have been replacing junior officers in several technical billets, including aircraft maintenance.

[16] PLAAF enlisted personnel are referred to as "soldiers." The PLAAF does not use the term "airman" for its officers or enlisted personnel. Along with "soldier," the PLA Navy does use the term "sailor" (水兵), but it refers only to enlisted personnel, not officers.

Personnel Reforms

Driving Forces for Personnel Reforms

The enlisted force is currently in a state of transition. The PLA has embarked on a wide-ranging program of reforms with the goal of professionalizing the entire force, particularly through the expansion of the NCO corps. These reforms are fairly comprehensive and affect everything from enlisted recruitment, education, and promotion, to PLA policies on downsizing and demobilization.

Within the PLA, personnel reforms are part of a larger effort to have a more educated, professional force capable of operating and maintaining its high-tech weapons and equipment.

Other personnel reforms, however, are the by-product of the tremendous changes occurring in Chinese society as a whole. In the case of conscription, societal changes have impaired the PLA's ability to recruit the educated and skilled personnel it believes it needs. By the late 1990s, several factors were making it more difficult for the PLA to meet its conscription goals. These factors included:

- A loosening of state control over residency requirements
- Increased economic opportunities
- Families with only one child were reluctant to allow them to enter the military
- Educational reforms that made it much easier to go to college, such that the students are too old to be conscripted at the time they graduate.

Changes in the Military Service Law and Regulations

Two of the most significant events in the PLA's reform of its enlisted force were the December 1998 revision to the *Military Service Law of the People's Republic of China* and the July 1999 revision of the *Regulations on Military Service of Active-Duty Soldiers.*

Prior to 1999, PLA Navy and Air Force conscripts served for 4 years and Army conscripts served for 3 years. Moreover, after finishing their conscription period, all service members retained the option of remaining on active duty as "volunteers" (志愿兵) for a total service time of 16 years.

The revised 1998 law and 1999 regulations:

- Reduced the mandatory service period for conscripts in all PLA services and branches to 2 years.
- Established a standard 30-year career path for enlisted force members in an effort to make service in the NCO corps attractive as a potential long-term career.

As a result of changes instituted by the 1999 revised regulations, PLAAF conscripts now have 3 career options at the end of their conscription period:

- Selection for officer training at a PLAAF college
- Selection as an NCO
- Demobilization.

A decade later, in late 2009, the PLA implemented the next significant reforms to the NCO system. One of the reforms will allow NCOs to serve beyond 30 years.

Enlisted Personnel Management

In the PLAAF Headquarters, separate organizations oversee officer and enlisted force personnel management. The Cadre Department in the Political Department serves as the personnel center for the officer corps and also sets the guidelines governing the selection of enlisted personnel as officers. The Military Affairs Department in the Headquarters Department serves as the personnel center for the enlisted force and is also responsible for the PLAAF's overall Table of Organization.

Several other departments are also involved in managing the enlisted force. The PLAAF coordinates with the General Staff Department's Mobilization Department, which manages the conscription process. The PLAAF's Military Training Department in the Headquarters Department is responsible for training. In addition, the Political Department's Organization Department selects enlisted personnel to become Party members and manages all of their political-related issues.

Each of the four PLAAF second-level departments noted above has counterpart organizations in each headquarters down to the regiment level to implement policies and help manage the enlisted force.

Conscript Force

Conscription Process

The conscription process consists of the preparation period, registration, screening, and reporting for training.

Preparations, Registration, and Screening

The PLA's annual conscription process begins each August with a conference to discuss the upcoming conscription cycle. In the PLAAF, operational units determine how many new conscripts and NCOs they need for the coming year. Each PLAAF unit then submits its figures to the next-higher headquarters. They are eventually consolidated at PLAAF Headquarters and passed on to the GSD.

Also in August, People's Armed Forces Departments (PAFDs) notify all males who will reach the age of 18 before 31 December of the current calendar year of their eligibility for conscription, and register them for military service by the end of September.[17] Although

[17] People's Armed Forces Departments (人民武装部) are county-level organizations set up by the PLA under the dual leadership of the local military command and the local Party committee. The PAFDs coordinate with the PLAAF to help select conscripts for the Air Force.

Conscription or Recruitment?

Although the PLA still uses the word "conscription" (征兵) and refers to everyone who is selected as a "conscript," the process has become a largely voluntary one in practice. Eligible youth are required to register for conscription in late summer; those who do not register by the end of September cannot be conscripted. According to Chinese criminal law, failure to register is punishable by 2 years in prison although media reports suggest that enforcement is rare. Therefore, it is impossible to ascertain how many individuals voluntarily register for conscription into the PLA and how many register solely because they feel legally obligated to do so.

There are also a number of situations that exempt one from being conscripted into the PLA. These include poor health, failing the background investigation, insufficient education, or securing admission to college.

most individuals who register for conscription are 18, theoretically any male between the ages of 18 and 20 may sign up. Females may also register, provided they are between the ages of 18 and 19 and graduated from high school the previous spring. Based on analysis of several PLA sources, about 400,000 conscripts enter the PLA at the same time each year. This represents a very small percentage of the eligible male population.

The PLA assigns each locality in China an annual recruitment quota, which is based on distribution of population. At present, according to Chinese media reports, just over 33% of conscripts come from urban areas and the remaining 67% of conscripts come from rural areas.

Recent conscription orders state that incoming conscripts from rural areas should be graduates of middle school, which in China runs through the ninth grade, while those conscripted from urban areas are now required to be high school graduates. Increasingly, though, the PLAAF views students enrolled in China's civilian universities and colleges as particularly attractive prospects. The 2008 annual conscription order called on local PAFDs to give "priority consideration" to college students and graduates when selecting incoming conscripts.

Once registration is complete, the PAFD begins the process of pre-selecting potential conscripts. This process continues until the end of October, when the State Council and the CMC issue an order for the upcoming conscription period. Based on this conscription order, PAFDs throughout the country then notify personnel of their selection as potential conscripts and instruct them to report to a local induction center run by the PAFD for a series of examinations.

The induction screening process occurs during the first week of November, when potential conscripts are examined for a single day. They receive three types of exams: a physical exam, a psychological evaluation, and a political exam administered by the local public security bureau. Afterwards, they return home and wait for their conscription orders or rejection letters.

The PLA does not give any pre-induction written examinations, like the U.S. military's Armed Services Vocational Aptitude Battery (ASVAB). As a result, it is unclear how the PLA determines which conscripts go into the PLAAF and what their specialties will be. However, as PAFDs are composed primarily of personnel from the ground forces, the PLAAF has begun sending its own recruitment teams to some parts of the country to handpick their own conscripts.

Leaving Home and Reporting for Active Duty

Unlike the USAF, the PLAAF does not have a single base for training new enlisted personnel. During the second week of December, PLAAF conscripts travel to one of several training and operational facilities scattered throughout the country. The PLA usually makes transportation arrangements in advance, and it is common for the PLA to escort large numbers of conscripts together. Although most conscripts travel by train, the PLAAF has begun to charter civilian aircraft to transport the new conscripts, especially to remote locations such as Tibet.

Conscription Difficulties

As noted earlier, PLA conscription has specific urban and rural quotas. Inherent in these quotas are different education levels, technical abilities, and attitudes towards military service. Although the PLA believes that conscripts selected from urban areas are more likely to possess the educational and technical skills it desires, the military has struggled in recent years in its urban conscription work. Urban high school graduates, for example, have proven to be difficult to recruit, particularly in light of recent education reforms that have made it much easier to attend college. Therefore, despite the recent emphasis on technology and education, the core of the enlisted force will likely continue to consist of poor, undereducated young men from rural areas for the near future.

Nonetheless, recent statistics released by the Ministry of National Defense's Conscription Office suggest

that the tide may be turning in the PLA's favor. These indicate that nearly 67% of incoming conscripts in 2007 were high school graduates, a jump of 8% from 2006. In addition, because China's market for skilled labor has not kept pace with the rapid expansion of university programs, a growing number of college graduates are unable to find suitable employment. The recent global economic downturn might further this trend. The PLA clearly hopes to recruit some of these educated young people into the enlisted force and appears to be having some success in doing so.

The PLA has also attempted to compensate for its inability to conscript some of China's more educated high school youth by recruiting them once they enroll in college or after they have graduated from college. In 2001, the PLA began to recruit civilian college students in their first to third years of school as enlisted force members. China's Ministry of Education estimated that the PLA would absorb 30,000 college students as conscripts during the 2008 winter conscription cycle, matching the combined total of college students recruited during the 2006 and 2007 cycles. Assuming the PLA had about 400,000 new conscripts in 2008, this figure represents about 7.5% of the total.

A major reform occurred in 2009, when the PLA recruited 130,000 college graduates as first-term enlisted personnel, with the goal of recruiting 150,000 more in 2010. It is not clear, however, how many of the recruits were or will be assigned to the PLAAF. PLAAF reporting indicates that only 25-40% of its first-term enlisted personnel are retained as NCOs and only one out of every three NCOs becomes a squad leader. Over the next few years, these numbers will most likely affect the PLAAF's ability to recruit, retain, and manage the attitude of both enlisted personnel without any college education and college graduates who are not selected as NCOs and/or squad leaders. As first-term enlisted personnel and NCOs, these college graduates may also be selected to fill former junior officer billets up to company level; however, the current NCOs holding those billets are still called "acting" leaders more than six years after the billets were transferred to NCOs. Furthermore, the civilian college graduates may very well end up working for someone without any college education or for a college classmate who was recruited as an officer.

To help recruit college students as conscripts, the PLA has instituted several preferential policies. These include monetary incentives, reduced tuition, permission to change one's undergraduate major, and preferential treatment in the graduate school application process.

Conscript Training

As noted earlier, the PLAAF does not have a single training base for new conscripts. The PLAAF assigns its conscripts to either an operational unit or a technical training base to receive basic training. At either assignment, the duration of basic training lasts about 2 months. Once conscripts who receive their basic training at an operational unit complete their basic training, the unit assigns them to their permanent billet, where they receive individual and unit training. New conscripts initially assigned to a technical training base remain there for technical training once their basic training is complete. After completing their technical training, the PLAAF assigns them to an operational unit located elsewhere. Figure 9 is a flowchart of this process.

Basic Training

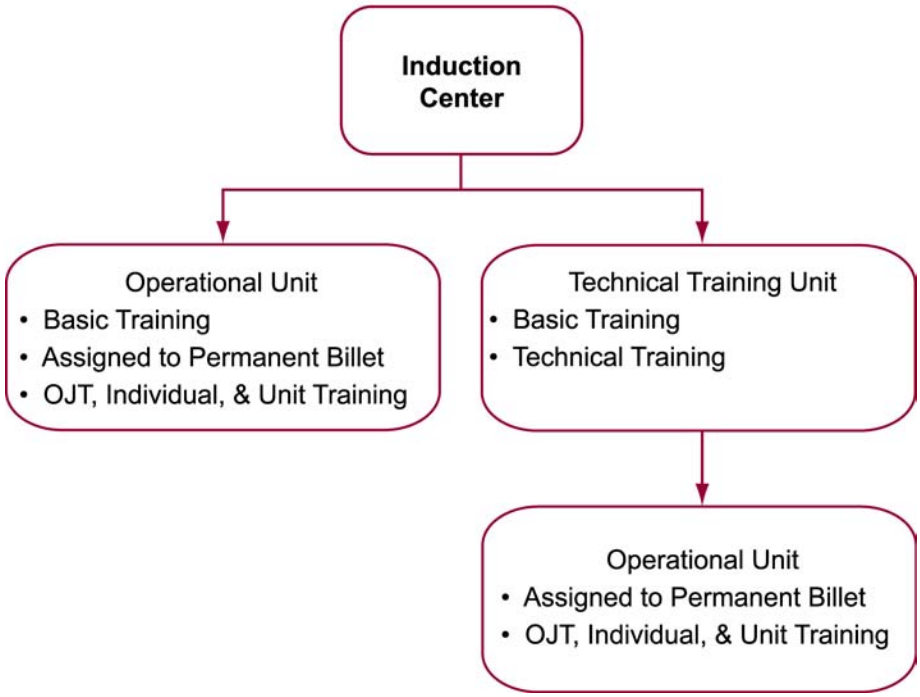
All incoming PLAAF conscripts arrive at either an operational unit or a technical training unit in mid December for about 2 months of basic training. The actual length of time for basic training varies, depending on one's branch, but it usually ends around Chinese New Year (Spring Festival), which occurs sometime between late January and mid February.

Basic training instructors are junior officers or junior NCOs assigned on a temporary basis from an operational unit. After basic training is completed, they return to their unit.

Basic training in the PLAAF includes subjects common to all new PLA conscripts, such as marching and saluting. Some training focuses on PLAAF-wide or branch-specific topics.

During basic training, new conscripts do not wear any rank insignia on their shoulders, collars, or caps. During this period, they are called "new soldiers" (新兵) and are assigned to "new-soldier companies," which, depending on the size and type of unit, can be organized into "new-soldier battalions" or even "new-soldier regiments."

Figure 9. Conscript Training Phases and Locations



Taking the Oath and Receiving Rank

Once basic training is completed, the new conscripts take the PLA service member's oath, receive their rank of private 2nd class (列兵), and wear a shoulder epaulet with a single yellow stripe. At the conclusion of their first year of service, they are promoted to private 1st class (上等兵) and wear a shoulder epaulet with two yellow stripes. The PLAAF shoulder insignia for the two conscript ranks are shown in Figure 10.

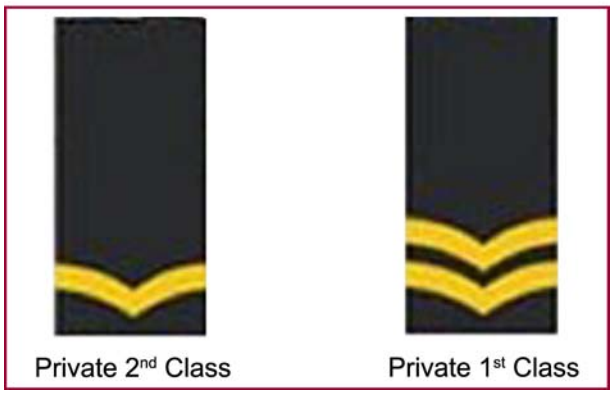
Service Member's Oath

"I am a member of the People's Liberation Army. I promise that I will follow the leadership of the Communist Party of China, serve the people wholeheartedly, obey orders, strictly observe discipline, fight heroically, fear no sacrifice, loyally discharge my duties, work hard, practice hard to master combat skills, and resolutely fulfill my missions. Under no circumstances will I betray the motherland or desert the army."

Operational Unit OJT

The PLAAF assigns conscripts who complete their basic training at an operational unit to a company within that operational unit, where they learn how to function in squads and platoons. From this point forward, the PLA refers to them as soldiers (士兵, 战士, or 新战士). After the unit assigns them to their billets, they receive on-the-job training (OJT), individual training, and unit training. This is where most PLAAF conscripts learn their specialty. The PLA expects that, after the first 6 months of their 2-year conscription period, conscripts will be sufficiently proficient in their job to take part in larger unit training.

Figure 10. Conscript Rank Insignia



Within the operational unit, an organization called a training unit (教导队) oversees basic training and OJT for the new conscripts. From December through February, these units provide conscript basic training. Once basic training is over, the training units transition to providing short-term training courses for NCO squad leaders and officers.

Technical Training Units

As noted above, the PLAAF assigns some new conscripts directly to a technical training unit, where they receive basic training followed by technical training. The PLAAF has numerous training bases, regiments, and groups. Most, if not all, of these units appear to be co-located with an operational unit. The duration of technical training depends on the type of specialty learned. At present, the PLAAF has specific training units for the following specialties:

- Aircraft maintenance
- Armament
- Cooking
- Communications
- Equipment
- Logistics
- Technical
- Vehicle driving.

Unlike the USAF, the PLAAF does not appear to assign alpha-numeric Air Force Specialty Codes (AFSCs).

The transition to a 2-year conscription period has significantly affected the ways in which the PLAAF trains and uses conscripts during their time in service. Prior to 1999, when PLAAF conscripts served for 4 years, the PLAAF could provide up to 8 months of technical training after basic training and still have the conscripts serve on active duty for at least 3 more years. However, now that they serve for only 2 years, the PLAAF has significantly reduced their time at technical training units. In 2002, for example, a Jinan MRAF driver training unit shortened the training time for its students from 7 to 5 months. This still left conscripts with only about 17 months on active duty before the end of their conscription obligation.

The PLAAF brings in most instructors for short technical training courses from operational units on a temporary basis, while it assigns instructors for longer courses to the training unit on a permanent basis.

Conscript Responsibilities and Assessments

Reduced Leadership Responsibilities

Due to the shortened conscription and training periods, duties once performed exclusively by PLAAF conscripts in their 3rd or 4th year of active-duty service are now carried out by the PLA's rapidly expanding corps of junior NCOs (grades 1 and 2). As a result, the scope of conscript responsibilities has diminished. Typical conscript duties now consist of tasks that do not require significant leadership skills or technical competency.

Efficiency Reports

All members of the enlisted force receive an annual efficiency report written by their unit's political officer, who solicits input from supervisors and coworkers.

Then the company-level branch of the Communist Party reviews each report. The PLAAF keeps the completed efficiency reports in the individual's personnel file, which the Military Affairs Department at the regiment level manages.

Conscript Party Membership

Conscripts in the PLAAF are eligible to become members of the Chinese Communist Party (CCP). An applicant must be at least 18 years of age and a member of the Communist Youth League (CYL). Conscripts have different motivations for becoming a Party member. Many view membership in the CCP as a tool of upward mobility and an asset that can help them attain their goal of becoming officers or NCOs. For many PLA conscripts who are demobilized after the conclusion of their 2-year conscription period, Party membership can be a valuable asset in finding employment or obtaining better jobs upon returning home.

The process to become a Party member is arduous and can take as long as the entire 2-year conscription period. As a result, the Party has largely abandoned its efforts to recruit conscripts. Moreover, the long recruitment process, competitive selective procedures, and low overall quota (about 3%) of conscripts eligible to become Party members have caused many conscripts to be less than enthusiastic about the prospect of trying to join the Party. As a result, it is common today for many PLAAF units to be without a single conscript Party member.

NCO Corps

NCO Selection, Retention, and Evaluation Process

Conscripts who remain on active duty at the end of their conscription period do so by becoming NCOs or attending PLAAF colleges to become officers. Conscripts who choose to become NCOs can either be selected based on merit or pass an exam for entrance into an NCO program of study at a PLAAF officer college or NCO school. In both cases, the process is highly competitive and the results are by no means guaranteed.

In addition, media reports indicate that corruption is widespread in the promotion process. The primary reason for this is that most enlisted personnel are assigned to battalions, companies, or platoons, and they are promoted by their regiment headquarters. As a result, some personnel who are up for promotion may attempt to use various means to influence senior officers in their units during the evaluation and recommendation process.

In an effort to professionalize the NCO corps, the 1998 revised *Military Service Law* created a standard 30-year career path divided into six service periods. This is shown in Figure 11. At the end of each service period, NCOs may extend their stay in the PLA if their unit promotes them to a higher rank; otherwise, they are demobilized. NCOs in certain specialties, however, such as drivers and cooks, cannot serve beyond 12 years; at that time, they are demobilized.

In late 2009, the CMC implemented a new "Plan for Reforming the NCO System" along with three revised regulations affecting NCO active duty service periods, management, and training and education. The new plan and revised regulations are intended to:

- Keep the overall size of the enlisted force the same

Figure 11. NCO Service Periods and Ranks

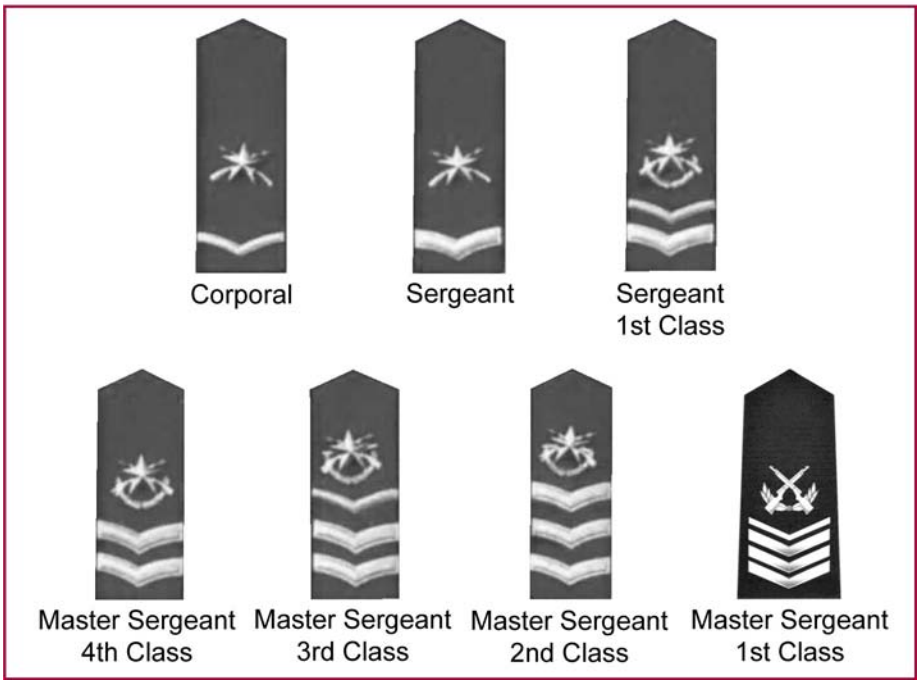
Grade Level	Service Period and Years per Period	Rank
Junior NCO	1st Period (3 years)	Grade-1 NCO
	2nd Period (3 years)	Grade-2 NCO
Intermediate NCO	3rd Period (4 years)	Grade-3 NCO
	4th Period (4 years)	Grade-4 NCO
Senior NCO	5th Period (5 years)	Grade-5 NCO
	6th Period (9 years)	Grade-6 NCO

- Increase the size of the NCO corps while reducing the size of the conscript force
- Increase the number of intermediate- and senior-grade NCOs while reducing the number of the junior-grade NCOs
- Increase the number of NCOs recruited directly from civilian college students and graduates (i.e., they do not serve two years as a conscript before being commissioned directly to the rank of NCO)
- Increase the training and education requirements for promotion to the next grade level
- Increase the salary and benefits for intermediate and senior NCOs.

Figure 11a. Revised NCO Service Periods and Ranks: 2009

Grade Level	Service Period and Years per Period	Rank
Junior NCO	1st Period (3 years)	Corporal
	2nd Period (3 years)	Sergeant
Intermediate NCO	3rd Period (4 years)	Sergeant 1st Class
	4th Period (4 years)	Master Sergeant 4th Class
Senior NCO	5th Period (5 years)	Master Sergeant 3rd Class
	6th Period (9 years)	Master Sergeant 2nd Class
		Master Sergeant 1st Class

Figure 12. NCO Rank Insignia



The new plan and revised regulations changed the name for each of the ranks shown in Figure 11, and added a third rank in the senior NCO grade level. In terms of service periods, the new plan and revised regulations allow NCOs to serve for more than a total of 14 years in the senior NCO grade level. Figure 11a shows the revised NCO system. The PLAAF continues to use Army terminology for its NCO ranks.

The PLAAF bases an NCO's rank on his service period. When the new NCO regulations took effect, the PLAAF kept the same insignia but assigned new ranks to each one. It also added a new rank insignia for Master Sergeant 1st Class. Figure 12 depicts the PLAAF insignia and the new rank associated with each of the six NCO service periods, including the new rank insignia for Master Sergeant 1st Class.

Figure 13. NCO PME Options

In 2003, the PLA began to recruit civilian college graduates and other skilled professionals and gave them a direct promotion as an NCO. The specific grade depends on their experience. PLAAF officials also began targeting technical schools affiliated with aircraft factories as potential sources of noncommissioned officers.

NCO Professional Military Education

According to the *PLA Air Force Enlisted Force Handbook* published in 2006, new regulations stipulate that junior-grade NCOs must have a high school education, intermediate-grade NCOs must have a senior technical-level education, and senior-grade NCOs must have a bachelor's degree. It is not clear whether the PLAAF has successfully implemented these regulations, especially for senior-grade NCOs.

As shown in Figure 13, PLAAF NCOs have a number of options for receiving PME.

As many NCOs have only a middle school education, continuing educational programs have become an increasingly popular means for PLA NCOs to fulfill these requirements. Over 500,000 NCOs throughout the PLA have received training through continuing education programs, such as self-study, correspondence classes, and distance learning courses offered by PLA academies and schools. The most popular of these appears to be the "1 August Academy," a correspondence program initiated by the PLA General Staff Department and the Ministry of Education and run by China Central Radio and Television University. Over 100,000 PLA NCOs have taken correspondence courses through the academy since 2000.

In recent years, the PLAAF has also adopted an innovative approach to meeting its continuing educational needs by establishing special NCO Off-Duty Universities (士官业余大学) that provide programs tailored to each specialty. Graduates of the programs earn a secondary technical degree. The first of these was set up in April 2002 in Shenyang within an aviation equipment skills training regiment that offered self-study programs for flight maintenance. Because of the program's success, the PLAAF established a second NCO Off-Duty University in the Jinan MRAF and a third one in Guilin in the Guangzhou MRAF.

Besides correspondence courses, the PLAAF has begun providing other options. One involves conducting short-term training at factories that produce military equipment. During this training, NCOs become familiar with certain equipment and methods of effective troubleshooting. At the end of each session, the NCOs receive a *Functional Expert Certificate*. Certain specialties, such as aircraft maintenance, have also held advanced training courses for 2 to 3 months at various training bases for NCOs from throughout the PLAAF.

Presently, only a small percentage of NCOs actually have the opportunity to attend an NCO school or NCO program at an officer college. PRC statistics

note that less than 33% of PLA NCOs who receive PME are trained through the PLA's system of military academies and schools, with only 10% receiving training at an NCO school.

At least seven PLAAF officer colleges offer secondary technical and senior technical degree programs for NCOs.[18] The NCOs at officer colleges are assigned to their own student units and do not mix with officer cadets. The duration of study is from 2 to 3 years, after which they receive either a secondary or senior technical degree.

Dalian PLAAF Communications NCO School

The Dalian PLAAF Communications NCO School (空军大连通信士官学校) is the PLAAF's only NCO school.[19] The school, which is located in Liaoning Province (Shenyang MRAF), trains NCOs for PLAAF communications units. See Appendix B for further information.

Responsibilities

As the overall proportion of NCOs in the PLAAF's enlisted force has surged to about 60%, their responsibilities have increased. At present, PLAAF NCOs hold down key technical billets in several types of units, including aviation, communications, and radar. As shown by recent examples, NCOs also now:

- Fill billets once held exclusively by junior officers, such as those of mess officers
- Handle much of the training for both conscripts and junior NCOs
- Serve as acting platoon leaders and maintenance flight leaders
- Serve as squad leaders.

NCO Party Membership

Although the PLA does not provide figures to the public, it appears that the number of NCOs who are Party members has increased in recent years. One driving force for this trend was guidance provided at the 16th CCP Congress in October 2002. According to the PLA's official newspaper, *Jiefangjun Bao (PLA Daily)*, following the 16th CCP Congress, the PLA tasked each company-level Party branch to incorporate one to two NCOs as Party members.

NCOs who participate in company-level Party branches are usually more experienced NCOs serving as squad leaders or acting platoon commanders. Given the structure of the Party committee system, NCO involvement in the Party decision-making process is limited to the company level.

Officer Selection

Although the direct commissioning of enlisted force members to the officer corps was prevalent during the Red Army days and still existed after the PLA was formed in the mid 1940s, the practice was abolished shortly after the Cultural Revolution. Today, the PLA requires all conscripts selected to become officers during peacetime to undergo 3 to 4 years of training in a PLA college. Upon graduating from a military college, the new officers incur a 7- to 8-year commitment to the PLA.

Currently, enlisted force members with a high school degree or secondary technical degree cannot be more than 22 years old when they apply to an officer college. This means that the only enlisted members permitted to apply are conscripts and grade-1 NCOs who have not exceeded the age limit.

[18] The seven PLAAF officer universities and colleges that offer NCO programs are: the Air Force Engineering University (aircraft maintenance); Air Force Aviation University (aircraft ground support and maintenance); Air Force Radar College; Air Force 1st Aviation Technology College (aircraft maintenance); Xuzhou Air Force College (logistics); Air Force 2nd Flight College (ground support); and the Guilin Air Force College (airborne and AAA personnel).

[19] Altogether, the PLA has only six NCO schools, each of which focuses on a particular specialty.

All conscripts and NCOs who apply to become officers through a bachelor's degree or senior technical degree program offered at officer colleges take the All-Army Uniform Academic Examination for admission to military schools. The PLA holds the exam once a year, usually in early June. The PLA usually posts the examination results and academy enrollment decisions in mid July, and classes begin in the fall.

Although the high number of enlisted applicants who take the examination each year suggests that there remains great interest in extending one's active-duty service as an officer, it has become increasingly difficult to do so in recent years for the following three reasons:

- First, the PLA has been reducing its overall size, with a major focus on shrinking the officer corps.
- Second, the PLA began recruiting civilian college graduates as officers in the early 1990s and instituted the National Defense Scholarship Program in civilian universities in the early 2000s. This program has further reduced the number of officer slots available to enlisted personnel.

Third, the PLA has been trying to expand the size of its NCO corps with personnel who previously would have been qualified to become officers.

Chapter 5
Leadership

空军领导

PLAAF Headquarters and each MRAF Headquarters has a commander and a political commissar, who serve as principal officers. They are under the leadership of their Party committee, as well as the Party committee and leaders at the next higher level. The commander and political commissar are responsible for managing operations and training.

— China Military Encyclopedia

This chapter provides an overview of the PLA Air Force's leadership since 1949, including commanders, political commissars (PCs), deputy commanders, deputy political commissars (DPCs), and military region air force (MRAF) commanders. Together, the commander, political commissar, and the other members of the Party committee's standing committee, which Chapter 6 discusses, provide the overall leadership of the PLAAF based on guidance from the Central Military Commission and four General Departments.

Since 1949, the PLAAF has had 10 commanders, whose average age was 17 when they joined. Given the overall poor education system and political turmoil in China until the 1980s, none had even completed high school. In terms of aviation experience, it was not until 1985 that Wang Hai became the first pilot to serve as the commander. Subsequently, all of his successors have also been pilots. Beginning with Wang, they all received one to two years of basic flight training at a PLAAF flight school, which served as their undergraduate-level education. Most of them have also taken intermediate- or advanced-level professional military education courses.

Since 1977, five of the seven became the commander when they were 60 to 63 years old and, on average, remained until age 65 to 67. The current commander, General Xu Qiliang, joined the PLAAF at age 16 and became the commander in 2007 at age 57.

As will be discussed in Chapter 6, the political commissar and commander are co-equals and serve as the secretary and deputy secretary of the PLAAF's Party committee, respectively. Since 1949, the PLAAF has had 11 political commissars, three of whom became the commander. Four of the past five political commissars assumed their position at age 60 to 63 and, with the exception of Qiao Qingchen who became the commander, remained in the position for an average of 7 to 8 years. The current political commissar, General Deng Changyou, assumed his position at age 55 in 2002 and will have to retire at age 65 in 2012.

Background

Since China created the PLAAF in 1949, the PLAAF has had:

- 10 commanders compared to 19 USAF chiefs of staff during the same period
- 11 political commissars
- 40 deputy commanders compared to 33 USAF vice chiefs of staff during the same period

- 19 deputy political commissars
- 73 MRAF commanders.

Figures 14 and 15 list the PLAAF's commanders and political commissars, the dates they served in those positions, and indicate whether they were members of the Central Military Commission (CMC) during their command periods. See Appendix A for biographies for Commander Xu Qiliang and Political Commissar Deng Changyou.

Commanders' Career Paths

As shown in the following bullets and in Figure 16, there is no clear path to becoming a commander or a deputy commander:

- Of the 10 commanders, 3 served first as the PLAAF political commissar
- Only 5 commanders served as a deputy commander
- Only 6 commanders served as an MRAF commander.

Still, some generalizations can be made. The PLAAF's first four commanders (1949-1985), were all ground force officers who moved into various command positions after China created the PLAAF. In 1985, Wang Hai became the first career pilot selected as the commander. Since then, all commanders have been career aviators.

