

CHINA AEROSPACE STUDIES INSTITUTE



PLA ROCKET FORCE ORGANIZATION

MA XIU

Prepared for the China Aerospace Studies Institute By Blue Path Labs Printed in the United States of America by the China Aerospace Studies Institute

To request additional copies, please direct inquiries to Director, China Aerospace Studies Institute, Air University, 55 Lemay Plaza, Montgomery, AL 36112

All photos licensed under the Creative Commons Attribution-Share Alike 4.0 International license, or under the Fair Use Doctrine under Section 107 of the Copyright Act for nonprofit educational and noncommercial use. All other graphics created by or for China Aerospace Studies Institute

E-mail: Director@CASI-Research.ORG Web: http://www.airuniversity.af.mil/CASI https://twitter.com/CASI_Research @CASI_Research https://www.facebook.com/CASI.Research.Org https://www.linkedin.com/company/11049011

Disclaimer The views expressed in this academic research paper are those of the authors and do not necessarily reflect the official policy or position of the U.S. Government or the Department of Defense. In accordance with Air Force Instruction 51-303, Intellectual Property, Patents, Patent Related Matters, Trademarks and Copyrights; this work is the property of the U.S. Government.

Limited Print and Electronic Distribution Rights Reproduction and printing is subject to the Copyright Act of 1976 and applicable treaties of the United States. This document and trademark(s) contained herein are protected by law. This publication is provided for noncommercial use only. Unauthorized posting of this publication online is prohibited. Permission is given to duplicate this document for personal, academic, or governmental use only, as long as it is unaltered and complete however, it is requested that reproductions credit the author and China Aerospace Studies Institute (CASI). Permission is required from the China Aerospace Studies Institute to reproduce, or reuse in another form, any of its research documents for commercial use. For information on reprint and linking permissions, please contact the China Aerospace Studies Institute.

Cleared for Public Release, Distribution unlimited.

China Aerospace Studies Institute

CASI's mission is to advance the understanding of the strategy, doctrine, operating concepts, capabilities, personnel, training, organization, of China's aerospace forces and the civilian and commercial infrastructure that supports them.

CASI supports the Secretary, Chief of Staff of the Air Force, the Chief of Space Operations, and other senior Air and Space leaders. CASI provides expert research and analysis supporting decision and policy makers in the Department of Defense and across the U.S. government. CASI can support the full range of units and organizations across the USAF, USSF, and the DoD. CASI accomplishes its mission through conducting the following activities:

- CASI primarily conducts open-source native-language research supporting its five main topic areas.
- CASI conducts conferences, workshops, roundtables, subject matter expert panels, and senior leader discussions to further its mission. CASI personnel attend such events, government, academic, and public, in support of its research and outreach efforts.
- CASI publishes research findings and papers, journal articles, monographs, and edited volumes for both public and government-only distribution as appropriate.
- CASI establishes and maintains institutional relationships with organizations and institutions in the PLA, the PRC writ large, and with partners and allies involved in the region.
- CASI maintains the ability to support senior leaders and policy decision makers across the full spectrum of topics and projects at all levels, related to Chinese aerospace.

CASI supports the U.S. Defense Department and the China research community writ-large by providing high quality, unclassified research on Chinese aerospace developments in the context of U.S. strategic imperatives in the Asia-Pacific region. Primarily focused on China's Military Air, Space, and Missile Forces, CASI capitalizes on publicly available native language resources to gain insights as to how the Chinese speak to and among one another on these topics.

Table of Contents

Introduction	1
PLARF Force Structure	2
How to Read PLARF MUCDs	6
PLA Rocket Force Command	8
Direct-Reporting Units	
PLARF Staff Department [参谋部]	
Staff Department Operations Support Group [参谋部作战保障大队]	
Reconnaissance Regiment [侦察团]	14
Survey and Mapping Group [测绘大队]	16
Staff Department Communications Regiment [参谋部通信团]	16
Staff Department ECM Regiment [参谋部电子对抗团]	
Staff Department UAV Unit [无人机部队]	
PLARF Automated Command Center [自动化指挥中心]	
New Soldier Training Regiment [新兵团]	
PLARF Meteorology Center [气象中心]	21
Unit 96635 [96635 部队]	
Cruise Missile Mission Planning Center [巡航导弹任务规划中心]	
PLARF Technical Reconnaissance Bureau [火箭军技术侦察局]	
PLARF Political Work Department [政治工作部]	
Propaganda and Cultural Center [宣传文化中心]	
PLARF Logistics Department [后勤部]	
Yanqing Comprehensive Depot [延庆综合仓库]	
PLARF Medical Center [火箭军特色医学中心]	
Disease Prevention and Control Center [火箭军疾病预防控制中心]	
Comprehensive Training Base [综合训练基地]	
Haidian Comprehensive Depot [海淀综合仓库]	
Logistics Department Testing, Cultivation, and Training Base for New Agricultural 7 军后勤部农业新技术试验培训基地]	· · · ·
Guangzhou Special Convalescent Center [火箭军广州特勤疗养中心]	

Emei Convalescent Home [峨眉疗养院]36	5
PLARF Beidaihe Rest Home [火箭军北戴河休养院]	7
PLARF Equipment Department [装备部]	3
PLARF Research Academy [火箭军研究院])
PLARF Research Academy Institute of Engineering Design [火箭军研究院工程设计研究所]40)
Unit 96902 [96902 部队]: possible Jinlun Engineering Command Department [金轮工程指挥部]42	2
Unit 96922 [96922 部队]: possible Jinlun Engineering Command Department Training Brigade [金轮 工程指挥部训练旅]44	1
Unit 96923 [96923 部队]	5
Equipment Department Metrological Station [计量站]45	5
Equipment Department Inspection and Repair Center [检测维修中心]	7
Armaments and Radar Repair Depot [军械雷达修理所]48	3
Repair and Measurements Regiment [维修计量团]49)
Technical Service Group [技术勤务大队])
Reserve Equipment Repair Group [预备役装备维修大队]51	Ĺ
Reserve Special Equipment Repair Group [预备役特种装备维修大队]	3
Equipment Department Representative Bureaus [装备部军事代表局]	ł
PLA Rocket Force Equipment Department Retirement Home [火箭军装备部清河干休所]55	5
Base 61 [61 基地]	7
611 Brigade [611 旅])
612 Brigade [612 旅]61	l
613 Brigade [613 旅]	3
614 Brigade [614 旅]65	5
615 Brigade [615 旅]	5
616 Brigade [616 旅]	3
617 Brigade [617 旅]70)
618 Brigade [618 旅]72	2
Base 61 Training Regiment [61 基地训练团]72	2
Base 61 Communications Regiment [61 基地通信团]74	ł
Base 61 Operations Support Regiment [61 基地作战保障团]	5
Base 61 Comprehensive Support Regiment [61 基地综合保障团]76	5

Base 61 Technical Service Brigade [61 基地技术勤务旅]	
Base 61 Equipment Inspection Regiment [61 基地装检团]	
Base 61 UAV Regiment [61 基地无人机团]	
Unit 96601 Hospital [96601 部队医院]	
Base 62 [62 基地]	
621 Brigade [621 旅]	
622 Brigade [622 旅]	
623 Brigade [623 旅]	
624 Brigade [624 旅]	
625 Brigade [625 旅]	
626 Brigade [626 旅]	
627 Brigade [627 旅]	
Base 62 Training Regiment [62 基地训练团]	
Base 62 Communications Regiment [62 基地通信团]	
Base 62 Operations Support Regiment [62 基地作战保障团]	
Base 62 Comprehensive Support Regiment [62 基地综合保障团]	
Base 62 Equipment Inspection Regiment [62 基地装检团]	
Unit 96602 Hospital [96602 部队医院]	
Base 63 [63 基地]	
631 Brigade [631 旅]	
632 Brigade [632 旅]	
633 Brigade [633 旅]	
634 Brigade [634 旅]	
635 Brigade [635 旅]	
636 Brigade [636 旅]	
Base 63 Training Regiment [63 基地训练团]	
Base 63 Communications Regiment [63 基地通信团]	
Base 63 Operations Support Regiment [63 基地作战保障团]	
Base 63 Comprehensive Support Regiment [63 基地综合保障团]	
Base 63 Service Regiment [63 基地勤务团]	
Base 63 Equipment Inspection Regiment [63 基地装检团]	

Unit 96603 Hospital [96603 部队医院]	
Base 64 [64 基地]	
641 Brigade [641 旅]	
642 Brigade [642 旅]	
643 Brigade [643 旅]	
644 Brigade [644 旅]	
645 Brigade [645 旅]	
646 Brigade [646 旅]	
647 Brigade [647 旅]	
Base 64 Training Regiment [64 基地训练团]	
Base 64 Communications Regiment [64 基地通信团]	
Base 64 Operations Support Regiment [64 基地作战保障团]	
Base 64 Comprehensive Support Regiment [64 基地综合保障团]	
Base 64 Equipment Inspection Brigade [64 基地装检旅]	
Unit 96604 Hospital [96604 部队医院]	
536 Hospital [536 医院]	
Base 65 [65 基地]	
651 Brigade [651 旅]	
652 Brigade [652 旅]	
653 Brigade [653 旅]	145
654 Brigade [654 旅]	146
655 Brigade [655 旅]	
656 Brigade [656 旅]	149
Base 65 Training Regiment [65 基地训练团]	
Base 65 Communications Regiment [65 基地通信团]	
Base 65 Operations Support Regiment [65 基地作战保障团]	
Base 65 Comprehensive Support Regiment [65 基地综合保障团]	
Base 65 Equipment Inspection Regiment [65 基地装检团]	
Unit 96605 Hospital [96605 部队医院]	
Base 66 [66 基地]	
661 Brigade [661 旅]	

	662 Brigade [662 旅]	.161
	663 Brigade [663 旅]	.162
	664 Brigade [664 旅]	. 163
	665 Brigade [665 旅]	. 165
	666 Brigade [666 旅]	.166
	Base 66 Training Regiment [66 基地训练团]	. 168
	Base 66 Communications Regiment [66 基地通信团]	. 168
	Base 66 Operations Support Regiment [66 基地作战保障团]	. 169
	Base 66 Comprehensive Support Regiment [66 基地综合保障团]	.170
	Base 66 Equipment Inspection Regiment [66 基地装检团]	. 172
	Unit 96606 Hospital [96606 部队医院]	. 173
	PLA Rocket Force Military Canine Training Team [火箭军军犬训练队]	. 174
B	Base 67 [67 基地]	.176
	Missile Technical Service Brigade [导弹技术勤务旅]	.178
	Unit 96038 [96038 部队]	. 180
	PLARF Emergency Management Group [应急处置大队]	. 182
	Base 67 Training Regiment [67 基地训练团]	. 183
	Base 67 Communications Regiment [67 基地通信团]	. 184
	Base 67 Operations Support Regiment [67 基地作战保障团]	. 185
	Base 67 Comprehensive Support Regiment [67 基地综合保障团]	. 186
	Air Defense Regiment	. 187
	2 nd Comprehensive Defense Regiment [综合防护二团]	. 189
	Equipment Inspection Institute [装检研究所]	. 190
	Special Equipment Transport Regiment [特种装备运输团]	. 191
	Unit 96607 Hospital [96607 部队医院]	. 193
B	Base 68 [68 基地]	. 194
	1 st Engineering Brigade [工程一旅]	. 197
	2 nd Engineering Brigade [工程二旅]	. 199
	3 rd Engineering Brigade [工程三旅]	. 200
	4 th Engineering Brigade [工程四旅]	. 203
	5 th Engineering Brigade [工程五旅]	. 205

6 th Engineering Brigade [工程六旅]	
Base 68 Training Regiment [68 基地训练团]	
Mobile Communications Regiment [机动通信团]	
Base 68 Comprehensive Support Regiment [68 基地综合保障团]	
Communications Engineering Regiment [通信工程团]	
Engineering Maintenance Support Group [工程维护保障大队]	
Unit 96608 Hospital [96608 部队医院]	
Base 69 [69 基地]	
1 st Test and Training District [第一试验训练区]	
2 nd Test and Training District [第二试验训练区]	
3 rd Test and Training District [第三试验训练区]	
4 th Test and Training District [第四试验训练区]	
Unit 96795 [96795 部队]	
Blue Team OPFOR Regiment [蓝军团]	
Unit 96796 [96796 部队]	
Kelan Launch Service Station [岢岚发射勤务站]	
Measurement and Control Regiment [测控团]	
Unit 96893 [96893 部队]	
Unit 96894 [96894 部队]	
Unit 96895 [96895 部队]	
Measurement and Control Group [测控大队]	
Unit 96897 [96897 部队]	
Unit 96898 [96898 部队]	
Unit 96899 [96899 部队]	
Unit 96609 Hospital [96609 部队医院]	
Academic Institutions	
Rocket Force Command College [火箭军指挥学院]	
Rocket Force University of Engineering [火箭军工程大学]	
Rocket Force NCO School [火箭军士官学校]	
Rocket Force NCO School 4 th Student Group [学兵四大队]	
Miscellaneous and Unidentified Units	

Unit 96610 [96610 部队]	
Unit 96611 [96611 部队]	238
Unit 96621 [96621 部队]	238
Unit 96627 [96627 部队]	239
Unit 96632 [96632 部队]	239
Unit 96638 [96638 部队]	239
Unit 96650 [96650 部队]	
PLARF Unit Field Cultivation and Training Base [部队野战培训基地]	
Unit 96591 [96591 部队]	241
Guazhou, Hami, and Hanggin Silo Fields	241
Endnotes	

Acronyms and Abbreviation Index

ASBM – Anti-ship Ballistic Missile [反舰弹道导弹]

- BDE Brigade [旅]
- BN-Battalion [营]
- CNTR Center [中心]
- CO-Company [连]
- COMMS Communications [通信]
- COMP-Comprehensive [综合]
- COS Chief of Staff [参谋长]
- DEP-Deputy [副]
- DEPT Department [部]
- DIV Division [师]
- ECM Electronic Countermeasures [电抗]
- ENG Engineering [工程]
- EQUIP Equipment [装备]
- GRP-Group [大队]
- HGV Hypersonic Glide Vehicle [超高音速滑翔飞行器]
- ICBM Intercontinental Ballistic Missile [洲际弹道导弹]
- INSP-Inspection [检]
- INST Institute [所]
- IRBM -- Intermediate Range Ballistic Missile [中远程弹道导弹]
- ISR -- Intelligence, Surveillance, Reconnaissance [情报监视侦察]
- LACM Land Attack Cruise Missile [对地巡航导弹]
- MEAS Measurements [量]
- MOB Mobile [机动]
- MRBM Medium Range Ballistic Missile [中程弹道导弹]
- MUCD Military Unit Cover Designator (5-digit ID number given to all PLA units at the Regiment Leader grade and above) [代号]
- NBC -- Nuclear, Biological, Chemical [核生化]
- **OPFOR** Opposition Force
- OPS Operations [作战]
- PC Political Commissar [政治委员/政委]
- POL Political [政治]

PWDD – Political Work Department/Division Director (政治工作部/处主任)

- RECON Reconnaissance [侦察]
- REG Regiment [团]
- SPEC Special [特种]
- SNR Senior [高级]
- SRBM Short Range Ballistic Missile [短程弹道导弹]
- SSM surface-to-surface missile [地地导弹]
- SERV Service [勤务]
- SUPP Support [保障]
- TECH Technical [技术]
- TUD True Unit Designator ("true" unit name (e.g. 801 Brigade), which is typically masked in public sources) [潘浩]
- UAV -- Unmanned Aerial Vehicle [无人机]

Notes on the Data in this Report

Geolocation

While unit geolocation was not a primary goal of this project, the author has attempted, wherever possible, to provide geocoordinates for the units described in this report. All geocoordinates given are based on the unit's location in Google. Chinese law, which Google continues to comply with, mandates that all geolocation services be offset by random distances usually amounting to several hundred meters. This means that all coordinates given in this report are actually off by several hundred meters from the unit's *actual* location and are thus for informational purposes only.

All units for which a location has not been verified by conclusive ground imagery correlation (even in cases where the author is otherwise quite confident of accuracy) are listed as "unconfirmed."

Dates

All personnel named in this report have dates next to their names. These represent the latest date for which that individual has been confirmed to be in that position. For example, if the personnel's name is followed by (1/18), we can say for a fact that this individual was in that position as late as January 2018. All information is current as of the beginning of 2022.

Sources

All information was sourced from publicly availably information and documents.

Introduction

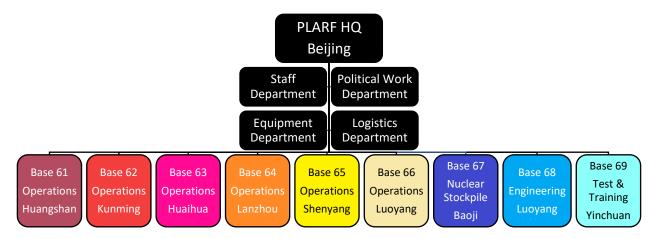
The PLA Rocket Force (PLARF), formerly known as the PLA 2nd Artillery Force (PLASAF) until 2016, is responsible for the PLA's land-based nuclear and conventional ballistic missiles. The Second Artillery Force was officially established in 1966 and given command of China's small inventory of land-based, regional nuclear missiles. These first-generation missiles were largely categorized as unsophisticated and of limited range and capability. The story of the PLARF/PLASAF, however, has been one of steady and progressive growth in both size and capability, beginning with the development of increasingly longer-range systems through the 1960s and 1970s and, with the introduction of the DF-5 in the early 1980s, the first intercontinental ballistic missile capable of striking the United States. The 1980s were a seminal decade for the PLASAF in two other ways: first, through its development of the DF-21, the PLA's first roadmobile ballistic missile system, and second, through its decision to field conventional as well as nuclear missiles, leading to the introduction of the DF-11 and DF-15 short range ballistic missiles in the early 1990s. The steady diversification of platforms and improvement in capabilities assigned to the PLASAF was matched by its equally steady growth in size. Four new brigades were stood up between 1980 and 2000, three of which were equipped with these latest weapons systems. This expansion accelerated in the 2000s: between 2000 and 2010, the PLASAF stood up as many as eleven new brigades equipped with its growing array of weapons, including its first ground-launched cruise missile, the CJ-10, and its first road-mobile ICBM, the DF-31. The pace of growth continued to intensify between 2010 and 2020, as the PLASAF (and, following its name change in 2016, the PLA Rocket Force) added 13 new brigades, as well as more important weapons systems such as the DF-21D anti-ship ballistic missile, the longer range and more capable DF-41 road-mobile ICBM, the dual nuclear-conventional DF-26 IRBM, and the DF-17 hypersonic glide vehicle (HGV). Incredibly, between 2017 and late 2019 the PLARF added at least ten new missile brigades. This unprecedented expansion from 29 to 39 brigades represented a more than 33% increase in size in only three years.ⁱ This was followed by an apparent massive expansion of the PLARF's silo-based ICBM force in 2021. Thus, the PLARF has evolved from a small, unsophisticated force of short-ranged and vulnerable ballistic missiles to an increasingly large and modern force with a wide array of both nuclear and conventional weapons platforms.

While recent scholarship has gone a long way toward demystifying China's ballistic missile force, it remains in many ways a poorly understood phenomenon, with an unusually high degree of censorship even by the strict standards of the PLA. With this in mind, the purpose of this report is to improve the level of detail available to researchers by providing the most thorough encyclopedia of PLA Rocket Force units available in open sources. The author has attempted to compile dossiers on as many PLARF units and institutions as possible, including information, where available, on each unit's history, mission, location, leadership, equipment, and force structure, utilizing a wide range of mostly Chinese language sources. The author hopes that the information contained in this report will fill a critical gap in scholarship, serve as a valuable resource to the PLA Research community, and help facilitate further research and greater understanding of the PLARF.

ⁱFor further information, see the author's piece in Popular Science: Ma Xiu, PW Singer, "China's missile force is growing at an unprecedented rate," Popular Science, 25 February 2020. https://www.popsci.com/story/blog-eastern-arsenal/china-missile-force-growing/

PLARF Force Structure

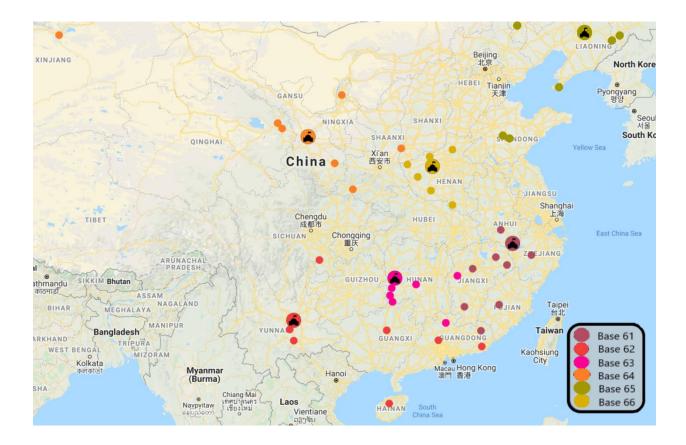
The PLARF is directly subordinate to the Central Military Commission (CMC), the PRC's supreme national defense authority. Command authority of the PLARF's nuclear launch forces is somewhat byzantine: administratively, nuclear forces are subordinate to their individual bases, but in wartime are placed under direct operational control of the CMC. Operational control of conventional missile forces, in particular the extent to which they are subordinate to the local joint theater command versus their individual PLARF bases, is less well understood. Initial evidence suggests that integration of conventional missile forces into the local theater command is ongoing, and that the local theater command may exercise a degree of operational control over these forces, facilitating joint operations between missile forces and their air, land, and sea counterparts.ⁱⁱ



The PLARF controls nine bases, all of which are either Corps or Corps Deputy Leader grade. Six of these bases, Bases 61-66, are responsible for ballistic missile operations, while the other three, Bases 67-69, conduct support missions (Base 67 is responsible for overseeing the central nuclear stockpile, Base 68 is responsible for engineering and physical infrastructure, and Base 69, the newest base, is poorly understood but appears to be responsible for both personnel training and missile tests).

Each of the six operations bases cover discrete geographical areas. As seen in the map below, the missile brigades of Base 61 cover eastern and some of southeastern China, Base 62 covers the rest of southeastern China, Base 63 covers inland southern China, Base 64 covers northwest and north-central China, Base 65 covers eastern and northeastern China, and Base 66 covers central China. Each base also features a unique makeup of nuclear and conventional forces depending on individual mission and strategic need: Base 61, for instance, is made up of mostly short-range conventional missile brigades primarily aimed at Taiwan, while more inland bases, such as Bases 64 and 66, are made up primarily of longer-range nuclear forces.

ⁱⁱFor further information, see Roderick Lee, "Integrating the PLA Rocket Force into Conventional Theater Operations," Jamestown Foundation, 14 August 2020. https://jamestown.org/program/integrating-the-pla-rocket-force-into-conventional-theater-operations/



PLARF Operations Base Structure

The six PLARF operations bases largely conform to a standardized structure, with six to seven subordinate missile brigades and five to seven support regiments, depending on the base. The standard base structure is as follows:



Missile Brigades [导弹旅]: Responsible for launching of ballistic missiles. Each Base oversees between six to eight of these brigades.

Training Regiment [训练团]: Responsible for basic training of new recruits assigned to this base, as well as certain advanced specialist training as needed.

Communications Regiment [通信团]: Responsible for ensuring communications between Base Headquarters and subordinate elements. These regiments manage the variety of communications methods employed by the PLARF, including fiberoptic, satellite, microwave, and troposcatter communications.

Operations Support Regiment [作战保障团]: This regiment type was established around 2012 by taking several disparate support functions and consolidating them under a single regiment. Base support functions handled by this unit include security, engineering, meteorology, survey and mapping, and NBC defense.

Comprehensive Support Regiment [综合保障团]: This regiment type was recently established in 2017 by combining the base Repair Factory [修配厂] with the Technical Service Regiment [技术 勤务团] and taking on the responsibilities of both. Thus, this regiment is responsible for repair and maintenance of base vehicles and equipment, as well as storage of missiles, fuel, munitions, and other supplies, and transport of these assets via road and rail to base units. It may also be in charge of other miscellaneous support missions, such as vehicle driving, food preparation, cultural/media work, and training of certain support personnel. Integrating vehicle, transport, repair, and logistical support missions into a single unit is designed to improve logistical efficiency and coordination.

Equipment Inspection Regiment [装检团]: This regiment is responsible for storage, management, and distribution of nuclear warheads assigned to each base. While most of the PLARF's nuclear stockpile is stored in a central location at Taibai, it is believed that a limited number of warheads are forward-deployed to each base and managed by these regiments. These regiments transport warheads to missile brigades via their own road and rail transport capabilities.ⁱⁱⁱ Base 64 is the only base which has an Equipment Inspection Brigade rather than regiment.

Base Hospital [医院]: Each base has at least one associated hospital. Hospital staff frequently deploy for training with base units. In wartime these hospitals would deploy field medical teams to provide comprehensive medical care to base units at the front line. Base hospitals are typically Division Leader or Division Deputy Leader grade organizations.

Of the six operations bases, four conform to this exact structure, while two, Bases 61 and 63, differ slightly. Base 61 also hosts one additional regiment responsible for UAV operations, while Base 63 hosts one additional regiment responsible primarily for fueling of its liquid-fueled ICBMs.

iii For further information, see: Mark Stokes, "China's Nuclear Warhead Storage and Handling System," Project 2049 Institute, 12 March 2010

Missile Brigade Structure

The PLARF oversees 40 missile brigades which constitute the entirety of its missile force. As stated above, each operations base controls six to eight of these brigades, which largely conform to a standardized structure of six launch battalions (each typically made up of two launch companies) and four to six support battalions. A standard missile brigade is structured as follows:



In some ways, missile brigades are like miniaturized bases, with their own communications, operations support, and comprehensive support battalions. The number of launchers assigned to each brigade varies widely depending on missile type. Official and comprehensive estimates of missiles and launchers per brigade are lacking, but knowledgeable observers have given estimates ranging from 6-12 launchers per brigade for certain ICBMs, 12-24 for MRBMs, 18-36 for IRBMs, and up to 36-48 launchers per brigade for SRBMs and GLCMs.^{iv}

Each brigade also appears to have at least one, and in at least some cases two, Technical Battalions. Technical Battalions are responsible for an array of launch support missions, including missile loading and hoisting, propellent injection, and pre-launch testing and diagnostics. They may also play a role in missile assembly and warhead mating. It is unclear whether a 2nd Technical Battalion is an exception limited to a handful of brigades, or the norm. Besides this, additional battalions are quite rare, but do exist. For example, the 633 Brigade has a Telemetry Battalion [遥测营], and the 635 Brigade has an ECM Battalion [电抗营].

^{iv} See Decker Eveleth, "Mapping the People's Liberation Army Rocket Force," 29 March 2020, <u>https://www.aboyandhis.blog/post/mapping-the-people-s-liberation-army-rocket-force</u>. The International Institute for Strategic Studies (IISS) has given estimates of 12 launchers per MRBM brigade, 18 per IRBM brigade, and 27 per cruise missile brigade. See Henry Boyd, "2019 Pentagon report: China's Rocket Force trajectory," IISS, 15 May 2019, https://www.iiss.org/blogs/military-balance/2019/05/pla-rocket-force-trajectory

How to Read PLARF MUCDs

Every PLA unit at the Regiment Leader grade and above is given a unique Military Unit Cover Designator (MUCD), a five-digit number which is used to publicly identify that unit. The PLARF began using a new MUCD system in April 2017 which is highly ordered and intuitive, and a researcher can actually glean significant information about a unit's size, mission, and subordination just from knowing that unit's MUCD, if he or she knows what to look for. With that in mind, the following is a guide to intelligently reading PLARF MUCDs, digit by digit.

If the first two digits are...

- **96**xxx This is a PLARF unit.
- Not **96**xxx This is not a PLARF unit.

If the third digit is...

- 961xx to 965xx This is an outdated PLARF MUCD from the pre-2017 system. No longer in use.
- 966xx This is either a PLARF base or a headquarters direct-reporting unit, depending on the fourth digit.
 - If the fourth digit is 9661x to 9666x This is a headquarters direct-reporting unit. Beginning in 2019, these MUCDs are being slowly phased out and replaced with the 969xx series, but many are still used as of 2020.
 - Note: 9664x units have since been resubordinated to Base 68.
 - \circ If the fourth digit is 9660x This is a PLARF base.
 - The fifth digit represents the base number. E.g. 96602 is Base 62.
- 967xx This is a brigade or brigade-sized unit under a PLARF base.
 - If the fourth digit is 9671x to 9676x This is a missile brigade, with the digit representing the specific base this brigade is subordinate to. E.g. a 9672x brigade is subordinate to Base 62.
 - The fifth digit represents the brigade sequence under that base. E.g. 96711 is the first brigade under Base 61 (the 611 Brigade), 96722 is the second brigade under Base 62 (the 622 Brigade), etc.
 - If the fourth digit is 9677x to 9679x This is a support brigade or brigade-sized unit, with the digit representing the support base this unit is subordinate to. E.g. a 9678x unit is a support brigade under Base 68
- 968xx This is a regiment or regiment-sized unit under a PLARF base.
 - If the fourth digit is 9681x to 9688x This is a support regiment under Bases 61-68, with the digit representing the base number. E.g. 9682x is a support regiment under Base 62.
 - *If the fifth digit is* 968x1 This is the base Training Regiment.
 - *If the fifth digit is* 968x2 This is the base Communications Regiment.
 - *If the fifth digit is* 968x**3** This is the base Operations Support Regiment.

- If the fifth digit is 968x4 This is the base Comprehensive Support Regiment.
- *If the fifth digit is* 968x**5** This is the base Technical Service Regiment.
- *Note:* There are two known exceptions to this. Base 61 has a sixth support regiment which uses 96816. There was also a Unit 96819, an outdated MUCD for the Research Academy.
- \circ If the fourth digit is 9689x This is a Base 69 support regiment. Very little is known about these regiments as of 2020.
- 969xx This is a headquarters direct-reporting unit. These MUCDs began replacing the previous 966xx series of MUCDs for headquarters units beginning in 2019, and the process is still ongoing.
 - *If the fourth digit is* 9690x This is the PLARF Research Academy (96901), or the as-yet unidentified Unit 96902.
 - \circ If the fourth digit is 9691x This unit is subordinate to the PLARF Research Academy.
 - If the fourth digit is 9692x This unit is subordinate to Unit 96902.
 - If the fourth digit is 9693x Unknown.
 - If the fourth digit is 9694x This unit is subordinate to the PLARF Staff Department
 - \circ If the fourth digit is 9695x This unit is subordinate to the PLARF Logistics Department
 - \circ If the fourth digit is 9696x This unit is subordinate to the PLARF Equipment Department
- 960xx This is a base Equipment Inspection unit, responsible for nuclear warhead management and transport.
 - The fourth digit is always 9603x.
 - The fifth digit represents the base number. E.g. 96032 is the Base 62 Equipment Inspection Regiment.
 - Units 96037 and 96038 are both responsible for warhead management and transport of the central stockpile at Taibai.

While this system might seem complex at first, it is actually quite helpful knowing that a given MUCD will always represent a specific type of unit. For example, if we find a unit with MUCD 96753, we immediately know that this is a missile brigade subordinate to Base 65, specifically the 653 Brigade. If we see MUCD 96832, we immediately know that this is the Base 63 communications regiment. If we see MUCD 96941, we know that this unit is directly subordinate to the PLARF Staff Department. Hopefully this de-mystification of PLARF MUCDs will make unit identification easier in the future.

PLA Rocket Force Command

Grade: Theater Leader¹ Parent Unit: Central Military Commission Location: 31 Xiaoying W. Rd., Qinghe Subdistrict, Haidian District, Beijing [北京市海淀区清 河街道小营西路 31 号]²

Geocoordinates: 40.036740, 116.319472

Leadership

PLARF Commander: Li Yuchao [李玉超] (1/22)3

PLARF PC: Xu Zhongbo [徐忠波] (7/20)4

Deputy Commanders: Li Jun [李军] (5/20)⁵; Zhang Zhenzhong [张振中] (6/19)⁶; Li Chuanguang [李传广] (6/19)⁶

Deputy PC: Yu Guang [禹光] (9/20)7

Chief of Staff: Unknown, previously held by Li Yuchao before promotion to Commander

Discipline Inspection Commission Secretary: possibly Zhu Guobiao [朱国标]

Political Work Department Director: Cheng Jian [程坚] (5/20)

Logistics Department Director: Wang Qifan [王启繁] (5/20)

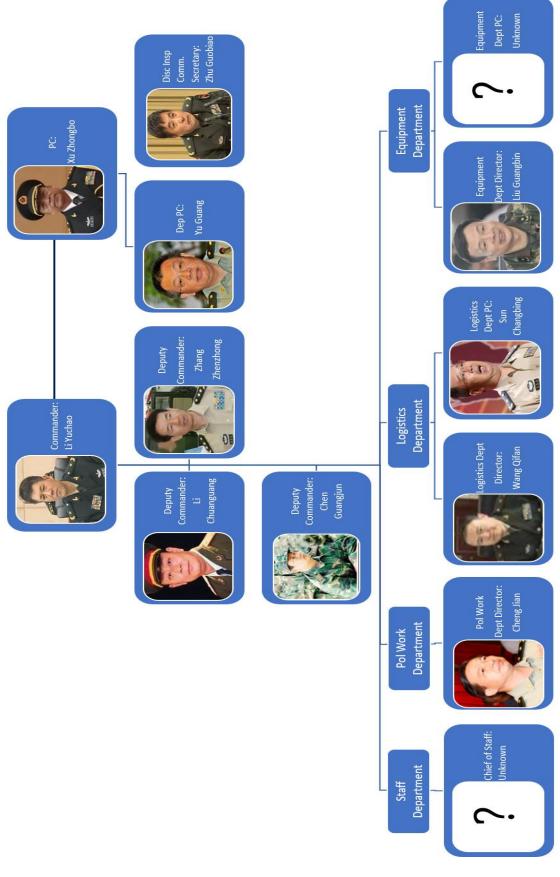
Logistics Department PC: Sun Changbing [孙昌兵] (5/21)

Equipment Department Director: Liu Guangbin [李光斌] (6/19)

Equipment Department PC: Unknown, previously held by Sun Danping [孙旦平]

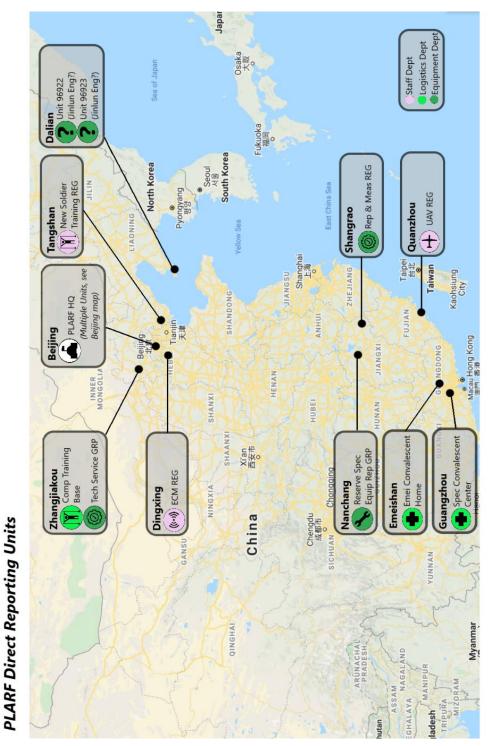
Recent Developments

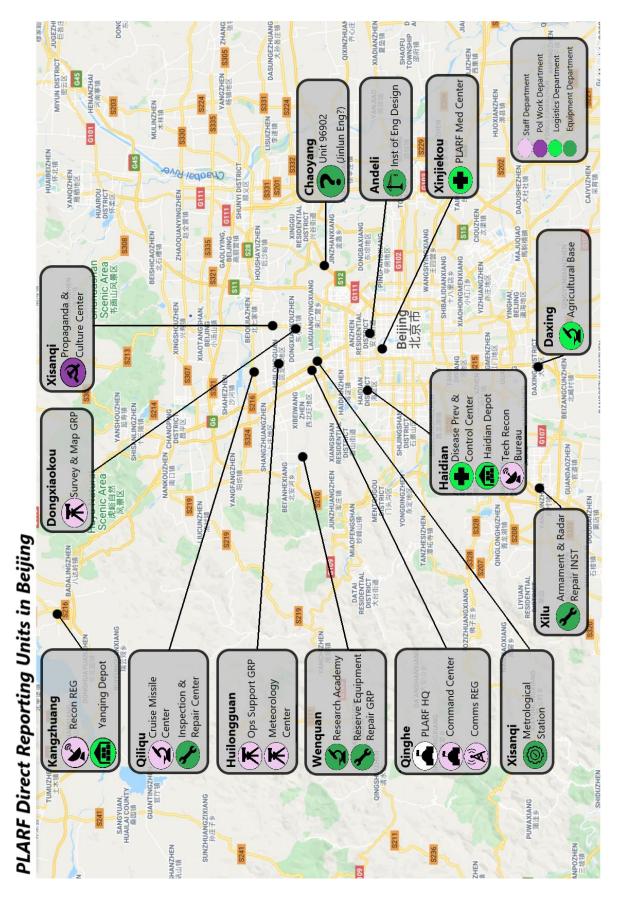
- Xu Zhongbo became PC in July 2020. Xu is not a career PLARF officer, and previously held positions as the PC of the Joint Logistics Support Force (JLSF) and the PLA Army Western Theater Command.⁸
- Li Jun, previously PLARF Chief of Staff, became Deputy Commander in May 2020.⁵ He likely replaced former Deputy Commander Wu Guohua, who was the longest-serving Deputy Commander to that point.
- There are as-yet unconfirmed reports that Chen Guangjun [陈光军] was promoted to Deputy Commander in 2021. It is unclear who, if anyone, he has replaced.



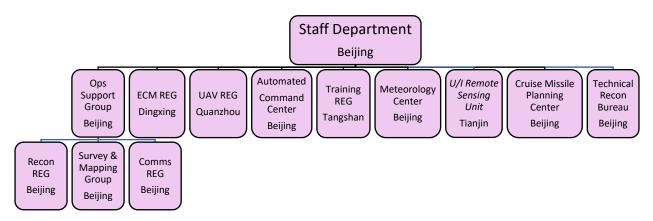
Direct-Reporting Units

The PLARF, like the other PLA services, commands a number of direct-reporting units. These are units which are not subordinate to any of the bases, but are directly subordinate to, and report directly to, one of PLARF Headquarters' four administrative departments. These are the PLARF Staff Department, Political Work Department, Equipment Department, and Logistics Department.





PLARF Staff Department [参谋部]



Leadership

Chief of Staff: Unknown, previously Li Yuchao [李玉超] (6/20)9

Deputy Chiefs of Staff: Li Xiaohong [李晓宏] (12/19),¹⁰ Wu Zuobao [吴祚宝] (8/18)¹¹, Deputy #3 may be either Wang Liyan [王立岩] (1/18)¹² or Xu Kunxia [徐坤侠] (11/17)^{13v}

Assistant to the Chief of Staff: Wang Hongyan [王宏宇] (7/18)¹⁴

Known Subordinate Bureaus

- Operations Bureau [作战局]
 - o Director: Zhang He [张赫] (12/20)¹⁵
 - Former Director Wang Chengyue [王成跃] (2018) may also direct a Central Committee agency having to do with information security, and may have a particular interest in quantum encryption.¹⁶
- Intelligence Bureau [情报局]¹⁷
- Training Bureau [训练局]
 - Director: Shi Hongyan [石鸿雁] (12/20)¹⁸
 - Deputy Director: Wei Zhigang [卫志刚] (12/19)¹⁹
- Unit Management Bureau [部队管理局]
 - Deputy Director: Lei Hongbing [雷红兵] (12/16)²⁰
- Planning and Staffing Structure Bureau [规划和编制局]²¹
- Information and Communications Bureau [信息通信局]²²

^v Per unofficial sources, a recent shakeup at this position may have left Wu Zuobao as DCOS alongside newcomers Wu Xihua [吴喜铧] and Zhang Mingguo [张明国]. This remains unconfirmed.

- Informatization Bureau [信息化局]²³
- Directly Subordinate Work Bureau [直属工作局]²⁴

Recent Developments

- Previous Chief of Staff Li Jun [李军] became Deputy Commander in 2020, leaving this position open. There has yet to be an official announcement of Li's replacement, but unofficial media reports put Base 63 Commander Li Yuchao in the position. This has not been confirmed by official sources.
- There are conflicting reports about the third Deputy Chief of Staff, who could be either Wang Liyan or Xu Kunxia.

Staff Department Operations Support Group [参谋部作战保障大队]

Beginning in November 2018, ²⁵ the PLARF Staff Department reorganized at least three of its regiment leader grade organizations in the Beijing area into a single large, overarching Operations Support Group. ²⁶ ²⁷ Likely units re-subordinated to this Group include the Staff Department Reconnaissance Regiment, ²⁸ the Staff Department Communications Regiment, ²⁹ and the Survey and Mapping Group. ³⁰ This unit is described as a new type of integrated operations support force, ²⁵ and is the latest step in the PLARF's recent trend toward consolidating disparate operations support functions into single units.

MUCD: 96942 ³¹ Former MUCD/TUD: N/A
--

Grade: Division Leader²⁶

Parent Unit: Staff Department

Location: Near the Zhuxinzhuang Bridge, Beiqing Rd., Changping District, Beijing [北京昌平 区北清路朱辛庄桥附近]³²

Geo: Unconfirmed, possibly 40.094598, 116.320614

Leadership

Commander: Lu Bin [陆斌] (12/19)²⁶

PC: Chen Yonghua [陈永华] (12/19)²⁶

Dep Commanders: Unknown

Chief of Staff: Unknown

Dep PC: Unknown

PWDD^{vi}: Tang Shengxuan^{vii} [唐盛选] (12/19)²⁶

viPolitical Work Department Director

viiAlternative possible spelling of name: Tang Chengxuan

Support Dept Director: Unknown

Other Senior Leadership: Cao Jinguo [曹金国], Snr Survey & Mapping Engineer (12/19)²⁶; Wang Xianzhong [王献忠] Snr Communications Engineer (12/19)²⁶

Known Composition

- Communications Station [通信站]²⁶
 - Battalion Leader Grade²⁶
 - Likely associated with Staff Department Communications Regiment
- Reconnaissance Team [侦察队]³³
 - o Likely associated with Staff Department Reconnaissance Regiment
- Targeting Team [目标队]³³
 - Likely associated with Staff Department Reconnaissance Regiment
- Survey and Mapping Team [测绘队]³³
 - Likely associated with Survey and Mapping Group
- Engineering Defense Team [工程维护队]³³

Background

• Much remains unknown about this new unit, including which units have been resubordinated and the current grades of the re-subordinated units. All three known units appear to still have MUCDs, meaning they must still be at least Regiment Leader Grade, but may now be referred to as "Teams" [队] rather than regiments.

Reconnaissance Regiment [侦察团]

The PLARF Reconnaissance Regiment, formerly organized as a group [大队], was likely resubordinated to the Staff Department Operations Support Group (96942) in November 2018.²⁵ It may have been given the new MUCD 96943. It is responsible for battlefield reconnaissance and intelligence support, ³⁴ and possesses a wide range of capabilities toward that end. These capabilities include a Special Operations Reconnaissance Team [特种侦察队] likely responsible for target reconnaissance and damage assessment, ³⁴ a specialized unmanned aerial vehicle (UAV) battalion responsible for mission planning and intelligence, surveillance, and reconnaissance (ISR) targeting support, ^{viii} a radar squadron in the Gobi Desert responsible for radar tracking, ³⁵ and other assets responsible for electronic reconnaissance, translation, and damage assessment in support of

vⁱⁱⁱSee: Ian M. Easton, L.C. Russell Hsiao, "The Chinese People's Liberation Army's Unmanned Aerial Vehicle Project: Organizational Capacities and Operational Capabilities," *Project 2049 Institute*, 11 March 2013. 41

operations.^{viii} It also hosts a training center, possibly for training personnel in ISR.³⁴ This unit moved from Qinghe to its current location in Kangzhuang in 2002.³⁶

MUCD: 96943 Former MUCD: 96637; 80809 Imagery Group^{viii}

Grade: Regiment Leader Parent Unit: Staff Department; Operations Support Group

Location: Kangzhang Rd., Kangzhuang Town, Yanqing District, Beijing 102101 [北京市延庆 区康庄镇康张路]^{37 38 39}

Geo: Unconfirmed, possibly 40.354024, 115.905500

Secondary Garrisons:

- Meishan Village, Hui'an County, Quanzhou, Fujian [福建省泉州市惠安县梅山村] (possibly 25.062908, 118.783575)^{ix}
 - 1st Subunit [1分队]⁴⁰
- Da Qaidam, Haixi Prefecture, Qinghai [青海省海西州大柴旦]⁴¹

Leadership

Commander : Lü Feng [吕烽] (12/18) ⁴²	PC: Zhang Guoqing [张国清] (3/17)43
Dep Commanders: Unknown	Dep PC : Unknown
Chief of Staff: Unknown	PWDD : Duan Xiaogang [段小刚] (8/16) ⁴⁴

Support Div Director: Unknown

Known Composition

- Special Operations Reconnaissance Team [特种侦察队]
 - Described as having "an important special operations mission" (likely target and damage assessment reconnaissance) and capable of operating in a range of different environments.⁴⁵
- UAV Battalion [无人机营]
- Radar Squadron [雷达中队]
- Military Training Center [军事训练中心]

^{ix}Credit to Twitter user Pir3 (@pir34) for first pointing out this location

Survey and Mapping Group [测绘大队]

The PLARF Survey and Mapping Group was established in 1977,⁴⁶ and resubordinated to the Staff Department Operations Support Group in November 2018.²⁵ It may have been given the new MUCD of 96944.⁴⁷ This unit dispatches personnel to conduct on-site surveying and measurement missions.⁴⁸ It may also have a UAV or other airborne capability to conduct aerial photography.⁴⁸

Former MUCD: 06622

MUCD : 96944	Former MUCD : 96633	
Grade: Regiment Leader	Parent Unit: Staff Department; Operations Support Group	

Location: 188 Yifengyuan, He Village, Dongxiaokou Town, Changping District, Beijing 100096 [北京市昌平区东小口镇贺村 188 号颐丰园]49 50 51

Geo: Unconfirmed, possibly 40.050212, 116.391962

Leadership	
Commander : Li Jianwei [李建伟] (8/15) ⁵²	PC : Unknown
Dep Commanders: Unknown	Dep PC: Unknown
Chief of Staff: Unknown	PWDD : Unknown
Support Div Director: Unknown	

Composition

Unknown

Background

This unit previously hosted a satellite navigation and positioning station which was transferred to the Base 61 Operations Support Regiment in 2017.⁵³

Staff Department Communications Regiment [参谋部通信团]

The PLARF Staff Department Communications Regiment (also referred to as the Communications Command [总站]) was established in April 1968 as a communications hub for strategic missile units, and is referred to as the PLARF's communications "nerve center."⁵⁴ It is responsible for communications between PLARF Headquarters and subordinate operations elements.⁵⁵ It was resubordinated to the Staff Department Operations Support Group (96942) in November 2018 and may now have the new MUCD of 96946.⁵⁶

MUCD: 96946

Former MUCD: 96618

Grade: Regiment Leader⁵⁷ **Parent Unit:** Staff Department; Operations Support Group

Location: 31 Xiaoying W. Rd., Qinghe Subdistrict, Haidian District, Beijing [北京市海淀区清 河街道小营西路 31 号] (co-located with PLARF HQ)⁵⁸

Geo: 40.036839, 116.319492

Secondary Garrison: Yamenkou, Shijingshan District, Beijing [北京市石景山区衙门口]⁵⁹

Leadership

Commander: Zhou Chuangang ^x [周传刚] (3/17) ⁶⁰	PC : Unknown
Dep Commanders: Wang Qisheng [王启胜] (1/20)56	Dep PC: Unknown
Chief of Staff: Unknown	PWDD : Unknown
Support Div Director: Unknown	

Former Leadership: Wan Jin [万晋], PC (2018)⁶¹

Composition (presumed)

- 1st Battalion [一营]
- 2nd Battalion [二营]
- 3rd Battalion? [三营]
 - Presumed to exist based on typical size of PLARF communications regiments
- 5th Company [五连]
 - Presumed to be under 2^{nd} or 3^{rd} Battalion
 - Tasked with transmitting communications from PLARF headquarters to subordinate brigades and regiments⁵⁵

Background

- This regiment also possesses mobile capabilities and the ability to set up communications nodes in the field.⁶²
- In recent years, this regiment has focused on upgrading its equipment to create a modern communications network via fiberoptic cables and satellite communications.⁵⁴

^xAlternative possible spelling of name: Zhou Zhuangang

Staff Department ECM Regiment [参谋部电子对抗团]

This regiment is one of the PLARF's two dedicated electronic countermeasures (ECM) regiments (the other being subordinate to Base 67). Beginning in 2019, this unit may have taken the new MUCD of 96945.⁶³

Former MUCD: 96620

Grade: Regiment Leader	Parent Unit: Staff Department	
Location: Dingxing County, Baoding, Hebei 072653 [河北省保定市定兴县] ^{64 65}		
Geo : 39.206468, 115.700330 ⁶⁶		
Secondary Garrison:		
 Fangshan District, Beijing 102488 [北京市房山区]⁶⁷ o Training Unit [教导队] 		
Leadership		
Commander: Huang Haitao [黄海济	导] (5/17) ⁶⁸ PC: Zhang Li [张立] (11/17) ⁶⁹	
Dep Commanders: Unknown	Dep PC : Unknown	
Chief of Staff: Unknown	PWDD : Unknown	
Support Div Director: Unknown		

Composition

MUCD: 96945

Unknown

Background

- A 2008 report shows this unit allegedly employing the DZ 9001C ground mobile electronic intelligence (ELINT) system, designed to intercept and record enemy radar signals.⁷⁰
- The PLARF's other ECM Regiment, subordinate to Base 67, may be known as the 2nd Comprehensive Defense Regiment [综合防护二团]. It is thus logical, if unconfirmed, that this regiment may be known as the 1st Comprehensive Defense Regiment [综合防护一团].

Staff Department UAV Unit [无人机部队]

Former Unit 96605 has been reported as a PLARF directly subordinate UAV unit.^{xi} There is very little public information about this unit. Its location near the Taiwan Strait suggests it would play a role in target acquisition, including for ASBMs, in the event of conflict with Taiwan.

MUCD: UnknownFormer MUCD: 96605Grade: Regiment Leader?Parent Unit: Staff DepartmentLocation: Meishan Village, Hui'an County, Quanzhou, Fujian [福建省泉州市惠安县梅山村]⁷¹Geo: Unconfirmed, possibly 25.060739, 118.788050

PC: Unknown – surname Xu [徐] $(1/17)^{73}$

Dep PC: Unknown

PWDD: Unknown

Leadership

Commander: Huang Fei [黄飞] (6/18)⁷²

Dep Commanders: Unknown

Chief of Staff: Unknown

Support Div Director: Unknown

Composition

Unknown

Background

- This unit may be located at a military complex in the village of Meishan, in Fujian's Hui'an County. Since the PLARF Reconnaissance Regiment also has a garrison in this village, it is possible that the two units are co-located and work closely together. There is a small military airfield to the southeast of Meishan known to house PLAAF J-6 drones, although it is unknown if it is also associated with this unit.
- As of 2018 there is evidence this unit still exists and may still be using the 96605 MUCD, despite the overlap with Base 65, which now also has this MUCD. There is also some evidence this unit may now be subordinate to, or at least associated in some way with, the PLA Strategic Support Force. A document from June 2018 lists this unit as being under the "SSF PLARF Bureau, 2nd Office" [战略支援部队火箭军局二处].⁷²

^{xi} See: Ian M Easton, L.C. Russell Hsiao, "The Chinese People's Liberation Army's Unmanned Aerial Vehicle Project: Organizational Capacities and Operational Capabilities", Project 2049 Institute, 11 March 2013. 12.

PLARF Automated Command Center [自动化指挥中心]

The Automated Command Center⁷⁴ is likely located at PLARF HQ in Qinghe.⁷⁵ Little public information exists for this unit, but one article has an image of a situation room dominated by a large LED screen. A vague description states that this Command Center needs to be able to take in a large amount of data from the multiple sources that it monitors, while also having to be able to quickly transmit plans and orders and ensure the command system remains intact.⁷⁶

MUCD: Unknown	Former MUCD: 96616	
Grade: Unknown	Parent Unit: Staff Department	
Location: Qinghe Subdistrict, Haidian District, Beijing 100085 [北京市海淀区清河街道] ⁷⁵		
Geo: 40.036157, 116.318766 (assuming co-location with PLARF HQ)		

Leadership	
Commander: Unknown	PC: Unknown
Dep Commanders: Unknown	Dep PC: Unknown
Chief of Staff: Unknown	PWDD : Unknown
Support Div Director: Unknown	

Composition

Unknown

Background

• This unit is a member of the Internet Society of China Data Center and Basic Infrastructure Working Group [中国互联网协会数据中心基础设施工作组].⁷⁴ As of 2016 it appears to be the only non-civilian member.

New Soldier Training Regiment [新兵团]

Unit 96619 appears to be a basic training base for new enlisted recruits.⁷⁷ It is co-located with the 4th Student Group of the Rocket Force NCO School at a large training facility in Fengrun.

