

The Centralization of the PLA Air Force's Basic and Technical Training

MSgt Daniel Salisbury and Kenneth W. Allen

Initial entry training is a major undertaking for any armed force, but China's People's Liberation Army (PLA) Air Force (PLAAF) faces a unique set of challenges based on its enlisted force's large size, relatively short service commitments, and high proportion of technical requirements. Although the PLA does not release comprehensive personnel data, the PLAAF most likely demobilizes and replaces about 20% of its enlisted force annually, including two-year conscript/recruits¹ who are not promoted to the NCO corps and any NCOs who are not promoted to the next level—many of them in positions requiring some level of technical training. As such, even minor adjustments to initial entry training may have significant impacts for the PLAAF in terms of reaping the maximum benefit from these two-year conscript/recruits before many of them are demobilized.

In an effort to improve the efficiency and quality of initial entry training, in recent years the PLAAF has centralized its basic training of conscript/recruits, conducting it in larger groups at dedicated training bases and training brigades rather than at operational units. PLAAF reporting indicates this model has improved training and reduced the training burden previously placed on operational units. Although not as widely implemented, the PLAAF also appears to be centralizing follow-on technical training for many new conscripts, citing similar benefits. These changes reportedly mean conscripts arrive at their operational units fully ready to fill their positions for the remainder of their service commitment, although, realistically, units would almost certainly need to provide some sort of on-the-job training (OJT) to supplement initial technical training. Any OJT would be followed by squad, platoon, company, and battalion training in a step-by-step process as the unit moves through the annual training cycle. Not every PLAAF branch receives the same number and quality of new conscript/recruits, so each branch moves forward separately. For example, the airborne corps has a relatively high proportion of junior enlisted members, while the aviation branch is very heavily NCO-oriented.

Centralization of PLAAF Basic Training

Since the mid-2010s, the PLAAF has increased centralization of basic training for conscript/recruits, following a greater PLA trend sometimes referred to as "base-ified" (基地化) or centralized (集中) training.² While PLAAF basic training remains less centralized than in U.S

military services, which may only have one (USAF/USN) or a few (U.S. Army) basic training locations,³ it has transitioned from small-group basic training, usually at operational units, to more centralized training bases and training brigades. This has been identified as a PLA-wide trend, with at least the PLA Army and PLAAF appearing to have implemented it service-wide.⁴ Various PLA Daily reports have touted many benefits of centralized basic training, such as increased standardization, consolidated resources, and reduced impact of training on operational units.

2014. most incoming PLAAF Prior to conscript/recruits arrived at either their operational unit or a technical training unit, depending on their eventual billet, where they would first complete about 6-7 weeks of basic training (新兵训练). After basic training, conscript/recruits already at their operational unit would transition to their permanent billet within that unit and receive OJT, while those initially assigned to a technical training base would remain there for technical training before being reassigned to an operational unit elsewhere.⁵ At that time, basic training instructors in operational units were junior officers or junior NCOs assigned on a Figure 1: Pre-2014 New-soldier Training Options temporary basis from the same operational unit, and they



would return to their billets after the training. Basic training included subjects common to all new conscript/recruit training, such as marching and saluting, and some topics specific to the PLAAF or portions of the PLAAF.

In late 2014, the PLAAF's Headquarters Department (now Staff Department) organized its first "conscript/recruit training brigade" (新兵训练旅), which consisted of at least four battalions and trained about 1,000 conscript/recruits.⁶ This model was implemented across the PLAAF in 2015. ⁷ Instead of sending conscript/recruits directly to operational units for basic training, they are now sent to one of many conscript/recruit training brigades, each of which are expected to train at least 1,000 conscript/recruits.⁸ Two



Figure 2: The PLAAF's First New-soldier Training Brigade

Air Force News articles in January 2016 highlighted brigades of 1,500 and 2,000 conscript/recruits, respectively, who had recently completed basic training.9,10