Since 2004, the PLAAF commander has concurrently served as a member of the CMC. It appears that, as a

Figure 14. Commanders

Commander	Dates	CMC Member
Liu Yalou（刘亚楼）	Oct 1949-May 1965	Yes
Wu Faxian（吴发宪）	May 1965-Sep 1971	
None	Sep 1971-May 1973	
Ma Ning（马宁）	May 1973-Apr 1977	
Zhang Tingfa（张廷发）	Apr 1977-Jul 1985	Yes
Wang Hai（王海）	Jul 1985-Nov 1992	
Cao Shuangming（曹双明）	Nov 1992-Nov 1994	
Yu Zhenwu（于振武）	Nov 1994-Dec 1996	
Liu Shunyao（刘顺尧）	Dec 1996-May 2002	
Qiao Qingchen（乔清晨）	May 2002-Oct 2007	Yes
Xu Qiliang（许其亮）	Oct 2007-Present	Yes

Figure 15. Political Commissars

Political Commissar	Dates	CMC Member
Xiao Hua (肖华)	Oct 1949-Apr 1950	
None	Apr 1950-Feb 1957	
Wu Faxian (吴发宪)	Feb 1957-May 1965	
Yu Lijin (余立金)	May 1965-Sep 1968	
Wang Huiqiu (王辉球)	Sep 1968-May 1973	
Fu Chuanzuo (傅传作)	May 1973-Nov 1975	
Zhang Tingfa (张廷发)	Nov 1975-Apr 1977	
Gao Houliang (高厚良)	Apr 1977-Jul 1985	Yes
Zhu Guang (朱光)	Jul 1985-Nov 1992	
Ding Wenchang (丁文昌)	Nov 1992-Feb 1999	
Qiao Qingchen (乔清晨)	Feb 1999-May 2002	
Deng Changyou (邓昌友)	May 2002-Present	

CMC member, the current commander, General Xu Qiliang, could continue to serve as commander until at least the 19th Party Congress in 2017 or until he reaches age 70 in 2020.

Deputy Commanders

PLAAF Headquarters has 4 deputy commanders and each MRAF Headquarters has at least 3 deputy commanders. All other headquarters down to the company level have 2 to 3 deputy commanders. The PLAAF assigns each deputy commander several specific areas of responsibility within the Headquarters, Logistics, and Equipment Departments. For example, one deputy commander could be responsible for operations and intelligence in the Headquarters Department, finance and health in the Logistics Department, and weapons research, development, and acquisition in the Equipment Department. It should be noted, however, that deputy commanders are not responsible for political work; this responsibility belongs to the deputy political commissars.

Political Commissars' Career Paths

The PLAAF has had 11 political commissars since 1949. As shown in the following bullets and in Figure 17, there was no discernible trend in selecting these leaders.

- The first 8 PCs began their careers in the Army and then transferred to the PLAAF. The last 3 served their entire careers in the PLAAF.

Figure 16. Commanders' Career Paths

Commanders	PC	Deputy Commander	MRAF Commander
Liu Yalou (刘亚楼)			
Wu Faxian (吴发宪)	X		
Ma Ning (马宁)			
Zhang Tingfa (张廷发)	X	X	
Wang Hai (王海)		X	X
Cao Shuangming (曹双明)			X
Yu Zhenwu (于振武)		X	X
Liu Shunyao (刘顺尧)		X	X
Qiao Qingchen (乔清晨)	X	X	X
Xu Qiliang (许其亮)			X

Figure 17. Political Commissars' Career Paths

Political Commissar	DPC	MRAF/PC
Xiao Hua (肖华)		
None		
Wu Faxian (吴发宪)	X	
Yu Lijin (余立金)	X	X
Wang Huiqiu (王辉球)	X	
Fu Chuanzuo (傅传作)		
Zhang Tingfa (张廷发)		
Gao Houliang (高厚良)	X	
Zhu Guang (朱光)		
Ding Wenchang (丁文昌)		
Qiao Qingchen (乔清晨)		
Deng Changyou (邓昌友)		

- Two PCs, Xiao Hua and Zhu Guang, alternated between PLAAF and General Political Department political officer billets. The other 9 PCs served only in PLAAF billets once they joined or transferred to the PLAAF.

- Only 4 deputy PCs have become the PLAAF PC.
- Only 1 MRAF PC has become the PLAAF PC.

Moving Toward Joint Leadership

The process of integrating senior PLAAF officers into the military region (MR) leadership structure began in the late 1980s. Integration into the four General Departments and the CMC did not make real progress until the early 2000s.

Around 1988, each of the seven MRAF commanders was concurrently designated a deputy commander in his respective military region (MR).[20] Although MRAF commanders have been concurrent MR deputy commanders ever since then, only a few MRAF political commissars appear to have been designated as concurrent MR deputy political commissars.

The integration process moved forward only gradually in the 1990s. It was not until the late 1990s that the PLA allowed PLAAF personnel working in the four General Departments and the MR headquarters to wear Air Force uniforms. Before then, they all had to wear Army uniforms. Even so, it was not until 2006, that the PLA allowed PLAAF and PLA Navy officers in the Ministry of National Defense's Foreign Affairs Office to wear their service uniforms.

In spite of the PLA's outward focus on jointness during the 2000s, the PLA has only started integrating PLAAF officers into some senior-level joint positions. Since 2003, the CMC has appointed PLAAF officers for the first time to serve as commandant of the PLA's Academy of Military Science (AMS) and commandant of the PLA National Defense University (NDU). PLAAF officers have also been appointed as one of the deputy directors of the General Staff Department (GSD), General Political Department (GPD), and General Logistics Department (GLD). Apparently, the General Armament Department (GAD) has yet to appoint a PLAAF deputy. The PLA has incorporated only a few PLAAF officers, including some major generals, into each military region's headquarters as deputy chiefs of staff.

In September 2004, the CMC appointed the PLAAF commander, General Qiao Qingchen, as a member of the CMC along with the commanders of the PLA Navy and Second Artillery. Qiao was only the third PLAAF commander to serve as a member of the CMC.[21]

These appointments are only incremental steps toward implementing jointness in the four General Departments and seven MR headquarters. Therefore, it is unclear whether these appointments have affected the status of the PLAAF in terms of its political clout within the military or its influence over policymaking, funding priorities, and procurement of weapon systems and equipment.

[20] Although the PLA began designating MRAF commanders as concurrent MR deputy commanders in the late 1980s, the CMC did not officially approve the practice until January 1993.

[21] Liu Yalou was a CMC member from November 1956 to May 1965, and Zhang Tingfa was a member from August 1977 to September 1982. Xu Qiliang replaced Qiao Qingchen on the CMC when Qiao retired in 2007.

Chapter 6
Political Work System

空军政治工作制度

The PLA insists on putting ideological and political work first, and pushing forward the innovative development of ideological and political work, to ensure the Party's absolute leadership over the armed forces, the scientific development of the military, the all-round development of the officers and men, the increase of combat capabilities and the effective fulfillment of historical missions.

— China's National Defense in 2008

This chapter discusses the PLA's political work system, which consists of the following six main elements that are integrated into every organization in the PLA:

- Party committee system
- Party congress system
- Political officer system
- Political functional and administrative system
- Discipline inspection system
- Judicial system.

According to PLA writings, the PLA's political work (政治工作) system is the means through which the Chinese Communist Party (CCP) is guaranteed absolute control over the military. The most important point to remember is that the PLA is an integral part of the Party, not the State, system. It is the CCP, not the Premier or the State Council, that provides guidance to and oversight of the PLA.

In essence, the CCP Central Committee's Political Bureau (Politburo) and its Standing Committee provide overall guidance to the PLA. This overall guidance is passed on to the Military Commission of the Central Committee, commonly referred to as the Central Military Commission (CMC), whose chairman, Hu Jintao, is also the CCP Secretary General and President of the PRC. Besides the chairman, the CMC consists of 2 vice chairmen and 8 members, including the PLAAF commander. The vice chairmen and members are all PLA three-star flag officers.

The CMC is responsible for implementing the CCP Politburo's policies by writing policies and guidelines for the PLA. The PLA then passes these policies and guidelines down through PLA Party committees established in the four General Departments, PLA Navy, PLA Air Force, and Second Artillery to further refine and implement. The Party committee and political work system uses the information to provide guidance for all other aspects of the PLA, including training.

Although the PLA does not make public the information about the total number of Party members, analysis of available data indicates that not all officers are Party members. As a baseline, all officers who serve on any type of Party committee, which is the unit's decision-making body, must be a Party member. It appears that all officers in the political track and most officers in the military/command track, as well as key personnel holding leadership positions in the logistics and equipment

departments, are Party members. Based on available data, officers in the technical track are least likely to be Party members. Most officers become Party members during their first two years as a cadet. In addition, only a small percentage of NCOs and almost no conscripts are Party members. At the company level, only a few senior NCOs serve in a Party organization. It does not appear that NCOs are part of any Party organizations above the company level.

Although most of this chapter focuses on the political work system of the PLA in general, the PLAAF's political work system is identical in its structure and tasks. Familiarity with the political work system is essential to understanding how the PLA makes decisions at every level. The Party committee for each organization involves all of the organization's leaders and is the main decision-making body. Figure 18 provides an overview of the organizations within the political work system.

Figure 18. Overview of PLA Political Work Organizations

<table>
<tr><th>Organizational Level</th><th>Functional and Administrative Organizations</th><th>Discipline Inspection Organizations</th><th>Political Officer</th><th>Party Committee</th></tr>
<tr><td>Central Military Commission</td><td>General Political Department</td><td>CMC Discipline Inspection Commission</td><td></td><td></td></tr>
<tr><td>Military Region</td><td rowspan="4">Political Department</td><td rowspan="5">Discipline Inspection Commissions</td><td rowspan="5">Political Commissar</td><td rowspan="5">Party Committee</td></tr>
<tr><td>Corps</td></tr>
<tr><td>Division</td></tr>
<tr><td>Brigade</td></tr>
<tr><td>Regiment</td><td>Political Division</td></tr>
<tr><td>Battalion</td><td rowspan="3">No functional and administrative organizations</td><td rowspan="2">Party Branch members for discipline inspection</td><td>Political Director</td><td>Grassroots Party Committee</td></tr>
<tr><td>Company</td><td>Political Instructor</td><td>Party Branch</td></tr>
<tr><td>Platoon</td><td>No discipline inspection organizations or personnel</td><td>No political officer</td><td>Party Small Group</td></tr>
</table>

Political Work

This section discusses the eight types of political work identified in PLA writings.

Cadre (officer) work (干部工作) encompasses all tasks that fall under officer personnel management in the PLA. The PLA divides these tasks into three main categories: managing officer career paths, maintaining officer personnel files, and overseeing professional military training and education. The political work system is responsible only for officer personnel management, while the General Staff Department's Military Affairs Department is responsible for enlisted personnel management.

Discipline inspection work (纪律检察工作) encompasses all efforts aimed at monitoring Party members to ensure adherence to Party regulations. These efforts fall into three categories: evaluating the performance of Party members; investigating violations of Party discipline; and educating Party members on Party guidelines and regulations.

Military legal work (政法工作) in the PLA falls under the purview of the political work system. Legal work in the PLA consists of judicial and investigative tasks to uncover and prosecute criminal behavior in the military, and to ensure that the PLA maintains the legal rights of its personnel. The PLA divides legal work into three categories: military procuratorial (investigation and prosecutorial) work, judicial work, and judicial administrative work.

Liaison work (联络工作) focuses on collecting certain types of intelligence on potential adversaries, conducting information and psychological operations against foreign militaries, and ensuring that PLA personnel can defend themselves against psychological warfare operations undertaken by adversaries. It also includes presenting a positive image of the PLA during all contacts with foreign militaries.

Mass work (群众工作) consists of tasks aimed at maintaining positive civil-military relations. Basically, this means all efforts that support good relations between the military, the government, and the civilian population. Tasks that fall under mass work include supporting China's economic development and helping with disaster relief.

Organization work (组织工作) refers to all efforts to develop Party organizations within the military, such as Party committees and the Communist Youth League (CYL), to strengthen the

Military Political Work:
It's not just CCP propaganda

Political work encompasses functions that are common to many professional militaries. For example, the USAF conducts comparable tasks through the following organizations:

- Air Force Office of Special Investigations
- Air Force Personnel Center
- Air Force Security Forces
- Education and Training Command
- Inspector General
- Judge Advocate General
- Psychological Operations
- Public Affairs
- Civil Affairs
- Morale, Welfare, and Recreational (MWR) activities, the USO, and other Non-Appropriated Fund activities conducted for the benefit of airmen and their dependents

influence of the Party, and to ensure that the PLA carries out Party guidance. Tasks include establishing and overseeing Party organizations in the PLA, and educating Party members on Party regulations.

Propaganda work (宣传工作) consists primarily of overseeing and implementing education for PLA personnel. "Education" in this context includes ideological indoctrination, but it also includes efforts to raise the general educational level of the force and enhance its professional military competencies. Other tasks that fall under propaganda work include handling military public affairs, overseeing military publications such as textbooks and materials used at military colleges and schools, disseminating political content to military personnel and the general public, and organizing various cultural and entertainment activities for PLA personnel.

Security work (保卫工作) in the PLA political work system includes carrying out counter-intelligence operations, preventing crime, handling physical security for certain military leaders and visitors, and supervising military prisons. The security tasks in the political work system and the units performing them are separate from security units (警卫部队) within the Headquarters Department system. The Headquarters Department system's security units are responsible for headquarters, unit, equipment, and materials security.

Party Committee System

Every level in the PLA has at least one of five types of party organizations:

- Party committees (党委)
- Grassroots Party committees (基层党委)
- Party general branches (党总支)
- Party branches (党支部)
- Party small groups (党小组).

Although each type has a different name, the PLA identifies them generically as Party committees. Each Party organization is responsible to the next higher level Party organization and, ultimately, to the CCP's Central Committee through the CMC.

The type of Party committee established by each organization depends on three factors:

- The level at which the organization resides
- The organization's responsibilities
- The number of Party members in a unit or department.

Party Committees

The PLA has two categories of Party committees:

- Unit Party committees (部队党委)
- Functional and administrative department Party committees (机关党委).

Unit Party Committees

The PLA has a unit Party committee in each headquarters for all organizations at the regiment level and above. Each of these Party committees has a standing committee consisting of the commander, political commissar, deputy commanders, deputy political commissars, and directors of the four first-level administrative departments (Headquarters, Political, Logistics, and Equipment). In most cases, the political commissar serves as the Party secretary and the commander serves as the deputy secretary. In some situations, such as when the commander has previously served as a political commissar, the commander is the secretary and the political officer is the deputy secretary. For example, former PLAAF commander Qiao Qingchen, who had previously served as the PLAAF political commissar, was the Party secretary.

Functional and Administrative Department Party Committees

In addition to the headquarters' Party committee, each of the four first-level departments (Headquarters, Political, Logistics, and Equipment) has its own department Party committee. All second- and third-level departments also have some type of Party orga-

nization. Depending on the size of the department, the Party organization can be a Party committee, Party general branch, or Party branch.

The chief of staff serves as the secretary of the Headquarters Department's Party committee, and one of the deputy chiefs of staff serves as the deputy secretary.

The Political Department director serves as the secretary of the Political Department's Party committee, and one of the deputy directors serves as the deputy secretary.

Because the Logistics Department and Equipment Department each have a director and a political commissar, the political commissar is usually the Party secretary and the director serves as the deputy secretary.

In second- and third-level departments, the department director is the Party secretary and one of the deputy directors is the deputy secretary.

Grassroots Party Committees

The PLA assigns a grassroots Party committee to the headquarters element for all battalion-level organizations. Although the PLA identifies these committees formally as grassroots Party committees, it often omits the term "grassroots" and identifies them just as Party committees. The PLA does not assign Grassroots Party committees to administrative departments.

Party General Branches

The PLA establishes Party general branches only within functional and administrative departments that are too small to have a Party committee but too large for a Party branch.

Party Branches

The PLA assigns Party branches to all company-level organization headquarters and, depending on their size, to most second- and third-level functional and administrative departments. For example, the second-level Propaganda Division subordinate to an MRAF Political Department has a Party branch.

Party Small Groups

All PLA Party members must belong to some type of Party organization. The PLA establishes Party small groups at the platoon level, where only a few officers are present, and at the squad level, which is composed solely of enlisted personnel.

In addition, when the PLA establishes ad hoc working groups, it organizes the members, regardless of their grade or rank, into a Party small group or a Party branch. The type of Party committee established, such as a Party small group or Party branch, depends on the number of Party members involved.

Assigning the Party Organizations

As an example, Figure 19 lists the types of Party organizations within PLAAF Headquarters, the first-level Equipment Department, and the Equipment Department's second- and third-level departments.

Party Congresses

The PLA holds a Party congress every 5 years. Between congresses, Party committees meet on behalf of the congress about twice a year, and standing committees meet on a regular basis.

Figure 19. PLAAF Headquarters Party Committees

Organization Level	Organization	Party Organization
Headquarters	PLAAF Headquarters	Party committee
First-level department	Equipment Department	Party committee
Second-level department	Comprehensive Plans Department	Party general branch
Third-level department	Comprehensive Plans Division	Party branch

Party Congresses

Every PLA organization at the regiment-level and above is supposed to hold a Party congress (党代表大会) once every 5 years, but this does not always happen. Figure 20 provides information about the 11 PLAAF Headquarters Party congresses held from 1956 to 2009, including the dates, total number of representatives, and number of members selected to serve on the Party committee and Discipline Inspection Commission.[22]

Military Party congresses are the highest-level organizations in the PLA's Party committee system. As such, they have three key roles:

- Supervising Party committees and discipline inspection commissions. Party committees present reports to the Party congress at their level, and the congress must approve all work reports.
- Deciding on key Party issues for units at their level. Party congresses decide how to deal with the major issues of their units. Unless a higher-level Party committee overrules these decisions, subordinate Party organizations must adhere to them.
- Electing Party committee and discipline inspection commission members. Party congresses elect Party members for both Party committees and discipline inspection commissions. They also elect representatives to attend higher-level Party congresses and the National Party Congress.

In addition, every functional and administrative department that has a Party committee with more than 200 Party members holds its own Party congress every 5 years. The Party congress reviews the department's activities for the previous 5 years and selects new members for the next Party committee.

Party congresses are responsible for approving the unit's or department's Party committee report and the

Party Guidance Bodies

- Party congresses (党代表会) meet once every 5 years
- Party committees (党委) meet about twice a year
- Standing committees (党委常委) meet regularly

Figure 20. PLAAF Party Congresses: 1956-2009

Party Congress	Month/Year	Reps	Party Committee	Discipline Inspection Commission
1st	May 1956	490	25	17
2nd	Apr 1959	560	32	16
3rd	Sep 1962	531	34	17
4th	May 1969	1,001	59	?
5th	Apr 1978	1,236	55	?
6th	Nov 1983	500	55	25
7th	Dec 1988	309	47	25
8th	Dec 1993	287	45	10
9th	Feb 1999	295	45	11
10th	May 2004	283	40	11
11th	May 2009	(283)	(40)	(11)

[22] Regulations state that, depending on the level in the chain of command, the number of members ranges from 7 to 15 for a unit's standing committee and from 5 to 7 for a functional and administrative department.

report for the Discipline Inspection Commission at that level. They also discuss and make decisions on key issues, as well as select and approve the members of the next Party committee, Party committee standing committee, and Discipline Inspection Commission.

Party Committee Plenary Sessions

The unit's Party committee holds an average of two plenary sessions per year to oversee the unit's work, such as reviewing the unit's training plan for the previous six months and setting goals for the next six months. Each session lasts about 2 days. The first Party committee plenary session occurs at the end of the Party congress and the final meeting takes place a couple of days before the next Party congress convenes. With the exception of the timing for these two sessions, there does not appear to be a set pattern determining when the plenary sessions are held each year. For example, the PLAAF Headquarters' Party committee met in May and October 2004, in January and December 2005, and in September and December 2006.

Despite the lack of a set pattern, the plenary sessions often coincide with other key meetings. For example, a PLAAF training conference immediately followed the January 2008 meeting.

Between Party committee plenary sessions, the unit's standing committee meets regularly to make decisions that guide the unit's activities.

Quite often, the PLAAF Party committee issues various regulations or guidance. For example, the Party committee issues the PLAAF's "training guiding thought."

Requirements for Party Committee Membership

Party committee members serve 5-year terms. An officer must have been a Party member for at least 5 years to serve on a Party committee at the division level or above or at least 3 years to serve on a brigade or regiment Party committee.

The secretary, deputy secretary, and members for each Party committee's standing committee are elected during the Party committee's first plenum. These names are then submitted for approval to the Party committee at the next higher level. The Party committee manages the removal, transfer, and retirement of Party committee members. If vacancies occur within a committee, the standing committee recommends officers to fill them. These recommendations are submitted to the Party committee at the next higher level for approval.

Party Committee Decision-making

The PLA has a dual leadership system, under which the organization's commander/director and political officer are the same grade. As noted earlier, the political officer is usually the secretary and the commander/director is the deputy secretary of the Party committee.

Because the full Party committee meets only twice a year, the standing committee meets regularly to make almost all key decisions to include:

- Deciding on operations and training issues, such as whether to fly during poor weather
- Reviewing and deciding on officer evaluation, selection, and staffing issues
- Expending unit funds for goods and materials
- Implementing higher-level Party committee decisions.

When the members of the standing committee meet, they all have an equal voice. No single person, even the commander/director or political officer, can make a final decision without a consensus. Once the standing committee makes a decision, everyone must implement it.

Although the standing committee makes decisions

during peacetime for the unit or department as needed, all decisions must be reported to the full Party committee for review during the next plenary session.

Indications are that, during wartime, the commander can make and implement decisions as needed without first discussing them with the standing committee or the full Party committee. The primary reason for this is that the plan he is implementing has already been approved during peacetime by the Party committee and higher authorities.

Political Officer System

The political officer system consists of political officers at every level in the chain of command, from the company level up to the four General Departments.[23] A high percentage of political officers are selected from company-grade officers who are already serving in one of the other four career tracks (military/command, logistics, equipment, and technical), and thus already have some operational experience at the subunit level. They continue to build on this experience as members of the unit's Party committee and standing committee throughout the rest of their careers.

The three levels of political officers are as follows:

- Political commissars (政委): assigned to all organizations at the regiment level and above
- Political directors (教导员): assigned to all battalion-level organizations
- Political instructors (指导员): assigned to all company-level organizations.

All political officers have basically the same key responsibilities:

- Serving as either the secretary or deputy secretary of the Party committee
- Implementing decisions made by the Party committee
- Instilling Party discipline among Party members
- Providing political education to the troops within their organization
- Working with other components of the political work system.

In addition, political officers at the company and battalion levels gather information on all personnel for promotions. They also administer the Party member selection process. However, the actual decisions, promotions, and Party membership are made by the appropriate Party committee, not just the political officer.

Political Functional and Administrative System

All headquarters at the regiment level and above have a functional and administrative political organization. These organizations manage the unit's political work, including officer personnel records, propaganda, security, cultural activities, mass work, and Party discipline. The PLA does not have any functional and administrative organizations below the regiment level.

The functional and administrative structure consists of a Political Department (政治部) in organizations at the division level and above and a Political Division (政治处) in regiment-level organizations. Depending on the unit's level, Political Departments have subordinate departments (部), divisions (处), and/or offices (科). Political Divisions have subordinate branches (股).

In some cases, one of the deputy political commissars serves concurrently as the Political Department/Division director.

Discipline Inspection System

The PLA has a system of discipline inspection organizations that monitors the actions of PLA Party members and Party organizations and ensures that

[23] Platoons and squads do not have political officers.

Party discipline is maintained in the PLA. This system mirrors the CCP's discipline inspection system on the civilian side and is responsible for Party members only. Depending on the situation, Party members can be punished by the discipline inspection system, as well as the judicial system. However, discipline inspection commissions cannot hand out punishments without the approval of the Party committee at that level.

The PLA's discipline inspection system has three parts:

- Party discipline inspection commissions (党纪律检查委员会), which include:
  - The CMC Discipline Inspection Commission, the top-level military organization that oversees the PLA's discipline inspection system
  - CCP discipline inspection commissions, which are established in all PLA units at the regiment level and above
- Discipline inspection departments (纪律检查部):

The General Political Department has a Discipline Inspection Department

  - The PLAAF's Political Department has a Discipline Inspection Department
  - The Political Department in each headquarters of a corps-level and above organization has a Discipline Inspection Department
- Below the corps level, the Organization Division within the Political Department is responsible for carrying out discipline inspection tasks
- In units at the battalion and company level, the Party committee or branch assigns Party members to undertake discipline inspection tasks.

Members of the discipline inspection commission at each level are selected by the Party congress.

Judicial System

Unlike the U.S. military, the PLA does not have a Uniform Code of Military Justice (UCMJ) system. The PLA's military courts and military procuratorates are established within the armed forces as part of the State judicial system, meaning that they adhere to State laws. The PLA's military judicial system is composed of military courts (军事法院), military procuratorates (军事检察院), and security departments (保卫部门), which exercise judicial, prosecutorial, and investigative powers, respectively.

The PLAAF has created military courts and procuratorates in PLAAF Headquarters and each of the seven MRAF headquarters. They are administratively subordinate units within PLAAF Headquarters and the MRAF headquarters, but exercise independent judgment. Although the courts and procuratorates are not directly subordinate to a Party organization in any PLAAF headquarters, the PLA considers legal work to be part of the political work system.

The military procuratorates serve a role similar to that of the U.S. military's Inspector General and judge advocate. They:

- Examine criminal cases investigated by the internal security organs and decide whether to approve an arrest or to initiate a prosecution
- Investigate all criminal cases
- Supervise the legality of the investigatory and judicial activities of the internal security organs and the military courts.

The Political Departments and Divisions of units at the regiment level and above have security organizations. These security organizations investigate criminal cases within the armed forces in accordance with the provisions of the Criminal Procedures Law.

Political Officer Education

Once the PLAAF selects its political officers, they usually receive some form of PME that is taught at only a few select PLAAF academic institutions. The first institution is the PLAAF Political College (南京政治学院上海分院) in Shanghai, which the PLAAF created in 1952. In 1999, the PLA resubordinated the college under the PLA Nanjing Political Academy.

Currently, it is responsible for educating political officers from all the services.

The Air Force Command College (空军指挥学院) also has its own Political Academic Department (政治系) for training political officers. In 2001, the Command College's Branch Campus in Baoding, Hebei Province, assumed responsibility for basic- and intermediate-level training of some political officers.

Finally, the Guilin Air Force College (桂林空军学院) educates company-grade and some regiment-grade political officers.

Chapter 7
Training and Education

空军训练教育制度

The PLAAF is deepening reforms and innovations in institutional education by improving the system of discipline, and making innovations in teaching programs, means, and methods. It is strengthening on-the-job training, and exploring a new model of personnel development, namely the triad of institutional education, training in units, and professional military education.

— China's National Defense in 2008

This chapter provides information on the PLAAF's training and education systems. The first section examines PLAAF training guidance. The second section discusses the training and education system. The third and fourth sections look at the PLAAF's training progression and training methods. The final section provides an overview of the PLAAF's education system. See Appendix B for information on individual academic institutions.

Training Guidance

PLAAF training is subject to guidance and direction from multiple organizations, including the Central Military Commission (CMC), the four General Departments, and PLAAF Headquarters. This section briefly introduces the primary vehicles for conveying training guidance to PLAAF training and operational units: the *Outline of Military Training and Evaluation (OMTE)* and PLAAF training guidance concepts.

Outline of Military Training and Evaluation

The PLAAF's Training Department is responsible for issuing an *Outline of Military Training and Evaluation* (军事训练与考核大纲) or *OMTE*, which the PLAAF describes as "the comprehensive plan for Air Force training." It includes training goals, principles, content, implementation phases and procedures, timing, methods, and quality-control inspection procedures for all PLAAF organizations. The *OMTE*, often referred to as the *Outline* (大纲), is actually a collection of separate volumes dealing with different objectives. It includes subsections devoted to the PLAAF's Table of Organization, occupational specialties, and weapon systems. For example, the *OMTE* that went into effect in April 2002 included 16 volumes and 86 subsections devoted to: headquarters command staff and departments; each of the four branches and five specialized units; logistics; equipment maintenance; and other specialty areas.

Once the PLAAF issues a revised *OMTE*, it issues new or revised training regulations that units need to implement the *OMTE*.

Training Guidance

Under the name of the PLAAF Party committee, the PLAAF issues two other types of Air Force-specific training guidance: "training guiding thought" (训练指导思想) and "training basic principles" (训练基本原则).

Outline of Military Training and Evaluation

- In 1955, the General Staff Department (GSD) issued the first *OMTE* for all the services and branches and revised it three times before 1980.
- In 1989, the GSD revised it again, but each service was responsible for issuing its own *OMTE*.
- In 2001, the GSD issued a revised *OMTE* for the ground forces, while the PLAAF and PLAN issued their own revised versions in 2002.
- In January 2009, after about 2 years of review and testing, the seventh iteration went into effect. Besides each service producing its own revised *OMTE*, the GSD also published the PLA's first joint *OMTE* that all the services and branches are responsible for implementing. The 2009 joint and service *OMTE*s:
  - Expanded the training focus on non-warfare military actions to include nontraditional security issues
  - Increased the proportion of information technology knowledge and simulation training on highly advanced air, naval, and guided missile weapons
  - Standardized the methods and objectives of network training, various types of training that has been consolidated at bases, and opposition-force training
  - Clarified the conditions, methods, and requirements of training under complex electromagnetic conditions, training at night, training under complex weather conditions, and psychological adaptability training.

According to the PLAAF's *Science of Air Force Training*, the PLAAF's "training guiding thought" determines the overall direction for Air Force training, such as the current emphasis on "opposition-force training." "Training basic principles" provide specific standards for the conduct of PLAAF training, such as "training according to regulations."

Neither of these types of guidance appears to have a direct USAF counterpart. For example, the USAF's 100-page *Air Force Basic Doctrine* provides a fairly detailed explanation of the principles of war and the tenets of air and space power. In comparison, the PLAAF's "training guiding thought" and "training basic principles" are merely short statements consisting of several characters to provide a general guide to training. The PLAAF may have documents that provide further explanation of each type of guidance, but they are not available to the public.

PLAAF Training Guiding Thought

PLAAF "training guiding thought" uses short statements meant to guide the overall direction of Air Force training. Since 1958, the PLAAF has issued new "training guiding thought" about once every ten years. Over the last 50 years, there does not appear to be a direct link between when the PLA publishes its "training guiding thought" and *OMTE*. When the PLAAF last revised its "training guiding thought" in 2001, it concluded that its training activities were not developing the operational capabilities required for anticipated future missions. Therefore, the 2001 training guidance revision included the perceived needs to:

- Adapt to the revolution in military affairs (RMA)
- Prepare for battles to combat Taiwan independence
- Integrate advanced equipment into the PLAAF
- Counter an excessive focus on safety during training.

The PLAAF's current "training guiding thought" emphasizes opposition-force training that closely approximates "actual combat" (实战). It consists of four directives:

- Closely adhere to actual combat (贴近实战)
- Stress opposition-force training (突出对抗)
- Exercise strict discipline (从难从严)
- Scientifically conduct training (科技兴训).

What Is Actual Combat?

The PLA does not appear to have published a formal definition of the term "actual combat" (实战). However, based on a review of how the PLAAF uses the term for its aviation troops, it appears to include:

- Conducting unscripted training
- Conducting opposition-force training
- Training in a complex electromagnetic environment
- Flying in all-weather conditions
- Flying at night
- Flying over water
- Covering long distances to attack or defend
- Flying on continuous days
- Training in unfamiliar airspace and at alternate airfields
- Conducting dissimilar aircraft training
- Allowing pilots to take the initiative during intercept training

PLAAF Training Basic Principles

The PLAAF's "training basic principles" consist of specific requirements that guide military training and give formulas for organizing and carrying out training. At present, these principles include:

- Establishing the principle of improving combat capabilities as the goal (以战斗力为目的原则) for anticipating operational tasks under conditions approximating "actual combat"
- Using theory as a guide (理论先导原则) for operating and maintaining advanced weapons and equipment
- Emphasizing opposition-force training (注重对抗训练)
- Emphasizing results (注重效益原则) while minimizing the time and material resources used to achieve those results
- Training according to regulations (依法治训原则).

Training and Education System

The PLAAF combines training and education into a single system, which it organizes into three parts:

- Military training
- Academic institution education
- Unit training.