MUCD: Unknown

Former MUCD: 96619

Grade: Regiment LeaderParent Unit: Staff DepartmentLocation: Fengrun District, Tangshan, Hebei [河北省唐山市丰润区]⁷⁸Geo: 39.857413, 118.090267⁷⁹

Leadership

Commander: Wang Deji [王德继] (2/15^{xii})⁸⁰

Dep Commanders: Unknown

Chief of Staff: Unknown

Support Div Director: Unknown

PC: Meng Guoliang [孟国良] (2/18)⁷⁹ Dep PC: Unknown

PWDD: Unknown

Known Composition

- 1st Battalion [一营]
- 2nd Battalion [二营]
- 3rd Battalion [三营]⁷⁷

Background

• In the 2012-2013 timeframe, each training batch of new soldiers consisted of 60-85 personnel.^{81 82}

PLARF Meteorology Center [气象中心]

The PLARF Meteorology Center is responsible for both meteorological and hydrological support.⁸³ Launch brigades receive daily weather reports from this unit, which they use in combination with their own meteorological capabilities to plan optimal launch windows.⁸⁴

MUCD: UnknownFormer MUCD: 96631Grade: Regiment LeaderParent Unit: Staff Department

Location: Huilongguan, Changping District, Beijing [北京市昌平区回龙观]⁸⁵

Geo: Unconfirmed, possibly 40.081714, 116.270518^{xiii}

Leadership	
Commander: Unknown	PC: Unknown
Dep Commanders: Unknown	Dep PC: Unknown
Chief of Staff: Unknown	PWDD : Unknown
Support Div Director: Unknown	

Composition

Unknown

Unit 96635 [96635 部队]

This unit's mission may be related to satellites and remote sensing,⁸⁶ and it may be connected to both the PLARF Technical Reconnaissance Bureau (TRB) (see below) and the Staff Department Intelligence Bureau.¹⁷

MUCD: UnknownFormer MUCD: 96635Grade: Regiment Leader⁸⁷Parent Unit: Unknown, possibly Staff DepartmentLocation: Balitai Town, Jinnan District, Tianjin 300356 [天津市津南区八里台镇]⁸⁸

Geo: Unknown

Leadership

Commander :	Unknown

PC: Unknown

Former Leadership: Jiang Yanchuan [姜艳川], Commander (2016)⁸⁹

xiiiCredit to Twitter user @nudelsinpita for first publicly identifying this site

Background

- Two researchers with this unit, Wang Zhenguo [王振国] and Li Shaomin [李少敏], have also published articles for the PLARF TRB, suggesting that this unit may be associated with the TRB.⁹⁰
- Some further clues about this unit's function may be found in the relatively high-profile post-military career of its former commander, Jiang Yanchuan. Jiang has worked for GalaxySpace [银河航天], a micro-satellite and 5G company, and is described as an expert in satellite remote sensing.⁹¹ A short profile from the South China Sea Probing Initiative states that he has devoted himself to remote sensing for "many years."⁹² He currently holds a position with a company called All In Eyes [北京瞰天科技有限公司] which specializes in applying AI and big data to satellite imagery and remote sensing.⁹³

Cruise Missile Mission Planning Center [巡航导弹任务规划中心]

The Cruise Missile Mission Planning Center, ^{xiv} established around 2004,⁹⁴ is responsible for conducting a wide range of research related to physics, mathematics, and computer science. Research topics include UAVs, scene matching, navigation and mapping, ballistics, signals, missile guidance, and remote sensing.⁹⁵ This unit may be primarily responsible for research into LACM navigation and guidance, with a specific focus on DSMAC (digital scene matching area and correlation) guidance.^{xv}

MUCD: Unknown, possibly 96941	Former MUCD: 96656	
Grade: Regiment Leader	Parent Unit: Staff Department	
Location: Qiliqu South Village, Changping District, Beijing 102208 [北京市昌平区七里渠南村] ⁹⁶		

Geo: Unconfirmed, possibly 40.100221, 116.321723 (if MUCD is 96941)

Leadership

Commander: Unknown

Dep Commanders: Unknown

Chief of Staff: Unknown

Support Div Director: Unknown

PC: Unknown Dep PC: Unknown PWDD: Chen Kang [陈康] (12/16)⁹⁷

^{xiv}Thank you to Mark Stokes for providing the official name of this unit.

xvSee: Mark A Stokes, Ian Easton, "Evolving Aerospace Trends in the Asia-Pacific Region", Project 2049 Institute, 2010. 46.

Composition

Unknown

Background

• Former PC Tao Xianfeng [陶贤锋] went on to have a successful acting career playing the role of Zhu De in several propaganda films.⁹⁸

PLARF Technical Reconnaissance Bureau [火箭军技术侦察局]

The PLARF Technical Reconnaissance Bureau is responsible for the PLARF's signals intelligence (SIGINT) activities. It remains unclear as to whether it has been resubordinated to the Strategic Support Force, or remains under the PLARF.

MUCD: Unknown	Former MUCD : 96669
Grade: Division Leader ⁹⁹	Parent Unit: Staff Department
Location: 500 Beiyuhe Village, Haidian District, Beijing [北京市海淀区上庄镇北玉河村 500 号]?	

Geo: Unconfirmed, possibly 40.116412, 116.223839

Leadership

Commander: Unknown

Dep Commanders: Unknown

Chief of Staff: Unknown

Support Dept Director: Unknown

Former Leadership: Liang Xiaojing [梁晓婧], PC (2017)¹⁰⁰

Composition

Unknown

Background

• It is unclear if this unit remains in the PLARF, or if it was transferred to the SSF along with the other TRBs, although significant circumstantial evidence suggests the latter. A contract from December 2018 to provide computer equipment to this unit lists the SSF, rather than the PLARF, as the issuing work unit.¹⁰¹ Further, an article from early 2017 states that this

PC: Unknown

Dep PC: Unknown

PWDD: Unknown

unit had recently undergone a transfer as part of a larger CMC optimization scheme, with some work units being transferred and others remaining. It seems to imply that these elements have been transferred out of the PLARF, with a senior official telling unit personnel, "no matter where you go, the PLARF will always be your home."¹⁰²

- Former Political Commissar Liang Xiaojing has served as a military NPC representative since at least 2008,¹⁰³ and was considered an authority on political issues within the PLARF.¹⁰⁴ She now serves as Political Work Department Director for another TRB under the SSF (Unit 32081).¹⁰³
- The 610th Subunit [610 分队] seems to be a research-oriented subunit of 96669, publishing frequently in 2018 on GNSS satellite navigation and signal interference.⁹⁵

PLARF Political Work Department [政治工作部]

Leadership

Director: Cheng Jian [程坚] (5/20)¹⁰⁵

Deputy Director: Li Jiaqin [李家勤] (5/20)¹⁰⁶

Known Subordinate Bureaus

- Organization Bureau [组织局]
 - Dep Director: Huang Jinxin [黄金新] (10/17)¹⁰⁷
- Cadre Bureau [干部局]
 - Director: Li Jiaquan [李加权] (12/20)¹⁰⁸
 - o Dep Director: Leng Xinggao [冷兴高] (8/17)¹⁰⁹
- Propaganda Bureau [宣传局]
 - Director: Wang Yongxiao [王永孝] (10/20)¹¹⁰
 - Dep Directors: Wang Hongjian [王宏建] (7/20)¹¹¹; Zhang Wenxue [张文学] (12/20)¹¹²
- Military and Civilian Personnel Bureau [兵员和文职人员局]
 - o Director: Liu Xuming [刘旭明] (6/18)¹¹³
 - Dep Directors: Cao Wei [曹伟] (1/19)¹¹⁴; Ye Le [叶乐] (11/18)¹¹⁵
- Mass Work Liaison Bureau [群工联络局]
 - Director: Ji Jianchun [姬建春] (11/20)¹¹⁶
 - Dep Director: Zhen Yide [郑谊德] (5/20)¹⁰⁶

Recent Developments

As of late 2020, there is only one known Deputy Director, Li Jiaqin, however the existence of more Deputy Directors cannot be ruled out. Deputy Director Jiang Jiage [蒋家革] was last noted in the position in 2018,¹¹⁷ and Wang Dingfang [王定放] in mid-2017.¹¹⁸ Yu Chunfu [于春福] was last noted in late 2017¹¹⁹ and was confirmed to no longer be in this position in 2020.¹²⁰

Propaganda and Cultural Center [宣传文化中心]

The former PLARF Cultural Troupe, formed in 1966,¹²¹ was responsible for cultural events promoting the PLARF and CCP propaganda, including musical and theatric productions. It was disbanded along with the other service cultural troupes in September 2018,¹²¹ and replaced by the PLARF Political Work Department Propaganda and Cultural Center. It is unclear how this new Center's role will differ from the former Cultural Troupe's. Both the Center and the former Cultural Troupe were also tasked with dispatching "light cavalry" troupes [轻骑队] of performers who embed with grassroots units to conduct propaganda work and morale-boosting cultural activities.¹²² ¹²³

MUCD: N/A	Former TUD: PLARF Cultural Troup [文工团]

Grade: Division Leader¹²⁴

Parent Unit: Political Work Department

Location: Tianqin Theater, A-1 Dongsanqi Village, Changping District, Beijing [北京市昌平区 东三旗甲一号天泰剧院]^{125 126}

Geo: 40.077817, 116.395946

Leadership

Director: Nie Jianzhong [聂建忠] (12-18)¹²⁴PC: Yan Jian [闫建] (8/16)¹²⁷

Dep Directors: Chen Sisi [陈思思] (8/18)¹²⁸; Lu Haitian [逯海田] (10/17)¹²⁹; Cai Weiman [蔡 薇蔓] (1/16)¹³⁰

Former Leadership: Zhou Wei [周炜], Director (2018)¹³¹

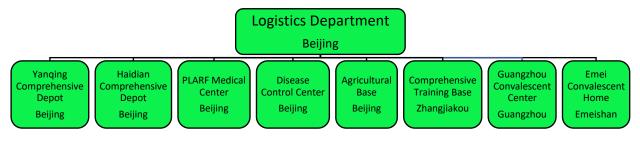
Composition

Unknown

Background

• The former PLARF Cultural Troupe was a Division Deputy Leader Grade organization.¹³² However a recent photo of Nie Jianzhong with a visible grade ribbon indicates that the new Propaganda and Culture Center may have been upgraded to Division Leader Grade.¹²⁴

PLARF Logistics Department [后勤部]



Leadership

Director: Wang Qifan [王启繁] (5/20)¹³³ **PC:** Sun Changbing [孙昌兵] (5/21)¹³⁴

Deputy Directors: Wang Zhaojun [王兆军] (8/18)¹³⁵; possibly Tian Qinglong [田庆龙] (5/18)¹³⁶ and/or Yao Dangnai [姚党鼐] (6/16)¹³⁷

Known Subordinate Bureaus

- Finance Bureau [财务局]¹³⁸
- Medical Bureau [卫生局]
 - Director: Xu Daojiang [许道江] (11/20)¹³⁹
- Transport and Delivery Bureau [运输投送局]¹⁴⁰
- Military Infrastructure and Construction Bureau [军事设施建设局]¹⁴¹
- Purchase and Supply Bureau [采购供应局]¹⁴²
- Functional Bureau [业务局]¹⁴³
- Combat Service and Planning Bureau [战勤计划局]
 - o Director: Zhang Hong [张鸿] (5/19)¹⁴⁴
- Directly Subordinate Work Bureau [直属工作局]
 - Director: Zhang Shaojun [张少军] (8/18)¹⁴⁵

Other known subordinate elements

- Fuel Technology Supervision Office [油料技术监督室]¹⁴⁶
- Special Clothing and Equipment Verification and Repair Depot [特种被装检定修理 所]¹⁴⁶
- Military Vehicle Inspection and Control Office [军车监理所]¹⁴⁶

Recent Developments

- Previous Logistics Department PC Sun Shaohua [孙少华] appears to have been replaced by late 2019¹⁴⁷ by Sun Changbing, who came from the PLAAF and was previously Deputy Director of the Eastern TCAF Political Work Department.¹⁴⁸
- Wang Zhaojun is the most recent Deputy Director for which there is confirmation. If the Department has multiple Deputy Directors, Tian Qinglong and Yao Dangnai are also possibilities for these positions.

Yanqing Comprehensive Depot [延庆综合仓库]

The Yanqing Comprehensive Depot is one of two such material depots in the Beijing area. It is responsible for storing and transporting PLARF equipment,^{34 149} including heavy equipment such as vehicles, and has its own rail transport and armed escort capabilities.¹⁴⁹

MUCD: UnknownFormer MUCD: 96603Grade: Regiment Leader?Parent Unit: Logistics DepartmentLocation: Kangzhuang Town, Yanqing District, Beijing [北京市延庆区康庄镇]¹⁵⁰Geo: Unknown

Leadership

Commander: Zhang Hongwu [张洪武] (2/15xvi)¹⁵¹ PC: Leng Fuchun [冷富春] (11/16)¹⁵²

Dep Commanders: Unknown

Dep PC: Unknown **PWDD**: Unknown

Chief of Staff: Unknown

Support Div Director: Unknown

Composition

Unknown

xviPossibly dated

PLARF Medical Center [火箭军特色医学中心]

The PLARF Medical Center is the PLARF's primary general hospital. In addition to its peacetime function as a service hospital, it trains to conduct field medical support in wartime, with a 160-man Field Medical Clinic [野战医疗所] capable of rapidly deploying and setting up a field hospital.¹⁵³ It was formerly known as the PLA Rocket Force General Hospital [火箭军总医院] before moving from Haidian District to Xicheng District and changing to its current name in November 2018.¹⁵⁴ The hospital was established in 1954 as the Beijing Military Region 262nd Hospital in May 1954, and was transferred to the 2nd Artillery in May 1997.¹⁵⁴

Grade: Division Leader¹⁵⁵ **Parent Unit:** Logistics Department

Location: 16 Xinjiekou Outer Street, Xicheng District, Beijing [北京市西城区新街口外大街 16号]¹⁵⁶

Geo: 39.95578, 116.3723

Leadership

Director: Zhao Jun [赵军] (11/19)¹⁵⁷ PC: Zhan Guangda [展广大] (6/18)¹⁵⁸

Dep Directors: Zhou Dinghua [周丁华] (12/16)¹⁵⁹; Jiang Weijian [姜卫剑] (2/18)¹⁶⁰

Dep PC: Unknown

Chief of Staff: Unknown PWDD: Zhang Xiuyi [张秀义] (12/18)¹⁶¹

Support Dept Director: Unknown

Former Leadership: Wang Kaiping [王开平], Director (2016)¹⁶²; Luo Shancheng [罗山城], PWDD (2018)¹⁵⁸

Known Composition

- Field Medical Clinic [野战医疗所]
 - o Director: Zhang Rongdong [张蓉动] (12/16)¹⁵³
 - Divided into 8 teams: Command Team, Classification & Evaluation Team, Serious Injury Treatment Team, Patient Receiving & Management Team, Surgical Team, Disease Control & Decontamination Team, Medical Support Team, Logistical Support Team¹⁵³
- Nuclear Emergency Medicine Rescue Group [核应急医学救援大队]
 - Director: Liu Quanbin [刘全斌] (11/19)¹⁵⁷

 Capable of establishing a field response and treating victims in the aftermath of a nuclear strike or nuclear disaster. Hospital staff receive training in NBC response.¹⁶³ ¹⁶⁴

Disease Prevention and Control Center [火箭军疾病预防控制中心]

This Center is a national public sanitation emergency support backbone force¹⁶⁵ providing medical and sanitation support to both the PLARF and civilian communities as needed. It was formed in December 1980 and received its current name in March 2014.¹⁶⁶ Its primary peacetime missions include safeguarding PLARF personnel against occupational hazards such as radiation exposure, exposure to toxic propellants, hazards related to tunneling,¹⁶⁶ and training injuries,¹⁶⁷ as well as being responsible for hygiene and disease prevention and monitoring,¹⁶⁶ food and water sanitation,¹⁶⁷ air pollutants,¹⁶⁷ health education,¹⁶⁶ nutrition,¹⁶⁷ and mental health support.¹⁶⁶ It can deploy to provide sanitation and epidemic prevention support during natural disasters.¹⁶⁵ In wartime, it can deploy with PLARF units to provide medical and disease control support.¹⁶⁵

MUCD: Unknown	Former MUCD: 96615
Grade: Regiment Leader?	Parent Unit: Logistics Department

Location: Haidian District, Beijing 100094 [北京市海淀区]¹⁶⁸

Geo: Unknown

Leadership

Director: Liao Yuanxiang [廖远祥] (8/16) ¹⁶⁵	PC: Unknown
Dep Directors: Unknown	Dep PC: Unknown
Chief of Staff: Unknown	PWDD: Unknown

Support Div Director: Unknown

Former Officers: Liu Quanbin [刘全斌], Dep Director (2016)¹⁶⁹

Known Composition

- Health Supervision Office [卫生监督科]¹⁷⁰
- Environmental Monitoring Office [环境监测科]¹⁷¹
- Mental Health Office [心理卫生科]¹⁷²
- Health Education Office [健康教育科]¹⁷³

Background

- This unit deployed to provide sanitation and epidemic prevention support following the 2008 Wenchuan Earthquake,¹⁶⁹ and also provided hygience support and education to Chinese medical staff returning from Africa during the 2014 Ebola crisis.¹⁷⁴ This unit is fully integrated into the National Public Health System [国家公共卫生体系].¹⁷⁵
- This unit moved from Fangshan District to Haidian District in Beijing in 2015.^{169 176}

Comprehensive Training Base [综合训练基地]

The Logistics Department's Comprehensive Training Base, established in February 1979,¹⁷⁷ serves several purposes for the PLARF. First, it serves as the PLARF's only base for training personnel in various support specialties,¹⁷⁸ including meteorology, communications,¹⁷⁹ camouflage¹⁸⁰, chemical/NBC defense,¹⁸¹ reconnaissance,¹⁸² and survey and mapping.¹⁸³ Further, this base plays an important role in NCO training. It provides training to new NCOs and other enlisted personnel¹⁷⁷ in over 20¹⁸⁰ operations, equipment, and logistics specialties, including finance, armaments, materiel, fuel, barracks, transportation,¹⁷⁸ vehicle testing and repair,¹⁸⁴ and special equipment repair.¹⁸⁰ It is a major training base for the PLARF's direct-recruit NCO program (see below).¹⁸⁰ Further, midlevel and senior NCOs receive mid-career skills training at this base,¹⁸⁰ and NCO School cadets are often sent to this base for field training.¹⁸⁵

MUCD: Unknown Former MUCD: 96625

Grade: Unknown

Parent Unit: Logistics Department

Location: Xuanhua District, Zhangjiakou, Hebei 075100 [河北省张家口市宣化区]¹⁸⁶

Geo: 40.616376, 115.064037

Secondary Garrison:

Kangzhuang Town, Yanqing District, Beijing 102101 [北京市延庆区康庄镇]¹⁸⁷
 Special Vehicle Driver Training Group [特种车司机训练大队]

Leadership

Commander: Unknown PC: Unknown

Dep Commanders: Mao Zhengjun [毛征军] (10/16)188

Dep PC: Unknown

Chief of Staff: Unknown

PWDD: Chu Xinwei [褚新伟] (10/16)¹⁸⁸

Support Dept Director: Unknown

Former Leadership: Li Jianlin [李建林], PC (2017)¹⁸⁹

Known Composition

- 1st Student Group [学兵一大队]
- 2nd Student Group [学兵二大队]
- 3rd Student Group [学兵三大队]
- Special Vehicle Driver Training Group [特种车司机训练大队]
 - PLARF's only training institution for special vehicle drivers

Background

- A 2013 article states that the base accepted 79 chemical defense specialists that year.¹⁸¹ A 2016 article states that in the past two years it has cultivated over 4,000 personnel.¹⁸²
- In 2015, it received its first batch of 118 direct recruit NCOs, who conduct three months of basic and specialist training here¹⁷⁹ following three years of study at civilian academic institutions. By 2017, the number of direct recruit NCOs had risen to over 200.¹⁹⁰
- The base also has a Logistics Equipment Repair Center [后勤装备维修中心], established in 2005, which is responsible for repairs of specialized Logistics Department equipment, dispatching personnel to conduct repairs, and providing emergency support and repairs in wartime.¹⁹¹

Haidian Comprehensive Depot [海淀综合仓库]

This is one of two comprehensive depots in the Beijing area. It is described as the PLARF's only strategic campaign Comprehensive Depot [战略战役综合仓库].¹⁹² It stores, manages, transports, and distributes special equipment, vehicle spare parts, medication, and many other items.^{192 193} One source describes it as the Logistics Department's primary depot for non-mission essential materials and components.^{xvii}

MUCD: UnknownFormer MUCD: 96628Grade: Regiment Leader?Parent Unit: Logistics Department

Location: Haidian District, Beijing 100194 [北京市海淀区]¹⁹⁴

Geo: Unknown

xvii See: Evolving Aerospace Trends in the Asia-Pacific Region, Mark A. Stokes, Ian Easton, Project 2049 Institute, 2010, p. 41

Leadership

Commander: Wang Shijing [王世靖] (2/17)¹⁹²

Dep Commanders: Unknown

Chief of Staff: Unknown

Support Div Director: Unknown

Known Composition

- Special Equipment Branch Depot [特装分库]¹⁹⁶
- Armed Escort Subunit [押运分队]¹⁹⁷

Background

• There is a dearth of sources on this unit after 2017, indicating it may have changed names or been folded into another unit.

Logistics Department Testing, Cultivation, and Training Base for New Agricultural Techniques [火箭军后勤部农业新技术试验培训基地]

The PLARF Logistics Department maintains a base for testing, cultivation, and training in new agricultural techniques in the Daxing suburb of Beijing.¹⁹⁸ The PLA Navy, PLA Air Force, and former military regions maintain their own similar such agricultural bases.¹⁹⁹ Among the priorities for these bases is innovating agricultural techniques to allow work units based in difficult environments to grow their own food, improving personnel diet and nutritional intake.²⁰⁰

MUCD: Unconfirmed, possibly 96951	Former MUCD: Unknown
Grade: Unknown	Parent Unit: Logistics Department
Location: Daxing District, Beijing [北京市大兴区]	1 ¹⁹⁸
Geo: Unknown	
Leadership	
Commander: Unknown	PC : Unknown

PC: Xiang Xueyong [向学勇] (9/16)¹⁹⁵

Dep PC: Unknown

PWDD: Unknown

Composition

Unknown

Background

- This base utilizes military-civil fusion [军民融合] with the Ministry of Agriculture, and is considered a model base for green food production and education.²⁰¹ It produces approximately 12 million kilograms of food products annually, providing nutritious food for and supplementing the food production of individual PLARF units.²⁰¹ (Note: assuming an average of 2kg daily food intake for 100,000 personnel, this would mean this base is supplying rougly one-sixth of the PLARF's food).
- There is some initial evidence this unit may have taken on the MUCD of 96951, although this is not confirmed. Unit 96951 is subordinate to the Logistics Department Directly Subordinate Work Bureau's Management Support Division [直属工作局管理保障处],²⁰² is located in the Beijing area, and is heavily involved in agriculture and green food production.^{202 203}

Guangzhou Special Convalescent Center [火箭军广州特勤疗养中心]

This convalescent center for military personnel opened in December 1987 under the Guangzhou MR.^{204 205} It was resubordinated to the JLSF, presumably around the time of its creation in 2016, then transferred from the JLSF to the PLARF around 2018.²⁰⁶ Formerly known as the Guangzhou Convalescent Hospital, it seems to have taken on its current name around 2019. It appears to serve dual functions of providing convalescent care to personnel,²⁰⁷ including those with drug addiction issues,²⁰⁸ as well as serving as a rest/vacation destination awarded to top cadres.

MUCD: N/A

Former MUCD: N/A

Grade: Division Deputy Leader?

Parent Unit: Logistics Department

Location: 1849 Guangzhou North Ave., Baiyun District, Guangzhou, Guangdong [广东省广州 市白云区广州北大道 1849 号]²⁰⁹

Geo: 23.192229, 113.321186

Secondary Garrisons:

- Zhuhai, Guangdong [广东省珠海市]²¹⁰
 - Zhuhai Branch
- Zhongshan, Guangdong [广东省中山市]
 - o Zhongshan Branch

 Formerly known as PLARF Zhongshan Rest Home [火箭军中山休养院] and now known as either the Zhongshan Convalescent Center [中山疗养中心]²¹¹ or the Guangzhou Special Service Convalescent Center Zhongshan Barracks [广州 特勤疗养中心中山营]²¹²

Leadership

Commander: Unknown

PC: Zou Yuan [邹渊] (12/19)²¹²

Composition

Unknown

Background

• This Center has been translated as both a "Convalescent Hospital"²¹² and a "Sanatorium."²⁰⁸

Emei Convalescent Home [峨眉疗养院]

Previously subordinate to the Chengdu MR, this convalescent home was re-subordinated to PLARF Logistics Department in 2016.²¹³ It serves as a spot for recuperating personnel, as well as a vacation spot awarded to model personnel and their families for exemplary service.

MUCD: N/A	Former MUCD: N/A
Grade: Unknown	Parent Unit: Logistics Department
Location: 3 Jingqu Road, Emeishan, Si	chuan [四川省峨眉山景区路 3 号] ²¹⁴
Geo : 29.556799, 103.448980	

Leadership

Director: Li Lixin [李立新] (9/17)²¹⁵

PC: Chen Tigao [陈提高] (9/17)²¹⁵

Composition

Unknown

PLARF Beidaihe Rest Home [火箭军北戴河休养院]

The Beidaihe Rest Home appears to be primarily tasked with providing a leisure spot for select model personnel and their families. It may also go by the name of Beidaihe Rest Center [北戴河 休养中心]²¹⁶

MUCD: N/A	Former MUCD: N/A
Grade: Unknown	Parent Unit: Logistics Department
Location: Beidaihe District, Hebei [河北省北戴河区]	

Geo: Unknown

Leadership

Commander: Liu Hairu [刘海儒] (11/16)²¹⁷ PC: Wei Zehui [魏泽辉] (11/16)²¹⁷

Composition

Unknown

PLARF Equipment Department [装备部]



Leadership

PLARF Equipment Department Director: Liu Guangbin [刘光斌] (6/19)²¹⁸

PLARF Equipment Department PC: Unknown^{xviii}

Equipment Department Deputy Directors: Zhou Rong [周荣] (4/19)²¹⁹; He Yubin [何玉彬] (8/18)²²⁰

Known Subordinate Bureaus

- Comprehensive Planning Bureau [综合计划局]
 - o Director: Chen Qingyuan [陈庆元] (4/18)²²¹
- Scientific Research and Purchasing Bureau [科研订购局]
 - Dep Director: Liu Shigang [刘士刚] (6/20)²²²
- Experimentation Supervision Bureau [试验监管局]
 - o Director: Guo Hongyu [郭红宇] (2/19)²²³
- Directly Subordinate Work Bureau [直属工作局]
 - Director: Pei Changqing [裴长青] (12/18)²²⁴
 - Dep Director: Zhong Tao [钟涛] (1/18)²²⁵
- Nuclear Technology and Equipment Bureau [核技术装备局]
 - o Director: Ren Jiawei [任家伟] (8/18)²²⁶

Recent Developments

• Former PC Sun Danping may have been named Base 61 PC in 2020.

xviii Per unofficial sources, the new PC may be Li Dexi [李德喜]. This remains unconfirmed.

PLARF Research Academy [火箭军研究院]

The PLARF Research Academy, formerly known as the Equipment Research Academy [装备研 究院],²²⁷ was established in December 2003 by combining several independent research institutes and key labs involved in missile R&D.²²⁷ This is the PLARF's principal institution for weapons and equipment research,²²⁸ overseeing at least six²²⁹ Corps Deputy Leader grade²³⁰ research institutes and seven key labs.²²⁷ The Academy also plays a key role in developing PLARF theory, strategy, strategic development and planning, and equipment procurement planning via a subordinate think tank, the PLARF Strategic Research Center [火箭军战略研究中心], established in 2012.²³¹

MUCD : 96901	Former MUCD/TUD: 96658/Equipment Research Academy
Grade: likely Corps Leader ²³⁰	Parent Unit: Equipment Department
Location: 109 Beiqing Rd., Haidian	District, Beijing [北京市海淀区北清路 109 号] ²³²

PC: Zhuo Ling [卓凌] (2/16)²³⁴

Dep PC: Unknown

PWDD: Unknown

Geo: 40.069126, 116.221423²²⁸

Leadership

Director: Zhang Mingguo [张明国] (8/17)²³³

Dep Directors: Unknown

Chief of Staff: Unknown

Support Dept Director: Unknown

Known Composition

- 1st Institute [一所]
- 2nd Institute [二所]
- 3rd Institute [三所]
- 4th Institute [四所]
 - o Director: Li Xianyu [李贤玉] (3/20)^{230 235}
 - Expert on ballistic missile guidance
- 5th Institute [五所]
- 6th Institute [六所]
- Institute of Engineering Design [工程设计研究所]
 - Responsible for design and engineering of PLARF facilities (see entry)
- PLARF Strategic Research Center [火箭军战略研究中心]

 This think tank works directly with the CMC and includes academics from the PLA Academy of Military Science, National Defense University, top defense contractors CASC and CASIC, the China Academy of Engineering Physics, and Tsinghua University.²³¹

Background

- As of 2018 the Academy had over 1,000 research projects and several hundred personnel dispatched to first line units and test ranges. It has civil-military fusion agreements with over 10 academic institutions and over 50 industrial institutions, including Tsinghua University, Peking University, National University of Defense Technology (NUDT), CASC, and CASIC.²³⁶
- One advisor [顾问] at the Strategic Research Center, Wan Fayang [万发扬], graduated from Harvard Kennedy School and specializes in military foreign relations.²³⁷
- Researcher Wang Xuening [王学宁] is an expert on missile command and control systems.²³⁸
- The 5th Office [五室] under Su Wuyun [苏武运] seems to be involved in R&D of missile reconaissance and damage assessment equipment.²³⁹
- Zhou Hongchao [周宏潮] is director of a key state lab with a focus on weapons testing and assessment research.²⁴⁰
- Yang Weizhong [杨维忠] is the chief engineer in charge of a certain type of missile.²⁴¹ Around the years 2000-2005, he was engaged in developing an informatized command system for a new type of missile, and became chief engineer for a missile type in 2005 (unclear if this was the same missile that he had been working on for the past five years, but seems likely). Around 2010, Yang took part in a test launch for a new missile type.²⁴²

PLARF Research Academy Institute of Engineering Design [火箭军研究院工程设计 研究所]

The Institute of Engineering Design, established in 1958,²⁴³ is primarily responsible for surveying, design, and engineering of PLARF facilities,^{244 245} including tunneling for underground facilities,²⁴⁵ launch sites,²⁴⁶ roads and bridges,²⁴³ and camouflage.^{243 247} By 2018 it had been resubordinated to the PLARF Research Academy [研究院], and is now called the PLARF Research Academy Imprime Design.^{248 249}

MUCD: 96911²⁵⁰

Former MUCD: 96657

Grade: Division Leader or Corps Deputy Leader²⁵¹

Parent Units: Equipment Department; Research Academy

Location: 18 Andeli Rd, Dongcheng District, Beijing 100011 [北京市东城区安德里北街 18 号]²⁵²

Geo: Unconfirmed, possibly 39.956624, 116.387859

Leadership

Director: Unknown	PC: Xu Fengzhong [许凤忠] (11/16) ²⁴⁴
Dep Directors: Unknown	Dep PC: Unknown
Chief of Staff: Unknown	PWDD : Tian Siping [田四平] (8/18) ²⁵³

Support Div Director: Unknown

Former Leadership: Tian Qinglong [田庆龙], Director (2017)²⁵⁴; Liu Minghua [刘明华], Political Dept Director (2015)²⁴⁷

Known Composition

- 1st Office [一室]
- 2nd Office [二室]
- 3rd Office [三室]
- 4th Office [四室]
- 5th Office [五室]
- 6th Office [六室]
- 7th Office [七室]
- 8th Office [八室]
- 9th Office [九室]
- Surveying Team [勘测队]^{255 256}
 - Battalion Leader Grade²⁵⁶
 - \circ Re-subordinated to this Institute in 2012²⁵⁷

Background

 This Institute has a working agreement with the China Astronaut Scientific Research and Training Center [中国航天员科研训练中心], which appears to be part of the Strategic Support Force.²⁵⁸

Unit 96902 [96902 部队]: possible Jinlun Engineering Command Department [金轮 工程指挥部]

Unit 96902 is a large but rather mysterious unit about which little has been publicly stated. It is involved in a wide range of research, including medical (disease control, mental health, pharmacology, etc.), equipment support, communications, navigation, basic research in physics, and social sciences.²⁵⁹ It remains unclear exactly what role this institution plays in the greater PLARF research environment, given the high degree of overlap in its research with other institutions. This unit is also closely associated with the Jinlun Engineering Command Department [金轮工程指挥部] (and may in fact *be* the Jinlun Engineering Command Department), which is responsible for overseeing missile exports to Saudi Arabia, although the exact nature of this relationship remains unclear.

MUCD: 96902

Former MUCD/TUD: 96819

Grade: Corps Deputy Leader²⁶⁰

Parent Unit: Equipment Department

Location: 2 Heping Road, Chaoyang District, Beijing 100015 [北京市朝阳区和平路 2 号]^{261 262}

Geo: 40.019176, 116.520438²⁶³

Secondary Garrisons:

- Changxing Island Economic Zone, Dalian, Liaoning [辽宁省大连市长兴岛经济区]²⁶⁴
- Qianshao Village, Jiaoliu Island, Lingang Industrial Zone, Wafangdian District, Dalian, Liaoning [辽宁省大连市瓦房店区临港工业区交流岛办事处前哨村]²⁶⁵
 - o Described as an "External" or "Foreign" Training Base [外训基地]

Leadership

Director: Unknown

PC: Jiang Jinglian [姜京连] (2/18)²⁶⁶

Dep Directors: Guo Jinhu [郭金虎] (1/19)²⁶⁷; Li Yuping [李玉平] (4/19)²⁶⁰

Dep PC: Unknown

Chief of Staff: Unknown

PWDD: Liu Runran [刘润然] (9/17)²⁶⁸

Support Dept Director: Unknown

Other Senior Leadership: Gan Min [干敏], Jinlun Engineering Command Dept Director (4/16)²⁶⁹

Known Composition

- Unit 96829
- Unit 96839
- "External Training Base" [外训基地]
 - According to a single reference in an online directory of PLA guesthouses, this unit has a guesthouse for its "External Training Base" (which can also be translated as "Outside" or "Foreign" Training Base) in Dalian's Qianshao Village.²⁶⁵ No further information about the purpose of this base could be found. Given Jinlun Engineering's history of exporting ballistic missiles to Saudi Arabia, the concept of it running a "Foreign Training Base" would be intriguing, but so far lacking in further evidence.
- Comprehensive Planning Department [综合计划部]²⁷⁰
- Translation Group [翻译大队]²⁷¹
- Advisory Experts Center [顾问专家中心]²⁷²
- Medical Clinic Department [门诊部]²⁷³

Background

- The Jinlun Engineering Company [金轮工程公司] was allegedly established in the 1980s as a front for exporting DF-3 MRBMs to Saudi Arabia and facilitating their deployment in-country, including engineering support and training of Saudi personnel. PLA personnel deployed to two Saudi bases at Al Sulaiyil and Al Joffer, where they have allegedly maintained a permanent presense. In 2007, the PLA again exported DF-21 MRBMs to Saudi Arabia. In 2016 the "Jinlun Engineering Command Department" was publicly acknowledged for the first time, with Gan Min as commander.^{269 274 275}
- While definititve proof connecting this unit to Jinlun Engineering remains tantalizingly out of reach, there are several interesting pieces of evidence. First, an unofficial source names the subordinate Unit 96829 as the "Jinlun Engineering Training Brigade" [金轮工程训练 旅].²⁷⁶ Second, a 2016 article names Gan Min as the new Jinlun Engineering commander. A photo of Gan shows that he is a Corps Deputy Leader grade officer.²⁶⁹ Since Unit 96902 is likely a Corps Deputy Leader grade organization itself, it stands to reason that Jinlun Engineering and Unit 96902 are one and the same. Third, a 2015 court case shows this unit's Logistics Department Director serving as an official representative for Jinlun Engineering in negotiations.²⁷⁷ Finally, searching for Jinlun Engineering alongside the unit's MUCD in Google brings up a number of old articles which appear to have been meticulously scrubbed from the internet.

Unit 96922 [96922 部队]: possible Jinlun Engineering Command Department Training Brigade [金轮工程指挥部训练旅]

According to a single unofficial source, Unit 96922 is called the Jinlun Engineering Command Department Training Brigade.²⁷⁶ Jinlun Engineering is allegedly responsible for missile exports to Saudi Arabia, so it remains unclear what this unit's exact role is.

02	
Secondary Garrison: Ji'an, Jilin [吉林省集安市] ²⁸⁰	

Leadership

Commander: possibly Chu Xiangdong [初向东] (3/16)²⁸¹

PC: possibly Liu Gangyong [刘刚勇] (2/16)²⁸²

Dep Commanders: Unknown Dep PC: Unknown

Chief of Staff: Unknown PWDD: Du Chao [杜超] (8/19)²⁷⁹

Support Dept Director: Unknown

Known Composition

- 1st Battalion [一营]
- 2nd Battalion [二营]²⁸³
- Site Management Battalion [阵管营]²⁸⁴

xixHas a Political Work *Department*, indicating at least a Division Deputy Leader grade, instead of a *Division*, indicating a Regiment Leader grade.

Background

- Two videos from this unit's Ji'an location show the unit's delegation being led by a lieutenant colonel in one video,²⁸⁰ and a Senior Colonel, Sun Qingjing [孙庆景], in another.²⁸⁵
- The MUCD sequence and overlapping locations suggest that it is subordinate to Unit 96902.

Unit 96923 [96923 部队]

No further information available. The MUCD sequence and location, in the same village where Unit 96902's "External/Foreign Training Base Guesthouse"²⁶⁵ is located, suggests that it is subordinate to Unit 96902. Unit 96902 is connected to Jinlun Engineering, which is responsible for missile exports to Saudi Arabia. Given the possible translation of an External or Foreign Training Base, this could be a clue as to this unit's purpose.

MUCD: 96923

Former MUCD/TUD: 96839

Grade: Unknown 96902

Parent Unit: Equipment Department; Unit

Location: Qianshao Village, Jiaoliu Island Subdistrict, Lingang Industrial Zone, Changxing Island, Dalian, Liaoning [辽宁省大连市长兴岛临港工业区交流岛街道前哨村]²⁸⁶

Geo: Unconfirmed, possibly 39.379799, 121.357420

Leadership

Commander: Unknown

PC: Unknown

Composition

Unknown

Equipment Department Metrological Station [计量站]

The PLARF Metrological Station, established around 1988, ²⁸⁷ is the PLARF's highest organization²⁸⁸ responsible for verification and precision calibration of weapons and equipment, ensuring equipment and facility standards, and conducting relevant repairs and scientific research. Its repair mission may focus on certain types of complex precision equipment like missile laser targeters,²⁸⁹ as well as certain missile parts, launch vehicles, and support equipment.²⁸⁸

MUCD: possibly 96961Former MUCD: 96604Grade: Regiment LeaderParent Unit: Equipment DepartmentLocation: Xisanqi Subdistrict, Haidian, Beijing 100192 [北京市海淀区西三旗街道]^{290 291}Geo: 40.035056, 116.359358²⁹²Secondary Garrison: Lishui District, Nanjing, Jiangxi [江西省南京市溧水区]²⁹³

Leadership

Director: Zhao Hemin [赵和民] (6/18) ²⁹⁴	PC: Zhuang Keting [庄可亭] (8/17) ²⁹⁵
Dep Directors: Wang Haicheng [王海成] (7/18) ²⁹⁶	Dep PC: Unknown
Chief of Staff: Unknown	PWDD: Zhao Man [赵曼] (4/18) ²⁸⁷
Support Div Director: Unknown	

Known Composition

- 1st Measurements Verification Subunit [第一计量检定分队]
 - These subunits provide inspections and mobile maintenance support to missiles and other support equipment²⁸⁸
 - Mobile measurements support vehicles [计量保障车] are able to provide on-site missile verification, calibration, and repair support in the field²⁹⁷
- 2nd Measurements Verification Subunit [第二计量检定分队]
- 3rd Measurements Verification Subunit [第三计量检定分队]
- 4th Measurements Verification Subunit [第四计量检定分队]
- 5th Measurements Verification Subunit [第五计量检定分队]
- 6th Measurements Verification Subunit [第六计量检定分队]²⁸⁸

Background

- This station has military-civil fusion [军民融合] agreements with the CASC China Aerospace Academy of Systems Science and Engineering [航天系统], the National Metrological Science Research Academy [国家计量科学研究院], China Jiliang University [中国计量大学], and the Rocket Force Engineering University [工程大学].²⁹⁸
- This Station repaired 140 precision targeters between 2008-2010.²⁸⁹

Equipment Department Inspection and Repair Center [检测维修中心]

This unit is responsible for missile inspection and repair, with a focus on solid rocket engines.²⁹⁹ The Center's Quality Inspection Office [质量检测室]³⁰⁰ uses road mobile X-Ray,³⁰¹ ultrasound,³⁰² and rapid scanning CT equipment³⁰³ to scan and diagnose issues with multiple missile types. It is also responsible for missile command and control system repair, rapid emergency missile repairs,³⁰⁴ missile lifespan monitoring and warning, and missile renovation³⁰⁵ and life extension.

MUCD : 96962	Former MUCD : 96630	
Grade: Division Deputy Leader? ^{xx}	Parent Unit: Equipment Department	
Location : Three Stars Courtyard, Qiliqu North Village, Changping District, Beijing 102206 [北 京市昌平区沙河镇七里渠北村三颗星大院] ³⁰⁵		

Geo: 40.108877, 116.325942³⁰⁶

Secondary Garrison: Langfang, Hebei [河北省廊坊市]³⁰⁷

Leadership

Commander: Lu Tingzhen [路廷镇] (3/18)308

Dep Commanders: Unknown

Chief of Staff: Liu Ming [刘明] (12/16)³⁰⁹

PC: Lu Xiaoping [卢小平] (3/18)³⁰⁸

Dep PC: Unknown

PWDD: Xu Tianji [徐天骥] (1/18)³⁰⁰

Support Dept Director: Unknown

Other Senior Leadership: Zhang Jin [张晋], Dep COS (4/16)³¹⁰

Composition

- 1st Station [一站]
- 2nd Station [二站]
- 3rd Station [三站]³¹¹
- Quality Inspection Office [质量检验室]
 - o Director: Li Wei [李伟] (1/18)³⁰⁰
- Inspection and Repair Technical Office [检测维修技术室]
 - Director: Jia Qinglong [贾庆龙] (1/18)³⁰⁰

^{xx}Has a Political Work *Department* [部], indicating at least a Division Deputy Leader grade, instead of a *Division* [处], indicating a Regiment Leader grade.

- Support Office [保障室]
 - o Director: Niu Yupeng [牛余朋] (1/18)³⁰⁰

Background

- It is described by one source as the PLARF's only repair unit for a certain type of equipment.¹⁰²
- This unit was responsible for refitting of a missile type with new engines around summer 2016.³¹²
- Missiles are both inspected at the Center as well as on-site, using mobile inspection vehicles with the above mentioned equipment. The Center's Inspection Office has 20 engineers, including five PhDs and seven master's graduates.³¹³
- This unit may have previously been known as the 2nd Artillery Solid Missile Engine Inspection and Repair Station [固体导弹发动机检测维修站].³¹⁴

Armaments and Radar Repair Depot [军械雷达修理所]

The Armaments and Radar Repair Depot is responsible for conducting mobile repairs³¹⁵ and regular testing and maintenance of at least 13 types of radar, including warning, meteorology, reconnaissance, ballistic measurement,³¹⁶ and hypsography³¹⁷ radars.

MUCD : 96963	Former MUCD : 96602
Grade: Regiment Leader	Parent Unit: Equipment Leader
Location: Xilu Subdistrict, Fangshan District, Beijing 102488 [北京市房山区西潞街道] ³¹⁸	

Geo: Unconfirmed, possibly 39.754387, 116.167743

Leadership

Commander: Zhao Jinhu [赵金虎] (6/18)³¹⁹ PC: Zhong Shuping [钟树平] (11/17)³²⁰

Dep Commanders: Gao Ping'an [高平安] (11/17)³²⁰, Tang Zehua [唐泽华] (9/19)³¹⁸

Dep PC: Unknown

Chief of Staff: Unknown

PWDD: Unknown

Support Div Director: Unknown

Composition

Unknown

Background

- Li Xiaojun [李效军] is a model personnel^{xxi} from this unit.³²¹
- As of 2019, this unit has a presence in Shangrao, Jiangxi, indicating a possible merger with Unit 96623.³²² This has not yet been confirmed.

Repair and Measurements Regiment [维修计量团]

The Equipment Department's Repair and Measurements Regiment, likely established around 2007,³²³ is responsible for inspection, testing, measurement,³²⁴ and repair of "special" equipment [特种设备].³²⁵ This includes tunneling equipment,³²⁵ missile components, vehicles (including missile loading vehicles),³²³ and missile launch sites.³²⁴ This unit may have merged with the Armaments and Radar Repair Depot (former 96602) to become Unit 96963,³²⁶ but this has not been confirmed.

MUCD: 96963?

Former MUCD: 96623

Grade: Regiment Leader

Parent Unit: Equipment Department

Location: Luoqiao Subdistrict, Guangxin District, Shangrao, Jiangxi 334109 [江西省上饶市广 信区罗桥街道]³²⁷

Geo: Unconfirmed, possibly 28.470223, 117.884540

Secondary Garrisons:

- Zhanggong District, Ganzhou, Jiangxi 341002 [江西省赣州市章贡区]³²⁸
 ^o 2nd Repair Station [维修二站]
- Laiwu District, Jinan, Shandong [山东省济南市莱芜区]³²⁹

Leadership

Commander: Liu Bo [刘波] (6/18)³³⁰

PC: Zhang Guo [张国] (6/15)³²⁴

Dep Commanders: Unknown

Dep PC: Unknown

^{xxi}That is, a personnel who is held up as an ideal in PLA media, and who frequently stars in PLA propaganda

Chief of Staff: Unknown

PWDD: Unknown

Support Div Director: Unknown

Former Leadership: Liu Shigang [刘士刚], Commander (2017)³³¹

Known Composition

- 1st Measurement and Inspection Station [计量检测一站]
- 2nd Measurement and Inspection Station [计量检测二站]
- 3rd Measurement and Inspection Station [计量检测三站]³³⁰
- 1st Repair Station [维修一站]
- 2nd Repair Station [维修二站]³²⁸

Background

- This regiment underwent a major structural reorganization in 2013 which saw it lose much of its experienced backbone talent.³²⁴
- This unit is apparently located nearby (and may even be co-located with) the Base 61 Missile Component Depot. This would of course be logical, to place the unit responsible for missile testing near the large stockpile of missiles. Units 96623 and 96815 also apparently both have corresponding subordinate garrisons at Ganzhou and Fenggangxiang which are either closeby or co-located with one another.

Technical Service Group [技术勤务大队]

The Equipment Department Technical Service Group is responsible for missile testing, ³³² storage, ³³³ site management, transport, and armed escort.³³⁴ The unit conducts annual inspections and verifications of multiple missile types, transporting missiles to and from operations sites to unit factories for inspection.³³⁵

MUCD : 96964	Former MUCD : 96612
Grade: Regiment Leader	Parent Unit: Equipment Department
Location: Xuanhua District, Zhangjiakou, Hebei	[河北省张家口市宣化区]336
Geo: Unknown	
Leadership	
Commander: Liu Guoliang [刘国良] (8/17) ³³⁷	PC : Unknown
Dep Commanders: Unknown	Dep PC: Unknown

Chinese Aerospace Studies Institute

Chief of Staff: Unknown

PWDD: Unknown

Support Div Director: Unknown

Former Officers: Zhai Weixiang^{xxii} [翟唯翔], PC (2018)³³⁸

Known Composition

- Experimental Test Squadron [试验测试中队]³³⁴
- Rail Transport Squadron [铁运中队]³³⁹
 - 。 Commander: Liu Zhongyan [刘忠言] (1/18)³⁴⁰
 - \circ Has its own dedicated rail line, which underwent major renovations in 2010³⁴¹
 - Conducts over 30 escort missions each year, covering 200,000km³⁴⁰
- Vehicle Service Squadron [汽车勤务中队]
 - o Commander: Fan Hongzhang [范鸿章] (8/18)³⁴²
- Management Squadron [管理中队]³⁴³

Background

• By the end of 2016, a typical test and verification mission took as little as 8-12 days³³⁵ (contextually, a major reduction in time needed to transport the missile back to the factory, inspect it, and transport it back). It seems that some missiles undergo annual inspections [年检], while others undergo inspections every ten years.³⁴⁴

Reserve Equipment Repair Group [预备役装备维修大队]

This reserve unit was likely established around 2005.³⁴⁵ It is described as a "new type" of reserve unit, with a greater scope, longer mobilization range, and a large number of experts, along with more complex maintenance demands.³⁴⁶ It provides maintenance support for missile launch equipment to several launch brigades,³⁴⁶ deploying several (up to 10) times per year along with these brigades for joint training lasting from 1-2 weeks to several months.³⁴⁶

MUCD: N/A	Former MUCD: N/A
Grade: Regiment Leader	Parent Unit: Equipment Department

Location: Wenquan Town, Haidian District, Beijing [北京市海淀区温泉镇]³⁴⁷

Geo: Unconfirmed, possibly 40.029716, 116.237352

^{xxii}Alternative possible spelling of name: Di Weixiang

Leadership

Commander: Jia Huaiwei [贾怀玮] (6/20)³⁴⁵ PC: Xu Zhongjun [徐中军] (8/18)³⁴⁸ Dep Commanders: Xu Yongquan [徐永全] (7/15)³⁴⁹ Dep PC: Unknown Chief of Staff: Jiang Zeyao [姜泽耀] (3/17)³⁵⁰ PWDD: Unknown Support Div Director: Unknown Other Senior Leadership: Liu Guoqing [刘国庆], Dep COS (6/18)³⁵¹

Composition

Unknown

Background

- This unit made efforts to recruit the very engineers who had helped design the equipment, selecting several hundred personnel from 89 work units across 23 provinces/cities. "Several tens" of the personnel are senior engineers (formerly?) holding the rank of specialist technical senior colonel,³⁴⁶ some of whom are over 50 years old.³⁵² The unit recruited by first going to the launch brigades and figuring out which equipment they would need to maintain, then going out and recruiting personnel capable of repairing that specific equipment.³⁴⁶
- This unit's duties also include local emergency and disasaster response. It has an emergency subunit [应急分队]³⁵⁰ made up of both reserve and active duty personnel and responsible for emergency response. It is also a part of the Beijing Emergency Group [北京市应急大队], as well as the Beijing-PLARF Reserve Earthquake and Emergency Rescue Team [北京火箭军预备役地震应急救援队], which it formed along with the Beijing and Haidian governments and the private Baofu Group [保福集团].³⁵³
- This unit has a close relationship with the Haidian District government. At least two of its senior personnel are also senior officials in the Haidian government.^{346 349}
- This unit has also practiced joint operations by integrating into the Central Theater Command and has provided support for the Central Theater Command Air Force and SSF.³⁵⁴
- There was initially some concern about whether a reserve unit with personnel scattered across China would be able to quickly mobilize, so in May 2014 it held a drill in which 240 personnel were rapidly called up and had to muster at a location in northern China. Upon being called up, personnel quickly boarded trains and planes and all had arrived by evening the next day. The unit holds several such rapid mobilization drills every year.³⁴⁶

• Another drill around July 2018 saw nearly 100 reserve personnel from 44 factories being integrated into an active duty unit and working seamlessly with that unit during a drill, with no distinction between reserve and active duty personnel.³⁵⁵

Reserve Special Equipment Repair Group [预备役特种装备维修大队]

This group was established in December 2005^{356 357} as a new type of reserve force³⁵⁸ focused on integrating with active units to provide repair of missiles,³⁵⁷ vehicles,³⁵⁹ and other high-tech equipment.³⁶⁰ It was the 2nd Artillery's first such reserve unit.³⁶¹ Personnel from across China can be assembled within 24 hours³⁶² and can be attached as needed to grassroots work units, including launch elements, command posts, and repair factories to augment and improve independent repair and maintenance support capabilities.^{362 363} The unit regularly deploys for joint training with active duty launch and support units.³⁶⁴

MUCD: N/A	Former MUCD: N/A	
Grade: Regiment Leader?	Parent Unit: Equipment Department	
Location: Ganjiang New District, Nanchang, Jiangxi [江西省南昌市赣江新区] ^{365 366}		
Geo: Unknown		
Leadership		
Commander: Lai Chuncai [赖春材] (7/18) ³⁶⁷	PC: Wang Maobai ^{xxiii} [王茂柏] (1/18) ³⁶⁸	
Dep Commanders: Unknown	Dep PC: Unknown	
Chief of Staff: Unknown	PWDD : Unknown	
Support Div Director: Unknown		
Other Senior Leadership: Gan Weimin [甘伟民] ^{xxiv} (3/15), Dep COS ³⁶¹		

Former Leadership: Ding Zhaolong [丁兆龙], Dep Commander (2015)³⁶⁹

Composition

Unknown

xxiiiAlternative possible spelling of name: Wang Maobo

xxivAlso Deputy Director of Nanchang Traffic Bureau

Background

- This unit includes nearly 1,000 technical experts from 11 provinces and 58 factories and research institutions.³⁶⁴ Another source states that it includes 700 experts just from CASC and CASIC.³⁶⁷ 27% of its personnel are senior engineers, 35% are engineers, and 38% are assistant engineers.³⁶⁴ This cooperation is described as an excellent example of military-civil fusion [军民融合].³⁵⁸
- From 2006-2016 it took part in over 30 major missions, supporting 170 conventional and nuclear missile launches.³⁵⁶ In one drill, 81 reserve personnel integrated into six conventional launch brigades.³⁵⁷

Equipment Department Representative Bureaus [装备部军事代表局]

The PLARF Equipment Department maintains several Military Representative Bureaus (MRB) [火箭军军事代表局] in cities across China, responsible for working with local industries to ensure quality control and smooth delivery of military equipment to the PLARF. There are also smaller Military Representative Offices [军代室] in multiple cities, factories, and research institutes.