The centralized training model also involves more professionalized basic training instructors rather than the previous system of temporarily assigning instructors from the attached operational unit. The initial conscript/recruit training brigade in 2014 was immediately preceded by a seven-week course to prepare about 300 instructors, indicating a ratio of about 3 conscript/recruits per instructor, although this may have been especially low to increase safeguards and control for that initial event. Prior to PLAAF-wide implementation in late 2015, over 1,000 "seed instructors" (种子教练员) earned their qualification during a two-month course at a PLAAF Communications Training base.¹¹ Interestingly, photos from that training indicate that some female conscripts wearing Private 2^{nd} Class rank (indicating they were still 2-year conscripts as opposed to NCOs) participated in addition to the junior NCO and junior officers previously seen as basic training instructors. According to another *PLA Daily* article, these seed instructors would go on to create a lesson plan for managing the initial education and training (教育训练) of conscript/recruits, and each Military Region Air Force (MRAF) would then train its own basic training instructors.¹²

Based on analysis of multiple articles from *Air Force News* since 2015, the PLAAF appears to have at least 30 to 40 conscript/recruit training brigades. The PLAAF does not release annual conscription data, but force size and proportion estimates indicate it must train about 60,000 conscript/recruits each year,¹³ which is much higher than the USAF, which trains approximately 35,000 conscript/recruits annually.¹⁴ Reports of actual conscript/recruit training brigade output average near 1,500 per brigade, meaning about 40 brigades may be sufficient, but as many as 60 could be required at the stated minimum standard of 1,000 per brigade.

Some of these conscript/recruit training brigades are subordinate to newly-created training bases (separate from the pre-2014 technical training bases), such as the Airborne Force Training Base, while some of them are subordinate to other organizations, such as the PLAAF Staff Department, Logistics Department, and Equipment Department, Theater Command Air Force (TCAF) Headquarters (HQ), bases, academic institutions, and command posts.¹⁵ It also appears that each of the three PLAAF Flight Academies (Harbin, Shijiazhuang, and Xi'an) has at least one conscript/recruit training battalion that focuses on groundcrew training. No recent information was found concerning conscript/recruits being assigned to technical training bases.

Each training brigade presumably trains conscript/recruits bound for units within the organization to which it is subordinate, and training likely continues to include both common PLAAF subjects and some basic content specific to that organization. If so, conscript/recruits may receive their eventual operational assignments before they arrive at basic training, mostly in order to route them to the correct training brigade. Indeed, a 2021 *National Defense News* article reported that some regional People's Armed Forces Departments (PAFD), which are responsible for PLA conscription/recruitment work, assess the strengths of conscript/recruits during pre-enlistment education and training (役前教育训练) and assign them to services and specialties accordingly, indicating that assignments may be made before they depart for basic training.¹⁶

Beginning in 2021, the PLA transitioned from inducting conscript/recruits once annually to twice annually while keeping the overall number of conscript/recruits stable, but it is unclear how this may have affected training volume across training bases and brigades or the previous standard of each brigade training at least 1,000 conscript/recruits annually.¹⁷ For the first group of spring 2021 trainees, one Central TCAF training brigade reportedly only trained about 800 conscript/recruits, but a Southern TCAF training brigade appears to have trained about 1,400 based on formation photos.^{18,19}

Benefits of Centralized Basic Training

Centralization removes the burden of basic training from operational units, allowing them to better focus on other training and missions. Even prior to the biannual conscription cycle starting in 2021, the basic training timeline created a tight period for operational units during which they were expected to free some key personnel to train newly-arrived conscript/recruits while also

participating in the unit's regular training and exercises. ²⁰ Consolidating dedicated, professionalized instructors at a higher level reduced the overall burden and disruption to operational units. The switch to a biannual recruitment and training cycle would have been even more disruptive to operational units and was likely part of the reason for centralizing basic training. With about six months of basic training (two three-month iterations) and potentially several months of instructor training each year, as well as preparation for each, dedicated training organizations begin to seem not only optimal, but essential.

In addition to consolidating instructors, the centralized model allows the PLAAF to consolidate overall training resources and reap the benefits of economies of scale. For example, a 2015 article about centralized training at the PLAAF Headquarters Department's conscript/recruit training brigade highlighted new facilities intended to align training more with real combat, including a firing simulation building, grenade throwing practice area, 400-meter obstacle course, and a rearrangeable tactics training area.²¹ Most operational units would not have access to facilities like these to train the few conscript/recruits assigned to them. Centralizing basic training likely also lowers more mundane costs, such as those of housing and feeding conscript/recruits during basic training.