Responsibilities for guidance and management of the training and education system start at PLAAF Headquarters and stop at the regiment level. The PLAAF's Party committee is responsible for providing overall training guidance in terms of goals and objectives. The Military Training Department, which is subordinate to the Headquarters Department in PLAAF Headquarters, is the highest organization responsible for organizing and managing the PLAAF's overall training and education system to meet those objectives. Meanwhile, the Political Department, Logistics Department, and Equipment Department are respon-

sible for implementing guidance from the Training Department for their respective areas. The PLAAF organizes its training and education system into five tiers:

- PLAAF Headquarters
- MRAF Headquarters
- Corps (15th Airborne Corps)
- Divisions (which includes colleges), aviation training bases, and brigades
- Regiments.

Training Progression

As is the case with most militaries, training in the PLAAF takes place on a continuum that starts with individual performance and progresses through unit events that are more complex and longer in duration. The PLAAF divides its training progression into six levels:

- Common training (共同训练)
- Theoretical training (理论训练)
- Skills training (技术训练)
- Tactical training (战术训练)
- Campaign training (战役训练)
- Strategic training (战略训练).

The next subsection discusses each of the six training progressions.

Common Training

PLAAF common training focuses on "transforming civilians into military personnel." The PLAAF generally carries out common training during the phases of enlisted basic training and officer basic-level training. The objective of PLAAF common training is to instill a sense of responsibility and discipline, inculcate common military knowledge and skills, strengthen physical stamina, and raise psychological quality, thus creating a good foundation for carrying out later skills and tactical training.

Theoretical Training

The PLAAF's training and education system focuses considerably on what it calls theoretical training or theory training, which basically means increasing one's knowledge about the functions of technology, equipment, military skills, and tactical movements. All personnel, ranging from new conscripts in units to senior officers in the Command College, receive some type of theoretical training. The PLAAF divides its theoretical training for aircrew members into two types: aviation theory and combat theory.

Aviation theory is the general designation for many concepts related to aviation technology, equipment, and flight skills. Its objectives are to give personnel an understanding of the basic theories of military technology, as well as the basic structural principles and applied knowledge of aviation technology and equipment. It also provides a theoretical foundation for accurately operating aircraft, analyzing flight skills, using tactics, and dealing with special situations while in flight.

Combat theory refers to knowledge of the laws of combat and the characteristics of air battles, as well as the principles and methods for carrying them out.

Skills Training

The objectives of skills training are to teach individuals to be able to operate their equipment and to provide the foundation for subsequent unit tactical training.

Tactical Training

Tactical training involves individual, subunit (battalion and below), and unit (regiment and above) training. This type of training is based on preparing for future operational tasks and simulating what the PLAAF calls "actual-combat" conditions. The objective of tactical training is to integrate the lessons of earlier common training and skills training and apply them to tactical situations.

Tactical training has two components: foundational training and applied training. Regiments organize and

implement what the PLA calls "tactical foundational training" (战术基础训练). It provides knowledge and teaches basic maneuvers to individual personnel under simple tactical conditions. After units complete foundational training, they transition to applied training, which encompasses comprehensive maneuvers in "actual-combat" situations that simulate expected future operational tasks. Applied training focuses on the entire unit, to include the commander, political officer, staff officers, operators, and logistics and maintenance support personnel.

The PLAAF generally carries out tactical applied training in the following phases:

- Plan formulation: Organizers determine which units will participate, which subjects will be addressed, and which training objectives will be fulfilled.
- Combat methods research: Ad hoc groups conduct classroom study of tactical theory.
- "Separated training": Individual training or training by a group of individuals with the same specialty.
- "Combined training": Unit training that focuses on perfecting single-level command procedures, which include both scripted and unscripted opposition-force training.
- Exercises: Opposition-force training, involving multiple command echelons.
- Summary evaluation: Upon completion of a tactical exercise, the commander and political officer carry out a summary evaluation.

Once the PLAAF completes applied training, it transitions to combined-arms training involving two or more branches, such as aviation and SAM units. At this point, the units conduct training under "actual-combat" conditions designed to improve the combined-arms capabilities of all PLAAF branches and types of weapon systems.

The MRAF Headquarters or PLAAF Headquarters organize combined-arms tactical training. The PLAAF also carries out the training in what it calls "combined-arms tactical training coordination zones" (合同战术训练协作区), where PLAAF aviation, SAM, AAA, and radar units can train together and can also train with Army and Navy units.

Campaign Training

The objective of campaign training is to enhance the ability of campaign commanders and their staff in MR and MRAF headquarters to command and execute campaigns. The training focuses on operational plans and emphasizes the ability to implement strategy, command, coordination, and support during joint campaign missions.

Strategic Training

Strategic training is similar to campaign training, but it occurs at the national level, including the CMC, four General Departments, and service headquarters. The four General Departments, PLAAF Headquarters, or command colleges organize PLAAF strategic training. PLAAF strategic training focuses on implementing strategic theory, decision-making, leadership, and command. The PLAAF conducts strategic training during a field training exercise or a command post exercise.

Training Methods

The PLAAF has a 3-tiered approach to training. On a daily basis, the PLAAF conducts individual, subunit, and unit training that usually focuses on one training subject at a time. The next step for subunits and units is to conduct training events (演练) that focus on combining several training subjects. Training events usually last one or more days. Finally, PLAAF units conduct individual or multi-unit exercises (演习) that can last for several days. Not all exercises are comprehensive. They can focus on a single area, such as: on logistics support; on a single branch, such as aviation; on combined arms, such as aviation and airborne troops; on opposition forces that include a "Red Force" and "Blue Force"; or on joint forces that

include more than one service, such as the navy and air force.

Education System

This section provides information on the PLAAF's officer and enlisted education system. It includes information about academic degrees, civilian college graduate training, continuing education, and education reforms. Appendix B provides information on the individual academic institutions.

Education Degrees

As the PLAAF has gradually moved from an educational system based primarily on schools (1949-1986) to one based on colleges and a growing number of universities, the types of degrees offered have expanded to include the following:

- Secondary technical degree (中专), which is a 2-year high school equivalency degree in China, is offered to enlisted personnel through correspondence courses, at the Dalian PLAAF NCO Communications School, or in NCO courses at officer colleges.
- Senior technical degree (大专), which is a 2- or 3-year degree that is roughly equivalent to a vocational or associate's degree offered by a community college in the United States, is offered to officer cadets at officer colleges, as well as to enlisted personnel through correspondence courses, at the Dalian PLAAF NCO Communications School, or in NCO courses at officer colleges.
- Bachelor's degree (学士), which is a 4-year undergraduate degree, is offered to officer cadets in most, but not all, PLAAF colleges.
- Master's degree (硕士), which is offered to officers in PLAAF universities and some, but not all, PLAAF colleges.
- Doctoral degree (博士), which is offered to officers in PLAAF universities and some, but not all, PLAAF colleges.

During the Cultural Revolution, the PLAAF closed almost all of its schools and most officers were selected from the enlisted ranks. When the PLAAF began reopening its schools in the late 1970s, it offered only secondary and senior technical degrees to its officers. In 1982, the PLAAF instituted a bachelor's degree program and awarded its first 4-year bachelor's degrees for officers. As part of the reforms, the PLAAF ceased offering secondary technical degrees to officers in the late 1990s.

The PLAAF awarded its first master's degrees in 1988 and its first doctoral degrees in 1990; however, not every PLAAF college offers master's and doctoral degrees. One recent trend, though, is that the PLAAF has started emphasizing the importance of graduate degrees for operations personnel and pilots, as well as increasing the existing emphasis on graduate degrees for instructors, researchers, and technical personnel.

Since the late 1980s, various PLAAF officer colleges have also offered in-resident secondary and senior technical degree programs for enlisted personnel. The PLAAF's colleges do not currently offer bachelor's degrees for NCOs.

Universities, Colleges, and Schools

The PLAAF uses several terms for its academic institutions:

- Yuanxiao (院校): "colleges and schools"—It is the generic term encompassing all PLAAF academic institutions, including universities
- Daxue (大学): "university"
- Xueyuan (学院): "college" or "academy"
- Xuexiao (学校): "school"

Academic Institutions

Today, as shown in Figure 21, the PLAAF has 3 universities, 15 colleges, and 1 NCO school.[24] See Appendix B for further information.

[24] Since the late 1990s, several PLAAF colleges, such as the Meteorology College, Medical College, and Political College have been merged into PLA universities.

Academic Institution Levels

Currently, the PLAAF divides its academic education system into three levels of education: basic education (基础教育), specialized education (专业教育), and advanced education (深造教育).

Figure 21. PLAAF Academic Institutions

Institution	City	Province	MRAF
Command College	Beijing		Beijing
Baoding Branch College	Baoding	Hebei	Beijing
Engineering University	Xi'an	Shaanxi	Lanzhou
Natural Science College	Xi'an	Shaanxi	Lanzhou
Engineering College	Sanyuan	Shaanxi	Lanzhou
SAM College	Xi'an	Shaanxi	Lanzhou
Telecom Engineering College	Xi'an	Shaanxi	Lanzhou
Guilin Air Force College	Guilin	Guangxi	Guangzhou
Radar College	Wuhan	Hubei	Guangzhou
Xuzhou Air Force College	Xuzhou	Jiangsu	Nanjing
1st Aviation [Maintenance] College	Xinyang	Henan	Jinan
Air Force Aviation University	Changchun	Jilin	Shenyang
Basic Training Base	Changchun	Jilin	Shenyang
Flight Training Base*	Changchun	Jilin	Shenyang
1st Flight College	Harbin	Heilongjiang	Shenyang
2nd Flight College	Jiajiang	Sichuan	Chengdu
3rd Flight College	Jinzhou	Liaoning	Shenyang
4th Flight College	Shijiazhuang	Hebei	Beijing
5th Flight College	Wuwei	Gansu	Lanzhou
6th Flight College	Zhuoxian	Hebei	Beijing
13th Flight College	Bengbu	Anhui	Nanjing
Air Force Military Professional University	Beijing		Beijing
Dalian PLAAF NCO Communications School	Dalian	Liaoning	Shenyang

* The Flight Training Base is the former 7th Flight College.

- Most non-aviation cadets receive their basic education at the PLAAF college where they also receive their specialty training. For example, cadets in the Engineering, SAM, and Telecommunications Engineering College receive their basic education in the Engineering University's Natural Science College. New flight personnel receive their basic education at the PLAAF Aviation University (空军航空大学) and its subordinate Basic Training Base.
- Specialized education, which follows the basic education phase, is carried out in the flight colleges and non-flight colleges.
- Advanced education, which includes 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 PME or a graduate degree. For example, command track officers receive their intermediate- and senior-level PME at the Air Force Command College, which does not appear to result in a graduate degree, while some technical officers attend specialized programs in various PLAAF colleges to obtain their graduate degrees. Command track officers, however, can attend certain graduate programs where they receive an advanced degree. Some officers (senior colonels and major generals) receive their senior-level PME at the National Defense University (国防大学).

Training for Civilian College Graduates

The PLAAF has two programs for training civilian college students. As discussed in Chapter 3, the PLAAF recruits civilian college students for the National Defense Student program, who receive training throughout the school year and in the summer. The PLAAF also directly recruits civilian college graduates. Upon graduation, directly recruited civilian college students receive about 3 months of military-political training (军政训练) at a PLAAF college, a training unit, or their permanent unit. After completing their basic training, they have two options:

- Receive technical training
- Attend graduate school.

When civilian college students graduate and enter the PLAAF, it appears they do not receive their grade and rank until they complete their military-political training. Even after they get their rank, media reports continue to identify them as "civilian college graduate officers" (地方大学干部).

Continuing Education

Overall, the PLAAF is making concerted efforts to increase the education level of its officers by offering self-study, PME, second bachelor's degrees, master's degrees, PhDs, and study or training abroad. While some of the programs are short term, others last several years.

In 2000, the PLAAF began encouraging personnel to raise their education level through correspondence courses and self-study. Since the mid 2000s, some 60% of grassroots enlisted soldiers and officers have reportedly taken part in some type of correspondence or self-study program. Better communications technology, such as the Internet, Intranet, and satellite television, makes many of these correspondence courses possible.

One important component of raising the education level of officers appears to be officer participation in graduate programs at civilian universities. For example, during 2004, more than 230 active-duty PLAAF officers entered Beijing University and Qinghua University to pursue master's and doctoral degrees.

Education Reforms

In recent years, the PLAAF has focused on improving a number of perceived deficiencies in its PME system, including unqualified instructors, a lack of up-to-date teaching materials, inadequate equipment on which

to train, and outdated campus classrooms, laboratories, and living facilities. One unresolved debate in this overall reform initiative, though, involves the balance between theory and practice. PLAAF reporting indicates that some units believe new officers arrive without sufficient hands-on training to perform their assigned duties; however, other units complain that new officers arrive without a sufficient theoretical understanding of their specialty, and thus experience difficulty learning about new systems once they are on station.

Faculty Reforms

Historically, PLAAF colleges retained their best cadets, including flight cadets, as instructors at the same institution for the rest of their career. At the same time, the colleges were reluctant to bring in experienced personnel from operational units as instructors. To help facilitate reforms, PLAAF colleges have adopted a series of measures, including:

- Sending instructors for temporary duty at operational units
- Hiring new instructors who already have operational experience
- Sending instructors to gain experience abroad by studying at foreign PME institutions
- Offering substantial monetary awards to instructors for their teaching and academic research achievements.

Theory vs. Practical Knowledge

The PLAAF places a heavy emphasis on teaching theory to all of its personnel throughout their careers. In recent years, however, the PLAAF's officer colleges and enlisted training units have attempted to balance this emphasis on theoretical knowledge with a new focus on practical experience. This initiative appears to be slightly controversial, because some PLAAF units feel that PME institutions should provide more, not less, emphasis on theoretical study. For example, in 2004, the Beijing MRAF Headquarters Department's Training Division concluded that 80% of the training problems they experienced that year were the result of pilots' insufficient grasp of aviation theory. At the same time, though, some units have complained that the colleges teach too much theory and do not provide enough practical experience.

Chapter 8
Aviation Branch

空军航空兵

The aviation branch is composed of fighters, ground attack, fighter-bombers, bombers, reconnaissance aircraft, transport aircraft, and support units. These aircraft are usually in the organizational order of division, regiment, group, and squadron. An aviation division generally has under its command two to three aviation regiments, field stations for logistics support, and aircraft maintenance groups. The aviation regiment is the basic tactical unit. Due to differences in weapons and tasks, the number of aircraft in an aviation regiment ranges from 20 to 40. The ratio of aircraft to aircrew is usually 1:1.2. The PLAAF has established a major weapons and equipment system with third-generation aircraft and surface-to-air missiles as the mainstay, and modified second-generation aircraft and surface-to-air missiles as the supplement.[25]

—China's National Defense in 2002 and 2008

This chapter discusses the PLA Air Force's aviation branch (航空兵), which the PLAAF always lists first among the four branches, followed by the surface-to-air missile, antiaircraft artillery, and airborne forces. The chapter begins with a brief history of the aviation branch. The second section examines the organizational structure for an air division. The next two sections discuss pilot recruitment, education, training, and career issues. The final section discusses aviation unit training.

Brief History

Aircraft Acquisition

The PLAAF divides its aircraft acquisition into five periods. The first period revolved around the relationship with the Soviet Union (1949-1960), which had a lasting impact on the development of China's aviation industry and PLAAF force composition. During that period, China acquired about 3,000 Soviet aircraft and received production rights to various models.

The second period began in July 1960, when the Soviet Union notified China that it was withdrawing all of its specialists and canceling all of its contracts. China then spent several years attempting to either modify or reverse engineer some of the aircraft and missiles furnished by the Soviet Union. After 1965, the Cultural Revolution severely disrupted PLAAF efforts. Between 1969 and 1971, continued disruptions led to profound quality-control problems. As one account of the aviation industry notes, "It was a time of industrial anarchy or semi-anarchy... the whole industry was in the difficult position of trying to preserve order."

The third period began following the 1979 border conflict with Vietnam, when the PLAAF realized that the F-6 could no longer meet its long-term requirements. During the conflict, the F-6s were barely able to fly to the border from existing bases, loiter for a few minutes, and return home before they ran out of fuel. As a result, the PLAAF terminated the F-6 program, and money was

[25] China refers to aircraft such as the Su-27/30 and F-10 as third-generation aircraft.

NATO-Chinese Aircraft Comparison of Designators

NATO	Chinese
A (Attack)	Q (强击机)
B (Bomber)	H (轰炸机)
C (Cargo)	Y (运输机)
F (Fighter)	J (歼击机)
FB (Fighter-Bomber)	JH (歼轰机)
FT (Fighter Trainer)	JJ (歼教机)
H (Helicopter)	Z (直升机)

infused into the F-7 and F-8 programs, which were faltering at the time. This led China and the PLAAF to begin negotiations with the United States, resulting in a foreign military sales contract (known as the Peace Pearl Program) in the late 1980s to upgrade the fire control system on the F-8II with F-16 class avionics.

The fourth period occurred during the 1990s, when China turned back to Russia for weapon systems and technology. During this period, the PLAAF purchased Su-27s, Su-30s, and Il-76s from Moscow. The Shenyang Aircraft Corporation also began assembling and producing the Chinese-licensed copy of the Su-27, known as the F-11. The PLAAF deployed its first F-11s to an operational unit in 2000.

The fifth period covers the 2000s. During this period, the PLAAF has deployed Chinese-produced FB-7s, F-10s, and K-8s, as well as modified B-6 bombers capable of carrying air-launched cruise missiles. Although China produces all of these aircraft, most of them either are based on foreign aircraft and technology or include key foreign components, such as the engines.

Number of Air Divisions

From October 1950 to early 1954, the PLAAF purchased about 3,000 aircraft from the Soviet Union and deployed them in 28 air divisions composed of 70 air regiments and 5 independent regiments. From January 1954 to 1971, the PLAAF created an additional 22 air divisions throughout China for a total of 50 air divisions.

The number remained at 50 until the end of the 1980s. Since then, the number of air divisions has gradually been reduced to 29, as shown in Figure 22. The reduction in the number of divisions has taken place in order to incorporate new types of aircraft, retire older aircraft, meet new mission requirements, and reduce personnel. Although there are fewer aircraft today, their capabilities far exceed those of the F-6, A-5, and earlier versions of the F-7, F-8, and B-6.

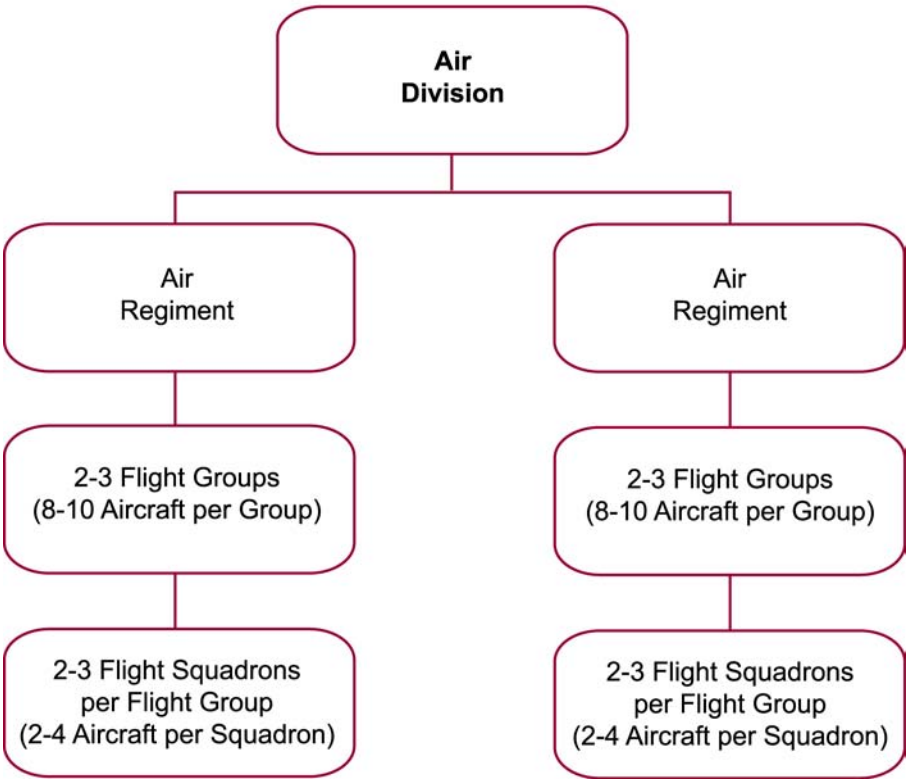
Figure 22. Air Divisions and Subordination: 2009

Subordination	Fighter	Ground Attack	Bomber	Transport
PLAAF HQ				1
Beijing MRAF	3			
Chengdu MRAF	2			1
Guangzhou MRAF	5		1	1
Jinan MRAF	2	1		
Lanzhou MRAF	2		1	
Nanjing MRAF	3	1	1	
Shenyang MRAF	3	1		
TOTAL	**20**	**3**	**3**	**3**

Composition of the Air Divisions

When the PLAAF began forming its first air divisions, most had two regiments while a few had three regiments. By 1953, the PLAAF began expanding all of its divisions to

Figure 23. Air Divisions, Regiments, Groups, and Squadrons



three regiments—one of which was usually a training regiment.

From 1986 to 1988, the PLAAF converted one air division in each MRAF to a division-level transition training base (改装训练基地). There, new graduates from the PLAAF's flight colleges receive one year of transition training before they are assigned to an operational unit. As a result, most, if not all, of the training regiments in operational air divisions have been abolished and their aircraft and missions have been transferred to the transition training bases.

As shown in Figure 23, most of the remaining air divisions today have two or three subordinate regiments. Most airfields support only one regiment. Each regiment has two to three subordinate flight groups (飞行大队), which are battalion-level organizations. The PLAAF divides each flight group into two to three flight squadrons (飞行中队), which are company-level organizations. Each flight group has an average of eight to ten aircraft, and each flight squadron has an average of two to four aircraft.

Aircraft Bases and Deployment Locations

During the 1950s, most of the PLAAF's units were concentrated in the northeast and in major cities, such as Beijing, Shanghai, Nanjing, and Tianjin, to protect them from Nationalist Air Force air raids. It was not until the 1958 Taiwan Strait Crisis that the PLAAF established a presence in Fujian and Guangdong provinces.

The PLAAF moved forces into the western regions following the "liberation" of Tibet and China's 1962 border war with India. The PLAAF deployed more units to the southern region during the Vietnam War and near the Soviet border after a 1969 border incident. By the mid 1970s, the PLAAF had units permanently assigned throughout China.

Aircraft Basing Criteria

During its formative years, the PLAAF acquired primarily defensive aircraft to be able to provide an adequate air defense capability for its major cities and industrial areas. Since then, units have been established, merged, and abolished based on four criteria:

- The need to have a presence in a particular area, such as in the Guangzhou MRAF during the Vietnam War

- Production of new types of aircraft with new missions, such as the A-5 and B-6
- Mission requirements that have demanded a specific overall force size and capability, such as Taiwan
- Evaluation of the main and secondary strategic directions.

In the late 1980s, as the PLAAF's operational doctrine began shifting toward the goal of simultaneous defensive and offensive operations, it began seeking a systematic way to purchase and produce aircraft with longer ranges and more capable munitions, such as the Su-27, Su-30, F-10, K-8, and FB-7.

In at least some cases, tradition appears to have influenced the PLAAF's replacement of older aircraft at existing units with new or upgraded variants. For example, the 1st Air Division, with its headquarters at Anshan, Liaoning Province, in the Shenyang MRAF, has been the first unit to receive some of the PLAAF's new types of aircraft as shown below:

- 1956: First domestically developed and produced F-5 unit created
- 1969: First domestically produced F-6 unit created
- 1979: First F-8 unit created
- 2000: First F-11 unit created.

Aircraft Generations

When reading PLAAF writings, it is important to understand that China's criteria for identifying its aircraft generations differ from the accepted international norms. The international system bases the criteria for aircraft generations on particular decades and capabilities, as follows:

- 1st generation: circa 1945-1955 (supersonic)—F-86, Mig-15/17
- 2nd generation: circa 1955-1960 (upgraded aerodynamics, propulsion, altitude, and materials)—F-105, F-104
- 3rd generation: circa 1960-1970 (improved maneuverability, multirole capabilities, better propulsion)—F-4
- 4th generation: circa 1970-1990 (sophisticated avionics and weaponry due to computers)—F-16, F-15
- 5th generation: circa 1990-present (highly advanced avionics and stealthy sensory suites)—F-22, F-35

The PLAAF identifies its aircraft only as 1st, 2nd, or 3rd generation, based on when they were first integrated into the force. Specifically, the PLAAF considers:

- 1st-generation aircraft: the F-5 and F-6, first deployed in the 1950s and 1960s
- 2nd-generation aircraft: the F-7 and F-8, because they were first deployed in the 1970s and 1980s
- 3rd-generation aircraft: the Su-27/30, FB-7, F-10, and F-11, were first deployed in the 1990s and 2000s.

Air Division Organizational Structure

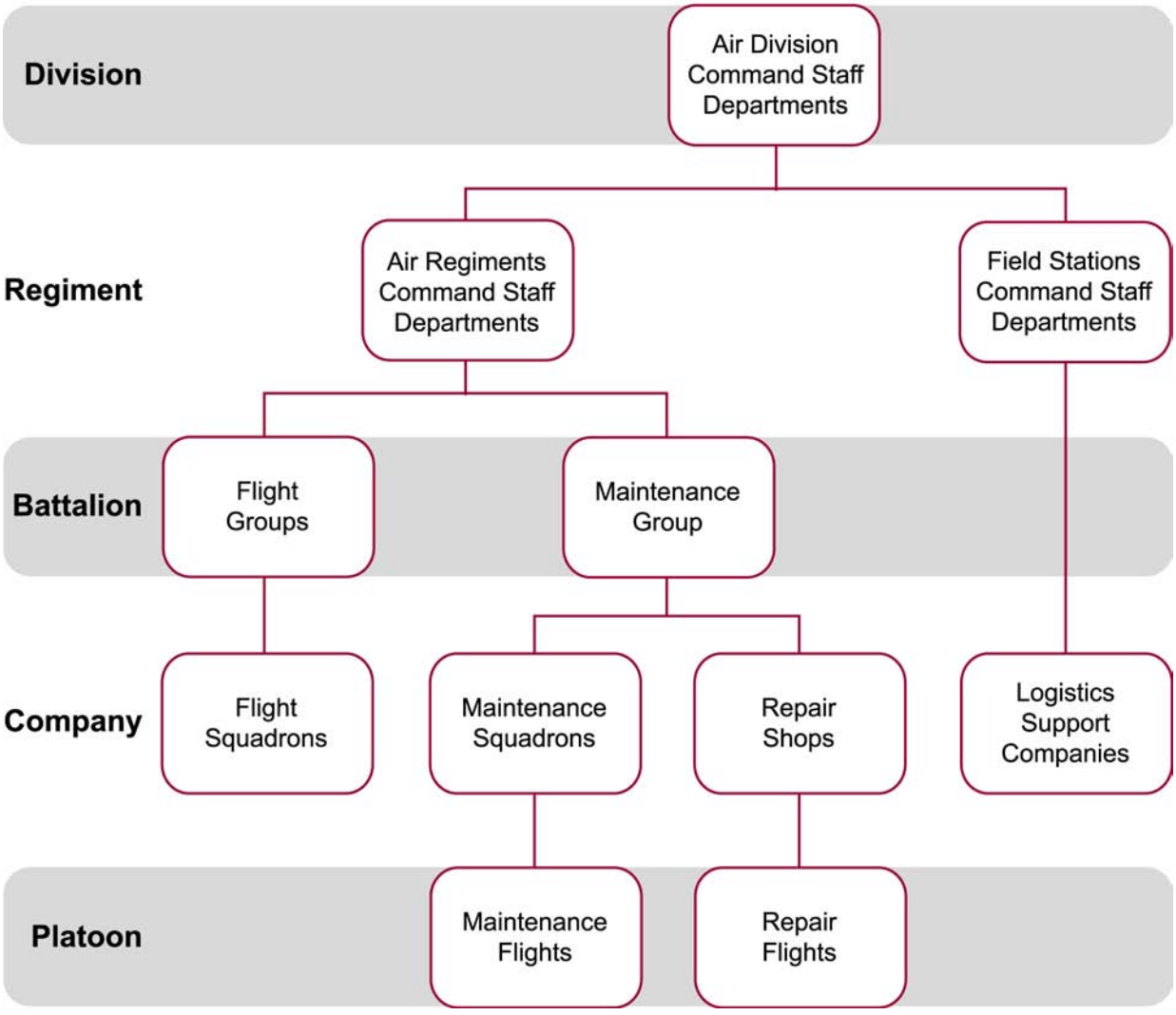
Overview

As depicted in Figure 24, an air division consists of a command staff, four functional and administrative departments, and two types of regiment-level subordinate units: air regiments and field stations (场站). The air division headquarters is a tenant unit at an airfield.

Depending on its location and mission, an air division can be directly subordinate to PLAAF Headquarters or an MRAF Headquarters. Since the 2003-2004 force reduction, under certain circumstances, an air division can be subordinate to a division-level command post for exercise purposes.

The command staff of an air division consists of a commander (师长), a political commissar (政委), at least two deputy commanders, and at least one deputy political commissar. The functional and administrative departments consist of a Headquarters Department

Figure 24. Air Division Structure



headed by a chief of staff, a Political Department headed by a director, and a Logistics Department and Equipment Department, each of which has a director. Each department has several subordinate offices that equate to those in the PLAAF and MRAF Headquarters.

Air Regiments

Most air divisions have two to three subordinate air regiments. Although most regiments are located at separate airfields, some airfields house two regiments. As shown in Figure 24, each regiment has a command staff, functional and administrative departments, and two types of subordinate units: flying units and aircraft maintenance units.

The command staff for an air regiment consists of a commander (团长), a political commissar, at least two deputy commanders, and at least one deputy political commissar. Air regiments have only two functional and administrative departments: a Headquarters Department headed by a chief of staff and a Political Division headed by a director. Air regiments do not have logistics or equipment departments. The field station and maintenance group, discussed below, manage these functions.

Flight Groups

As shown in Figure 24, each PLAAF air regiment has two to three subordinate battalion-level flight groups. Each flight group has an average of eight to ten aircraft.

Each flight group has a commander (大队长), a political director (教导员), one to two deputy commanders, and a deputy political director. As a general rule, PLA organizations at the battalion level and below do not have any functional and administrative departments.

Flight Squadrons

The PLAAF considers flight squadrons to be the basic organizational structure for air units. Each flight group has two to three company-level flight squadrons with two to four aircraft per squadron. Fighter and ground attack units train using single-ship, two-ship, and four-ship formations, while bomber units usually use three-ship formations.

Each flight squadron has a commander (中队长), a political instructor (指导员), and one to two deputy commanders. Some flight squadrons also have a deputy political instructor. It is not clear how many total personnel are in a flight squadron.

Maintenance Group

As shown in Figure 24, each air regiment has a subordinate battalion-level maintenance group (机务大队). The maintenance group has a commander, a political director, one to two deputy commanders, and at least one deputy political director. As part of the 2003-2004 force reduction, the PLAAF upgraded the maintenance group commanders to regiment deputy leader-grade officers in order to emphasize the importance of aircraft maintenance.

A typical maintenance group for a single air regiment has about 350 people (90 officers and 260 enlisted personnel).

Each maintenance group has four subordinate company-level maintenance squadrons (机务中队), which are identified as the 1st, 2nd, and 3rd maintenance squadrons and the periodic inspection squadron. Each maintenance squadron has a commander, a political instructor, and at least one deputy commander. Some squadrons may also have a deputy political instructor.

Each squadron, in turn, has several subordinate platoon-level flights (分队), including radar, machinery, armament, special equipment, radio, and fire control system flights. Each flight has a commander. As platoon-level organizations, flights do not have political officers.

Because of the 2003-2004 force reduction, the PLAAF has begun to replace some 1st and 2nd lieutenant maintenance officers with NCOs.

Aircraft Maintenance Facilities

The PLAAF has three levels of aircraft repair facilities: local or base repairs (小修), intermediate overhaul (中修), and major overhaul (大修).

Each maintenance group has a subordinate company-level aircraft repair shop, or backshop, for local repairs.