Identified PLARF Military Representative Bureaus (8):

- Beijing
 - o Deputy Director: Wei Jinxian [魏锦先] (9/17)³⁷⁰
 - \circ May be the largest and most important MRB, with 21 subordinate offices³⁷¹
 - Responsible for inspecting over half of the PLARF's weaponry and over 100 local factories and research institutions³⁷¹
- Chengdu, Sichuan
 - Director: Liao Ping [廖平] (1/19)³⁷²
 - Division Deputy Leader grade³⁷²
- Chongqing³⁷³
- Liuzhou, Guangxi
 - Director: Song Wenzhong [宋文忠] (12/17)³⁷⁴
- Nanjing, Jiangsu
 - PC: Zhai Weixiang^{xxv} [翟唯翔] (2/19)²²³
- Shanghai³⁷⁵
- Shenyang, Liaoning³⁷⁶
- Xi'an, Shaanxi
 - o Director: Su Baoying [苏保营] (8/18)³⁷⁷
 - PC: Li Wencong [李文聪] (1/18)³⁷⁸

xxvAlternative possible spelling of name: Di Weixiang

• Division Deputy Leader grade³⁷⁷

Identified PLARF Military Representative Offices (14):

- Changsha, Hunan
 - o Director: Chen Minghui [陈明辉] (12/17)³⁷⁹
 - Consists of over ten cadres responsible for over 30 factories and research institutions³⁷⁹
- Changzhi, Shanxi
 - o Director: Zhang Zaijin [张在进] (10/18)³⁸⁰
 - Division Deputy Leader grade³⁸⁰
- Guiyang, Guizhou
 - o Director: Kang Bin [康斌] (4/18)³⁸¹
- Harbin, Heilongjiang³⁸²
- Hohhot, Inner Mongolia
 - Director: Cheng Guokui [成国奎] (6/17)³⁸³
 - Division Deputy Leader grade³⁸⁴
 - Six-man team (as of 2016) responsible for overseeing three factories producing over ten pieces of equipment³⁸⁴
- Jinan, Shandong³⁸⁵
- Jinzhou, Liaoning³⁸⁶
- Lanzhou, Gansu³⁸⁷
- Qingdao, Shandong³⁸⁸
- Shenzhen, Guangdong³⁸⁹
- Shijiazhuang, Hebei³⁹⁰
- Tianjin³⁹¹
- Xiaogan, Hunan³⁹²
- Zhengzhou, Henan
 - o Director: Shang Jiyao [尚计尧] (5/19)³⁹³

PLA Rocket Force Equipment Department Retirement Home [火箭军装备部清河干 休所]

The PLARF Equipment Department runs a home for retired cadres in Qinghe, Beijing. It may now be known as the Beijing Garrison District Haidian 27th Home for Retired Cadres [北京卫戍区海 淀第二十七离职干部休养所].³⁹⁴ There is also a PLA Rocket Force Beijing Qinghe Home for Retired Cadres [火箭军北京清河离职干部休养所] which may be referring to the same work unit.³⁹⁵

MUCD: N/A

Former MUCD: N/A

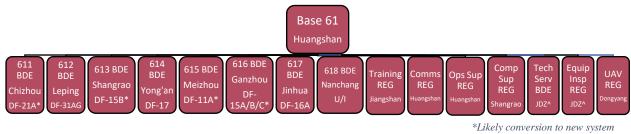
Grade: UnknownParent Unit: Equipment DepartmentLocation: Beijing Garrison, Haidian District, Beijing [北京市海淀区卫戌区]³⁹⁴Geo: Unknown

Leadership

Director: Li Ming [李明] (1/15)³⁹⁶

PC: Jiang Dongjun [姜东军] (5/16)³⁹⁷

Base 61 [61 基地]



^Jingdezhen City

Base 61, first established in 1965³⁹⁸ and currently headquartered in the eastern Chinese city of Huangshan, is an operations base covering eastern and part of southeastern China. The Base's operating area adjacent to the Taiwan Strait, and its large number of SRBM brigades, indicates that it would be the primary base tasked with ballistic missile operations in a conflict against Taiwan. Until recently, this Base commanded two nuclear MRBM brigades and five SRBM brigades. However, most of the Base's brigades have since likely upgraded to new systems. 612 Brigade is likely now equipped with the DF-31AG, and 611 Brigade may soon follow suit (possibly with some variant of the DF-31) as the DF-21A is retired. 614 Brigade is now believed to be equipped with the DF-17 hypersonic MRBM. 613, 615, and 616 Brigades may also soon be equipped with new systems. Further, as of this writing there is initial evidence that an eighth brigade is currently being stood up around Nanchang, Jiangxi Province, although little information is available. The Base also has a unique support system, with a brigade responsible for testing and transport of its high number of short-range conventional missiles, and its own UAV regiment for ISR over the Taiwan Strait.

MUCD: 96601

Former MUCD/TUD: 96151 (Base 56)

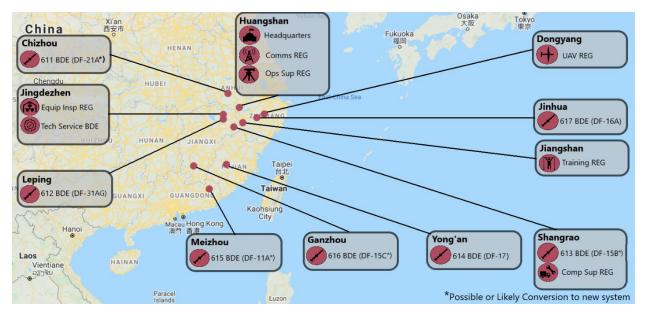
Grade: Corps Leader³⁹⁹

Location: 40 Hongxing Rd, Yanghu Town, Tunxi District, Huangshan, Anhui [安徽省黄山市屯 溪区阳湖镇红星路 40 号]^{400 401}

Geo: 29.695635, 118.300243⁴⁰²

Secondary Garrison:

Shangrao, Jiangxi [江西省上饶市] (possibly 28.464326, 117.879419, near 613 Bde)
 o Base 61 Driver Training Battalion [司训营]⁴⁰³



Leadership

Commander: Zhao Qiuling [赵秋领]^{xxvi} (1/20)⁴⁰⁴ PC: Sun Danping [孙旦评] (1/20)⁴⁰⁵

Dep Commanders: Zhang Jianqiang [张建强] (1/20)⁴⁰⁴; Yang Guang [杨光] (1/20)⁴⁰⁴

Dep PC: Li Yang [李阳] (8/19)406

Chief of Staff: Li Youcheng [李友成] (8/18)⁴⁰⁷ PWDD: Liu Weiyun [刘惟云] (10/18)⁴⁰⁸

Support Dept Director: Shi Xiangyang [施湘阳] (1/20)404

Other Senior Leadership: Wang Baocai [王保才], Dep COS (1/20); Sun Nianfa [孙念发] (11/19), Support Dept Dep Director⁴⁰⁹; Chen Feng [陈峰] (12/19), Support Dept Dep Director⁴¹⁰; Liu Wuchun [刘午春] (11/19), Support Dept Dep Director^{411 xxvii}

Former Leadership: Li Hongjun [李洪军], Commander (2017)⁴¹²; Zhao Ruibao [赵瑞宝], PC (2017)⁴¹²; Sun Jinming [孙金明], Dep Commander (2017)⁴¹²; Zhu Chuanfa^{xxviii} [朱传法], Dep PC (2018)⁴¹³; Yang Chunguang [杨春光], Dep PC (2017)⁴¹²; Hong Bing [洪兵], PWDD (2017)⁴¹²; Ai Chuan [艾川], Logistics Dept Director (2017)⁴¹⁴; Xu Deli [徐德立], PWD Dep Director (2020)⁴¹⁵

xxvi Zhao was until recently commanding Base 65. Recent evidence suggests he has been promoted to the Corps Leader Grade Base 61.

xxvii It seems unusual that this Base's Support Department would have three Deputy Directors. Perhaps this is related to the Base's uniquely large support structure and relatively high numbers of missiles?

xxviiiAlternative possible spelling of name: Zhu Zhuanfa

Known Composition

- 611 Brigade [611 旅]
- 612 Brigade [612 旅]
- 613 Brigade [613 旅]
- 614 Brigade [614 旅]
- 615 Brigade [615 旅]
- 616 Brigade [616 旅]
- 617 Brigade [617 旅]
- Training Regiment [训练团]
- Communications Regiment [通信团]
- Operations Support Regiment [作战保障团]
- Comprehensive Support Regiment [综合保障团]
- Missile Technical Service Brigade [导弹技术勤务旅]
- Equipment Inspection Regiment [装检团]
- UAV Regiment [无人机团]
- Driver Training Battalion [司训营]
 - See location info above
- Special Operations Security Training Team [特种警卫集训队]
 - This Team has cultivated over 200 security backbone personnel in antireconnaissance, anti-infiltration, and anti-raiding.⁴¹⁶
- Unit 96601 Hospital

Background

- This base was first established as Unit 121 in August 1965 in Guangyang Township, Shitai County, Anhui. It was developed by the 303 Engineering Command in June 1966.³⁹⁸
- This base's makeup of mostly SRBM brigades has led to a unique support structure vis a vis the other five operations bases. Unlike most other bases, it has not only retained its Technical Service Regiment, but upgraded it to a Missile Technical Service Brigade, likely due to the large number of SRBMs this base would need to test and transport. It is also unique for having its own subordinate UAV regiment, likely responsible for ISR, targeting, and missile damage assessment over Taiwan.

611 Brigade [611 旅]

The 611 Brigade, garrisoned in the eastern Chinese city of Chizhou, was established around 1968. As of recently, it was equipped with the nuclear DF-21A MRBM, but it may soon be equipped with a new system, possibly some variant of the DF-31.

MUCD: 96711

Former MUCD/TUD: 96161 (807th Launch Brigade^{417 xxix})

Grade: Division Deputy Leader⁴¹⁸ **Parent Unit:** Base 61

Location: Xinhe Town, Qingyang County, Chizhou, Anhui 242803 [安徽省池州市青阳县新河镇]^{419 420 421}

Geo: 30.689928, 117.901269⁴¹⁸

Secondary Garrisons:

- Shitai County, Chizhou, Anhui 245108 [安徽省池州市石台县]⁴²²
- Guichi District, Chizhou, Anhui [安徽省池州市贵池区]⁴²³

Capabilities

Missile: DF-21A MRBM⁴²⁴; likely imminent conversion to new system

Missile Type: Nuclear; Road-mobile

Leadership

Commander: Lu Wenlong [鹿文龙] (12/19)⁴²⁵ **PC**: Wei Xingjie [卫星杰] (5/19)⁴²⁶

Dep Commanders: Cao Jinxu [曹金绪] (9/18)⁴²⁷; Meng Fengyu [孟峰玉] (7/17)⁴²⁸; Yan Qiye [闫其叶] (4/17)⁴²⁹

Dep PC: Wang Xiaoke [汪晓课] (12/18)⁴³⁰

Chief of Staff: Unknown

PWDD: Chen Kai [陈凯] (8/18)⁴³¹

Support Dept Director: Gong Xuming [巩绪明] (2/18)432

Other Senior Leadership: Du Jianbao [杜建宝], Dep COS (4/17)⁴³³; Wang Hao [王皓], Pol Work Dept Dep Director (2017)⁴³³

Former Leadership: Chen Zaiwang [陈在望], Commander (2016)⁴³⁴; Huang Changping [黄长平], PC (2018)⁴³⁵; Liu Lei [刘磊], COS (2017)⁴³⁶

xxixAll brigade former TUDs come from: David C. Logan, "Making Sense of China's Missile Forces, Chairman Xi Remakes the PLA: Assessing Chinese Military Reforms", NDU Press, 2019. 404-405. https://ndupress.ndu.edu/Media/News/News-Article-View/Article/1748530/making-sense-of-chinas-missile-forces/

Composition (presumed)^{xxx}

- 1st Launch Battalion [发射一营]
 - Commander: Wan Xinliang [万新亮] (6/18)⁴³⁷
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
 - Political Instructor: Xu Yajian [许亚健] (1/18)⁴³⁸
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
 - Political Instructor: Geng Tianhua [耿天华] (1/18)⁴³⁹
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]
 - Comprehensive Defense Company [综合防护连]⁴²⁷
 - 。 Commander: Wu Huibin [吴慧斌] (9/18)427
- New Soldier Battalion [新兵营]
 - Responsible for replacement training [代训] for multiple subordinate work units, training 600 new personnel in one year^{440 441}

612 Brigade [612 旅]

The 612 Brigade moved to the eastern Chinese city of Leping in the 2008-2012 timeframe. As of recently, it was equipped with the nuclear DF-21A MRBM, but it may already be equipped with a new system, likely the DF-31AG ICBM.

MUCD: 96712 Former MUCD/TUD: 96163 (811th Launch Brigade)

Grade: Division Deputy Leader Parent Unit: Base 61

Geo: 28.979319, 117.120551⁴⁴⁴

^{xxx}In the case of Missile Brigades and some other unit types, sufficient examples exist to create an accurate composite example of that unit type. *Presumed* compositions in this report represent the estimated structure based on multiple examples.

Secondary Garrisons:

- Anling Town, Qimen County, Anhui [安徽省祁门县安凌镇]⁴⁴⁴
- Qingyang County, Chizhou, Anhui [安徽省池州市青阳县]⁴⁴⁵

Capabilities

Missile: Previously DF-21A MRBM^{446 447}; likely converting to DF-31AG ICBM^{xxxi}

Missile Type: Nuclear; Road-mobile

Leadership

Dep Commanders: Pan Yong [潘勇] (12/17)⁴⁵⁰ **Dep PC**: Chen Hao [陈浩] (10/17)⁴⁵¹

Chief of Staff: Zhang Guobing [张国兵] (9/17)⁴⁵² PWDD: Zhu Jiaguang [祝家光] (1/19)⁴⁵³

Support Dept Director: Li Yuqiang [李玉强] (7/16)454

Other Senior Leadership: Ma Chao [马超], Dep COS (12/17)⁴⁵⁰; Jiang Zhicheng [姜志成], Pol Work Dept Dep Director (12/19)⁴⁵⁵

Former Leadership: Wang Xingli [王性利], Commander (2018)⁴⁵⁶; Yue Jijun [岳继军], PC (2018)⁴⁵⁷; Wang Yunyong [王云勇], PWDD (2018)⁴⁵⁸; Ji Hongxin [纪红心], Logistics Dept Director (2016)⁴⁵⁹

Composition (presumed)

- 1st Launch Battalion [发射一营]
 - o Commander: Wu Longjiang [吴龙江] (7/18)⁴⁴⁴
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
 - Political Instructor: Ren Kefeng [任可峰] (6/18)⁴⁵⁸
- 6th Launch Battalion [发射六营]

xxxi Rod Lee (@roderick_s_lee), Twitter, 9 September 2021 1:57 PM. https://twitter.com/roderick_s_lee/status/1436026035842211843

- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
 - 。 Commander: Wang Diao [汪钓] (3/18)⁴⁶⁰
- Technical Battalion [技术营]

613 Brigade [613 旅]

The 613 Brigade, located in the eastern Chinese city of Shangrao, was established in 1993 as the 2^{nd} Artillery's first conventional missile unit, earning itself the honorific title of "1st Conventional Missile Brigade" [常规导弹第一旅]. It is likely equipped with the B variant of the DF-15 SRBM, but may have converted to an unidentified new system around 2021.

MUCD: 96713 Former MUCD/TUD: 96165 (815th Launch Brigade⁴¹⁷)

Grade: Division Deputy Leader⁴⁶¹ **Parent Unit:** Base 61

Location: Luoqiao Subdistrict, Guangxin District, Shangrao, Jiangxi [江西省上饶市广信区罗桥街道]⁴⁶²

Geo: 28.474249, 117.895578⁴⁶³

Secondary Garrisons:

- Xinzhou District, Shangrao, Jiangxi [江西省上饶市新洲区]⁴⁶⁴
- Shangrao County, Shangrao, Jiangxi [江西省上饶市上饶县]⁴⁶⁵
- Shaowu Economic Development Zone, Shaowu, Fujian [福建省邵武经济开发区]^{466 467}
- Jianyang District, Nanping, Fujian [福建省南平市建阳区]⁴⁶⁸
- Zhengfang Town, Guangxin District, Shangrao, Jiangxi 334102 [江西省上饶市广信区 郑坊镇]⁴⁶⁹
- Changxi Village(?), Xiapu County, Ningde, Fujian [福建省宁德市霞浦县长溪村]⁴⁷⁰
 - Located just northwest of the northern tip of Taiwan, roughly 150 miles from Taipei

Capabilities

Missile: DF-15B SRBM⁴⁷¹; possible conversion to unidentified new system in 2021⁴⁷²

Missile Type: Conventional

Leadership

Commander: Liu Xiyang [刘西洋] (2/19)473

Dep Commanders: Wang Xun [王勋] (6/18)⁴⁷⁵

Chief of Staff: Gao Xuedong (高学东) [1/19]⁴⁷⁷ PV

PC: Zhou Lusheng [周吕胜] (12/20)474

Dep PC: Wang Yuyang [汪于阳] (12/20)476

PWDD: Li Zhengji [李正基] (3/19)478

Support Dept Director: Unknown

Former Leadership: Ma Fusheng [马福升] (2019)477; Yang Heli [杨鹤立], PWDD (2018)463

Composition (presumed)

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
 - 3rd Launch Company [发射三连]
 - Company Commander: Wang Xu [王旭] (6/19)⁴⁷⁹
 - Known as the "Missile Launch Vanguard Company" [导弹发射先锋 连]⁴⁷⁹
 - Conducts frequent joint drills with the local Eastern Theater Command⁴⁷⁹
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- 1st Technical Battalion [技术一营]
- 2nd Technical Battalion [技术二营]⁴⁸⁰

Background

- In 1995, this brigade conducted the PLA's first missile launch training in the East China Sea.⁴⁸¹ This brigade was the first to launch 100 missiles in 2010, 17 years after its founding, and became known as the first "100 Launches, 100 Hits" Brigade [百发 百中旅].⁴⁸² It launched its second hundred missile in 2017, only seven years later.⁴⁸³
- One contract request puts fiberoptic cables going from the towns of Huanggu [煌固] to Linhu [临湖] to Huatanshan [华坛山] outside Shangrao. Another fiberoptic cable goes from Shangrao's Erdou [二都] to Shaowu [邵武] in Fujian.⁴⁶⁷

- In recent years, this brigade has worked to integrate itself into the Theater Command joint operations and command structure, conducting integration training and improving its joint command, strike, and support chains.⁴⁸⁴
- This brigade may have provided some of personnel for the DF-17 column at the 2019 National Day Parade. An article describes the column as coming in part from the PLARF's 1st Conventional Missile Brigade.⁴⁸⁵ The fact that it is equipped with the relatively old DF-15 makes it a good candidate for conversion to the DF-17, but this remains to be confirmed.
- The "Heroic Martyr" Chen Degui [陈大桂], who died in the 2008 Sichuan earthquake and is now held up as a kind of PLARF Lei Feng figure, came from this unit, and his sister is currently in this unit.⁴⁸⁶

614 Brigade [614 旅]

The 614 Brigade, garrisoned in the southeast Chinese city of Yong'an, was officially established in 1997⁴⁹⁵ as the first brigade equipped with the DF-11 SRBM. It has since upgraded to the improved DF-11A variant. In August 2018, this brigade likely began conversion to the DF-17 hypersonic MRBM.⁴⁸⁷

MUCD : 96714	Former MUCD/TUD: 96167 (817 th Launch Brigade ⁴¹⁷)
Grade: Division Deputy Leader	Parent Unit: Base 61
Location: 400 Kangyuan Village, Dahu Town, Yong'an, Fujian [福建省永安市大湖镇坑源本400号] ⁴⁸⁸	
Geo : 26.060300, 117.315026 ⁴⁸⁹	
Capabilities	
Missile: DF-17 MRBM ⁴⁹⁰	Missile Type: Conventional
Leadership	
Commander: Unknown	PC: Zhang Lixin [章礼信] (3/20) ⁴⁹¹
Dep Commanders: Lü Ercan [吕尔参] (12/19) ⁴⁹² ; Wang Zhiqiang [王志强] (4/17) ⁴⁹³	
Dep PC: Huang Jinbin [黄金斌] (2/19) ⁴⁹⁴	
Chief of Staff: Yu Yangyang [于洋洋] (4/20) ⁴⁹⁵	
PWDD: Gao Xiangguo [高相国] (12/19) ⁴⁹⁶	

Support Dept Director: Wu Haicheng [吴海诚] (12/17)⁴⁹⁷

Former Leadership: Zhang He [张赫], Commander (2018)⁴⁹⁸ Lu Yanxian [陆艳先], PC (2017)⁴⁹²; Yang Xiaoming [杨小明], COS (2018)⁴⁹⁹

Composition (presumed)

- 1st Launch Battalion [发射一营]
 - Known as the "Missile Launch Vanguard Battalion" [导弹发射先锋营] since 2005⁵⁰⁰ and is a showpiece battalion, appearing frequently in propaganda and the media
 - \circ This battalion fired the brigade's 100th missile⁴⁹⁶
 - o Commander: Pan Shaoming [潘少明] (12/19)⁴⁹⁶
 - Political Instructor: Yan Shouxiang [颜寿祥] (12/20)¹¹² replacing Le Yanhui [乐 焰辉] (12/19)⁴⁹²
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]⁴⁹⁵
- Technical Battalion [技术营]

615 Brigade [615 旅]

The 615 Brigade, located in the southeast Chinese city of Meizhou, was likely established in the early 2000s as the second brigade equipped with the DF-11 SRBM. It has since upgraded to an improved DF-11 variant.

MUCD: 96715 Former MUCD/TUD: 96169 (818th Launch Brigade⁴¹⁷)

Grade: Division Deputy Leader Parent Unit: Base 61

Location: Nankou Town, Meixian District, Meizhou, Guangdong 514783 [广东省梅州市梅县 区南口镇]^{501 502 503}

Geo: 24.281964, 115.970875⁵⁰⁴

Secondary Garrisons:

This brigade is spread out across 10 locations in southeast China.⁵⁰⁵ Known garrisons include:

- Fu'an, Fujian [福建省福安市]⁵⁰⁶
- Huliao Town, Meizhou, Guangdong [广东省梅州是湖寮镇]⁵⁰⁷
- Fenglang Town, Meizhou, Guangdong [广东省梅州市枫朗镇]⁵⁰⁷
- Chayang, Meizhou, Guangdong [广东省梅州市茶阳]⁵⁰⁷
 O Communications Station
- Pingyuan County, Meizhou, Guangdong [广东省梅州市平远县]^{508 509}
 - Hosts at least two subunits [分队], the 78th and 90th

Capabilities

Missile: DF-11A⁵¹⁰, and/or DF-11AZT SRBM

Missile Type: Conventional

Leadership

Commander: Zhou Liming [周黎明] (12/18)⁵¹¹ **PC**: Liu Renxi [刘仁喜] (7/18)⁵¹²

Dep Commanders: Wu Zhiyun [吴志云] (4/19)⁵¹³ Dep PC: Long Keyu [龙柯宇] (2/19)⁵¹⁴

Chief of Staff: Zhang Fengwen [张奉文] (4/20)⁵¹⁰ PWDD: Kang Changyi^{xxxii} [康长意] (4/18)⁵¹⁵

Support Dept Director: Li Yu [李禹] (3/18)516

Other Senior Leadership: He Songbiao [何松彪], Pol Work Dept Dep Director (4/17)517

Former Leadership: Shi Hongyan [石鸿雁], Commander (2016)⁵¹⁸; Li Yanhai [李延海], COS (2018)⁵¹⁹

Composition (presumed)

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]

xxxiiAlternative possible spelling of name: Kang Zhangyi

- Commander: Chen Xiaojian [陈晓剑] (7/18)⁵²⁰
- 5th Launch Battalion [发射五营]
 - o Commander: Guo Haitao [郭海涛] (5/18)⁵²¹
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]⁵²²
- Operations Support Battalion [作战保障营]⁵⁰⁵
 - Surveying Team [测地队]
- Comprehensive Support Battalion [综合保障营]
 - Service Company [勤务连]⁵²³
- 1st Technical Battalion [技术一营]
 - Testing Company [测试连]⁵²³
- 2nd Technical Battalion [技术二营]⁵²⁴

Background

• In 2015, this brigade joined the 614 Brigade as a "100 Launches, 100 Hits" brigade [百发 百中旅]⁵⁰⁵

616 Brigade [616 旅]

The 616 Brigade, garrisoned in the southeast Chinese city of Ganzhou, is believed to be equipped with the A, B, and/or C variants of the DF-15 SRBM. It may soon upgrade to an new system.

MUCD: 96716 Former MUCD/TUD: 96162 (819th Launch Brigade⁴¹⁷)

Grade: Division Deputy Leader⁵²⁵ **Parent Unit:** Base 61

Location: 171 Kejia Rd., Zhanggong District, Ganzhou, Jiangxi [江西省赣州市章贡区客家大道 171 号]⁵²⁶

Geo: 25.833469, 114.909842⁵²⁷

Secondary Garrisons:

- Zhanggong District, Ganzhou, Jiangxi [江西省赣州市章贡区]
 - This appears to be the primary site of the brigade's garages, hosting most of its vehicles and missiles (25.781788, 114.880652)^{xxxiii}
- Ruijin City, Jiangxi [江西省瑞金市]⁵²⁸

xxxiiiCredit to Hans Kristensen of FAS for first pointing out this location.

Jiangkou Town, Nankang, Ganzhou, Jiangxi [江西省赣州市南康市江口镇]⁵²⁹
 91st Subunit [91 分队]

Capabilities

Missile: DF-15 A/B/C SRBM^{530 531 532 533}; likely imminent upgrade to new system

Missile Type: Conventional

Leadership

Commander: Chen Zaiwang [陈在望] (6/18)⁵³⁴ **PC**: Wei Zhongtao [魏忠涛] (9/18)⁵³⁵

Dep Commanders: Ding Guanghan [丁光寒] (10/18)⁵³⁶; Lei Kangsheng^{xxxiv} [雷康盛] (3/18)⁵³⁷

Dep PC: Wang Yuyang [汪于阳] (12/20)⁵³⁸

Chief of Staff: Unknown

PWDD: Unknown

Support Dept Director: Zhang Hongjun [张红军] (2/19)539

Other Senior Leadership: Dai Xiaoyun [戴小云], Dep COS (1/20)⁵⁴⁰; Pei Weiliang [裴维良], Pol Work Dept Dep Director (9/18)⁵⁴¹

Former Leadership: Fang Jian [方健], PC (2017)⁵⁴²; Yu Junshan [于军善], Pol Dept Director (2017)⁵⁴³; Wei Chunhai [魏纯海], Dep COS (2018)⁵⁴⁴

Composition (presumed)

- 1st Launch Battalion [发射一营]
 - Political Instructor: Wang Fei $[\Xi] (9/18)^{535}$
- 2nd Launch Battalion [发射二营]
 - Political Instructor: Wu Gang [吴岗] (10/18)⁵³⁶
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
 - Commander: Pan Weizheng [潘威正] (4/18)⁵⁴⁵
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]

xxxivAlternative possible spelling of name: Lei Kangcheng

- Communications Battalion [通信营]⁵⁴³
- Operations Support Battalion [作战保障营]⁵⁴⁶
- Comprehensive Support Battalion [综合保障营]⁵⁴⁷
- 1st Technical Battalion [技术营]
 - o Commander: Ma Junming [马军明] (7/18)⁵⁴⁸
- 2nd Technical Battalion [技术二营]⁵⁴⁹

Background

This brigade likely took part in the August 2022 military exercises aimed at Taiwan following US House Speaker Nancy Pelosi's visit. This is based upon proximity to the launch area combined with images of DF-15s participating in the exercises.⁵⁵⁰

617 Brigade [617 旅]

The 617 Brigade, garrisoned in the eastern Chinese city of Jinhua, was the second brigade equipped with the DF-16 SRBM.

MUCD : 96717	Former MUCD/TUD: 96164 (820 th Launch Brigade ⁴¹⁷)
Grade: Division Deputy Leader	Parent Unit: Base 61

Location: 142 Beishan Rd., Jinhua, Zhejiang [浙江省金华市北山路 142 号]⁵⁵¹

Geo: 29.150413, 119.615473552

Secondary Garrison:

- Jinhua, Zhejiang 321021 [浙江省金华市]⁵⁵³
 - The 58th Subunit [58 分队] is garrisoned at this location

Capabilities

Missile: DF-16A SRBM^{554 555}

Missile Type: Conventional

Leadership

Commander: Xia Zhengxin [夏正新] (4/20)⁵⁵⁵ **PC**: Cao Yaosheng [曹耀生] (1/20)⁵⁵⁶

Dep Commanders: Liu Peng [刘鹏] (1/20)⁵⁵⁶; Li Wencan [李文灿] (1/20)⁵⁵⁷; Huang Chuangao [黄传高] (9/17)558

Dep PC: Zhou Zhengchun [周政春] (1/20)559

Chief of Staff: Jiang Haitao [江海涛] (1/20)⁵⁵⁶ PWDD: Zhang Zhibin [张志彬] (1/20)⁵⁵⁶

Support Dept Director: Wang Junhui [王俊辉] (1/20)556

Other Senior Leadership: Hu Guihe [胡桂和], Pol Work Dept Dep Director (1/20)⁵⁶⁰; Chen Feng [陈峰], Support Dept Dep Director (12/19)⁵⁶¹

Former Leadership: Xu Dongfeng [徐东峰], Commander (2018)⁵⁶²; Chen Tao [陈韬], Dep Commander (2017)⁵⁶³; Dai Haijun [代海军], Pol Work Dept Dep Director (2018)⁵⁶⁴

Composition (presumed)

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
 - 3rd Communications Company [通信三连]⁵⁶⁵
- Operations Support Battalion [作战保障营]⁴¹⁵
 - Security and Camouflage Company [警卫伪装连]⁵⁶⁶
 - Fire Computation Station [火力计算站]⁴¹⁵
 - In recent years was reduced from a battalion leader to a company leader grade organization
 - Commander: Hong Rongjun [洪溶骏] (1/20)⁴¹⁵
 - Political Instructor: Zhang Jian [张建] (1/20)⁴¹⁵
- Comprehensive Support Battalion [综合保障营]⁵⁶⁷
- Technical Battalion [技术营]

Background

• This brigade fired 45 missiles from 2010 to 2019.⁴¹⁵

618 Brigade [618 旅]

Leadership

The earliest public evidence of an eighth Base 61 brigade came in early 2020.⁵⁶⁸ Additional evidence appeared in August 2022.⁵⁶⁹ Little is known about this brigade as of writing.

MUCD : 96718	Former MUCD: N/A	
Grade: Division Deputy Leader	Parent Unit: Base 61	
Location: Nanchang County, Jiangxi Province [江西省南昌县]569		
Geo: Unconfirmed, possibly 28.500373, 115.925359 ^{xxxv}		

Commander: Sun Guojian [孙国建] (8/22) ⁵⁷⁰	PC: Unknown
Dep Commanders: Unknown	Dep PC: Unknown
Chief of Staff: Unknown	PWDD : Han Fengyun [韩丰云] (8/22) ⁵⁷⁰

Support Dept Director: Unknown

Other Leadership: Pan Yuechun [潘月春] (8/22), Huang Xiaorong [黄小荣] (8/22), Liu Bin [刘斌] (8/22) – all in unidentified senior leadership positions⁵⁷⁰

Base 61 Training Regiment [61 基地训练团]

The Base 61 Training Regiment was established in March 1968, when the base combined personnel from a Special Service Battalion [特务营] and a former Training Squadron [训练中队], which was upgraded to a Training Group [训练大队] the next year.⁵⁷¹ It is responsible for 3-month basic training of base personnel,⁵⁷² as well as more advanced specialist training⁵⁷³ of midlevel and above NCOs and missile and site management personnel.⁵⁷⁴

above freeds and missile and site in	nanagement personner.
MUCD : 96811	Former MUCD : 96171

Grade: Regiment Leader

Parent Unit: Base 61

Location: Jiangshan, Quzhou, Zhejiang [浙江省衢州市江山市]⁵⁷⁵

Geo: 28.670492, 118.512447⁵⁷⁶

^{xxxv} The lefthand facility is or was a PLARF ECM Regiment under Base 67.

Leadership

 Commander: Li Weiran [李魏然] (12/19)⁵⁷⁷
 PC: Zhao Wei [赵伟] (4/20)⁵⁷⁸

 Dep Commanders: Huang Jin [黄晋] (8/18)⁵⁷¹
 Dep PC: Unknown

 Chief of Staff: Dai Chong [戴翀] (5/18)⁵⁷⁹
 PWDD: Unknown

Support Div Director: Unknown

Other Senior Leadership: Yang Luansui [杨峦虽], Pol Work Dept Dep Director (8/18)⁵⁷¹; Zhang Weilin [张伟林], Snr Engineer (8/18)⁵⁷¹

Former Leadership: Xia Zhengxin [夏正新], Commander (2018)⁵⁸⁰; Yin Jinbao [殷进保], Commander (2015)⁵⁸¹; Zhu Zhangping [朱章平], PC (2019)⁵⁸²; Zhang Lixin [章礼信], PC (2017)⁵⁸³; Chu Yijiang [储一江], PWDD (2018)⁵⁷¹; Wang Yuyang [汪于阳], PWDD (2017)⁵⁸⁴

Composition (presumed)

- Unknown number of subordinate training battalions
- Blue Team OPFOR^{xxxvi} [蓝军分队]
 - Commander: Luo Tingrong [骆庭荣] (8/17)⁵⁸⁵

Background

- New personnel arrive in September and graduate at the end of December. In December 2019, over 3,000 new personnel completed their basic training before being assigned to base units.^{572 586}
- In May 2017, over 400 students [学兵] finished 4 months of specialist training.⁵⁷³
- In 2016, the regiment changed its method of basic training from only teaching basic military skills and physical training to incorporating more advanced missile operator skills from the start. Previously, personnel would only begin to learn these skills after being assigned to their operational units, but this was burdensome for the units, who had to both train up these personnel while simultaneously maintaining the skills of their veteran personnel. The base thus began incorporating operations skills into basic training.⁵⁸⁷

xxxviUnlike most countries, in which the Red Team plays the role of aggressor, as good Marxist-Leninists the PLA designates the Blue Team for this role, while the Red Team is the home force.

Base 61 Communications Regiment [61 基地通信团]

This regiment is responsible for Base 61 communications.

MUCD: 96812

Former MUCD: 96175

Grade: Regiment Leader

Parent Unit: Base 61

Location: Shangqiayang Village, Tunxi District, Huangshan, Anhui 245041 [安徽省黄山市屯 溪区上洽阳村]^{588 589}

Geo: 29.690840, 118.313738^{590 591}

Secondary Garrisons:

This regiment has elements garrisoned in the following locations:

- Qimen County, Huangshan, Anhui 245611 [安徽省祁门县]⁵⁹²
- Xinjie Village, Yangxi Town, Meilie District, Sanming, Fujian [福建省三明市梅列区洋 溪镇新街村]⁵⁹³
 - The 66th Subunit [66 分队] is garrisoned in this village
- Sanyuan Jingdong, Sanming, Fujian [福建省三明市三元荆东]⁵⁹⁴
 - 。 Elements of the 64th Subunit [64 分队] garrisoned here
- Chaohu, Anhui [安徽省巢湖市]⁵⁹⁵
- Huizhou District, Huangshan, Anhui [安徽省黄山市徽州区]⁵⁹⁶
 - o The 56th Subunit [56 分队] is garrisoned in this district

Leadership

Commander: Gu Xingguo [顾兴国] (7/19)597

Dep Commanders: Unknown

PC: Yu Junshan [于军善] (7/19)⁵⁹⁸ Dep PC: Feng Liang (凤亮) (5/20)⁵⁹⁹

Chief of Staff: Unknown

PWDD: Chen Shaotian [陈少田] (4/18)⁶⁰⁰

Support Div Director: Unknown

Other Senior Leadership: Chen Qiang [陈强], PWD Dep Director (10/19)⁶⁰¹

Former Leadership: Long Wenjiang [龙文江], PC (2016)⁶⁰²; Liu Bin [刘斌], COS (2019)⁶⁰³; Yin Chong [尹冲], COS (2018)⁶⁰⁴; Gu Dunyong^{xxxvii} [顾敦勇], COS (2017)⁶⁰⁵

xxxviiAlternative possible spelling of name: Gu Duiyong

Composition (presumed)

- 1st Communications Battalion [通信一营]
- 2nd Communications Battalion [通信二营]
- 3rd Communications Battalion [通信三营]

Base 61 Operations Support Regiment [61 基地作战保障团]

The Base 61 Operations Support Regiment, established in 2012,⁶⁰⁶ is responsible for engineering, meteorology, survey and mapping, NBC defense, and security. Uniquely among base Operations Support Regiments, it also controls a satellite navigation and positioning station [卫星导航定位站] responsible for missile launch support,⁶⁰⁷ providing precision guidance, navigation, surveying, and geodesic support.⁶⁰⁶

MUCD : 96813	Former MUCD : 96177
Grade: Regiment Leader	Parent Unit: Base 61
Location: Xiuning County, Huangshan, A	nhui [安徽省黄山市休宁县] ^{608 609}
Geo: Unknown	

Leadership

Commander: Bao Xueqing [鲍学庆] (4/20)⁶¹⁰ **PC**: Tong Feng [童锋] (8/19)⁶¹¹

Dep Commanders: Dai Yi [戴毅] (12/19)⁶¹²; Li Gang [李刚] (4/18)⁶¹³

Dep PC: Wu Yongsheng [吴永生] (1/17)⁶¹⁴

Chief of Staff: Liao Zengwei [廖增为] (4/18)⁶¹³ PWDD: Unknown

Support Div Director: Unknown

Other Senior Leadership: Cheng Jun [程俊], Pol Work Div Dep Director (4/18)⁶¹³; Wang Cunjun [王存军], Snr Engineer (8/19)⁶¹⁵; Li Shengyu [李胜玉], Snr Engineer (meteorology specialist) (6/18)⁶¹⁶

Former Leadership: Xu Lin [徐琳], PC (2018)⁶¹⁷

Composition (presumed)

- Security and Chemical Defense Battalion [警卫防化营]
 - Security Company [警卫连]⁶¹⁸
 - 1st Chemical Defense Company [防化一连]
 - 2nd Chemical Defense Company [防化二连]
- Meteorology Station (Battalion Leader Grade) [气象台]
- Surveying Team (Battalion Leader Grade) [测地队]
 - 1st Squadron [一中队]
 - 2nd Squadron [二中队]
- Engineering Company [工兵连]
 - Founded prior to 1949 as an Engineering and Construction Battalion [工程建筑营]
 - Responsible for base engineering projects, including missile launch sites.⁶¹⁹
- Satellite Navigation and Positioning Station [卫星导航定位站]
 - o Commander: Sun Jinhai [孙锦海] (8/17)607
 - o Political Instructor: He Jianghai [何江海] (2/17)⁶⁰⁶
 - In 2012, this unit took over a battalion leader grade missile ground navigation subunit [导弹地面导航分队], which was transferred from the Survey and Mapping Group (96633) in Beijing to its current location in Anhui,⁶⁰⁶ and was redesignated as a satellite navigation and positioning station [卫星导航定位站]⁶⁰⁷ The station is described as the PLARF's only strategic missile ground precision guidance pioneer [战略导弹地面精导先锋],⁶⁰⁶ and it specializes in satellite networks, communications,⁶²⁰ navigation, surveying, geodesy, precision guidance support,⁶⁰⁶ and missile launch support.⁶⁰⁷
 - $\circ~$ Between 2012 and 2017, the station supported the launch of over 100 missiles of multiple types. 606
 - \circ The station has agreements with both CASIC and the PLARF Research Academy. 606

Base 61 Comprehensive Support Regiment [61 基地综合保障团]

The Base 61 Comprehensive Support Regiment was formed around mid-2017⁶²¹ by combining the Base 61 Repair Factory (96174) with its former Missile Component Depot [导弹器材仓库] (96176).⁶²² It is thus likely responsible for repair and maintenance of Base 61 equipment, as well as storage and delivery⁶²³ of the Base's conventional missiles. This makes this unit unique among the PLARF's comprehensive support regiments by not incorporating the base Technical Service Regiment, which remains a distinct unit.

MUCD: 96814

Former MUCD: 96174, 96176

Grade: Regiment Leader

Parent Unit: Base 61

Location: Banbantou Village, Luoqiao Subdistrict, Shangrao, Jiangxi [江西省上饶市罗桥街道 办坂头村]^{624 625 626}

Geo: 28.464143, 117.884617⁶²⁷

Secondary Garrisons:

The regiment has elements garrisoned in the following locations:

- Haiyang Town, Xiuning County, Huangshan, Anhui [安徽省黄山市休宁县海阳镇]⁶²⁸
 629
- Tunxi District, Huangshan, Anhui 245041 [安徽省黄山市屯溪区]⁶³⁰
- Xinling Village, Qimen County, Huangshan, Anhui [安徽省祁门县新岭村]⁶³¹
- Dahu Township, Yong'an, Fujian [福建省永安市大湖镇]⁶³²
 - May provide support to nearby 614 Brigade
- Jinhua, Zhejiang [浙江省金华市]⁶³³
 - May provide support to nearby 617 Brigade

Leadership

Commander : Li Sheng [李胜] (6/19) ⁶³⁴	PC: Zheng Jinghua [郑经华] (6/19)634
Dep Commanders: Unknown	Dep PC: Unknown
Chief of Staff: Unknown	PWDD : Ma Lei [马雷] (5/18) ⁶²⁷

Support Div Director: Liu Jiceng [刘纪层] (1/20)635

Former Leadership: Chao Yanming [晁彦明], Commander (2016)⁶³⁶; Wei Xingjie [卫星杰], PC (2018)⁶²⁷

Composition

Unclear – insufficient data to conceptualize an accurate Order of Battle for this regiment. Based upon its component parts, it would presumably include repair assets and missile depots spread across multiple locations.

Base 61 Technical Service Brigade [61 基地技术勤务旅]

The Base 61 Technical Service Brigade began as a rail transport station [铁运站], before being upgraded to a regiment, and around 2018, to a brigade. It is primarily responsible for missile testing and transport, via both road and rail, to base missile brigades.⁶³⁷

MUCD: 96815

Former MUCD: 96172

Grade: Division Deputy Leader (presumed) Parent Unit: Base 61

Location: Lalishan Rd., Huangnitou Village, Zhushan District, Jingdezhen, Jiangxi [江西省景德

Geo: 29.314819, 117.271923⁶⁴⁰

Secondary Garrison:

- Tafang Township, Qimen County, Anhui [安徽省祁门县塔坊乡]⁶⁴¹
- Yushan County, Shangrao, Jiangxi [江西省上饶市玉山县]⁶⁴² 643 (28.657294, 118.288776)
 - Rail yard used for missile and equipment transport
 - Rail Escort Battalion garrisoned at this location

Leadership

Commander: Wu Xudong [吴旭东] (5/19)⁶⁴⁴

Dep Commanders: Lin Wei [林伟] (4/19)⁶⁴⁶

PWDD: Unknown

Dep PC: Rao Lei [饶磊] (4/19)⁶⁴⁶

PC: Hu Huaiyu [胡怀宇] (5/19)⁶⁴⁵

Chief of Staff: Wei Shijie [魏世杰] (4/19)⁶⁴⁶

Support Dept Director: Unknown

Known Composition

- Road Transport Battalion [公路运输营] •
 - Commander: Zhuo Mei [卓敏] (6/19)⁶⁴⁴
 - Political Instructor: Ai Jie [艾杰] (6/19)⁶⁴⁴
 - \circ Established around 2005⁶⁴⁴

xxxviii Located next door to Base 61 Equipment Inspection Regiment

- Capable of transporting missiles under battlefield conditions, dealing with enemy attacks, utilizing camouflage, and navigating degraded or destroyed infrastructure to ensure missiles are delivered to operations units⁶⁴⁴
- The success of this battalion is described as the key to being able to complete missile launches in a future war⁶⁴⁴
- Integrated into the Eastern Theater Command joint combat and joint training systems, and is able to cooperatively deliver missiles over a long range and to multiple locations⁶⁴⁴
- In addition to this mission, this battalion is also responsible for training Base 61 special vehicle drivers, and from 2005 through 2015 it has trained over 200 Red Flag drivers [红旗驾驶员]⁶⁴⁷
- Rail Escort Battalion [铁路押运营]⁶⁴⁸
 - Formed as early as 1966⁶⁴⁹ and based in Yushan County, Shangrao
 - Missile escort soldiers [导弹押运兵] can spend three or more weeks continuously aboard a train transporting missiles and other equipment⁶⁵⁰
- 1st Technical Battalion [技术一营]^{637 651}
 - 1st Testing Company [第一测试连]⁶³⁷
 - Responsible for missile testing
 - 2nd Testing Company? [第二测试连]
 - Implied due to existence of "First" Testing Company
 - Beginning in March 2018, these battalions began sending testing specialists to firstline units to learn launch operations. This was somewhat controversial, as some believed that limited launch opportunities should be reserved for training launch specialists, but was deemed necessary to allow testing specialists to better understand the missiles.⁶³⁷
- 2nd Technical Battalion? [技术二营]
 - Implied based on existence of "First" Battalion

Base 61 Equipment Inspection Regiment [61 基地装检团]

The Base 61 Equipment Inspection Regiment is responsible for storage, management, and transport of the Base's nuclear warheads.

MUCD: 96031	Former MUCD/TUD : 96173 (906 Regiment ⁶⁵²)
-------------	---

Grade: Regiment Leader Parent Unit: Base 61

Location: 398 Lalishan Road, Zhushan District, Jingdezhen, Jiangxi [江西省景德镇市珠山区 腊里山路 398 号1653 654 655

Geo: 29.316406, 117.268020⁶⁵⁶ 657

Secondary Garrison: Xinshi District, Urumqi, Xinjiang 830031 [新疆维吾尔自治区乌鲁木齐 市新市区]⁶⁵⁸

Leadership

Commander: Unknown

Dep Commanders: Ji Kehua [季克华] (9/16)⁶⁶⁰

Chief of Staff: Wang Wei [汪伟] (3/19)⁶⁶²

PC: Zhang Wusong [张武松] (9/18)657 659

Dep PC: Wang Huishi [汪会师] (6/19)⁶⁶¹

PWDD: Unknown

Support Div Director: Unknown

Former Leadership: Ren Yang [任洋], Commander (2020)⁶⁶³; Liu Xiyang [刘西洋], Commander (2018); Zhang Yincheng [张银昌], PC (2017)⁶⁶⁴; Han Fengyun [韩丰云], PWDD Director (2019)⁶⁵⁶

Composition (presumed)

- 1st Equipment Inspection Station [装检一站]
- 2nd Equipment Inspection Station [装检二站]⁶⁶²
- 3rd Equipment Inspection Station [装检三站]
- Technical Service Battalion [技术勤务营]
- Comprehensive Support Battalion [综合保障营]
- Transport Company [转运连]
- Security and Communications Company [警卫通信连]

Base 61 UAV Regiment [61 基地无人机团]

Base 61 appears to command a UAV regiment garrisoned in the eastern Chinese city of Dongyang. Relatively little information exists about this unit in open sources, but its location means it is likely to be responsible for tactical reconnaissance, targeting, and damage assessment for Base 61's missile brigades, primarily over Taiwan.^{xi xxxix}

MUCD: 96816

Former MUCD: 96626

Grade: Regiment Leader

Parent Unit: Base 61

xxxix See: Elsa Kania, "The PLA's Unmanned Aerial Systems: New Capabilities for a 'New Era' of Chinese Military Power", *China Aerospace Studies Institute*, 2018. 22

Location: 70 Dongsheng Road, Chengdong Subdistrict, Dongyang, Jinhua, Zhejiang 32210 [浙 江省金华市东阳市城东街道东嵊路 70 号]^{665 666}

Geo: Unconfirmed, possibly 29.270912, 120.351142

Secondary Garrison:

Chongming District, Shanghai [上海市崇明区] (31.547075, 121.934821)
 60th Subunit [60 分队]^{x1}

Leadership

Commander: Liu Guoxiang [刘国祥] (1/19) ⁶⁶⁷	PC: Xu Fenglong [许凤龙] (1/20)668
Dep Commanders: Liu Qi ^{xli} [刘奇] (11/16) ⁶⁶⁹	Dep PC: Unknown
Chief of Staff: Unknown	PWDD : Chen Fugang [陈付刚] (1/17) ⁶⁷⁰
Support Div Director: Unknown	

Other Senior Leadership: Han Yong [韩勇], Support Div Dep Director (1/17)⁶⁷⁰

Known Composition

- 1st Battalion [一营]
 - 。 Commander: Lü Linglei [吕令磊] (11/16)⁶⁶⁹
- 2nd Battalion [二营]
 - Commander: Wang Xin [王鑫] $(9/16)^{671}$

Background

- This regiment was formerly located in Hui'an, Fujian,⁶⁷⁰ near the Taiwan Strait. It is unclear if this regiment is still active at that location, but the PLARF's other UAV unit is currently garrisoned at that location.
- The 46th, 49th, and 52nd Subunits [分队] under this regiment are said to have an unidentified "special" position within the PLARF.⁶⁶⁸
- Google satellite imagery appears to show unidentified ASN-series UAVs at this location.

^{x1} See: CASI (@CASI_Research), *Twitter*, 7 August 2020 5:05PM. https://twitter.com/CASI_Research/status/1291843044434739207. ^{xli}Alternative possible spelling of name: Liu Ji

Unit 96601 Hospital [96601 部队医院]

The Unit 96601 Hospital is the official hospital attached to Base 61. Like the other base hospitals, it commands field medical teams tasked with providing medical support to Base 61 units in wartime.⁶⁷²

MUCD: N/A	Former TUD: 532 Hospital [532 医院]

Grade: Division Leader⁶⁷³ **Parent Unit:** Base 61

Location: 63 Xin'an South Rd., Tunxi District, Huangshan, Anhui [安徽省黄山市屯溪区新安 南路 63 号]⁶⁷⁴

Geo: 29.693002, 118.297152

Leadership

Director: Wang Guiyao [王桂尧] (3/18)675 PC: Liu Xiaozheng [刘小正] (7/19)676

Dep Director: Hong Qiang [洪强] (7/18)677

Former Leadership: Zhan Guoqing [詹国清], Director (2015)⁶⁷³; Liu Chuanyuan [刘传远], Director (2013)⁶⁷⁸; Liao Yongjun [廖永军], PC (2017)⁶⁷⁹; Hua Guosheng [华国生], PC (2014)⁶⁸⁰

Background

• In September 2013, this hospital held a large-scale mobile medical support drill lasting around 15 days. Hospital field medical teams worked in complex and mobile conditions in support of combat operations. Training subjects included NBC defense and battlefield medicine.⁶⁷²

Base 62 [62 基地]



Base 62, established in 1966⁶⁸¹ and headquartered in the southern Chinese city of Kunming, is an operations base covering much of southern and lower southeastern China and bordering both Southeast Asia and the South China Sea. It commands two road-mobile ICBM brigades, two dual nuclear-conventional IRBM brigades, one LACM brigade, one ASBM brigade, and likely the PLARF's first hypersonic MRBM brigade.

MUCD: 96602

Former MUCD/TUD: 96201 (Base 53)

Grade: Corps Deputy Leader⁶⁸²

Location: Gongjia Village, Guandu District Economic Development Zone, Kunming, Yunnan [云南省昆明市官渡经开区公家村]⁶⁸³

South SHAANXI SHANDONG QINGHAI Kunming Yellow Sea Xi'an 西安市 China Headquarters Yibin IENAN Liuzhou Comms REG JIANGSU 621 BDE(DF-31AG Shanghai 623 BDE (CJ-10A) Ops Sup REG Chengdu 成都市 上海 ANHUI East China Sea Chongqing 重庆 SICHUAN Comp Sup REG THEJIANG ARUNACHAL Qingyuan Chuxiong GUIZHOU HUNAN JIANGXI 626 BDE (DF-26) Y Training REG NAGALAND 台北 ANIPUR Yuxi Bangladesh Taiwan GUANGXI UANGDONG 622 BDE (DF-31A) Kaohsiung A M ● ● Macau Hong Kong 澳門 香港 City lanoi Burma Jianshui Puning Danzhou Chiang Mai เทศบาลนคร เชียงใหม่ 625 BDE (DF-26) Laos Navpyitaw HAINAN 627 BDE (DF-17) 624 BDE (DF-21D) Vientiane ວຽງຈັ Mi'le Paracel Islands Luzon Equip Insp REG Thailand Manila Bangkok Vietnam กรุงเทพมหานคร

Geo: 24.991652, 102.834622⁶⁸⁴

Chinese Aerospace Studies Institute

Leadership

Commander: Unknown

Dep Commanders: Li Zhi [李志] (8/16)686

PC: Zhang Youxiang [张有祥] (2/19)⁶⁸⁵

Dep PC: Guan Houqing [管厚清] (8/16)686

Chief of Staff: Unknown

PWDD: Wang Maorui [王懋瑞] (2/19)687

Support Dept Director: Lü Kangwen [吕康文] (12/19)688

Other Senior Leadership: Xia Xiaoping [夏小平] (2/19)⁶⁸⁹; Li Zhaokun [李兆坤], Dep COS (5/17)⁶⁸⁷; He Liangping [何良平], Pol Work Dept Dep Director (9/17)⁶⁹⁰; Wang Zhiji [王治基], Support Dept Dep Director (6/18)⁶⁹¹

Former Leadership: Qiu Nianping [仇念平], Pol Work Dept Dep Director (2018)692

Known Composition

- 621 Brigade [621 旅]
- 622 Brigade [622 旅]
- 623 Brigade [623 旅]
- 624 Brigade [624 旅]
- 625 Brigade [625 旅]
- 626 Brigade [626 旅]
- 627 Brigade [627 旅]
- Training Regiment [训练团]
- Communications Regiment [通信团]
- Operations Support Regiment [作战保障团]
- Comprehensive Support Regiment [综合保障团]
- Equipment Inspection Regiment [装检团]
- Unit 96602 Hospital [96602 部队医院]

Recent Developments

• Former Base Commander Xia Xiaoping [夏小平] was promoted to Base 63 Commander.

621 Brigade [621 旅]

The 621 Brigade is one of the PLA's most longstanding strategic missile units,⁶⁹³ likely dating to the 1960s. It transferred from its previous headquarters in Jianshui, Yunnan⁶⁹⁴ to its current location in Yibin, Sichuan between late 2016⁶⁹⁵ and early 2017.⁶⁹⁶ This move was accompanied by a unit reorganization into a new force structure for a new opponent,⁶⁹⁷ and, it is implied, a new missile system.

MUCD: 96721 Former MUCD/TUD: 96211 (802nd Launch Brigade⁴¹⁷)

Grade: Division Deputy Leader Parent Unit: Base 62

Location: Shuangqiao Village, Lizhuanggu Town, Cuiping District, Yibin, Sichuan [四川省宜 宾市翠屏区李庄古镇 31 号/双桥村]^{698 699}

Geo: 28.760477, 104.791346⁷⁰⁰

Secondary Garrison: Shuangliu District, Chengdu, Sichuan 610225 [四川省成都双流区]⁷⁰¹

Capabilities

Missile: Possibly DF-31AG ICBM⁷⁰⁰

Missile Type: Nuclear, Road-mobile

Leadership

Commander: Yi Guangguo [弋光国] (9/18)⁷⁰² PC: Xie Fei (谢菲) (9/20)⁷⁰⁰

Dep Commanders: Unknown

Chief of Staff: Liu Junle [刘君乐] (8/19)703

Support Dept Director: Unknown

Former Leadership: Yang Zhiwei [杨智炜], Commander (2017)⁷⁰⁵; Li Shujing [李书静], PC (2018)⁶⁹³; Deng Changcheng^{xlii} [邓长城], COS (2017)⁷⁰⁶

Dep PC: Unknown

PWDD: Wang Guanjun [王冠军] (12/19)⁷⁰⁴

Composition (presumed)

• 1st Launch Battalion [发射一营]

xliiAlternative possible spelling of name: Deng Zhangcheng

- Commander: Wang Peng [王鹏] $(6/18)^{697}$
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
 - o Commander: Fang Lexin [方乐锌] (7/18)⁶⁹⁶
- Comprehensive Support Battalion [综合保障营]
- 1st Technical Battalion [技术营]⁷⁰⁷
- 2nd Technical Battalion? (技术二营)
 - Implied by existence of "First" Technical Battalion

Background

• This brigade was previously equipped with the DF-21A MRBM.⁴¹⁷ Its recent move inland suggests conversion to a longer range system.