PLAAF reports also claim the centralized model increases the quality of conscript/recruit training in several ways. First, it allows for greater standardization and avoids the problem of "inbreeding," i.e., poor quality training being perpetuated in some local units.²² Second, in large part because of the better resources that are available to the training brigades, it enables the PLAAF to make basic training more realistic, which is a major focus for training PLA-wide. For example, centralized training is reportedly better able to create a battlefield atmosphere (战场氛围) during training by leveraging purpose-built facilities and larger groups of trainees.²³ Third, larger concentrations of trainees allowed for pride and competition between battalions, companies, and platoons, which helped to motivate trainees to work harder.

Centralization of PLAAF Specialty/Technical Training

In addition to centralizing basic training, there have also been efforts in the PLAAF to centralize some follow-on technical training. While not covered as widely as centralized basic training, and probably not as broadly implemented, some reports have highlighted examples and discussed the benefits of a "train before filling (a position)" (先训后补) model in which conscript/recruits receive both basic and technical training before arriving at their operational unit.²⁴ In this model, units would receive qualified personnel ready to work immediately rather than being required to provide technical training themselves.



Figure 3: Post-2014 New-soldier Training Options

In some cases, this occurs under a one-stop (-

站式) model in which conscript/recruits receive both basic and technical training in a single location before being sent to their permanent billet elsewhere. For example, in early 2015 the Xinjiang Ili Military Subdistrict maintained a centralized training base for all border defense units, which provided three months of basic training followed immediately by three and a half months of job training before sending new soldiers to their operational units.²⁵ Similarly, in late 2018 the

Air Force Engineering University's (AFEU) Noncommissioned Officer (NCO) Maintenance School highlighted students who had just completed basic training but would remain on site for an additional three months of maintenance training.²⁶ The story noted the students would first be reorganized by specialty, implying the school handles multiple maintainer training pipelines. Similarly, conscript/recruits in the PLAAF Airborne Corps (空降兵) complete both basic and airborne specialty training at the Airborne Corps Training base that was organized from what was previously the Airborne Paratrooper College. While this model is treated as a new initiative, it appears to be somewhat similar to that used by pre-2014 technical training bases.

In other cases, technical training continues to be accomplished at operational units or at least in dedicated training units collocated with operational units. For example, basic training graduates assigned to a Shijiazhuang Flight Academy training brigade's battalion-level maintenance group (*dadui*) appear to arrive at the unit and be sent to local centralized instruction (集中带教), where they are taught by experts from across the group.²⁷ After several weeks of classroom instruction and observation, and after passing theory tests (理论考核), they are transferred to



Figure 4: Shijiazhuang Maintenance Technical Training

various company-level maintenance squadrons (*zhongdui*), where they are assigned mentors and begin hands-on practice. Interestingly, at least from 2018 to 2020, these "student soldiers" seemed to arrive at the group in early May, having already completed about six months of training.²⁸ This likely included about three months of basic training, but it is not clear what other training they received prior to arrival. Other examples of technical training still conducted at operational units include a Western TCAF radar brigade training unit (教导队) conducting local specialty training for new conscripts in 2017 and a Central TCAF brigade with a local driver training program in 2021.^{29,30}

Regardless of where technical training occurs, the more important distinction is where the burden for conducting it lies. The benefit of the "train before filling" model is that operational units receive somewhat capable technicians who can immediately work in at least some form, and units do not have the administrative or organizational overhead of planning and executing initial technical training. While not acknowledged in PLA reporting, it seems likely that conscript/recruits assigned to more technically demanding billets will still require some level of oversight and possibly on-the-job training despite having received some training before arrival. Even in these cases however, the burden on units will be reduced if conscript/recruits arrive with even a basic grasp of their technical requirements.

Benefits of Centralized Technical Training

The most commonly touted benefit of centralized technical training in PLAAF reporting is that it shortens training timelines for producing fully qualified personnel. Although this method delays the arrival of conscript/recruits to operational units, PLAAF reports claim that once they do arrive they are able to fill their positions nearly immediately.³¹ Accelerated training pipelines are a crucial benefit to the PLA especially, in which conscript/recruits have initial commitments of only two years and prolonged training severely limits the amount of time a member is able to spend on the job or in larger unit training events before demobilizing. For example, even if a conscript/recruit only receives six months of basic and technical training and is then assigned to

his operational billet, he still has no operational experience and only has 18 months left before he is demobilized or selected for retention as an NCO.