Some airfields also have an aviation central repair facility (航空中心修理) that conducts intermediate repair for a particular type of aircraft from throughout the PLAAF. For example, the PLAAF has an intermediate repair facility for Sukhoi aircraft in Dalian, Liaoning Province. These facilities are subordinate to the MRAF's Equipment Department.

The Equipment Department at PLAAF Headquarters has several directly subordinate major overhaul factories (大修厂) for aircraft and engines. In addition, the PLAAF must still send some of its aircraft back to the original factory for major overhaul.

Aircraft Repair Shops

Each maintenance group has a subordinate company-level aircraft repair shop (修理厂), or backshop, for local repairs. The repair shop, in turn, has several subordinate platoon-level flights that work with their corresponding squadrons in a maintenance group. The PLAAF organizes each flight into several squad-level sections (组).

Technical officers and NCOs—all of whom fill billets as machinists and mechanics—staff the repair shop. NCOs serve as the section leaders and are also replacing some junior officers as flight commanders.

Rapid-Repair Subunits

The PLAAF began studying rapid repair for damaged aircraft after the first Gulf War. In 1998, the PLAAF's 1st Aviation Technology College, located in Xinyang, Henan Province (Jinan MRAF), opened the PLA's first aircraft-damage rapid-repair test center (战伤抢修实验中心).

During the early 2000s, the PLAAF began creating a rapid-repair subunit at each airfield and conducting training for "on-site rapid repair" of aircraft, equipment, and facilities after an enemy attack. Each subunit incorporates personnel from the maintenance group and field station.[26]

Although the PLAAF has gradually improved its "on-site rapid-repair" capabilities, it is still in the early stages and much of its training is simulated. Therefore, the PLAAF still repairs equipment with more difficult problems at its intermediate repair or major overhaul facilities located elsewhere, or at the original factory.

Field Stations

As shown in Figure 24, a field station is an independent regiment-level logistics support unit subordinate to the air division. Some field stations can also be

[26] As noted in Chapter 2, the PLA defines subunits (分队) as organizations at the battalion, company, and platoon level.

directly subordinate to an MRAF Headquarters. The commander (站长) serves as the airbase commander with responsibility for all facilities and operations. He also organizes the supply of materials and equipment to each tenant air regiment and provides logistics support for flight operations and training.

Depending on the number of regiments located at an airfield, a field station has 500 to 900 personnel with an approximate ratio of 20% officers to 80% enlisted members. A field station has three components: a command staff, functional and administrative organizations, and subordinate company-level organizations. Although the field station serves as the logistics support organization for an air regiment, it also incorporates certain organizations within the Equipment Department system, such as munitions and air materiel.

The command staff consists of a commander, political commissar, at least two deputy commanders, and at least one deputy political commissar. It also has a Headquarters Department and a Political Division, each of which have several subordinate functional and administrative branches. The branches support more than ten companies, including navigation beacon, target range, security, four stations, airfield service, vehicle, fuel transport, cave depot, and air-to-air missile companies.[27] The field station also has several depots, including those for fuel, air materiel, and munitions. In addition, it is responsible for communications and has a subordinate weather station.

Ground Crews

Each aircraft has a ground crew of about 6 to 11 personnel, depending on the type of aircraft. Each ground crew, which includes officers, NCOs, and conscripts, consists of personnel from the field station and maintenance group. Some of the personnel support only a single aircraft. The ground crew maintains the aircraft between sorties and prepares it for takeoff, including loading munitions.

Pilot Recruitment, Education, and Training

Pilot Recruitment

Historically, the PLAAF has not recruited its pilot cadets from throughout the country but has focused primarily on recruiting Han Chinese. It has now begun, however, to recruit a small number of cadets from minorities in Xinjiang, Inner Mongolia, Yunnan, and Qinghai.

According to a *PLA Daily* article, the PLAAF recruited and trained 130,000 pilots from 1949 through 2005. Traditionally, the PLAAF recruited most of its pilots from the pool of graduating high school students and enlisted personnel. For example, from 1987 to 2007, the PLAAF selected a total of 25,000 high school graduates (an average of 1,250 per year) and only 800 college graduates as pilot cadets.

These high school recruits then underwent 4 years of training at a PLA Air Force flight college—at least 2 years of classroom education, followed by flight training in a basic trainer and then an advanced trainer.

The PLAAF continues to recruit most of its pilot cadets from among high school graduates. However, in the early 2000s, it initiated programs to recruit the following three types of better-educated students from PLA and civilian colleges and universities:

- 2000: PLA college graduates with a 3-year senior technical or 4-year bachelor's degree in missiles or telecommunications
- 2003: Civilian college graduates with a 3-year senior technical or 4-year bachelor's degree in science or engineering

[27] The four-stations company consists of an oxygen-generation station (制氧站), a compressed-air station (冷氧站), a battery-charging station (充电站), and a power-supply equipment station (电源站). Each station is probably a platoon-level organization. An airfield service company is responsible for an airfield's runways, beacons, fire and rescue, airfield flood protection, snow removal, camouflage, missile movement, and rapid repair, and for maintenance of the associated equipment.

- 2006: Civilian college students in their 3rd and 4th year and majoring in science or engineering.

Air Force Aviation University and Flight Colleges

In May 2004, the PLAAF created the Air Force Aviation University (空军航空大学) in Changchun, Jilin Province (Shenyang MRAF).

The university is composed of the following two division leader-grade bases, both of which are located in Changchun:

- Flight Basic Training Base (飞行基础训练基地)
- Flight Training Base (飞行训练基地).

Today, as shown in Figure 25, in addition to the two aviation training bases subordinate to the Air Force Aviation University, the PLAAF has seven flight colleges (飞行学院) located in five MRAFs.[28]

[28] The Army Aviation Corps Academy trains PLAAF helicopter cadets

Each college, which is a division leader-grade organization, has two or more airfields and two to four subordinate regiments. Some regiments are for basic trainers and some for advanced trainers. The PLAAF divides each regiment into at least two flight groups, which, in turn, has subordinate flight squadrons.

Almost all of the instructor pilots at PLAAF flight colleges graduated from flight training and then remained at their college as instructors for the rest of their careers. The PLAAF has selected only a few pilots from operational units to return to the colleges as instructor pilots. As a result, the PLAAF does not assign some of its best graduates to operational units, and the cadets do not receive the benefits of learning from pilots with operational unit experience.

Recruitment and Training

PLAAF Headquarters has a Pilot Recruitment Bureau and each MRAF Headquarters has a Pilot Selection Center. These are responsible for recruiting new pilots from high schools and colleges. From late October

Figure 25. Flight Colleges

College	City	Province	MRAF	Pilot Training
Air Force Aviation University	Changchun	Jilin	Shenyang	Basic Education for all new cadets
Basic Training Base	Changchun	Jilin	Shenyang	Female cadets; Civilian College Graduates
Flight Training Base (Former 7th Flight College)	Changchun	Jilin	Shenyang	
1st Flight College	Harbin	Heilongjiang	Shenyang	Bombers; Transports
2nd Flight College	Jiajiang	Sichuan	Chengdu	Transports
3rd Flight College	Jinzhou	Liaoning	Shenyang	Fighter; Ground Attack
4th Flight College	Shijiazhuang	Hebei	Beijing	
5th Flight College	Wuwei	Gansu	Lanzhou	
6th Flight College	Zhuoxian	Hebei	Beijing	
13th Flight College	Bengbu	Anhui	Nanjing	

through December, the PLAAF distributes information and prepares for the recruiting period. The following February, it issues a special call for pilot cadets who meet specific requirements. High school seniors who want to join the PLAAF as pilots must be 16 to 19 years old, and meet health, psychological, political, and education requirements. From February through July, the PLAAF completes its political evaluation and testing of the candidates.

Because of the differences in their educational background and their training requirements, the PLAAF separates the four types of cadets (high school graduates, civilian college students, PLA college graduates, and civilian college graduates) during their basic and advanced trainer phases. Figure 26 depicts the duration of each phase.

All new high school graduate pilot cadets complete the first phase (30 months) of their training at the PLAAF Aviation University's Flight Basic Training Base. This phase includes basic education, aviation theory, five major courses, several required courses, elective classes, parachuting, and wilderness survival. After they complete their basic education, the PLAAF assigns them to one of the seven flight colleges or they remain at the university for the basic and advanced trainer phases of their training.

The second phase includes 6 months of training in a basic trainer regiment equipped with the CJ-6. The third phase includes 12 months of training in an advanced trainer regiment equipped with trainer aircraft such as the K-8. During these two phases, the cadets complete 10 basic training subjects, including takeoff and landing, check ride, aerobatics, instrument flight, and formation flying.

Pilot cadets selected from PLA colleges and civilian college students and graduates begin their training in a basic trainer regiment at selected flight colleges. Their first phase consists of 12 months of training, which includes aviation theory and flight training in a basic trainer.

As shown in Figure 26, the next phase for all cadets consists of being assigned to an advanced trainer regiment, where they train for 12 months. After they complete what the PLAAF calls "basic-level command officer training and education," all of the cadets receive a bachelor's degree in military science.

Upon graduation, students receiving their first bachelor's degree become platoon leader-grade officers with the rank of second lieutenant. Students receiving their second bachelor's degree receive the grade of company leader and the rank of first lieutenant.

After graduation, pilot cadets begin the next phase. This phase differs depending on the type of unit and aircraft to which they are assigned: bomber and transport pilots go directly to an operational unit for their next phase of training in an operational aircraft; fighter and ground attack pilots are sent to one of the seven MRAF transition training bases for an additional year, where they transition into yet another advanced trainer aircraft, such as the FT-6.

Figure 26. Flight Training Schedule

	Basic Education and Aviation Theory	Basic Trainer and Aviation Theory	Advanced Trainer	Transition Training	Unit Training
High School graduates	30 Months	6 Months	12 Months	12 Months	24 Months
Civilian College 3rd/4th Year Students		12 Months			
PLA/Civilian College Graduates					

The final phase for all pilots consists of two years of transitioning into a combat aircraft at their operational unit. Most operational units have a 2-seat trainer, such as the FT-7 or Su-27 trainer.

Pilot Career Issues

Female Pilots and Crewmembers

Historically, the PLAAF has assigned all of the PLAAF's female pilots and female flight crewmembers only to transports. However, according to Chinese press reports, the PLAAF selected a group of 16 cadets to become China's first female fighter pilots. They began training in 2005 and graduated in April 2009, having flown 135 hours. After they complete about one year of transition training, the PLAAF will assign them to operational units in 2010.

From 1951 to 2008, the PLAAF trained about 330 female transport aircrews in eight groups. The ninth group began its training in August 2008.

After completing their basic education in Changchun, all female cadets have been assigned to the 1st Flight College in Harbin, where they train as a crew. After completing training, the PLAAF has assigned them to the 13th Transport Division in the Guangzhou MRAF and the 4th Air Division in the Chengdu MRAF—mostly as members of all-female Y-7 crews. The PLAAF has assigned only a few female pilots to mixed-gender aircrews for other types of transports, including the Il-76.

Female pilots are beginning to move into various command-level positions and receive graduate degrees. In 2003, Yue Xicui was the PLAAF's first female pilot to become a major general. In 2005, she became one of the deputy chiefs of staff in the Guangzhou MRAF Headquarters. Also in 2003, Le Wenya became the first female PLAAF pilot to earn a master's degree, which she received from the Air Force Command College. In April 2009, Senior Colonel Cheng Xiaojian became the PLAAF's first female air division commander.[29]

Pilot Ratings (Grades)

In 1986, the PLAAF began awarding one of four aeronautical ratings (grades) to all aircraft crewmembers, including pilots, navigators, communications personnel, gunnery personnel, and instructor pilots. The four grades are as follows:

- Special grade (特级)
- First grade (一级)
- Second grade (二级)
- Third grade (三级).

The criteria for acquiring these grades include time on station, flying hours, special missions, and ability to fly in daytime and nighttime, under visual flight rules (VFR) and instrument flight rules (IFR) conditions.

After graduating from a transition base, pilots receive a third-grade rating if they have achieved the required technical level. After 2 to 3 years at an operational unit, they can receive a second-grade rating by: flying under day and night IFR conditions; maintaining flight safety standards; and reaching a certain proficiency level. Next, they can become first-grade pilots if they have: conducted combat and training missions under day and night IFR conditions; flown a certain number of hours; reached the levels of instructor pilot, flight leader, and flight commander in the tower; and maintained flight safety standards. Finally, they can become special-grade pilots if they have: already been a first-grade pilot; made special achievements in combat, training, and test flights; and maintained flight safety standards.

[29] Major General Yue Xicui was in the third group of female pilots. In her 36-year career, Yue had flown five types of military transport aircraft for a total of 6,100 hours, which was the most hours by any female pilot. Senior Colonel Cheng Xiaojian was a graduate of the 5th female pilot group and became commander of the 4th Air Division in the Chengdu MRAF at age 46. As of early 2009, she had flown 3,240 hours in six types of transports and was a special-grade pilot.

Pilot Age Limits

In 1986, the PLAAF also established age limits for its pilots. When the PLAAF no longer allows a pilot to fly due to age, incompetency, or ill health, he/she is grounded (停飞). The age limits for each type of pilot are as follows:

- 43 to 45 for fighter and ground attack pilots
- 48 to 50 for bomber pilots
- 55 for transport pilots
- 47 to 50 for helicopter pilots
- 48 for female pilots.

Pilot Career Track

Figure 27 provides information on the age range noted for pilots as they move up the career ladder from cadet to division commander.

Unit Training

For PLAAF air units, the 2000s have been an important period of transition from older-generation aircraft to new aircraft with significantly better capabilities. The PLAAF has also transitioned from the old *Outline of Military Training (OMT)*, issued in 1995, to a revised *Outline of Military Training and Evaluation* (*OMTE*), issued in 2002. In January 2009, the PLAAF began implementing yet another revised *OMTE*. See Chapter 7 for information on the *OMTE*.

Transitioning to these new-generation aircraft has been one of the more daunting challenges facing PLAAF air units—not only for pilots, but also for maintenance and logistics support personnel. For example, when the PLAAF formed its first units with new-generation aircraft, few pilots were qualified as flight instructors. The pilots assigned to the new aircraft not only had to fly the aircraft, they also had to become qualified as flight instructors and as flight commanders in the tower. The pilots, maintenance, and logistics personnel all had to help write training manuals. The fact that the units also had to meet the more rigorous requirements of the revised *OMTE* further complicated the transition.

Flight Training Sequence and Terms

As PLAAF pilots progress in their careers, they transition from foundational training (基础训练), to aviation theory (航空理论), to what is best translated as "skills" or "techniques training" (技术训练), to tactics/tactical training (战术训练), and finally to

Figure 27. Notional Pilot Career Track

Age Range	Position	Grade	Rank
17-21	Pilot Cadet		
21-22	Pilot (transition training)	Platoon leader	2nd Lieutenant
25-30	Squadron commander	Company leader	Captain
30-34	Group deputy commander	Battalion deputy leader	Captain
34-40	Group leader	Battalion leader	Major
35-39	Regiment deputy commander	Regiment deputy leader	Lieutenant colonel
33-45	Regiment commander	Regiment leader	Colonel
40-45	Division deputy commander	Division deputy leader	Colonel
45-50	Division commander	Division leader	Senior colonel

training on combat methods (战法训练).

It appears that, prior to the 2002 revised *OMTE*, most pilots conducted skills training but less than 50% of all flight training was what the PLAAF classifies as tactics training.

According to the PLAAF, skills training subjects are single item subjects, such as taking off, rendezvousing, formation flying, landing, and instrument flying. According to the PLAAF, tactics flight subjects combine different skills, which are discussed below.

The 2002 revised *OMTE* introduced the concept of "composite training" (综合训练), which combines more than one flight subject in the same training event. Prior to the 2002 *OMTE*, pilots apparently conducted only a single training subject per sortie. The PLAAF also implemented what it calls "coordinated training" (协同训练) and "tactics cooperation training" (战术协作训练). These terms are used in conjunction with combined-arms training (合同训练) to mean cooperation between the PLAAF's different branches and dissimilar aircraft, respectively.

Air Tactics Training

The PLAAF's *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." The PLAAF organizes its air tactics into the following:

- Aerobatics
- Air intercept
- Emergency takeoffs
- Flying at different altitudes
- Flying in clouds
- Flying in different weather conditions
- Flying over water
- Formation flying
- Ground attack
- Mobility
- Night flying
- Opposition-force (Red Force vs Blue Force) air combat.

Since the PLAAF issued the 2002 *OMTE*, analysis of PLAAF writings indicate that the PLAAF's air tactics training have ranged from simple formation flying to nighttime, long-range, and minimum-altitude attacks over water against maritime and ground targets. Some units have also reportedly begun focusing on flying under radio silence. Bomber and attack unit training has reportedly emphasized long-distance bombing runs followed by transiting through numerous airfields to refuel, sometimes with large numbers of aircraft and personnel. Other important training has included mobility, flying in poor weather, and training in "unfamiliar areas" under "unknown" (i.e., not scripted), "actual-combat" conditions. A major factor that facilitated this change to more complex air tactics training was the development of "composite training" (e.g., conducting more than one training subject per sortie) discussed above.

Unit and Pilot Flying Quotas

PLAAF Headquarters assigns two annual flying quotas (飞行指标) to each air division and regiment. The unit, in turn, divides the quotas among its pilots. Each unit reviews its quotas on a quarterly basis and adjusts the training accordingly. The first quota is the number of flying hours per year (飞行时间指标). The monthly quota averages about 8.3% of the total, with most units completing their quotas in early December, so that the figures can be reported during the annual All-Army Training Conference held at the end of the year. During December, the aircraft also undergo an annual inspection, so that they are ready to begin flying again in early January.

The second quota refers to the amount of air tactics training that each unit must accomplish each year. The revised *OMTE* in 2002 required at least 50% of all training to be tactical, and, in fact, most units report-

edly averaged 60% or more during 2009.

Flying Days and Periods

The PLA's *Military Dictionary* states, "A flying day is divided into three flying periods (场次), including day, night, and after midnight." Historically, the PLAAF's three distinct flying periods have been day (0800-1600), evening into night (1600-2400), and after midnight (2400-0800).

During the 2000s, the PLAAF instituted "large flying periods" (大场次) that move from day into evening, evening into after midnight, and after midnight into day. The PLAAF also began conducting what it calls "rolling-type" (滚动式) training that can last up to 24 hours and transitions through all three flying periods.

Air Dominance

- The PLAAF's concept of "command of the air" best equates to the USAF's concept of air dominance—control of a given airspace at a given time by one side in battle.
- The PLAAF defines "strategic command of the air" as "the ability to influence a war by conducting command of the air for the entirety of the war or for a specific period of time at a particular location or for locations over a sustained period of time."
- The PLAAF defines "operational and tactical command of the air" as "the ability to influence a battle by conducting command of the air over a critical or limited area for a short period of time."

Linking Quotas, Sorties, and Flying Periods

Figure 28 shows the relationship between time per sortie (A), number of sorties per year (B), and total number of flight hours (C), where the total number of hours is a constant.

Figure 28. Unit Sorties and Flying Hours Ratio

A (Time per sortie)	x	B (Number of sorties)	=	C (Total number of flight hours)

As noted above, PLAAF Headquarters assigns each unit a quota with a set number of flying hours per year. Given the changes implemented under the 2002 *OMTE*:

- The number of training subjects per sortie has increased, thus lengthening the time per sortie
- The total number of flying days per year has decreased
- The number of flying periods per year has decreased
- The number of maintenance days per year has decreased
- The amount of fuel used has decreased.

The 2002 *OMTE* has also required PLAAF aviation units to increase the amount of simulator training.

Opposition-Force Training

The PLAAF has continued to increase its use of opposition-force training. PLAAF aviation troop opposition-force training includes aircraft, SAM, and AAA adversaries. Most instances of opposition-force training involve "Blue Force" and "Red Force" aircraft engaged in training with a set script and objectives. However, the PLAAF's opposition-force training has begun to more closely resemble what it calls "actual combat" (实战). One of the primary goals is to achieve what the PLAAF calls "command of the air" (air dominance).

To accomplish this, units reportedly are trying to stop scripting their opposition-force training. In some cases, pre-engagement meetings between both sides are no longer held. In addition, the PLAAF is slowly trying to allow its pilots to take initiative in the air and to improvise more.

Historically, the PLAAF's air-to-air opposition-force training did not involve much use of dissimilar aircraft. Under the 2002 *OMTE*, however, aviation units increased their dissimilar aircraft training. This type of training will most likely increase under the revised 2009 *OMTE*.

Day and Night VFR and IFR Flying

The PLAAF uses different terms to refer to flying during the day and night under VFR and IFR conditions:

- "Flying in simple-weather conditions" (简单气象) usually refers to flying during the day and night under VFR conditions.
- "Three-weather conditions" (三种气象) refers to flying during the day and night under VFR conditions and during the day under IFR conditions.
- "Four-weather conditions" (四种气象) and "flying in difficult-weather conditions" (复杂气象) refers to flying during the day and night under VFR and IFR conditions.

These terms are often confused with "flying in weather," which is distinguished by the use of modifiers such as good, poor, cold, hot, rainy, snowy, or minimum weather conditions.

Transport Aircraft Support

During aircraft deployments prior to 2002, the PLAAF moved almost all of its aviation unit support personnel, ground equipment, and supplies by rail and road. Under the 2002 revised *OMTE*, however, the PLAAF has gradually increased its use of transport aircraft to support deployments to other airfields.

Flight Skills Training

The objective of flight skills training is to perfect a pilot's ability to operate aviation technology and equipment. The PLAAF categorizes these types of flight skills training according to the following six factors: time of day, weather, flight rules, altitude, environment, and number of aircraft. Figure 29 lists the types of flight skills training based on these six factors.

The PLAAF further divides flight skills training into piloting skills (驾驶技术) training and combat skills (战斗技术) training.

Piloting Skills Training

The objective of piloting skills training is to teach flight personnel to be able to operate an aircraft to its full capabilities. This type of training provides one of the key building blocks for tactical training. It includes:

- Takeoff and landing
- Aerobatics
- Flying in formation
- Flying blind with instruments
- Navigation.

Combat Skills Training

Combat skills training focuses on honing each pilot's ability to carry out aerial combat maneuvers using an aircraft's instruments and weapons. Combat skills are an important component of flight training and provide yet another key building block for tactical training. There are six types of combat skills training:

- Air intercept
- Aerial firing
- Aerial bombing
- Attacking ground targets
- Air reconnaissance
- Air transport.

Additional Flight Skills

In addition to the various types of pilot and combat skills noted above, pilots who execute "special tasks" receive additional training based upon the aircraft's unique characteristics and requirements. For example, pilots for certain types of combat aircraft and tankers receive training to perform aerial refueling. Pilots of

the following aircraft also receive specialized training:

- Airborne early warning and command aircraft
- Electronic reconnaissance and jamming aircraft
- Medevac helicopters.

Use of On-Board Data Systems

Finally, during the 2000s, the PLAAF has developed and fielded several information technology and computer-based systems that allow pilots and flight commanders in the tower, as well as unit leaders, to improve their job performance. Some, but not all, aircraft have been equipped with the Flight Parameter Recording System, which is used as the basis for unit debriefs at the end of each flying period. When combined with other systems at the ground processing station, it acts as an integrated monitoring system that measures, records, and processes the working status and parameters of the aircraft and its systems. Pilots who do not meet the standards receive supplemental training or are grounded.

The Flight Parameter Recording System can reportedly collect and preserve more than 70 sets of key parameters, such as flight control, engine status, flight status, and instrument indicators. In addition, the Real-Time Flight Monitor System, which works in conjunction with the Flight Parameter Recording System, can accurately transmit flight parameter information and satellite navigation positioning information for a single or multiple aircraft beyond-visual-range to the control tower on a real-time basis, where the information is displayed on the terminal.

The Flight Parameter Recording System can perform diagnosis and prediction of aircraft failures and assess the quality of the flight. The Real-Time Flight Monitor System takes the signals recorded by the Flight Parameter Recording System and the GPS positioning signals, and, through data transmission radio transmitters and antenna, transmits them in real time to the tower's command system terminals. Flight commanders in the tower can then look at the display

Figure 29. Types of Flight Skills Training

Time of Day	Day (昼间)
	Night (夜间)
Weather	Simple Weather (简单气象)
	Complex Weather (复杂气象)
Flight Rules	Visual Flight Rules (VFR) Training (目视飞行训练)
	Instrument Flight Rules (IFR) Training (仪表飞行训练)
Altitude*	Ultra-High Altitude Flight Training (超高空飞行训练)
	High Altitude Flight Training (高空飞行训练)
	Medium Altitude Flight Training (中空飞行训练)
	Low Altitude Flight Training (低空飞行训练)
	Minimum Altitude Flight Training (超低空飞行训练)
Environment	Maritime Flight Training (海上飞行训练)
	Plateau Flight Training (高原飞行训练)
	Mountain Flight Training (山地飞行训练)
	Desert Flight Training (荒漠飞行训练)
Number of Aircraft	Single Aircraft Flight Training (单机飞行训练)
	Formation Flight Training (编队飞行训练)

*Note: The PLAAF dictionary defines minimum altitude (超低空) as less than 100 meters, low altitude (低空) as 100 to 1,000 meters, medium altitude (中空) as 1,000 to 7,000 meters, high altitude (高空) as 7,000 to 10,000 meters, and ultra-high altitude (超高空) as 15,000 meters and above.

monitor to gain real-time access to the attitudes, positions, and courses of the aircraft in the air. They can also view some instruments in the cockpit. As a result, they can better command the aircraft and determine aircraft malfunctions during flight.

The PLAAF also fielded another key system identified as the MRAF Flight Training Organization and Command Network Management System, which allows unit leaders to track annual training plans, monthly training plans, and flight time per week. Reportedly, the system is fully networked, allowing for communication among divisions, regiments, and all flight groups.

Chapter 9
Surface-to-Air Missile Branch

空军地空导弹兵

The PLAAF usually organizes its surface-to-air missile branch into divisions with subordinate regiments and battalions or into brigades or regiments with subordinate battalions. Battalions are the basic fire unit.

—China's National Defense in 2008

This chapter discusses the PLA Air Force's surface-to-air missile (SAM) branch (地空导弹兵), which the PLAAF always lists as second after aviation troops and before the antiaircraft artillery and airborne forces.

Brief History

The PLAAF created its SAM branch in October 1958, when China received its first SA 2 missiles (5 launchers and 62 missiles) from the Soviet Union. At the same time, the Air Force established its missile school at Sanyuan, Shaanxi Province, and the first SAM battalion near Beijing. The first units borrowed people from the AAA, radar, aviation maintenance, and spotlight troops.

For security purposes, PLAAF Headquarters called its SAM department the Technical Department. In 1966, the PLAAF combined the Technical Department with the AAA Department. Today, the PLAAF identifies the combined department as the Ground-based Air Defense Troops Department.

The PLAAF also refers to its SAM forces as "second artillery" (二炮) to distinguish it from its AAA troops or "first artillery" (一炮). However, this often causes confusion because Second Artillery also refers to the PLA's ballistic missile force.

Organizational Structure Overview

Today, the PLAAF organizes its SAM forces into one of the following four command structures, where the highest-level headquarters can be a division, brigade, or regiment:

- Air defense composite division (防空混成师) with separate SAM and AAA regiments, battalions, and launch/firing companies[30]
- SAM division (导弹师) with subordinate regiments, battalions, and companies
- SAM brigades (导弹旅) with subordinate battalions and, in some cases, launch companies
- SAM regiments with subordinate battalions and, in some cases, launch companies.

There are no identified situations in the PLAAF where a brigade is subordinate to a division. Furthermore, no SAM regiments are subordinate to SAM brigades.

[30] The characters huncheng (混成) can be translated as "combined," "composite," or "mixed."

Depending on their location, SAM units can be either directly subordinate to an MRAF Headquarters or subordinate to a PLAAF division-level command post.

Order of Battle

Figure 30 provides information from the U.S. Department of Defense's *Annual Report to Congress on the Military Power of the PRC for 2009* on the types of PLAAF SAMs and the number of launchers in 2008.

Figure 30. Inventory of PLAAF SAM Launchers in 2008

System	Launchers
SA-20 (S-300PMU2)	32
SA-20 (S-300PMU1)	64
SA-10B (S-300PMU)	32
HQ-9	64
KS-1A	60
HQ-6	30
CSA-1 and variants	400

Unit Organizational Structure

Figure 31 provides information on the command staff and departmental structure for SAM units from the division level down to the company level.

Air Defense Composite Division

During the late 1980s, the PLAAF began combining some of its SAM and AAA regiments into composite divisions and brigades, but only a few units were formed.

Today, the PLAAF has only one composite air defense division, which is located in the Beijing MRAF. The division has subordinate SAM regiments and AAA regiments, each of which, in turn, has subordinate battalions.

Operational Unit Structure

SAM divisions, brigades, and regiments each have at least some of the following types of subordinate operational and support organizations:

- Command center (指挥中心), command post (指挥所), command battalion (指挥营), and/or command company (指挥连)

Figure 31. SAM Unit Headquarters Structure

SAM Unit	Command Staff				Four Departments			
	Cdr	Political Officer	Deputy Cdr	Deputy Political Officer	Hq	Political	Logistics	Equipment
Division	Cdr	Political Commissar	2-3	1-2	Dept	Dept	Dept	Dept
Brigade	Cdr	Political Commissar	2-3	1-2	Dept	Dept	Dept	Dept
Regiment	Cdr	Political Commissar	2	1-2	Dept	Division	Division	Division
Battalion	Cdr	Political Director	1-2	1-2	None			
Company	Cdr	Political Instructor	1-2	1	None			

- Launch companies (发射连)
- Launch squads (发射班) led by NCOs
- Military training center (军事训练中心)
- New-soldier regiment (新兵团), battalion (新兵营), and companies (新兵连)
- Company-level radar station (雷达站)
- Vehicle company (汽车连)
- Missile guidance company (制导连)
- Technical support company (技术保障连).

Education

The PLAAF's Surface-to-Air Missile College (地空导弹学院), which certain publications sometimes identify as the Guided Missile College, is in Sanyuan, Shaanxi Province, near Xi'an. See Appendix B for further information.

Unit Training

Since 2000, SAM units have made several training advances. These include night mobility training, training in an electronic countermeasures environment, and more-complex opposition-force training.

Mobility

Based on the PLAAF's analysis of the U.S. military's night operations during the 1990s, PLAAF SAM training currently focuses heavily on night mobility. Prior to 2002, almost all night training took place at daybreak or dusk. In addition, the units always drove on the same roads, and the troops would load the trucks, drive and stop in a column, and then establish their firing site. All of that changed with the issuance of the revised 2002 *OMTE*, which requires more training to occur in the middle of the night and for units to not always deploy as a group. Today, mobility training consists of rapidly departing from home, moving to a pre-determined launch site, erecting the missiles, launching the missiles, feeding and housing the troops, and conducting camouflage, concealment, and deception. Once deployed, units simulate operating in an electronic jamming environment. They often move more than once during a training event to avoid detection.

Live-Missile Launch Training

PLAAF SAM units conduct live-missile launches in at least two locations—a SAM range over the Bohai Gulf, and a SAM range in the Gobi Desert. When SAMs deploy to the Gobi range, their night training includes mobility, dispersal, and missile launches. During training, SAMs often use small aircraft models as targets.

Chapter 10
Antiaircraft Artillery Branch

空军高射炮兵

The PLAAF usually organizes its antiaircraft artillery branch into brigades or regiments with subordinate battalions and companies. Companies are the basic fire unit.

—China's National Defense in 2008

This chapter discusses the PLA Air Force's antiaircraft artillery (AAA) branch (高射炮兵), which the PLAAF always lists as third after aviation and SAM troops and before airborne troops. The PLAAF sometimes refers to its AAA troops as "first artillery" (一炮).

Brief History

The PLA originally established the PLAAF's AAA branch in 1946 as part of the ground forces. In August 1955, the CMC formally established the PLA Air Defense Force (解放军防空军) as one of the PLA's four services. The PLA created the new force by merging the ground forces' AAA, searchlight, observation, and radar units.

In May 1957, the CMC merged the Air Defense Force (ADF) into the Air Force, creating a single service with aviation and air defense units. When the PLAAF and ADF merged, there were 11 AAA divisions. Today, the PLAAF has no remaining AAA divisions, as it downgraded them to brigades or regiments.

Organizational Structure Overview

The PLAAF organizes its AAA troops into one of two command structures, where the highest-level AAA headquarters is a brigade or regiment, each of which has subordinate battalions. The two structures are:

- AAA brigades with subordinate battalions, which are composed of firing companies
- AAA regiments with subordinate battalions, which are composed of firing companies.