622 Brigade [622 旅]

The 622 Brigade, established around 1968⁷⁰⁸ and currently stationed in the southern Chinese city of Yuxi, is now equipped with the DF-31A road-mobile ICBM.

MUCD: 96722 Former MUCD/TUD: 96213 (808th Launch Brigade⁴¹⁷)

Grade: Division Deputy Leader⁷⁰⁹ Parent Unit: Base 62

Location: Chima Village, Daying Subdistrict, Hongta District, Yuxi, Yunnan [云南省玉溪市红 塔区大营街道赤马村]^{710 711 712}

Geo: 24.359784, 102.494552709

Capabilities

Missile: DF-31A ICBM^{709 713}

Missile Type: Nuclear; Road-mobile

Leadership

Commander: Shen Yong [沈勇] (5/20)⁷¹⁴

PC: Deng Zhiliang [邓志良] (5/20)709

Dep Commander: Yang Guangying [杨光盈] (8/19)715

Dep PC: Rao Liuyuan [饶留源] (9/18)⁷¹⁶

Chief of Staff: Lü Qingkun [吕庆坤] (7/18)⁷¹⁷⁷¹⁸ PWDD: Cheng Xianran [程先冉] (2/18)⁷¹⁹

Support Dept Director: Unknown

Other Senior Leadership: Hao Jian [郝剑], Dep COS (8/18)720

Former Leadership: He Feng [何锋], Commander (2018)⁷²¹; Xu Baokun [许保坤], PC (2016)⁷²²; Peng Xingdou [彭星斗], Dep PC (2018)⁷¹⁵

Composition (presumed)

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
 - Commander: Chen Gao [陈高] (8/18)⁷²⁰
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]
 - 1st Testing Company [测试一连]⁷²³
 - 2nd Testing Company [测试二连]

Background

- This brigade was previously garrisoned in Chuxiong, and moved to Yuxi at some point between 2006 and 2011.⁷²⁴
- NCO Wang Zhongxin [王忠心], a squad commander in the 1st Testing Company and often held up as a model NCO, was in this unit⁷²³ prior to his retirement in May 2020.⁷¹⁵

623 Brigade [623 旅]

The 623 Brigade, located in the southern Chinese city of Liuzhou, was established in spring 2000 as the 2nd Artillery's first cruise missile test unit,⁷²⁵ earning it the honorific title of "1st Cruise Missile Brigade" [巡航导弹第一旅].⁷²⁶ It received its first CJ-10 cruise missiles in September 2006,⁷²⁵ and in 2009 the brigade took part in the CJ-10's first public exhibition at that year's National Day parade.⁷²⁷ It began conversion to a new missile, presumably the CJ-10A, in April 2016,⁷²⁵ and by 2017 it had completed its upgrade to the new variant.⁷²⁸

MUCD: 96723 **Former MUCD/TUD**: 96215 (821st Launch Brigade⁴¹⁷)

Grade: Division Deputy Leader⁷²⁹ **Parent Unit:** Base 62

Location: 27 Xinliuda Rd., Liudong New District, Yufeng District, Liuzhou, Guangxi 545616 [广西省柳州市鱼峰区柳东新区新柳大道 27号]^{730 731 732}

Geo: 24.385898, 109.572331733

Capabilities

Missile: CJ-10A LACM^{728 733}

Missile Type: Conventional; Cruise Missile

Leadership

Commander: Wang Tao [汪涛] (10/20)⁷³⁴

PC: Tian Tao [田涛] (2/19)⁷²⁶

Dep Commanders: Jia Zilong [贾子龙] (1/19)735; Zhong Xinming [钟歆明] (2/21)736

Dep PC: Chen Zhiqian [陈志前] (5/19)737

Chief of Staff: Lou Jun [娄军] (6/18)⁷²⁵ **PWD**

PWDD: Unknown

Support Dept Director: Unknown

Former Leadership: Zhang Zhenghong [张正红], Commander (2019)⁷³⁸; Cheng Congcai [程丛 才], Commander (2014)⁷³⁹; Liu Changguo [柳长国], PC (2014)⁷²⁵; Tan Zhihua [谭智华], COS (2017)⁷⁴⁰

Composition (presumed)

- 1st Launch Battalion [发射一营]
 - Commander: Li Yue [李跃] (10/20)⁷³⁴
- 2nd Launch Battalion [发射二营]

- Commander: Xu Wei [许伟] (6/18)⁷⁴¹
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
 - o Commander: Luo Yinsheng [罗寅生] (PLARF model personnel)⁷³⁵
 - Also known as 56th Subunit [56 分队]⁷³²
 - New battalion formed in March 2017 following a reorganization that saw the previous 6th Launch Battalion and another company transferred to a new brigade⁷²⁵ (possibly the 627 Brigade). Luo Yinsheng was awarded a citation for bringing the inexperienced battalion up to standard and successfully firing four missiles only four months after the battalion's establishment.⁷⁴²
 - Luo Yinsheng may have been promoted to Brigade COS by 2022.⁷⁴³
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]

624 Brigade [624 旅]

The 624 Brigade, stationed on the island of Hainan in the South China Sea, was established around 2006-2007.⁷⁴⁴ By 2012 it was conducting testing of a new "assassin's mace"^{xliii} DF-21 variant⁷³⁹ ⁷⁴⁵, likely a reference to the DF-21D ASBM. It transferred from its previous location in Qingyuan to its current location in Danzhou, Hainan in 2018.⁷⁴⁶ Its location on Hainan suggests it would be a key anti-ship anti-access/area denial (A2/AD) unit in the event of a conflict in the South China Sea. Beginning in 2020, this brigade may have begun conversion to an unidentified new missile type, although there are as yet no indications as to what it might be.

MUCD: 96724 Former MUCD/TUD: 96219 (828th Launch Brigade?)

Grade: Division Deputy Leader⁷⁴⁷ **Parent Unit:** Base 62

Location: Danzhou, Hainan [海南省儋州市]⁷⁴⁷

Geo: 19.470828, 109.457023748

xiiii "Assassin's mace" is a general term from Chinese folklore often utilized by the PLA to loosely describe asymmetric weapons and strategies used to defeat a stronger opponent.

Secondary Garrisons:

- The brigade has three garrisons in these three small nearby villages. The last village, Xiajiao, does not appear to exist in either Google or Baidu Maps.⁷⁴⁹
 - Shiye Village, Lingshui County, Hainan [海南省陵水县什也村]
 - Shinandan Village, Lingshui County, Hainan [海南省陵水县什南单村]
 - Xiajiao Village, Lingshui County, Hainan [海南省陵水县下脚村]
- Changjiang County, Hainan [海南省昌江县]⁷⁵⁰

Capabilities

Missile: DF-21D ASBM^{748 751}; possible conversion to new missile type by 2020⁷⁵²

Missile Type: Conventional; Anti-ship

Leadership

Commander: Zhou Yongkun [周勇坤] (6/20)⁷⁴⁸

PC: Ma Xiaojiang [马小江] (5/20)⁷⁵¹

Dep Commanders: Li Qiang [李强] (11/17)

Dep PC: Shan Tao [山涛] (7/18)750

Chief of Staff: Guo Yang [郭洋] (9/18)753

PWDD: Zhao Changxiong^{xliv} [赵长雄] (8/18)⁷⁵⁴

Support Dept Director: Unknown

Other Senior Leadership: Wang Jianli [王建立], Dep COS (5/18)755

Former Leadership: Yang Zhiwei [杨智炜], Commander (2018)⁷⁴⁷; Xu Zheng [绪政], Commander (2017)⁷⁵⁶; Chen Zhihao [陈志豪], PC (2019)⁷⁵⁷; Li Shaogang [李少刚], Dep Commander (2017)⁷⁵⁸; Chen Kun [陈昆], COS (2018)⁷⁵⁹; Song Guangjun [宋光军], Logistics Dept Director (2017)⁷⁵⁶

Composition (presumed)

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]

 $[\]ensuremath{^{xliv}}\xspace$ Alternative possible spelling of name: Zhao Zhangxiong

- 4th Launch Battalion [发射四营]
 - o Commander: Jiang Yi [姜意] (6/18)⁷⁶⁰
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]⁷⁶¹
- Technical Site Testing Hall [技术阵地测试大厅]⁷⁶⁰
- Three Companies under an unknown Battalion⁷⁶²:
 - o "Rifle" Company [钢枪连]
 - o "Iron Will" Company [铁血连]
 - o "Fierce Eagle" Company [狠鹰连]

Background

- This brigade is one of two known to have been equipped with the DF-21D ASBM. However beginning in 2019, both DF-21D brigades have given some indications they have since replaced the DF-21D with an unidentified new missile type. There is currently no firm evidence as to what this new missile type may be, but speculatively it could be the DF-26, perhaps an anti-ship variant, or the newest DF-21E, of which little is known. In the case of this brigade, it would make sense that any new missile would have an anti-ship capability, given this brigade's recent move to Hainan in the South China Sea.
- This unit is integrated into the local Theater Command and JLSF joint command networks, meaning it is able to share information and data and is plugged into the Theater Command and JLSF logistics and support networks.⁷⁵⁸

625 Brigade [625 旅]

The 625 Brigade, located in Yunnan's Jianshui County near the Vietnamese border, was likely established around 2015⁷⁶³ as the first unit equipped with the DF-26 IRBM. It is described by one source as a new type of operations force centered around its new missile, with a new command system and force structure.⁷⁶⁴

MUCD: 96725	Former MUCD/TUD: 96216 (Unknown TUD)
Grade: Division Deputy Leader	Parent Unit: Base 62

Location: Yang Street, Nanzhuang Town, Jianshui County, Yunnan [云南省建水县南庄镇羊街]⁷⁶⁵

Geo: 23.735139, 102.874978⁷⁶⁶

Capabilities

Missile: DF-26 IRBM ⁷⁶⁷	Missile Type: Dual Nuclear-Conventional; Road-mobile
------------------------------------	--

Leadership

Commander: Unknown	PC: Huang Ping [黄平] (10/17) ⁷⁶⁸
Dep Commanders: Unknown	Dep PC : Dong Yuanbo [董院波] (7/16) ⁷⁶⁹
Chief of Staff: Unknown	PWDD : Zhang Guangzhen [张广振] (3/17) ⁷⁷⁰

Support Dept Director: Unknown

Other Senior Leadership: Wang Xueshan [王雪山], Dep COS (10/17)⁷⁷¹

Former Leadership: Lü Kangwen [吕康文], Commander (2017)⁷⁷¹; Feng Xiaoyong [冯晓永], PC (2016)⁷⁷²; Zhang Yanchang [张彦昌], Pol Work Dept Dep Director (2017)⁷⁷³

Composition (presumed)

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
 - Political Instructor: Su Jie [苏杰] (1/19)⁷⁶⁸
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]

626 Brigade [626 旅]

The 626 Brigade, garrisoned in the southeast Chinese city of Qingyuan, was likely established in the early to mid-2000s⁷⁷⁴ as a PLAA missile brigade⁷⁷⁵ (possibly the PLAA 2nd SSM Brigade⁷⁷⁶). It was moved and reorganized three times between 2010 and 2017, beginning with its transfer from the PLAA to the 2nd Artillery's Base 55 in 2010.⁷⁷⁷ In 2017 it was transferred to the new Base 62

and its current location in Qingyuan,⁷⁷⁷ where it occupies the former headquarters of the 624 Brigade. This move came with a transition to a new missile type,⁷⁷⁸ believed to be the DF-26 IRBM.

MUCD: 96726

Former MUCD/TUD: 96319 (825th?⁴¹⁷ or 836th?⁷⁷⁶ Brigade)

Grade: Division Deputy Leader Parent Unit: Base 62

Location: Yuantan Town, Qingyuan, Guangdong [广东省清远市源潭镇]^{779 780}

Geo: Unconfirmed, possibly 23.683975, 113.177136

Capabilities

Missile: DF-26 IRBM⁷⁸¹

Missile Type: Dual Nuclear-Conventional

Leadership

Commander: Li Shaogang [李少刚] (1/20)⁷⁸² PC: Cai Hai [蔡海] (12/20)^{783 xlv}

Dep Commanders: Hu Zuzhi (胡祖治) [3/18]⁷⁸⁴; Li Xianjian [李先建] (2/17)⁷⁸⁵

Dep PC: Unknown

Chief of Staff: Unknown

PWDD: Wang Xinbao [汪新堡] (7/18)⁷⁸⁶

Support Dept Director: Unknown

Former Leadership: Cha Xianfa [查显发], Commander (2018)⁷⁸⁷; Ma Rubing [马如兵], PC (2020)⁷⁷⁹; Chen Yonghua [陈永华], PC (2018)⁷⁸⁸; Shen Yong [沈勇], COS (2017)⁷⁸⁹; Zhong Xinming [钟歆明], Support Dept Director (2018)⁷⁹⁰

Composition (presumed)

- 1st Launch Battalion [发射一营]
 - Commander: Jia Feihu [贾飞虎] (2/18)⁷⁷⁸
 - Known as "Wild Wolf" Battalion [野狼营]⁷⁷⁷
- 2nd Launch Battalion [发射二营]
 - o Political Instructor: Zhang Loulou [张楼楼] (2/18)778

^{xlv}Unconfirmed but probable

- 3rd Launch Battalion [发射三营]
 - o Commander: Xiao Xuerong [肖雪荣] (2/18)⁷⁷⁸
 - Known as "Fierce Tiger" Battalion [猛虎营]⁷⁷⁷
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]

Background

• Commander Li Shaogang may have been replaced by Zhou Yongkun [周勇坤] in 2022.791

627 Brigade [627 旅]

The 627 Brigade, located in the southeast Chinese city of Puning, was established in March 2017 as a "new type of operations force."⁷⁹² It is likely the first brigade equipped with the DF-17 hypersonic glide vehicle, and appears to have achieved full combat capability.

MUCD: 96727

Former MUCD/TUD: N/A (new brigade)

Grade: Division Deputy Leader **Parent Unit:** Base 62

Location: Yinggeshan Industrial Zone, Puning, Jieyang, Guangdong [广东省揭阳市普宁市英 歌山工业园区1793

Geo: Unconfirmed, possibly 23.411697, 116.181700

Secondary Garrison: Zhangzhou, Fujian [福建省漳州市]794

Capabilities

Missile: DF-17 MRBM⁷⁸³

Missile Type: Conventional

Leadership

Commander: Qi Kui (起奎) [12/20]⁷⁹⁵ **PC**: Xu Baokun [许保坤] (3/18)⁷⁹⁶

Dep Commanders: Unknown

Dep PC: Chen Xinjian [陈新建] (5/18)797

Chief of Staff: Unknown

PWDD: Zhao Bo [赵波] (5/18)⁷⁹⁷

Support Dept Director: Unknown

Former Leadership: Zhou Yongkun [周勇坤], Commander (2018)⁷⁹⁸

Composition (presumed)

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]

Background

• This brigade may have converted to the DF-17 MRBM around May 2019.⁷⁹⁹

Base 62 Training Regiment [62 基地训练团]

The Base 62 Training Regiment is responsible for basic training of Base 62 enlisted personnel.⁸⁰⁰

MUCD : 96821	Former MUCD/TUD: 96221
Grade: Regiment Leader	Parent Unit: Base 62

Location: 399 Huancheng West Rd., Chuxiong, Yunnan [云南省楚雄市环城西路 399 号]⁸⁰¹

• This appears to be the location of a small administrative facility. The regiment's primary training facilities have not yet been found.

Geo: Unconfirmed, possibly 25.038070, 101.533517

Leadership

Commander: Unknown	PC: Wang Liang [王亮] (5/19) ⁸⁰²
Dep Commanders: Unknown	Dep PC : Xu Xin [徐鑫] (12/19) ⁸⁰³
Chief of Staff: Zhao Guoyin [赵国银] (6/18) ⁸⁰⁴	PWDD : Unknown

Support Div Director: Unknown

Former Leadership: Wang Tao [汪涛], Commander (2020)⁸⁰⁵; Zhou Yongkun [周勇坤], Commander (2016)⁸⁰⁶; Ma Xiaojiang [马小江], PC (2018)⁸⁰⁰

Composition (presumed)

• Unknown number of subordinate training battalions

Background

- This unit annually provides training to almost 1,000 new soldiers. Training lasts around three months. One batch graduating in late March 2018 consisted of 389 personnel.⁸⁰⁰ Based on this and another reports from 2020,⁸⁰⁶ it appears that at least one batch begins in early January and ends in late March.⁸⁰⁶ Graduated personnel are expected to possess basic operator capabilities prior to joining their first billets. They must be skilled in one billet, while having some working knowledge of 1-2 other billets.⁸⁰⁵
- Video imagery of this unit training shows personnel learning to operate the CJ-10 LACM and the DF-21C/D.⁸⁰⁵ The CJ-10 and DF-21D are both deployed with Base 62 brigades.

Base 62 Communications Regiment [62 基地通信团]

This unit is responsible for Base 62 communications. It is also responsible for the training of at least some of the base's female personnel.⁸⁰⁷

MUCD : 96822	Former MUCD: 96225

Grade: Regiment Leader Parent Unit: Base 62

Location: Guandu District, Kunming, Yunnan [云南省昆明市官渡区]⁸⁰⁸ (possibly co-located with Base HQ)

Geo: Unconfirmed, possibly 24.994327, 102.834561 (if co-located with Base HQ)

Secondary Garrisons:

- Guilin, Guangxi [广西省桂林市]⁸⁰⁹
- Chenggong District, Kunming, Yunnan [云南省昆明市呈贡区]⁸¹⁰ (possibly 24.926633, 102.796431)
 - Elements may include the 53rd Subunit [53 分队]

Leadership

Commander: Unknown	PC: Unknown
Dep Commanders: Unknown	Dep PC: Unknown
Chief of Staff: Liu Qin [刘勤] (8/17)811	PWDD : Wang Yi [王毅] (9/18) ⁸¹²⁸¹³

Support Div Director: Unknown

Former Leadership: Yang Tangzhen [杨堂珍], Acting PC (2018)⁸¹⁴; Feng Xiaoyong [冯晓永], PC (2018)⁸¹⁵

Composition (presumed)

- 1st Communications Battalion [通信一营]
- 2nd Communications Battalion [通信二营]
- 3rd Communications Battalion [通信三营]

Base 62 Operations Support Regiment [62 基地作战保障团]

As with other Operations Support Regiments, the Base 62 Operations Support Regiment was likely formed around 2012 by bringing several support specialties, including survey and mapping, meteorology, NBC defense, security, and engineering, under one roof.

MUCD : 96823	Former MUCD: 96226
Grade: Regiment Leader	Parent Unit: Base 62
Lander Carrier District Versein	·

Location: Guandu District, Kunming, Yunnan 650219 [云南省昆明市官渡区]⁸¹⁶ (co-located with Base HQ)

Geo: 24.995520, 102.836565^{817 818}

Secondary Garrison:

- Chenggong District, Kunming, Yunnan [云南省昆明市呈贡区]
 - Elements include 65th Subunit [65 分队]⁸¹⁹
 - May be located with other Base 62 units in an as-yet unidentified facility in Chenggong District

Leadership

Commander : Liu Bo [刘波] (7/18) ⁸²⁰	PC: Unknown
Dep Commanders: Unknown	Dep PC: Unknown
Chief of Staff : Li Gang [李刚] (1/17) ⁸²¹	PWDD : Huang Zhen [黄镇] (4/18) ⁸²²

Support Div Director: Unknown

Other Senior Leadership: Hu Yan [胡龑], Pol Work Dept Dep Director (8/19)823

Former Leadership: Xiao Quan [肖权], Commander (2017)⁸²⁴; Ma Rubing [马如兵], PC (2018)⁸²⁵

Composition (presumed)

- Security and Chemical Defense Battalion [警卫防化营]
 - Security Company [警卫连]⁸²⁴
 - 1st Chemical Defense Company [防化一连]⁸²⁶
 - 2nd Chemical Defense Company [防化二连]
- Meteorology Station (Battalion Leader Grade) [气象台]
- Surveying Team (Battalion Leader Grade) [测地队]
 - 1st Squadron [一中队]
 - 2nd Squadron [二中队]
- Engineering Company [工兵连]⁸²⁷

Base 62 Comprehensive Support Regiment [62 基地综合保障团]

The Base 62 Comprehensive Support Regiment, as with the other base Comprehensive Support Regiments, was formed around 2017 by merging the former base Repair Factory, Service Regiment, and other directly subordinate support elements.⁸²⁸ Unit responsibilities include repair of base equipment, as well as storage and transport of missiles, fuel, munitions, and other supplies.⁸²⁹ It is also in charge of several other base logistical missions, such as food preparation

and cultural/media work.⁸²⁹ Integrating vehicle, transport, repair, and logistical support missions into a single unit is designed to improve logistical efficiency and coordination as compared to the previous system, in which repairs, transport, and fuel all fell under separate authorities.⁸²⁹

MUCD : 96824	Former MUCD: 96224, 96222
---------------------	---------------------------

Grade: Regiment Leader

Parent Unit: Base 62

Location: Guandu District, Kunming, Yunnan 650219 [云南省昆明市官渡区]⁸³⁰ (co-located with base HO)

Geo: 24.991981, 102.833218^{831 832}

Secondary Garrison:

- Wujiaying Village, Luoyang Subdistrict, Chenggong District, Kunming, Yunnan [云南省 昆明市呈贡区洛羊街道吴家营村1833
 - Site of the former Base Service Regiment⁸³⁴

Leadership

Commander: Unknown

Dep Commanders: Unknown

PC: Hu Haibin [胡海斌] (12/19)829

Chief of Staff: Unknown

PWDD: Zhou Ming [周铭] (9/18)⁸³⁵

Dep PC: Unknown

Support Div Director: Unknown

Former Leadership: Qi Kui [起奎], Commander (2019)⁸²⁹; Cai Hai [蔡海], PC (2018)⁸³⁶; Wang Liang [王亮], PC (2016)⁸³⁷

- Vehicle Battalion [汽车营]
- Repair and Measurements Station (Battalion Leader Grade) [维修计量站]
 - Director: Xu Dapeng [许大鹏] (12/19)⁸²⁹
 - Political Instructor: Xu Xin [徐鑫] (12/19)⁸²⁹
 - This is the former Base 62 Repair Factory [修配厂 96224]. It was downgraded from a regiment to a battalion grade as part of the reforms that created this regiment.829
- Munitions Depot [军械仓库]
- Fuel Storage Depot [油料仓库]
- Comprehensive Depot [综合仓库]

- Rail Transport Company [铁路运输连]⁸³⁸
- Service Company [勤务连]
 - Responsible for all Base 62 food preparation, public services, water and electricity, and online presence, and cooperates with the base Political Work Department for base media and photography.⁸²⁹
- Vehicle Repair Subunit [汽车维修分队]

Base 62 Equipment Inspection Regiment [62 基地装检团]

The Base 62 Equipment Inspection Regiment is in charge of storage, management, and transport of the base's nuclear warheads.

MUCD : 96032	Former MUCD: 96223 (903 Regiment ⁶⁵²)	
Grade: Regiment Leader	Parent Unit: Base 62	
Location: Jishan South Rd., Miyang Town, Mi'le, Yunnan [云南省弥勒市弥阳镇吉山南路] ^{839 840 841}		
Geo: Unconfirmed, possibly 24.399054, 103.432068		
Secondary Garrison: Dali Village, Dongshan Town, Mi'le, Yunnan [云南省弥勒市东山镇大栗村] ⁸⁴² (possibly 24.236944, 103.589800)		

Leadership

Commander: Zhang Shuxue [张树学] (10/18) ⁸³⁹	PC: Unknown
Dep Commanders: Unknown	Dep PC: Huang Tao [黄涛] (9/18) ⁸³⁹
Chief of Staff: Su Xiaobo [苏小波] (9/18) ⁸⁴³	PWDD : Unknown

Support Div Director: Chang Yuquan [常余犬] (7/18)844

Other Senior Leadership: Xie Fei [谢菲], PC (2018)⁸⁴⁵; Chen Meng [陈梦], U/I Dep Div Director (9/18)⁸³⁸

- 1st Equipment Inspection Station [装检一站]
- 2nd Equipment Inspection Station [装检二站]
- 3rd Equipment Inspection Station [装检三站]
- Technical Service Battalion [技术勤务营]

- Comprehensive Support Battalion [综合保障营]
- Transport Company [转运连]
- Security and Communications Company [警卫通信连]

Background

 Around 2017 this unit underwent a restructuring and change of mission, expanding from "assembly and inspection" [装配检验] to "equipment inspection operations" [装检作 战].⁸⁴⁶ The unit's mission is also described as "guarding the national treasure" [守护国宝], a euphemism for China's nuclear weapons stockpile.⁸⁴⁷

Unit 96602 Hospital [96602 部队医院]

The Unit 96602 Hospital, established in 1968 as the Unit 122 Hospital⁸⁴⁸, is the official hospital attached to Base 62. Like the other PLARF base hospitals, the Unit 96602 Hospital controls several field medical teams which are tasked with providing field medical support to and conducting joint training with Base 62 units. These medical teams are capable of conducting a wide range of medical services in the field, including battlefield surgery.^{848 849}

MUCD: N/A

Former TUD: 533 Hospital [533 医院]

Grade: Division Leader or Division Deputy Leader^{xlvi} Parent Unit: Base 62

Location: 462 Chuanjin Rd., Kunming, Yunnan [云南省昆明市穿金路 462 号]⁸⁵⁰

Geo: 25.074229, 102.742809

Leadership

Director: Qi Yijie [漆宜华] (4/19)⁸⁴⁹

PC: Wang Liang [王亮] (8/18)851

Dep PC: Zhou Zhifu [周智夫] (8/18)⁸⁵¹

^{xlvi}Presumed based on other base hospitals

Base 63 [63 基地]



Base 63, headquartered in the inland southern Chinese city of Huaihua, is an operations base covering southeast China. It commands at least three ICBM brigades (two silo-based and one road-mobile), one conventional SRBM brigade, and one LACM brigade, as well as one brigade with an unknown missile type. Since 2017 it has expanded from five to six missile brigades.

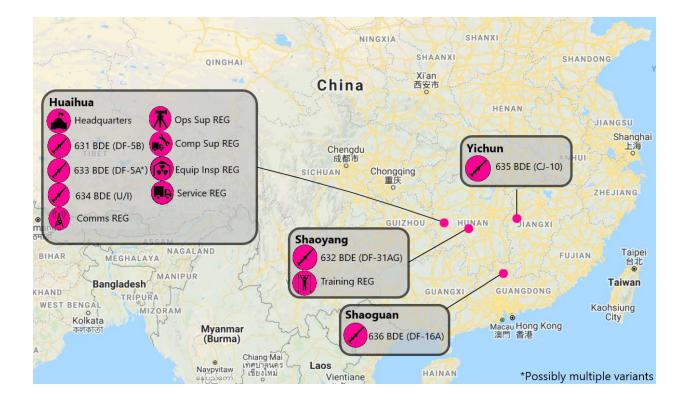
MUCD: 96603

Former MUCD/TUD: 96301 (Base 55)

Grade: Corps Leader⁸⁵²

Location: 786 Yingfeng East Rd., Hecheng District, Huaihua, Hunan [湖南省怀化市鹤城区迎 丰东路 786 号]^{853 854}

Geo: Unconfirmed, possibly 27.574686, 110.024999



Leadership

Commander: Xia Xiaoping [夏小平] (3/21)⁸⁵⁵ PC: Zhao Quanhong [赵全红] (7/20)⁸⁵⁶

Dep Commanders: Wang Xiaochu [汪晓初] (1/19)857

Dep PC: Deng Rongzhen [邓荣珍] (1/20)858

Chief of Staff: Li Shunhua [李顺华] (5/19)⁸⁵⁹ PWDD: Gao Tingxin [高廷欣] (8/18)⁸⁶⁰

Support Dept Director: Unknown

Other Senior Leadership: Li Yuchao [李玉超] (4/19)⁸⁶¹; Zheng Xiaodong [郑晓东], Pol Work Dept Dep Director (5/20)⁸⁶²; Zhang Qingyong [张青勇], Support Dept Dep Director (1/18)⁸⁶³

Former Leadership: Li Chuanguang [李传广], Commander (2016)⁸⁶⁴; Wang Liping, [汪利平], PC (9/17)⁸⁶⁵

Composition

- 631 Brigade [631 旅]
- 632 Brigade [632 旅]
- 633 Brigade [633 旅]
- 634 Brigade [634 旅]
- 635 Brigade [635 旅]
- 636 Brigade [636 旅]
- Training Regiment [训练团]
- Communications Regiment [通信团]
- Operations Support Regiment [作战保障团]
- Comprehensive Support Regiment [综合保障团]
- Technical Service Regiment [技术勤务团]
- Equipment Inspection Regiment [装检团]
- Unit 96603 Hospital [96603 部队医院]

631 Brigade [631 旅]

The 631 dates back to 1961,⁸⁶⁶ when it was established as a battalion.⁸⁶⁷ It is located in the inland southern Chinese city of Huaihua and believed to be equipped with the newest B variant of the DF-5 silo-based ICBM.

MUCD: 96731 Former MUCD/TUD: 96311 (803rd Launch Brigade⁴¹⁷); 80403⁸⁶⁸

Grade: Division Deputy Leader⁸⁶⁹

Parent Unit: Base 63

Location: Erliangting Village, Jingzhou County, Huaihua, Hunan [湖南省怀化市靖州县二凉亭 村]^{870 871}

Geo: 26.557693, 109.664996⁸⁷²

Secondary Garrison:

Tongdao County, Huaihua, Hunan [湖南省怀化市通道县]⁸⁷³
 This brigade hosts a Training Unit [教导队] in this county.⁸⁷⁴

Capabilities

Missile: DF-5B ICBM⁸⁶⁶

Missile Type: Nuclear, Silo-based

PC: Peng Ke [彭柯] (6/20)⁸⁷⁶

Leadership

Commander: Yin Jinbao [殷进保] (3/20)875

Dep Commanders: Unknown

Chief of Staff: Unknown

PWDD: Shi Yunhui [史云辉] (1/19)⁸⁷⁸

Dep PC: Feng Xiangbing [冯向兵] (9/20)877

Support Dept Director: Ding Binbin [丁彬彬] (11/18)⁸⁷⁹

Other Senior Leadership: Liu Zhiyong [刘志勇], Dep COS (7/20)880

Former Leadership: Zeng Aijun [曾爱军], Commander (2017)⁸⁶⁹

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
 - Political Instructor: Fang Bin [方斌] (3/18)⁸⁸¹
 - Former Commander Liu Zhiyong (2018)⁸⁸¹ is now Brigade Deputy COS.
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]⁸⁸²

- Comprehensive Support Battalion [综合保障营]⁸⁸⁰
- Technical Battalion [技术营]

Background

- Since its establishment in the 1960s, this unit has been structurally reorganized eight times, relocated three times, and received a new missile three times.⁸⁶⁶ In late 2017, the unit faced restructuring, with some companies being merged, while others were disbanded. According to one source, this led to the retirement of a high number of veteran personnel and problems with a lack of leadership.⁸⁸³
- This brigade took part in the 2019 National Day Parade as part of the DF-5B parade formation.⁸⁶⁶

632 Brigade [632 旅]

The 632 Brigade is located in the inland southern Chinese city of Shaoyang and equipped with the latest DF-31AG variant of the DF-31 road-mobile ICBM.

MUCD: 96732	Former MUCD/TUD: 96313 (805 th Launch Brigade ⁴¹⁷)
Grade: Division Deputy Leader	Parent Unit: Base 63

Location: Guangyu Village, Chenjiaqiao Township, Beita District, Shaoyang, Hunan [湖南省邵 阳市北塔区陈家桥乡光裕村]⁸⁸⁴

Geo: 27.252885, 111.385919⁸⁸⁵

Secondary Garrisons:

- Kuanxi Dam, Chengbu County, Shaoyang, Hunan [湖南省邵阳市城步苗族自治县款溪 拦河坝]⁸⁸⁴
- Huagu Subdistrict, Dongkou County, Shaoyang, Hunan [湖南省邵阳市洞口县花古街 道]⁸⁸⁶
- Dong'an County, Yongzhou, Hunan [湖南省永州市东安县]⁸⁸⁷

Capabilities

Missile: DF-31AG ICBM⁸⁸⁸

Missile Type: Nuclear; Road-mobile

Leadership

Commander: Wang Jinjian [王金剑] (12/19)⁸⁸⁸ **PC**: Unknown

Dep Commanders: Cai Zhengyu [蔡征宇] (2/18)⁸⁸⁹ Dep PC: Unknown

Chief of Staff: Unknown

PWDD: Liu Mingliang [刘明亮] (5/19)⁸⁹⁰

Support Dept Director: Unknown

Other Senior Leadership: Tian Xiwen [田细文], Deputy COS (8/17)⁸⁹¹

Former Leadership: Zhang Hong [张鸿], Commander (2017)⁸⁹²; Dai Weide [戴伟德], PC (2018)⁸⁹³; Wang Zhibin [王志彬], COS (2017)⁸⁹²; Hu Haoran [胡浩然], PWDD (2017)⁸⁸⁹

Composition (presumed)

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]⁸⁹⁴
- 1st Technical Battalion [技术一营]
- 2nd Technical Battalion [技术二营]⁸⁹⁵

Background

• Model personnel Rong Kexin [容科新] is part of this unit.896

633 Brigade [633 旅]

The 633 Brigade, located in the inland southern Chinese city of Huaihua, was established in 1993 and fired its first missile around 1997. It is equipped with a variant of the DF-5 silo-based ICBM.

MUCD: 96733 Former MUCD/TUD: 96315 (814th Launch Brigade⁴¹⁷)

Grade: Division Deputy Leader Parent Unit: Base 63

Location: 005 Jianshe Rd., Lincheng Town, Huitong County, Huaihua, Hunan [湖南省怀化市 会同县林城镇建设路 005 号]⁸⁹⁷

Geo: 26.892974, 109.738805⁸⁹⁸

Capabilities

Missile: DF-5A ICBM⁴¹⁷; possibly other variants **Missile Type**: Nuclear; Silo-based

Leadership

Dep Commanders: Wang Liangfeng [王良锋] (4/18)⁹⁰¹

Dep PC: Unknown

Chief of Staff: Zhang Ou [张欧] (6/17)⁹⁰² PWDD: Liu Wenbo [刘文波] (5/18)⁹⁰³

Support Dept Director: Liang Zhiping [梁治平] (12/19)904

Other Senior Leadership: Xiang Fange [向帆格], Pol Work Dept Dep Director (1/20)905

- 1st Launch Battalion [发射一营]
 - Commander: Jie Jing [揭晶] (12/19)⁹⁰⁶
 - Also known as the 40th Subunit [40 分队]⁹⁰⁶
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]
- Telemetry Battalion [遥测营]⁹⁰⁷

xlvii One source from early 2020 refers to Ao as "then-commander" when referring to an earlier date, implying he may no longer be commander

634 Brigade [634 旅]

The 634 Brigade first appeared publicly in late 2018 and is equipped with an unidentified new type of missile. This is the third missile brigade to be garrisoned in the inland southern Chinese city of Huaihua.

MUCD : 96734	Former MUCD/TUD: N/A (new brigade)	
Grade: Division Deputy Leader	Parent Unit: Base 63	
Location: Tongdao County, Huaihua, Hunan [湖南省怀化市通道县] possibly Qingwuzhou Town [菁芜洲镇] ⁹⁰⁸		
Geo: Unknown		
Capabilities		
Missile: Unknown "new missile type" ⁹¹¹	Missile Type: Unknown	
Leadership		
Commander : possibly Zhang Gensheng ^{xlvii}	ⁱ [张艮胜] ⁹¹¹ PC: Wu Jun [吴君] (10/19) ⁹⁰⁹	
Dep Commanders: Unknown	Dep PC: Unknown	
Chief of Staff: Unknown	PWDD: Wu Zhisheng [胡智胜] (12/19)910	
Support Dept Director: Unknown		

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
 - 。 Commander: Yang Xinglong [杨兴龙] (3/20)⁹¹¹
 - Political Instructor: Wang Feng [王锋] (4/20)⁹¹²
- 3rd Launch Battalion [发射三营]
 - Commander: Jiang Wanfa [江万发] (4/20)⁹¹²
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]

^{xlviii} The commander of this brigade is not yet known, however Zhang Gensheng, the former COS of the 636 Brigade, wrote an opinion piece attached to an article about this brigade in March 2020 (see citation), suggesting a possible promotion

- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]⁹¹¹

635 Brigade [635 旅]

The 635 Brigade, located in the inland southern Chinese city of Yichun, was established around 2005 as the second CJ-10 cruise missile brigade, and fired its first missile in 2007.⁹¹³

MUCD: 96735Former MUCD/TUD: 96317 (824th Launch Brigade417)Grade: Division Deputy LeaderParent Unit: Base 63

Location: Yuanzhou District Industrial Park, Yichun, Jiangxi [江西省宜春市袁州区工业园]914 915

Geo: 27.888289, 114.386869916

Secondary Garrison: High-tech District, Yushui District, Xinyu, Jiangxi [江西省新余市渝水 区高新区]^{917 918}

Capabilities

Missile: CJ-10 LACM⁹¹⁹ Missile Type: Conventional; Cruise Missile

Leadership

Commander: Li Lihong [李立弘] (8/20)919 PC: Liu Hongwei [刘宏伟] (6/20)920

Dep Commanders: Mao Guanghong [毛光宏] (10/18)⁹²¹; Yang Zhibai [杨治白] (2/18)⁹²²; Deng Boliao [邓波聊] (1/18)⁹²³

Dep PC: Unknown

COS: Mao Wenchang [毛文昌] (9/18)924

PWDD: Unknown

Support Dept Director: Unknown

Other Senior Leadership: Xie Pingwu [谢平武], Pol Work Dept Dep Director (10/18)925

Former Leadership: Zheng Xiaodong [郑晓东], PC (2018)⁹²⁶; Li Chengyong [李承勇], Dep Commander (2019)⁹²⁷; Han Xiao [韩萧], PWDD (2020)⁹²⁸

Composition (presumed)

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]⁹¹³
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
 - Political Instructor: Tang Langbo [唐浪波] (1/18)⁹²³
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]⁹²⁹
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- 1st Technical Battalion [技术一营]
- 2nd Technical Battalion [技术二营]⁹³⁰
- ECM Battalion [电抗营]⁹³¹
 - This brigade is notable, and possibly unique, for having a subordinate ECM battalion.

Background

• Han Xiao [韩萧], until recently the Political Work Department Director for this brigade, served as the PC of the CJ-100 formation at its 2019 debut.⁹³²

636 Brigade [636 旅]

The 636 Brigade, garrisoned in the southern Chinese city of Shaoguan, was officially established in 2010⁹³³ by combining the test unit established around 2005 to bring the new DF-16 SRBM into service with a PLAA unit which was transferred to the 2nd Artillery at this time.⁹³⁴ It was the first unit equipped with the DF-16, and may now be equipped with both the DF-16 and DF-16A.

MUCD: 96736Former MUCD/TUD: 96318 (826th Launch Brigade417)Grade: Division Deputy Leader935Parent Unit: Base 63

Location: Qujiang District, Shaoguan, Guangdong 512158 [广东省韶关市曲江区]^{936 937}

Geo: 24.755160, 113.679761^{306 938}

Secondary Garrison: Donglian Village, Xinshao Town, Zhenjiang District, Shaoguan, Guangdong [广东省韶关市浈江区新韶镇东联村]⁹³⁹ (possibly 24.782042, 113.627729 or 24.788218, 113.615410)

Capabilities

Missile: DF-16³⁰⁶/DF-16A^{940 941} SRBM

Missile Type: Conventional

Leadership

Commander: Li Yongzhou [李永周] (7/19)⁹⁴² **PC**: Yin Hongwen [阴红文] (8/20)⁹⁴³

Dep Commanders: Chen Gang [陈刚] (9/18)⁹³⁵ **Dep PC**: Unknown

Chief of Staff: Zhang Gensheng [张艮胜]^{xlix} (7/17)⁹³³ PWDD: Unknown

Support Dept Director: Unknown

Other Senior Leadership: Zhao Yougang [赵优刚], Dep COS (12/18)⁹⁴⁴; Jiang Wuzhi [姜武 致], Pol Work Dept Dep Director (4/19)⁹⁴⁵

Former Leadership: Liu Chuanguo¹ [刘传国], Commander (2017)⁹⁴⁶; Shi Daqing [石大庆], PC (2015)⁹⁴⁷; Tao Xiaofeng [陶晓峰], Pol Dept Director (2015)⁹⁴⁷; Zhu Zhongliang [朱忠亮], Dep COS (2015)⁹⁴⁷

- 1st Launch Battalion [发射一营]
 - Made up of two companies. The 1st Company came from the 2nd Artillery and was highly technical, while the 2nd Company came from the PLAA and lacked technical skills, but had superior physical fitness. This mismatch of skillsets initially presented a problem that had to be overcome, but the Battalion was able to successfully carry out a major launch mission only three months after formation.⁹³⁴
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]

^{xlix} Possibly dated – there is circumstantial evidence that Zhang may now command the 635 BDE as of March 2020, but this is unconfirmed ¹Alternative possible spelling of name: Liu Zhuanguo

- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]

Background

- The PLAA unit which was transferred to the PLARF in 2010 to form this brigade has a long and storied history. It was established in May 1938 as the 4th Zhidui of the New 4th Army,⁹³⁴ with elements coming from the 1st and 3rd Army Artillery Companies.³⁰⁶
- This brigade successfully launched its first missile in the first year of its creation. In its second year it had established operational capabilities. In its third year it carried out its first on-duty mission.⁹³⁴

Base 63 Training Regiment [63 基地训练团]

This regiment is responsible for training of Base 63 enlisted personnel.

MUCD : 96831	Former MUCD : 96321	
Grade: Regiment Leader	Parent Unit: Base 63	
Location: Dongkou County, Shaoyang, Hunan [湖南省邵阳市洞口县] ⁹⁴⁸		
Geo: Unconfirmed, possibly 27.033222, 110.536653		

Leadership

Commander: Liu Hongzhang [刘红章] (1/18)949	PC: Han Kai [韩凯] (3/18) ⁹⁵⁰	
Dep Commanders: Unknown	Dep PC: Yang Ping [杨平] (1/18)951	
Chief of Staff: Unkown	PWDD : Li Youquan [李友权] (4/18) ⁹⁵²	
Support Div Director: Unknown		
Other Senior Leadership: Xu Hanpei [徐寒裴], Pol Work Div Dep Director (3/18)953		
Former Leadershin: Zhang Ruijiang [洪瑞江] Commander (2016) ⁹⁵⁴ : Wan Chongwei [万岑		

Former Leadership: Zhang Ruijiang [张瑞江], Commander (2016)⁹⁵⁴; Wan Chongwei [万崇 伟], PC (2015)⁹⁵⁵

Composition

• Unknown number of subordinate training battalions

Base 63 Communications Regiment [63 基地通信团]

This regiment is responsible for base-level communications.

MUCD: 96832Former MUCD: 96325Grade: Regiment LeaderParent Unit: Base 63

Location: Hecheng District, Huaihua, Hunan 418008 [湖南省怀化市鹤城区]^{956 957} (possibly co-located with base HQ)

Geo: Unconfirmed, possibly 27.574100, 110.022901

Leadership

Commander: Lü Haiming [吕海明] (6/17)958

Dep Commanders: Unknown

Chief of Staff: Unknown

Support Div Director: Unknown

Composition (presumed)

- 1st Communications Battalion [通信一营]
- 2nd Communications Battalion [通信二营]
- 3rd Communications Battalion [通信三营]
 - \circ Established in 2005⁹⁶¹
- Communications Network Technical Management Center [通信网络技术管理中心]956

Base 63 Operations Support Regiment [63 基地作战保障团]

The Base 63 Operations Support Regiment is responsible for survey and mapping,⁹⁶² meteorology,⁹⁶³ security, NBC defense,⁹⁶⁴ and engineering.⁹⁶⁵ The unit also has a precision guidance support team [精导保障队].⁹⁶⁶

MUCD: 96833

Former MUCD: 96326

PC: Li Zhongui [李中辉] (11/16)⁹⁵⁹

PWDD: Unknown

Dep PC: Zhang Xiaobo [张小波] (9/17)⁹⁶⁰

Grade: Regiment Leader

Parent Unit: Base 63

Location: 786 Yingfeng East Rd., Hecheng District, Huaihua, Hunan 418099 [湖南省怀化市鹤城区迎丰东路 786 号]^{967 968} (co-located with Base HQ)

Geo: 27.577500, 110.023033969

Leadership

Commander: Shen Qiguo^{li} [沈奇国] (5/20)⁹⁷⁰ **PC**: Jiang Cuizheng [姜翠正] (1/20)⁹⁷¹

Dep Commanders: Chen Jianqiang [陈建强] (6/18)972

Dep PC: Zhao Fangdong [赵方栋] (12/20)973

Chief of Staff: Dong Dong [董栋] (9/18)974

PWDD: Zou Zhengjun [邹政军] (4/18)975

Support Div Director: Wang Liang [王亮] (8/18)⁹⁷⁶

Former Leadership: Li Yongzhou [李永周], Commander (2018)⁹⁷⁷; Zhang Youwu [张有武], Commander (2016)⁹⁷⁸; Cheng Xiaofei [程晓飞], PC (2018)⁹⁷⁹; Ding Yangsheng [丁洋声], PC (2016)⁹⁸⁰

- Security and Chemical Defense Battalion [警卫防化营]⁹⁶⁴
 - Security Company [警卫连]⁹⁸¹
 - 1st Chemical Defense Company [防化一连]⁹⁸²
 - 2nd Chemical Defense Company [防化二连]
 - Commander: Li Congyuan [李聪元] (5/20)⁹⁷⁰
- Meteorology Station (Battalion Leader Grade) [气象台]
- Surveying Team (Battalion Leader Grade) [测地队]⁹⁶¹
 - 1st Squadron [一中队]
 - 2nd Squadron [二中队]
- Engineering Company [工兵连]⁹⁶⁵
- Precision Guidance Support Team [精导保障队]966

liAlternative possible spelling of name: Shen Jiguo

Base 63 Comprehensive Support Regiment [63 基地综合保障团]

The Base 63 Comprehensive Support Regiment is a recently established unit⁹⁸³ (likely established in 2017 as with other such regiments) formed by combining the former base repair factory and other support units.⁹⁸³ However unlike most other bases, Base 63 still has its Technical Service Regiment, and it is thus unclear whether this regiment took on the responsibilities of the Service Regiment as with other bases.¹ⁱⁱ If so, it is responsible for weapons and equipment storage, management, and transportation, in addition to equipment repair and maintenance.

MUCD : 96834	Former MUCD: 96324				
Grade: Regiment Leader	Parent Unit: Base 63				
Location: Hecheng District, Huaihua, Hunan [湖南省怀化市鹤城区] ⁹⁸⁴ (possibly co-located with Base HQ)					
Geo: Unconfirmed, possibly 27.575885, 110.02483	9				

Secondary Garrison: Dong'an County, Yongzhou, Hunan [湖南省永州市东安县]985

Leadership

Commander: Cheng Xueping [程学平] (6/20)986	PC: Yin He [殷赫] (8/20) ⁹⁸⁷
Dep Commanders: Unknown	Dep PC: Shi Jincai [石进才] (9/19) ⁹⁸⁸
Chief of Staff: Unknown	PWDD : Unknown
Support Div Director: Unknown	

Other Senior Leadership: Ye Xiaoyang [叶孝阳], Dep COS (10/18)989

Former Leadership: Ni Rang [倪让], Commander (2018)⁹⁹⁰; Wan Jun [万军], PC (2018)⁹⁹¹; Li Mingyue [李明跃], Repair Factory PC (2017)⁹⁹²; Cheng Xueping [程学平], Dep Commander (2018)⁹⁹³

Composition (presumed)

• Vehicle Battalion [汽车营]⁹⁹⁴

^{lii} There is mixed evidence in this regard. On the one hand, the Service Regiment has retained its rail transport capabilities, suggesting it is still responsible for transport of base equipment. On the other, the Service Regiment today seems to be exclusively concerned with management of missile propellants, and the author can find no evidence of it transporting other equipment post-2017. This remains an open question

- Repair and Measurements Station (Battalion Leader Grade) [维修计量站]⁹⁹⁵
- Munitions Depot [军械仓库]
- Fuel Storage Depot [油料仓库]
- Comprehensive Depot [综合仓库]⁹⁹⁶
- Service Company [勤务连]
- Vehicle Repair Subunit [汽车维修分队]

Background

- Zhou Fenglin [周丰林], a PLARF model NCO, belongs to this unit.⁹⁹⁷
- This unit offers training to base personnel in medical rescue, equipment repair, and vehicle driving.⁹⁹⁸

Base 63 Service Regiment [63 基地勤务团]

The Base 63 Service Regiment was established in 1999 by upgrading a distribution station [转运 站1 to a regiment.⁹⁹⁹ It is notable for being one of only two base Service Regiments to still exist following the 2017 round of reforms, albeit with a possibly narrower mission. Today, the regiment's primary responsibility is the testing,¹⁰⁰⁰ transport,¹⁰⁰¹ and loading of missile propellants, including nitrogen, prior to missile launch. Base 63 is the only base with such a regiment, likely due to its two silo-based, liquid propellent ICBM brigades in Huaihua. It is unclear if this regiment has retained its previous mission of storage and transport of missiles and other base equipment, or if, as with other bases, this mission has been transferred to the Comprehensive Support Regiment. One source states that it retains its rail transport capability, suggesting it may still transport other base equipment.¹⁰⁰²

MUCD: 96835	Former MUCD: 96322			
Grade: Regiment Leader	Parent Unit: Base 63			
Location: Genshankou, Jingzhou County, Hunan [湖南省靖州县艮山口] ^{1003 1004}				
Geo: Unconfirmed, possibly 26.646131, 109.69093	37			
Leadership				
Commander: Wang Zhibin [王志彬] (9/18) ¹⁰⁰⁵	PC : Unknown			
Dep Commanders: Unknown	Dep PC: Unknown			
Chief of Staff: Wang Liming [王黎明] (8/18) ¹⁰⁰⁶	PWDD: Feng Shengyong [冯圣勇] (5/18)1007			

Support Div Director: Tu Yuanpeng [涂远朋] (8/18)¹⁰⁰⁸

Former Leadership: Wang Jinjian [王金剑], Commander (2017)¹⁰⁰⁹; Jiang Cuizheng [姜翠正], PC (2019)¹⁰¹⁰; Wang Liangfeng [王良锋], Dep Commander (2017)¹⁰¹¹

Known Composition

- 1st Fueling Battalion [转注一营]¹⁰¹²
 - Commander: Wang Lishuai [王立帅] (12/18)¹⁰⁰¹
- 2nd Fueling Battalion? [转注二营]
 - Existence of a "First" Battalion implies possible existence of a second
- Rail Transport Company [铁路运输连]¹⁰¹³

Background

- The regiment's primary mission is to fuel [介质转注] the base's missiles. This mission includes transport and armed escort of propellants via both road and rail¹⁰¹³ to missiles sites,¹⁰¹⁴ and regular quality control testing of propellants.¹⁰⁰⁰ It is often described as providing the "lifeblood" [血液] for Base 63 launch units.¹⁰⁰⁰ This is considered a particularly dangerous job. Nitrogen is stored under high pressure, making it dangerous during the manufacture, storage, and transport stages.¹⁰¹⁵ Further, propellant testing is dangerous work due to the proximity of noxious, explosive, and/or corrosive substances, and lurid stories about workplace injuries appear frequently in PLA media as part of the unit's lore.¹⁰⁰⁰
- Wang Yanchuan [王言传], a model NCO in this unit, has supported 14 live missile launches [实弹发射] in his 24 years of service.¹⁰¹⁶

Base 63 Equipment Inspection Regiment [63 基地装检团]

The Base 63 Equipment Inspection Regiment, established around 2006,¹⁰¹⁷ is responsible for storage, management, and transport of the Base's nuclear warheads.

MUCD: 96033

Former MUCD: 96323 (905 Regiment⁶⁵²)

Parent Unit: Base 63

Grade: Regiment Leader

Location: Tianxing East Road, across from Tianxing Square, Hecheng District, Huaihua, Hunan [湖南省怀化市鹤城区天星东路天星广场对面]^{1018 1019}

Geo: Unconfirmed, possibly 27.537574, 109.986285

Leadership

Commander: Gui Zhijie [桂志杰] (1/18)¹⁰¹⁷

Dep Commanders: Unknown

Chief of Staff: Unknown

PC: Yang Junyu [杨骏宇] (5/19)¹⁰²⁰ Dep PC: Li Fanghua [李方华] (11/16)¹⁰²¹

PWDD: Unknown

Support Div Director: Unknown

Other Senior Leadership: Hu Zhongze [湖中泽], Dep COS (12/19)¹⁰²²

Former Leadership: Deng Zhiliang [邓志良], PC (2017)¹⁰²³; Zhu Jingli [朱敬礼], PC (2015)¹⁰²⁴

Composition (presumed)

- 1st Equipment Inspection Station [装检一站]
- 2nd Equipment Inspection Station [装检二站]
- 3rd Equipment Inspection Station [装检三站]
- 1st Technical Service Battalion [技术勤务一营]
- 2nd Technical Service Battalion [技术勤务二营]¹⁰²⁵
 - This is the only Equipment Inspection Regiment confirmed to have a second Technical Service Battalion.
- Comprehensive Support Battalion [综合保障营]
- Transport Company [转运连]
- Security and Communications Company [警卫通信连]
- Fueling Company [转注连]¹⁰²⁶
 - This fueling company suggests that this regiment may share the liquid propellent fueling mission with the Base Service Regiment. However the source is from 2016, and it is thus possible this company has since been transferred to the Service Regiment.

Unit 96603 Hospital [96603 部队医院]

The Unit 96603 Hospital is the official hospital attached to Base 63.