A 2017 article in *National Defense* (国防), a journal published by the PLA's Academy of Military Science, offered thoughts and recommendations on several trends in basic training models across the PLA services in recent years. In addition to praising the efficiency of the "train before filling" model, the authors suggest a related "2+X" model where basic training and special technical training are considered as parts of a whole, with two months of basic training on common topics followed by a variable number of months of technical training depending on specialty. Although based on pilot programs in some PLA services, these recommendations were not directed at any one service. The authors even noted that some specialties may benefit from placing new soldiers into cohorts (科霍特) "like the U.S. military"³² which would remain together for basic and technical training and then be transferred to operational units in the same group, potentially leading to better cohesion and increased performance.

Centralized technical training may also provide some of the same benefits as centralized basic training, such as removing some training burden from operational units, consolidating training resources for better efficiency, and standardizing training at a higher level. Although not discussed publicly by the PLA, it may also present some challenges. These conscripts may develop foundational skills in their specialty, but they would likely still require additional on-the-job training or at least considerable supervision after arriving at their operational units. This should be less of a burden on units than completing the entirety of technical training locally, but could be problematic for units expecting troops who are ready to work immediately and not expecting to provide significant OJT.

This model could also improve readiness for unit training and exercises by freeing experienced members at operational units – who may have otherwise been training new arrivals – to focus more on preparing the unit for these events. When conscript/recruits arrive at their operational units after completing technical training, they would also require less preparation before taking part in these events and likely have the foundational knowledge to at least learn from or even contribute to them.

Conclusion

Since 2014 the PLAAF has centralized its basic training for new conscript/recruits, shifting from small-group basic training at operational units to more concentrated training at bases and training brigades. This transition has reportedly reduced the training burden on operational units, increased standardization, and improved the quality of training for conscript/recruits. While not as widespread, the PLAAF has also reportedly centralized some of its conscript/recruits' technical training as well in the hopes that many will arrive at their operational units fully ready to work. The PLAAF's large size and short two-year initial service commitments mean a significant proportion of its force must be demobilized and replaced every year, so even marginal improvements to these initial training pipelines may have significant impacts. Conscript/recruits arriving at operational units with some level of technical ability may not be fully independent, but would likely be more useful than completely fresh conscript/recruits and potentially be able to participate in larger exercises soon after arriving. Similar modifications of basic and technical training also appear to have been implemented in other PLA services to varying degrees, meaning the potential impacts discussed above (both positive and negative) could be relevant to an even larger proportion of the PLA.

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

Endnotes

the Transformation of the PLA's New-soldier Training Models." [推进我军新兵训练模式转变的几点思考], National Defense Journal [国防杂志], July 2017, 37-39.

⁶ Jiang Xiuqiang, Wang Ning, and Bai Xianlin [姜秀强, 王宁, 白先林], "PLAAF HQ New-Soldier Training Brigade's 09/18 Training Mobilization Improves New-soldier Courage and Valor" [空军司令部新训旅"9.18"开 训动员 锤炼新兵血性虎气], People's Daily, September 19, 2014,

http://military.people.com.cn/n/2014/0919/c1011-25691654-3.html.

⁷ Li Kaiqiang [李开强], "PLAAF Implements New System for Centralized Training of New Soldiers" [空军推行新 兵集中训练新机制], People's Daily, June 28, 2015, http://military.people.com.cn/n/2015/0628/c172467-27218238.html.

⁸ Ibid

⁹ Liang Bo, Tang Ming, and Chi Yuguang [梁波, 唐敏明, 迟玉光], "The Night before Being Sent to the Unit" [下 连前的那晚上], *Air Force News*, 3 January 2016, 3.

¹⁰ Xiao Ying, Yi Kaihong, and Liu Chang [肖瑛, 易开红, 刘畅], "Invite Family Members to Inspect the Troops" [请亲人检阅], Air Force News, 12 January 2016, 4.

¹¹ Jiang Xiuqiang, Li Tianxia [姜秀强, 李天霞], "Over 1,000 PLAAF Core New-soldier Trainers and Seed Instructors Attend Group Training" [空军千余名带兵骨干、种子教练员集训], PLA Daily, July 1, 2015, accessed at http://www.chinanews.com.cn/mil/hd2011/2015/07-01/536441.shtml.

¹² Li Kaiqiang [李开强], "PLAAF Implements New System for Centralized Training of New Soldiers" [空军推行新 兵集中训练新机制], People's Daily, June 28, 2015, http://military.people.com.cn/n/2015/0628/c172467-27218238.html.