The PLAAF also has a single air defense composite division that has separate SAM and AAA regiments, each of which have subordinate battalions and launch/firing companies.[31]

Depending on their location, AAA units may be directly subordinate to an MRAF headquarters or they may be subordinate to a division-level command post.

Unit Organizational Structure

Figure 32 depicts the command staff and department structure for AAA units from the brigade level down to the company level.

[31] In the case of firing companies, the PLAAF often translates "companies" as "batteries."

Operational Unit Structure

Depending on the type of headquarters, AAA brigades and regiments each have at least some of the following types of subordinate operational and support organizations:

- Command post (指挥所), field combat command post (野战指挥所), command company (指挥连), and/or command squad (指挥班)
- Firing companies (发射连)
- Firing platoons (发射排)
- Target marker company (标兵连)
- New-soldier companies (新兵连)
- Vehicle company (汽车连)
- Transportation company (运输连).

Education

The Guilin Air Force College (桂林空军学院) is located in Guilin, Guangxi Zhuang Autonomous Region. See Appendix B for further information.

Unit Training

Mobility

One theme of AAA unit training during the 2000s has been mobility during both day and night. AAA units are traveling increasingly farther away from their home areas over longer periods to conduct operations. The PLAAF often conducts these operations in unfamiliar geographic areas in harsh weather to acclimate AAA personnel to "actual-combat" conditions.

Figure 32. AAA Unit Headquarters Structure

AAA Unit	Command Staff				Four Departments			
	Cdr	Political Officer	Deputy Cdr	Deputy Political Officer	Hq	Political	Logistics	Equipment
Brigade	Cdr	Political Commissar	2-3	1-2	Dept	Dept	Dept	Dept
Regiment	Cdr	Political Commissar	2	1-2	Dept	Division	Division	Division
Battalion	Cdr	Political Director	1-2	1-2	None			
Company	Cdr	Political Instructor	1-2	1	None			

Chapter 11
Airborne Branch

空军空降兵

The PLAAF organizes its airborne branch into an airborne corps with subordinate divisions, regiments, battalions, and companies.

— China's National Defense in 2008

This chapter discusses the PLAAF's airborne troop branch (空降兵), which is directly subordinate to PLAAF Headquarters. The PLAAF always lists it as last among the four branches. In addition, the PLAAF usually identifies it immediately after the seven MRAFs and before other units that are also directly subordinate to PLAAF Headquarters. This implies that the 15th Airborne Corps is directly subordinate to PLAAF Headquarters.

According to the *China Air Force Encyclopedia*, the basic missions for the airborne forces include: conducting sudden attacks against political, military, and economic strategic key points; seizing and holding important operational and strategic targets or areas deep in enemy territory; deploying rapidly in response to sudden changes in the situation; and conducting special operations in enemy rear areas. The PLAAF deployed airborne forces to Wuhan in 1967 and Beijing in June 1989, which indicates the airborne forces also have the mission of dealing with internal unrest.

Brief History

Unlike the U.S. military, the PLA's airborne forces have always been subordinate to the Air Force rather than the Army.[32] In July 1950, the CMC established an Air Force Marine (空军陆战) brigade in Shanghai, but the headquarters was moved to Kaifeng, Henan Province, the following month. Thereafter, the unit's designation changed several times, becoming the Air Force Marine First Division, the Paratroops Division, and the Airborne Division. In 1961, the PLAAF finally changed the name to the 15th Airborne Corps and established its headquarters in Xiaogan, Hubei Province. By the mid 1970s, the airborne corps had three airborne divisions. During the Cultural Revolution (1966-1976), the PLA used the airborne forces to intervene in domestic unrest during the Wuhan Incident of 1967.[33] In the mid 1980s, the PLAAF reduced the three divisions to brigades, but upgraded them back to divisions in 1993, each with about 10,000 troops.

[32] The airborne forces did not become an official branch until around 1992. Prior to that, the PLAAF's five branches were aviation, SAM, AAA, communications, and radar. The airborne troops were sometimes mentioned as a sixth branch.

[33] During the first half of 1967, Wuhan suffered factional strife between the "Rebels," who were supported by Premier Zhou Enlai, and the "Million Heroes," who were supported by the Wuhan MR command. When Zhou sent two people to mediate the situation in July, the MR commander arrested them and helped arm more of the "Million Heroes," which led to more bloodshed between the two factions. The acting Chief of the General Staff, Yang Chengwu, ordered the PLAAF's 15th Airborne Corps to intervene on behalf of the "Rebels" and to rescue the two mediators.

The 15th Airborne Corps gained greater visibility in the early 1990s as signified by the following events:

- In 1992, the airborne forces were officially designated a "lead element" of the PLA's rapid-reaction force (快速反应部队), even though they had been training in that role since the late 1980s.
- In December 1993, Lieutenant General Jing Xueqin (景学勤) became the first airborne force commander to be appointed one of the PLAAF's four deputy commanders. He held that position until he retired in 2003; however, the PLAAF did not replace him with another airborne officer. During his tenure as a deputy commander, the PLAAF received its first Il-76 transports for supporting the airborne forces, and the airborne forces appeared to increase training for external missions.

Organizational Structure Overview

Unit Organizational Structure

Figure 33 shows the command staff and department structure for airborne units from the 15th Airborne Corps Headquarters down to the company level.

Subordinate Units

The 15th Airborne Corps, with its headquarters in Xiaogan, Hubei Province, consists of the following three subordinate divisions, each of which the PLAAF organizes into regiments, battalions, and companies:

- 43rd Airborne Division located in Kaifeng, Henan Province
- 44th Airborne Division located in Guangshui, Hubei Province
- 45th Airborne Division located in Wuhan, Hubei Province.

The three divisions are composed of several types of subordinate troops: infantry, motorized infantry equipped with light vehicles, mechanized infantry, artillery, air defense (AAA and SAM), special operations, communications, special forces, reconnaissance, engineering, helicopter, training, and logistics support.

Airborne troops primarily rely on transports belonging to the Guangzhou MRAF's 13th Air Division headquartered in Wuhan, Hubei Province, for airlift support. The 15th Airborne Corps also has its own subordinate transport regiment and helicopter group. When airborne forces train using aircraft, the PLAAF considers this as combined-arms training.

The airborne forces are composed primarily of males, but it does include a few female officers. They all receive their degrees from the Guilin Air Force College. The airborne forces also include some enlisted female personnel who receive their training in communications training units. Upon completing their training, the PLAAF assigns them to all-female communications companies.

Education

The PLAAF's airborne officers attend the Guilin Air Force College, which is located in Guilin, Guangxi Zhuang Autonomous Region. See Appendix B for further information.

Unit Training

Training Locations

Most of the airborne forces' training occurs in the Dabie Mountains (located along the border between Hubei, Henan, and Anhui provinces) and the Central Plains (located along the middle and lower reaches of the Yellow River in Shanxi, Henan, and Shandong provinces). However, to adapt to various adverse operational conditions, airborne units have also conducted exercises in the snowfields of the Greater Khingan *(Da Xingan)* Mountains in northeast China; the jungles of the Shiwan Mountains in Guangxi; the Kunlun Plateau; and the Qinghai-Tibetan Plateau,

Figure 33. Airborne Troop Headquarters Structure

Airborne Unit	Command Staff				Four Departments			
	Cdr	Political Officer	Deputy Cdr	Deputy Political Officer	Hq	Political	Logistics	Equipment
15th Airborne Corps	Cdr	Political Commissar	2-3	1-2	Dept	Dept	Dept	Dept
Division	Cdr	Political Commissar	2-3	1-2	Dept	Dept	Dept	Dept
Regiment	Cdr	Political Commissar	2	1-2	Dept	Division	Division	Division
Battalion	Cdr	Political Director	1-2	1-2	None			
Company	Cdr	Political Instructor	1-2	1	None			

which is 4,600 meters above sea level, where the air is thin. During "North Sword 2005" in the Beijing MR, the PLAAF transported several thousand airborne troops over 2,000 kilometers from the Central Plains to a "battlefield" north of the Great Wall. This was reportedly the largest-scale long-range deployment in the history of China's airborne forces. The airborne forces also participated in "Peace Mission 2005" (Jinan MR) and "Peace Mission 2007" (Chelyabinsk, Russia) exercises with various member countries in the Shanghai Cooperation Organization (SCO).[34]

Training Content

The airborne forces are increasing the scope of their exercises. Over the past few years, these exercises have focused on long-distance training by air and on the ground in areas other than the Dabie Mountains and Central Plains, training in adverse weather conditions, opposition-force training, air-dropping of heavy equipment, and combined-arms training with the aviation branch.

[34] The six SCO member countries are China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan.

Training Schedule

In 2002, the airborne forces implemented a new 3-stage training program consisting of individual-troop foundational training, tactical training, and composite training. "Composite training" means that each sortie from base includes more than one training subject.

The annual training cycle for airborne units begins in late November after second-year conscripts and NCOs not promoted to the next grade are demobilized. New squad leaders replacing those who are demobilized must receive some type of leadership training. For example, in October 2005, an airborne division began 90 days of military theory and leadership training for 168 enlisted personnel selected to become squad leaders.

In early December, new conscripts arrive at the three airborne divisions. The PLAAF assigns them to new-soldier battalions and companies, where they receive their basic training. New conscripts usually complete their basic training in late January or early February. The PLAAF assigns them to their permanent billets, where they begin the foundational phase of training.

One of the first steps is to conduct their first live jump from a Y-5 transport sometime in March or early April.

Once the new conscripts complete their first jump, the PLAAF gradually integrates them into operational units during the tactical phase of training. The tactical phase begins in April as the units begin the progression of training events that first involve platoons, then companies, battalions, regiments, and finally divisions. In late June, the new conscripts conduct their first jump from a larger transport and maneuvers on the ground after landing.

Even though the new conscripts are not fully integrated until the summer, larger units still conduct training events as early as April. For example, in April 2005, the PLAAF commander at that time, General Qiao Qingchen, observed a training event by an airborne division. The General Logistics Department directed the training event that involved providing logistics and equipment support to units at the front line. However, these training events and exercises may be on a smaller scale than those held in the late summer after the airborne corps has fully integrated the new conscripts into its units.

In recent years, the PLAAF has been making efforts to accelerate the training cycle. For example, since the PLAAF published the 2002 *OMTE*, the time frame within which new conscripts complete their parachute training has gradually shortened. Prior to 2004, parachute training required 40 training days. After 2004, the PLAAF reduced the time to 27 training days. To accomplish this reduction in training time, the airborne forces adopted a single technique for all aircraft instead of using a different type of parachuting technique for each aircraft model.

Training reaches a peak in the fall before the conscript and NCO demobilization process begins in November. For example, a September 2005 training event covered five provinces and involved more than 30 training subjects, including reconnaissance, communications, command, and cooking meals in various environments. The event focused on the following areas: moving troops and equipment by rail, road, and air; fighting while on the move; feeding and housing the troops; hiding; repairing equipment; and conducting communications.

Chapter 12
Specialized Units

空军专业部队

Adopting a system of combining aviation with air defense forces, the Air Force consists of the aviation, surface-to-air missile, antiaircraft artillery, and airborne units, as well as radar, communications, electronic countermeasures, chemical defense, and technical reconnaissance specialized units.

— China's National Defense in 2008

This chapter provides a brief overview of five types of PLAAF specialized units (专业部队)—radar, communications, electronic countermeasures (ECM), chemical defense, and technical reconnaissance.

Radar Troops

The PLAAF established its first independent radar troop (雷达兵) units in 1949. When the CMC established the PLA Air Defense Force (ADF) in December 1950, the PLA had two types of radar units. Those subordinate to the ADF were responsible for early warning, and those subordinate to the PLAAF were responsible for directly supporting aviation units. In 1957, the PLAAF and ADF merged and the radar troops became a formal branch of the PLAAF. During the early 2000s, however, the PLAAF downgraded radar troops from a branch to specialized unit status.

In 1959, the PLAAF established company-level radar stations (雷达站) as the basic radar unit. In the early 1960s, the PLAAF created a 3-level structure consisting of regiments, battalions, and company-level stations. As the number of radar stations grew in the late 1990s, the PLAAF established some radar brigades as the highest-level headquarters. These brigades have subordinate battalions and stations.

Today, the PLAAF has two basic types of radar sites. The first type is located at airfields and is used primarily for air traffic control (ATC) and some ground-controlled intercept (GCI). The second type consists of early warning and GCI radars located throughout China.

Organizational Structure Overview

The PLAAF has three basic categories of radars that belong to the radar troops: long-range early warning, short- and long-distance air traffic control, and ground-controlled intercept. The PLAAF's SAM and AAA units have radars that are indigenous to those units and not part of the radar branch.

Normally, PLAAF organizes its radar units into one of two 3-tiered structures: brigades with subordinate battalions and stations, or regiments with subordinate battalions and stations. The brigade and regiment headquarters, which the PLAAF also identifies as intelligence stations (情报站), are responsible for collecting, managing, and disseminating radar intelligence. They also command subordinate radar battalions and stations.

Figure 34. Radar Unit Headquarters Structure

Radar Unit	Command Staff				Four Departments			
	Cdr	Political Officer	Deputy Cdr	Deputy Political Officer	Hq	Political	Logistics	Equipment
Brigade	Cdr	Political Commissar	2-3	1-2	Dept	Dept	Dept	Dept
Regiment	Cdr	Political Commissar	2	1-2	Dept	Division	Division	Division
Battalion	Cdr	Political Director	1-2	1-2	None			
Company	Cdr	Political Instructor	1-2	1	None			

The PLAAF and MRAF command structure collects and manages radar intelligence and organizes the structure for radar unit combat activities. The PLAAF organizes the command structure above the brigade and regiment as follows:

- A radar intelligence central station (雷达情报总站) at PLAAF Headquarters
- A radar intelligence central branch station (雷达情报总分站) at each MRAF Headquarters
- Radar intelligence branch station (雷达情报分站) at each command post.

As the number and type of radar systems have increased and the communications capabilities have improved since the late 1990s, the PLAAF has made some significant changes to its radar organizational structure. Specifically, the number of radar brigades has increased, while the number of regiments has decreased. In some cases, the PLAAF has upgraded its individual radar regiments to brigades, or it has merged two regiments into a single brigade structure. Because of these changes, these brigades now have control over a larger number of radar stations covering a wider geographical area.

The PLAAF has also created central radar stations (中心雷达站) in various MRAFs. These central radar stations can be either company- or battalion-level organizations, some of which have a mobile mission.

Unit Organizational Structure

Figure 34 shows the command staff and department structure for radar units from the brigade level down to the company level.

Operational Unit Structure

Radar brigades, regiments, battalions, and stations each have at least some of the following types of subordinate operational and support organizations:

- Central radar station (中心雷达站)
- Combat service company (战勤连)
- Command post (指挥所) and/or command office (指挥室)
- Command training simulation center (指挥训练模拟中心)
- Communications platoon (通信排)
- Driver training team (司训队)
- Field combat command post (野战指挥所)
- Guidance station (引导站)
- Health team (卫生队)

- Mobile battalion (机动营) and/or mobile subunit (机动分队)
- Network training center (网络训练中心)
- New-soldier battalion (新兵营) and/or company (新兵连)
- New-soldier training unit (新兵教导队)
- Officer training center (军官训练中心)
- Quartermaster depot (军需仓库)
- Radar controller squad (操纵班) staffed by enlisted personnel
- Radar repair shop (雷达修理所)
- Security company (警卫连)
- Training unit (教导队)
- Vehicle company (汽车连)
- Warning radar station (警戒雷达站).

Education

The PLAAF's Radar College (空军雷达学院) is located in Wuhan, Hubei Province. See Appendix B for further information.

Training

Since the PLAAF issued its revised *OMTE* in 2002, radar units have sought to improve their training. The focus has been on mobility and emergency response training that involves units rapidly taking down, moving, and erecting radars; conducting camouflage, concealment, and deception (CC&D); operating in an ECM environment; and improving radar accuracy. The goal has been to make training more difficult by training at night, over longer periods of time, and with larger types of radar.

Because of the 2003-2004 force reduction, the PLAAF merged or eliminated several officer billets, which left the remaining personnel with greater responsibilities. In addition, although enhanced communications allow units that are far away from each other to communicate rapidly, inspection teams are now required to travel farther for longer periods of time in order to visit all subordinate units.

Almost all of the PLAAF's radar stations are on the border, in mountains, or on islands. Because of harsh weather conditions and poor road conditions, some of them are inaccessible during several months of the year. Some radar stations on the northern border have only 3 months per year without frost on the ground. Because of these hardships, the turnover rate for personnel is high. Therefore, to help retain its radar personnel, the PLAAF has spent a lot of money to upgrade housing, recreation, and work facilities.

Communications Troops

The PLAAF's communications troops (通信兵) were originally part of the ground forces' signal corps in the late 1940s. Today, they are responsible for providing communications, navigation, and automated command support to the entire PLAAF.

The PLAAF's Headquarters Department has a subordinate Communications Department (通信部) that is responsible for providing guidance to all PLAAF communications units.

The PLAAF assigns communications troops to communications organizations at the regiment level down to squads. For example, PLAAF Headquarters and each MRAF Headquarters have a regiment-level general communications station (通信总站). Each general communications station has subordinate battalions, companies, platoons, and squads. In addition, the PLAAF assigns communications regiments to various organizations, such as the PLAAF Headquarters Department and the 15th Airborne Corps.

The personnel composition of the general communications stations and communications regiments are organized like all PLA and PLAAF regiment-level organizations, with a commander, political commissar, and four functional and administrative departments or divisions. Battalion- and company-level communications units have commanders, deputy commanders,

and political officers, but they do not have any functional or administrative organizations.

Of note, a high percentage of communications personnel are females. Even though there are male communications personnel, the PLAAF does not appear to have mixed-gender communications companies, platoons, or squads.

Education

The PLAAF Telecommunications Engineering College (通讯工程学院), located in Xi'an, is subordinate to the Air Force Engineering University. See Appendix B for further information.

Training

In early 2005, the PLAAF created a communications training base (通信训练基地) that is directly subordinate to the PLAAF's Headquarters Department and is located in Baoding, Hebei Province. The first class of 600 personnel graduated in July 2005. The base now provides training each year for about one-third of the PLAAF's new communications technical personnel, including basic training for civilian college graduates who the PLAAF has recruited as officers.

New communications conscripts receive limited skills training before the PLAAF assigns them to their permanent billets. Once assigned to their billets, they receive on-the-job training.

Electronic Countermeasures Troops

The PLAAF provides little public information about its electronic countermeasures specialty troops (电子对抗专业兵). According to *China's National Defense for 2008*, the PLAAF organizes them into brigades or regiments, each of which has subordinate battalions. The PLAAF formed its first ground-based ECM units in the early 1970s and aviation ECM units in the 1980s. The PLAAF redesignated these units as specialized technical units in the 1990s.

The PLAAF's Headquarters Department has a subordinate Electronic Countermeasures and Radar Department (电子对抗雷达部) that is responsible for providing guidance to all PLAAF radar and ECM units.

ECM officers receive their cadet training at the PLAAF Radar College or the Telecommunications Engineering College.

In addition, the Air Force Equipment Research Academy (空军装备研究院) in Beijing has a subordinate Air Force Radar and Electronic Countermeasures Research Institute (空军雷达于电子对抗研究所).

Chemical Defense Troops

The PLAAF's chemical defense troops (防化部队) are primarily responsible for decontaminating areas struck by chemical weapons, but also deal with radiological decontamination.

The PLAAF established its chemical defense troops in 1951. Since 1955, PLAAF Headquarters and each MRAF Headquarters have had a chemical defense administrative organization. Each MRAF Headquarters and most air corps-level organizations have a subordinate chemical defense subunit. During the 1960s and 1970s, the PLAAF also created a chemical defense research institute, training organizations, and equipment repair facilities.

Today, the highest-level PLAAF functional and administrative organization responsible for chemical defense troops is the Chemical Defense Division (防化处), which is subordinate to the Headquarters Department's Training Department. The Air Force Equipment Research Academy also has a subordinate Air Force Meteorology and Chemical Defense Research Institute (空军气象防化研究所).

PLAAF Headquarters and the MRAF Headquarters organize their chemical defense troops into regiment-level groups (防化大队) or battalion-level teams (防化队). These organizations have subordinate chemical

defense subunits and/or companies. The regiment-level groups also have their own command post.

Operational units, including ground air defense and field stations, have embedded chemical defense teams that can be battalion, company, or platoon size and that range from a few people to more than 30. These organizations have a wide variety of support vehicles.

Each subunit, company, and team has subordinate squads, including observation, reconnaissance, and decontamination squads. Their primary missions include detecting and destroying nuclear, chemical, and biological agents.

It is not clear where the PLAAF's chemical defense officers and enlisted personnel receive their training and education. However, the officers might attend the PLA's Chemical Defense Command Engineering Academy (防化指挥工程学院) in Beijing, which the PLA describes as its only academy responsible for chemical defense training and education.

Technical Reconnaissance Troops

Similar to the ECM troops, little information is available on the PLAAF's technical reconnaissance troops (技术侦察兵). From the limited writings, however, it is clear that the PLAAF's technical reconnaissance troops are responsible for intercepting, processing, and analyzing foreign communication signals and non-communication signals. In Western military terms, these troops carry out signals intelligence (SIGINT), electronic intelligence (ELINT), and measures and signals intelligence (MASINT). Their work includes electronic direction finding based on these various signal types.

Although the organizational structure is unclear, PLA sources state that technical reconnaissance organizations exist at the levels of regiment and below, with technical reconnaissance company-level stations serving as the basic reconnaissance organization. Technical reconnaissance troops are also part of other types of units, to include aviation, airborne, and radar units.

The PLAAF divides training for its technical reconnaissance troops into three types. The first type is specialty training, which provides general knowledge about technical reconnaissance and its theoretical basis, as well as knowledge about foreign militaries and foreign languages. The second type is specialized technical training, which includes training in photography and imagery interpretation, signals interception, signals analysis and code breaking, intelligence processing, and operation and maintenance of technical equipment. The third type, specialized tactical training, is unit-level reconnaissance training.

The PLAAF can also tailor its training to the recipient, with separate training types for enlisted personnel and officers. The first type is technical training for enlisted troops. They receive their training based on individual skill levels and type of unit. Technical units or specialized training organizations generally organize and carry out technical training for the enlisted force.

The second type is training for technical officers. PLAAF colleges and specialized training organizations carry out this type of training, depending on the actual specialty. This training aims to make officers knowledgeable about the theoretical aspects of their respective specialties and capable of using their equipment to carry out technical reconnaissance.

Chapter 13
Quality of Life

空军生活水平

The PLA is increasing the salaries, allowances, subsidies, and benefits of all service members to ensure the parallel improvement of their living standards with the civilian sector. It has improved the working and living conditions of border and coastal defense forces, units in remote areas, and grassroots units.

— China's National Defense in 2008

This chapter provides information on quality-of-life issues for the PLAAF's officers and enlisted personnel. Specific sections address remuneration and benefits, work and living conditions, family and marriage, and the quality of food and health care. The PLAAF has made improvements in many of these areas in recent years in an effort to attract and retain qualified personnel.

Military Pay

In July 2006, the PLA implemented a significant salary increase for all personnel. For most personnel, wages nearly doubled. Although the PLA has not made public the salary breakdown in a single document, some information is available in various PLA publications.

Conscripts in the PLA receive a monetary stipend once a month based on their rank, time in service, location, and family situation. As room and board are already provided, this stipend is little more than petty cash to cover living expenses. At present, most conscripts in their first year of active-duty service receive approximately RMB 200 (USD 29.25) each month with an RMB 20 (USD 2.92) increase the following year.

Unlike conscripts, NCOs receive a monthly salary based on their grade, rank, and time in service. The PLA pays NCO salaries based on a 12-step scale for each NCO grade, similar to the General Schedule (GS) scale for civil service employees in the U.S. government. Figure 35 lists the salary ranges in RMB and USD for grade-1 through grade-6 NCOs, according to the *PLAAF Enlisted Handbook* (2006).[35]

Figure 35. NCO Monthly Pay Scale

Grade	RMB	USD
1	560-630	82-93
2	700-805	103-118
3	790-970	116-143
4	930-1,200	137-176
5	1,130-1,570	116-230
6	1,480-2,085	218-307

Unfortunately, no pay chart is publicly available for the officer corps. Officer salaries are based on four components: grade, rank, time in service, and skills level. Based on available information, a PLA colonel's salary, including all four components, increased in July 2006 from 2,000 RMB (USD 295) per month to 4,200 RMB (USD 618).

[35] Step 1 is the lowest step for all NCOs. The highest step is 8 for grades 1 and 2; 10 for grades 3 and 4; and 12 for grades 5 and 6.

Figure 36. Enlisted Personnel Bonuses for Air Sorties

Type of Personnel	Hong-6	Other Bombers and Planes Used for Special Missions	Transports and Helicopters
NCOs	RMB 30 (USD 4.40)	RMB 30 (USD 4.40)	RMB 20 (USD 2.95)
Cadets		RMB 20 (USD 2.95)	RMB 15 (USD 2.20)
Conscripts		RMB 15 (USD 2.20)	RMB 10 (USD 1.45)

A high percentage of PLAAF personnel still receive their monthly pay in cash from their unit's finance office. However, the PLAAF is gradually transitioning to paying by direct deposit to savings accounts, especially in urban areas. Members can withdraw their money by getting cash or using a debit card. Unlike Americans, however, the average Chinese does not have a personal checking account or credit card.

Benefits

The 1999 *Regulations on Military Service of Active-Duty Soldiers* standardized the PLA salary system and improved the quality of material benefits, making a career in the PLA appear more attractive. Presently, PLA officer and NCO benefits include:

- Allowances for Harmful Substance and Hazardous Work Duty
- Child-Care Assistance
- Demobilization and Early Discharge Allowance
- Hardship Living Relief Fund
- Hardship Post Allowance
- Military Housing Allowance System
- One-Child Parent Bonus
- Proficiency Pay
- Subsidized Food
- Subsidized Medical Care.

PLAAF personnel are also eligible to receive additional monetary benefits depending on where they are stationed. The PLAAF has special subsidies for personnel stationed in high-elevation postings or in areas that subject them to excessive exposure to the sun. PLAAF personnel stationed in Tibet, for example, are eligible for cost-of-living adjustments that are nearly 2½ times greater than their base pay.

The PLA Air Force also pays bonuses to its personnel for each hour spent in flight. Although the figures for officers are not publicly available, Figure 36 lists the bonuses to enlisted personnel as of late 2006.

Starting in their second year, enlisted airborne force personnel average about two jumps per month and receive a monthly subsidy of about 60 RMB (USD 8.80) and a subsidy of about 30 RMB (USD 4.40) per jump. The exact amount depends on their proficiency level.

Work and Living Conditions

In addition to raising military salaries and allowances, increases in the PRC defense budget over the past decade have been designed to improve the work and living conditions in many "grassroots" military units (i.e., battalion and below). The PLA has made significant improvements to its military barracks, where a high percentage of personnel are housed. Statistics from the General Logistics Department (GLD) reveal that 30% of barracks in the PLA meet the standards of "new-concept barracks," which means they are attractively landscaped facilities equipped with televisions, telephones, computers, and 24-hour

hot water. Hardship posts now receive better quality water, bathing facilities, and electricity, as well as better heating, medical care, and transportation.

Marriage

Marriages in the PLAAF are governed by both the PRC Marriage Law and an additional set of regulations issued by the General Political Department in late 2001. Although the legal age for marriage in China is 22 for males and 20 for females, the PLA "advocates and encourages" males to wait until age 25 and females to wait until 23.

As conscripts are all younger than the legal marrying age, the PLAAF does not permit them to marry. Officers and NCOs can get married, provided they are the legal marrying age and have the permission of the Party organization at the regiment level or above.

When a service member plans to marry, he must report it to his unit's Party organization at least one month before the marriage occurs. A political organization at the regiment level or above then begins a background investigation on the potential spouse. During this investigation, the PLAAF pays special attention to the prospective spouses of PLAAF personnel who serve as aircraft crewmembers or who work with classified information.

PLAAF spouses must be citizens of the PRC and reside on the mainland. The PLA does not allow citizens of Hong Kong and Macao to marry PLA service members. Although not technically illegal, the GPD regulations also state that when a Han Chinese serviceman seeks to marry an individual from one of China's many ethnic minority groups, efforts should be made to persuade the couple to abandon their wedding plans.

The PLA does not allow NCOs to marry anyone within their unit or find a spouse near where they are stationed. This stipulation is probably rooted in the fact that, upon being demobilized from the PLA, NCOs are required to return to their home of record. One exception to this involves grade-3 and higher NCOs stationed in rural or remote areas. These individuals may marry locally, provided the Party organization at the division level or higher approves the marriage. But, given the various restrictions, many PLAAF members are unable to find a spouse. As a result, some PLAAF units arrange matchmaking events with local females for single male NCOs and officers who are over 30 years old. Once demobilized, the PLA resettles them locally with their spouses.

One reason the PLA encourages its service members to marry later is the belief that this makes them more likely to comply with the one-child policy. The PLA also pays RMB 200 (USD 29.40) to military couples when the female undergoes a sterilization procedure following the birth of the first child. It should be noted, however, that the PLA does allow families to have a second child, provided they secure permission from the military's family planning department at the corps level or above.

Housing

The PLAAF has strict regulations that require almost all married and unmarried personnel to live in base housing. However, the PLAAF does not have enough on-base family housing for all of its married personnel, especially for the growing number of NCOs who are now eligible to marry. In addition, to have one's family accompany them and live in family housing, PLAAF personnel must meet strict requirements for time in service, grade, spouse residency, and there must be available schooling for children. As a result, a high percentage of PLAAF officers and eligible NCOs, especially in rural areas, do not live with their family. However, the rules are gradually changing.

Regulations

The PLAAF has various regulations that govern whether its members can have their family live with them or not:

- On-base family housing must be available

- With the exception of pilots, who can have their family join them at any time, officers must be battalion-leader grade (major) or above
- NCOs must have 12 years time in service and receive approval from the unit's political department
- The unit is responsible for finding a job for the spouse on base or in the local community, but some spouses can join the military member even if they do not have a job
- The unit is responsible for enrolling children in local schools, but the family cannot join the military member if schooling is not available.

If the unit is located in an urban area, spouses from the countryside must receive an urban residency permit from the local government. Without the residency permit, it is difficult for the spouse to find employment and the child to attend school.

The Changing Situation

China has abolished many of the travel restrictions that it imposed on its citizens in an effort to control population density in certain areas. As a result, many spouses have begun to move near the military member's unit. However, the local government can deny employment, housing, health care, and education to citizens who live in a place other than their official home of residency. Furthermore, even if a spouse and children do move nearby, PLAAF regulations do not authorize the military member to live with them.

To help alleviate the problem of lengthy family separations, the PLAAF has spent millions of dollars to build temporary housing for visiting family members (spouses, children, and parents). However, the PLAAF places certain restrictions on how long they can visit. For example, PLAAF regulations restrict spouses to one visit per year and restrict their stay in temporary housing to a maximum of 45 days. In addition, the PLAAF discourages families from visiting during certain times of the year, especially during exercises.

Military Leave

The rules governing leave for officers and NCOs differ depending on the individual's grade and marital status, and on where the parents live.

Each year, officers can choose to take personal leave or leave to visit their parents:

- Officers who choose to take leave and have less than 20 years of service are authorized 20 days of annual leave.
- Officers with 20 or more years of service are authorized 30 days of annual leave.
- Unmarried officers who choose to visit their parents are authorized 20 days of leave every 2 years.
- Married officers who live with their spouses are authorized 30 days of annual leave to visit their parents, if the parents live in another location.
- Married officers who do not live with their spouses are authorized 40 days of annual leave to visit their family.

As for NCOs, only senior NCOs (grades 5 and 6) in the PLAAF are able to take both personal leave (20 days for grade 5; 30 days for grade 6) and an unknown number of days of home leave to visit parents and/or family. Lower-grade NCOs are only granted home leave. The duration of home leave is as follows:

- Grade-1 NCOs can take home leave twice a year, with neither visit to exceed 20 days.
- Unmarried NCOs in grades 2 to 4 are granted only one 30-day home visit annually.
- Married NCOs unaccompanied by their spouses may visit their partner once a year for 40 days.
- Married NCOs may visit their parents once every 2 years for 20 days.
- Married NCOs whose spouses and parents live in different locations are accorded 45 days of leave annually.