MUCD: N/A		Former TUD: 535 Hospital [535 医院]
	1027	

Grade: Division Deputy Leader¹⁰²⁷ Parent Unit: Base 63

Location: 535 Yingfeng East Rd., Huaihua, Hunan [湖南省怀化市迎丰东路 535 号]¹⁰²⁸

Geo: 27.577168, 110.012803

Leadership

Director: Zhu Daosheng [朱道生] (9/19)¹⁰²⁹ PC: Hu Haoran [胡浩然] (9/19)¹⁰²⁹

PWDD: Huang Ying [黄应] (8/19)¹⁰³⁰

Base 64 [64 基地]

			Base Lanzh						
Hancheng	Tianshui	644 BDE Hanzhong DF-41		647 BDE Xining U/I	Training REG Xining	Comms REG Xining	Ops Support REG Lanzhou	Comp Support REG Xining	Equip Insp BDE Xining

Base 64, headquartered in the western Chinese city of Lanzhou, is an operations base covering northwest and northern central China. It commands at least four road-mobile nuclear ICBM brigades, one dual nuclear-conventional IRBM brigade, and two more brigades of unknown missile type. Since 2017 it has nearly doubled in size, expanding from four to seven missile brigades.

MUCD: 96604

Former MUCD/TUD: 96351 (Base 56)

Grade: Corps Leader¹⁰³¹

Location: 156 Jinke Rd., Eastern S&T New City, Dingyuan Town, Yuzhong County, Lanzhou, Gansu [甘肃省兰州市榆中县定远镇东部科技新城金科路 156 号]^{1032 1033}

Geo: 35.938567, 104.015405¹⁰³⁴

Secondary Garrison:

- Golmud, Qinghai [青海省格尔木]¹⁰³⁵
- Delhi (Delingha), Haixi, Qinghai [青海省海西德令哈]¹⁰³⁶
 - o Base 64 Delhi (Delingha) Command Department [德令哈指挥部]
 - May be co-located with other PLARF assets in the area.
- Biandangou Township, Litong District, Wuzhong, Ningxia [宁夏回族自治区吴忠市利 通区扁担沟镇]¹⁰³⁷
 - Base 64 Logistics Department Agricultural Product Base [后勤部农副产品基地], presumably for growing food for the base.



Leadership

Commander: Sun Jinming [孙金明] (1/20)¹⁰³⁸ **PC**: He Jun [何俊 or 何骏] (1/20)¹⁰³⁸

Dep Commanders: Liu Yuesheng [刘岳生] (3/19)¹⁰³⁹; Deng Lizhong [邓立中] (1/20)¹⁰⁴⁰

Dep PC: Pan Jihui [潘吉慧] (1/20)¹⁰³⁸

Chief of Staff: You Shaoping [由绍平] (1/20)¹⁰³⁸ PWDD: Xu Deli [徐德立] (5/20)¹⁰⁴¹

Support Dept Director: Zhang Weimin [张卫民] (6/18)¹⁰⁴²

Other Senior Leadership: Zhang Kebao [张可宝], Dep COS (7/17)¹⁰⁴³; Ma Jiaxing [马家兴], Pol Work Dept Dep Director¹⁰⁶; Ren Yongji [任永吉]^{liii 1044}; Xiang Songbo [向松波], unknown senior position¹⁰⁴⁴

Former Leadership: Li Jun [李军], Commander (2017)¹⁰⁴⁵; Wang Dingfang [王定放], PC (2017)¹⁰⁴⁶; Li Yang [李阳], PWDD (2018)¹⁰⁴⁷; Zhou Jingjiong [周晶炯], Pol Work Dept Dep Director (8/17)¹⁰⁴⁸; Liu Yongmin [刘拥民], Support Dept Dep Director (2017)¹⁰⁴⁹

liiiRen Yongji was a base Deputy COS, transferred to PLAN South Sea Fleet, and is now apparently back with this base

Known Composition

- 641 Brigade [641 旅]
- 642 Brigade [642 旅]
- 643 Brigade [643 旅]
- 644 Brigade [644 旅]
- 645 Brigade [645 旅]
- 646 Brigade [646 旅]
- 647 Brigade [647 旅]
- Training Regiment [训练团]
- Communications Regiment [通信团]
- Operations Support Regiment [作战保障团]
- Comprehensive Support Regiment [综合保障团]
- Equipment Inspection Brigade [装检旅]
 - Notably, this base possesses a brigade-sized unit for this purpose, whereas most bases only have a regiment.
- Unit 96604 Hospital [96604 部队医院]
- Sharp Knife Special Operations Team [利刃特战队]¹⁰⁵⁰
 - This base is known to possess a special operations team, possibly dedicated to counter-SOF and missile/infrastructure defense (personnel are referred to as "missile guardians" [导弹卫士]. It is unclear whether this capability is something all bases possess or if it is specific to this base.

641 Brigade [641 旅]

The 641 Brigade dates back to at least 1968, when it was established as a regiment.¹⁰⁵¹ Formerly subordinate to Base 51 (now Base 65), it was apparently transferred to Base 64 as part of the 2017 reforms. It is located in the central Chinese city of Hancheng and possibly equipped with the DF-31 road-mobile ICBM.

MUCD: 96741 **Former MUCD/TUD**: 96111 (806th Launch Brigade⁴¹⁷)

Grade: Division Deputy Leader¹⁰⁵² **Parent Unit**: Base 64

Location: Xincheng Subdistrict, Hancheng, Weinan, Shaanxi [陕西省渭南市韩城市新城街道]¹⁰⁵³

Geo: 35.474451, 110.446555¹⁰⁵³ 1054

Secondary Garrisons:

- Huanglong County, Yan'an, Shaanxi [陕西省延安黄龙县]¹⁰⁵⁵
- Linyi County, Yuncheng, Shanxi [山西省运城市临猗县]¹⁰⁵⁶

Capabilities

Missile: possibly DF-31 ICBM (see below) Missile Type: Nuclear, Road-mobile

Leadership

Commander: Duan Juxing [段聚兴] (5/20) ¹⁰⁵²	PC: Wei Liqiang [卫礼强] (7/18) ¹⁰⁵⁷
Dep Commanders: Li Maoxue [李茂学] (1/20) ¹⁰⁵	⁸ ; Dong Longju [董龙聚] (7/19) ¹⁰⁵³
	Dep PC: Dong Mingri [董明日] (1/17) ¹⁰⁵⁹

Chief of Staff: Xu Dongxin [许东新] (7/19)¹⁰⁵³

PWDD: Ma Chunyu [马春雨] (9/17)¹⁰⁶⁰

Support Dept Director: Unknown

Other Senior Leadership: Guo Yongzhen [郭永臻], Pol Work Dept Dep Director (7/19)¹⁰⁵³

Former Leadership: Xiao Junling [肖俊岭], COS (2015)¹⁰⁶¹; Zhu Liandeng [朱连登], Pol Dept Director (2015)¹⁰⁶²

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]
 - Loading Company [装填连]¹⁰⁵¹
 - Missile Test Company [导弹测试连]¹⁰⁶³

• The all-female nature of this company is often emphasized in PLA media.

Background

- This unit is noted as having been involved in a significant number of test and experimental missile launches over the years.¹⁰⁶⁴
- As of 2015, this brigade was equipped with the DF-21A MRBM.^{1065 1066} By 2018 it had converted to an unidentified new missile type,¹⁰⁶⁷ and satellite imagery suggests a buildout of infrastructure associated with the DF-31,^{liv} although there is no definitive proof as of this writing.

642 Brigade [642 旅]

The 642 Brigade, dating back to around 1969¹⁰⁶⁸ and located in the western Chinese city of Xining, is equipped with some variant of the DF-31 road-mobile ICBM, possibly the latest AG variant.

MUCD: 96742 **Former MUCD/TUD**: 96361 (809th Launch Bde⁴¹⁷)

Grade: Division Deputy Leader Parent Unit: Base 64

Location: Qiaotou Town, Datong Hui and Tu Autonomous County, Xining, Qinghai [青海省西 宁市大通回族土族自治县桥头镇]^{1069 1070}

Geo: 36.949294, 101.667324¹⁰⁷¹

Capabilities

Missile: DF-31 ICBM, possible upgrade to DF-31AG^{1072 1073}

Missile Type: Nuclear, Road-mobile

Leadership

Commander: Li Jinlong [李进龙] (3/21)¹⁰⁷⁴

PC: Xie Jianxun [解建勋] (10/19)¹⁰⁷⁵

Dep Commanders: Unknown

Dep PC: Yao Fei [姚菲] (10/19)¹⁰⁷⁵

Chief of Staff: Wang Haizheng [王海争] (3/21)¹⁰⁷⁴ PWDD: Luo Kanghong [罗康洪] (2/18)¹⁰⁷⁶

^{liv}Credit to private analyst Decker Eveleth for this analysis.

Support Dept Director: Unknown

Former Leadership: Chen Shoude [陈守德], Commander (2019)¹⁰⁷⁷; Du Hai [杜海], COS (2017)¹⁰⁷²; Wang Haizheng [王海争], Support Dept Director (2019)¹⁰⁷⁷

Composition (presumed)

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]

Background

- In 2017 this brigade began conversion to a new missile type,¹⁰⁶⁸ and photos from around August 2017 show brigade personnel with DF-31AG TELs,^{1072 1073} indicating possible conversion. However analysis of base infrastructure does not yet provide supporting evidence for this.^{1v}
- This brigade is located in a high-elevation plateau environment.¹⁰⁷⁸

643 Brigade [643 旅]

The 643 Brigade is located in the western/central Chinese city of Tianshui and equipped with the DF-31 road-mobile ICBM. Sources from 2017 suggest it has recently converted to a new variant, possibly the DF-31AG.

MUCD: 96743

Former MUCD/TUD: 96363 (812th Launch Brigade⁴¹⁷)

Grade: Division Deputy Leader Parent Unit: Base 64

^{1v} See: Decker Eveleth, "China's Mobile ICBM Brigades: The DF-31 and DF-41," *A Boy and His Blog*, 2 July 2020, https://www.aboyandhis.blog/post/china-s-mobile-icbm-brigades-the-df-31-and-df-41

Location: Shiziping Village, Maiji District, Tianshui, Gansu 741020 [甘肃省天水市麦积区什 字坪村]^{1079 1080}

Geo: 34.531837, 105.909832¹⁰⁸¹

Secondary Garrisons:

- Qinzhou District, Tianshui, Gansu [甘肃省天水市秦州区]¹⁰⁸²
- Qingshui County, Tianshui, Gansu [甘肃省天水市清水县]¹⁰⁸³

Capabilities

Missile: DF-31AG ICBM¹⁰⁸⁴ 1085

Missile Type: Nuclear, Road-mobile

Leadership

Commander: Li Dongxu [李东旭] (7/20)¹⁰⁸⁶ PC: Si Jianping [司建平] (1/20)¹⁰⁸⁷

Dep Commanders: Guo Yu [郭瑜] (1/19)¹⁰⁸⁸; Lin Yuan [林园] (1/20)¹⁰⁸⁹

Dep PC: Wang Feng [王峰] (1/19)¹⁰⁹⁰

Chief of Staff: Zhang Pengpeng [张朋朋] (9/18)¹⁰⁹¹

PWDD: Liu Xiaobo [刘小波] (8/18)¹⁰⁹²

Support Dept Director: Unknown

Former Leadership: Ma Jiaxing [马家兴], PC (2019)¹⁰⁹³

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
 - Commander: Zhang Zhichun [张志纯] (8/18)¹⁰⁸⁴
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]¹⁰⁹⁴
- Comprehensive Support Battalion [综合保障营]¹⁰⁹⁵

• Technical Battalion [技术营]

644 Brigade [644 旅]

The 644 Brigade, established in 2017 in the central Chinese city of Hanzhong, is likely the first equipped with the newest DF-41 road-mobile ICBM.

MUCD: 96744

Grade: Division Deputy Leader¹⁰⁹⁶

Location: Longjiang Town, Hantai District, Hanzhong, Shaanxi [陕西省汉中市汉台区龙江镇]¹⁰⁹⁷

Geo: Unconfirmed, possibly 33.132711, 106.933997

Secondary Garrison: Mian County, Shaanxi (possibly around Lianshui Village, Wuhou Town) [陕西省勉县武侯镇莲水村]^{1098 1099}

Capabilities

Missile: likely DF-41 ICBM

Missile Type: Nuclear, Road-mobile

Former MUCD/TUD: N/A (new brigade)

Parent Unit: Base 64

Leadership

Commander: Xing Jianjun [邢建军] (1/20)¹¹⁰⁰ PC: Unknown

Dep Commanders: Jin Chaohua [晋朝华] (5/19)¹¹⁰¹ Dep PC: Wan Jingang [万金刚] (9/18)¹⁰⁹⁸

Chief of Staff: Unknown PWDD: Unknown

Support Dept Director: Unknown

Former Leadership: Ji Jianchun [姬建春] PC (2020)1100

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
 - 。 Commander: Bai Lingyun [白凌云] (10/18)¹¹⁰²; often touted as model officer

- This battalion was responsible for test launches of a new missile type beginning in 2015. It conducted test launches in April 2016,¹¹⁰³ in line with a known launch of the DF-41,^{1vi} and another in late 2017.¹¹⁰⁴
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]

Background

Following the 2nd Battalion's test launches of the DF-41, one article referred to this unit as the "New Generation 1st Dongfeng Brigade" [新时代东风第一旅],¹¹⁰⁴ though it is not yet clear if this is an official brigade honorific. The missile is also repeatedly described as "image-enhancing" [形象弹],¹¹⁰⁴ a phrase unique to this unit.

645 Brigade [645 旅]

The 645 Brigade, garrisoned in the central Chinese city of Yinchuan, was first publicly cited in November 2019.¹¹⁰⁵ Very little information has emerged on this brigade as of late 2020.

MUCD: 96745

Former MUCD/TUD: N/A (new brigade)

Grade: Division Deputy Leader (presumed)

Parent Unit: Base 64

Location: 52 Wenchang North Rd., Xixia District, Yinchuan, Ningxia [宁夏回族自治区省银川 市西夏区文昌北街 52 号]^{1105 1106}

Geo: Unknown

Capabilities

Missile: Unknown

Missile Type: Unknown

^{lvi}See: Franz-Stefan Gady, "China Flight Tests Multiple Warhead Missile Capable of Hitting All of US," *The Diplomat*, April 20, 2016, https://thediplomat.com/2016/04/china-flight-tests-multiple-warhead-missile-capable-of-hitting-all-of-us/

Leadership				
Commander: Unknown	PC: Yang Yong [杨勇] (7/21) ¹¹⁰⁷			
Dep Commanders: Unknown	Dep PC: Unknown			
Chief of Staff: Unknown	PWDD : Unknown			
Support Dept Director: Unknown				
Other Senior Leadership: Qiu Dongqin [邱东勤] (2/21) ¹¹⁰⁸				

Composition (presumed)

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]

646 Brigade [646 旅]

The 646 Brigade, located in the far-western city of Korla, is equipped with the DF-26 IRBM, which is capable of swapping both nuclear and conventional warheads. This brigade is notable for being tasked with both nuclear and conventional strike missions,¹¹⁰⁹ the first time this type of dual mission had been confirmed within a single brigade.

MUCD: 96746 Former MUCD/TUD: 96365 (823rd Launch Brigade⁴¹⁷)

Grade: Division Deputy Leader Parent Unit: Base 64

Location: Waihuan Rd., Korla, Bayingol Prefecture, Xinjiang [新疆巴音郭楞州库尔勒市外环路]¹¹¹⁰1111112

Geo: 41.695033, 86.173623¹¹¹³

Secondary Garrison:

- 199 Youpeng Street, Yingbin East St., Xinshi District, Urumqi, Xinjiang [新疆乌鲁木齐 市新市区迎宾东路友朋街 199 号]¹¹¹⁴ (possibly 43.901002, 87.544443)
 - o This brigade reportedly commands a transit depot [中转站] at this location.

Capabilities

Missile: DF-26 IRBM¹¹⁰⁹ Missile Type: Dual Nuclear-Conventional, Road Mobile

Leadership

Commander: Kong Qiang [孔强] (8/18)^{1109 1115} **PC**: Unknown

Dep Commanders: Unknown Dep PC: Unknown

Chief of Staff: Zhang Wenbin [张文斌] (12/17)¹¹¹⁶ PWDD: Li Jianlong [李建龙] (6/18)¹¹¹⁷

Comprehensive Support Dept Director^{Ivii}: Jia Yunhong [贾云鸿] (9/18)¹¹¹⁸

Other Senior Leadership: Feng Qingcai [冯庆彩], Dep COS (7/17)¹¹¹⁹

Former Leadership: Li Zhenglian [李正连], Commander (2016)¹¹²⁰; Zhou Lüsheng [周吕胜], PC (2018)¹¹⁰⁹¹¹¹⁵; Yang Hongquan [杨洪全], PC (2016)¹¹²⁰; Li Hui [李辉], Dep Commander (2017)¹¹⁰⁹; Guo Yu [郭瑜], COS (2017)¹¹²¹

- 1st Launch Battalion [发射一营]
 - o Commander: Mo Bin [莫斌] (5/18)¹¹²²
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]

^{lvii}According to one source, this brigade has a *Comprehensive* Support Department, while most brigades simply have a Support Department. The significance of this difference is not immediately clear.

- Comprehensive Support Battalion [综合保障营]
- 1st Technical Battalion [技术一营]
- 2nd Technical Battalion [技术二营]¹¹²²

Background

• According to one drill held in 2017, this brigade is capable of firing a conventional missile and then immediately preparing for a nuclear counterstrike.¹¹⁰⁹ This brigade's dual nuclear-conventional mission has major implications for deterrence, increasing ambiguity and making differentiation between nuclear and conventional missiles much more difficult. This in turn raises the risk of nuclear miscalculation.^{1viii} This is so far the only brigade confirmed to possess this capability, but it raises the possibility that some or all PLARF DF-26 brigades could be tasked in the same way.

647 Brigade [647 旅]

The 647 Brigade, located in the western Chinese city of Xining, was first publicly cited around mid-2018.¹¹²³ ¹¹²⁴ It is equipped with an unidentified "new missile type."

MUCD: 96747

Former MUCD/TUD: N/A (new brigade)

Grade: Division Deputy Leader¹¹²⁵

Parent Unit: Base 64

Location: Chengdong District, Xining, Qinghai [青海省西宁市城东区]¹¹²⁶

Geo: Unconfirmed, possibly 36.593398, 101.877074

Capabilities

Missile: Unknown "new missile type"¹¹²⁷

Missile Type: Unknown

Leadership

Commander: Zhang Jun [张军] (7/18)¹¹²⁴

Dep Commanders: Lü Wei [吕伟] (7/18)¹¹²⁴

PC: Wang Qin [王庆] (9/18)¹¹²⁴

Dep PC: Unknown

^{1viii} For more on this brigade's nuclear-conventional mission, see the author's article in Popular Science: Ma Xiu and Peter Singer, "China's ambiguous missile strategy is risky," Eastern Arsenal, Popular Science, 11 May 2020, <u>https://www.popsci.com/story/blog-network/eastern-arsenal/china-nuclear-conventional-missiles/</u>. For a more in-depth treatment of this phenomenon and its implications, see James Acton, "Is It a Nuke?: Pre-Launch Ambiguity and Inadvertent Escalation," Carnegie Endowment for International Peace, 9 April 2020, https://carnegieendowment.org/2020/04/09/is-it-nuke-pre-launch-ambiguity-and-inadvertent-escalation-pub-81446

Chief of Staff: Zhang Jiaqing [张驾卿] (7/18)¹¹²⁴ PWDD: Zhu Xiaogang [朱晓刚] (11/19)¹¹²⁵

Support Dept Director: Bai Shusheng^{lix} [白树盛] (6/20)¹¹²⁸

Former Leadership: Liu Nian [刘念], Support Dept Director (2018)¹¹²⁴

Composition (presumed)

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]

Base 64 Training Regiment [64 基地训练团]

This regiment is responsible for training of new enlisted personnel assigned to this base.

MUCD: 96841Former MUCD: 96371Grade: Regiment LeaderParent Unit: Base 64

Location: Shangwuzhuang Town, Huangzhong County, Xining, Qinghai 810011 [青海省西宁市 湟中县上五庄镇]¹¹²⁹

Geo: Unconfirmed, possibly 36.853165, 101.377012 or 36.841023, 101.385977

Leadership

Commander: Zhang Chunfeng [张纯峰] (3/20)¹¹³⁰ PC: Hou Zhiyu [侯志宇] (9/19)¹¹³¹

Dep Commanders: Unknown

Dep PC: Unknown

^{lix}Alternative possible spelling of name: Bai Shucheng

Chief of Staff: Unknown

Support Div Director: Unknown

Former Leadership: Zhang Wei [张伟], PC (2017)¹¹³³

Composition

• Unknown number of subordinate training battalions

Base 64 Communications Regiment [64 基地通信团]

This regiment is responsible for base-level communications.

MUCD : 96842	Former MUCD: 96375
Grade: Regiment Leader	Parent Unit: Base 64

Location: Chengdong District, Xining, Qinghai 810007 [青海省西宁市城东区]^{1134 1135}

Geo: 36.596801, 101.810449¹¹³⁶

Secondary Garrisons:

- Ledu District, Qinghai [青海省乐都区]¹¹³⁷
- Dingyuan Town, Lanzhou, Gansu [甘肃省兰州市定远镇]¹¹³⁸ (35.938764, 104.015911)
 Element co-located with Base HQ.

Leadership

Commander: Li Hui [李辉] (8/18) ¹¹³⁹	PC: Zhang Hongwei [张红伟] (9/18) ¹¹⁴⁰
Dep Commanders: Unknown	Dep PC: He Zhiqiang [何志强] (8/18)1141
Chief of Staff: Unknown	PWDD: Song Yanfang [宋颜芳] (2/18)1142
Sunnant Div Divertor: 7hang Vanhin [世 喜世] (6/19)1143	

Support Div Director: Zhang Yanbin [张彦彬] (6/18)¹¹⁴³

Other Senior Leadership: Qian Yegang [钱叶刚], Dep COS (9/17)¹¹⁴⁴

Former Leadership: Zhang Han [张翰], Commander (2017)¹¹⁴⁵; Wang Qing [王庆], PC (2017)¹¹⁴⁶; Guo Xueliang [郭学亮], Dep PC (2018)¹¹⁴⁷; Zhou Lichun [周利纯] (2016)¹¹⁴⁸

Composition (presumed)

- 1st Communications Battalion [通信一营]
- 2nd Communications Battalion [通信二营]
- 3rd Communications Battalion [通信三营]

Base 64 Operations Support Regiment [64 基地作战保障团]

The Base 64 Operations Support Regiment was established in August 2012, ¹¹⁴⁹ bringing together base support missions such as security, NBC defense, meteorology, survey and mapping, and engineering.

MUCD: 96843Former MUCD: 96376Grade: Regiment LeaderParent Unit: Base 64

Location: 156 Jinke Rd., Eastern S&T New City, Dingyuan Town, Yuzhong County, Lanzhou, Gansu [甘肃省兰州市榆中县定远镇东部科技新城金科路 156 号]^{1150 1151} (co-located with Base HQ)

Geo: 35.937267, 104.011855¹¹⁴⁹

Secondary Garrison: Yongzhou, Hunan [湖南省永州市]¹¹⁵²

Leadership

Commander: Li Jinlong [李进龙] (7/18)¹¹⁵³ **PC**: Chen Bingjue [陈秉爵] (7/18)^{1154 1155}

Dep Commander: Wang Xingang [王新刚] (8/18)¹¹⁵⁶

Dep PC: Wu Gaoling [吴高岭] (8/18)^{1157 1158}

Chief of Staff: Unknown

PWDD: Cheng Gang [程刚] (9/18)¹¹⁵⁹

Support Div Director: Unknown

Former Leadership: Xing Jianjun [邢建军], Commander (2016)¹¹⁶⁰; Wu Wenzhong [吴文忠], Commander (2015)¹¹⁶¹

Composition (presumed)

- Security and Chemical Defense Battalion [警卫防化营]
 - Security Company [警卫连]
 - 1st Chemical Defense Company [防化一连]

- 2nd Chemical Defense Company [防化二连]
- Commander: Deng Xiaoshi [邓晓世] (7/18)¹¹⁶²
- \circ Responsible for security, NBC defense, and camouflage¹¹⁶²
- Includes a horse cavalry detachment likely responsible for base security¹¹⁴⁹
- Meteorology Station (Battalion Leader Grade) [气象台]¹¹⁶³
- Surveying Team (Battalion Leader Grade) [测地队]
 - 1st Squadron [一中队]
 - 2nd Squadron [二中队]
- Engineering Company [工兵连]
 - Previously a battalion, downgraded to a company as part of 2017 reforms¹¹⁶⁴

Base 64 Comprehensive Support Regiment [64 基地综合保障团]

The Base 64 Comprehensive Support Regiment was formed around early 2017 by combining the former Technical Service Regiment, Repair Factory, and possibly other work units into a single regiment.¹¹⁶⁵ The regiment is thus responsible for storage of missiles, fuel, munitions, and other supplies, as well as transport of these assets via road and rail to Base 64 units. It is also responsible for repair and maintenance of these assets as well as other Base 64 facilities and equipment.

MUCD: 96844

Former MUCD: 96374, 96372

Grade: Regiment Leader

Parent Unit: Base 64

Location: Xixingyuan Village, Dabaozi Town, Chengbei District, Xining, Qinghai 810005 [青海省西宁市城北区大堡子镇西杏园村]^{1166 1167 1168 1169}

Geo: 36.661144, 101.684021¹¹⁷⁰

Secondary Garrisons:

- Huangzhong County, Xining, Qinghai [青海省西宁市湟中县]¹¹⁷¹ (possibly 36.852838, 101.377703)
 - Possibly co-located with the base Equipment Inspection Regiment
- Zhamalong Village, Duoba Town, Huangzhong County, Xining, Qinghai 811601 [青海 省西宁市湟中县多巴镇扎麻隆村]^{1172 1173} (possibly 36.666833, 101.473806)
 - Likely former site of the former Base 64 Service Regiment, which has since been folded into this regiment.

Leadership

Commander: Unknown

PC: Zou Gang [邹刚] (9/18)¹¹⁶⁹

Dep Commanders: Unknown

Dep PC: Unknown

Chief of Staff: Unknown

PWDD: Pang Yuxiang [庞昱祥] (3/20)¹¹³¹

Support Div Director: Unknown

Former Leadership: Zhu Xiaogang [朱晓刚], PWDD (2018)¹¹⁷⁴

Composition (presumed)

- Vehicle Battalion [汽车营]
- Repair and Measurements Station (Battalion Leader Grade) [维修计量站]
- Munitions Depot [军械仓库]
- Fuel Storage Depot [油料仓库]
- Comprehensive Depot [综合仓库]
 - o Director: Fu Chunming [付春明] (2/18)¹¹⁷⁵
 - $\circ~$ Responsible for storage, management, and dispatch of munitions, fuel, and other supplies 1176
 - Six locations in two provinces 1175
- Rail Transport Company [铁路运输连]¹¹⁷⁷
- Service Company [勤务连]
- Vehicle Repair Subunit [汽车维修分队]

Background

• This regiment has at least three major facilities, including that of the former Service Regiment.¹¹⁶⁵ The Chengbei District HQ is located next to a railway station, which it may make use of for its transport mission.

Base 64 Equipment Inspection Brigade [64 基地装检旅]

The Base 64 Equipment Inspection Brigade is responsible for inspection, storage, and management of the Base's nuclear warheads.¹¹⁷⁸ As one of the 2nd Artillery's first units, elements of this unit, then known as Unit 8122, date back as far as August 1958,¹¹⁸⁰ when the unit's first personnel were dispatched to the Gobi Desert as part of the PRC's early nuclear weapons program.¹¹⁷⁸ It served as the PLA's first storage facility for nuclear weapons prior to the construction of the current facility at Taibai.¹¹⁸⁰ Notably, Base 64 is the only base to command a brigade-sized Equipment Inspection unit.

MUCD: 96034

Former MUCD/TUD: 96373 (906 Regiment⁶⁵²); 80431¹¹⁷⁹; Unit 8122¹¹⁸⁰

Grade: Division Deputy Leader¹¹⁸¹

Parent Unit: Base 64

Location: Nabuzang Village, Duoba Town, Huangzhong County, Xining, Qinghai [青海省西宁市 湟中县多巴镇纳卜藏村]¹¹⁸²

Geo: Unconfirmed, possibly 36.841029, 101.386005 or 36.853089, 101.377534

Secondary Garrisons:

- Qaidam (Haixi) Prefecture, Delhi (Delingha), Qinghai [青海省德令哈海西州]¹¹⁸³
 Possibly associated with the PLARF Test and Training District in this area
- Huangzhong County, Xining, Qinghai [青海省西宁市湟中县] (36.88938, 101.3399)^{1x}
 - Possible site of the Brigade's 2nd Security Company

Leadership

Commander: Zhang Zenghui [张增辉] (7/20) ¹¹⁸⁴	PC: Zhang Jianming [张建明] (7/20) ¹¹⁸⁴
Dep Commanders: Unknown	Dep PC: Unknown
Chief of Staff: Zou Bo [邹波] (6/18) ¹¹⁸⁵	PWDD : Sun Erpeng [孙二朋] (7/20) ¹¹⁸⁴

Support Dept Director: Unknown

Other Senior Leadership: Lou Yong [娄勇], Pol Work Dept Dep Director (7/17)¹¹⁸⁶; Wang Haizhou [王海洲], Snr Engineer (9/17)¹¹⁸⁰

Former Leadership: Zhang Bin [张彬], Commander (2018)¹¹⁸⁷; Yang Yong [杨勇], PC (2018)¹¹⁸⁸; Li Jindang [李进党], PWDD (2018)¹¹⁸⁸

Composition (presumed)

- 1st Equipment Inspection Station [检一站]
- 2nd Equipment Inspection Station [装检二站]
- 3rd Equipment Inspection Station [装检三站]
 - Director: Zhao Zhenghong [赵正宏] (6/17)¹¹⁸⁹
- Technical Service Battalion [技术勤务营]^{1190 lxi}
 - o Director: Wang Jianwei [王建伟] (8/18)¹¹⁹¹

^{lx}Based on a private conversation with CASI Research Director Rod Lee

^{1xi} Also referred to as a *Station* $(\dot{\nu}_{\Box}^{L})$ in one source.¹¹⁹¹

- Comprehensive Support Battalion [综合保障营]¹¹⁹²
- Security Battalion [警卫营]¹¹⁹³
 - The Battalion's 2nd Company is a horse cavalry company [骑兵连] armed with sabers (with which they appear to be operationally proficient) as well as guns and responsible for patrolling remote areas unsuitable for vehicles.¹¹⁹³
 - 2nd Outpost
 - \circ Established in 1960¹¹⁹⁴
 - 9th Outpost
 - \circ Established in 1960¹¹⁹⁵
 - \circ Manned by six personnel and commanded by a corporal¹¹⁹⁶
 - Utilizes horses for transport¹¹⁹⁵
- Transport Company [转运连]
- Electrical Power Company [电力连]¹¹⁸⁷

Background

• This unit is notable for its remote and harsh plateau geography. Average elevation for brigade subunits is 3,300m (10,862 feet) above sea level, with some garrisons located as high as 3,600m (11,811 feet) above sea level.¹¹⁷⁸

Unit 96604 Hospital [96604 部队医院]

The Unit 96604 Hospital was established in 1939¹¹⁹⁷ as the PLA 1st Hospital and was previously subordinate to the Lanzhou Military Region¹¹⁹⁸ before being transferred to the PLARF around 2018.¹¹⁹⁹

MUCD: N/A

Former TUD:

PLA 1st Hospital [解放军第一医院];

Lanzhou San'aitang Hospital [兰州三爱堂医院]¹²⁰⁰

Grade: Division Leader or Division Deputy Leader^{lxii}

Parent Unit: Base 64

lxii Presumed based on other base hospitals

Location: 72 Jingning Rd., Chengguan District, Lanzhou, Gansu [甘肃省兰州市城关区静宁路 72 号]¹²⁰¹

Geo: 36.048373, 103.828965

Leadership

Director: Unknown

PC: Unknown

Background

- It is unclear what this hospital's relationship is with the 536 Hospital, which is also attached to Base 64.
- Beginning in July 2018, this hospital began 6 months of training for 64 base medical personnel, suggesting it also has a training function.¹¹⁹⁹

536 Hospital [536 医院]

The PLA 536 Hospital, established in 1971,¹²⁰² is (or was, prior to the establishment of the new Unit 96604 Hospital in 2018) the Base 64 hospital. It is unclear what its relationship is with the separate Unit 96604 Hospital in Lanzhou.

MUCD: N/A

Former TUD: N/A

Grade: Division Deputy Leader¹²⁰³

Location: 29 Xiadu Street, Xining, Qinghai [青海省西宁市夏都大街 29 号]¹²⁰⁴

Geo: 36.603688, 101.800136

Leadership

Director: Li Tao (利涛) (1/18)¹²⁰³

PC: Mao Hongkui [毛红魁] (1/15)¹²⁰²

Dep Director: Xing Zhenglü [邢征率] (10/16)¹²⁰⁵

Background

• Base 64 has created an integrated support system in which missile brigades deploy for training missions with logistics and emergency support teams. Prior to this, the Base's brigades and regiments had their own support capabilities, but these were ineffective at SAR and medical support, leading to the creation of medical subunits from this hospital which are able to integrate into the joint command system of units in the field.¹²⁰⁶

Base 65 [65 基地] Base 65 Shenyang 651 BDE 652 BDE 653 BDE 654 BDE 655 BDE 655 BDE 656 BDE Training Comms REG Supp Jinan Dalian Tonghua Binan REG Comms REG Supp

Equip Ops Comp Support Support Insp Dalian REG REG **Tonghua** Jinan Tonghua Jinan REG REG REG DF-41 DF-31 DF-21D* DF-26 DF-17 CJ-100 Panjin Shenyang Shenyang Tonghua Tonghua *Possible conversion to new system

Base 65, headquartered in the northeastern city of Shenyang, is an operations base covering northeast China and the Shandong Peninsula. It commands at least two road-mobile nuclear brigades, one dual nuclear-conventional IRBM brigade, one ASBM brigade, one hypersonic MRBM brigade, and one cruise missile brigade. Since the beginning of 2017 it has doubled in size, expanding from three to six missile brigades.

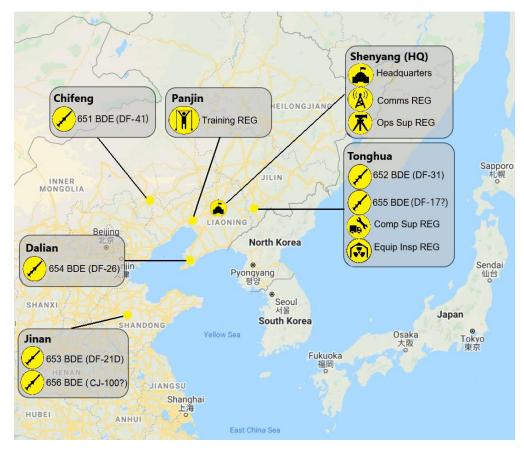
MUCD: 96605

Former MUCD/TUD: 96101 (Base 51)

Grade: Corps Deputy Leader¹²⁰⁷

Location: 53 Yalujiang North St., Huanggu District, Shenyang, Liaoning 110033 [辽宁省沈阳 市皇姑区鸭绿江北街 53 号]¹²⁰⁸

Geo: 41.859448, 123.450765



Leadership

Commander: Unknown

Dep Commanders: Unknown

Chief of Staff: Chen Qian [陈前] (2/18)¹²¹⁰

PC: Wang Dejun [王德君] (5/19)¹²⁰⁷ Dep PC: Fang Jian [方健] (5/20)¹²⁰⁹ PWDD: Wang Haijun [汪海军] (5/20)¹²⁰⁹

Support Dept Director: Unknown

Other Senior Leadership: Dong Chunbo [董春波], Dep COS (8/16)¹²¹¹; Wang Liuyu [王刘玉], Pol Work Dept Dep Director (7/18)¹²¹²; Wang Zhenyu [王震宇], Support Dept Dep Director (9/18)¹²¹³; Zhang Shuwei [张书伟], Propaganda Div Director (1/20)¹²¹⁴

Former Leadership: Zhao Qiuling [赵秋领], Commander (2019)¹²¹⁵; Zhang Fengzhong [张凤中], PC (2018)¹²¹⁶; Ma Wenyuan [马温元] (2018)¹²¹⁷

Composition

- 651 Brigade [651 旅]
- 652 Brigade [652 旅]
- 653 Brigade [653 旅]
- 654 Brigade [654 旅]
- 655 Brigade [655 旅]
- 656 Brigade [656 旅]
- Training Regiment [训练团]
- Communications Regiment [通信团]
- Operations Support Regiment [作战保障团]
- Comprehensive Support Regiment [综合保障团]
- Equipment Inspection Regiment [装检团]
- Unit 96605 Hospital [96605 部队医院]

Background

- Elements of what would become Base 51 were established in Tonghua in 1964 before moving to its current location in Shenyang.¹²¹⁸
- The Base Communications Regiment and Operations Support Regiment are also garrisoned at this location.

651 Brigade [651 旅]

The 651 Brigade was established in 1970.¹²¹⁹ It was the last brigade equipped with the DF-3 until 2013, when it upgraded to the DF-21A, likely as a temporary bridge until the new DF-41 became operational.¹²²⁰ ¹²²¹ It likely began conversion to the DF-41 in 2019, when unit elements were observed taking part in the 2019 National Day Parade as part of the DF-41 formation.¹²²² It was finally equipped with the DF-41 in August 2020, following a two-month delay due to COVID.¹²²³ This conversion also came with a move from Dalian to a more inland location in Chifeng, Inner Mongolia.¹²²⁴

MUCD : 96751	Former MUCD/TUD:	96113 (810 th Launch Bde 417)
---------------------	------------------	--

Grade: Division Deputy Leader Parent Unit: Base 65

Location: Songshan District, Chifeng, Inner Mongolia [内蒙古赤峰市松山区]; Former location at 2 Zhengyang Rd., Dengshahe Town, Jinzhou District, Dalian, Liaoning 116105 [辽宁省大连市金州区登沙河镇正阳街 2 号]¹²²⁵

Geo: Possibly 42.257, 118.825^{1xiii}

Capabilities

Missile: DF-41 ICBM

Missile Type: Nuclear, Road Mobile

Leadership

Commander: Zhao Jian (赵建) [11/19]¹²¹⁹

PC: Yin Keming [尹可明] (5/20)1220

Dep Commanders: Wen Zhengjie [文郑杰] (8/20)¹²²⁶

Dep PC: Unknown

Chief of Staff: Bao Feng [暴风] (11/19)¹²²⁶ PWDD: Zhu Hua [朱华] (11/19)¹²¹⁹

Support Dept Director: Yao Shengwei [姚胜伟] (6/20)1227

Former Leadership: Qiao Chunlei [乔春雷]¹²²⁸, Commander (2018); Du Libin [杜立斌], COS (2018); Yin Xianyin [伊宪银], PWDD (2017)¹²²⁹; Bai Chongqing^{lxiv} [白重庆], Support Dept Director (2018)¹²³⁰

^{1xiii} Credit to Twitter user "Mavana's Pizza" for the possible new location. Mavana's Pizza (@ljsxank), Twitter, 11 March 2021 6:28 PM, https://twitter.com/ljsxank/status/1370154813653090307/photo/1

^{lxiv}Alternative possible spelling of name: Bai Zhongqing

Composition (presumed)

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]¹²³¹ •

652 Brigade [652 旅]

The 652 Brigade, one of two Base 65 brigades garrisoned in the northeast city of Tonghua, may have been the last brigade equipped with the DF-21C MRBM. More recent evidence suggests it has converted to an unknown variant of the DF-31 ICBM.

Former MUCD/TUD: 96115 (816th Launch Bde⁴¹⁷) **MUCD**: 96752

Grade: Division Deputy Leader¹²³² Parent Unit: Base 65

Location: Dongchang District, Tonghua, Jilin 134008 [吉林省通化市东昌区]¹²³³

Geo: Unconfirmed, possibly 41.760872, 125.987438

Secondary Garrison: Liupan Village, Sanyuanpu Township, Tonghua, Jilin [吉林省通化市三 源浦镇六盘村]1239

Capabilities

Missile: DF-31 or 31A ICBM¹²³⁴ 1235 1237

Missile Type: Nuclear, Road Mobile

Leadership

Commander: Wang Mingcai [王明才] (2/20)¹²³⁶ PC: Fu Chunquan [傅春权] (2/20)¹²³⁷

Dep Commanders: Unknown

Dep PC: Unknown

Chief of Staff: Wang Zhipeng [王志鹏] (6/18)¹²³⁸ PWDD: Zhang Zhen [张臻] (7/19)¹²³⁹

Support Dept Director: Unknown

Former Leadership: Wang Limin [王利民], PC (2018)¹²⁴⁰; Pang Xiuhai [庞秀海], PC (2016)^{lxv}; Wu Wei [吴伟], COS (2017); Duo Zhiliang [多志亮], Pol Dept Director (2017)¹²⁴¹; He Taichao [何太朝], Logistics Dept Director (2017)¹²⁴²

Composition (presumed)

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]

Background

• Reporting indicates that this brigade may have moved to a new location in a remote mountain environment around June 2018,¹²⁴³ and its former location was taken over by the new 655 Brigade.^{lxvi} The new HQ seems to still be in Tonghua's Dongchang District.¹²³³ One analyst has located a recently constructed base which seems like a good candidate,^{lxvii} and this is the location given here pending further confirmation. Around the same time, an increasing number of articles indicated a brigade presence in Liupan Village, Sanyuanpu Town, Tonghua,¹²³⁹ indicating this may be another possible candidate for the new HQ.

https://www.armscontrolwonk.com/archive/1200957/spring-festival-launch-festivities/ lxviSee entry for 655 Brigade.

^{lxv}Spring Festival Launch Festivities, Catherine Dill, Arms Control Wonk, February 5, 2016,

lxviiDecker Eveleth (@dex_eve), Twitter.com, June 16, 2020 1:19 PM. https://twitter.com/dex_eve/status/1272941765188677639

653 Brigade [653 旅]

The 653 Brigade, garrisoned in Jinan^{lxviii} near the Shandong Peninsula, was likely established in 2001.¹²⁵⁵ In 2004, it conducted the first launch of a new type of missile,¹²⁵⁵ likely the DF-21C. More recently, this brigade has been re-equipped with a new missile,¹²⁴⁴ believed to be the DF-21D ASBM. This brigade's anti-ship missiles and position near the Shandong Peninsula make it likely that it would play a key A2/AD role during a conflict in the East China Sea. Beginning in 2019, this brigade may have begun converting to another unknown new missile.

MUCD: 96753 **Former MUCD/TUD**: 96117 (822nd Launch Bde⁴¹⁷)

Grade: Division Deputy Leader¹²⁵⁰ Parent Unit: Base 65

Location: 31 Wenshui Rd., High-tech District, Laiwu District, Jinan, Shandong [山东省济南市 莱芜区高新区汶水大街 31 号]^{1245 1246}

Geo: Unconfirmed, possibly 36.233844, 117.715662

Capabilities

Missile: DF-21D ASBM¹²⁴⁷; possible conversion to new system in 2020¹²⁴⁸

Missile Type: Conventional, Anti-Ship

Leadership

Commander : Zhang Jie [张杰] (7/19) ¹²⁴⁹	PC: Zuo Yaming [左亚明] (9/18) ¹²⁵⁰	
Dep Commanders : Wang Bo [王波] (9/18) ¹²⁵¹	Dep PC: Hu Wenming [胡文明] (8/18) ¹²⁵²	
Chief of Staff: Unknown	PWDD : Jiang Shusheng [姜蜀生] (9/19) ¹²⁵³	
Support Dept Director: Wu Zhichun [吴志纯] (5/18) ¹²⁵⁴		
Other Senior Leadership: Xia Chuntian [夏春田], Pol Work Dept Dep Director (10/18) ¹²⁵⁵		
Former Leadership: Wang Maorui [王懋瑞], PC (2017) ¹²⁵⁶ ; Zhang Dawei [张大伟], COS		

(2018)¹²⁵⁷; Wang Zhiwei [王志伟], PWDD (2017)¹²⁵⁸

^{lxviii}This brigade is located in Laiwu District, which until 2019 was an independent city before being swallowed up by its larger neighbor. Thus, sources prior to 2019 will list this brigade as being located in Laiwu.

Composition (presumed)

- 1st Launch Battalion [发射一营]
 - Commander: Yin Dong [尹东]¹²⁴⁷; often held up as a model PLARF officer
 - 1st Company [一连]
 - Described as PLARF's first mixed nuclear-conventional missile [核常兼 备导弹] company.¹²⁵⁵
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- 1st Technical Battalion [技术一营]
- 2nd Technical Battalion [技术二营]¹²⁵⁹

Background

• This brigade is one of two known to have been equipped with the DF-21D ASBM. However beginning in 2019, both DF-21D brigades have given vague indications that they have since replaced the DF-21D with an unidentified new missile type. There is currently no firm evidence as to what this new missile type may be, but speculatively it could be the DF-26, perhaps an anti-ship variant, or the newest DF-21E, of which little is currently known.

654 Brigade [654 旅]

The 654 Brigade, the second stationed in the northeast city of Dalian, was first publicly cited in June 2017.¹²⁶⁰ It appears to be among the first units equipped with the DF-26 IRBM, and it completed its first successful launch around summer 2018.¹²⁶¹

MUCD: 96754Former MUCD/TUD: N/A (new brigade)

Grade: Division Deputy Leader Parent Unit: Base 65

Location: Chejiatun, 34 Huajia Subdistrict, Jinzhou District, Dalian, Liaoning [辽宁省大连市金 州区华家街道 34 号车家屯]¹²⁶²

Geo: Unconfirmed, possibly 39.302672, 122.065102

Secondary Garrison: Jinpu New District, Pulandian District, Dalian, Liaoning [辽宁省大连市 普兰店区金普新区]¹²⁶³

Capabilities

Missile: DF-26 IRBM¹²⁶⁴ ¹²⁶⁵ ¹²⁶⁶ Missile Type: Dual Nuclear-Conventional, Road-mobile

Leadership

Commander: Xie Weipeng [解维鹏] (1/20)¹²⁶⁷ **PC**: Zheng Jianyong [郑建勇] (1/19)¹²⁶⁸

Dep Commanders: Yuan Jiyun [袁纪云] (9/19)¹²⁶⁹ Dep PC: Zhang Guanghui [张光辉] (5/18)¹²⁷⁰

Chief of Staff: Unknown PWDD: Xu Zhi [徐治] (1/20)¹²⁷¹

Support Dept Director: Zhang Xiaoguang [张孝光] (1/19)¹²⁶⁸

Former Leadership: Yao Chi [姚驰], Pol Work Dept Dep Director (2018)¹²⁷²

Composition (presumed)

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]

Background

• Dong Xianglin [董祥林], who served as PC of the DF-26 formation at the 2019 National Day parade, is part of this unit.^{1264 1265}

• As of January 2019, this unit was still not completely formed, and had not yet received all of its equipment. The 5th Launch Battalion [发射五营] was a little over 6 months old at this point.¹²⁷³

655 Brigade [655 旅]

First reports of this launch brigade, the second stationed in the northeast city of Tonghua, appeared around July 2018. Recent ground imagery indicates this brigade is now stationed in the 652 Brigade's former headquarters.¹²⁷⁷ There is some initial evidence this unit may be equipped with the DF-17 hypersonic missile.¹²⁷⁴

Grade: Division Deputy Leader Parent Unit: Base 65

Location: Jinchang Town, Toupeng, Dongchang District, Tonghua, Jilin [吉林省通化市东昌区 金厂镇]¹²⁷⁵¹²⁷⁶

Geo: 41.669045, 125.955439¹²⁷⁷

Secondary Garrison:

- Dongchang District, Tonghua, Jilin [吉林省通化市东昌区] (41.634058, 125.995811)^{lxix}
 - Satellite facility possibly used for equipment storage and/or training.
- Toupeng, Tonghua County, Tonghua, Jilin [吉林省通化市通化县头棚]¹²⁷⁸

Capabilities

Missile: Possible DF-17 MRBM

Missile Type: Conventional

Leadership

Commander: possibly Zhang Weilian [张伟连]¹²⁷⁹ PC: Wang Limin [王利民] (9/19)¹²⁸⁰

Dep Commanders: Unknown

Chief of Staff: Unknown

Dep PC: Unknown

PWDD: Feng Bo [冯博] (8/19)¹²⁸¹

Support Dept Director: Unknown

^{lxix}Credit to private analysts Decker Eveleth and Tajo Takoya (@TajoTakoya) for initial ID of this site.

Other Senior Leadership: Qiang Wei [强伟], Dep COS (4/20)¹²⁸²; Zhang Xinyu [张新宇], Unknown Position (8/19)¹²⁸¹

Composition (presumed)

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]

656 Brigade [656 旅]

First reports of this new brigade, the second to be stationed in Jinan, first appeared publicly in December 2019.¹²⁸³ While not yet definitively confirmed, initial evidence suggest this may be the first brigade equipped with the newest CJ-100 LACM.

MUCD: 96756

Former MUCD/TUD: N/A (new brigade)

Grade: Division Deputy Leader (presumed)

Parent Unit: Base 65

Location: Laiwu District, Jinan, Shandong [山东省济南市莱芜区]¹²⁸⁴

Geo: 36.246, 117.65326^{1284 lxx}

Capabilities

Missile: Possible CJ-100 LACM^{lxxi}

Missile Type: Conventional

^{lxx}First ID'ed by Rod Lee of China Aerospace Studies Institute.

^{lxxi} "First PLA Rocket Force CJ-100 Unit Likely Identified," *China Aerospace Studies Institute*, 4 November 2020, https://www.airuniversity.af.edu/Portals/10/CASI/documents/Research/CASI%20Articles/2020-11-04%20656%20Brigade%20CJ-100s.pdf?ver=vG4fQA5fYa8Y5_4yNpfOVg%3d%3d

Leadership

Commander: Unknown Dep Commanders: Unknown Chief of Staff: Unknown Support Dept Director: Unknown

Composition (presumed)

- 1st Launch Battalion [发射一营] •
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]

Base 65 Training Regiment [65 基地训练团]

The Base 65 Training Regiment is responsible for training of new Base 65 enlisted personnel.¹²⁸⁶ Since 2015 it has also been responsible for pre-billet training of newly graduated PLARF academic institution cadets bound for Base 65 billets.¹²⁸⁷

MUCD: 96851 Grade: Regiment Leader Parent Unit: Base 65

Location: Tangjia Town, Dawa District, Panjin, Liaoning 124203 [辽宁省盘锦市大洼区唐家 镇1^{1288 1289}

Geo: 41.063075, 122.151516¹²⁹⁰

Leadership

Commander: Yu Chunbo [于春波] (11/19)¹²⁹¹

PC: Zhu Liandeng [朱连登] (10/17)¹²⁹²

PC: Unknown Dep PC: Unknown PWDD: Song Yugang [宋玉刚] (12/19)¹²⁸⁵

Former MUCD: 96121

Dep Commanders: Unknown

Chief of Staff: Liang Dong [梁栋] (10/17)¹²⁹⁴

Dep PC: Unknown **PWDD**: Liu Yang [刘杨] (12/19)¹²⁹³

Support Div Director: Unknown

Former Leadership: Tao Dexi [陶德喜], Commander (2016)¹²⁹⁴

Composition

• Unknown number of subordinate training battalions

Background

In 2016 this regiment is noted as having invested 700,000 RMB in nine new training rooms/offices (室), including for training personnel in control, targeting, and hydraulics.¹²⁹⁵

Base 65 Communications Regiment [65 基地通信团]

This regiment is responsible for base-level communications.

MUCD : 96852	Former MUCD: 96125
Grade: Regiment Leader	Parent Unit: Base 65

Location: 53 Yalujiang North Rd., Huanggu District, Shenyang, Liaoning 110033/110032 [辽宁 省沈阳市皇姑区鸭绿江北街 53 号]^{1296 1297} (co-located with Base HQ)

Geo: 41.860502, 123.451290¹²⁹⁶

Secondary Garrisons:

- Haoxintai Village, Daoyi Town, Shenbei New District, Shenyang, Liaoning [辽宁省沈阳市沈北新区道义镇郝心台村]¹²⁹⁸ (possibly 41.961457, 123.387292)
 - This second Shenyang location is located near an unidentified vehicle battalion [汽 车营], and it is unclear if the military facility coordinates given here are for this unit or the vehicle battalion.
- Huanggou Village, Jinchang Town, Tonghua, Jilin [吉林省通化市金厂镇荒沟村]¹²⁹⁹ (possibly 41.627620, 125.980450)
 - Likely co-located with Base 65 Equipment Inspection Regiment

Leadership

Commander: Wang Shuangbin [王双滨] (12/19)¹³⁰⁰ PC: Xin Guozhou [辛国洲] (5/19)¹³⁰¹

Dep Commanders: Cao Chengyong [曹成永] (8/18)¹³⁰²

Dep PC: An Gang [安刚] (5/19)¹³⁰¹

Chief of Staff: Chen Hu [陈虎] (9/19)¹³⁰³ **PWD**

PWDD: Wang Pu [王璞] (12/19)¹³⁰⁰

Support Div Director: Unknown

Other Senior Leadership: Liu Nan [刘男], Dep COS (2/18)¹³⁰⁴

Former Leadership: Fu Chunquan [傅春权], PC (2018)¹³⁰⁵; Liu Zhong [刘忠], COS (2017)¹³⁰⁶

Composition (presumed)

- 1st Communications Battalion [通信一营]
- 2nd Communications Battalion [通信二营]
- 3rd Communications Battalion [通信三营]
 - 7th Company [七连]¹³⁰⁷
- Vanguard Mobile Company [先锋机动连]
 - Commander: Huang Nianlong [黄念龙] (1/18)¹³⁰⁸
 - Presumably subordinate to one of the three above battalions, but unknown which one.

Background

- This unit is also responsible for conducting 3 month pre-billet group training for new comms specialists coming out of basic training.¹³⁰⁹
- The 210th Subunit [210 分队] was established in August 2005. It is located at Base 65 HQ. It is responsible for comms support, including via telephone and telegram. It is described as a nerve center for base operations and the command chain. It is an all or mostly all female subunit.¹²⁹⁶
- The 211th Subunit [211 分队] was established in September 1965. It is responsible for providing a fixed comms platform for communication with both lower and higher level units, as well as with neighboring units. It has drilled with the Northern TC and CMC. It is a primarily female subunit.¹³¹⁰

Base 65 Operations Support Regiment [65 基地作战保障团]

The Base 65 Operations Support Regiment was likely established around 2012 and is responsible for several support specialties including security, NBC defense, engineering, meteorology, survey and mapping, and emergency response.