¹³ For more details on PLAAF force size and proportions, see Appendix A.

¹⁴ United States Air Force. "Basic Military Training Units.", https://www.basictraining.af.mil/units/.

¹ New two-year enlisted personnel are currently a combination of personnel who are conscripted and personnel who voluntarily join. It can be difficult to parse between the two, however, as all junior enlisted personnel are referred to as "conscripts" (义务兵), "new soldiers" (新兵), or simply "soldiers" (士兵 or 战士) during their two-year service period regardless of how they joined. For the purposes of this report, the term conscript/recruit is used. For more information, see "Personnel of the People's Liberation Army", a forthcoming report prepared for the U.S.-China Economic and Security Review Commission by Ken Allen, Thomas Corbett, Taylor A. Lee, and Ma Xiu. ² Zhuang Ruixia, Hu Zhongguo, and Hu Xuliang [庄瑞霞, 胡忠国, 胡忠国, 胡忠国, 胡忠三], "Several Thoughts on Pushing Forward

³ The USAF and USN each have a single basic training location at Lackland Air Force Base and Naval Station Great Lakes, respectively. The U.S. Army maintains five basic training locations: Fort Benning, Fort Jackson, Fort Leonard Wood, Fort Sill, and Fort Knox.

⁴ Qian Xiaohu and Yu Hang [钱晓虎, 于航], "PLA Army Comprehensively Implements New Model for Newsoldier Training" [陆军全面推行新兵训练新模式], PLA Daily [解放军报], September 16, 2018, http://www.mod.gov.cn/2018lbbz/2018-09/16/content 4825160.htm.

⁵ *PLA Aerospace Power: A Primer on Trends in China's Military Air, Space, and Missile Forces,* 2nd Edition, (Montgomery, AL: China Aerospace Studies Institute, 29 July 2019), 67-68.

¹⁵ For example, Wang Rushui, "Eastern TCAF New-soldier Training Brigade," *Air Force News*, October 26, 2016, 2. Translation; Li Tianxia, "PLAAF Staff Department New-soldier Training Brigade," *Air Force News*, November 23, 2016, 2. Translation; Nie Shixuan and Zhen Zhuo, "Air Force Engineering University New-soldier Training Brigade," *Air Force News*, September 5, 2017, 2. Translation; Liang Xingzhi and Li Xin, "PLAAF Logistics Department New-soldier Training Brigade," *Air Force News*, August 31, 2016, 2. Translation; "PLAAF Equipment Department New-soldier Training Brigade," *Air Force News*, September 28, 2016, 2. Translation.

¹⁶ Zhang Heyun [张和芸] et al., "Pre-Enlistment Education and Training Selects the 'Best Bricks'" [役前教育训练, 遴选"优质砖"], National Defense News [国防报], August 4, 2021, http://www.81.cn/gfbmap/content/2021-08/04/content_295622.htm.

¹⁷ Chen Zhuo, "China's Military to Conscript Twice a Year from 2020," *Xinhua*, January 16, 2020. http://www.china.org.cn/china/2020-01/16/content_75620242.htm.

¹⁸Lin Weimin[林炜民], "Central TCAF New-soldier Training Brigade Conducts Ceremony for Reception of Early 2021 New Soldiers" [中部战区空军某新训旅举行 2021 年度上半年新兵授衔仪式], China Military Online, May 26 2021, http://www.js7tv.cn/news/202105_248709.html.

¹⁹ Hu Zhiqiang, et. al., "Spring New Soldiers, Start Training!" (春季新兵,开训!), www.81.cn, 30 March 2020, accessed at http://www.81.cn/kj/2021-03/30/content_10013527.htm.

^{20 20} Li Kaiqiang [李开强], "PLAAF Implements New System for Centralized Training of New Soldiers" [空军推行 新兵集中训练新机制], People's Daily, June 28, 2015, http://military.people.com.cn/n/2015/0628/c172467-27218238.html.

²¹ Li Tianxia [李天霞], "Female College Student Soldiers Calmly Throw Real Grenades after Previously Trembling from Fear When Holding Fake Grenades" [大学生女兵沉着投实弹 曾握仿真手雷都害怕发抖], PLA Daily, December 31, 2015, accessed at https://www.chinanews.com.cn/m/mil/2015/12-31/7696002.shtml.