Although PLAAF personnel are authorized annual leave based on their grade and marital status, a large percentage of personnel either do not take leave or are not allowed to take it because of their units' workload and training activities. The PLAAF has identified this as a morale problem and has adopted measures to address this. New regulations now call for supplemental salary to be paid each December to any PLAAF NCO who was unable to take leave during the calendar year for work reasons. Some units have also arranged for family members or parents to stay in temporary housing during Chinese New Year if the military member is not able to take leave to visit them.

Food

Because a high percentage of personnel are not accompanied by their families, they usually eat in the mess hall. As shown in Figure 37, the PLAAF has four categories of mess halls.

All PLAAF officers in the grade of corps leader (one-star major general) and below and all enlisted personnel receive a monthly food subsidy. Officers above the grade of corps leader do not receive a monthly food subsidy and must pay for their food out of their salary.

The amount of money required to provide meals per day has increased six times since the early 1990s. At the beginning of 2005, the PLA increased its standards by an average of RMB 1.8 (USD 0.25) per person per day, raising the minimum meal expense required per soldier per day to nearly RMB 10 (USD 1.45). The new adjustment of meal expense standards was the largest since the founding of the PRC. Figure 38 provides information on the new meal expense standards broken down by the four categories of mess halls in the PLA.

In units where the technology exists, the PLAAF gives personnel a debit card to use in the mess hall. Otherwise, the mess hall deducts the cost of each meal from a ration card. Embedded in each card is a computer chip that contains basic information on the individual. Service members can also use these cards to receive their salary or allowances and obtain medical care and other services.

Historically, the PLA produced much of the food it consumed. PLA farms, which used thousands of active duty personnel, also sold surplus vegetables and meat on the open market to help defray many of the units' daily expenses. For example, in 1990, the PLA's 575 farms earned RMB 590 million (USD 73 million).

Figure 38. Average Meal Expense Standards by Mess Hall Category

Mess Hall Category	2005 Expense Standards
Category 1	RMB 10 (USD 1.45)
Category 2	RMB 12 (USD 1.75)
Category 3	RMB 22 (USD 3.25)
Category 4	RMB 38 (USD 5.60)

Figure 37. Mess Hall Categories

Mess Hall Category	PLA Personnel
Category 1	Officers, civilian cadre, NCOs, and conscripts in battalion-level and below units; cadets at PLA colleges
Category 2	Aviation maintenance personnel, airborne paratroopers, hospitalized service members, PLAAF college cadets in maintenance and engineering specialties
Category 3	Flight cadets in the initial stages of their training
Category 4	Pilots, aircrew members assigned to aviation units, pilot trainees

According to *China Daily*, the PLA still has more than 100 farms, but civilian vendors accounted for 90% of the PLA's total food supply in 2007. There are several reasons for this trend. Most importantly, in 1998, the CMC banned the PLA from engaging in commercial activities, so that it could focus its time and money on personnel, training, and equipment. The PLA also found that it is cheaper in many cases to purchase food off the economy rather than pay for all the costs associated with producing it on military farms.

Health

PLAAF service members may only receive medical treatment in military hospitals. If an individual is away from the unit, either on TDY or on leave, they can receive emergency medical treatment in a civilian hospital; however, this can be done only if there are no military hospitals in the area and only with the approval of the unit's health department. The PLA does not allow military personnel to receive treatment at civilian hospitals, because it tends to be more expensive; problems with China's state-run health care system have resulted in higher prices for medical treatment that often exceed the unit's annual health budget.

Medical care for enlisted personnel in the PLA has seen major reforms in recent years, most notably with the promulgation of the "Reform Plan of the Military Medical Security System," issued by the CMC in May 2004. The PLA designed this plan to improve the system of free medical care for service members in accordance with the principle that the standard of care for military personnel should exceed that offered to civilians. One reform provides military personnel with an electronic medical identification card that contains their medical history. The PLA has also set up a system of long-distance medical service teams to respond quickly to the health problems of military personnel stationed in remote or border areas.

One of the more interesting developments in the field of health care in recent years is the PLA's increasing concern about the mental health of its personnel. Because of the PRC's one-child policy, many conscripts are the only child in their family. Some have difficulty adapting to life away from home, are unfamiliar with such concepts as sharing, and struggle to cope with life in a military environment. Because of this, all prospective conscripts must now undergo a psychological evaluation prior to conscription, and many units have begun offering mental health counseling to their personnel.

Morale, Welfare, and Recreation

The PLAAF has also focused on building and renovating morale, welfare, and recreation (MWR) facilities throughout the force. These facilities include libraries, soccer fields, basketball courts, indoor recreation areas, cultural centers, computer labs, and theaters. As part of this effort, units are stocking their libraries with thousands of books. PLAAF bases also appear to have more than one officers' or enlisted club. In many cases, each company has its own club. In addition, even some battalions have their own club.

Family Member Employment

PLAAF units remain somewhat isolated from the surrounding communities, especially in rural and remote areas. They are not like USAF bases, which are integrated into the local communities by having personnel live in civilian housing and having local civilians work on base.

A high percentage of civilian personnel who work on PLAAF bases and at other military support facilities are the spouses of PLAAF officers and enlisted personnel. Having spouses work at PLAAF facilities also helps married personnel obtain on-base housing. The PLAAF has also worked with local governments to help military spouses find jobs in nearby communities, but the unemployment rate remains high in many areas.

In some cases, the PLAAF or the local government has begun providing stipends for unemployed family members. About half of the stipend is considered spending money, while the other half is to be used in pursuing employment. The PLAAF has also begun to provide job training, employment insurance, and retirement insurance for family members.

Retirement and Demobilization

Enlisted Force

Since the PLA reduced the mandatory conscription period to 2 years in 1999, half of the entire conscription force now turns over each November. Moreover, NCOs who have completed a service period and are not selected for promotion to the next higher grade are also demobilized in late November. Today, when conscripts or NCOs are demobilized from the PLA, they receive a separation subsidy, as well as a medical subsidy if they suffer from a chronic illness. Demobilized enlisted personnel are required to return to their home of record, but it is unknown if this is enforced.

In years past, the local government in a military member's home of record was responsible for arranging follow-on employment in government-run organizations for demobilized service members. Currently, however, with the relaxing of state control over the labor market, demobilized service members are increasingly expected to find work themselves. Some localities and PLA units provide personnel with skills training prior to demobilization, while others just issue lump-sum cash payments.

Demobilized service members are increasingly finding themselves on the outside of a crowded workforce. Many employers are reluctant to hire former soldiers, as they are often perceived as lacking the skills necessary to perform civilian work. The inability to find a job appears to be creating a potential source of unrest. Demobilized service members have taken to the streets on several occasions in recent years to protest the government's inability to place them in decent jobs and provide quality civilian job training.

Officer Corps

PLAAF officers can be demobilized, transfer to a comparable state-controlled civilian job, or retire. Each of these options entails different post-military benefits.

Officers who are demobilized (复员) before reaching their mandatory retirement age receive a one-time compensation based on a fixed amount for each year served. The amount ranges from 1.5 months of their base salary for each year served less than 10 years, to 4 months of their base salary for each year served over 20 years. Once this money is paid, the PLAAF is no longer responsible for them.

Officers who choose to retire before their mandatory retirement age (based on their grade), and transfer to a comparable job in a government-run organization (转业) also receive a one-time compensation payment to help relocate. The amount for division leader-grade officers (senior colonel) and below includes relocation and living expenses. The total amount varies from 7 months of their base pay to more than 2 years of their base pay. PLAAF officers who retire after completing 30 years of service receive their full pension, which includes their current salary, housing, and other benefits.

Chapter 14
Foreign Relations

空军对外军事交流

To implement the nation's foreign policy, the PLA has developed cooperative military relations with other countries that are nonaligned, nonconfrontational, and not directed against any third party. It engages in various forms of military exchanges and cooperation in an effort to create a military security environment featuring mutual trust and mutual benefit. During 2007-2008, China held over 20 joint military exercises or joint training exercises with several countries. China is also sending an increasing number of military students overseas.

— China's National Defense in 2008

The PLA is an integral part of China's foreign relations program. Each major component of the PLA—including the Central Military Commission, four General Departments, Army, Navy, Air Force, and Second Artillery—is part of the PRC's overall program.

This chapter examines the PLAAF's role within the larger PLA context. It first provides information about the PLA's overall foreign relations program. It then provides information on PLAAF commanders' visits abroad and foreign air force commanders' visits to China, as well as PLAAF political commissars' visits abroad. Finally, it discusses the composition of PLAAF delegations sent abroad, functional military exchanges, and limitations on future exchanges.

The PLA's Foreign Relations Program

Since China began the process of reform and opening to the outside world in the early 1980s, the PLA's foreign relations program has evolved as a means to advance China's national defense policy. The PRC's 2008 defense white paper states:

China persists in developing friendly relations, enhancing political mutual trust, conducting security cooperation, and maintaining common security with all countries based on the Five Principles of Peaceful Co-existence.[36]

Based on information from the PRC's six biennial defense white papers and other PLA writings, the five general goals of the PLA's foreign relations program are to:

- Shape the international security environment to support key national security objectives.
- Improve political and military relations with foreign countries.
- Provide military assistance to developing countries.
- Enhance China's military and defense industry modernization by acquiring technology and advancing key research and development programs through foreign assistance.

[36] The Five Principles of Peaceful Co-existence are: mutual respect for each other's territorial integrity and sovereignty; mutual nonaggression; mutual noninterference in each other's internal affairs; equality and mutual benefit; and peaceful co-existence.

- Help China's military leaders, younger officers, and civilian cadre acquire advanced military knowledge in doctrine, operations, training, military medicine, administration, and a host of noncombat-related areas.

For all practical purposes, the PLA has been fairly successful in meeting each of these goals.

The PLA's Military Exchanges and Attachés

Since the early 1980s, China has established military ties with more than 150 countries. This expanding program reflects a corresponding increase in PLA military attachés assigned abroad and foreign military attachés assigned to Beijing. Currently, China has 109 military attaché offices in its embassies abroad, and 98 foreign countries have military attachés in China. It should be noted, however, that almost all of the PLA attachés are Army officers. As of late 2009, the PRC had PLAAF attaché billets in only the United States and United Kingdom, while 21 countries had air force attachés in Beijing. As a result, the PLAAF interacts with most foreign air forces only when PLAAF delegations travel abroad, or when foreign air force delegations visit China.

In 2007-2008, senior PLA delegations visited more than 40 countries, while defense ministers, commanders-in-chief of the services, chiefs of the general staff, and other high-ranking officers and military-related officials from more than 60 countries visited China. In addition, the PLA sent more than 900 students to study abroad in 30 countries during this same period.

Air Force Commander Exchanges

Since the mid 1980s, with only two exceptions (1987 and 1996) when the commander conducted two visits abroad in the same year, PLAAF commanders have traveled abroad only once per year—visiting 2 to 3 countries per trip—and have hosted an average of 2 to 5 visits to China annually by foreign air force commanders. As shown in Appendix C, since 1979, PLAAF commanders have conducted 67 visits to 34 countries, including multiple visits to certain countries, such as Pakistan and Turkey. The most visits have been to countries in Asia, followed by Europe. No visits to Africa or the Middle East have occurred since 2001 and 2003, respectively. The last time the PLAAF commander visited the United States was in 1995, and the last visit to China by a USAF Chief of Staff was in 1998.

Since 1979, air force commanders from 40 countries have made 87 visits to China. Most of them have come from Asia and Europe.

It is not always clear why PLAAF commanders visit certain countries, but these visits appear to fit into the PRC's larger foreign relations program. For example, in 2001, General Liu Shunyao conducted the first and only visit to South Korea by a PLAAF commander since the two countries established diplomatic relations in 1992. Other visits to South Korea since 2001 included: the Chairman of the National People's Congress Standing Committee (2001 and 2003); the Foreign Minister (2002); the first PLA Navy ship visit (2002); the commandant of the National Defense University (2002); the Chief of the General Staff (2002); and various military region commanders and political commissars (2002 and 2004). These visits advanced relations between China and South Korea, leading the way for PRC President and CMC Chairman Hu Jintao's visit in 2005.

PLAAF Political Commissar Exchanges

At the invitation of the Secretary of the Air Force, PLAAF Political Commissar Zhu Guang visited the United States in late 1988. This was the first visit abroad by any PLAAF political commissar.[37] Since

[37] The Director of the General Political Department, Yang Baibing, visited East Germany in summer 1988. He was the first PLA political officer to travel abroad.

1988, PLAAF political commissars have become actively involved in the Air Force's foreign relations program and have visited 15 other countries.

Although PLAAF political commissars have traveled abroad several times since 1998, they apparently do not travel every year. For example, the current political commissar, General Deng Changyou, led delegations abroad in 2003 (Russia and Greece), 2004 (Egypt and Tanzania), 2006 (Peru and Argentina), and 2007 (Mozambique, Zambia, and Zimbabwe). It does not appear that he traveled in 2008, probably because of his involvement during the Sichuan earthquake and the Olympics. Nor did he travel during the first half of 2009. See Appendix C for further information on political commissar travel abroad.

Delegation Composition

Each of the PLAAF delegations abroad has been led by the commander or political commissar, and has included directors from key headquarters departments, regional commanders, and/or personnel from PLAAF colleges and research institutes. In addition, most of the PLAAF deputy commanders, deputy political commissars, and MRAF commanders have visited abroad as part of delegations led by senior PLA or PLAAF officers. For example, a PLAAF deputy commander was included as a member of the entourage for Defense Minister Chi Haotian's delegation to Brazil in 1994, CMC Vice Chairman Zhang Wannian's delegation to Thailand, Cambodia, and Myanmar in 1996 and Russia in 1999, and Chief of the General Staff (CGS) General Fu Quanyou's delegation to India in 1998.

These visits often indicate who the PLAAF is grooming for future leadership positions. For example, as a PLAAF deputy commander, Lieutenant General Liu Shunyao accompanied Defense Minister Chi Haotian to the United States in November 1996; he then became the commander the following month. In September 1998, Deputy Political Commissar, Lieutenant General Qiao Qingchen, accompanied Vice Chairman of the Central Military Commission, General Zhang Wannian, to the United States; he became the political commissar 3 months later. When the current PLAAF commander, General Xu Qiliang, was a deputy chief of the general staff (2004-2007), he led delegations to Romania, France, and Finland (2004), and to Australia (2007). He also visited Tajikistan during a joint anti-terror exercise in 2006.

Keeping track of officers in key billets also helps to predict their future movement up the leadership ladder. For example, one of the PLAAF's Deputy Commanders, Lieutenant General He Weirong (何为荣), has been a key player in the PLAAF's training and education system for almost two decades, which includes his time as commander of the PLAAF's Test and Training Center and as a deputy commandant of the Air Force Command College. As one of the PLAAF Headquarters' deputy chiefs of staff from 1996 to 2003, Major General He led a delegation to Chile on behalf of the PLAAF commander in April 2002. He then became the Jinan MRAF commander in June 2003, the PLAAF Headquarters chief of staff in January 2004 with a promotion in rank to lieutenant general, and a PLAAF Headquarters deputy commander in December 2005. His deputy commander portfolio includes the responsibility for training. In September 2006, He accompanied the PRC's Minister of Defense, General Cao Gangchuan, on a visit to Bulgaria, Hungary, Romania, and Belarus.

Functional Military Exchanges

Since the PRC and foreign media generally cover only high-level PLAAF visits, little information is available about the types, total number, and purpose of lower-level functional exchanges. A few articles have provided a glimpse, however, at the scope of the program. For example, according to China's official news agency Xinhua, "From 1983 to 1993, the PLAAF sent about 100 delegations and more than 2,000 officers to over 20 countries for goodwill visits for the purpose of importing foreign advanced technology and equipment, placing orders, training, and academic exchanges." In 1999, Xinhua discussed the

growing PLAAF foreign relations program and how it benefited the military by stating,

> "From 1996 through 1998, all senior officers in China's Air Force, including division commanders and college commandants, had learned advanced military skills and were trained in management techniques by the air forces of a number of foreign countries. As a result of these exchanges, China's top military leaders had paid attention to the PLAAF's reports about the differences between the air forces, their style of command, combat readiness, aircrew training, and the range of equipment and aircraft."

It appears that the PLAAF views exchange visits as important in order to learn more about foreign air forces. In January 2007, the PLA's official newspaper, *Jiefangjun Bao (PLA Daily)*, reported, "In recent years, the PLAAF organized a total of 13 groups of senior- and middle-ranking officers to visit other countries. During the same period, the PLAAF received air force delegations from 43 foreign countries." Overall, based on the limited data available, it appears the PLAAF has probably sent more than 150 delegations abroad and hosted over 250 foreign delegations since 1980.

For most PLAAF officers, military exchanges provide the only chance they have to travel to other countries during their career. Most PLAAF functional delegations visit the air force headquarters, military academic institutions, and operational units, where they receive briefings, ask questions, view equipment, and sometimes see live demonstrations. For example, in July 2003, Senior Colonel Guo Chengliang (郭成良), who was the Director of the PLAAF Headquarters' Military Affairs Department, led a delegation to France to discuss pilot recruitment and NCO selection. His delegation visited eight organizations, including the Air Force Schools Command, 721st Base, 217th Base, and personnel center.

Occasionally, PLAAF pilots have the opportunity to fly with the host air force. For example, Xu Xiliang (徐锡良), who was a first-grade pilot and deputy chief of staff of a flying regiment in a PLAAF Flight Test and Training Base, visited France in February 2004 and flew in the back seat of a Mirage-2000.

From 9-17 August 2007, the PLAAF participated in "Peace Mission 2007" in Urumqi, Xinjiang China, and Chelyabinsk, Russia, sponsored by the six member countries of the Shanghai Cooperation Organization (SCO)—China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan. As part of the anti-terrorism exercise, the PLA deployed 46 aircraft to Shagol Airbase, including 6 PLAAF Il-76 transports from the 13th Air Division (Guangzhou MRAF) and 8 FB-7s from the 28th Air Division (Nanjing MRAF), as well as 32 Army Aviation helicopters. PLAAF airborne troops from the 15th Airborne Corps also participated. According to PLA media reports, this was the "first time for PLAAF combat aircraft to deploy abroad for an exercise, to have coordinated flights with foreign fighters, to have joint flight command with a foreign air force, and to provide maintenance support to aircraft that conducted a long-range transnational flight."

Educational Exchanges

Some PLAAF officers have had the opportunity to study abroad. For example, PLAAF officers have studied in military colleges in Britain, Russia, Pakistan, Italy, and France. Since the late 1970s, more than 2,000 PLA officers have reportedly studied abroad. According to a PRC website, as of early 2009, about 300 PLA officers were currently studying in more than 30 countries.

Annually, one of the Air Force's deputy chiefs of staff leads a delegation of students from the PLAAF Command College's yearlong Advanced Course abroad for 2 weeks. This allows the students to gain first-hand knowledge about foreign air forces. For example, about 30 students visited the United States in July 1998; 41 students visited Australia and New Zealand in June 1999; and 58 students, including 8 major generals, visited India in June 2003.

Since 2003, the PLAAF and the US Air Force Academy (USAFA), which has a robust 4-year Chinese language program, have had a program of reciprocal cadet visits. USAFA cadets have visited the PLAAF's Aviation University and Engineering University, and PLAAF cadets have visited USAFA. In May 2005, the PLAAF's official magazine, *China Air Force*, had a 2-page article about 4 USAFA cadets who visited the Aviation University in March.

USAFA has also established two separate programs for its cadets at Nanjing University: language immersion and study abroad. The number of USAFA cadets in the 4- to 6-week language program has grown from 14 in 2004 to 52 in 2009. In 2009, 6 Air Force ROTC cadets also participated in the language program. Since 2007, 24 USAFA cadets have spent a semester abroad (about 5 months) at Nanjing University.

Foreign Air Force Visits to China

Because few PLAAF officers have the opportunity to travel abroad, meeting with foreign air force delegations allows officers in Beijing and the MRAFs to discuss topics of interest with the visiting delegations. Most foreign air force delegations begin their 5- to 9-day visit to China by spending a couple of days in Beijing. While there, they usually meet with the PLAAF commander and other senior PLA leaders, and may visit the Air Force Command College or National Defense University. Included in the visit are trips to the Great Wall and other historic sites around Beijing. Then, the delegations often travel to Xi'an, where they visit the Air Force Engineering University and then see the Terra Cotta Warriors. In addition, most delegations visit at least one MRAF headquarters and perhaps an operational air unit or PLAAF college.

Limitations on Future Exchanges

Although the number of PLAAF delegations sent abroad each year has increased over the past 2 decades, there are several limitations to the future growth of the PLAAF's foreign relations program. The first is the small size of the Foreign Affairs Division, which has only a few staff officers. These officers must plan the itinerary for and escort all PLAAF delegations abroad and all foreign air force delegations within China. Second, under normal circumstances, the PLAAF's commander and political commissar are authorized only one trip abroad per year. Third, it is becoming more expensive to send PLAAF delegations abroad and to host visiting delegations. Fourth, the lack of PLAAF attachés posted abroad limits day-to-day interaction with foreign air forces.

Chapter 15
Weapon Systems and Equipment Development

空军武器装备发展

China pursues a three-step development strategy in modernizing its national defense and military, in accordance with the State's overall plan to realize modernization. The first step is to lay a solid foundation by 2010, the second is to make major progress around 2020, and the third is to basically reach the strategic goal of building an informatized military and being capable of winning informatized wars by the mid 21st century.

— China's National Defense in 2008

This chapter provides information on the PLA Air Force's research, development, and acquisition (RDA) process for weapon systems and equipment. It also provides information on the Air Force Equipment Research Academy and on a new program to develop "Air Force-level experts," both of which were created in 2004 to raise the level of equipment development.

Weapon Systems and Equipment RDA Process

By definition, military RDA is the process a country follows to acquire weapons, whether through indigenous development or foreign assistance. RDA of a specific weapon or system usually involves multiple phases of development and related activities. In addition, RDA process analysis provides a mechanism for analyzing and identifying the activities in each phase in order to assess the overall time frame needed for a weapon's development. China's regular and definable RDA process allows it to plan properly and to lay a solid foundation for PLAAF modernization programs.

Under the overall guidance of the General Armament Department (GAD), the PLAAF Headquarters' Equipment Department is responsible for overseeing all of the PLAAF's weapon systems and equipment development. For more sophisticated systems, the development process generally lasts for about ten years but is gradually taking longer for each new generation of equipment. For example, the *China Air Force Encyclopedia* states that the development time lasted 3-5 years for first-generation, 5-7 years for second-generation, and 7-12 years for third-generation combat aircraft, and currently takes about 20 years for fourth-generation combat aircraft.

The process for weapon systems and equipment development consists of the following four primary phases:

- Demonstration (论证)
- Proposal (方案)
- Engineering Development (工程研制)
- Design Finalization (设计定型) and Production Finalization (生产定型).

Before the RDA process actually begins, preparatory research takes place for the chosen area of development. The PLAAF refers to this activity as National Defense Science and Technology

(S&T) Preparatory Research. The main responsibility during the preparatory research phase is to begin examining the proposed technologies that could meet operational requirements. These research technologies may or may not mature into a useful weapon system.

During 2004, the PLAAF created a system of senior technical specialists, who the PLAAF identifies as "Air Force-level experts" (空军级专家). Their primary function is to assist the PLAAF throughout the RDA process. These experts have positions above even senior engineers (高级工程师). Whereas senior engineers specialize in one weapon system or type of equipment, Air Force-level experts have a wide understanding of Air Force systems as a whole. These experts can be Air Force officers who have come up through the ranks or civilians who the PLAAF brings in at a high level.

Once preparatory research is completed, the first phase of Chinese RDA, called "demonstration," begins.[38] In this phase, the idea for a new system is examined to ensure the feasibility of translating the technology into a system that the military can use.

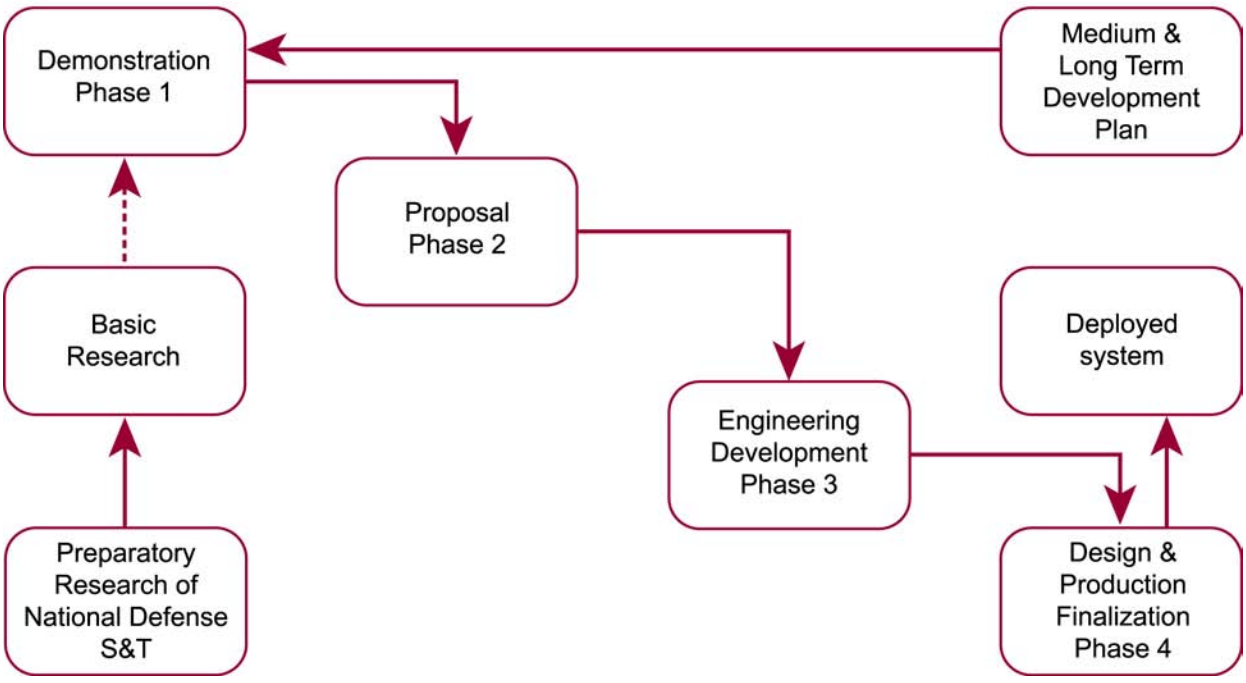
In the second phase, called "proposal," the main performance characteristics of the conceptual system are defined and then tested to see whether they will be acceptable to the military. This phase is also referred to as the project planning, design, or prototype phase. During this phase, the best technologies from the demonstration phase are selected to be developed.

During the third phase, called "engineering development," the factory and associated research institutes that are responsible for full-scale development of the system design, produce and test it. This phase can often be the longest, taking several years.

The fourth and final phase combines design finalization and production finalization. The design finalization component involves a comprehensive review and inspection of the new weapon system or equipment throughout the process, including systematic testing of each component of the prototype(s). During the production finalization component, the new system is

[38] Various sources sometimes translate this phase as the theoretical evaluation, verification, or weapon system concept research phase.

Figure 39. Weapon System Development Sequence: Phases



produced for delivery to the operational force. Once the new system or equipment enters the operational force, it can still take a long time, possibly years, before the system and its personnel are considered combat capable. This process is outlined in Figure 39.

Equipment Research Academy

On 2 February 2004, PLAAF Headquarters established the new Air Force Equipment Research Academy (空军装备研究院), which is a corps deputy leader-grade organization. The research academy is responsible for consolidating management of the PLAAF's scientific research and implementing the PLAAF's S&T strategy. The new research academy manages more than 20 PLAAF division- and regiment-level scientific research organizations. As of 2005, the academy had about 1,500 officers. Some of the academy's key subordinate research institutes and centers are:

- Equipment General Demonstration Research Institute (装备总体论证研究所)
- Aviation Equipment Research Institute (航空装备研究所)
- Air Force Ground Air Defense Equipment Research Institute (空军地面防空装备研究所)
- Air Force Radar and Electronic Countermeasures Research Institute (空军雷达与电子对抗研究所)
- Air Force Communications Navigation and Command Automation Research Institute (空军通信导航与指挥自动化研究所)
- Air Force Reconnaissance and Intelligence Equipment Research Institute (空军侦察情报装备研究所)
- Air Force Weather and Chemical Defense Research Institute (空军气象防化研究所)
- SAM Technical/Technology Services Research Institute (导弹技术勤务研究所)
- Air Force Equipment Software Testing and Evaluation Center (空军装备软件测评中心).

Appendix A
Current Leadership Biographies

PLAAF Commander, General Xu Qiliang (许其亮): 2007-Present

- Born March 1950 in Linqu, Shandong Province
- Joined PLAAF in July 1966
- July 1966 to December 1967: attended the PLAAF 1st Aviation Preparatory School
- December 1967 to August 1969: pilot cadet at the PLAAF 8th Aviation School and 5th Aviation School
- August 1969 to May 1983: served as an air division pilot, a flight group deputy commander and commander, and an air division deputy commander
- March to October 1982: student at the Air Force Command College
- May 1983 to August 1984: air division commander
- August 1984 to August 1985: air corps deputy commander
- August 1985 to July 1988: chief of staff in the PLAAF Shanghai Command Post
- September 1986 to July 1988: student in the National Defense University's Basic Course
- July 1988 to July 1989: acting deputy commander in an air corps
- July 1989 to January 1993: chief of staff of an air corps before being promoted to commander
- January 1993 to October 1994: PLAAF Headquarters deputy chief of staff
- October 1994 to February 1999: PLAAF Headquarters chief of staff and member of PLAAF Party committee's standing committee
- February 1999 to July 2004: commander, Shenyang MRAF and concurrently a deputy commander of the Shenyang MR
- July 2004 to October 2007: a deputy chief of the general staff
- October 2007: PLAAF commander and concurrently a member of the CMC

Promotions and Party Positions

- Promoted to major general in June 1991, lieutenant general in July 1996, and general in July 2007
- Selected as an alternate member of the 14th and 15th Party Congresses (1992 and 1997)
- Selected as a member of the 16th and 17th Party Central Committee (2002 and 2007)

PLAAF Political Commissar, General Deng Changyou (邓昌友): 2002-Present

- Born February 1947 in Pengxi, Sichuan Province
- Joined PLAAF in March 1968
- March 1968 to December 1972: an enlisted force engineer and was then commissioned as an officer and platoon leader
- December 1972 to March 1974: a staff officer in the Propaganda Office of a PLAAF Engineering *Zongdui's* Political Department
- March 1974 to May 1976: political instructor in an engineering company
- May 1976 to March 1979: political commissar for an engineering group
- March 1979 to May 1983: director of the Political Department in a division-level engineering unit
- September 1981 to July 1983: student at the PLA Political Academy
- May 1983 to August 1986: a deputy political commissar in a command post in the Kunming MRAF
- August 1986 to June 1990: deputy secretary in the Wulumuqi Command Post's Discipline Inspection Commission
- June 1990 to January 1993: director of the Wulumuqi Command Post's Political Department
- January 1993 to July 1996: political commissar of an air corps
- August 1993 to February 1996: completed a correspondence course from the Central Party School
- July 1996 to March 1997: a deputy political commissar and concurrently the secretary of the Discipline Inspection Commission in the Lanzhou MRAF
- March 1997 to November 1997: a deputy director of the PLAAF Political Department
- November 1997 to May 2002: director of the PLAAF Political Department and concurrently a member of the PLAAF Party committee's standing committee
- May 2002: PLAAF political commissar
- While Qiao Qingchen was the commander, Qiao was the PLAAF Party Committee secretary and Deng was the deputy
- When Xu Qiliang became commander, Deng became the secretary and Xu the deputy secretary

Promotions and Party Positions

- Promoted to major general in July 1992, lieutenant general in July 1999, and general in June 2006
- Selected as a member of the 16th and 17th Party Central Committee (2002 and 2007)

Appendix B
PLAAF Academic Institutions

Today, as shown in Figure 40, the PLAAF has 3 universities, 15 colleges, and 1 NCO school. Since the late 1990s, several PLAAF colleges, such as the Meteorology College, Medical College, and Political College have been merged into PLA universities. This appendix provides information, where available, on the PLAAF's academic institutions to include their location, brief history, academic departments, and academic specialties offered.