MUCD : 96853	Former MUCD/TUD: 96126
Grade: Regiment Leader	Parent Unit: Base 65

Location: 53 Yalujiang North Street, Huanggu District, Shenyang, Liaoning 110033 [辽宁省沈 阳市皇姑区鸭绿江北街 53 号]¹³¹¹ (co-located with Base HQ)

Geo: 41.857875, 123.450077^{1312 1313}

Secondary Garrison: Harbin, Heilongjiang [黑龙江省哈尔滨]¹³¹⁴

Leadership

Commander: Chen Wei [陈伟] (9/19)¹³¹⁵

PC: Han Xiaofeng [韩晓峰] (9/19)¹³¹⁵

Dep Commanders: Unknown

Dep PC: Jin Hongyi [靳弘毅] (3/17)1316

Chief of Staff: Chai Zhenghe [柴正和] (2/20)¹³¹⁷ **PWDD**: Unknown

Support Div Director: Unknown

Other Senior Leadership: Peng Chunliang [彭春良], Snr Engineer (3/17)¹³¹³

Composition (presumed)

- Security and Chemical Defense Battalion [警卫防化营]
 - Security Company [警卫连]
 - 1st Chemical Defense Company [防化一连]¹³¹⁸
 - 2nd Chemical Defense Company [防化二连]
- Meteorology Station (Battalion Leader Grade) [气象台]¹³¹³
- Surveying Team (Battalion Leader Grade) [测地队]¹³¹⁸
 - 1st Squadron [一中队]
 - 2nd Squadron [二中队]
- Engineering Company [工兵连]

Base 65 Comprehensive Support Regiment [65 基地综合保障团]

The Base 65 Comprehensive Support Regiment was formed around June 2017 by combining the former Technical Service Regiment, Repair Factory, and possibly other base elements into a single regiment.¹³¹⁹ The regiment is thus responsible for maintenance and repair of base equipment, storage of missiles, fuel, munitions, vehicles and other supplies, and transport of these assets via road and rail to Base 65 units.¹³²⁰

MUCD : 96854	Former MUCD: 96124, 96122
Grade: Regiment Leader	Parent Unit: Base 65

Location: 9 Xinguang Rd., Tonghua, Jilin [吉林省通化市新光路 9 号]¹³²¹

Geo: 41.738550, 125.952809¹³²²

Secondary Garrisons:

- This regiment has over ten small work units which are dispersed across eight locations in three cities and two provinces.¹³²³ Three of these locations have likely been identified, all in Tonghua:
- 1281 Xinling Rd., Dongchang District, Tonghua, Jilin [吉林省通化市东昌区新岭路 1281 号]¹³²⁴ (41.731048, 125.965555)¹³²⁵
 - A small satellite facility near the HQ which hosts the Repair and Measurements Station¹³²⁴ as well as other support elements. Its position near rail tracks suggests possible involvement with rail transport.
- Huanggou Village Tonghua, Jilin [吉林省通化市荒沟村]¹³²⁶ (possibly located at 41.628115, 125.980312)
 - This facility was the likely site of the former base Technical Service Regiment. It was presumably absorbed into this regiment following the 2017 merger.
- Jinchang Town, Tonghua, Jilin [吉林省通化市金厂镇] (possibly located at 41.670816, 125.952941)

Leadership

Commander: Unknown

PC: Ma Donghao [马东浩] (9/18)^{1328 1327}

Dep Commanders: Wang Bin [王斌] (9/18)¹³²⁸; Xiang Haifeng [项海峰] (7/16)¹³²⁹

Dep PC: Unknown

Chief of Staff: Geng Xianfeng [耿献峰] (8/17)¹³³⁰ PWDD: Unknown

Support Div Director: Unknown

Other Senior Leadership: Gao Yang [高洋], Pol Work Div Dep Director (9/18)¹³³¹; Wang Xu [王旭], Factory Management Div Director (1/17)¹³³²

Former Leadership: Zhao Jian [赵建], Commander (2018)¹³³³

Composition (presumed)

- Vehicle Battalion [汽车营]
- Repair and Measurements Station [维修计量站]
 - o Director: Tang Sheng [唐圣] (8/18)¹³³⁴
 - Battalion Leader Grade
- Munitions Depot ([械仓库]
- Fuel Storage Depot [油料仓库]
 - o Director: Guo Bingyuan [郭兵源] (5/17)¹³³⁵
- Comprehensive Depot [综合仓库]
 - o Director: Yin Jie [殷杰] (5/17)¹³³⁵
- Rail Transport Company [铁路运输连]
- Service Company [勤务连]
- Vehicle Repair Subunit [汽车维修分队]

Background

• This unit is informally known as the "Dongfang Escorts"¹³³⁶

Base 65 Equipment Inspection Regiment [65 基地装检团]

The Base 65 Equipment Inspection Regiment is responsible for storage, management, and transport¹³³⁷ of Base 65 nuclear warheads.

MUCD: 96035 Former MUCD/TUD: 96123 (901 Regiment⁶⁵²)

Grade: Regiment Leader Parent Unit: Base 65

Location: Guosong Township, Tonghua County, Tonghua, Jilin 134103 [吉林省通化市通化县 果松镇]^{1338 1339 1340}

Geo: unconfirmed, possibly 41.599921, 126.248813

Secondary Garrison:

- Guosongchuan, Guosong Town, Tonghua County, Tonghua, Jilin [吉林省通化市通化县 果松镇果松川]¹³⁴¹ (possibly located at 41.546945, 126.241531)
 - Likely site of the regiment's Technical Service Battalion. The facility is located in close proximity to railway tracks, as is the likely regiment headquarters, indicating a possible rail transport capability.

Leadership

Commander : Zhang Dawei [张大伟] (12/19) ¹³⁴²	PC: Zhao Hongyan [赵洪岩] (9/18) ^{1343 1344}
Dep Commanders: Unknown	Dep PC: Gao Yang [高洋] (3/19) ¹³⁴⁵
Chief of Staff: Sun Chengda [孙承达] (8/18) ¹³⁴⁶	PWDD: Han Jianfeng [韩建峰] (3/20)1347
Support Div Director: Unknown	

Other Senior Leadership: Zhang Qiangqiang [张强强], Dep PWDD (9/17)¹³⁴⁸

Former Leadership: Wang Hongguo [王洪国], Commander (2018)¹³⁴⁴; Zuo Yaming [左亚明], PC (2017)¹³⁴⁹; Hou Jianqiu [侯建秋], Dep PC (2017)¹³⁵⁰; Zhang Xinyu [张新宇], COS (2017)¹³⁵¹; Lu Jun [卢俊], PWDD (2017)¹³⁵²; Zheng Tao [郑涛], Chief Engineer (2017)¹³⁵³

Composition (presumed)

- 1st Equipment Inspection Station [装检一站]
- 2nd Equipment Inspection Station [装检二站]
- 3rd Equipment Inspection Station [装检三站]
- Technical Service Battalion [技术勤务营]¹³⁴¹
- Comprehensive Support Battalion [综合保障营]¹³⁵⁴
- Transport Company [转运连]¹³⁵⁵
- Security and Communications Company [警卫通信连]¹³⁵⁶

Unit 96605 Hospital [96605 部队医院]

The Unit 96605 Hospital was established in October 2018 by combining the former 531 Hospital and 206 Hospital.¹³⁵⁷ A ribbon cutting ceremony was held in January 2019.¹³⁶² The primary facility is the site of the former 206 Hospital.¹³⁵⁸

MUCD: N/A

Former TUD: 531 Hospital [531 医院]; 206 Hospital [206 医院]

Grade: Division Leader or Division Deputy Leader^{lxxii}

Parent Unit: Base 65

Location: 500 Xinhua Rd., Dongchang District, Tonghua, Jilin [林省通化市东昌区新华大街 500 号]¹³⁵⁹

Geo: 41.700644, 125.906440

Secondary Garrison:

- 1888 Jianshe Rd., Changdong District, Tonhua, Jilin [吉林省通化市东昌区建设大街 1888 号]¹³⁶⁰
 - Former site of 531 Hospital, presumed still active.

Leadership

Director: Zhu Mengjun [朱孟军] (3/20)¹³⁶¹

PC: Zhang Mingyong [张明勇] (1/19)¹³⁶²

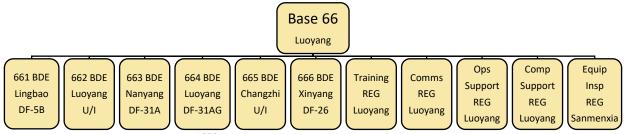
Former Leadership: Ma Minhua [马民华], 531 Hospital Director (2017)¹³⁶³; Ge Shuangbo; [葛 双波] 206 Hospital PC (2018)¹³⁶⁴

Background

- The 531 Hospital was, until recently, the primary hospital attached to Base 65. Like the other base hospitals, it commands field medical teams which provide mobile battlefield medical support, including field surgery and NBC response.¹³⁶⁵ It also provides free medical services to local elderly and underserved civilians.^{1366 1367} Its staff is primarily military, though it does employ a small number of civilian personnel, including four head nurses.¹³⁶⁸
- The 206 Hospital was established in 1950. Previously under the Shenyang MR, it was transferred to the PLARF in 2016 and merged with the 531 Hospital in October 2018. It is subordinate to PLARF Base 65.¹³⁵⁷ It dispatches medical teams to serve communities and PLA veterans in the vicinity of Tonghua, as well as providing medical care to first line units.¹³⁶⁹

^{lxxii} Presumed based on other base hospitals

Base 66 [66 基地]



Base 66, established in 1966¹³⁷³ and headquartered in Luoyang, is an operations base located in inland central China. It commands at least four nuclear ICBM brigades (at least two of which are road-mobile), one dual nuclear-conventional IRBM brigade, and one additional brigade of unknown type. Since 2017 it has expanded from four to six missile brigades.

MUCD: 96606

Former MUCD/TUD: 96251 (Base 54)

Grade: Corps Leader Grade¹³⁷⁰

Location: Lichun West Rd., Jianxi District, Luoyang, Henan [河南省洛阳市涧西区丽春西路]¹³⁷¹

MONGOLIA LIAONING Beijing 北京 North Korea Sanmenxia Sea of Japan Equip Insp REG HEBEI Tianjin Changzhi ng GANSU 天洼 665 BDE (U/I) Seoul SHANXI NINGXIA Japan South Korea SHAANX SHANDONG Osaka Xi'an 西安市 大阪 China Fukuoka 福岡 HEN Lingbao JIANGSU Shanghai 661 BDE (DF-5B) 上海 HUBEI ANHUI East China Sea Chongqing SICHUAN Nanyang ZHEJIANG 663 BDE (DF-31A) Xinyang Luoyang 666 BDE (DF-26) Headquarters Taipei 台北 UJIAN 662 BDE (U/I) YUNNAN Taiwan 664 BDE (DF-31AG) GUANGXI GUANGDONG Training REG Kaohsiung Aacau Hong Kong 澳門 香港 City Comms REG Hanoi Ops Sup REG Laos HAINAN Comp Sup REG Vientiane ວຽງຈັນ

Geo: 34.640446, 112.382525¹³⁷²

Leadership

Commander: Xue Jinfeng [薛今峰] (10/19)¹³⁷³ **PC**: Zhang Fengzhong [张凤中] (1/20)¹³⁷⁴

Dep Commanders: Hu Mingquan [胡明全] (8/19)¹³⁷⁵

Dep PC: Wang Xinguo [王新国] (7/18)¹³⁷⁶

Chief of Staff: Li Tian (李天) (5/18)¹³⁷⁷ **PWDD**: Feng Zhiwen [冯智文] (9/18)¹³⁷⁸

Support Dept Director: Jia Ziguo [加子国] (6/18)¹³⁷⁹

Other Senior Leadership: Wang Ximin [王锡民], Dep COS (7/20)¹³⁸⁰; Lü Zhougen [吕舟根], Dep COS (10/18)¹³⁸¹; Gan Yeyuan [甘业元] (7/19)¹³⁸²; Gou Xiaoping [句小平] (11/19)¹³⁸³

Former Leadership: Liu Qide [刘启德], Commander (2016)¹³⁸⁴; Li Yongsheng [李永生], PC (2018)¹³⁸⁵; He Junmin [何钧民], Dep PC (2015)¹³⁸⁶

Composition

- 661 Brigade [661 旅]
- 662 Brigade [662 旅]
- 663 Brigade [663 旅]
- 664 Brigade [664 旅]
- 665 Brigade [665 旅]
- 666 Brigade [666 旅]
- Training Regiment [训练团]
- Communications Regiment [通信团]
- Operations Support Regiment [作战保障团]
- Comprehensive Support Regiment [综合保障团]
- Equipment Inspection Regiment [装检团]
- Unit 96606 Hospital [96606 部队医院]
- PLA Rocket Force Military Canine Training Team [火箭军军犬训练队]

661 Brigade [661 旅]

The 661 Brigade, established in July 1959¹³⁹⁸ as the 1st SSM Battalion¹³⁸⁷ and often referred to today as the "1st Dongfeng Brigade" [东风第一旅],¹³⁸⁸ was the 2nd Artillery's first strategic missile unit. It fired its first missile on 25 October 1963, and was first publicly revealed in 1984.¹³⁸⁸ Today,

it is garrisoned in the central Chinese city of Lingbao and equipped with the latest B variant of the DF-5 silo-based ICBM.

MUCD: 96761 **Former MUCD/TUD**: 96261 (801st Launch Bde⁴¹⁷)

Grade: Division Deputy Leader¹³⁸⁸ **Parent Unit:** Base 66

Location: Compound 80, #6 Neighborhood, Huanghe Rd., Lingbao, Sanmenxia, Henan [河南省 三门峡市灵宝市黄河路六街坊 80 号院]¹³⁸⁹

Geo: 34.516597, 110.862079¹³⁹⁰

Secondary Garrison: Nanchao Village, Lingbao, Sanmenxia, Henan [河南省三门峡市灵宝市 南朝村] (34.472805, 111.001041)¹³⁹¹

Capabilities

Missile: DF-5B⁴¹⁷ 1390

Missile Type: Nuclear, Silo-based

Leadership

Commander: Luo Degang [罗德刚] (12/20)¹³⁹² PC: Zhang Wei [张伟] (12/20)¹³⁹³

Dep Commanders: Yang Yizhi [杨溢治] (7/18)¹³⁷⁶; Fan Jintao [范金涛] (11/19)¹³⁸³

Dep PC: Mao Xinfeng [毛新丰] (12/19)¹³⁹⁴

Chief of Staff: Li Lei [李磊] (4/20)¹³⁹⁵ **PWDD**: He Haiwei [何海卫] (5/22)¹³⁹⁶

Support Dept Director: Unknown

Other Senior Leadership: Wei Xiaoguang [魏晓光], Dep COS (12/20)⁴⁸⁴; Shao Huanping [邵 焕平], Dep COS (3/18)¹³⁹⁷; Yan Hai [闫海], Snr Engineer (7/17)¹³⁹⁹

Former Leadership: Wang Ximin [王锡民], Commander (2020)¹³⁹⁸; Wen Qing [文青], PC (2017)¹³⁹⁹; Wang Lihua [王立华], COS (2019)¹⁴⁰⁰; Wang Yanlei [王艳磊], COS (2017)¹³⁹⁹; Zhou Tao [周涛], Dep COS (2017)¹³⁹⁹; Zhang Jiguo [张继国], PWDD (2022)¹⁴⁰¹

Composition (presumed)

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]

- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]

662 Brigade [662 旅]

The 662 Brigade, garrisoned in the central Chinese city of Luoyang, was established in March 1961, and fired its first missile in June 1966. This brigade is or was the last still equipped with the DF-4 ICBM. It has likely transitioned to a new system, but it remains unclear what that system is. Recent construction suggests this may be a new silo-based DF-41,^{lxxiii} but this remains speculative.

MUCD: 96762	Former MUCD/TUD: 96263 (804 th Launch Bde ⁴¹⁷)
Grade: Division Deputy Leader	Parent Unit: Base 66

Location: 448 Xinghua West Rd., Chengguan Town, Luanchuan County, Luoyang, Henan [河南 省洛阳市栾川县城关镇兴华西路 448 号11402

Geo: 33.789768, 111.591369¹⁴⁰³

Capabilities

Missile: Previously DF-4 ICBM¹⁴⁰⁴ ¹⁴⁰⁵; imminent conversion to unidentified new system

Missile Type: Nuclear, Roll-out-to-launch

Leadership

Commander: Zeng Manjun [曾满军] (4/19)¹⁴⁰⁶ PC: Chen Yang [陈阳] (10/17)¹⁴⁰⁷

Dep Commanders: Sun Jianjun [孙建军] (5/20)¹⁴⁰⁸ Dep PC: Unknown

Chief of Staff: Luo Degang [罗德刚] (2/18)¹⁴⁰⁹ **PWDD**: Wang Weiqiang [王伟强] (9/18)¹⁴¹⁰

lxiiiScott Lafoy, Decker Eveleth, "Possible ICBM Modernization Underway at Sundian," Arms Control Wonk, 5 February 2020, https://www.armscontrolwonk.com/archive/1208828/possible-icbm-modernization-underway-at-sundian/

Support Dept Director: Unknown

Former Leadership: Wang Jianxun [王建勋], COS (2017)¹⁴¹¹

Composition (presumed)

- 1st Launch Battalion [发射一营]
 - o Political Instructor: He Chunhui [何春晖] (7/20).¹⁴¹²
 - May be the 40^{th} Subunit $[40 分队]^{1403}$
 - This battalion has been recognized as a first-class military training battalion for the last 28 years, and has been conferred multiple honors.¹⁴⁰³
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
 - o Commander: Zhou Zhili [周志立] (9/18)¹⁴¹³
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
 - Comprehensive Defense Company [综合防护连]¹⁴¹⁴
- Comprehensive Support Battalion [综合保障营]¹⁴¹⁵
- Technical Battalion [技术营]
 - 4th Site Management Company [阵管四连]¹⁴¹⁶

663 Brigade [663 旅]

The 663 Brigade, located in the central Chinese city of Nanyang, is equipped with the DF-31A road-mobile ICBM.

MUCD: 96763 **Former MUCD/TUD**: 96265 (813th Launch Bde⁴¹⁷)

Grade: Division Deputy Leader Parent Unit: Base 66

Location: Wangcun Township, Nanyang, Henan [河南省南阳市王村乡]^{1417 1418}

Geo: 33.012898, 112.416819¹⁴¹⁹

Capabilities

Missile: DF-31A ICBM¹⁴²⁰

Missile Type: Nuclear, road-mobile

Leadership

Commander: Zheng Yan [郑焱/郑炎] (6/20) ¹⁴²⁰	PC: Tan Donghua [谭东华] (6/20) ¹⁴²¹	
Dep Commanders: Unknown	Dep PC : Li Dongdong [李冬冬] (9/17) ¹⁴²²	
Chief of Staff: Bao Xianglong [包相龙] (2/21)1423	PWDD : Liu Jiyang [刘激扬] (6/20) ¹⁴²⁰	
Support Dept Director: Wang Meng [王猛] (1/18) ¹⁴²⁴		
	- 1405	

Other Senior Leadership: Zhang Longling [张龙领], Dep COS (9/19)¹⁴²⁵; Zhang Shumin [张 书民], Pol Work Dept Dep Director (9/17)¹⁴²²; Li Quan [李全], Snr Engineer (7/17)¹⁴²⁶

Former Leadership: Mu Shouqin [沐守勤], Commander (2018); Lin Shusen [林树森], PC (2019); Liu Shougong [刘守功], Dep Commander (2018)¹⁴²⁷; Zhang Jinzhong [张金忠], COS (2018)¹⁴²⁸; Zhong Aizhong [仲爱忠], Pol Dept Director (2017)¹⁴²⁹

Composition (presumed)

- 1st Launch Battalion [发射一营]
 - Commander: Niu Zhendong [牛振东] (4/20)¹⁴³⁰
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- 1st Technical Battalion [技术一营]
- 2nd Technical Battalion [技术二营]¹⁴³¹

664 Brigade [664 旅]

The 664 Brigade, likely established around early 2017, is garrisoned in the central Chinese city of Luoyang. It is likely now equipped with the latest DF-31AG variant of the DF-31 road-mobile ICBM.

MUCD: 96764

Former MUCD/TUD: N/A (new brigade)

Grade: Division Deputy Leader¹⁴³²

Parent Unit: Base 66

Location: 100m south of the intersection of Yinluo Rd. and Tongji Street, Luolong District, Luoyang, Henan [河南省洛阳市洛龙区伊洛路与通济街交叉口南 100 米]¹⁴³³

Geo: 34.596658, 112.438668¹⁴³⁴ 1435

Secondary Garrisons:

- Yiyang County, Luoyang, Henan [河南省洛阳市宜阳县] (34.546973, 112.146394)¹⁴³⁶
 - The Brigade may store at least some of its equipment and vehicles at this location, which also serves as the base Training Regiment.^{lxxiv}
- Xiangyang City and Nanzhang County, Hubei [湖北省襄阳市/南漳县]
 - The Brigade may have one or more special 10kv power or communications lines [专线] that route through these two locations in Hubei Province.¹⁴³⁷

Capabilities

Missile: DF-31AG ICBM¹⁴³⁶

Missile Type: Nuclear, Road-mobile

Leadership

Commander: Ma Ze [马赜] (7/19)¹⁴³⁸

PC: Li Baoguo [李保国] (10/19)¹⁴³⁹ (possibly dated, see below)

Dep Commander: Wang Zhongyan [王忠燕] (10/18)¹⁴⁴⁰

Dep PC: Tang Zhibin [唐志斌] (11/18)1441

Chief of Staff: Wei Wei [魏炜] (7/19)¹⁴³⁵

PWDD: Unknown

Support Dept Director: Xi Changyu [席长煜] (7/19)1435

Other Senior Leadership: Zhang Yingbin [张迎彬], Dep COS (7/19)¹⁴³⁵; Shen Meng [沈猛], Support Dept Dep Director (10/19)¹⁴³⁹

Former Leadership: Dong Shimin [董世民], COS (2018)¹⁴⁴²; Cao Jun [曹军] (2018), Dep PC (2017)¹⁴⁴³

^{lxxiv}Credit to Private Analyst Decker Eveleth for first suggesting this location, which the author later independently confirmed.

Composition (presumed)

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
 - Commander: Ding Daguo [丁大国] (10/19)¹⁴³⁹
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]

Background

- The brigade has a dedicated rail line leading into/out of its HQ.¹⁴⁴⁴
- PC Li Baoguo has been celebrated in several articles, indicating he could be headed for more senior leadership. In December 2019, an article emerged indicating this brigade may have a new PC with the surname Zhang [张].¹⁴⁴⁵

665 Brigade [665 旅]

The 665 Brigade, located in the central Chinese city of Weihui, was first publicly acknowledged in December 2019. Early sources had the brigade stationed in Weihui, but later sources place it in Changzhi, indicting Weihui may have been an early temporary garrison.

MUCD: 96765	Former MUCD/TUD: N/A (new brigade)
Grade: Division Deputy Leader (presumed)	Parent Unit: Base 66
Location: Likely Lucheng District, Changzhi, Shanxi [山西省长治市潞城区] ¹⁴⁴⁶	
Secondary Garrison: Weihui, Xinxiang, Henan [河南省新乡市卫辉市] ¹⁴⁴⁷	
Geo: Unknown	
Capabilities	
Missile: Unknown	Missile Type: Unknown

Leadership

Commander: Unknown

Dep Commanders: Unknown

Chief of Staff: Unknown

PC: UnknownDep PC: Unknown

PWDD: Unknown

Support Dept Director: Unknown

Other Senior Leadership: Zhang Zhongchao [张中超], Pol Work Dept Dep Director (3/20)¹⁴⁴⁸

Composition (presumed)

- 1st Launch Battalion [发射一营]
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- Technical Battalion [技术营]

666 Brigade [666 旅]

The 666 Brigade, located in the central Chinese city of Xinyang, was likely established in 2011 to introduce the DF-26 IRBM into service, and was the first brigade to conduct an independent launch of the DF-26.¹⁴⁴⁹

MUCD: 96766 **Former MUCD/TUD**: 96267 (827th Launch Bde⁴¹⁷)

Grade: Division Deputy Leader (presumed)

Parent Unit: Base 66

Location: Heping Community, Yangshan New District, Xinyang, Henan [河南省信阳市羊山新 区和平社区]¹⁴⁵⁰

Geo: Unconfirmed, likely 32.167003, 114.125679

Secondary Garrisons:

• Xishili Village, Tongbai County, Nanyang, Henan [河南省南阳市桐柏县西十里村]¹⁴⁵¹

• Xin County, Xinyang, Henan [河南省信阳市新县]¹⁴⁵²

Capabilities

Missile: DF-26 IRBM¹⁴⁵³

Missile Type: Dual Nuc.-Conv., Road Mobile

Leadership

Commander: Unknown

PC: Zhang Jianyang [张建阳] (7/20)¹⁴⁵⁴

Dep Commanders: Jing Xiaopeng [景晓鹏] (1/19)¹⁴⁵³

Dep PC: Yang Anyong [杨安勇] (9/19)1455

Chief of Staff: Li Xiubin [李秀斌] (9/19)¹⁴⁵⁶ PWDD: Feng Zhongyi [丰忠义] (1/18)¹⁴⁵⁷

Support Dept Director: Zhang Jin [张进] (7/20)¹⁴⁵⁸

Other Senior Leadership: Jia Xiaobing [贾小兵], Dep COS (4/17)¹⁴⁵⁹

Former Leadership: Yao Wenshan [姚文山], Commander (2019)¹⁴⁵³

Composition (presumed)

- 1st Launch Battalion [发射一营]
 - o Political Instructor: Cui Bingxiang [崔丙祥] (4/20)¹⁴⁶⁰
 - $\circ~$ Established around 2011, and fired its first missile in 2013, less than two years $later^{1460}$
- 2nd Launch Battalion [发射二营]
- 3rd Launch Battalion [发射三营]
- 4th Launch Battalion [发射四营]
- 5th Launch Battalion [发射五营]
- 6th Launch Battalion [发射六营]
 - 。 Commander: Zhao Dong [赵东] (7/20)^{1458 1460}
- Communications Battalion [通信营]
- Operations Support Battalion [作战保障营]
- Comprehensive Support Battalion [综合保障营]
- 1st Technical Battalion [技术一营]¹⁴⁶¹
- 2nd Technical Battalion? [技术二营]
 - o Implied from existence of a "First" Technical Battalion

Base 66 Training Regiment [66 基地训练团]

The Base 66 Training Regiment is responsible for basic training of new enlisted base personnel, as well as pre-billet specialist training.¹⁴⁶²

MUCD: 96861

Grade: Regiment Leader

Former MUCD: 96271

Parent Unit: Base 66

Location: 5 Yongjun Rd., Longwang Village, Xianglushan Town, Yiyang County, Luoyang, Henan [河南省洛阳市宜阳县香鹿山镇龙王村拥军路 5 号]^{1463 1464 1465}

Geo: Unconfirmed, possibly 34.543067, 112.147037

Leadership

Commander: Unknown

Dep Commanders: Unknown

PC: Wang Dajiang [王大江] (6/19)

Dep PC: Unknown

Chief of Staff: Unknown

PWDD: Sun Yaojun [孙耀军] (7/18)

Support Div Director: Unknown

Other Senior Leadership: Liu Gaojie [刘高杰] (2/17)

Former Leadership: Zheng Yan [郑焱/郑炎], Commander (2019); Yang Xiaodong [杨晓东], Commander (2017); Li Zun'an [李遵安], PC (2017); Ma Benrui [马本瑞], COS (2017)

Composition (presumed)

• Unknown number of subordinate training battalions

Base 66 Communications Regiment [66 基地通信团]

This regiment is responsible for base-level communications.

MUCD: 96862Former MUCD: 96275Grade: Regiment LeaderParent Unit: Base 66

Location: 113 Tianjin Rd., Jianxi District, Luoyang, Henan [河南省洛阳市涧西区天津路 113 号] (co-located with Base HQ)¹⁴⁶⁶

Geo: 34.638695, 112.378866

Leadership

Commander: UnknownPC: Fu Zhengnian [符正年] (2/17)1467Dep Commanders: UnknownDep PC: Zhou Le [周乐] (8/19)1468Chief of Staff: Wu Zhibin [吴志刚] (8/19)1469PWDD: UnknownSupport Div Director: UnknownSupport Div Director: Unknown

Other Senior Leadership: Zhou Hongyu [周宏育], Dep COS (5/18)¹⁴⁷⁰; Yang Keng [杨铿], Pol Work Dept Dep Director (6/20)¹⁴⁷¹

Composition (presumed)

- 1st Communications Battalion [通信一营]
- 2nd Communications Battalion [通信二营]
- 3rd Communications Battalion [通信三营]

Background

- The regiment controls a wide range of communications assets, including a microwave station at base HQ¹⁴⁷² and a satellite ground station associated with the Beidou navigation system.¹⁴⁷³
- Known fiber optic cable lines around Luoyang run from Yingzhou Road [瀛洲路] to Yiluo Road [伊洛路],¹⁴⁷⁴ from Xiyuan Bridge [西苑桥] 8 km to the Luoyang Bridge [洛阳桥], then 1.5 km to Anle [安乐],¹⁴⁷⁵ and from Yingzhou Road [瀛洲路] to Zhoushan Road [周山路] to Nanyang Road [南阳路] to Anle [安乐].¹⁴⁷⁶ There is also a fiberoptic station in Ruyang County [汝阳县].¹⁴⁷⁷

Base 66 Operations Support Regiment [66 基地作战保障团]

The Base 66 Operations Support Regiment was established around 2012 when several of the base's direct reporting subunits were organized into a single regiment.¹⁴⁷⁸ Subunits include security, NBC defense, survey and mapping, meteorology, and engineering.¹⁴⁷⁸

MUCD: 96863Former MUCD: 96276Grade: Regiment LeaderParent Unit: Base 66

Location: Tianjin Rd., Jianxi District, Luoyang, Henan 471003 [河南省洛阳市涧西区天津路]^{1479 1480} (co-located with Base HQ)

Geo: 34.637837, 112.381366¹⁴⁸¹

Leadership

Commander: Zhang Haibing [张海冰] (7/18)¹⁴⁸² **PC**: Ma Libao [马立宝] (5/18)¹⁴⁸³

Dep Commanders: Unknown

Dep PC: Shen Yongkui [沈永奎] (11/17)^{1484 1485}

Chief of Staff: Unknown

PWDD: Unknown

Support Div Director: Unknown

Former Leadership: Yuan Ruhao [袁如豪], Commander (2017)¹⁴⁸⁶; Yang Yong [杨勇], PC (2017)¹⁴⁸⁷; Jing Xiaopeng [景晓鹏], COS (2017)¹⁴⁸⁵

Composition (presumed)

- Security and Chemical Defense Battalion [警卫防化营]
 - Security Company [警卫连]
 - 1st Chemical Defense Company [防化一连]
 - 2nd Chemical Defense Company [防化二连]
- Meteorology Station (Battalion Leader Grade) [气象台]¹⁴⁸⁸
- Surveying Team (Battalion Leader Grade) [测地队]
 - 1st Squadron [一中队]
 - 2nd Squadron [二中队]¹⁴⁷⁸
 - The surveying team may have been transferred to another unit around March 2017, along with several other such teams¹⁴⁸⁹
- Engineering Company [工兵连]

Base 66 Comprehensive Support Regiment [66 基地综合保障团]

The Base 66 Comprehensive Support Regiment was formed around May 2017¹⁴⁹⁰ by combining the former Technical Service Regiment, Repair Factory, and Vehicle Battalion into a single regiment.¹⁴⁹¹ The regiment is thus presumably responsible for storage of missiles, fuel,¹⁴⁹² munitions,¹⁴⁹³ and other supplies, as well as transport of these assets via road and rail to Base 66 units.¹⁴⁹⁰ It is also responsible for repair and maintenance of these assets¹⁴⁹² as well as other Base

66 equipment and facilities.¹⁴⁹⁰ It may also have a role in other support functions, such as food preparation, vehicle driving, and training of certain support personnel.¹⁴⁹⁰

MUCD: 96864

Former MUCD: 96276, 96272

Grade: Regiment Leader

Parent Unit: Base 66

Location: 666 Qiming East Rd., Chanhe District, Luoyang, Henan [河南省洛阳市瀍河区启明 东路 666 号]^{1494 1495}

Geo: Unconfirmed, possibly 34.700255, 112.527611

Secondary Garrisons:

- Luoyang, Henan [河南省洛阳市] (34.541207, 112.139507)^{1496 1501}
 - This location, next door to the base Training Regiment, hosts extensive vehicle and training facilities for this regiment. Known subunits at this location include the regiment Vehicle Battalion [汽车营] and Driver Training Subunit [司机训练分队], and possibly others.
 - The unit Vehicle Battalion [汽车营] took delivery of 3 new model 50-ton trucks, and 24 new 6 ton trucks, in April 2020.¹⁴⁹⁷
- Luolong District, Luoyang, Henan 471023 [河南省洛阳市洛龙区] (possibly 34.592795, 112.415948)^{1498 1499}
 - This may have been the headquarters of the former base Technical Service Regiment before its 2017 merger. This regiment was responsible for storage and transport of nuclear warheads, missiles, munitions, fuel, and other components to Base 66 units.
- Litun Station, Luolong District, Luoyang, Henan [河南省洛阳市洛龙区李屯站] (34.578184, 112.408631)¹⁵⁰⁰
 - This regiment reportedly possesses a rail line at Litun Station which is exclusively for official military use. As this regiment is responsible for transport of key equipment via both road and rail, this is likely an important rail transfer point. The likely headquarters of the former Technical Service Regiment is only a few blocks away.

Leadership

Commander: Ma Benrui [马本瑞] (8/19)1494

Dep Commanders: Unknown

Chief of Staff: Unknown

Support Div Director: Unknown

PC: Tang Renjiang [汤仁江] (4/20)¹⁵⁰¹

Dep PC: Unknown

PWDD: Wang Haitao [王海涛] (8/18)¹⁵⁰²

Former Leadership: Wang Jianxun [王建勋], Commander (2018)¹⁵⁰³

Composition (presumed)

- Vehicle Battalion [汽车营]¹⁵⁰¹
- Repair and Measurements Station (Battalion Leader Grade) [维修计量站]¹⁴⁹⁰
- Munitions Center [军械中心]¹⁵⁰⁴
 - This subunit differs slightly from those of other regiments, being referred to as a "center" rather than a "warehouse." It is not clear whether this name difference is significant.
- Fuel Depot [油料仓库]¹⁵⁰⁵
- Comprehensive Depot [综合仓库]
- Rail Transport Company [铁路运输连]
- Service Company [勤务连]
- Vehicle Repair Subunit [汽车维修分队]
- 1st Fueling Company [转注一连]¹⁵⁰⁶
 - This important company is responsible for the manufacture and transport of nitrogen prior to launch of the base's silo-based liquid propellent rockets.
- 2nd Fueling Company? [转注二连]
 - Existence of "First" Battalion implies existence of more than one
- Driver Training Subunit [司机训练分队]¹⁵⁰⁷
- Unidentified Depot¹⁵⁰⁸
 - This regiment received a depot from the Jinan MR in 2016 consisting of eleven 3,600 sqm warehouses

Background

• In addition to the "standard" tasks of equipment repair, facility maintenance, and equipment transport, this unit is also responsible for training of drivers, cooks, and other support specialists, as well as being responsible for base culinary support.¹⁴⁹⁰

Base 66 Equipment Inspection Regiment [66 基地装检团]

The Base 66 Equipment Inspection Regiment is responsible for storage, management, and transport of Base 66 nuclear warheads.

MUCD : 96036	Former MUCD/TUD: 96273 (904 Regiment ⁶⁵²)
Grade: Regiment Leader ¹⁵⁰⁹	Parent Unit: Base 66

Location: Xiheimaqu, Lushi County, Sanmenxia, Henan [河南省三门峡市卢氏县西黑马渠]^{1510 1511} Geo: 34.030839, 111.023038¹⁵¹²

Secondary Garrison: Wulichuan Town, Lushi County, Henan [河南省卢氏县五里川镇]¹⁵¹³

Leadership

Commander: Unknown

Dep Commanders: Unknown

Chief of Staff: Unknown

PC: Zhao Peng [赵鹏] (acting PC) (9/18)¹⁵¹⁴ Dep PC: Unknown PWDD: Liu Huasheng [刘华胜] (2/18)¹⁵¹⁵

Support Div Director: Unknown

Former Leadership: Zhang Zenghui [张增辉], Commander (2017)¹⁵⁰⁹; Li Baoguo [李保国], PC (2017)¹⁵¹⁶; Shen Yijun [沈义军], COS (2018)¹⁵¹⁷

Composition (presumed)

- 1st Equipment Inspection Station [装检一站]
- 2nd Equipment Inspection Station [装检二站]
- 3rd Equipment Inspection Station [装检三站]
 - o Commander: Song Jipeng [宋基鹏] (2/18)¹⁵¹⁷
- Technical Service Battalion [技术勤务营]¹³⁴¹
- Comprehensive Support Battalion [综合保障营]¹⁵¹⁸
- Transport Company [转运连]
- Site Security Company [阵地警卫连]¹⁵¹⁹
- Some references refer to this regiment having at least three "Missile Battalions" [导弹营]
 - it is likely that these are just another name for the Equipment Inspection Stations.
 - Prior to 2016, each battalion was responsible for handling a different missile type, but this led to vulnerabilities if one battalion was unavailable and the others were not able to step in as replacements. Thus, the battalions have since begun cross-training and are now able to handle multiple missile types.¹⁵²⁰

Unit 96606 Hospital [96606 部队医院]

The Unit 96606 Hospital, formerly the 534 Hospital, was established in the 1960s¹⁵²¹ and is the official hospital attached to Base 66. It is subordinate to the Base 66 Support Department.¹³⁷⁶ As

with the other PLARF base hospitals, hospital personnel can deploy with Base 66 units to provide medical support in wartime.^{1526 1527}

MUCD: N/A

Grade: Division Deputy Leader¹⁵²²

Former TUD: 534 Hospital [534 医院]

Parent Unit: Base 66

Location: Intersection of Tianjin Street and Yingzhou North Street, Jianxi District, Luoyang, Henan [河南省洛阳市涧西区天津路南端与瀛洲北路交汇处]¹⁵²³

Geo: 34.638052, 112.378659

Leadership

Director: Xiao Jianhua [肖建华] (7/19)¹⁵²⁴ **PC**: Jin Zhibin [靳志彬] (7/18)¹³⁷⁶

Other Senior Leadership: Lü Genfa [吕根法], Field Medical Team Commander (12/18)¹⁵²⁵

Former Leadership: Wu Tianshun [吴天顺], Director (2018)¹⁵²⁶

Background

• A 2018 video about one of these drills shows that the hospital field medical team is able to erect an operating room and perform surgery in the field, and is commanded by a senior colonel.¹⁵²⁷

PLA Rocket Force Military Canine Training Team [火箭军军犬训练队]

The PLARF Military Canine Training Team was established in August 1993 with only three personnel.¹⁵²⁸ By 1997, when it was formally incorporated into the PLARF, it had 30 personnel and 188 dogs.¹⁵²⁹ Commander Li Baohua has led this team since 1993.¹⁵³⁰ The unit appears to be subordinate to Base 66 and located at a satellite facility of the 661 Brigade, although it is unclear if it is subordinate to this brigade, or directly subordinate to Base 66.

MUCD: Unknown	Former MUCD/TUD: Unknown
Grade: Unknown	Parent Unit: Base 66

Location: Nanchao Village, Lingbao, Sanmenxia, Henan 472522 [河南省三门峡市灵宝市南朝村]^{1531 1532}

Geo: 34.476465, 111.000254¹⁵³³

Leadership

Commander: Li Baohua [李保华] (1/20)¹⁵³⁴

PC: Unknown

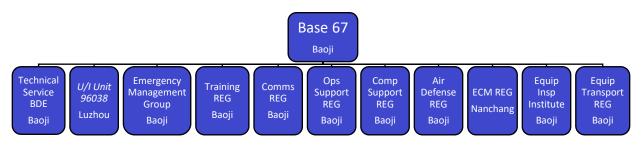
Composition

Unknown

Background

- By 2016 this team had completed 18 rounds of training. Over 800 instructors and 1,236 dogs had successfully completed the course.¹⁵²⁹
- In 2005, Li Baohua travelled to several European nations, including Germany,¹⁵³⁰ France, the Netherlands, and Belgium¹⁵²⁹ to learn best training practices from these countries, and incorporated his findings into the team's training. These included improvements to canine explosive detection techniques he learned in Germany.¹⁵³⁰
- Li Baohua has over 30 years of experience in military canine training and is considered the most experienced canine trainer in the entire PLA.¹⁵³⁰

Base 67 [67 基地]



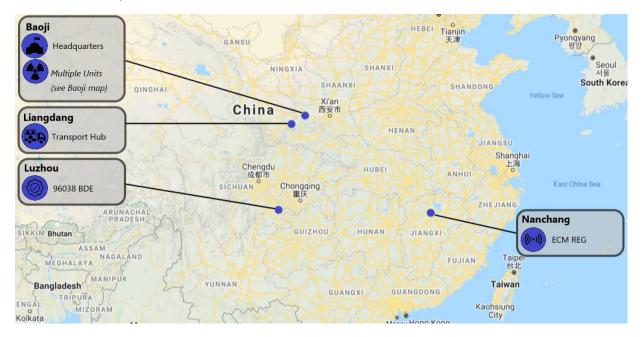
Base 67, established as early as 1958,¹⁵³⁵ is a support base responsible for oversight of the PRC's nuclear weapons storage complex at Taibai, as well as distribution of nuclear warheads to operations bases as needed. This base was established in Qinghai's Haiyan County in 1958 as Unit 0674.¹⁵³⁶ At the time it was directly subordinate to the CMC. In 1965 it was transferred to the Commission of Science, Technology and Industry for National Defense [国防科工委], and in 1969 it was moved to Shaanxi.¹⁵³⁶ It was transferred to the 2nd Artillery and took on the new MUCD 80310 in 1980.¹⁵³⁶ Previously known as Base 22, it took on its current name in 2017.

MUCD: 96607

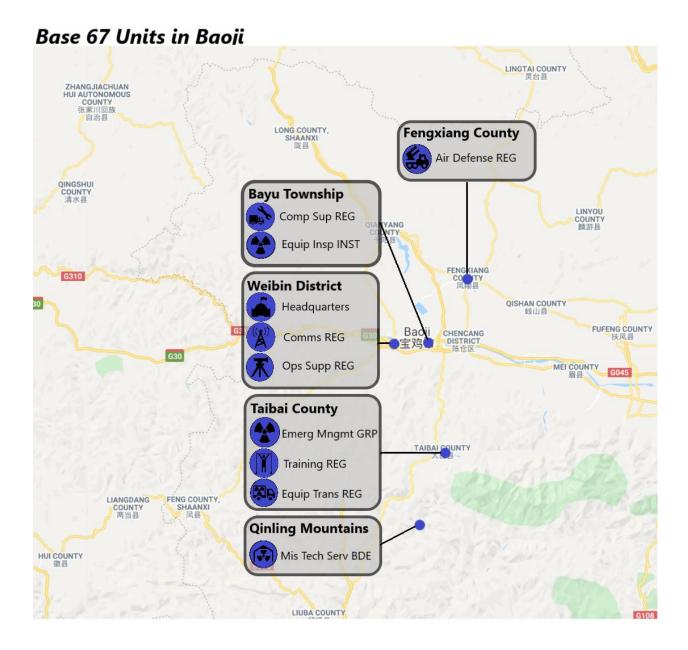
Former MUCD/TUD: 96401 (Base 22); 80310

Grade: Corps Deputy Leader¹⁵³⁷

Location: Bayi Building, 49 Baoguang Rd., Baoji, Shaanxi 721006 [陕西省宝鸡市宝光路 49 号八一大楼]^{1538 1539}



Geo: 34.348958, 107.160065¹⁵⁴⁰



Leadership

Commander: Unknown

Dep Commanders: Unknown

Chief of Staff: Unknown

PC: Zhang Jichun [张继春] (8/18)¹⁵⁴¹ Dep PC: Guo Zhenjian [郭振建] (1/20)¹⁵⁴² PWDD: Shi Daqing [石大庆] (8/19)¹⁵⁴³

Support Dept Director: Unknown

Other Senior Leadership: Niu Yumin [牛玉民], Dep COS (7/19)¹⁵⁴⁴; Chen Xiuhai [陈修海], Support Dept Dep Director (1/19)¹⁵⁴⁵

Former Leadership: Li Xiaohong [李晓宏], Commander (2018)¹⁵⁴¹; Sun Danping [孙旦平], PC (2017)¹⁵⁴⁶; Zhou Rong [周荣], Dep Commander (2015)¹⁵³⁷

Known Composition

- Missile Technical Service Brigade [导弹技术勤务旅]
- Unit 96038 [96038 部队]
- Training Regiment [训练团]
- Communications Regiment [通信团]
- Operations Support Regiment [作战保障团]
- Comprehensive Support Regiment [综合保障团]
- Air Defense Regiment (no characters given)
- 2nd Comprehensive Defense (ECM) Regiment [综合防护二团]
- Equipment Inspection Institute [装检研究所]
- Special Equipment Transport Regiment [特装运输团]
- PLARF Emergency Management Group [应急处置大队]
- Unit 96607 Hospital [96607 部队医院]

Background

• Base personnel are referred to as "Guardians of the National Treasure" [国宝卫士] (i.e. China's nuclear arsenal).¹⁵⁴⁷ Units associated with this base frequently invoke the term "National Treasure" as an oblique reference to the nuclear stockpile.

Missile Technical Service Brigade [导弹技术勤务旅]

The Missile Technical Service Brigade (or just *Technical Service Brigade*), established in 1968,¹⁵⁴⁸ is the primary unit charged with overseeing the PLARF's nuclear stockpile facilities at Taibai. Its duties include management, testing, secure handling, and transport of nuclear material.¹⁵⁴⁹ It was upgraded from a regiment to a brigade in April 2017.¹⁵⁴⁸

MUCD: 96037

Former MUCD: 96421

Grade: Division Deputy Leader

Parent Unit: Base 67

Location: Taibai County, Baoji, Shaanxi [陕西省宝鸡市太白县]¹⁵⁵⁰

Geo: 33.863638, 107.246776¹⁵⁵⁰

Secondary Garrisons:

- Zuitou Town, Taibai County, Baoji, Shaanxi 721012 [陕西省宝鸡市太白县嘴头镇]¹⁵⁵¹ (34.05527, 107.32508)
 - This large facility hosts several Base 67 units, including elements of this brigade. More centrally located in the city, this may be a base administrative center.
- Bayu Town, Taibai County, Baoji, Shaanxi 721013¹⁵⁵² [陕西省宝鸡市太白县八鱼镇] (possibly 34.350873, 107.272220)
- Liangdang County, Longnan, Gansu [甘肃省陇南市两当县]¹⁵⁵³ (possibly 33.824696, 106.420187)
 - This county also hosts rail transport assets of the Special Equipment Transport Regiment, responsible for transporting the nuclear warheads managed by this brigade
- Taibai County, Baoji, Shaanxi [陕西省宝鸡市太白县] (33.886220, 107.279583)
 - Multiple satellite facilities located deep in the mountains are visible in satellite imagery, including at 33.883351, 107.270683; 33.881224, 107.258896; 33.904459, 107.276922; 33.906906, 107.281320; 33.911509, 107.294329; 33.902080, 107.317223; 33.914758, 107.300700; 33.927280, 107.308473; 33.882927, 107.322139

Leadership

Commander: Ye Shoujiang [叶铸江] (3/19) ¹⁵⁵⁴	PC: Zhang Fanghui [张芳辉] (1/20) ¹⁵⁵⁵
Dep Commanders: Unknown	Dep PC: Unknown
Chief of Staff: Yang Jichuan [杨继川] (1/17) ¹⁵⁵⁶	PWDD : Li Gang [李刚] (8/17) ¹⁵⁴⁸

Support Dept Director: Unknown

Former Leadership: Xiang Jian [向健], Commander (2017)¹⁵⁵⁶; Wu Xiaojun [乌晓军], Dep Commander (2018)¹⁵⁵⁷

Known Composition

- Stockpile Management Battalion [贮管营]¹⁵⁵⁸
 - Responsible for handling, transport, and testing of the nuclear stockpile
 - One source shows this battalion conducting precision temperature testing of the surrounding environment¹⁵⁴⁹ to ensure optimal storage conditions
- Site Management Battalion [阵管营]¹⁵⁵⁹
- Special Equipment Transport Subunit [特装运输分队]¹⁵⁵⁵
- Security Battalion

- May have a dedicated horse cavalry company^{lxxv}
- Communications Battalion [通信营]¹⁵⁴⁹
- Operations Support Battalion [作战保障营]
 - Commander: Wang Renta [王认塔] (1/18)¹⁵⁶⁰
- Comprehensive Support Battalion [综合保障营]¹⁵⁶¹

Background

- This unit's location deep in the mountains where it guards the nuclear stockpile is frequently referred to as "Hongchuan" [红川], and personnel are urged to exhibit "Hongchuan spirit" [红川精神]. This facility has no cell coverage and no internet.¹⁵⁵⁰
- A second location is known as Hongling [红岭]. This may to be some kind of command post. There is a reference to a Hongling Command Organization [红岭指挥组] in a 2018 Taibai government document.¹⁵⁶²
- This unit did not allow female personnel until late 2014, when it allowed a small cadre of women, who appear to be mostly involved in comms work. These women are referred to in propaganda as the "Mulans of Hongchuan."¹⁵⁵⁴

Unit 96038 [96038 部队]

Unit 96038, a brigade, was probably established around 2007.¹⁵⁶³ Its exact purpose is not yet known, but its duties include management,¹⁵⁶⁴ transport,¹⁵⁶³ and inspection¹⁵⁶⁵ of nuclear warheads. Security and site defense also seem to be an important function of this unit.¹⁵⁶⁶ Like other Base 67 units associated with warhead security, its personnel have been referred to as the "Guardians of the National Treasure" [$\blacksquare \exp \perp$].¹⁵⁶⁴ Speculatively, this brigade's mission may be complimentary to the mission Unit 96037, with 96037 more focused on warhead storage and management and this brigade more focused on testing and inspection of certain warhead components.

MUCD: 96038

Former MUCD: 96617

Grade: Division Deputy Leader¹⁵⁶⁷

Parent Unit: Base 67

Location: Hongyan Village, Lantian Subdistrict Jiangyang District, Luzhou, Sichuan [四川省泸州市江阳区蓝田街道红岩村]¹⁵⁶⁸

Geo: Unconfirmed, possibly 28.838747, 105.418284

^{lxxv}See Mark Stokes, "China's Nuclear Warhead Storage and Handling System," *Project 2049 Institute*, 12 March 2010.

Leadership

Commander: Li Jun [李俊] (3/18)¹⁵⁶⁹

PC: Yuan Fei [袁非] PC (3/18)¹⁵⁷⁰

Dep Commanders: Li Jian [李建] (12/16)¹⁵⁷¹

Dep PC: Guo Yusheng [郭煜生] (12/19)1572

Chief of Staff: Unknown

PWDD: Unknown

Support Dept Director: Li Yunfeng [李云峰] (3/18)¹⁵⁶⁹

Other Senior Leadership: Ren Weidong [任卫东], Dep COS (9/17)¹⁵⁷³

Former Leadership: Zhang Xingdong [张兴东], Commander (2017)¹⁵⁷⁴; Zhang Ji [张鹡], possible COS (2017)¹⁵⁷⁵; Liang Jiantao [梁剑涛], Snr Engineer (2018)¹⁵⁷⁶

Known Composition

- Transport Battalion [运输营]¹⁵⁷⁷
 - Responsible for escort of the "National Treasure," i.e. nuclear material¹⁵⁶³
 - May include a rail transport capability¹⁵⁶⁵
- Security Battalion [警卫营]
 - "Sharp Blade" Special Operations Team [利刃特战队]¹⁵⁷⁴
 - \circ 38-man team responsible for site defense¹⁵⁶⁶
 - "Guardian Spirits of the Restricted Zone" Security Company [禁区守护神警卫 连]¹⁵⁷⁸
- Repair Battalion [修理营]¹⁵⁷⁹
 - May have since converted to a Comprehensive Support Battalion
- Technical Subunit [技术分队]¹⁵⁸⁰
- ECM Subunit [电子对抗分队]¹⁵⁷⁷
- Special Inspection Station [特检站]¹⁵⁸¹

Background

- The unit utilizes a Missile Simulation Training Center [导弹武器模拟训练中心]¹⁵⁷⁶ which is capable of simulating different missile types and components.¹⁵⁶⁹ Beginning in 2015, it took on a new component inspection mission. These facts seem to imply the unit includes inspection and possibly repair of missile and/or warhead components as a part of its mission.
- The unit may also be responsible for certain aspects of training. In 2017, it took on a new experimental training reform mission.¹⁵⁸²

• In 2019 this brigade built a dedicated fiber optic cable from Maliuwan [麻柳湾] to Xinmiao Village [新庙村] in Sichuan.¹⁵⁸³

PLARF Emergency Management Group [应急处置大队]

The PLARF Emergency Management Group, established in 2008 from a security and chemical defense battalion,¹⁵⁸⁴ is responsible for NBC emergency response and disaster assistance.¹⁵⁸⁵ It was named as a National NBC Emergency Assistance Team [核生化应急救援国家队] in 2015.^{1585 1586} Beginning in late 2018, there is evidence it may have been upgraded to a brigade and taken the new MUCD 96771.^{lxxvi}

MUCD : 96771	Former MUCD: 96879; 96426
Grade: Division Deputy Leader (presumed)	Parent Unit: Base 67
Location: Taibai County, Baoji, Shaanxi 721012 [陕西省宝鸡市太白县] ^{1587 1588}	
Geo: 34.056190, 107.326841 ¹⁵⁸⁹	

Leadership

Commander : Ding Lihu [丁立虎] (8/19) ¹⁵⁹⁰	PC: Unknown
Dep Commanders: Unknown	Dep PC: Unknown
Chief of Staff: Wang Yongmao [王永茂] (12/16) ¹⁵⁹¹ PWDD: Wan Zhihua [万志华] (1/17) ¹⁵⁹²	

Support Dept Director: Unknown

Other Senior Leadership: Jin Guofeng [金国锋], Chief Engineer (3/17)¹⁵⁹³

Former Leadership: Ning Bin [宁斌], PC (2017)¹⁵⁸⁶; Zhang Jianming [张建明], PC (2016)¹⁵⁹⁴; Zhang Ji [张鹡], COS (2015)¹⁵⁸⁴

Known Composition

- Chemical Defense Subunit [防化分队]¹⁵⁹⁵
- Detection Subunit [侦测分队]¹⁵⁹⁶

^{bxvi}Multiple personnel associated with Unit 96879, including but not limited to Commander Ding Lihu and Engineer Jin Guofeng, are now associated with 96771. Further, Ding Lihu is now described as a Brigade Commander in July 2019. 96771 must be above a regiment grade, as it has administrative Departments [部], whereas 96879 had Regiment Grade administrative Divisions [处].