²² Zhuang Ruixia, Hu Zhongguo, and Hu Xuliang [庄瑞霞, 胡忠国, 胡旭亮], "Several Thoughts on Pushing Forward the Transformation of the PLA's New-soldier Training Models." [推进我军新兵训练模式转变的几点思考], National Defense Journal [国防杂志], July 2017, 37-39.

²³ Li Tianxia [李天霞], "Female College Student Soldiers Calmly Throw Real Grenades after Previously Trembling from Fear When Holding Fake Grenades" [大学生女兵沉着投实弹 曾握仿真手雷都害怕发抖], PLA Daily, December 31, 2015, accessed at https://www.chinanews.com.cn/m/mil/2015/12-31/7696002.shtml.

²⁴ Yang Fan, Hu Yuheng, and Du Zilai [杨帆、胡宇珩、杜子莱], "Another Three Months after the First Three; It's Not Easy to Become an Air Force Maintainer" [三个月之后还有三个月,想成为空军机务人可没那么简单], *China Air Force Network*, December 29, 2018, originally at http://kj.81.cn/content/2018-

12/29/content_9391461.htm, accessed at https://kknews.cc/zh-sg/military/voexoqq.html.

²⁵ Zheng Guangwei, Zhu Dehua, and Xu Bicheng (郑光伟, 朱德华, 许必成), "Xinjiang Border Defense Newsoldier Training Innovation; From Live-firing Twice to Over 10 Times" [新疆边防新兵训练创新 打实弹 2 次变 10 次以上], PLA Daily, March 16, 2015, accessed at https://www.chinanews.com.cn/mil/2015/03-16/7130849.shtml.

²⁶ Yang Fan, Hu Yuheng, and Du Zilai [杨帆、胡宇珩、杜子莱], "Another Three Months after the First Three; It's Not Easy to Become an Air Force Maintainer" [三个月之后还有三个月,想成为空军机务人可没那么简单], *China Air Force Network*, December 29, 2018, originally at http://kj.81.cn/content/2018-

12/29/content_9391461.htm, accessed at https://kknews.cc/zh-sg/military/voexoqq.html.

²⁷ Li Min, Gao Di, and Du Chuncheng [李敏, 高迪, 杜纯丞], "'Look, Touch, Listen, and Smell'; Would You Like to Know the Fundamentals of Success for Maintenance Student-Soldiers?" ["看摸听嗅", 机务学兵的入门秘诀 要不要了解一下], *China Air Force Network*, July 13, 2018, originally at http://kj.81.cn/content/2018-

07/13/content 8088798.htm, accessed at http://mil.news.sina.com.cn/2018-07-13/doc-ihfhfwmu5456932.shtml.

²⁸ Hu Bo and Jiang Shiqi [胡博 姜仕奇], "It's Not Easy to Become a Disciple of this Top-quality PLAAF

Maintenance Dadui" [想成为这个空军优质机务大队的传人,没那么简单], *China Air Force Network*, April 28, 2019, originally at http://www.81.cn/2018zt/2019-04/28/content_9491402.htm, accessed at

https://mil.news.sina.com.cn/2019-04-25/doc-ihvhiqax5004262.shtml.

²⁹ Gu Chong and Cao Chuanbiao [贾冲、曹传彪], "Western TCAF Radar Brigade New-soldier Training Hits a Bottleneck." [西部战区空军雷达某旅新兵训练遭遇瓶颈], PLA Daily, March 17, 2017, accessed at http://www.xinhuanet.com/mil/2017-03/17/c_129511552.htm.

³² This appears to be a reference to the COHORT (Cohesion, Operational Readiness, and Training) program tested by the U.S. Army between 1981 and 1995.

³⁰ Pi Maoheng and Hu Yonghua [皮茂成, 胡勇华], "Tailored Instruction Shortens Driver Maturation Period" [因人 施教缩短驾驶员成长周期], PLA Daily, August 28, 2021, http://www.81.cn/jfjbmap/content/2021-08/28/content_297734.htm.

³¹ Zheng Guangwei, Zhu Dehua, and Xu Bicheng (郑光伟, 朱德华, 许必成), "Xinjiang Border Defense Newsoldier Training Innovation; From Live-firing Twice to Over 10 Times" [新疆边防新兵训练创新 打实弹 2 次变 10 次以上], PLA Daily, March 16, 2015, accessed at https://www.chinanews.com.cn/mil/2015/03-16/7130849.shtml.