Figure 40. PLAAF Academic Institutions

Institution	City	Province	MRAF
Command College	Beijing		Beijing
Baoding Branch College	Baoding	Hebei	Beijing
Engineering University	Xi'an	Shaanxi	Lanzhou
Natural Science College	Xi'an	Shaanxi	Lanzhou
Engineering College	Sanyuan	Shaanxi	Lanzhou
SAM College	Xi'an	Shaanxi	Lanzhou
Telecom Engineering College	Xi'an	Shaanxi	Lanzhou
Guilin Air Force College	Guilin	Guangxi	Guangzhou
Radar College	Wuhan	Hubei	Guangzhou
Xuzhou Air Force College	Xuzhou	Jiangsu	Nanjing
1st Aviation [Maintenance] College	Xinyang	Henan	Jinan
Air Force Aviation University	Changchun	Jilin	Shenyang
Basic Training Base	Changchun	Jilin	Shenyang
Flight Training Base*	Changchun	Jilin	Shenyang
1st Flight College	Harbin	Heilongjiang	Shenyang
2nd Flight College	Jiajiang	Sichuan	Chengdu
3rd Flight College	Jinzhou	Liaoning	Shenyang
4th Flight College	Shijiazhuang	Hebei	Beijing
5th Flight College	Wuwei	Gansu	Lanzhou
6th Flight College	Zhuoxian	Hebei	Beijing
13th Flight College	Bengbu	Anhui	Nanjing
Air Force Military Professional University	Beijing		Beijing
Dalian PLAAF NCO Communications School	Dalian	Liaoning	Shenyang

* The Flight Training Base is the former 7th Flight College.

Officer PME Programs

The information available about officer professional military education (PME) is somewhat complicated and often contradictory. Unlike the USAF Air University that provides in-residence PME in a single location for officers based on their rank, regardless of their specialty, the PLAAF provides in-residence PME for its officers in several locations based on their grade level (i.e., platoon, battalion, regiment, division, or corps) and specialty. For example, PLAAF officers in the command track receive their PME at the Command College, while maintenance officers receive their PME at the Air Force Engineering College.

Whereas USAF officers attending the Air War College receive a master's degree, it appears that PLAAF command track officers attending the intermediate- or advanced-level PME programs at the PLAAF Command College receive only a graduation certificate. To receive a master's degree, PLAAF officers must enroll in a 2-3 year program. As a result, the number of officers in the command track, including pilots, with a master's degree is much less than the number of officers in the technical track.

Command College

The Air Force Command College originated as the Air Force Department (空军系) in the Nanjing Military Academy. In September 1958, the department moved to Beijing and was renamed the Air Force College (空军学院). The college was closed at the beginning of the Cultural Revolution in 1966 and reopened in 1973 as the Air Force Command and Political Officer School (空军军政干部学校). The name changed back to the Air Force College in 1978. The college received its current name in June 1986 and became a corps-leader grade organization in 1992. The college has a branch campus in Baoding, Hebei Province. As of 2004, the college had trained more than 32,000 command, political, and logistics officers for command and staff officer billets.

This college is the PLAAF's highest institute of learning. The college has different programs for command track officers based on their specialty. In general, the college provides basic-, intermediate-, and senior-level PME for platoon-, regiment-, and corps-grade officers, respectively. However, some programs are tailored to brigade- and division-level officers.[39] The college also has master's and doctoral degree research programs. The college has six academic departments and a military theory research institute. Its primary specialties are shown in Figure 41.

PLAAF Engineering University

The Air Force Engineering University (空军工程大学) is located about an hour outside Xi'an, Shaanxi Province (Lanzhou MRAF). In July 1999, this university was created by combining the Engineering College (空军工程学院), Surface-to-Air Missile College (地空导弹学院), and Telecommunications Engineering College (电讯工程学院), all of which were located in or near Xi'an. In 2002, the university created the Natural Science College (理学院). The university has 27 academic departments, 16 of which are shown in Figure 42, that are linked with 29 bachelor's degree specialties. The university also has 84 teaching and research offices. The university's 69 student teams, which are roughly equivalent to a USAF Academy cadet squadron, are organized

[39] Basic-level courses are for platoon-grade officers (second lieutenants). Intermediate-level courses are for regiment-grade officers (colonels), and senior-level courses are for brigade- and division-grade officers (senior colonels) or corps-level officers (major generals). The courses last for one year. Some corps-level officers can also attend the National Defense University.

according to their college, academic departments, and class year. The university offers bachelor's, master's, and doctoral degrees.

The 84 teaching and research offices focus on political theory, foreign languages, aircraft, ordnance, equipment information management, missile radar, computers, missile measurement and testing, missile principles, microwave communications, and command automation.

Natural Science College

In 2002, the Air Force Engineering University created a subordinate Natural Science College (理学院), which is co-located with the university. This college is responsible for teaching basic courses on behalf of various PLAAF colleges before the students begin their specialized courses. As of mid 2005, nearly 5,000 cadets representing 10 colleges in the Air Force and Army were studying basic courses.

Engineering College

The Air Force Engineering College (空军工程大学工程学院) is subordinate to and co-located with the Air Force Engineering University near Xi'an. The college was founded in 1959. In 1999, the college came under the umbrella of the PLAAF Engineering University. The college has nine academic departments, as shown in Figure

Figure 41. Academic Specialties

Air Force Campaign Command	空军战役指挥
Aviation Troop Intermediate-Level Command	航空兵中级指挥
Unit Political Work	部队政治工作
Logistics Intermediate-Level Command	后勤中级指挥
Communications Intermediate-Level Command	通信中级指挥
Aviation Engineering Intermediate-Level Command	航空工程中级指挥
Staff Officer Functional Work	参谋业务
Command Automation	指挥自动化
Flight Group Political Work	飞行大队整治工作

Figure 42. Academic Departments

Flight Vehicle and Power Engineering	飞行器与动力工程
Aviation Weapons Engineering	航空兵器工程
Airfield Construction Engineering	机场建筑工程
Aviation Equipment Management Engineering	航空装备管理工程
Radar Engineering	雷达工程
Computer Engineering	计算机工程
Missile Engineering	导弹工程
Air Defense Command	防空工程
Navigation [Equipment] Engineering	导航工程
Network Engineering	网络工程
Command Automation Engineering	指挥自动化工程
Information Countermeasures	信息对抗
Social Science	社会科学
Applied Mathematics and Physics	应用数学物理
Aviation Intelligence	航空情报
Electronics Science	电子科学

43. The college's primary mission is to train airfield construction personnel and personnel who support aviation equipment, including aircraft mechanics. The college is also responsible for training personnel to man the PLAAF's military representative offices in the aviation industry's research and production facilities.

Figure 43. Academic Departments

Aircraft and Engine Engineering	飞机与发动机工程
Aviation Weapons Engineering	航空兵器工程
Aviation Automatic Control Engineering	航空自动控制工程
Aviation Electronics Engineering	航空电子工程
Airfield Construction Engineering	机场建筑工程
Aviation Equipment Management Engineering	航空装备管理工程
Foreign Languages	外语
New Equipment Training	新装备训练
Foreign Training	外训

Surface-to-Air Missile College

The PLAAF's Surface-to-Air Missile College (地空导弹学院), which is sometimes identified as the Guided Missile College, is in Sanyuan, Shaanxi Province, near Xi'an. It was established in 1958 and is currently one of the four colleges subordinate to the PLAAF's Engineering University.

The college's mission is to provide training and education for SAM command and technical officers at different levels. Depending on their major and career track, officer students can receive either a 3-year senior technical or a 4-year bachelor's degree, as well as a master's or a doctoral degree. The college also offers 2-year secondary technical and 3-year senior technical degrees to NCOs. Upon graduation, the students are assigned directly to operational units.

Figure 44. Academic Departments

Command Engineering	指挥工程系
Computer Engineering	计算机工程系
Electro-Mechanical Engineering	机电工程系
Radar Engineering	雷达工程系
Guided Missile Engineering	导弹工程系
Systems Engineering	系统工程系

Figure 45. Selected Academic Specialties

Aviation and Astronavigation Engineering	航空宇航工程
Communications and Electronic Systems	通信与电子系统
Computer Applications	计算机应用
Detonation Technology	引信技术
Electromagnetic Fields and Microwave Technology	电磁场与微波技术
Flight Equipment Control	飞行器控制
Guidance and Emulation	指导与仿真
Guided Missile Unit Tactical Studies	导弹部队战术学
Military Equipment Studies	军事装备学
Military Operations Research	军事运筹学
Rocket and Guided Missile Launch Technology	火箭导弹发射技术
Signals and Information Management	信号与信息处理

The college has six academic departments in addition to a basic department (基础部) that is responsible for the first 2 years of general education. Figures 44 and 45 list the six academic departments and 12 selected academic specialties.

Telecommunications Engineering College

The PLAAF Telecommunications Engineering College (通讯工程学院), located in Xi'an, is subordinate to the Air Force Engineering University. The college was created in May 1958 and had trained about 30,000 cadets by the end of 2004.

The college trains officers for assignments in communications, navigation systems, and command automation systems billets. It also provides: bachelor's degrees to communications command officers; senior technical, bachelor's, and master's degrees to communications technical officers; and secondary technical and senior technical degrees to NCOs. Figure 46 provides a list of the eight academic departments.

The college awards 25 academic specialties, seven of which are shown in Figure 47.

Figure 46. Academic Departments

Navigation	导航
Ground-to-Air Communications	地空通信
Network Engineering	网络工程
Data Communications	数据通信
Command Automation	指挥自动化
Communications Command	通信指挥
Information Countermeasures	信息对抗
Electric Power and Instrument Measurement	电力电子与仪表测量

Figure 47. Selected Academic Specialties

Navigation	导航
Communications	通信
Information	信息
Networks	网络
Command Automation	指挥自动化
Communications Countermeasures Engineering	通信对抗工程
Communications Technology Command	通信技术指挥

Guilin Air Force College

The Guilin Air Force College (桂林空军学院), located in Guilin, Guangxi Zhuang Autonomous Region, was created in the early 1950s as the Antiaircraft Artillery School under the PLA Air Defense Force. The school closed at the beginning of the Cultural Revolution in 1966 and reopened in 1978. The PLAAF upgraded it to a college in 1986.

Prior to 1999, the PLAAF's airborne command officers received training in various Army academies. In 1999, the Guilin Air Force College expanded its scope to include training the PLAAF's airborne command officers.

In 1999, the college also added courses for the PLAAF's airborne forces and security police. As a result of adding these responsibilities, "AAA" was dropped from the name, and the school was renamed the Guilin Air Force College.

To meet its new requirements, the college added an Airborne Troop Academic Department (空降兵系) and more than 100 instructors. The first class of command officers enrolled in September 2000 and graduated in June 2003. The college began training female airborne officers in 2002. It also has courses for enlisted personnel.

Figure 48. Academic Specialties

AAA Intermediate-level Command	高炮中级指挥
Air Defense Troops AAA Command	防空兵高炮指挥
Airborne Troops Command	空降兵指挥
Fire Command	指挥仪指挥
Firepower Control Engineering	火力控制工程
Grassroots Political Work	基层政治工作
Infantry Command	步兵指挥
Radar Command	雷达指挥
Security Police Command	警卫指挥
Staff Duties	参谋业务

The college offers secondary technical, senior technical, and bachelor's degrees. As illustrated in Figure 48, the college currently has several specialty departments (专业系).

Radar College

The PLAAF's Radar College (空军雷达学院) is located in Wuhan, Hubei Province. It was established in 1952 as the PLA Air Defense and Radar School. After a series of name changes, the college took its current name in 1983. In 1992, it was upgraded to a corps-level institution, so that it could offer doctorate and other post-graduate degrees.

The college provides basic technical education for radar troops and electronic countermeasures specialty unit personnel. It also provides education for basic- and intermediate-level radar command officers. In 2004, the college assumed responsibility from two other PLAAF organizations for training NCOs as

Figure 49. Academic Departments

Early Warning and Detection Command	预警探测指挥
Early Warning and Detection Equipment	预警探测装备
Electronic Countermeasures	电子对抗
Information and Command Automation	信息与指挥自动化
Electro-Mechanical Engineering	机电工程
Ordnance Common Use Equipment	军械同用装备
Transition Training	改装训练

radar technical and maintenance personnel.

The college has a Basic Department, which is responsible for basic education, and seven academic departments as shown in Figure 49. It also has an NCO training unit and a teaching and research center.

Figure 50. Selected Academic Specialties

Branch/Service Arm Tactics	兵种战术学
Military Equipment Studies	军事装备学
Military Intelligence Studies	军事情报学
Signals and Information Management	信号与信息处理
Computer Applications Technology	计算机应用技术
Weapon Systems and Utilization Engineering	武器系统与运用工程
Military Operations Research	军事运筹学

The college has 43 academic specialties, some of which are shown in Figure 50. The college offers the following degrees: secondary technical, senior technical, bachelor's, master's, and doctorate. From 1952 through 2004, the college trained about 40,000 personnel.

Xuzhou Air Force College

The Xuzhou Air Force College (徐州空军学院) is located in Xuzhou, Jiangsu Province (Nanjing MRAF). When it was established in Taiyuan, Shanxi Province, in October 1954, it was called the Air Force Logistics School. In May 1958, the school moved to its current home in Xuzhou. In 1991, it was subordinated to the General Logistics Department, then was resubordinated to the PLAAF in 1993. In May 2004, the college was renamed the Xuzhou Air Force College.

Figure 51. Academic Specialties

Aviation Troop Logistics Organization and Command	航空兵后勤组织指挥
Aviation Munitions	航空弹药
Aviation Materiel	航空器材
Aviation POL	航空油料
Airfield Services Support	常务保障

The college has secondary technical, senior technical, bachelor's, and master's degree programs. Its primary mission is to train finance, quartermaster, POL, barracks, air materiel, and armament/ordnance specialty personnel. As of 2005, the college had trained about 40,000 personnel.

The college has several academic departments, as well as various specialties, as shown in Figure 51.

Figure 52. Academic Departments

Aviation Machinery Engineering	航空机械工程
Aviation Repair and Helicopter Machinery Engineering	航空修理与直升机机械工程
Aviation Armament Engineering	航空军械工程
Aviation Special Equipment	航空特种设备
Aviation Electrical Engineering	航空电子工程

1st Aviation College

The 1st Aviation College was established in May

1951 in Shenyang, Liaoning Province, and moved to Xinyang, Henan Province (Jinan MRAF), in 1970. The college began as a school and changed its name several times before it took its current name in 1992.

The college's primary mission is to train officer and enlisted aviation equipment maintenance specialists. Throughout its history, it has also trained foreign aircraft maintenance personnel. The college primarily recruits its cadets from high school graduates and enlisted force members. It has seven academic departments, five of which are shown in Figure 52. It offers secondary technical, senior technical, and bachelor's degrees. It is responsible for teaching machinery, aviation repair, aviation armament, aviation electronics, and aviation instruments. It is also responsible for helicopter maintenance training.

In 1998, the college created the PLA's only aircraft-damage rapid-repair test center (飞机战伤创修试验中心). Since then, the PLAAF has spent several million RMB studying how to repair aircraft damaged in aerial combat or on the ground by enemy attacks.

Air Force Aviation University

In May 2004, the PLAAF created the Air Force Aviation University (空军航空大学) in Changchun, Jilin Province (Shenyang MRAF). The university, which was formed by combining the PLAAF 2nd Aviation Technology College, the Changchun Flight College, and the 7th Flight College, is a corps deputy leader-grade organization that is directly subordinate to PLAAF Headquarters. The university is the only PLAAF composite university that combines aircrew and ground crew training. The university is composed of the following two division leader-grade bases, both of which are located in Changchun:

- Flight Basic Training Base (飞行基础训练基地)
- Flight Training Base (飞行训练基地).

Flight Colleges

Today, as shown in Figure 40, besides the two aviation training bases subordinate to the Air Force Aviation University, the PLAAF has seven flight colleges (飞行学院) located in five MRAFs. Each college, which is a division leader-grade organization, has two or more airfields and two to four subordinate regiments. Some regiments are for basic trainers (初级教练机) and some for advanced trainers (高级教练机). Each regiment is divided into at least two flight groups, which, in turn, are divided into flight squadrons.

The 1st and 2nd Flight Colleges train PLAAF bomber and transport pilots.[40] The 3rd, 4th, 5th, 6th, and 13th Flight Colleges train PLAAF fighter and ground-attack pilots. The Army Aviation Corps Academy trains PLAAF helicopter cadets. See Chapter 8 for information on flight college cadet pilot training.

Almost all of the instructor pilots at PLAAF flight colleges graduated from flight training and then remained at their college as instructors for the rest of their careers. The PLAAF has selected only a few pilots from operational units to return to the colleges as instructor pilots. Although the PLAAF has consistently recognized this as a problem, progress on changing the program has been slow to nonexistent.

[40] Naval Aviation trains its own transport and bomber pilots.

Air Force Military Professional University

As part of its effort at creating a more highly educated force, the Air Force Military Professional University (空军军事职业大学) was established in Beijing in June 2008 and its first classes began in September of that year. PLAAF Commander General Xu Qiliang is the university's commandant, and PLAAF Political Commissar General Deng Changyou is the political commissar. The university has branch campuses in each of the PLAAF's four departments, each MRAF Headquarters, and the Airborne Corps headquarters. Every independent unit at the regiment level and above also has its own study center.

The university uses on-the-job training as the primary means of providing training and professional military education to its officers and enlisted personnel. The university offers secondary technical, senior technical, bachelor's, and master's degrees. Any officer or enlisted member who fails to complete the course on schedule cannot be promoted.

Dalian PLAAF Communications NCO School

The Dalian PLAAF Communications NCO School (空军大连通信士官学校) is the PLAAF's only NCO school.[41] The school, which is located in Liaoning Province (Shenyang MRAF), trains NCOs for PLAAF communications units. It was originally founded in 1986 and took its present name in 1992.

The school recruits students from within PLAAF units. Applicants must be outstanding enlisted personnel who have at least 1 year's experience in a communications specialty and are middle school gradu-

Figure 53. Academic Specialties

Radio Communications Technology	无线电通信技术
Surface-to-Air Radio Communications Technology	地空无线电通信技术
Radio Relay Communications Technology	无线电中断通信技术
Satellite Communications Technology	卫星通信技术
Radio Navigation Technology	无线电导航技术
Radio Direction Finding Technology	无线电定向技术
Radio Direction and Range Measuring Technology	无线电测向测距技术
Instrument Landing Technology	仪表着陆技术
Cable Communications Technology	有线电通信技术
Communications Line Technology	通信线路技术
Telecommunications Exchange Technology	电讯交换技术
Carrier Communications Technology	载波通信技术
Fiber Optics Communications Technology	光线通信技术
Communications Interruption Technology	通信终端技术
Communications Power Source Technology	通信电源技术
Telegraphic Communications Technology	电报通信技术
Data Communications Technology	数据通信技术
Command Automation Interruption Technology	指挥自动化终端技术

[41] Altogether, the PLA has only six NCO schools, each of which focuses on a particular specialty.

ates. NCOs at the school are divided into about 10 student teams. They receive either 2-year secondary technical degrees or 3-year senior technical degrees.

The school has academic departments for Missiles, Radio, and Cable Communications that provide a total of eighteen 2-year secondary technical academic specialties, listed in Figure 53.

Appendix C
PLAAF Leaders' Foreign Exchanges

PLAAF Commander Exchanges

Between 1949 and 1965, PLAAF Commander Liu Yalou (1949-1965) traveled abroad only six times, including trips to Russia (1949, 1956, 1961), Cuba (1963), and Pakistan (1964). As shown in Figure 54 (page 136), since 1979, PLAAF commanders have conducted 67 visits to a total of 34 countries, including multiple visits to certain countries, such as Pakistan and Turkey. At the same time, air force commanders from 40 countries have made a total of 87 visits to China.

PLAAF Political Commissar Visits Abroad

In 1988, PLAAF Political Commissar Zhu Guang visited the United States, which was the first visit abroad by any PLAAF political commissar. Figure 54 provides information about PLAAF political commissar visits to 15 other countries since 1988. No visits occurred during 2008 or the first half of 2009.

Figure 54. Commander-Level Exchange Visits: 1979-2009

PLAAF CDR Visits Abroad (67)	PLAAF Political Commissar Visits Abroad (19)	Foreign Air Force CDR Visits to China (87)
–Asia (13 countries) Australia (96, 00) Bangladesh (84, 90, 93) India (05, 07) Indonesia (97) Japan (01, 08) Malaysia (97, 09) New Zealand (00) North Korea (87) Pakistan (79, 87, 88, 93, 96, 00, 06, 09) Singapore (00) South Korea (01) Sri Lanka (84) Thailand (81, 90, 93, 97)	***–Asia (0 countries)***	***–Asia (14 countries)*** Australia (94, 97) Bangladesh (92, 96, 04, 07) Burma/Myanmar (97, 98, 05) India (01, 08) Indonesia (98, 00, 07) Japan (00) Malaysia (08) New Zealand (01) North Korea (88, 08) Pakistan (79, 92, 95, 99, 03, 08) Philippines (02, 08) South Korea (05, 08) Sri Lanka (82) Thailand (81, 84, 91, 97, 98)
–Europe (9 countries) Belgium (82, 01) Britain (85) Finland (07) France (85, 99) Portugal (96, 98) Spain (05) Sweden (05) Russia (94, 96) Turkey (88, 96, 98, 01, 06, 09)	***–Europe (5 countries)*** Greece (03) Italy (00) Portugal (98) Russia (96, 00, 03) Turkey (98)	***–Europe (12 countries)*** Belarus (01, 05) Belgium (98) Britain (88, 01, 07) Croatia (02) Czech Republic (99) Germany (07) Italy (86, 00) Portugal (94, 97, 99, 05) Russia (95, 00) Sweden (87) Switzerland (07) Turkey (95, 99, 05, 08)
–Africa (4 countries) Algeria (80) Sudan (01) Tanzania (92) Zimbabwe (92)	***–Africa (4 countries)*** Mozambique (07) Tanzania (04) Zambia (07) Zimbabwe (07)	***–Africa (5 countries)*** South Africa (07) Sudan (06) Tanzania (92) Zambia (96) Zimbabwe (91, 93, 00)
–Middle East (2 countries) Egypt (88, 94, 03) United Arab Emirates (94)	***–Middle East (1 countries)*** Egypt (04)	***–Middle East (2 countries)*** Egypt (91, 94, 09) Jordan (07)
–North America (1 country) United States (87, 88, 95)	***–North America (1 country)*** United States (88)	***–North America (1 country)*** United States (85, 87, 89, 94, 98)
–Latin America (5 countries) Argentina (98) Brazil (98, 05) Chile (91, 98, 08) Cuba (96, 08) Peru (91)	***–Latin America (5 countries)*** Argentina (06) Cuba (96, 01) Mexico (01) Peru (06) Venezuela (01)	***–Latin America (6 countries)*** Bolivia (88, 92, 01) Brazil (94, 04, 05) Chile (01, 05, 06, 08) Cuba (95) Peru (06) Venezuela (01)

Appendix D
Chinese Military Terms and Phrases

Operational Theory (*zuozhan lilun;* 作战理论) (i.e., doctrine): There is no one Chinese word for "doctrine," and the PLA does not use a word substitute for "doctrine" in referring to its own operational theory or operational concepts. However, recognizing that the Americans do use that word, PLA operations professionals translate "US doctrine" as "American Military Operational Theory." Understanding the linkage between operational theory and operational practice in the PLA is an important tool for identifying operational concepts. As "scientific socialists" seeking to discern the "laws" that govern observable events, Chinese military strategic and operational researchers (theorists) as well as operational commanders (practitioners) place an equal emphasis on "theory" and "practice."

National Military Strategic Guidelines (*guojia junshi zhanlue fangzhen;* 国家军事战略方针): Authoritative guidance issued by the CMC that outlines the general program for managing the development and application of military force. The guidelines are primarily updated in response to changes to the Party's strategic guidance and to changes in assessments of the nature of warfare and of China's changing security situation. The guidelines have been issued four times since 1949, most recently in 1993, when the CMC called on the PLA to focus on preparing for "local wars under high-tech conditions." Minor adjustments have been made, with the most recent likely taking place around 2004.

Active Defense (*jiji fangyu;* 积极防御): The current operational component of the "Military Strategic Guidelines for the New Period" is known as the "Active Defense" strategy as adjusted for the conduct of "Local Wars under Informatized Conditions." The "Active Defense" or "Active Defense Military Strategy" establishes a set of broad strategic concepts and principles, and a set of very general operational concepts, for prosecuting war at the strategic level of conflict. It applies to all PLA services and branches. The term itself originates from "Mao Zedong Military Thought," specifically Mao's 1936 essay, "The Problems of Strategy In China's Revolutionary War." Over time, the higher-order strategic-level principles informing the "Active Defense" strategy have remained relatively constant and include the following tenets:

- Overall, our military strategy is defensive. We will attack only after being attacked. *But our operations are offensive.*
- We will not limit our counter-offensive by space or time.
- We will not put boundaries on the limits of our offensives.
- We will wait for the time and conditions that favor our forces when we do initiate offensive operations.
- We will focus on the opposing force's weaknesses.
- We will use our own forces to eliminate the enemy's forces.
- We will simultaneously conduct offensive operations against the enemy and defensive operations for our own force protection.
- We will maximize our advantages against the opposing forces.

Assassin's Mace (*shashoujian;* 杀手锏 / *sashoujian*; 撒手锏) (alternately "killer mace" or "magic weapon" or "trump card"): The PLA often interchanges these terms, and there does not appear to be a consensus on their meaning. In classical Chinese military thought, "assassin's mace" is used to indicate a secret weapon or method

used by a person or group to triumph over a stronger adversary. It can be employed at the key moment in a battle. According to one Chinese military publication, *Junshi Wenzhai*, China already has an "Assassin's Mace" or "Trump Card" doctrine to counter U.S. air superiority in the Western Pacific. One article specifically identifies five major "assassin's maces," including fighter bombers, submarines, anti-ship missiles, torpedoes, and mines to destroy aircraft carriers. China is acquiring these weapons from Russia or developing them itself. The last paragraph of the article claims that China can coordinate all these five weapons to attack an aircraft carrier simultaneously from several directions and leave it "in flames." However, according to another PLA article, "Currently, there is no common understanding of what these terms are. Basically, it is whatever the PLA needs to win future local wars under modern high-tech conditions. It includes two aspects: (1) weapon systems and equipment (e.g., hardware); and (2) every type of combat method (e.g., software)."

Campaign (*zhanyi;* 战役): A series of operational activities, typically undertaken at the group army level, under a unified command to achieve partial or complete objectives in war. Campaign-level activity links tactics to strategy and is roughly equivalent to the western concept of "operational-level of war."

Operations (*zuozhan;* 作战)[42]: Military actions by an armed force to attack or resist an enemy. The term is used in a general sense to refer to various types of actions within the scope of wars, campaigns, and battles.

Informatization (*xinxihua;* 信息化): This term, which is sometimes noted as informationalization or informatized, refers to the process of military transformation through the adoption of information technology, sensors, and advanced warfighting techniques, such as integrated joint warfare. Strategic guidance issued by Jiang Zemin in 2002 called on the PLA to develop the ability to win local wars under conditions of informatization. Today, the PLA wants to better utilize information while denying it to the adversary.

Firepower Strike (*huoli daji;* 火力打击): A firepower strike system is made up of Second Artillery units, air force and naval aviation units, tactical surface-to-surface missile units, and long-range ground-based and sea-based artillery units. The main missions of a firepower strike system are: carrying out strikes against the bases and airports housing the main enemy anti-blockade forces and other important on-shore targets; providing support for the capture of the command of the blockade zone; and giving assistance to blockade operations undertaken by naval and air forces.

Inferior Defeats the Superior (*yi lie sheng you;* 以劣胜优): As the PLA represents its own battle history back to its founding in the late 1920s, it views its own operational legacy as one in which a poorly armed and equipped PLA has had to find ways to defeat enemy forces with superior material capabilities. The PLA recognizes that this is also the challenge it faces today and for the foreseeable future. PLA texts acknowledge the gap that exists between its own weapons and those of highly developed militaries. To close this gap, PLA writings assert the need to develop new weapons, equipment, and capabilities. In the meantime, the Chinese armed forces must also develop operational concepts that will allow it to overcome its own material shortcomings and use what it has, or may soon have, by way of new capabilities that maximize the effectiveness of its operations. Therefore, the focus of PLA operational research is to pursue "…concepts, principles, and tactics for defeating a superiorly equipped enemy by using inferior arms."

Integrated Joint Operations (*yitihua lianhe zuozhan;* 一体化联合作战): China's 2004 defense white paper first revealed the new concept of "integrated joint operations." Since then, the biennial white papers, as well as the

[42] The term zuozhan is also translated as combat.

2006 and 2007 versions of the *Science of Campaigns,* have expanded on the components of integrated joint operations to include integrated joint information networks, command and control systems, maritime operations, sea-air operations, air-land operations, conventional-nuclear operations, training, logistics support, equipment support, and maritime operations, as well as integrated civil-military support. *Science of Campaigns* states that integrated joint operations and integrated joint campaigns require networked command information systems in order to be successful. The 2008 defense white paper states that integrated joint operations are designed to bring the operational strengths of all the services and branches into full play, combine offensive operations with defensive operations, give priority to the flexible application of strategies and tactics, and make the best use of the PLA's strong points to attack the enemy's weak points. They endeavor to refine the command system for joint operations, the joint training system, and the joint logistics and equipment support systems.

Integrated Operations (*zhengti zuozhan;* 整体作战): This concept, which is usually noted as "integrated operations, key point strikes," speaks to the need to view the prosecution of campaigns as a holistic endeavor in order to accrue all of the forces and capabilities that must be marshaled in a modern campaign. This does not mean just military capabilities, but also the capabilities that result from utilizing the assets from the populace itself when needed (the traditional concept of "People's War") and from non-military elements of national power. Integrated operations basically means that, in campaign combat operations, one must implement the policy of integrating the military with government, the military with civilian forces, and military struggle with political, economic and diplomatic struggle; one must bring into full play the superiority of the collective strength of a people's war by forming a united and collective combat force through concerted employment of all operational factors such as force capabilities, space, time, means, etc. The integrated operations concept also addresses how those campaign capabilities must be focused against the enemy and to what purpose.

Key Point Strikes (*zhongdian daji;* 重点打击): The campaign concept of "key point strikes" talks to the ways in which the PLA will seek to operationalize its assault against the enemy's most important capabilities. It refers to the concentration of forces in the main direction of the military campaign, at the critical juncture, and for a major operation, with an objective of mounting focused strikes against targets vital to sustaining and supporting the enemy's operational system. Destroying and annihilating such vital targets and quickly paralyzing the enemy's operational system should become the focus of campaign execution and the main approach to achieving campaign victory.

Vital Targets (*yaohai mubiao;* 要害目标): "Vital targets" will have a direct bearing on the attainment of the campaign's objectives. The aim should be to cripple or degrade the enemy's operational superiority through attacks on such targets as the enemy's information system, command system, support systems, and weapons, as well as the campaign architecture links, i.e., the interconnection among the above. However, each opponent is likely to have different "vital targets"; therefore, it is essential to understand the degree of threat the target poses to friendly forces based on the enemy's planned use of those systems. And the specific set of vital targets is likely to change over the course of a campaign, due to changes on the battlefield.

Three Attacks and Three Defenses (*san da san fang;* 三打三防): Originally, the "Three Attacks" referred to tanks, aircraft, and airborne forces, and the "Three Defenses" referred to defense against chemical, biological, and nuclear attack. In 1999, the PLA initiated the new "Three Attacks," which refers to stealth aircraft, cruise missiles, and armed helicopters, and the new "Three Defenses," which refers to defense against precision strikes, electronic jamming, and electronic reconnaissance and surveillance. Together, the PLA refers to them as "combat methods."

Three Represents (*sange daibiao;* 三个代表): The "Three Represents" was an ideological formulation put forward by CCP General Secretary Jiang Zemin in 2000 that provided a justification for the Party to undertake a broad array of policies, including (but not limited to) recruiting capitalists and China's emerging "middle class" into the Communist Party, selectively borrowing ideas, institutions, and policies from abroad, and undertaking policies that in some cases harmed the Party's traditional social base (e.g. permitting state factory workers to be laid off and their factories bankrupted and sold off to spur more rapid economic growth). Jiang's speech stated that the Chinese Communist Party had always represented China's "most advanced productive forces, most advanced culture, and the fundamental interests of the broad masses of the Chinese people." The last point contrasts with traditional notions that a "Communist Party" should represent primarily the working class.

Three Warfares (*sanzhong zhanfa;* 三种战法): The "Three Warfares" is a conceptual framework used by the PLA to discuss three nonviolent efforts that it has determined to be integral aspects of modern warfare: **psychological warfare; media warfare;** and **legal warfare**. It was first introduced in the 2003 *Political Work Regulations* issued by both the CCP Central Committee and the Central Military Commission and was touted as "the operational component of political work." PLA strategists assert that the Three Warfares should be employed in wartime in coordination with other operations to: weaken the will of enemy troops; strengthen the morale of Chinese citizens; and gain international support for PLA actions. Psychological warfare has two main objectives: weakening the morale of enemy troops and citizens, and countering any psychological warfare efforts that the enemy might launch. Unlike "psychological warfare," which is a phrase that the PLA has used for decades, the term "media warfare" is new to China's military. Also called "public opinion warfare" or "propaganda warfare," it refers to the dissemination of information through various media outlets in order to influence public opinion and gain support from international and domestic audiences. "Legal warfare" refers to the use of international and domestic laws to gain international support and to manage the possible political repercussions of military actions. In comparison to the other components of the Three Warfares, the legal warfare concept is in its conceptual infancy.

Three Operations (*sange fei zuozhan;* 三个非作战): The "Three Operations" is a collective term for describing noncontact (*fei jiechu*; 非接触), nonlinear (*fei xianshi*; 非线式), and asymmetric (*fei duicheng*; 非对称) operations. While there appears to be general consensus within the PLA that the "Three Operations" are increasingly important forms of combat in modern warfare, especially joint operations, these are still evolving concepts and there does not appear to be any official definitions for any of the "Three Operations." General characteristics of the competing definitions for the Three Operations include the following:

- *Noncontact Operations:* These operations are dependent on information technology and are carried out from over the horizon or outside the scope of the enemy's defense. Long-range precision strikes and information warfare are the main forms of noncontact operations. These operations are noncontact in that the opposing sides are not in immediate contact with one another.
- *Nonlinear Operations:* These operations are all-depth, simultaneous operations focused on the enemy's operational center of gravity and are enabled through the integration of information and firepower. These operations seek to paralyze or destroy the enemy's strategic campaign vital points and prevent the enemy's forces from acting as a single operational system. The operations are nonlinear in that battle lines are invisible and dynamic as a result of precision-guided weapons, increased force mobility, and the new importance of invisible battlefields in the electromagnetic and information realms.

- *Asymmetric Operations:* There are two competing definitions of asymmetric operations within the PLA. One focuses on technology and the other on superiority. The technology-centric definition holds that a successful asymmetric operation will involve using dissimilar technologies and weapons platforms to confront the enemy. Superiority-centric definitions are more general and hold that a successful asymmetric operation is one that utilizes any superiority targeted against an enemy's weakness.

Party's Military Guiding Theory (*dang de junshi zhidao lilun;* 党的军事指导理论): The Party's highest level guidance to the PLA provides direction regarding the military's role in the Party's national strategy, on the development and operation of the force, and on ensuring Party control of the military. It consists of a series of strategic concepts and principles derived from the military application of the official ideology. Major revisions to the official ideology have resulted in updates to this category of theoretical guidance. The most recent updates occurred in 2003 following the CCP's inclusion of the "Three Represents" and in 2006 following its recognition of scientific development as a guiding concept for all development-related issues.

Party's Historic Tasks (*dang de lishi renwu;* 党的历史任务): This guiding concept focuses the work of "all Party members" to meet the Party's strategic priorities. At the 16th Party Congress in 2002, Jiang Zemin identified the Party's tasks as "ensuring territorial reunification, supporting the economic modernization drive, and promoting world peace." The Party adopted the historic tasks into the CCP Constitution at the 17th Party Congress in 2007. Previous versions of the Constitution did not carry a section outlining the Party's historic tasks.

Military's Historic Missions (*wojun lishi shiming;* 我军历史使命): A Chinese Communist Party (CCP) concept formulated to align the military's strategic tasks with the Party's and to respond to changes in China's security situation. Five versions have been published, each associated with a paramount leader. Hu Jintao's version, issued in 2004, calls on the military to ensure that the Party consolidates its ruling position, protect China's developmental interests, and shape the international security environment to favor China's peaceful development. The Party adopted Hu's version into the CCP Constitution at the 17th Party Congress in 2007.

Diversified Military Tasks (*duoyanghua junshi renwu;* 多样化军事任务): Combat and noncombat actions designed to address various security threats and serve diplomatic and political objectives. It includes military operations addressing primarily nontraditional security threats for the purpose of protecting national security and development interests. Examples include counterterrorism, social stability, disaster relief, peacekeeping, and border defense, as well as bilateral and multilateral military exercises. The *Outline of Military Training and Evaluation* (*OMTE*) that went into effect in January 2009 listed expertise in noncombat as a top priority.

Appendix E

Glossary of Chinese Terminology

Pinyin	Chinese Characters	English Translation
Bangongshi	办公室	General Office
Baowei bu	保卫部	Security Department
Baowei gongzuo	保卫工作	Security work
Benke	本科	Bachelor's degree
Bianji feixing xunlian	编机飞行训练	Formation flight training
Biaobing lian	标兵连	Target marker company
Bing lei	丙类	"C" category
Bingzhong	兵种	Branch; service arm
Boshi	博士	Doctoral degree
Bu	部	Department
Budui	部队	Unit (corps, divisions, brigades, and regiments)
Budui daihao	部队代号	Military unit cover designator (MUCD)
Budui dangwei	部队党委	Unit Party committee
Budui fanhao	部队番号	True unit designator
Bumen	部门	Department (generic term encompassing all levels of administrative organizations)
Buzhang	部长	Department director
Caiwu bu	财务部	Finance Department
Canmouzhang	参谋长	Chief of staff
Caozong ban	操纵班	Controller squad
Changci	场次	Flying period
Changzhan	场站	Field station; air station
Chaodikong feixing xunlian	超低空飞行训练	Minimum altitude flight training
Chaogaokong feixing xunlian	超高空飞行训练	Ultra-high altitude flight training
Chu	处	Division (administrative)
Chuji jiaolianji	初级教练机	Basic trainer aircraft
Cong nan cong yan	从难从严	Exercise strict discipline
Da changci	大场次	Large flying period
Dadui	大队	Group (battalion level)
Daduizhang	大队长	Group commander (battalion level)
Dagang	大纲	Outline

Dang daibiao dahui	党代表大会	Party congress
Dangde junshi zhidao lilun	党的军事指导理论	Party's Military Guiding Theory
Dangde lishi renwu	党的历史任务	Party's Historic Tasks
Dang jilü jiancha weiyuanhui	当纪律检查委员会	Party Discipline Inspection Commission
Dang xiaozu	党小组	Party small group
Dang zhibu	党支部	Party branch
Dang zongzhi	党总支	Party general branch
Dangwei	党委	Party Committee
Dangwei changwei	党委常委	Party committee standing committee
Danji feixing xunlian	单击飞行训练	Single aircraft flight training
Daodan jishu qinwu yanjiusuo	导弹技术勤务研究所	SAM Technical/Technology Services Research Institute
Daodan lü	导弹旅	SAM brigade
Daodan shi	导弹师	SAM division
Daodan tuan	导弹团	SAM regiment
Daqu fuzhi	大区副职	Military region deputy leader grade
Daqu zhengzhi	大区正职	Military region leader grade
Daxiao	大校	Senior colonel
Daxiu chang	大修厂	Major overhaul factory
Daxue	大学	University
Dazhuan	大专	Senior technical degree
Dianzi duikang leida bu	电子对抗雷达部	Electronic Countermeasures and Radar Department
Dianzi duikang zhuanyebing	电子对抗专业兵	Electronic countermeasures specialized troops
Difang daxue ganbu	地方大学干部	Civilian college graduate officer
Dikong daodan xueyuan	地空导弹学院	Surface-to-air missile college
Dikong daodanbing	地空导弹兵	Surface-to-air missile troops/ branch
Dikong feixing xunlian	低空飞行训练	Low altitude flight training
Dimian fangkongbing bu	地面防空兵部	Ground-based Air Defense Troops Department
Diqin renyuan	地勤人员	Ground crew
Dongyuan bu	动员部	Mobilization Department
Duoyanghua junshi renwu	多样化军事任务	Diversified military tasks
Erji	二级	Second grade; grade 2

Erpao	二炮	Second Artillery (cover name for the SAM branch); Second Artillery Force
Fangan	方案	Proposal
Fangdichan guanli ju	房地产管理局	Real Estate Management Bureau
Fanghua chu	防化处	Chemical Defense (Administrative) Division
Fanghua dadui	防化大队	Chemical defense group
Fanghua dui	防化队	Chemical defense team
Fanghua zhihui gongcheng xueyuan	防化指挥工程学院	Chemical Defense Command Engineering Academy
Fangkong	防空	Air defense
Fangkong huncheng shi	防空混成师	Air defense composite (SAM and AAA) division
Fangzhen	方针	Guidelines
Fankongxi	反空袭	Anti-air raid
Fashe ban	发射班	Launch squad
Fashe lian	发射连	Launch/firing company
Feican	飞参	Flight Parameter Recording System
Feixing anquan ju	飞行安全局	Flight Safety Bureau
Feixing dadui	飞行大队	Flight group
Feixing jichu xunlian jidi	飞行基础训练基地	Flight basic training base
Feixing shishi jiankong xitong	飞行实时监控系统	Real-time flight monitor system
Feixing xueyuan	飞行学院	Flight college
Feixing xunlian jidi	飞行训练基地	Flight training base
Feixing zhibiao	飞行指标	Flying quota
Feixing zhongdui	飞行中队	Flight squadron
Fendui	分队	Subunit (battalions, companies, and platoons); also identified as grassroots organizations
Fu…	副…	Deputy….
Fucanmouzhang	副参谋长	Deputy chief of staff
Fujunzhi	副军职	Corps deputy leader grade
Fulianzhi	副连职	Company deputy leader grade
Fushizhi	副师职	Division deputy leader grade
Fusilingyuan	副司令员	Deputy commander
Futuanzhi	副团职	Regiment deputy leader grade
Fuyingzhi	副营职	Battalion deputy leader grade

Fuyuan	复员	Demobilize
Fuza qixiang	复杂气象	Difficult-weather conditions
Fuza qixiang	复杂气象	Complex weather
Fuzhengwei	副政委	Deputy political commissar
Fuzhuren	副主任	Deputy director
Gaizhuang xunlian jidi	改装训练基地	Transition training base
Ganbu	干部	Cadre (officer)
Ganbu bu	干部部	Cadre (officer personnel) Department
Ganbu gongzuo	干部工作	Cadre (officer) work
Gangyao	纲要	Outline; compendium; essentials
Gaoji gongchengshi	高级工程师	Senior engineer
Gaoji jiaolianji	高级教练机	Advanced trainer aircraft
Gaokong feixing xunlian	高空飞行训练	High altitude flight training
Gaoshepaobing	高射炮兵	Antiaircraft artillery troops
Gaoyuan feixing xunlian	高原飞行训练	Plateau flight training
Gong fang jianbei	攻防兼备	Being prepared for simultaneous offensive and defensive operations
Gongcheng yanzhi	工程研制	Engineering development
Gongtong xunlian	共同训练	Common training
Gu	股	Branch (administrative)
Guilin kongjun xueyuan	桂林空军学院	Guilin Air Force College
Gundongshi xunlian	滚动式训练	Rolling-type training
Guofangsheng	国防生	National Defense Student
Guojia junshi zhanlue fangzhen	国家军事战略方针	National Military Strategic Guidelines
Haishang feixing xunlian	海上飞行训练	Maritime flight training
Hangcai bu	航材部	Air Materiel Department
Hangkong gongcheng guanli bu	航空工程管理部	Aviation Engineering Management Department
Hangkong guanzhi bu	航空管制部	Air Traffic Control Department
Hangkong lilun	航空理论	Aviation theory
Hangkong zhongxin xiuli	航空中心修理	Aviation central repair facility
Hangkong zhuangbei yanjiusuo	航空装备研究所	Aviation Equipment Research Institute
Hangkongbing	航空兵	Aviation troops; aviation branch
Hangkongbing shi	航空兵师	Air division
Hangkongbing tuan	航空兵团	Air regiment

Hecheng	合成	Combined-arms
Hetong xunlian	合同训练	Combined-arms training
Houbei junguan	后备军官	Reserve officer
Houqin bu	后勤部	Logistics Department
Houqin junguan	后勤军官	Logistics officer
Huangmo feixing xunlian	荒漠飞行训练	Desert flight training
Huoli daji	火力打击	Firepower strike
Ji jian bu	纪检部	Discipline Inspection Department
Jia lei	甲类	"A" category
Jiandan qixiang	简单气象	Simple-weather conditions
Jiangguan	将官	Flag-rank officer
Jiaocai	教材	Teaching materials
Jiaocheng	教程	Course materials
Jiaodao dui	教导队	Training unit
Jiaodaoyuan	教导员	Political director (battalion level)
Jiashi jishu	驾驶技术	Piloting skills
Jiceng	基层	Grassroots (battalion, company, and platoon)
Jiceng dangwei	基层党委	Grassroots Party Committee
Jichang yingfang bu	机场营房部	Airfield and Barracks Department
Jichu bu	基础部	Basic Department
Jichu lilun	基础理论	Basic theory
Jichu xunlian	基础训练	Foundational training
Jidi	基地	Base
Jidong fendui	机动分队	Mobile subunit
Jidong ying	机动营	Mobile battalion
Jie	届	Plenary session; plenum
Jiefangjun Fangkongjun	解放军防空军	PLA Air Defense Force
Jiguan	机关	Functional and administrative departments
Jiguan dangwei	机关党委	Functional and administrative department Party committee
Jiji fangyu	积极防御	Active defense
Jilü jiancha bu	纪律检查部	Discipline Inspection Department
Jilü jiancha gongzuo	纪律检察工作	Discipline inspection work
Jilü weiyuanhui	纪律委员会	Discipline Inspection Commission
Jingong	进攻	Attack
Jingwei budui	警卫部队	Security units

Jingwei leida zhan	警卫雷达站	Warning radar station/site
Jingwei lian	警卫连	Security company
Jishu baozhang lian	技术保障连	Technical support company
Jishu bu	技术部	Technical Department (original name for the SAM forces)
Jishu ju	技术局	Technology Bureau
Jishu junguan	技术军官	Technical officer
Jishu xunlian	技术训练	Skills training; techniques training; technical training
Jishu zhenchabing	技术侦察兵	Technical reconnaissance troops
Jituanjun	集团军	Group army; Army combined corps
Jiwu	机务	Aircraft maintenance
Jiwu dadui	机务大队	Aircraft maintenance group
Jiwu zhongdui	机务中队	Aircraft maintenance squadron
Jixiehua	机械化	Mechanized; mechanization
Ju	局	Bureau
Jun	军	Corps; Army
Jundui jianshe	军队建设	Army building; Air Force building
Junguan	军官	Officer
Junguan xunlian zhongxin	军官训练中心	Officer training center
Junjiao yunshu bu	军交运输部	Military Transportation Department
Junqu kongjun	军区空军	Military Region Air Force (MRAF)
Junshi junguan	军事军官	Military officer (command track)
Junshi daibiao ju	军事代表局	Military Representative Bureau
Junshi fayuan	军事法院	Military court
Junshi jianchayuan	军事检察院	Military procuratorate (i.e., inspector general and judge advocate)
Junshi lilun yanjiu bu	军事理论研究部	Military Theory Research Department
Junshi xunlian	军事训练	Military training
Junshi xunlian yu kaohe dagang	军事训练与考核大纲	*Outline of Military Training and Evaluation*
Junshi xunlian zhongxin	军事训练中心	Military training center
Junshizhang	军士长	Master sergeant
Junshi zhanlue fangzhen	军事战略方针	Military strategic guidelines
Junwei fuzhuxi	军委副主席	CMC vice chairman

Junwei weiyuan	军委委员	CMC member
Junwei zhuxi	军委主席	CMC chairman
Junwu bu	军务部	Military Affairs Department
Junxie tongyong zhuangbei bu	军械通用装备部	Armament Common-Use Equipment Department
Junxu cangku	军需仓库	Quartermaster depot
Junxu wuzi youliao bu	军需物资油料部	Quartermaster, Materials, and POL Department
Junxun bu	军训部	Military Training Department
Junxun he bingzhong bu	军训和兵种部	Military Training and Service Arms Department
Junzhong	军种	Service
Kaohe	考核	Evaluation; examination
Ke	科	Office (administrative)
Ke ji xing xun	科技兴训	Scientifically conduct training
Kexue	科学	Science
Keyan dinghuo bu	科研订货部	Scientific Research and Procurement Department
Kong tian yiti	空天一体	Integrated air and space
Konghou	空后	PLAAF HQ Logistics Department
Kongjiang	空降	Airborne
Kongjiangbing	空降兵	Airborne troops; airborne forces
Kongjiangbing xi	空降兵系	Airborne Troop (Academic) Department
Kongjun	空军	Air Force; PLAAF Headquarters
Kongjun Dalian Tongxin Shiguan Xuexiao	空军大连通信士官学校	Air Force Dalian Communications NCO School
Kongjun gongcheng daxue	空军工程大学	Air Force Engineering University
Kongjun gongcheng sheji yanjiu ju	空军工程设计研究局	Air Force Engineering and Design Research Bureau
Kongjun gongcheng xueyuan	空军工程学院	Air Force Engineering College
Kongjun guofang gongcheng jianshe zhihui bu	空军国防工程建设指挥部	Air Force National Defense Engineering Development Command Department
Kongjun Hangkong Daxue	空军航空大学	Air Force Aviation University
Kongjun heping shiqi yingyong sixiang	空军和平时期应用思想	Air force peacetime utilization thought

Kongjun jun	空军军	Air corps
Kongjun junshi zhiye daxue	空军军事职业大学	Air Force Military Professional University
Kongjun junzheng ganbu xueyuan	空军军政干部学院	Air Force Command and Political Cadre College
Kongjun leida xueyuan	空军雷达学院	Air Force Radar College
Kongjun leida yu dianzi duikang yanjiusuo	空军雷达与电子对抗研究所	Air Force Radar and ECM Research Institute
Kongjun luzhan	空军陆战	Air Force Marines
Kongjun qixiang fanghua yanjiusuo	空军气象防化研究所	Air Force Meteorology and Chemical Defense Research Institute
Kongjun tiaoling	空军条令	Air force regulations
Kongjun tongxin daohang yu zhihui zidonghua yanjiusuo	空军通信导航与指挥自动化研究所	Air Force Communications Navigation and Command Automation Research Institute
Kongjun xi	空军系	Air Force (Academic) Department
Kongjun xueyuan	空军学院	Air Force College
Kongjun yunyong sixiang	空军运用思想	Air force applied thought
Kongjun zhencha qingbao zhuangbei yanjiusuo	空军侦查情报装备研究所	Air Force Reconnaissance and Intelligence Equipment Research Institute
Kongjun zhihui xueyuan	空军指挥学院	Air Force Command College
Kongjun zhuangbei ruanjian ceping zhongxin	空军装备软件测评中心	Air Force Equipment Software Testing and Evaluation Center
Kongjun zhuangbei yanjiuyuan	空军装备研究院	Air Force Equipment Research Academy
Kongjun zuozhan zhidao	空军作战指导	Air Force combat/operations guidance
Kongjunji zhuanjia	空军级专家	Air Force-level expert
Kongsi	空司	PLAAF HQ Headquarters Department
Kong tian yiti	空天一体	Integrated air and space operations
Kongzheng	空政	PLAAF HQ Political Department
Kongzhong fengsuo	空中封锁	Air blockade
Kongzhong guofang	空中国防	Air national defense
Kongzhong jingong	空中进攻	Air offensive
Kongzhong zhanzheng	空中战争	Air warfare

Kongzhuang	空装	PLAAF HQ Equipment Department
Kuaisu fanying budui	快速反应部队	Rapid-reaction force
Leida qingbao fenzhan	雷达情报分站	Radar intelligence branch station
Leida qingbao zong fenzhan	雷达情报总分站	Radar intelligence central branch station
Leida qingbao zongzhan	雷达情报总站	Radar intelligence central station
Leida xiulisuo	雷达修理所	Radar repair shop
Leida zhan	雷达站	Radar site; radar station
Leidabing	雷达兵	Radar troops
Lian	连	Company
Lianhe xunlian	联合训练	Joint training
Lianluo bu	联络部	Liaison Department
Lianluo gongzuo	联络工作	Liaison work
Lianzhang	连长	Company commander
Liebing	列兵	Private 2nd class
Li xueyuan	理学院	Natural Science College
Lilun	理论	Theory
Lixiu ganbu	离休干部	Retired cadre (officer)
Lü	旅	Brigade
Lunzheng	论证	Demonstration
Lüzhang	旅长	Brigade commander
Mou…	某…	"Certain"….(as in a certain unit)
Mushi feixing xunlian	目视飞行训练	Visual Flight Rules (VFR)
Nanjing zhengzhi xueyuan shanghai fenyuan	南京政治学院上海分院	Nanjing Political Academy Shanghai Branch College
Pai	排	Platoon
Paizhi	排职	Platoon grade
Qiche lian	汽车连	Vehicle company
Qingbao bu	情报部	Intelligence Department
Qingbao zhan	情报站	Intelligence stations
Qixiang ju	气象局	Weather Bureau; Meteorology Bureau
Qunzhong gongzuo	群众工作	Mass work
Renmin wuzhuang bu	人民武装部	People's Armed Forces Department
San da	三打	Three Attacks
San fang	三防	Three Defenses

Sange daibiao	三个代表	Three Represents
Sange fei zuozhan	三个非作战	Three Operations
Sanji	三级	Third grade; grade 3
Sanzhong zhanfa	三种战法	Three Warfares
Sanzhong qixiang	三种气象	Three-weather conditions
Sashoujian	撒手锏	Trump card
Shandi feixing xunlian	山地飞行训练	Mountain flight training
Shangdengbing	上等兵	Private 1st class
Shangjiang	上将	General
Shangshi	上士	Sergeant 1st class
Shangwei	上尉	Captain
Shangxiao	上校	Colonel
Shaojiang	少将	Major general
Shaowei	少尉	Second lieutenant
Shaoxiao	少校	Major
Shashoujian	杀手锏	Assassin's Mace
Sheji dingxing	设计定型	Design finalization
Shengchan dingxing	生产定型	Production finalization
Shenji ju	审计局	Audit Bureau
Shi	师	Division
Shibing	士兵	Soldier
Shibing yuanxiao	士兵院校	NCO schools
Shiguan	士官	Noncommissioned officer
Shiguan yeyu daxue	士官业余大学	NCO Off-Duty University
Shizhan	实战	Actual combat
Shizhang	师长	Division commander
Shouzhang	首长	Command element; command staff
Shuang xueshi	双学士	Double bachelor's degree
Shuoshi	硕士	Master's degree
Siling bu	司令部	Headquarters Department
Silingyuan	司令员	Commander
Sixun dui	司训队	Driver training team
Sizhong qixiang	四种气象	Four-weather conditions
Teji	特级	Special grade
Tiaoli	条例	Regulations
Tie jin shizhan	贴近实战	Closely adhere to actual combat
Tingfei	停飞	Grounded (stop flying)
Tongxin bu	通信部	Communications Department

Tongxin dadui	通信大队	Communications group
Tongxin tuan	通信团	Communications regiment
Tongxin xunlian jidi	同心训练基地	Communications training base
Tongxin zhan	通信站	Communications station
Tongxin zongzhan	通信总站	Communications central station
Tongxinbing	通信兵	Communications troops; signal corps
Tongxun gongcheng xueyuan	通讯工程学院	Telecommunications Engineering College
Tuan	团	Regiment
Tuanzhang	团长	Regiment commander
Tuchu duikang	突出对抗	Stress opposition-force training
Tuixiu ganbu	退休干部	Retired cadre (officer)
Waichang bu	外场部	Field Maintenance Department
Wangluo xunlian zhongxin	网络训练中心	Network training center
Weiguan	尉官	Company-grade officer
Weisheng bu	卫生部	Health Department
Weisheng dui	卫生队	Health team
Wojun lishi shiming	我军历史使命	Military's Historic Missions
Xi	系	Academic department
Xiaoguan	校官	Field-grade officer
Xiashi	下士	Corporal
Xietong xunlian	协同训练	Coordinated training
Xin shiqi	新时期	New period
Xin zhanshi	新战士	New soldier; conscript
Xinbing	新兵	New soldier; conscript
Xinbing lian	新兵连	New-soldier company
Xinbing tuan	新兵团	New-soldier regiment
Xinbing ying	新兵营	New-soldier battalion
Xinxihua	信息化	Informatization; informatized
Xiuli chang	修理厂	Repair shop; backshop
Xuanba zhongxin	选拔中心	Pilot selection center
Xuanchuan bu	宣传部	Propaganda Department
Xuanchuan gongzuo	宣传工作	Propaganda work
Xuebing	学兵	Enlisted soldier student
Xuexiao	学校	School
Xueyuan	学院	College; academy
Xueyuan	学员	Cadet; student
Xueyuan ganbu	学员干部	Student cadre (officer)
Xunlian	训练	Training

Xunlian jiben yuanze	训练基本原则	Training basic principles
Xunlian zhidao sixiang	训练指导思想	Training guiding thought
Xuzhou kongjun xueyuan	徐州空军学院	Xuzhou Air Force [Logistics] College
Yanlian	演练	Training event
Yanxi	演习	Exercise
Yaohai mubiao	要害目标	Vital targets
Yejian	夜间	Night; nighttime
Yezhan zhihuisuo	野战指挥所	Field command post
Yi lei	乙类	"B" category
Yi lie sheng you	以劣胜优	Inferior defeat the strong
Yi wo wei zhu	以我为主	Use the PLAAF as the primary force
Yi zhandouli wei mudi	以战斗力为目的	Increase combat capabilities as the goal
Yibiao feixing xunlian	仪表飞行训练	Instrument Flight Rules (IFR)
Yifa zhixun	依法治训	Train according to military training laws
Yiji	一级	First grade; grade 1
Yindao zhan	引导站	Guidance station
Ying	营	Battalion
Yingji chuangxiu fendui	应急创修分队	Emergency repair subunit
Yingyong lilun	应用理论	Applied theory
Yingzhang	营长	Battalion commander
Yipao	一炮	First artillery (cover name for the AAA branch)
Yiwubing	义务兵	Conscript
Yuanxiao	院校	Colleges and schools
Yunshu lian	运输连	Transportation company
Zhan	站	Station; site (usually company level)
Zhandou	战斗	Battle; combat
Zhandou jishu	战斗技术	Combat skills; battle skills
Zhanfa	战法	Combat methods
Zhanfa xunlian	战法训练	Combat methods training
Zhanlue	战略	Strategy; strategic
Zhanlue kongjun	战略空军	Strategic air force
Zhanlue mubiao	战略目标	Strategic objectives
Zhanlue renwu	战略任务	Strategic missions; strategic tasks
Zhanlue xunlian	战略训练	Strategic training
Zhanqin lian	战勤连	Combat service company

Zhanshang chuangxiu shiyan zhongxin	战伤抢修实验中心	Aircraft-damage rapid-repair test center
Zhanshi	战士	Soldier
Zhanshu	战术	Tactics; tactical
Zhanshu jichu xunlian	战术基础训练	Tactical foundational training
Zhanshu lilun	战术理论	Tactics theory; tactical theory
Zhanshu xiezuo xunlian	战术协作训练	Tactics cooperation training
Zhanshu xue	战术学	Science of tactics
Zhanshu xunlian	战术训练	Tactics training; tactical training
Zhanyi	战役	Campaign; operational
Zhanyi sixiang	战役思想	Campaign thought
Zhanyi xue	战役学	Science of campaigns
Zhanyi xunlian	战役训练	Campaign training
Zhanyifa	战役法	Campaign methods
Zhanzhang	站长	Station commander
Zhanzheng	战争	War
Zhaofei ju	招飞局	Pilot Recruitment Bureau
Zhengfa gongzuo	政法工作	Legal work
Zhengjunzhi	正军职	Corps leader grade
Zhenglianzhi	正连职	Company leader grade
Zhengshizhi	正师职	Division leader grade
Zhengti zuozhan	整体作战	Integrated operations
Zhengtuanzhi	正团职	Regiment leader grade
Zhengwei	政委	Political commissar (regiment and above)
Zhengyingzhi	正营职	Battalion leader grade
Zhengzhi bu	政治部	Political Department
Zhengzhi chu	政治处	Political Division
Zhengzhi gongzuo	政治工作	Political work
Zhengzhi junguan	政治军官	Political officer
Zhengzhi xi	政治系	Political (Academic) Department
Zhidao lian	制导连	Missile guidance company
Zhidao sixiang	指导思想	Guiding thought
Zhidaoyuan	指导员	Political instructor (company level)
Zhigong bu	直工部	Directly Subordinate Work Department
Zhihui	指挥	Command
Zhihui lian	指挥连	Command company

Zhihui xunlian moni zhongxin	指挥训练模拟中心	Command training simulation center
Zhihui ying	指挥营	Command battalion
Zhihui yuanxiao	指挥院校	Command-level colleges
Zhihui zhongxin	指挥中心	Command center
Zhihuisuo	指挥所	Command post
Zhikongquan	制空权	Command of the air; air dominance
Zhishu gongying bu	直属供应部	Directly Subordinate Supply Department
Zhiyuanbing	志愿兵	Volunteer (soldier)
Zhongdian daji	重点打击	Key point strikes
Zhongdian jianshe budui	重点建设部队	Focal point development unit
Zhongdui	中队	Squadron (company level)
Zhongduizhang	中队长	Squadron commander (company level)
Zhongguo Renmin Jiefangjun	中国人民解放军	People's Liberation Army (PLA)
Zhongguo Renmin Jiefangjun Kongjun	中国人民解放军空军	People's Liberation Army Air Force (PLAAF)
Zhongguo Renmin Zhiyuan Jun Fang-kongjun	中国人民志愿军防空军	Chinese People's Volunteer Air Defense Force
Zhongguo Renmin Zhiyuan Jun Kongjun	中国人民志愿军空军	Chinese People's Volunteer Air Force
Zhongjiang	中将	Lieutenant general
Zhongkong feixing xunlian	中空飞行训练	Medium altitude flight training
Zhongshi	中士	Sergeant
Zhongwei	中尉	First lieutenant
Zhongxiao	中校	Lieutenant colonel
Zhongxin leida zhan	中心雷达站	Central radar station
Zhongxiu	中修	Intermediate repair
Zhongyang junwei	中央军委	Central Military Commission
Zhongzhuan	中专	Secondary technical degree
Zhoujian	昼间	Day; daytime
Zhuangbei bu	装备部	Equipment Department
Zhuangbei junguan	装备军官	Equipment officer
Zhuangbei zongti lunzheng yanjiusuo	装备总体论证研究所	Equipment General Demonstration Research Institute

Zhuanye	转业	Transfer to comparable civilian job in government-run organization
Zhuanye budui	专业部队	Specialized units
Zhuanye xi	专业系	Specialty departments
Zhuren	主任	Director
Zhuzhong duikang xunlian	注重对抗训练	Emphasize opposition-force training
Zhuzhong xiaoyi	注重效益	Emphasize results
Zongbu	总部	General Departments
Zonghe jihua bu	综合计划部	Comprehensive Planning Department
Zonghe xunlian	综合训练	Composite training
Zonghe yuanxiao	综合院校	Comprehensive university
Zongzheng ganbu bu	总政干部部	GPD Cadre Department
Zu	组	Section (administrative); maintenance section (squad level)
Zuozhan	作战	Combat; operations; operational
Zuozhan bu	作战部	Operations Department
Zuozhan lilun	作战理论	Combat/operational theory
Zuozhan sixiang	作战思想	Combat/operations thought
Zuzhi bu	组织部	Organization Department
Zuzhi gongzuo	组织工作	Organization work

Appendix F
Suggested Reading List

Chinese Language Publications

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NASIC/PA
4180 Watson Way
Wright-Patterson AFB, OH 45433-5625
(937) 522-6600
NASICPA.orgbox@wpafb.af.mil