Background

• Soon after being formed, this unit conducted disaster relief and pandemic prevention work following the 2008 Wenchuan Earthquake.¹⁵⁸⁴

Base 67 Training Regiment [67 基地训练团]

The Base 67 Training Regiment is co-located with several other units at Base 67's likely administrative HQ in the town of Zuitou. It is responsible for basic training of new enlisted personnel as well as three-month basic training of direct-cultivation NCOs.¹⁵⁹⁷ It may also provide training for operations base personnel tasked with nuclear warhead handling and management.¹⁵⁹⁸

MUCD: 96871

Former MUCD: 96423

Grade: Regiment Leader

Parent Unit: Base 67

Location: Zuitou Town, Taibai County, Baoji, Shaanxi 721012 [陕西省宝鸡市太白县嘴头镇]^{1599 1600}

Geo: 34.053425, 107.327487^{1601 1602}

Leadership

Commander: Lu Zhanjun [逯战军] (9/19) ¹⁶⁰³	PC: Feng Yabin [冯亚斌] (12/19) ¹⁶⁰¹
Dep Commanders: Unknown	Dep PC: Unknown
Chief of Staff: Yin Yeli ^{lxxvii} [殷烨栎] (9/19) ¹⁶⁰³	PWDD : Unknown

Support Div Director: Unknown

Former Leadership: Yuan Fang [袁方], COS (2016)¹⁶⁰⁴

Known Composition

- Unknown number of subordinate training battalions
- Site Management Battalion [阵管营]¹⁶⁰⁵
 - Site Management and Defense Company [阵管防卫连]¹⁶⁰⁶

^{lxxvii}Alternative possible spelling of name: Yi Yeyue

Base 67 Communications Regiment [67 基地通信团]

This regiment is responsible for base communications.

MUCD: 96872

Former MUCD: 96425

Grade: Regiment Leader Parent Unit: Base 67

Location: Shibahe Village, Baoji, Shaanxi 721006 [陕西省宝鸡市石坝河村] (co-located with Base HQ)^{1607 1608}

Geo: 34.349052, 107.162293¹⁶⁰⁹ ¹⁶¹⁰

Secondary Garrisons:

- 11th Road, Gaoxin Ave., Bayu Town, Baoji, Shaanxi [陕西省宝鸡市八鱼镇高新大道 11 路]¹⁶¹¹ (34.351066, 107.271155)¹⁶¹²
- Panjiawan Village, Baoji, Shaanxi [陕西省宝鸡市潘家湾村]¹⁶⁰⁸
- Mei County, Baoji, Shaanxi [陕西省宝鸡市眉县]¹⁶¹³

Leadership

Commander: Wu Keyong [吴可勇] (8/18)¹⁶¹⁴ **PC**: Dang Xuefeng^{1xxviii} [党学锋] (2/17)¹⁶¹⁵

Dep Commanders: Li Haiqing [李海庆] (9/19)¹⁶¹⁶ Dep PC: Unknown

Chief of Staff: Unknown

PWDD: Unknown

Support Div Director: Unknown

Former Leadership: Liu Chunyuan [刘春元], Commander (2017)¹⁶¹⁷; Yin Yeli^{lxxix} [殷烨栎], COS (2018)¹⁶¹⁸

Composition (presumed)

- 1st Communications Battalion [通信一营]
- 2nd Communications Battalion [通信二营]
- 3rd Communications Battalion [通信三营]
 - 6th Company [六连]¹⁶¹⁸

^{lxxviii}Alternative possible spelling of name: Zhang Xuefeng ^{lxxix}Alternative possible spelling of name: Yin Yeyue

- Suggests each battalion consists of two subordinate companies
- Mobile Communications Battalion [机动通信营]¹⁶¹⁹
 - Unclear if this constitutes a fourth battalion, or is one of the three battalions above

Background

• The regiment's motto is "All-hours communications, information efficiency, guaranteed reliability" [随时能通, 信息高校, 保底可靠]¹⁶²⁰

Base 67 Operations Support Regiment [67 基地作战保障团]

The Base 67 Operational Support Regiment is responsible for engineering,¹⁶²¹ security,¹⁶²² NBC defense, meteorology, and possibly other formers of operational support.

MUCD: 96873

Former MUCD: 96427

Grade: Regiment Leader

Location: Liujia Village, Weibin District, Baoji, Shaanxi 721006 [陕西省宝鸡市渭滨区刘家村]^{1623 1624}

Geo: 34.350450, 107.160357¹⁶²⁵

Leadership

Commander: UnknownPC: Wang Baoping [王保平^{1xxx}] (5/20)¹⁶²⁶Dep Commanders: UnknownDep PC: Zhang Yu [张宇] (4/19)¹⁶²⁷Chief of Staff: Tian Yanping [田彦平] (3/18)¹⁶²⁸PWDD: Yang Tao [杨涛] (4/19)¹⁶²⁷

Support Div Director: Unknown

Former Leadership: Zhang Ji [张鹡], Commander (2018)¹⁵⁸⁴

Known Composition

- Security and Service Battalion [警卫勤务营]¹⁶²²
 - "Knife Edge" Special Operations Team [刀锋特战队]¹⁶²⁹

^{lxxx}Also sometimes spelled as 王宝平

- Engineering Battalion [工兵营]¹⁶²¹
 - May have been downgraded to a company, based on what is known about other regiments

Base 67 Comprehensive Support Regiment [67 基地综合保障团]

The Base 67 Comprehensive Support Regiment was formed around April 2017 by combining six base subunits¹⁶³⁰ with the base Repair Factory [修配厂].¹⁶⁴⁰ The new unit went from having a simple equipment and vehicle repair mission¹⁶⁴⁰ to being responsible for comprehensive equipment and logistics support,¹⁶³¹ including vehicle and equipment repair, storage, and transport, as well as possibly other logistical specialties like medical and culinary support.¹⁶³⁶

MUCD: 96874

Former MUCD: 96424

Parent Unit: Base 67

Grade: Regiment Leader

Location: Wolongsi Subdstrict, Jintai District, Baoji, Shaanxi 721004 [陕西省宝鸡市金台区卧 龙寺街道]^{1632 1633}

Geo: 34.349880, 107.272280¹⁶³⁴

Secondary Garrisons:

- Wolongsi Subdstrict, Jintai District, Baoji, Shaanxi 721004 [陕西省宝鸡市金台区卧龙 寺街道] (34.364958, 107.276050)
 - Fuel Storage Depot¹⁶³⁵
- Wolongsi Subdstrict, Jintai District, Baoji, Shaanxi 721004 [陕西省宝鸡市金台区卧龙 寺街道] (34.365727, 107.267321)
 - Possible rail transport facilities

Leadership

Commander: Xu Jun [徐君] (5/20) ¹⁶³⁴	PC: Liu Zhe [刘哲] (10/19) ¹⁶³⁶
Dep Commanders: Unknown	Dep PC: Unknown
Chief of Staff: Unknown	PWDD : Wang Gaosheng [汪高升] (4/19) ¹⁶³⁷

Support Div Director: Unknown

Other Senior Leadership: Yuan Bo [袁博], Dep COS (9/18)¹⁶³⁸

Former Leadership: Hu Yunhui [胡云辉], Commander (2017)¹⁶³⁹; Liu Wangsheng [刘旺升], Commander (2014)¹⁶⁴⁰

Composition (presumed)

- Repair and Measurements Station (Battalion Leader Grade) [维修计量站]¹⁶⁴¹
- Comprehensive Depot [综合仓库]¹⁶³⁴
- Fuel Storage Depot [油料仓库]¹⁶³⁵
- Service Team [勤务队]¹⁶³⁴
- Rail Transport Company [铁路运输连]
- Vehicle Battalion [汽车营]
- Vehicle Repair Team [汽车维修队]¹⁶⁴²

Air Defense Regiment

Unit 96875 appears to be an experimental air defense regiment. It was established in 2012¹⁶⁴³ and described variously as a "test and training team" [试训队],¹⁶⁴⁴ a "new type of operations force" [新型作战力量], or simply as a "unit" [部] before being officially reorganized into a regiment in early 2017.¹⁶⁴⁵ Its mission is described as providing a "security shield"¹⁶⁴⁴ in defense of the "National Treasure," i.e. China's nuclear arsenal.

MUCD: 96875

Former MUCD: 96428

Grade: Regiment Leader

Parent Unit: Base 67

Location: Fengxiang County, Baoji, Shaanxi 721400 [陕西省宝鸡市凤翔县]¹⁶⁴⁶

Geo: Unknown

Capabilities

Known to be equipped with the LD-2000 30mm close-in weapon system (CIWS),¹⁶⁴³ as well as unidentified surface-to-air missiles.

Leadership

Commander: Luo Jin [罗进] (9/18)¹⁶⁴⁷

Dep Commanders: Unknown

Chief of Staff: Unknown

Support Div Director: Unknown

PC: Unknown Dep PC: Wang Jianhui [王建辉] (1/20)¹⁶⁴⁸ PWDD: Unknown Other Senior Leadership: Yang Pengxing [杨朋星], Pol Work Div Dep Director (2/18)¹⁶⁴⁹

Former Leadership: Xu Jun [徐君], Commander (2015)¹⁶⁵⁰; Zhang Jianming [张建明], PC (2018)¹⁶⁴⁷; Ning Bin [宁斌], PC (2017)¹⁶⁴⁵; Dou Rongbin [窦荣斌], COS (2015)¹⁶⁵¹

Composition

- Mobile Launch Battalion [机动发射营]
 - \circ Established in 2012¹⁶⁴⁷
 - Equipped with a new weapon system¹⁶⁴⁷
 - Between 2012 and 2018, took part in five major missions, firing 32 missiles and destroying the target 15 times. This is described as a "historic breakthrough" for the PLARF.¹⁶⁴⁷
 - A 2015 Red-Blue OPFOR drill ended in missile launch from concealed position.¹⁶⁵²
 - A 2016 source describes an "intercept mission" in which an enemy aircraft was able to use the local geography to sneak through, resulting in mission failure¹⁶⁴⁴
 - A 2018 source describes the battalion tracking a suddenly appearing target and destroying it with a missile, as well as engaging in jamming¹⁶⁴⁷
- Fire Defense Battalion [火力防护营]¹⁶⁵³
 - Comes from a single source in 2015, so may just be an earlier iteration of the Launch Battalion
- ECM Battalion [电抗营]¹⁶⁵¹
 - Capable of conducting jamming and "comprehensive defense"^{lxxxi} [综合防护]¹⁶⁵⁴
- Security Battalion [警卫营]¹⁶⁵⁵
 - Transferred from an unidentified brigade to this regiment following its reorganization in 2017.¹⁶⁵⁶
 - o Commander: Zhang Fenghao [张峰毫] (9/18)¹⁶⁵⁶
- 1st Technical Office [技术一室]
 - \circ Responsible for research and training¹⁶⁵⁶
 - Technical cadres frequently visit factories and academic institutions¹⁶⁵⁶
- 2nd Technical Office [技术二室]

Background

• This unit appears to have a connection to the PLARF training area in Alxa, Inner Mongolia, although it is unclear if this is a permanent garrison. In 2016, it held a drill in the towns of

^{lxxxi}Usually a euphemism for ECM

Alatengchaoge [阿拉腾朝格苏木] and Badanjilin [巴丹吉林镇]^{lxxxii} in Alxa's Right Banner.^{1657 1658}

• The regiment's first major exercise took place soon after it was reorganized, in September 2017. Its tracking and jamming success rates for this mission were 40% and 33%, respectively, which was considered unacceptable. Through training it managed to raise these rates to 80% and 100%, respectively.¹⁶⁵⁶

2nd Comprehensive Defense Regiment [综合防护二团]

The 2nd Comprehensive Defense Regiment is one of two PLARF ECM regiments. It is noted for conducting jamming and suppression, electronic reconnaissance,¹⁶⁵⁹ and being responsible for the protection of the "National Treasure," i.e., China's nuclear arsenal.¹⁶⁶⁰ The regiment was reorganized in 2017, with some personnel being transferred to a remote mountain location.¹⁶⁶¹ This may be a reference to Hongchuan [$\underline{2}$]||], where the PRC's nuclear arsenal is stored, as the source describes this mission as protection of the nuclear stockpile.¹⁶⁶⁰

MUCD : 96876	Former MUCD: 96634	
Grade: Regiment Leader	Parent Unit: Base 67	
Location: Nanchang County, Nanchang, Jiangxi [江西省南昌市南昌县] ^{1662 1663}		
Geo: Unconfirmed, possibly 28.50000, 115.92139		
Secondary Garrison: Xi'an, Shaanxi 710068 [陕西省西安市] ¹⁶⁶⁴		
Leadership		
Commander: Wang Wenqing [王文清] (5/18) ¹⁶⁶⁵	PC: Shi Zuming [石祖明] (8/18) ¹⁶⁶⁶	
Dep Commanders: Unknown	Dep PC: Unknown	

Chief of Staff: Unknown

PWDD: Xi Zidan [西子丹] (9/18)¹⁶⁶⁷

Support Div Director: Unknown

Other Senior Leadership: Sun Haibin [孙海滨], Dep COS (6/17)¹⁶⁶¹

Known Composition

• 1st Battalion

^{lxxxii}Both town names are Sinicizations of the original Mongolian

- 2nd Battalion
 - Commander: Liu Shiliang [刘石亮] (6/18)¹⁶⁶⁸
 - Political Instructor: Wen Yonggang [温拥纲] (4/18)¹⁶⁶⁹

Background

 Key terms used to describe this unit's mission and equipment include "jamming control" [干扰控制], "servo-antennas" [伺服天线], "radar" [雷达],¹⁶⁷⁰ "fire intercept equipment" [火力拦截装备], and "network testing" [组网测试].¹⁶⁶⁰

Equipment Inspection Institute [装检研究所]

The Equipment Inspection Institute is primarily responsible for ensuring nuclear warhead safety, reliability, and quality control. ¹⁶⁷¹ Among its duties are testing of weapons systems and components, ¹⁶⁷² regular quality control and environmental inspections of missiles and warheads in long-term storage, ¹⁶⁷³ routine monitoring and repairs, and ensuring the integrity of storage facilities. ¹⁶⁷⁴ Other missions include research on missile usage and applications, ^{1671 1675} and missile telemetry and tracking support. ¹⁶⁷⁶

MUCD: 96877

Former MUCD: 96411

Grade: Unknown

Parent Unit: Base 67

Location: Gaoxin Ave., Bayu Town, High-tech District, Weibin District, Baoji, Shaanxi 721013 [陕西省宝鸡市渭滨区高新区八鱼镇高新大道]^{1677 1678 1679 1680}

Geo: Unconfirmed, possibly 34.348850, 107.270698

Secondary Garrison:

- Taibai County, Baoji, Shaanxi [陕西省宝鸡市太白县] (33.884842, 107.278483)
 - This Institute moved a large number of its personnel from its HQ in Baoji to the remote Hongchuan [红川] garrison in March 2017¹⁶⁸¹

Leadership

Director: Wang Guoqing [王国庆] (11/16)¹⁶⁷² PC: Unknown

Former Leadership: Gan Yeyuan [甘业元], PC (2016)¹⁶⁸²

Known Composition

- Telemetry Subunit [遥测分队]
 - Travels long distances providing data for missile test launches.¹⁶⁷⁶
- Unknown number of Technical Offices [技术室]¹⁶⁸²

Background

- The Institute's relationship with Unit 96037 after March 2017, when a large number of Institute personnel were probably transferred to Hongchuan, is still unclear. Contextually, it appears Unit 96037 may have some degree of administrative control over this Institute,^{1681 1683} although the Institute continues to exist as a distinct unit with its own MUCD.
- Sources for this unit repeatedly use the term "core" components [核心部件]¹⁶⁸⁴ ¹⁶⁸⁵ when discussing this Institute's inspection focus. This could be an oblique reference to the warhead itself.
- In addition to its inspection mission, this Institute conducts research on weapons usage and applications, including on best practices for newly introduced weapons platforms. In 2009, a new missile had recently entered service (could be the DF-16 or DF-31A) and was experiencing problems in both quality control and in operational applications, limiting its effectiveness. A team from this Institute spent five years tackling these problems, improving quality control and optimizing the missile's operations course.¹⁶⁷¹ One source describes the Institute conducting research on core weapons control technology.¹⁶⁷⁵ Another source mentions the Institute is engaged in lifespan extension and renovations.¹⁶⁸⁵
- The Institute has a high number of senior engineers [高级工程师] who make up 1/6 of its cadres.¹⁶⁸²

Special Equipment Transport Regiment [特种装备运输团]

The Special Equipment Transport Regiment, established in 1981, ¹⁶⁸⁶ is responsible for transporting nuclear warheads and related equipment from the central repository at Taibai to operations bases.¹⁶⁸⁷ It is capable of transporting warheads via both road¹⁶⁸⁸ and rail,¹⁶⁸⁷ and even possesses an air transport capability.¹⁶⁸⁶ ¹⁶⁸⁹ ¹⁶⁹⁰

MUCD: 96878

Former MUCD: 96422

Grade: Regiment Leader

Parent Unit: Base 67

Location: Taibai County, Baoji, Shaanxi 721012 [陕西省宝鸡市太白县]¹⁶⁹¹

Geo: 34.053503, 107.324458¹⁶⁹² ¹⁶⁹³

Secondary Garrisons:

- Wolongsi Subdistrict, Jintai District, Baoji, Shaanxi [陕西省宝鸡市金台区卧龙寺街道]¹⁶³³ (possibly 34.350619, 107.272166)
- Sandushui Village, Xipo Town, Liangdang County, Longnan, Gansu [甘肃省陇南市两 当县西坡镇三渡水村]^{lxxxiii}¹⁶⁹⁴¹⁶⁹⁵ (possibly 33.826494, 106.419984)
 - Former regiment HQ prior to mid-1990s^{lxxxiii}
- Hongqing Station, Xipo Town, Liangdang County, Longnan, Gansu [甘肃省陇南市两当 县西坡镇宏庆站] (possibly 33.844983, 106.423496)
 - Key rail transport point used in transshipment of nuclear warheads^{lxxxiii}

Leadership

Commander: Zhang Ji [张鹡] (5/21) ¹⁶⁹⁶	PC: Ning Bin [宁斌] (2/19) ¹⁶⁹⁵
Dep Commander : Li Bo [李博] (5/17) ¹⁶⁹⁷	Dep PC: Bai Jinliang [白金良] (9/19) ¹⁶⁹⁸
Chief of Staff: Wang Xinfei (王新飞) (5/17) ¹⁷⁰⁰	PWDD : Unknown

Support Div Director: Tang Xiaowen [唐孝文] (8/18)¹⁶⁹⁹

Former Leadership: Shang Fei [尚飞], Commander (2018)¹⁷⁰⁰; Li Zhijin [李志金], Commander (2016)¹⁷⁰¹; Zheng Chaowei [郑朝伟], PC (2017)¹⁷⁰²

Known Composition

- 1st Rail Transport Battalion [铁运一营]¹⁶⁸⁷
- 2nd Rail Transport Battalion [铁运二营]
 - Commander: Wang Yang [王洋] (6/18)¹⁷⁰³
- Road Transport Battalion [公路运输营]¹⁶⁸⁸
 - Practices transporting equipment in a degraded wartime environment, dealing with damaged roads and infrastructure and being able to quickly make repairs to roads and vehicles¹⁷⁰¹

Background

• The unit executed its first airborne support mission in 1986, carrying a nuclear payload 2,600 km.¹⁶⁸⁶

^{lxxxiii}See Mark Stokes, "China's Nuclear Warhead Storage and Handling System," Project 2049 Institute, 12 March 2010

Unit 96607 Hospital [96607 部队医院]

The Unit 96607 Hospital, formerly known as the PLA 537 Hospital, was established in 1950¹⁷⁰⁴ and is the official hospital attached to Base 67.

MUCD: N/A	Former TUD: 537 Hospital [537 医院]
Grade: Division Leader ¹⁷⁰⁵	Parent Unit: Base 67
Location: 49 Baoguang Rd., Baoji, Shaanxi [陕西省宝鸡市宝光路 49 号] ^{1706 1707}	
Geo: 34.347978, 107.161165	
Leadership	
Director : Wang Jin [王进] (1/19) ¹⁷⁰⁸	PC: Yang Haibo [杨海波] (10/16) ¹⁷⁰⁹

PWDD: Zhao Gang [赵刚] (5/18)¹⁷¹⁰

Former Leadership: Li Changlin^{lxxxiv} [李长林], Director (2017)¹⁷¹¹

Background

• This location also hosts numerous civilian support facilities associated with Base 67, including a reception area, guesthouse, daycare, dry cleaning, and a supermarket.²⁶⁵

lxxxivAlternative possible spelling of name: Li Zhanglin

Base 68 [68 基地]



Base 68, the PLARF's engineering support base, is responsible for construction of physical infrastructure.¹⁷¹² The PLARF Engineering Base was first established in 2012 from the former Engineering Technical Zongdui (ETZ) [工程技术总队].¹⁷¹³ As part of the 2017 reorganization, this base was combined with the 308th Engineering Command [308 工程指挥部] and renamed Base 68. It likely consists of 6 Engineering Brigades, at least two of which specialize in installation, a Communications Engineering Regiment responsible for constructing the PLARF's communications infrastructure, a Communications Repair and Maintenance Regiment, and at least four other support regiments.

MUCD: 96608

Former MUCD/TUD:

96501 (308 Engineering Command)¹⁷¹⁴; 96531¹⁷¹⁵; 80590¹⁷¹⁶;

Unit 352¹⁷¹⁶ (Engineering Technical Zongdui)

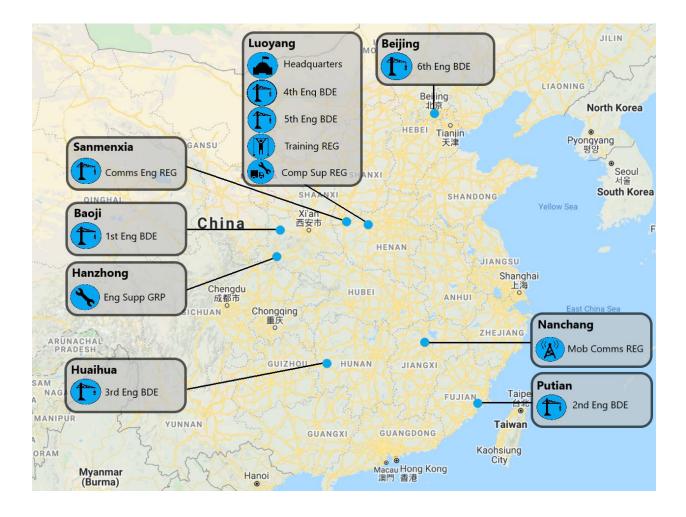
Grade: Corps Deputy Leader¹⁷¹⁷

Location: 378 Heluo Rd., Xujiaying, High-tech District, Luoyang, Henan 471031 [河南省洛阳 市高新区徐家营河洛路 378 号]^{1718 1719 1720}

Geo: 34.601976, 112.357479¹⁷²¹

Secondary Garrison:

- Hantai District, Hanzhong, Shaanxi [陕西省汉中市汉台区]¹⁷²² (possibly at 33.068987, 107.009818)
 - Former HQ of 308th Engineering Command



Leadership

Commander: Kang Jianguo [康建国] (8/19)¹⁷²³ PC: Sun Le [孙乐] (12/18)¹⁷²⁴

Dep Commanders: Liu Jianming [刘建明] (12/19)¹⁷²⁵; Guo Zhongding [郭中定] (8/19)¹⁷²³

Dep PC: Unknown

Chief of Staff: Chang Jianwei [常建伟] (4/18)¹⁷²⁶ PWDD: Zhang Wei [张炜] (11/19)¹⁷¹⁷

Support Dept Director: Shen Zhanmin [申占民] (10/18)¹⁷²⁷

Other Senior Leadership: Li Deping [李德平], Dep Chief Engineer (7/18)¹⁷²⁸; Liu Weijie [刘 维杰], Snr Engineer (7/18)¹⁷²⁸

Former Leadership: Zhao Quanhong [赵全红], PC (2018)¹⁷²⁹; Hu Mingquan [胡明全], Dep Commander (2019)¹⁷²³; Chen Xiuhe [陈修河], Dep Commander (2015)¹⁷²⁹; Liu Changguo^{lxxxv} [柳长国], PWDD (2018)¹⁷³⁰; Wang Xuanping [王选平], Pol Dept Director (2015)¹⁷²³

Composition

- 1st Engineering Brigade [工程一旅]
- 2nd Engineering Brigade [工程二旅]
- 3rd Engineering Brigade [工程三旅]
- 4th Engineering Brigade [工程四旅]
- 5th Engineering Brigade [工程五旅]
- 6th Engineering Brigade [工程六旅]
- Training Regiment [训练团]
- Communications Regiment [通信团]
- Comprehensive Support Regiment [综合保障团]
- Communications Engineering Regiment [通信工程团]
- Engineering Maintenance Support Group [工程维护保障大队]
- Construction Project Technical Management Center [施工技术管理营]¹⁷³¹,
- Security and Communications Battalion [警卫通信营]¹⁷³²

Background

- In addition to its construction role, this base is also responsible for wartime engineering support and peacetime military operations other than war (MOOTW),¹⁷¹² including emergency response.
- The Engineering Technical Zongdui (ETZ) was established on 18 October 1962, when the Chief of the General Staff ordered its creation from the Engineering Special Command Department's [工程兵特种指挥部] Engineering Technical Group [工程技术大队] and Special Engineering Command Department's directly subordinate subunits [特种工程指挥部直属分队]. It would be responsible for installation of test platforms for nuclear weapon and satellite tests.¹⁷³³ It was responsible for the constructing the tower for the PRC's initial nuclear tests in 1963-64. From 1968 to 1972, it played a role in construction of the largest early warning radar in the world at that time.¹⁷³³ It has also played a role in construction of the Xichang Satellite Launch Center,¹⁷³⁴ as well as the PLA's first missile test base and initial missile sites.¹⁷³⁵ The ETZ moved from Luoyang's Luolongmen to the

^{lxxxv}Alternative possible spelling: Liu Zhangguo

location of the former Armored Tank School [装甲兵坦克学校] in Xuzhou, Jiangsu in 1970. It moved again back to Luoyang in 1975,¹⁷¹⁶ and on 28 September 1975, it was resubordinated to the 2nd Artillery, where it would be responsible for missile site infrastructure installation.¹⁷³³ Originally consisting of six subordinate groups [大队],¹⁷¹⁶ the ETZ was reorganized into three subordinate installation regiments in the early 1990s.¹⁷³⁶ Following its reorganization in 2012, these regiments were converted to brigades.¹⁷¹³

- The ETZ, until its recent reorganization in 2012, was the only PLARF unit responsible for installation of electricity, plumbing, ventilation, shock absorption, blast and radiation shielding, and other key components of PLARF missile sites and other infrastructure, ensuring missile lifespan and optimal functionality.¹⁷³³ It would also be responsible for emergency repairs of tunnels, roads, bridges, and missile sites in wartime.¹⁷³⁴
- The Engineering Command Department has had a role in the construction of the Great Hall of the People in Beijing, Mao Zedong's Mausoleum, and the Beijing subway, as well as national defense projects like satellite launch centers and missile sites.¹⁷³⁴
- Prior to the creation of this Base bringing tunneling and installation functions under one roof, the ETZ worked closely with the Engineering Design Institute and Engineering Command Department in construction of PLARF infrastructure. The Engineering Design Institute, recently resubordinated to the PLARF Research Academy, was responsible for the design stage, the Engineering Command Department was responsible for major construction of buildings and tunnels, and the ETZ was responsible for final installation work.¹⁷³⁴

1st Engineering Brigade [工程一旅]

The 1st Engineering Brigade was established on 5 May 1951 and was converted to a brigade on 14 March 2012.¹⁷³⁷ It is likely primarily responsible for tunneling and concrete reinforcement of tunnels.¹⁷³⁸ It would also be responsible for emergency engineering support in wartime, including rapid repairs to roads, bridges, tunnels, and other infrastructure.¹⁷³⁹

MUCD: 96781

Former MUCD/TUD: 96512

Parent Unit: Base 68

Grade: Division Deputy Leader¹⁷⁴⁰

Location: Dangjiabao Village, Panxi Town, Chencang District, Baoji, Shaanxi [陕西省宝鸡市 陈仓区磻溪镇党家堡村]^{1741 1742}

Geo: Unconfirmed, possibly 34.317958, 107.415185

Secondary Garrisons:

• Weibin District, Baoji, Shaanxi [陕西省宝鸡市渭滨区]¹⁷⁴³ (possibly at 34.323315, 107.100568)

- Ledu District, Haidong, Qinghai [青海省海东市乐都区]¹⁷⁴⁴ (possibly at 36.466578, 102.401716)
 - Forward Command Post [前指]
- Shilipu Subdistrict, Jintai District, Baoji, Shaanxi [陕西省宝鸡市金台区十里铺街道]¹⁷⁴⁵ (possibly at 34.371937, 107.204976)
- Luoyang, Henan 471421 [河南省洛阳市]^{1746 1747}
- Hanzhong, Shaanxi [陕西省汉中市]¹⁷⁴⁸
- Qakilik (Ruoqiang) County, Bayingolin Prefecture, Xinjiang [新疆巴音郭楞州若羌 县]¹⁷⁴⁹
- Nanyang, Henan 434370 [河南省南阳市]¹⁷⁵⁰
- Golmud, Haixi Prefecture, Qinghai [青海省海西州格尔木市]¹⁷⁵¹

Leadership

Commander : Zhang Jie [张杰] (8/20) ¹⁷³⁸	PC: Jiang Gangbiao [蒋刚彪] (8/20) ¹⁷³⁸
Dep Commanders: Unknown	Dep PC: Unknown
Chief of Staff: Unknown	PWDD : Wang Zhaocheng [王兆成] (8/18) ¹⁷⁵²

Support Dept Director: Chen Denglong [陈登胧] (9/17)¹⁷⁵³

Other Senior Leadership: Dang Xi^{lxxxvi} [党西], Dep COS (1/18)¹⁷³⁹

Former Leadership: Guo Zhongding [郭中定], Commander (2018)¹⁷³⁷; Chen Lianmeng [陈联盟], Dep PC (2016)¹⁷⁴³; Li Jindang [李进党], PWDD (2018)¹⁷⁵⁴

Composition (presumed)

- 1st Battalion [一营]
- 2nd Battalion [二营]
 - "Heroic" 3rd Company [英雄三连]¹⁷⁵⁵
- 3rd Battalion [三营]
 - "Fierce Tigers" 5th Company [猛虎五连]¹⁷⁵⁵
 - "National Defense Project Pioneers" 6th Company [国防施工先锋六连]¹⁷⁵⁵
- 4th Battalion [四营]
 - "Iron" 8th Company [钢八连]¹⁷⁵⁶

^{lxxxvi}Alternative possible spelling of name: Zhang Xi

- As of 2015, elements of this battalion have been stationed in the Gobi Desert for the past twelve years, working on a major engineering project¹⁷⁵⁷
- 5th Battalion [五营]⁹⁰⁶
 - Also known as 60th Subunit [60 分队]⁹⁰⁶
 - Commander: Sha Ziga [沙子呷] (8/20)⁹⁰⁶
 - NPC Representative and model personnel who appears frequently in PLA propaganda
 - Member of Yi Ethnic Minority
- Vehicle Company [汽车连]¹⁷⁴⁵
- Security and Communications Company [警通连]¹⁷⁵⁸

Background

- Early missions for this unit included participation in the Korean War and aiding the construction of the Jiuquan Satellite Launch Center. In 1997, this unit was responsible for emergency construction of a site on the southeast China coast. In 2008, it was an early responder to the earthquake in Wenchuan.¹⁷³⁷
- In addition to the primary missions named above, it has also been noted installing defensive doors [防护门]¹⁷³⁸ and constructing a simulated "enemy" camp for missile target practice.¹⁷⁵⁶

2nd Engineering Brigade [工程二旅]

This engineering brigade seems to mainly be concerned with tunneling¹⁷⁵⁹ and concrete reinforcement [被复].¹⁷⁶⁰

MUCD: 96782

Former MUCD/TUD: 96514

Grade: Division Deputy Leader (presumed)

Parent Unit: Base 68

Location: Basan Compound, Laidian Town, Xianyou County, Putian, Fujian [福建省莆田市仙 游县赖店镇八三大院]^{1761 1762}

Geo: Unconfirmed, possibly 25.317198, 118.712805

Secondary Garrisons:

- Jiushang Village, Xiadao Town, Yan'an District, Nanping, Fujian [福建省南平市延平区 夏道镇鸠上村]¹⁷⁶³
 - Forward Command Post
- Xingcheng, Liaoning [辽宁省兴城市]¹⁷⁶⁴

MOOTW training ground and Heavy Machinery Training Center [非战争军事科目训练场和大型机械操作手培训中心]

Leadership

Commander: Liu Jun [刘军] (8/19)¹⁷⁶⁴

Dep Commanders: Unknown

PC: Liu Yanchun [刘彦春] (8/20)¹⁷⁶⁵ Dep PC: Wu Jianye [吴建业] (3/18)¹⁷⁶⁶

Chief of Staff: Unknown

PWDD: Unknown

Support Dept Director: Unknown

Former Leadership: Liu Yunsheng [刘允生], Commander (2018)¹⁷⁶⁷; Shen Zhanmin [申占民], Commander (2016)¹⁷⁶⁸; Guo Sanhu [郭三虎], Commander (2015)¹⁷⁶⁹; Zhang Wei [张炜], PC (2018)¹⁷⁷⁰

Composition (presumed)

- 1st Battalion [一营]
 - Commander: Zheng Wanping [郑万平] (2/18)¹⁷⁷¹
- 2nd Battalion [二营]
- 3rd Battalion [三营]
- 4th Battalion [四营]
- 5th Battalion [五营]
- Security and Communications Company [警通连]¹⁷⁷²

Background

• Other noted missions include tunnel flooring/paving,¹⁷⁶⁶ installation of heavy blast doors,¹⁷⁷³ and special structure bricklaying.¹⁷⁷⁴ Concrete reinforcement is described as a "core" mission¹⁷⁶⁰ for the brigade.

3rd Engineering Brigade [工程三旅]

This brigade appears to be responsible for underground tunneling, as well as concrete pouring and reinforcement. ¹⁷⁷⁵ ¹⁷⁷⁶ In wartime it would also be responsible for emergency repairs of tunnels, roads, and bridges.¹⁷⁷⁷

MUCD: 96783

Former MUCD: 96518; 96516?

Grade: Division Deputy Leader (presumed) Parent Unit: Base 68

Location: Zhengqing Rd., Yangcun Township, Hecheng District, Huaihua, Hunan [湖南省怀化 市鹤城区杨村乡正清路]¹⁷⁷⁸¹⁷⁷⁹¹⁷⁸⁰

Geo: Unconfirmed, possibly 27.543129, 110.007407^{lxxxvii}

Secondary Garrisons:

- Banshanping Township, Nanzhao County, Nanyang, 474667 [河南省南阳市南召县板山 坪镇]^{1781 1782 1783}
 - o Forward Command Post [前指] and Brigade Repair Shop [修理所]
- 34 Jiefang Rd., Xigong District, Luoyang, Henan [河南省洛阳市西工区解放路 34 号 院]¹⁷⁸⁴ (34.677150, 112.427621)
 - Possible administrative facility, plus a for-profit hotel run by PLARF
- Qingcheng District, Qingyuan, Guangdong 511533 [广东省清远市清城区]¹⁷⁸⁵
 - Possible construction site for 626 Brigade
- Yingde, Qingyuan, Guangdong [广东省清远市英德市]¹⁷⁸⁶
 - Possible construction site for 626 Brigade
- Yankou, Longhui County, Shaoyang, Hunan 42214 [湖南省邵阳市隆回县岩口]^{1787 1788}
 - Possible construction site for 632 Brigade
- Yimen County, Yuxi, Yunnan [云南省玉溪市易门县]¹⁷⁸⁹
 - Possible construction site for 622 Brigade
- Lingshui County, Hainan [海南省陵水县]¹⁷⁹⁰
 - Possible construction site for 624 Brigade

Leadership

Commander: Li Binli [李斌利] (9/19)1789

Dep Commanders: Unknown

Chief of Staff: Unknown

PC: Pi Zufeng [皮祖峰] (1/20)¹⁷⁹¹

Dep PC: Duan Linxian [段林献] (6/18)¹⁷⁹²

PWDD: Unknown

Support Dept Director: Unknown

Other Senior Leadership: Xu Feng [徐峰], Dep COS (2/20)¹⁷⁷⁵

^{lxxxvii} Brigade headquarters are said to be on Zhengqing Road, next to an elementary school. The most likely candidate is labelled as a Middle School in Baidu Maps, but Baidu has mislabeled military facilities in the past and there do appear to be military vehicles visible in satellite imagery, so it is possible this is the location.

Former Leadership: Yang Hongwei [杨宏伟], PC (2018)¹⁷⁹³; Liu Jun [刘军], Dep Commander (2017)¹⁷⁷⁶; Sun Liangshan [孙良善], PWDD (2018)¹⁷⁹⁴; Zhang Zhenhua [张振华], PWDD (2016)¹⁷⁹⁵

Composition (presumed)

- 1st Battalion [一营]
- 2nd Battalion [二营]
- 3rd Battalion [三营]
- 4th Battalion [四营]
 - o Commander: Sun Dongfeng [孙东风] (2/18)¹⁷⁹⁶
 - o Political Instructor: Lu Shuiqing [路水清] (7/20)1788
 - As of July 2020 this battalion was stationed in Yankou, Longhui County, Guangdong,¹⁷⁹⁶ likely conducting a long-term construction mission¹⁷⁹⁶
 - 8th Company [八连]¹⁷⁹⁷
 - Established in 2003
 - \circ Added a 4th Platoon to its three existing platoons in 2008
- 5th Battalion [五营]
- Operations Support Battalion [作战保障营]¹⁷⁹⁸
 - Security and Communications Battalion [警通连]
- Comprehensive Support Battalion [综合保障营]¹⁷⁹⁹
- Service Company [勤务连]¹⁸⁰⁰
 - o Subordinate to Brigade Staff Department [参谋部]
- Repair Shop [修理所]¹⁸⁰¹

Background

- This unit transferred to a new location, possibly its current location in Huaihua, in 2011.¹⁷⁹⁷ It converted from a regiment to a brigade at some point after 2010,¹⁷⁸⁶ likely as part of the 2012 reorganization.
- While speculative, this brigade may have incorporated elements of the former Unit 96516, another engineering regiment formerly based in Huaihua which mostly disappeared after 2014.¹⁸⁰²
- In recent years, the brigade has been noted in several locations, some associated with known PLARF launch brigades. In 2016 it was noted in Qingyuan, Guangdong, one year before the 626 Brigade moved to that location.¹⁷⁸⁵ In 2010 it was also noted in nearby Yingde, next to Qingyuan.¹⁷⁸⁶ In August 2016, the brigade took over the "321 Project" from Unit 96514 in Yimen County, Yuxi, Yunnan.¹⁷⁸⁹ Yuxi is home to the 622 Brigade. In

2014, it was noted in Lingshui County, Hainan,¹⁷⁹⁰ home of the 624 Brigade since 2018. The 4th Battalion has been noted in Shaoyang, home of the 632 Brigade (see above).

 From 2007-2009, Unit 96516 was involved in constructing a large air defense tunnel in Fengda Village, Qiaotou Township, Huaiji County, Guangdong [广东省怀集县桥头镇丰 大村].¹⁸⁰³

4th Engineering Brigade [工程四旅]

The 4th Engineering Brigade was established in 2012 through the combination of two previous work units,¹⁸⁰⁴ possibly a reference to the 1st and 2nd Installation Regiments (see below). As one of Base 68's two installation specialist brigades, it is responsible for final installation of electrical,¹⁸⁰⁵ water,¹⁸⁰⁴ ventilation,¹⁸⁰⁶ HVAC,¹⁸⁰⁷ and other key components of PLARF facilities. It has also been noted installing steel support girders,¹⁸⁰⁸ security cameras, sensors, and control systems,¹⁸⁰⁹ and an 18 ton diesel generator,¹⁸⁰⁹ as well as being responsible for tunnel whitewashing.¹⁸¹⁰

MUCD: 96784

Former MUCD/TUD: 96542; 96544?

Grade: Division Deputy Leader

Parent Unit: Base 68

Location: Maying Village, 696 Chengguan Town, Yichuan County, Luoyang, Henan 471399 [河南省洛阳市伊川县城关镇 696 号马营村]^{1811 1812 1813}

Geo: 34.533013, 112.455619¹⁸¹⁴ ¹⁸¹⁵

Secondary Garrisons:

- Jinguyuan Subdistrict, Xigong District, Luoyang, Henan [河南省洛阳市西工区金谷园街道]¹⁸¹⁶ (possibly at 34.686596, 112.410134)
- Jianxi District, Luoyang, Henan 471003 [河南省洛阳市涧西区]¹⁸¹⁷
- Yimen County, Yuxi, Yunnan [云南省玉溪市易门县]¹⁸¹⁸
 - Possible construction for 622 Brigade
 - Possibly located in vicinity of Zhongtun Village [中屯村] and Hongtonqing^{lxxxviii}
 Village [红铜箐村]
- Pingyuan County, Meizhou, Guangdong [广东省梅州市平远县]¹⁸¹⁹
 - Possible construction for 615 Brigade

^{lxxxviii}Alternative possible spellings of village name: Hongtongjing, Hongtongqiang

Leadership

Commander: Li Qiang [李强] (3/20)¹⁸²⁰

Dep Commander: Zhou Ming [周明] (2/17)¹⁸²²

PC: Jin Zhibin [靳志斌] (10/20)¹⁸²¹

Dep PC: Unknown

Chief of Staff: Yu Shisong [余世松] (3/20)¹⁸²⁰

PWDD: Fan Yong [范勇] (1/20)¹⁸²³

Support Dept Director: Unknown

Former Leadership: Liu Mingbo [刘明波], PC (2019)¹⁸²⁴; Sun Liangshan [孙良善], Dep PC (2019)¹⁸²⁵; Guo Xifeng [郭希峰], PWDD (2017)¹⁸²⁶

Composition (presumed)

- 1st Installation Battalion [安装一营]
 - 。 Political Instructor: Li Lei [李磊] (3/20)¹⁸²⁰
- 2nd Installation Battalion [安装二营]
- 3rd Installation Battalion [安装三营]
 - Political Instructor: Peng Zhiguo [彭志国] (2/18)¹⁸²⁷
- 4th Installation Battalion [安装四营]
- 5th Installation Battalion [安装五营]
- Security and Communications Company [警通连]¹⁸²⁸
- Vehicle Company [汽车连]¹⁸²⁹
- Service Company [公勤连]¹⁸¹⁰
- Repair Shop [修理所]¹⁸¹⁰

- The 2nd Installation Regiment (96544) mostly disappeared from the public record around 2012, and it was unclear what had happened to it. Athough not definitively confirmed, there are several pieces of evidence pointing to Unit 96544 being absorbed into this brigade. First, one source states that this brigade was formed by the combination of Unit 96542 with another unidentified work unit.¹⁸⁰⁴ Second, Zhang Yuliang, who commanded this brigade until 2017, previously commanded Unit 96544.¹⁸³⁰ Finally, this brigade has been noted having a presence in the 471003 postal code, where Unit 96544 was previously based.¹⁸³¹
- Between its establishment in 2012 and February 2015, this brigade completed 35 construction projects. This included a major project in Beijing that involved water, electrical, and ventilation installation.¹⁸⁰⁴
- Another source describes a construction project which took place on a remote island at an unidentified date.¹⁸³²

This Brigade is a National-level Emergency Rescue Specialist Force [国家级应急救援专业力量], capable of restoring roads, communications, and electrical power following floods or other disasters.¹⁸³³ The former Unit 96544 was recognized for its excellent response to the 2008 Sichuan earthquake.¹⁸³⁴

5th Engineering Brigade [工程五旅]

The 5th Engineering Brigade is one of two installation [工程安装] specialist brigades,¹⁸³⁵ meaning it is responsible for installation of power, water, ventilation,¹⁸³⁶ armor plating,¹⁸³⁷ and other key infrastructure for missile sites and other facilities. The predecessor to this unit dates back to the Korean War, when it was known as the PLA's "Installation Force" [安装劲旅] and took part in engineering missions related to the PRC's early nuclear tests.¹⁸³⁸ It was later resubordinated to the 2nd Artillery, where it took part in early missile silo construction.¹⁸³⁸ Previously subordinate to the Engineering Technical Zongdui¹⁸³⁸ and likely referred to as the 3rd Installation Regiment,¹⁸³⁹ it was reorganized and converted to a brigade in 2012.¹⁸³⁸

Grade: Division Deputy Leader (presumed) Parent Unit: Base 68

Location: 559 Shangdu W. Rd., Shiyao Village, Chengguan Town, Yichuan County, Luoyang, Henan [河南省洛阳市伊川县城关镇石窑村商都西路 559 号]^{1840 1841 1842}

Geo: Unconfirmed, possibly 34.437576, 112.415626

Leadership

Commander: Unknown	PC: Unkown
Dep Commanders: Unknown	Dep PC : Unknown
Chief of Staff: Unknown	PWDD : Rong Baoning [容宝宁] (5/18) ¹⁸⁴³

Support Dept Director: Unknown

Former Leadership: Sun Qingchao [孙庆超], Commander (2018)¹⁸⁴⁴; Pi Zufeng [皮祖峰], PC (2019)¹⁸⁴⁵

Composition (presumed)

- 1st Installation Battalion [安装一营]
- 2nd Installation Battalion [安装二营]
- 3rd Installation Battalion [安装三营]

- Political Instructor: Tu Yanfeng [屠艳锋] (8/18)¹⁸⁴⁶
- \circ Established around 2001¹⁸⁴⁷
- \circ Responsible for missile nest construction¹⁸⁴⁷
- 4th Installation Battalion [安装四营]
- 5th Installation Battalion [安装五营]
- Comprehensive Support Battalion [综合保障营]
- Exterior Line Company [外线连]¹⁸⁴⁸

Background

- In August 1964, this unit may have been known as the 2nd Group [二大队], and its 7th Squadron [七中队] took part in building the "nerve center" for the first atomic bomb site, including installing control and measurement cables.¹⁸³⁸
- In addition to its primary installation mission, this brigade is responsible for wartime engineering support, including infrastructure repair, as well as peacetime emergency support and rescue.¹⁸³⁵
- According to one source which gives insight into working conditions, this brigade was installing a ventilator room when one soldier was killed due to being tired and overworked. The source makes clear that this is not an uncommon occurrence.¹⁸⁴⁹

6th Engineering Brigade [工程六旅]

The 6th Engineering Brigade traces its roots to 1948.¹⁸⁵⁰ It has been established in its current location in the Beijing suburbs since 1985, and was transferred to the 2nd Artillery in 2011.¹⁸⁵⁰ It seems to serve two major functions: the first is as a "typical" PLARF engineering unit engaged in underground drilling¹⁸⁵¹ as well as construction and repair¹⁸⁵² of key infrastructure like roads and brigades.¹⁸⁵⁰ Its second function seems to be as a kind of civil engineering unit, engaged in non-military projects such as environmental greenification,¹⁸⁵³ and serving as a national-level flood relief and disaster response unit.¹⁸⁵⁰ This brigade was also one of the first PLA units to go abroad for a UN peacekeeping mission.¹⁸⁵⁰

MUCD: 96786

Former MUCD/TUD: 96528

Grade: Division Deputy Leader (presumed)

Parent Unit: Base 68

Location: Wennan Rd., Nankou Town, Changping District, Beijing [北京市昌平区南口镇温南路]^{1854 1855 1856}

Geo: 40.220199, 116.120130¹⁸⁵⁷ 1858

Secondary Garrisons:

- Xifengshan, Liucun Town, Changping District, Beijing [北京市昌平区流村镇西峰山]^{1859 1860}
- Lengquan Village, Xibeiwang Town, Haidian District, Beijing [北京市海淀区西北旺镇 冷泉村]¹⁸⁶¹
- Nanjiao Township, Fangshan District, Beijing [北京市房山区南窖乡]¹⁸⁶²
 - \circ 52nd Subunit [52 分队] and possibly other elements stationed here

Leadership

Commander: Zheng Junlin [郑军林] (3/18)¹⁸⁶³ PC: Unknown

Dep Commanders: Zhang Zhonghua [张中华] (3/16)¹⁸⁵³

Dep PC: Sun Liangshan [孙良善] (1/20)¹⁸⁶⁴

Chief of Staff: Wang Rui [王锐] (7/16)¹⁸⁶⁵ PWDD: Unknown

Support Dept Director: Unknown

Other Senior Leadership: Liu Yang [刘洋], PC (2017)¹⁸⁶⁶

Composition (presumed)

- 1st Battalion [一营]
 - Commander: Qian Jiang [钱江] (7/20)¹⁸⁶⁷
- 2nd Battalion [二营]
- 3rd Engineering and Construction Battalion [工程建筑三营]¹⁸⁶⁸
- 4th Battalion [四营]
- 5th Battalion [五营]

- This brigade has been involved in planting of trees as part of the "Green Great Wall."¹⁸⁵³
- In 2003, 700 personnel of this brigade were dispatched to an unidentified African country in two batches. They were engaged in building and restoring roads, bridges, and airfields.¹⁸⁵⁰
- Other observed missions include blasting,¹⁸⁶⁹ minesweeping,¹⁸⁷⁰ digging electrical cable ditches,¹⁸⁷¹ and EOD.¹⁸⁷²
- This brigade was involved in a tunneling project in the Beijing suburbs in 2015.¹⁸⁷³
- This brigade is equipped with an amphibious reconnaissance vehicle ¹⁸⁷⁴ capable of operating on both land and water.

• In 2002, this brigade was named by the PLA General Headquarters [总部] as one of 19 anti-flood emergency response units.¹⁸⁷⁵

Base 68 Training Regiment [68 基地训练团]

The Base 68 Training Regiment is responsible for training of new Base 68 personnel, as well as training of engineering specialists across the PLARF.¹⁸⁷⁶ It has also trained PLARF National Defense Students [国防生].¹⁸⁷⁶

MUCD: 96881

Former MUCD: 96520

Grade: Regiment Leader

Parent Unit: Base 68

Location: 48 Binhe North Rd., Xujiaying Village, High-tech District, Luoyang, Henan 471031 [河南省洛阳市高新区徐家营滨河北路 48 号]^{1877 1878 1879}

Geo: 34.599577, 112.364372¹⁸⁸⁰

Secondary Garrisons:

- Longwang Village North, Xianglushan Town, Yiyang County, Luoyang, Henan [河南省 洛阳市宜阳县香鹿山镇龙王村北]¹⁸⁸¹ (34.535643, 112.132265)¹⁸⁸⁰
 - The bulk of the regiment's training facilities appear to be located here
- Luoyang, Henan 471003 [河南省洛阳市]¹⁸⁸²
 - Machine Teaching and Research Office [机械教研室]

Leadership

Commander: Lian Chunyi [廉春毅] (4/18)¹⁸⁷⁶

Dep Commanders: Unknown

Chief of Staff: Unknown

PC: Kuang Kunlun [匡坤伦] (8/18)¹⁸⁷⁶

Dep PC: Unknown

PWDD: Unknown

Support Div Director: Unknown

Former Leadership: Fan Yong [范勇], PWDD (2017)¹⁸⁸³

Composition (presumed)

• Unknown number of subordinate training battalions

Mobile Communications Regiment [机动通信团]

This regiment, previously directly subordinate to the PLARF Staff Department and more recently resubordinated to Base 68, is responsible for mobile communications support.¹⁸⁸⁴ It is capable of deploying and rapidly setting up field mobile communications hubs during wartime or emergencies.¹⁸⁸⁵

MUCD : 96882	Former MUCD: 96647
Grade: Regiment Leader	Parent Unit: Base 68
Location: Liantang Town, Nanchang County, Nancha	ng, Jiangxi [江西省南昌市南昌县莲塘镇] ^{1886 1887}
Geo : 28.500367, 115.925356 ¹⁸⁸⁸	
Secondary Garrison: Dongxia Community, Sanyuan District, Sanming, Fujian [福建省三明市 三元区东霞社区] ^{1889 1890}	
Leadership	

Commander: Wen Guangjie [温广杰] (7/20)¹⁸⁹¹ PC: Zhao Zhongxiang [赵忠祥] (7/20)¹⁸⁹¹

Dep Commanders: Yang Yue [杨玥] (7/20)¹⁸⁹²; Yu Hongchao [余红超] (11/17)¹⁸⁹³

Dep PC: Wu Yan [吴砚] (1/20)¹⁸⁹⁴

Chief of Staff: Unknown

PWDD: Wang Bo [王博] (11/20)¹⁸⁹⁵

Support Div Director: Unknown

Other Senior Leadership: Li Shiyong [李世勇], Dep COS (7/20)¹⁸⁹¹

Former Leadership: Ding Qingyuan [丁晴远], PC (2017)¹⁸⁹⁶; Pi Zufeng [皮祖峰], PC (2014)¹⁸⁹⁷; Chen Dongliang [陈栋梁], COS (2019)¹⁸⁹⁸; Zhao Xiaowei [赵晓伟], COS (2018)¹⁸⁹⁹; Tuo Mingjun [拓明军], PWDD (2017)¹⁹⁰⁰

Known Composition

- 1st Battalion [一营]¹⁹⁰¹
 - Responsible for site repair and comms support
 - \circ Located in a remote mountain area hundreds of km from the main HQ
- 2nd Battalion [二营]
- 3rd Battalion [三营]
 - Political Instructor: Yu Lei [于磊] (5/18)¹⁹⁰²

○ 50th Subunit [50 分队]¹⁹⁰³

Background

- This regiment has been referred to by multiple names, including the Base 68 Communications (Transmission) Regiment¹⁹⁰⁴ (通讯团, rather than the more common 通 信团) and the PLARF 2nd Communications Regiment [火箭军第二通信团]¹⁹⁰⁵ (likely a throwback to when it was one of two comms regiments directly under the Staff Department).
- This regiment is located next door to Unit 96876, the 2nd ECM Regiment.
- This regiment seems to have a close relationship with Unit 96885, the Communications Engineering Regiment. Both were formerly under the Staff Department with sequential MUCDs, and senior personnel tend to transfer between the two. This would make sense, since both regiments are tasked with maintaining communications, particularly in a degraded environment. In wartime, Unit 96882 is tasked with setting up communications nodes where needed, and Unit 96885 is tasked with repairing and restoring damaged communications lines.
- Mobile comms personnel are considered the elite "special forces" of communications personnel.¹⁸⁸⁵

Base 68 Comprehensive Support Regiment [68 基地综合保障团]

This unit has not been definitively identified, but it may be Base 68's Comprehensive Support Regiment, and before this the base Repair Factory [修配厂]. If so, it is the PLARF's only unit dedicated to repair of engineering equipment, while also conducting engineering equipment repair for other PLA services.¹⁹⁰⁶

MUCD: 96884	Former MUCD: 96552
Grade: Regiment Leader	Parent Unit: Base 68
Location: 30 Jinguyuan West Rd, Xigong District 园西路 30 号院] ¹⁹⁰⁷	, Luoyang, Henan [河南省洛阳市西工区金谷
Geo : Unconfirmed, possibly 34.688044, 112.4123 112.420790.	21. ¹⁹⁰⁸ Another possibility is 34.687504,

Leadership

Commander: Unknown

PC: Unknown Dep PC: Unknown

Dep Commanders: Unknown

Chief of Staff: Unknown

Support Div Director: Unknown

Former Leadership: Ma Xinkui [马新魁], PC (2015)¹⁹¹⁰; Rong Baoning [荣宝宁], Pol Div Director (2015)¹⁹¹⁰

Composition

Unknown

Background

• Personnel in this unit are referred to as "military craftsmen" [军匠].¹⁹⁰⁸

Communications Engineering Regiment [通信工程团]

This regiment dates back to October 1965, and is the PLARF's only unit dedicated to communications engineering. ¹⁹¹¹ Responsibilities include construction of the PLARF's communications infrastructure¹⁹¹² and construction of communication lines for PLARF missile sites and command. ^{1913 1914} This includes both above ground lines as well as underground and underwater cables. ¹⁹¹⁴ This regiment is also tasked with conducting emergency repairs of communications infrastructure if damaged or destroyed. ¹⁹¹⁵

MUCD : 96885	Former MUCD: 96548	
Grade: Regiment Leader	Parent Unit: Base 68	
Location: Sanmenxia, Henan [湖南省三门峡市] ¹⁹¹⁶		
Geo: Unconfirmed, possibly 34.795668, 111.182388		
Leadership		
Commander: You Hu [游虎] (11/19) ¹⁹¹⁷	PC: Li Zhuozhuang [李茁壮] (8/20) ¹⁹¹⁸	
Dep Commanders : Li Yong [李勇] (7/17) ¹⁹¹⁹	Dep PC: Unknown	
Chief of Staff: Hu Xiaowei [胡晓巍] (9/20)1920	PWDD : Han Zhe [韩哲] (1/20) ¹⁹²¹	
Support Div Director: Gao Jiling [郜机灵] (7/17) ¹⁹¹⁹		
Other Senior Leadership: Chen Liang [陈亮], PWDD (8/20) ¹⁹¹⁸		

Former Leadership: Tian Changyan [田昌炎], Commander (2018)¹⁹¹²; Meng Baoping [孟宝平 /孟保平], PC (2019)¹⁹²²; Wang Xingping [王兴平], Dep PC (2015)¹⁹²³; Hao Chaohui [郝朝辉], COS (2019)¹⁹²⁴; You Hu [游虎], COS (2018)¹⁹¹²; Shen Xiangyang [申湘阳], PWDD (2018)¹⁹²⁵; Fu Jianhua [付建华], Pol Division Director (2017)¹⁹²⁶

Known Composition

- Installation Battalion [安装营]¹⁹¹³
 - 1st Installation Company [安装一连]
 - 2nd Installation Company [安装二连]¹⁹²⁷
 - o Commander: Fu Wei [付威] (2/19).¹⁹¹³
- 1st Communications Line Battalion [线路一营]¹⁹²⁸
 - 4th Communications Line Company [线路四连]¹⁹²⁹
 - Responsible for laying down fiberoptic cables¹⁹³⁰ and construction of communications nodes/platforms¹⁹³¹
- 2nd Communications Line Battalion? [线路二营]
 - Existence of "First" Battalion implies existence of more than one
- Comprehensive Support Battalion [综合保障营]¹⁹³²
 - Vehicle Service Company [汽车勤务连]¹⁹²⁵
 - Political Instructor: Li Zhenyang [李贞阳] (7/20)¹⁹³³
- Drilling Company [钻探连]¹⁹³⁴
- Security and Communications Company [警通连]¹⁹³⁵

- Each year, personnel can expect to travel to 3-5 different locations to conduct engineering projects. The regiment laid down over 200km of fiberoptic cables in 2019.¹⁹¹¹
- This regiment was working in Lingbao's Nanchao Village [川口乡南朝村] in Henan in August 2018.¹⁹³⁶ This is a known location for elements of the 661 Brigade.
- Another mission occurred around October 2016 in Long County [陇县], Baoji, Shaanxi, when the regiment buried 1 km of electric cables [电缆] alongside Longqian South Route [陇千南线].¹⁹³⁷

Engineering Maintenance Support Group [工程维护保障大队]

The exact role of this unit remains somewhat obscure, but it is related to providing support¹⁹³⁸ and repair¹⁹³⁹ for communications equipment. It was formerly referred to as a Communications Station,¹⁹⁴⁰ and its former MUCD suggests it may have previously been directly subordinate to the PLARF Staff Department before being transferred to Base 68.

MUCD : 96886	Former MUCD: 96646	
Grade: Regiment Leader	Parent Unit: Base 68	
Location: 33 Hanbai Rd. West Section, Erli Village, Chengbei Subdistrict, Xixiang County, Shaanxi [陕西省汉中市西乡县城北街道二里村汉白路西段 33 号] ^{1941 1942}		
Geo: Unconfirmed, possibly 32.979704, 107.745221		
Leadership		
Commander: Zhao Xiaowei [赵晓伟] (7/20) ¹⁹⁴³	PC: Bian Fengquan [边峰泉] (7/17) ¹⁹⁴⁴	
Dep Commanders: Gao Zhanjun [高战军] (7/16) ¹⁹⁴⁵ Dep PC: Unknown		
Chief of Staff: Unknown	PWDD : Unknown	
Support Div Director: Unknown		
Other Senior Leadership: Tian Tietao [田铁涛], Snr Engineer (10/18) ¹⁹⁴⁶		
Former Leadershin: Zhong Hengquan [妯恒权]	Commander (2018) ¹⁹⁴⁶ : Ding Oingyuan [丁腈	

Former Leadership: Zhong Hengquan [钟恒权], Commander (2018)¹⁹⁴⁶; Ding Qingyuan [丁晴 远], PC (2015)¹⁹⁴⁷; Li Shiyong [李世勇], Support Div Director (2017)¹⁹⁴⁸

Background

• This unit seems to have a particularly close relationship with unit 96882 (former 96646), the Mobile Communications Regiment. Beside the sequential MUCD numbers and communications roles, at least three senior personnel, Zhao Xiaowei, Ding Qingyuan, and Bian Fengquan¹⁹⁴⁹ all transferred between these two units in recent years.

Unit 96608 Hospital [96608 部队医院]

The 538 Hospital is the official hospital attached to Base 68. It was established in 1977 and moved from Xixiang to its current location in Hanzhong in 2001.¹⁹⁵⁰ Among its duties is to dispatch small medical teams to support the base's many dispersed construction sites.¹⁹⁵¹

MUCD: N/A

Former TUD: 538 Hospital [538 医院]

Grade: Division Leader or Division Deputy Leader

Location: Dongchang Street Middle Section, Dakanhe, Hanzhong, Shaanxi [陕西省汉中市大河 坎东昌街中段]¹⁹⁵²

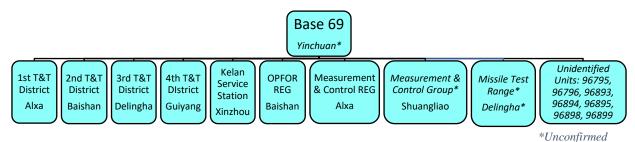
Geo: 33.048912, 107.028710

Leadership

Director: Liu Chuanrui^{lxxxix} [刘传瑞] (8/15)¹⁹⁵³ PC: Fang Xudong [方旭东] (7/15)¹⁹⁵⁴

^{lxxxix}Alternative possible spelling of name: Liu Zhuanrui

Base 69 [69 基地]



This new Test and Training Base [试验训练基地] was established in early 2017 as part of the PLA's latest round of structural reforms.¹⁹⁵⁵ Although much remains unknown about this base, it is comprised of four new Test and Training Districts¹⁹⁵⁶ (created from three former PLARF training bases), as well as several regiments supporting testing and training missions. Originally garrisoned in Jilin, there is growing evidence that it may have moved to Yinchuan in 2019.

MUCD: 96609

Former MUCD/TUD: N/A

Grade: Corps Leader¹⁹⁵⁷

Location: 503 Huaiyuan West Rd., Xixia District, Yinchuan, Ningxia [宁夏省银川市西夏区怀 远西路 503 号]¹⁹⁵⁸

Geo: Unconfirmed, possibly 38.490665, 106.106937



Chinese Aerospace Studies Institute

Leadership

Commander: Unknown

Dep Commanders: Unknown

Chief of Staff: Unknown

PC: Unknown Dep PC: Unknown PWDD: Hao Jianhui [郝建辉] (8/18)¹⁹⁵⁹

Support Dept Director: Unknown

Other Senior Leadership: Ding Guolin [丁国林], Control and Assessment Div Director $(1/19)^{1960}$

Former Leadership: Bi Yongjun [毕永军], PC (2017)¹⁹⁶¹

Known Composition

- 1st Test and Training District [第一试验训练区]
- 2nd Test and Training District [第二试验训练区] •
- 3rd Test and Training District [第三试验训练区]
- 4th Test and Training District [第四试验训练区]
- Kelan Launch Service Station [岢岚发射勤务站]
- Blue Team OPFOR Regiment [蓝军团]
- Measurement and Control Regiment [测控团]
- Measurement and Control Group [测控大队]
- U/I Training Unit 96795
- U/I Unit 96796
- U/I Unit 96893
- U/I Unit 96894
- U/I Unit 96895
- U/I Unit 96897 (possible missile test range)
- U/I Unit 96898
- U/I Unit 96899

Background

This unit's primary HQ still appeared to be in Jingyu, Jilin in late 2018.¹⁹⁶² However beginning in 2019 sources began describing this unit's presence in Yinchuan's Xixia District and mentions of Jingyu abruptly disappeared. It is possible this unit was temporarily based in Jingyu until its Yinchuan HQ was operational.

- Colonel Ding Guolin [丁国林], Director of the base's Control and Assessment Division [导调考评处], is considered the mastermind and leading force behind the PLARF's OPFOR and realistic wargaming push.^{1960 1963}
- Former PC Bi Yongjun transferred to the PLAN in 2018 and became Deputy PC of the North Sea Fleet.¹⁹⁶⁴

1st Test and Training District [第一试验训练区]

This new Test and Training District [试训区] was established in November 2017.¹¹⁴⁹ It is both responsible for unit training and drills in a desert environment, ¹⁹⁶⁵ as well as conducting measurement and control [测控] support and analysis for missile test launches.^{1966 1967} Large-scale drills involving multiple new missile models have been observed conducting maneuvers in the nearby Jilantai area,^{xc} and this unit's proximity to Jilantai suggest it may be associated with those activities.

MUCD: 96791

Former MUCD/TUD: N/A

Parent Unit: Base 69

Grade: Division Deputy Leader¹⁹⁶⁸

Location: Bayanhaote Township, Alxa Left Banner, Inner Mongolia [内蒙古阿拉善盟左旗巴 彦浩特镇]¹⁹⁶⁹

Geo: 38.849545, 105.714210^{1149 xci}

Secondary Garrisons:

- Yike'er Gacha (Village), Bayanhaote Town, Alxa Left Banner, Inner Mongolia [内蒙古 阿拉善盟左旗巴彦浩特镇伊克尔嘎查]¹⁹⁷⁰
- Shariburidu Gacha (Village), Jilantai Town, Alxa Left Banner, Inner Mongolia [内蒙古 阿拉善盟左旗吉兰泰镇沙日布日都嘎查]¹⁹⁷⁰

Leadership

Commander: Yuan Denghong [袁登红] (1/20)¹⁹⁶⁸ PC: Zhang Chen [张晨] (1/20)¹⁹⁶⁸

Dep Commanders: Lin Qingshan [林青山] (3/19)¹⁹⁷¹ Dep PC: Unknown

Chief of Staff: Unknown

PWDD: Tuo Mingjun [拓明军] (11/18)¹⁹⁷²

^{xc}See Hans M. Kristensen, "New Missile Silo And DF-41 Launchers Seen In Chinese Nuclear Missile Training Area," *Federation of American Scientists*, 3 September 2019, <u>https://fas.org/blogs/security/2019/09/china-silo-df41/</u>
^{xci}Credit to private analyst Decker Eveleth for his help geolocating this unit.

Support Dept Director: Unknown

Former Leadership: Liu Mingzhu [刘明柱], PC (2018)¹⁹⁷³

Known Composition

• Radio Company [无线电连]¹⁹⁷⁴

Background

- This District is associated with a nearby measurement and control regiment [测控团] established in early 2018 and responsible for measurement and control support for the whole course of missile test launches, monitoring missile flights, and providing measurement and control analysis for missile units and research units.¹⁹⁶⁶
- An article from August 2018 stated that around summer 2018 the unit's drill area (演练 场) had just completed construction and was ready for use.¹⁹⁷³

2nd Test and Training District [第二试验训练区]

This Test and Training District was established in 2017¹⁹⁷⁵ from the 2nd Artillery's Combined Arms Tactical Training Base [合同战术训练基地] in Jingyu. This District is notable for its specialized Blue Force Regiment, which provides comprehensive OPFOR training for PLARF units.^{xcii}

MUCD: 96792

Former MUCD/TUD: 96451 (Combined Arms Tactical Training Base/Base 28)^{1976 1977}

Grade: Division Deputy Leader (presumed)

Parent Unit: Base 69

Location: Xinnong Village, Sandaohu Town, Jingyu County, Baishan, Jilin 135203 [吉林省白山市靖宇县三道湖镇新农村]^{1978 1979 1980}

Geo: Unconfirmed, possibly 42.312581, 126.909236

Secondary Garrison: Jingyue District, Changchun, Jilin [吉林省长春市净月区]¹⁹⁸¹

xciiSee OPFOR Regiment entry for more information

Leadership

Commander: He Qinghui [何庆会] (7/18)¹⁹⁷⁵

Dep Commanders: Unknown

Chief of Staff: Unknown

PC: Wen Qing [文青] (11/18)¹⁹⁸² Dep PC: Wang Muzhou [王木周] (4/20)¹⁹⁸³ PWDD: Liu Hui [刘辉] (8/18)¹⁹⁸⁴

Support Dept Director: Unknown

Other Senior Leadership: Zhou Tao [周涛], Dep COS (3/20)¹⁹⁸⁵

Former Leadership: Cheng Congcai [程丛才], Commander (2017)¹⁹⁸⁶; Hao Jianhui [郝建辉], PC (2017)¹⁹⁸⁶

Composition

Unknown

Background

- During the 2017 reform period, a unit subordinate to this base moved from a city to a remote environment. The base's special operations team also moved to a remote mountain environment.¹⁹⁸⁷
- This unit has a Control Office [导调科] responsible for wargame planning and execution. This office was previously led by Ding Guolin [丁国林], who is now in charge of wargaming for Base 69.¹⁹⁸⁸
- This unit also conducts training in support of various specialized support functions, including communications, meteorology, and reconnaissance and monitoring [侦察监控].¹⁹⁸⁹

3rd Test and Training District [第三试验训练区]

The 3rd Test and Training District was formed from the former Northwest Plateau Training Base [西北高原训练基地]. This unit hosts training for visiting PLARF units, including training in plateau operations. It hosts an OPFOR Blue Team with special operations capabilities to serve as aggressors,¹⁹⁹⁰ as well as the PLARF's only dedicated electronic warfare (EW) Blue Team, called the Blue Eagles [蓝鹰].¹⁹⁹¹ This unit is also associated with a missile range in the Gobi Desert for test launches, with subordinate Missile Range Support Stations [靶场保障站] responsible for range maintenance, target setup, and EOD.¹⁹⁹²

MUCD: 96793

Former MUCD/TUD: 96367 (NW Plateau Training Base)

Grade: Division Deputy Leader Parent Unit: Base 69

Location: Tianjun West Rd., Delhi (Delingha), Haixi Prefecture, Qinghai 817099 [青海省海西 州德令哈天峻西路]^{1993 1994 1995}

Geo: Unconfirmed, possibly 37.362139, 97.361723

Secondary Garrison: Qakilik (Ruoqiang) County, Xinjiang UAR [新疆若羌县]1996

Leadership

Commander: Wang Yanjun [王延军] (7/18) ¹⁹⁹⁷	PC: Zhang Yue [张悦] (5/18) ¹⁹⁹⁸
Dep Commanders: Unknown	Dep PC: Lü Qingye [侣庆叶] (5/18) ¹⁹⁹⁰
Chief of Staff: Feng Enhai [冯恩海] (8/18)1999	PWDD: Sun Haiming [孙海明] (7/18) ²⁰⁰⁰

Support Dept Director: Unknown

Former Leadership: He Qinghui [何庆会], Commander (2017)²⁰⁰¹; Cheng Congcai [程丛才], Commander (2016)²⁰⁰²; Xie Jianxun [解建勋], PC (2016)²⁰⁰³; Sheng Zhaoxuan [盛兆玄], PWDD (2016)²⁰⁰⁴

Known Composition

- Blue Team OPFOR Subunit [蓝军分队]²⁰⁰⁵
- Blue Eagles EW OPFOR [蓝鹰]¹⁹⁹¹
- Security and Communications Company [警通连]²⁰⁰⁶
- Communications Station [通信站]²⁰⁰⁷

- This unit may have been subordinate to Base 64 (former base 56) prior to the 2017 reforms.²⁰⁰³
- The Blue Eagles are the PLARF's only professional Blue Team dedicated to electronic warfare and training in a complex electromagnetic environment. OPFOR drills with the Blue Eagles include jamming and electronic reconnaissance. In December 2017, He Qinghui [何庆会] was commander, and Guan Zhichang [关志昌] was PC.¹⁹⁹¹

4th Test and Training District [第四试验训练区]

Unit 96794 was established from the former Guiyang Training Base [贵阳训练基地]²⁰⁰⁸ and resubordinated to the new Base 69 in early 2017.²⁰⁰⁹ There is relatively little information about the role of this unit. According to one report from 2010, it may be involved in cruise missile training with the introduction of the CJ-10.^{xciii} Today, it likely engages in other types of training as well - sources indicate it may be involved in training related to asset rail transport.²⁰¹⁰

-	-	_
MUCD : 96794	Former MUCE	D/TUD: 96217 (Guiyang Training Base)
Grade: Division Deputy Leader	F	Parent Unit: Base 69
Location : 88 Shilin West Rd., Guan 观山湖区石林西路 88 号] ^{2011 2012 2}		Guiyang, Guizhou 550081 [贵州省贵阳市
Geo : 26.617021, 106.592342 ²⁰¹⁴		
Secondary Garrison : Qingzhen, G 26.561521, 106.492711) ²⁰¹⁶	uiyang, Guizhou [贵州省贵阳市清镇市] ²⁰¹⁵ (possibly at
Leadership		
Commander: Chen Degui [陈德贵	$[] (9/17)^{2017}$ F	PC: Li Meng [李猛] (2/19) ¹⁹⁵⁶
Dep Commanders: Unknown	Γ	Dep PC: Unknown
Chief of Staff: Du Jun [杜军] (6/15	$(5)^{2018}$ F	PWDD: Jiang Weijun [姜卫军] (6/15) ²⁰¹⁸
Support Dept Director: Unknown		

Former Leadership: Wei Zhongtao [魏忠涛], PC (2017)²⁰¹⁷

Known Composition

- Launch Company [发射连]²⁰¹⁹
- Repair Shop [修理所]²⁰²⁰

Background

• An early source from 2007 suggests this unit is responsible for operation of an unidentified new weapon type, ²⁰²¹ and a 2017 source shows a Launch Company under this unit

xciiiSee Mark A. Stokes, Ian Easton, "Evolving Aerospace Trends in the Asia-Pacific Region," Project 2049 Institute, 2010. p. 15

observing what appears to be a CJ-10 launch.²⁰¹⁹ This led to early speculation that this unit may eventually be spun off into a CJ-10 missile brigade, although this does not appear to be the case.^{xciii}

• This unit has two locations in the Guiyang area. It is unclear which is the primary headquarters. This unit also previously had a third location in Jiyang District, Sanya, Hainan Province,²⁰²² which appears to have more recently been spun off into its own unit with the MUCD 96898.²⁰²³

Unit 96795 [96795 部队]

First evidence of this unit appeared in December 2020, with a research paper on UAVs.²⁰²⁴ While little is currently known about this unit, it is described as a "specialized training and evaluation unit" responsible for year-round tactical training.²⁰²⁵

MUCD: 96795Former MUCD: N/AGrade: UnknownParent Unit: Base 69

Location: Xixia District, Yinchuan, Ningxia 750021 [宁夏省银川市西夏区]²⁰²⁴

Geo: Unknown, possibly co-located with Base HQ.

Leadership

Commander: Unknown

PC: Unknown

Blue Team OPFOR Regiment [蓝军团]

The 2nd Test and Training District hosts a dedicated Blue Team^{xciv} OPFOR Regiment. The regiment began as a battalion strength²⁰²⁶ Tactical OPFOR Team [战术对抗队] in 2004, was upgraded to a Blue Force Unit in 2012, and reorganized into a regiment in 2018.¹⁹⁸² It utilizes a wide range of capabilities to train visiting PLARF units, including special operations attacks, UAVs, ECM,¹⁹⁸² and precision strikes.²⁰²⁷

MUCD: Unknown

Grade: Regiment Leader

Former MUCD: N/A

Parent Unit: Base 69

Location: Jingyu County, Baishan, Jilin [吉林省白山市靖宇县]²⁰²⁸

x^{civ}Unlike most countries, in which the Red Team plays the role of aggressor, the PLA designates the Blue Team for this role and the Red Team as the home force.

Geo: 42.317335, 126.90838 (if co-located with 2nd Test and Training District)

Leadership

Commander: Liu Xiaoguang [刘晓光] (2/20) ²⁰²⁹	PC: Yao Wenguo [姚文国] (6/18) ²⁰³⁰
Dep Commanders: Unknown	Dep PC: Unknown
Chief of Staff: Liu Zhanxiang [刘占祥] (6/18) ²⁰³¹	PWDD : Unknown
Support Div Director: Unknown	

Known Composition

- Reconnaissance and Surveillance Battalion [侦察监视营]²⁰²⁸
- Comprehensive Strike Company [综合打击连]²⁰³²
- Special Operations Squadron [特战中队]²⁰³³
 - o Commander: Zheng Yihang [郑亦航] (2/19)
- UAV Subunit [无人机分队]²⁰³¹

- In a 2016 essay, Cheng Congcai, former Commander of the Jingyu Combined Arms Tactical Training Base, called for the creation of a Blue Force Unit with PLARF characteristics and geared toward the needs of PLARF operations.²⁰³⁴ The current regiment was established in early 2018 as an experimental work unit.²⁰³²
- Col. Ding Guolin [丁国林] appears to be the mastermind behind PLARF OPFOR wargaming. One source states that he was influenced by the PLAA OPFOR unit at Zhurihe, as well as the United States' Fort Irwin in creation of this unit.²⁰³⁵
- In addition to conducting operations in Jingyu, this unit appears to also travel to other regions as needed.²⁰²⁸ One notable example is the regiment's participation in the PLARF's 2018 Heavenly Sword [天剑] exercises, conducted in a desert environment. Operations in this exercise included SOF attacks, ECM, and technical reconnaissance against a PLARF missile brigade.²⁰³⁶
- A more comprehensive list of capabilities this unit possesses includes reconnaissance and surveillance [侦察监视], frequency jamming [频谱干扰], precision strike [精确打击], SOF raids [特战破袭],²⁰²⁷ UAVs,¹⁹⁸² electronic reconnaissance, and electromagnetic jamming.²⁰³⁷

Unit 96796 [96796 部队]

Unit 96796 may be a research institution associated with Base 69, possibly focused on aerospace science and engineering.²⁰³⁸ Like Base 69, it has locations in both Jingyu and Yinchuan's Xixia District.

MUCD: 96796 Former MUCD/TUD: Unknown

Grade: Unknown

Parent Unit: Base 69

Location: Jingyu County, Baishan, Jilin 135200 [吉林省白山市靖宇县]²⁰³⁹

Geo: Unknown

Secondary Garrison: Xixia District, Yinchuan, Ningxia 750001 [宁夏省银川市西夏区]²⁰⁴⁰

Leadership

Commander: Unknown

PC: Unknown

Composition

Unknown

Background

• All five researchers identified in the CNKI scientific database as being associated with this unit are listed as aerospace science and engineering experts.²⁰³⁸ Article subjects include spacecraft flight, UAVs, and parafoils, as well as optimizing missile setup for launch. It also reveals significant research cooperation with the PLARF Engineering University and National University of Science and Technology.²⁰⁴¹ Speculatively, it may be involved with research on the test launches which this base conducts.

Kelan Launch Service Station [岢岚发射勤务站]

This unit, referred to in some sources as a "Service Station" or "Launch Service Station," likely provides support and a local PLARF presence for ballistic missile test launches from the nearby Taiyuan Satellite Launch Center (TSLC) (subordinate to the SSF).

MUCD: 96891

Former MUCD: 96622; 80816²⁰⁴²

Grade: Unknown

Parent Unit: Base 69

Location: Songjiazhai, Kelan County, Xinzhou, Shanxi 036304 [山西省忻州市岢岚县宋家 寨]^{2042 2043 2044}

Geo: Unconfirmed, possibly 38.798964, 111.623379

Secondary Garrison:

Kelan County, Xinzhou, Shanxi [山西省忻州市岢岚县] (38.888740, 111.597570)
 DF-41 Test Silo^{xcv} at the TSLC

Leadership

Commander: Miao Baohua [苗宝华] (8/19) ²⁰⁴⁵	PC: Unknow	vn
Dep Commanders: Unknown	Dep PC:	Unknown
Chief of Staff: Unknown	PWDD : Unl	known

Support Div Director: Unknown

Composition

Unknown

- Associated with the Taiyuan Satellite Launch Center, also known as SSF Base 25, an important site for test launches of ballistic missiles.^{xcvi} Both this unit and its SSF counterpart are located in the 036304 postal code,²⁰⁴⁶ indicating close proximity, and the main location is less than a mile south of the Center.
- Recently, this site was host to several DF-41 test launches²⁰⁴⁷ and appears to be an important testing ground for the DF-41.^{xcv}

xev See Catherine Dill, "OPEN SILOS," *Arms Control Wonk*, 22 August 2018. https://www.armscontrolwonk.com/archive/1205826/open-silos/ xeviSee Mark Stokes, Gabriel Alvarado, Emily Weinstein, Ian Easton, "China's Space and Counterspace Capabilities and Activities," The U.S.-China Economic and Security Review Commission, 2020. https://www.uscc.gov/sites/default/files/2020-05/China_Space_and_Counterspace_Activities.pdf

Measurement and Control Regiment [测控团]

Unit 96892 is likely a new Measurement and Control Regiment [测控团] responsible for data measurement of missile test launches, monitoring of missile flights, and providing measurement and control analysis for missile and research units.¹⁹⁶⁶ This unit was formed by combining Measurement and Control subunits from across China and gathering them in a single training area.²⁰⁴⁸ It is likely subordinate to¹⁹⁶⁶ and co-located with²⁰⁴⁹ the 1st Test and Training District.

MUCD: 96892 Former MUCD: N/A Grade: Regiment Leader Parent Unit: Base 69 Location: Alxa Left Banner, Inner Mongolia [内蒙古阿拉善左旗]²⁰⁵⁰ Geo: Unconfirmed, possibly 38.852416, 105.713974 Leadership

Commander: Shen Zhengwen? [沈正文] (9/18)²⁰⁴⁸ PC: Gao Ge [高舸] (7/20)²⁰⁵¹

Dep Commanders:UnknownDep PC:Unknown

Chief of Staff: Tian Canchun? [田灿春] (9/18)²⁰⁴⁸ PWDD: Unknown

Support Div Director: Unknown

Known Composition

- Measurements Battalion [测量营]
 - o Commander: Ma Wenzhe [马文哲] (2/18)²⁰⁵⁰
- Measurement and Control Center [测控中心]
 - Director: Tu Chongjun [涂崇俊] (9/18)²⁰⁴⁸
- Measurement and Control 1st Company [测控一连]
- Measurement and Control 2nd Company [测控二连]
- Measurement and Control 3rd Company [测控三连]²⁰⁴⁸

Background

• There are contradictory reports about when this unit was established. One report states that this unit was established in early 2017 and supported over 50 missile launches of 9 different missile types in its first eight months.²⁰⁵⁰ However another report seemingly about the same

unit states that this unit was quickly stood up in early 2018 and supported its first missile launch within 2 months.¹⁹⁶⁶

• One source goes into some detail about how this unit provides launch support. The 3rd Measurement and Control Company [测控三连] has two stations, a primary station [主站] and secondary station [副站] which work together to gather missile trajectory data. The primary station has a high-speed camera which records the launch. The secondary station calculates missile trajectory in real time for the command post.²⁰⁴⁸

Unit 96893 [96893 部队]

First public mention of this unit in August 2018.²⁰⁵² Speculatively, its location in Jilantai suggests that it may be a support unit for PLARF test and training activities in the area.

MUCD: 96893Former MUCD: UnknownGrade: UnknownParent Unit: Base 69Location: Jilantai Town, Left Banner, Alxa, Inner Mongolia [内蒙古阿拉善左旗吉兰泰镇]²⁰⁵³

Geo: Unconfirmed, possibly 39.794548, 105.750636

Leadership

Commander: Unknown

Dep Commanders: Unknown

Chief of Staff: Unknown

Support Div Director: Unknown

PC: Sheng Zhaoxuan [盛兆玄] (8/18)²⁰⁵² Dep PC: Unknown

PWDD: Unknown

Composition

Unknown

- PC Sheng Zhaoxuan has a scientific PhD and was publicized as the 2nd Artillery's only PhD platoon commander in 2009.²⁰⁵⁴
- One source featuring this unit mentions a "PLARF unit and radar station,"²⁰⁵⁵ suggesting a possible launch tracking function.

Unit 96894 [96894 部队]

First public mention in April 2019.²⁰⁵⁶ No further information available. Being located in Alxa's Right Banner, it is probably not co-located with the other Alxa units.

MUCD: 96894

Former MUCD: Unknown

Grade: Regiment Leader²⁰⁵⁶

Location: Badanjilin Town, Alxa Right Banner, Inner Mongolia [内蒙古阿拉善右旗巴丹吉林镇]²⁰⁵⁷

Parent Unit: Base 69

Geo: Unconfirmed, possibly 39.206861, 101.677212

Secondary Garrison:

- Alatengchaoge Sum (Town), Alxa Right Banner, Inner Mongolia [内蒙古阿拉善右旗阿 拉腾朝格苏木]²⁰⁵⁷ (possibly at 39.220089, 100.845738)
 - Satellite imagery^{xcvii} shows a possible base layout, as well as some nearby construction

Leadership

Commander: Unknown PC: Unknown

Dep Commanders: Sun Yuanyuan [孙元元/孙圆圆] (4/19)²⁰⁵⁶

Dep PC: Unknown

Chief of Staff: Unknown

PWDD: Unknown

Support Div Director: Unknown

Composition

Unknown

^{xcvii}This town does not appear in Google Maps, but does appear in Baidu Maps

Background

• Sun Yuanyuan is referred to as both "Deputy Director"²⁰⁵⁶ and "Regiment Deputy Commander"²⁰⁵⁸ in different sources.

Unit 96895 [96895 部队]

First (and so far only) public mention in December 2019.⁹⁰⁶ No further information at this time.

MUCD: 96895Former MUCD: UnknownGrade: UnknownParent Unit: Base 69Location: UnknownGeo: UnknownLeadershipLeadership

Commander: Unknown

PC: Unknown

Composition

Unknown

Measurement and Control Group [测控大队]

This unit is involved with radar tracking, measurement, and control of missile launches, with its own indigenous radar capabilities.²⁰⁵⁹ Authors and former MUCD suggest it is associated with the former Combined Arms Tactical Training Base (96451, now 96792) in Jingyu County,²⁰⁵⁹ which is not far from this unit.²⁰⁵⁹ It is organized as a group [大队].²⁰⁶⁰

MUCD: 96896	Former MUCD: 96469
Grade: Unknown	Parent Unit: Base 69; 2 nd Test and Training District
Location: Namu Township, Shuang	liao, Jilin 136400 [吉林省双辽市那木乡] ^{2061 2062 2063}
Geo: Unconfirmed, possibly 43.4824	469, 123.394524
Leadership	
Commander: Li Tiezheng [李铁铮]	PC : Unknown

Dep Commanders: Unknown

Dep PC: Unknown **PWDD**: Unknown

Chief of Staff: Unknown

Support Div Director: Unknown

Former Leadership: Hu Chenjun [胡陈俊], Dep Commander (2015)²⁰⁶⁵

Known Composition

- Measurements Battalion [测量营]
 - $\circ~$ Responsible for travelling to missile launch sites across China, collecting launch measurements and data 2066
- Security Company [警卫连]²⁰⁶⁷

Background

• This unit appears to have taken on the post-reform MUCD of 96896.^{2062 2063} According to one source, in early 2018 all of the PLARF's measurement and control units were combined under a single unit and gathered in a single location,²⁰⁴⁸ likely under Unit 96892 in Alxa, but this does not seem to be the case for this unit. It does have connections to 96892 via 96892's likely commander, Shen Zhengwen, who was formerly associated with this unit.²⁰⁶¹

Unit 96897 [96897 部队]

This unit was first publicly mentioned in December 2019, when one of its subunits, a missile range support station [靶场保障站], was recognized as a model subunit.²⁰⁶⁸ It appears to be responsible for missile target range management and support, including EOD.²⁰⁶⁹ The PLARF does have a test launch range in the Gobi Desert²⁰⁷⁰ associated with the 3rd Test and Training District,²⁰⁶⁹ but it is not yet known whether this unit is associated with this test range.

Former MUCD: Unknown
Parent Unit: Base 69

Commander: Unknown

PC: possibly Zhao Hongjiang [赵洪江] (6/18)²⁰⁶⁹

Dep Commanders: Unknown Chief of Staff: Unknown

Support Div Director: Unknown

Dep PC: Unknown **PWDD**: Unknown

Known Composition

- Missile Range Support Station [靶场保障站]
 - 。 Director: Wang Zhenghao [王正浩]¹⁶⁵⁹

Unit 96898 [96898 部队]

First Mention of this unit in June 2019.²⁰⁷¹ No further information at this time beyond an address in Hainan. This unit may have previously been subordinate to the former Guiyang Training Base, which had a presence in the same village, but now appears to have been spun off into its own unit.^{2022 2023}

MUCD: 96898

Former MUCD: Unknown

Grade: Unknown

Parent Unit: Base 69

Location: Group One #202, Wushi Village, Jiyang District, Sanya, Hainan [海南省三亚市吉阳 区乌石村一组 202 号]²⁰²³

Geo: Unconfirmed, possibly 18.290270, 109.580044

Leadership

Commander: Unknown

PC: Unknown

Composition

Unknown

Unit 96899 [96899 部队]

First mention of this unit in June 2019. Given its apparent location in Guiyang it likely supports the 4th Test and Training District nearby.

MUCD: 96898

Former MUCD: Unknown

Grade: Unknown

Parent Unit: Base 69

Location: Guiyang, Guizhou [贵州省贵阳市]²⁰⁷²

Geo: Unknown

Leadership

Commander: Unknown

PC: Unknown

Unit 96609 Hospital [96609 部队医院]

This is the official hospital attached to Base 69. It appears to be a brand new hospital built at the site of a former hotel.

MUCD: N/A	Former TUD: N/A
Grade: Unknown	Parent Unit: Base 69
Location: 690 W. Huaiyuan Rd., Yinchuan 690 号] ²⁰⁷³	, Ningxia [宁夏回族自治区银川市西夏区怀远西路
Geo: 38.489963, 106.102555	

Leadership

Director: Unknown

PC: Unknown

Academic Institutions

Rocket Force Command College [火箭军指挥学院]

The Rocket Force Command College^{xcviii} was established in 1977 as the 2nd Artillery School, changing its name to 2nd Artillery College in 1979. In 1986 it became the 2nd Artillery Command College, and in 2016 it became the Rocket Force Command College.²⁰⁷⁴ In its 40+ years it has graduated over 30,000 cadets, over 120 of whom have gone on to become generals.²⁰⁷⁵

MUCD: N/A	Former MUCD/TUD: N/A
Grade: Corps ^{2076 2077} or Corps Deputy Leader ^{2078 x}	cix Parent Unit: PLARF HQ
Location: 145 Two-seven Road, Jiang'an District, V 145 号] ²⁰⁷⁹	Wuhan, Hubei [湖北省武汉市江岸区二七路
Geo: 30.629938, 114.301380	
Leadership	
Commandant: Lan Jiyin [兰吉银] (12/19) ²⁰⁸⁰	PC: Liu Zhihui [刘志辉] (4/19) ²⁰⁸¹
Dep Commandants: Wang Wei [王玮] (9/19) ²⁰⁸² ; Zhao Guisheng [赵桂生] (7/17) ²⁰⁷⁶	
Dep PC: Xiong Zhaoyuan [熊照元] (4/18) ²⁰⁸³	
Chief of Staff: Unknown	PWDD : Unknown

Support Dept Director: Unknown

Rocket Force University of Engineering [火箭军工程大学]

The PLARF University of Engineering was established in 1951 as the Northwest Military Region Artillery School, and the same year was renamed the PLA 1st Artillery School. It moved to Xi'an in 1955 and in 1956 was renamed the Xi'an Artillery School. In 1959, its mission was changed from teaching artillery personnel to specializing in strategic missile education, though its name remained the same to preserve secrecy. In 1963, its name changed to the PLA Artillery Technical

^{xcviii}For a more detailed treatment of this and other PLA Academic Institutions, the author recommends "The People's Liberation Army's 37 Academic Institutions" by Ken Allen and Mingzhi Chen of the China Aerospace Studies Institute. A copy can be found here: https://www.airuniversity.af.edu/Portals/10/CASI/Books/CASI_Academic_Institutions_Encyclopedia_web_final.pdf?ver=2020-06-14-133016-747

xcixSources conflict as to whether this is a Corps Leader of Corps Deputy Leader grade organization. News sources refer to it as Corps Deputy grade, but investigations of the service ribbons of senior personnel at this institution are consistent with a Corps Leader grade org.

College [炮兵技术学院]. It was transferred to the 2nd Artillery in 1969, and changed its name to the 2nd Artillery Technical College. In 1975, it changed its name to the 2nd Artillery School. In 1978, it again changed its name to the 2nd Artillery Technical College. In 1986, it changed its name to the 2nd Artillery Engineering College. In 2011, it became the 2nd Artillery Engineering University. Since 1959, it has produced over 40,000 graduates, over 130 of whom went on to become generals. The majority of the PLARF's brigade commanders, chiefs of staff, and chief engineers, as well as lower-level battalion and company commanders, graduated from this university.²⁰⁸⁴

MUCD: N/A

Former MUCD/TUD: N/A

Parent Unit: PLARF HO

Grade: Corps Deputy Leader²⁰⁸⁵ 2086

Location: 2 Tongxin Rd., Baqiao District, Xi'an, Shaanxi [陕西省西安市灞桥区同心路 2 号]²⁰⁸⁷

Geo: 34.312973, 109.122501

Leadership

Commandant: Li Hua [李华] (5/19)²⁰⁸⁸

PC: Guo Jianjun [郭建军] (1/20)²⁰⁸⁹

Dep Commandants: Hang Zhonghua [杭中华] (5/19)²⁰⁹⁰; Liu Guoqing [刘国庆] (9/17)²⁰⁸⁶

Dep PC: Cao Zhibin [操志斌] (9/18)²⁰⁹¹

Chief of Staff: Unknown

PWDD: Unknown

Support Dept Director: Unknown

Former Leadership: Liu Guangbin [刘光斌], Commandant (2018)²⁰⁹²; Chen Hongke [陈洪珂], PC (2018)²⁰⁹³; Cui Li [崔力], Dep PC (2017)²⁰⁹⁴

Known Composition

- Known subordinate colleges [学院]:
 - Engineering College [工程学院]²⁰⁹⁵
 - Natural Sciences College [理学院]²⁰⁸⁴
 - Basic Command College [初级指挥学院]²⁰⁸⁴
 - Missile Engineering College [导弹工程学院]²⁰⁹⁶
 - Nuclear Engineering College [核工程学院]²⁰⁹⁷

Rocket Force NCO School [火箭军士官学校]

The Rocket Force NCO School was established in September 1970 as the Yunnan Shipin 2nd Artillery 814th Regiment [云南石屏的二炮第 814 团]. It was moved to Xi'an in November 1971, where it was responsible for a teaching support mission under the 2nd Artillery Engineering Academy. In April 1976 it was reorganized into a training regiment, and in August of the same year was transferred to the 2nd Artillery Command College in Wuhan. In January 1978 it again moved to Qingzhou, and in March 1993 it was reorganized into the 2nd Artillery Command College Qingzhou Branch [二炮兵指挥学院青州分院]. In July 1999 it became the PLA 2nd Artillery Qingzhou NCO School [中国人民解放军第二炮兵青州士官学校]. In June 2011 it changed its name to the PLA 2nd Artillery NCO Professional and Technical Education College [二炮兵工程大学士官职业技术教育学院] and was made subordinate to the Rocket Force Engineering University. In 2017 it became the Rocket Force NCO School [中国人民解放军火箭军士官学校], and was again made an independent institution.²⁰⁹⁸

MUCD: N/A	Former MUCD/TUD: N/A
Grade: Division Leader ^{2098 2099}	Parent Unit: PLARF HQ
Location: Qingzhou, Weifang, Shandong [山东省潍坊市青州市] ²¹⁰⁰	

Geo: 36.673278, 118.454221

Leadership

Commandant: Tang Yong [汤勇] (12/20)¹⁰⁸

PC: Ning Luqiao [宁路桥] (12/19)²¹⁰¹

Dep Commandants: Chen Renyong [陈仁勇] (1/19)²¹⁰²

Dep PC: Guan Zhichang [关志昌] (10/18)²⁰⁹⁹

Former Leadership: Li Hua [李华], Commandant (2018)²⁰⁹⁹; Xu Guoming [徐国明], PC (2017)²¹⁰³; Zhang Yuli [张玉礼], Dep Commandant (2017)²¹⁰⁴; Zhu Hongming [祝洪铭], Dep PC (2017)²¹⁰⁴

Background

• The School has a subordinate Teaching Service Battalion [教练勤务营] responsible for teaching operations skills, including missile launch skills, to prospective NCOs. This battalion handles drill deployments which include real missile launches.²¹⁰⁵

- The NCO School appears to have at least partial control over the PLARF Comprehensive Training Base (96625),²¹⁰⁶ which is responsible for Logistics and NCO training. This unit was previously under the PLARF Logistics Department, and it is unclear if it has been completely transferred to the NCO School. NCO School personnel train in logistical specialties at this location.
- The NCO School is responsible for five types of NCO training, which it calls the "integrated five categories" [五类一体]. These are: NCO professional skills education [士 官职业技术教育], new soldier training (新兵训练), training of direct-recruit and targetedcultivation new NCOs [直招和定向培养士官入伍训练], cultivation and training of preselected NCOs [预选士官培训], and short-term/rotational training of some specialist NCOs and civilian personnel [部分专业士官, 文职人员短训轮训].^{2100 2107}
- The NCO School annually trains over 20,000 personnel. As of 2019, the NCO school has 13 full professors and 61 assistant professors.²¹⁰⁰

Rocket Force NCO School 4th Student Group [学兵四大队]

The 4th Student Group dates back to 1954¹⁷⁷ and is responsible for basic training of direct recruit NCOs.¹⁷⁷ It may also conduct training for other NCOs and enlisted personnel.¹⁷⁷ It may have previously been subordinate to the Logistics Department's Comprehensive Training Base (96625), where it served as the PLARF's only Special Vehicle Driver Training Group [特种车司机训练大 队].²¹⁰⁸ It was transferred, presumably to the NCO School, around 2017.¹⁷⁷ It is co-located with Unit 96619, a basic training base for new PLARF recruits.

MUCD: Unknown	Former MUCD: 96639	
Grade: Regiment Leader?	Parent Unit: Rocket Force NCO School	
Location: Fengrun District, Tangshan, Hebei [河北省唐山市丰润区] ²¹⁰⁹		
Geo : 39.855631, 118.093376 ²¹¹⁰		
Leadership		
Commander: Yuan Qingkai [原庆凯] (7/19) ²¹¹¹	PC: Zhang Qingshan [张清山] (3/17) ²¹¹²	
Dep Commanders: Unknown	Dep PC: Unknown	
Chief of Staff: Unknown	PWDD: Ni Tao [倪涛] (9/19) ²¹¹³	
Support Div Director: Possibly Sun Jie [孙杰] (5/18) (Logistics Div Director) ²¹¹⁴		
Former Leadership: Fang Kuixing [方奎兴], Commander (2015) ²¹¹⁵ ; Zhou Qian [周前], PC		

 $(2016)^{2116}$

- This unit's MUCD appears to be 96639, although it is not in frequent use in public sources save for a handful of research articles related to driver training and vehicle technology.²¹¹⁷
- A 2018 article states that a batch of nearly 800 NCOs completed three months of training here.²¹¹⁸
- From 2017 to October 2019, this unit graduated over 8,000 personnel, both new enlisted personnel [新兵] and specialist students [学兵].¹⁷⁷
- This unit may have previously been called the "NCO School Teaching Support Group" [教 学保障大队].²¹¹⁹ It may be associated in some way with the NCO School's "Instructor Service Battalion" [教练勤务营], which is responsible for joint training and assessment of NCO School graduates, weapons and equipment maintenance, and for dispatching cadets to northwest China to conduct real missile launch training.²¹⁰⁵
- The exact relationship between this unit, the NCO School, and the Comprehensive Training Base remains unclear, although it does seem to have transferred from the Logistics Department to the NCO School at some point. Also unclear is the relationship between the various names thrown around when discussing this unit, including "NCO School Teaching Support Group," "NCO School Fengrun Barracks" [士官学校丰润营区], and "Fengrun Training Group" [丰润训练大队].

Miscellaneous and Unidentified Units

The PLARF contains a number of direct-reporting units for which little to no public information exists. The following is a list of units that could not be properly identified or accurately placed within the PLARF hierarchy.

Unit 96610 [96610 部队]

This unit appears to be focused primarily on satellites and satellite communications, information security, and cryptography.²¹²⁰ Unlike many of the other unknown units, it appears to still be actively producing research as of 2018. It is likely located in or near PLARF HQ in Qinghe.

MUCD: Unknown Former MUCD: 96610

Grade: Unknown

Location: Qinghe Subdistrict, Haidian District, Beijing, 100085 [北京市海淀区清河街道]²¹²¹

Geo: Unknown

Unit 96611 [96611 部队]

No information on this unit, other than that it planned to erect a 7,7000 square meter facility in Fangshan County, Shanxi in late 2018.²¹²²

MUCD: Unknown	Former MUCD: 96611
Grade: Unknown	Parent Unit: Unknown

Location: Fangshan County, Luliang, Shanxi [山西省吕梁市方山县]²¹²²

Geo: Unknown

Unit 96621 [96621 部队]

This MUCD appears to have fallen out of use around 2010. Prior to this, it conducted research into a wide array of topics, including electronic warfare, missile and UAV malfunctions, and cruise missile damage assessment.²¹²⁰

MUCD: Unknown, may no longer exist

Grade: Unknown

Former MUCD: 96621 Parent Unit: Unknown

Parent Unit: Unknown

Location: Maliandian Village, Dongxiaokou Town, Changping District, Beijing 102208 [北京市 昌平区东小口镇马连店村]²¹²³

Unit 96627 [96627 部队]

This may be some kind of research unit, based on the relatively high number of published research articles it has published, primarily having to do with computing, information systems, and equipment engineering issues.²¹²⁰ It appears to be co-located with PLARF HQ in Qinghe.

MUCD: UnknownFormer MUCD: 96627Grade: UnknownParent Unit: Unknown

Location: Qinghe Subdistrict, Beijing 100085 [北京市海淀区清河街道]²¹²⁴

Geo: Unknown

Unit 96632 [96632 部队]

This unit is probably related to network security²¹²⁰ and possibly associated with the Equipment Department Research Academy. It is located in Qinghe Subdistrict, and is likely co-located with PLARF HQ.

MUCD: UnknownFormer MUCD: 96632Grade: UnknownParent Unit: Unknown

Location: Qinghe Subdistrict, Haidian District, Beijing 100085 [北京市海淀区清河街道]²¹²⁵

Geo: Unknown

Unit 96638 [96638 部队]

No further information available, other than an address in Fengtai District, Beijing from a single source.

MUCD: Unknown

Former MUCD: 96638

Grade: Unknown

Parent Unit: Unknown

Location: 33 Nanding Village, Dahongmen Rd., Fengtai District, Beijing [北京市丰台区大红 门路南顶村 33 号]²¹²⁶

Geo: 39.843480, 116.400749

Background

• No further information available, other than an address in Fengtai District, Beijing from a single source. The address is for the Beijing Bangkelou Hotel [北京邦克楼宾馆]²¹²⁷ which has no public connection to the PLA. This could just be a strange typo, but worth noting in case further evidence pops up.

Unit 96650 [96650 部队]

No further information.

MUCD: Unknown

Grade: Unknown

Former MUCD: 96650
Parent Unit: Unknown

Location: 1 Xixin Rd., Xifengshan Village, Liucun Town, Changping District, Beijing [北京市 昌平区流村镇西峰山村西新街 1 号]^{2128 2129}

Geo: Unconfirmed, possibly 40.161299, 116.031454

Composition

- 1st Vehicle Company [汽车一连]
- 2nd Vehicle Company [汽车二连]²¹³⁰

Note: this composition is incomplete.

Background

• This unit may have a presence in or around Dongxiaokou Township [东小口镇], where there are other known PLARF units.²¹³¹

PLARF Unit Field Cultivation and Training Base [部队野战培训基地]

Unit 96651 appears to be a training unit possibly co-located with the PLARF Comprehensive Training Base (96625). It may be focused on field skills like erecting tents, cooking, and field communications.²¹³²

MUCD: Unknown	Former MUCD: 96651
Grade: Unknown	Parent Unit: Unknown

Location: Taishizhuang Village, Donghuayuan Town, Huailai County, Zhangjiakou, Hebei [河 北省张家口市怀来县东花园镇太师庄村]²¹³³

Geo: Unconfirmed, possibly 40.359039, 115.875084

Secondary Garrison: Kangzhuang Town, Yanqing District, Beijing 102101 [北京市延庆区康 庄镇]²¹³⁴

Background

• Research articles attributed to this unit indicate it may have a particular focus on field communications in the face of jamming.²¹²⁰

Unit 96591 [96591 部队]

No concrete evidence of this unit later than 2008, although it continues to pop up in a smattering of miscellaneous sources. Given its location in Pulandian, it is probably an older MUCD for one of the Jinlun Engineering units.

MUCD: Unknown	Former MUCD: 96591
Grade: Unknown	Parent Unit: Unknown
Location: Pulandian District, Dalian, Liaoning [辽宁省大连市普兰店区] ²¹³⁵	

Guazhou, Hami, and Hanggin Silo Fields

Location:

- Guazhou County, Gansu [甘肃省玉门市] (40.299000, 96.397000)^c
- Hami, Xinjiang UAR [新疆维吾尔族自治区哈密市] (43.35150, 92.50110)
- Hanggin Banner, Ordos City, Inner Mongolia [内蒙古鄂尔多斯市杭锦旗] (40.113, 108.104)

In June 2021, researchers from the James Martin Center for Nonproliferation Studies revealed the construction of approximately 120 new ICBM silos located in Guazhou County. This was followed four weeks later by the further discovery, by researchers at the Federation of American Scientists, of as many as 110 additional silos in the early stages of construction near Hami, Xinjiang. Finally,

^c This field has typically been referred to as the Yumen Silo Field in most sources due to its relative proximity to the city of Yumen, but is actually located in Guazhou County and not Yumen.

in August 2021, the China Aerospace Studies Institute revealed a third likely site, which may feature as many as 30-36 additional silos, in Hanggin Banner, Inner Mongolia.^{ci}

These discoveries significantly expanded the number of known PLARF silos, which were previously believed to be around 20 in number, representing a more than twelve-fold increase. Little is currently known about these silos, including how many will be filled, what ICBM they will be filled with (initial evidence suggests a possible new silo-based DF-41), and whether this will be part of a nuclear "shell game" strategy.

It remains to be seen what these silo fields mean for the PLARF's order of battle. Assuming a size of 6-12 silos per brigade, it is possible that each site could lead to the addition of several new brigades, even if only a fraction of the silos are filled. These brigades would not fit into the PLARF force structure as it is currently composed, likely being too numerous and geographically distant to be subordinated to any of the six current operations Bases, which already oversee 6-7 brigades apiece. One strong possibility is that this will lead to the creation of additional Bases, the PLARF/PLASAF's first new operations Bases in over fifty years.

Joby Warrick, "China is building more than 100 new missile silos in its western desert, analysts say," Washington Post, 30 June 2021, https://www.washingtonpost.com/national-security/china-nuclear-missile-silos/2021/06/30/0fa8debc-d9c2-11eb-bb9e-70fda8c37057_story.html; Matt Korda, Hans Kristensen, "China Is Building A Second Nuclear Missile Silo Field," Federation of American Scientists, 26 July 2021, https://fas.org/blogs/security/2021/07/china-is-building-a-second-nuclear-missile-silo-field/ ; Rod Lee, "PLA Likely Begins Construction of an Intercontinental Ballistic Missile Silo Site near Hanggin Banner," China Aerospace Studies Institute, 12 August 2021. https://www.airuniversity.af.edu/CASI/Display/Article/2729781/pla-likely-begins-construction-of-an-intercontinental-ballistic-missile-silo-si/

ci Unless otherwise noted, all information comes from: