

What the PLA Air Force Says About Itself

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When examining China's People's Liberation Army Air Force (PLAAF / 人民解放军空军), it is important to see what the PLAAF is saying to the international community about itself.¹ How does it present itself in terms of its capabilities and missions, and what does it choose to signal about its intentions? One of the PLAAF's key channels for conveying its messages to an international audience is the Ministry of National Defense's (MND) *China Military Online* website. It is the only official English language military news website of the Chinese Armed Forces, and describes itself as "an important platform for building up the online international communication capacity of the Chinese military."² *China Military Online* provides news stories and photos about the PLAAF in its own section of the website, with content currently going back to 2018.³ These are the stories that the Chinese air force wants to share with the international community about who it is and what it does.⁴

This report offers a close examination of what the Chinese air force has been saying to the international community, describing the content of the 169 articles about the PLAAF that were published between January 2018 and August 2023 on the *China Military Online* website.⁵ While most reports on the PLAAF rely on multiple sources and tend to focus on a single topic, such as policy, strategy, or training during a certain period, this report focuses on a single source and what it is communicating. The PLAAF articles that appear on *China Military Online* are both original to the site and adapted content that originally appeared in other Chinese media, such as *Xinhuanet*, *Global Times* (which is part of *People's Daily*), and *China Daily*. Although some of these sources are not military organizations, the reporters and editor for each article on *China Military Online* are military officers.

In describing this content, this report does not reproduce each of the 169 articles verbatim. Rather, it summarizes the article content, organized around nine main sections devoted to PLAAF capabilities, issues, and missions, as identified below. Where appropriate, the report uses direct

¹ The PLAAF has four primary media sources that it uses to provide information to itself and the public. Each source is managed by the relevant Central Military Commission (CMC) or PLAAF Political Work Department. The first is *Air Force News* (空军报), which is a four-page newspaper and has been published in Chinese by the PLAAF's Political Department / Political Work Department five times per week since 1958. Although it had always been published for internal use only, those restrictions were removed in 2009 and the newspaper became available to the public through a post office subscription. General access to foreigners was curtailed in 2018, but citizens can still subscribe to it through the post office. The second is *China Air Force* (中国空军) magazine, which has been published in Chinese by the PLAAF's Political Department / Political Work Department since 1986. It was first published in 1986 as a bimonthly magazine (50 pages) and then became a monthly magazine in 2010 (80 pages). In 2021, it went back to bimonthly (80 pages). Third, the *81.cn* website (中国军网), which is published in Chinese by the PLA News Media Center. It has a dedicated Air Force webpage, which has changed its URL in recent years. It can now be found at <https://www.81.cn/kj/index.htm>, and has content that begins on January 17, 2022. Fourth, the *China Military Online* website, which is subordinate to the Ministry of National Defense (MND). It has a dedicated *Air Force* tab (<http://eng.chinamil.com.cn/armed-forces/air-force.htm>) with content that dates back to January 2018.

² "About Us," *China Military Online*. Accessed at <http://eng.chinamil.com.cn/SinglePage/AboutUs/index.html> on 1 June 2023.

³ Accessed at <http://eng.chinamil.com.cn/ARMEDFORCES/AirForce/index.html>.

⁴ The MND's website also has a Chinese language tab with information about the PLAAF for its domestic audience (<http://www.mod.gov.cn/gfbw/wzll/kj/index.html>). It covers some of the same stories that appear in *China Military Online*, but the two sites do not have identical content. This report does not examine the Chinese language articles.

⁵ The number of articles per year are: 2018 (62), 2019 (33), 2020 (22), 2021 (16), 2022 (20) and January – August 2023 (15).

quotes from the articles to emphasize certain claims or points being made within the articles. Otherwise, the *China Military Online* articles are summarized by the report authors, while remaining faithful to the article subject matter and how the information was presented. Thus, all direct quotes from the articles are identified by quotation marks and a citation. Summaries of articles also have proper citation, but the information is not in quotation marks. Finally, to clarify or elaborate on certain points of information from the articles, the authors of this report on rare occasion interject some brief analysis into the report. This information is in footnotes or italicized, so that it is obvious that the information was not part of the *China Military Online* articles.

The report is organized into the following 11 sections plus an appendix with the acronyms. As a general rule, each section is organized by the date of the relevant article(s), starting from 2018.

1. Key Findings
2. Becoming a World-class Air Force
3. PLAAF Firsts
4. Airshows and Open-house Events
5. Aircraft Variants
6. Surface-to-Air Missiles
7. Exercises
8. Military Operations Other Than War
9. Pilot Recruitment, Education, and Training
10. Miscellaneous
11. Conclusions

1. Key Findings

The following 13 bullets provide the key findings about the content of articles concerning the PLAAF from *China Military Online*:

1. The PLAAF has clearly stated that it has set a goal to become a world-class air force by the mid-21st century, and it has laid out the three steps to accomplish it.
2. The five aircraft that received the most attention are the J-20 (35 articles), H-6 (32 articles), Y-20 (31 articles), J-10 (25 articles), and J-16 (18 articles).
3. The PLAAF has assigned operational aircraft, including J-10s, J-11s, and H-6s, to the relevant flight academies so that new pilots who arrive at their operational unit will need less time to transition into their operational aircraft.
4. The PLAAF is gradually increasing the role of female pilots, including becoming flight instructors in flight academies.
5. The PLAAF is rapidly increasing the use of its Y-20 transport aircraft, including the YY-20 aerial tanker variant.
6. The PLAAF is actively involved in domestic and international military operations other than war (MOOTW).
7. The PLAAF has used various events, including the Zhuhai Airshow and Changchun Airshow, to introduce new weapons to the public for the first time and to show certain aircraft during flyovers and on ground displays.

8. The PLAAF is actively involved in single-service, multi-service, and international exercises.
9. PLAAF fighters and bombers are increasing their over-water flights, including into the Western Pacific and South China Sea.
10. Starting in 2019, PLAAF H-6K bombers and Russian Air Force (RAF) Tu-95 bombers began conducting joint strategic patrols over the Sea of Japan and the East China Sea.
11. The PLAAF is gradually including unmanned aerial vehicles into its inventory and training.
12. Flight activity occurred on all seven days of the week, while weekend flight activity primarily included transport aircraft flights and airshows.
13. The PLAAF frequently provides information about the first time it does something, including commissioning new aircraft and conducting missions with new aircraft.

2. Becoming a World-class Air Force

At the 12th China International Aviation and Aerospace Exhibition (Zhuhai) Airshow in November 2018, one of the PLAAF's Deputy Commanders, Lieutenant General Xu Anxiang, announced a roadmap for building a stronger modern air force in three steps.⁶

- “The first step is to, by 2020, build a strategic force that integrates aviation and space power, and strike and defense capabilities, in which the fourth generation of equipment serves as backbone and the third generation of equipment as mainstay. The systematic combat capabilities will be enhanced. When that is achieved, fourth-generation equipment will serve as the backbone of the PLAAF's arsenal. Information-based systematic combat capabilities will be enhanced.”
 - The second of the two articles about Xu's news conference explained that the PLAAF “categorizes its top weapons such as the J-20 stealth fighter jet and Y-20 strategic transport aircraft as fourth-generation equipment, while the J-10 and J-16 combat fighters are classified as third-generation.”⁷
- “The second step requires the air force to improve strategic capabilities and modernize its theory, organizational structure, service personnel, and weaponry. The building of a modern and strategic air force will be basically completed by 2035.”
- “The third step will see the air force fully transformed into a world-class force by the mid-21st century.”

At the PLAAF's 70th anniversary in November 2019, Chinese President Xi Jinping, who is also General Secretary of the Communist Party of China (CCP) Central Committee and Chairman of the CMC, stressed “fully building the [PLAAF] into a world-class air force.”⁸ According to a November 2020 article, “In recent years the PLAAF has focused on strategic transformation and vigorously strengthened the capacity construction in strategic early warning, air strikes, air defense and anti-missile, airborne operations, information confrontation and strategic power

⁶ Chen Zhuo, ed., “China announces roadmap for building stronger modern air force,” *Xinhuanet*, November 12, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-11/12/content_9341449.htm; and Huang Panyue, ed., “PLA Air Force plans expansion into space to modernize capability,” *China Daily*, November 13, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-11/13/content_9342733.htm.

⁷ Huang Panyue, ed., “PLA Air Force plans expansion into space to modernize capability,” *China Daily*, November 13, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-11/13/content_9342733.htm.

⁸ Li Wei, ed., “PLA Air Force progresses on road to become world-class,” *China Military Online*, November 11, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-11/11/content_9934462.htm.

projection.” The article also noted that “Over the past year, while overcoming the impact of the COVID-19 pandemic and continuously improving its combat effectiveness, the PLAAF has actively carried out foreign exchanges and joint training exercises. In the global fight against the COVID-19 pandemic, the PLAAF has sent multiple transport aircraft to deliver the pandemic prevention materials to multiple countries, demonstrating the due responsibility of a major country’s air force.”⁹ Finally, the article concluded, “At the same time, the PLAAF has compiled a five-year plan to support its strategic transformation and capacity building under the strategic arrangements for the modernization of national defense and the armed forces in the country’s 14th Five-Year Plan. As such, standing at a higher starting point, the PLAAF has started a new journey to build a world-class air force in an all-round way.”¹⁰

3. PLAAF Firsts

A total of 30 China Military Online articles identified the first time that the PLAAF was involved in various events, each of which are listed below by date from 2018 to 2022. These firsts are discussed in more detail in the relevant sections of this report. Each entry provides a summary of the information.

1. February 2018: The Harbin Flight Academy introduced free air combat training into pilot cadets’ training programs for the first time for any flight academy. The article about this development stated that the change conveyed “a signal of further advancement of the real battle training in flight academies.”¹¹ See Section 9.
2. March 2018: A Y-9 successfully transferred an officer in Tibet who was in critical condition suffering from adenovirus pneumonia to Chengdu, Sichuan Province.¹² According to the article, this was the first time that the PLA used a Y-9 for air medical rescue. See Section 5.
3. March 2018: The Harbin Flight Academy recently conducted stall and spin recovery training with their JL-8 fighter trainer airplanes, which was the first such training on the JL-8 fighter trainer airplane since it was deployed to the PLAAF’s flight academies over two decades ago.¹³ See Section 9.
4. April 2018: The new J-10C fighter jet, which was first revealed to the public at the military parade marking the 90th founding anniversary of the PLA in July 2017, was put into service. The PLAAF announced that this marked an improvement in the PLAAF’s combat capabilities and defense.¹⁴ See Section 5.
5. May 2018: Y-20 heavy transport aircraft conducted their first airborne and air delivery training.¹⁵ See Section 5.

⁹ *Ibid.*

¹⁰ *Ibid.*

¹¹ Li Jiayao, ed., “Free air combat training course included in air force flight academy syllabus,” *China Military Online*, February 6, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-02/06/content_7934591.htm.

¹² Li Jiayao, ed., “Air force sends transport aircraft to Tibet to evacuate sick soldier,” *China Military Online*, March 21, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/21/content_7978839.htm.

¹³ Huang Panyue, ed., “PLA Air Force spreads stall/spin recovery training on JL-8 aircraft in flight academies,” *China Military Online*, March 27, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/27/content_7985275.htm.

¹⁴ Yao Jianing, ed., “PLA Air Force activates J-10C fighter jet,” *Global Times*, April 16, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-04/16/content_8005514.htm.

¹⁵ Li Jiayao, ed., “Y-20 heavy transport aircraft conducts first airborne, air delivery training,” *Xinhuanet*, May 8, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-05/08/content_8026284.htm.

6. May 2018: J-20 stealth aircraft conducted their first-ever combat training over the ocean in an unidentified location.¹⁶ See Section 5.
7. May 2018: Su-35 fighter jets flew over into the Western Pacific through the Bashi Channel, which is located just south of Taiwan, in formation with H-6K bombers for the first time, which marked a new breakthrough in island patrol patterns.¹⁷ See Section 5.
8. May 2018: Several H-6K bombers landed at an airport in the South China Sea during a recent exercise, marking the first time Chinese bombers had used an airport in the region.¹⁸ See Section 5.
9. June 2018: An IL-76 participated in the first bilateral joint exercise Skytrain-18 in New Zealand, which focused on humanitarian aid, disaster relief, and maritime search and rescue operations.¹⁹ See Section 7.
10. July 2018: The PLAAF sent H-6K bombers and Y-9 transport aircraft to participate in Russia's *International Army Games (IAG)*.²⁰ This was the first time that these aircraft had gone abroad to take part in military competitions. See Section 7.
11. August 2018: China sent 3,200 troops, including six JH-7 fighter-bombers, to Russia for the *Vostok-2018 (East-2018)* strategic drill, marking the first time a foreign army took part in the Russian military exercise.²¹ See Section 7.
12. November 2018: The J-20 displayed its missiles for the first time at the 2018 Zhuhai Airshow.²² The missiles were kept in the aircraft's missile bays and were only shown when the bay doors were open. See Section 5.
13. July 2019: China and Russia conducted their first joint strategic patrol in Northeast Asia (Sea of Japan and East China Sea), with the Chinese side dispatching two H-6K bombers and the Russian side dispatching two Tu-95 bombers.²³ See Section 5.

¹⁶ Li Jiayao, ed., "China's J-20 stealth jets conduct first over-the-sea combat training," *Xinhuanet*, May 9, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-05/09/content_8027418.htm.

¹⁷ Li Jiayao, ed., "China sends Su-35 fighter jets for island patrol training," *Xinhuanet*, May 11, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-05/11/content_8029377.htm.

¹⁸ Yao Jianing, ed., "Air Force bombers land on island airport for first time," *China Daily*, May 21, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-05/21/content_8037485.htm.

¹⁹ Yao Jianing, ed., "China, New Zealand air forces conduct joint training exercises," *China Daily*, June 12, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-06/12/content_8059033.htm; and Li Jiayao, ed., "Chinese military aircraft arrives in New Zealand for joint exercise," *Xinhuanet*, June 12, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-06/12/content_8058599.htm.

²⁰ Li Jiayao, ed., "PLA air force to send H-6K bombers to Int'l Army Games," *Xinhuanet*, July 12, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-07/12/content_8088139.htm.

²¹ Huang Panyue, ed., "China sends H-6K bombers to Russia for strategic drills," *Global Times*, September 9, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-09/09/content_9614996.htm; and ["Battle of Tsugol, 'East 2018' Strategic Exercise Enters Climax"] (鏖战楚戈尔, "东方-2018"战略演习进入高潮), *China Military Online*, September 14, 2018. Accessed at http://www.mod.gov.cn/action/2018-09/14/content_4824917_2.htm; and Dave Johnson, "VOSTOK 2018: Ten years of Russian strategic exercises and warfare preparation," *NATO Review*, December 20, 2018. Accessed at <https://www.nato.int/docu/review/articles/2018/12/20/vostok-2018-ten-years-of-russian-strategic-exercises-and-warfare-preparation/index.html>.

²² Huang Panyue, ed., "J-20 now capable of aerial refueling," *Global Times*, November 15, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-11/15/content_9345611.htm.

²³ Huang Panyue, ed., "China sends H-6K bombers to Russia for strategic drills," *Global Times*, September 9, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-09/09/content_9614996.htm.

14. August-September 2019: The PLA participated in the sixth annual China-Australia-United States Joint Exercise “Kowari-2019” in Keynes, North Queensland, Australia, which was the first time for the PLAAF’s airborne troops to participate in the exercise.²⁴ See Section 7.
15. October 2019: The WZ-8 high-altitude, high-speed reconnaissance drone, which might be launched from an H-6N bomber, was displayed for the first time at the National Day parade on October 1st.²⁵
16. October 2019: The Gongji-11 (GJ-11) stealth attack drone, capable of attacking strategic targets without being detected, was showcased at the National Day parade, indicating it is in active Chinese military service.²⁶
17. November 2019: PLAAF basic trainer aircraft CJ-6, intermediate trainer jet K-8, and advanced training and light combat aircraft L-15 (JL-10) jointly put on a flight performance for the first time at the Nanchang Flight Convention in Jiangxi Province.²⁷ See Section 4.
18. April 2020: The first batch of female flight instructors assumed their billets at the Harbin Flight Academy.²⁸ See Section 9.
19. May 2020: China’s first batch of homemade airdrop-capable four-wheeled armored vehicles entered service with a PLAAF airborne force’s combined arms brigade in Hubei Province. The article stated that this “will boost the all-terrain mobilization capacity of the People’s Liberation Army (PLA) Air Force and provide paratroopers enhanced firepower, mobility, and protection.”²⁹ According to reporting from *PLA Daily* that was quoted in the article, the airdrop-capable light armored vehicles were developed by state-owned defense conglomerate China North Industries Group Corporation (NORINCO), and can be airdropped from China’s main transport aircraft. Furthermore, they boast a high strategic mobilization capability, accurate firepower, a digital system and good comprehensive protection. Three vehicles can be consecutively airdropped from one cargo aircraft. See Section 5.
20. July 2020: The first batch of pilot cadets who trained with the JL-10 advanced jet trainer graduated from the Shijiazhuang Flight Academy.³⁰ See Section 9.
21. July 2020: The Western Theater Command Air Force (WTCAF) dispatched a Y-9 ambulance aircraft for the air medical evacuation of a sick officer from the plateau area to a major city in northwest China.³¹ This was the first time for the Y-9 ambulance aircraft to

²⁴ Xu Yi, ed., “China-Australia-US Joint Exercise “KOWARI 2019” held,” *China Military Online*, September 5, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-09/05/content_9611995.htm.

²⁵ Huang Panyue, ed., “Illustrations showing ballistic missile on H-6N bomber not real: insider,” *Global Times*, November 8, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-11/08/content_9671445.htm.

²⁶ Dong Zhaohui, ed., “Chinese military commissions GJ-11 stealth attack drone,” *Global Times*, October 1, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/01/content_9641923.htm.

²⁷ Huang Panyue, ed., “Chinese Air Force intensifies jet training for pilots,” *Global Times*, March 9, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-03/09/content_9763199.htm.

²⁸ Chen Lufan, ed., “PLA Air Force’s first batch of female flight instructors take cadets to sky,” *China Military Online*, April 7, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-04/07/content_9786495.htm.

²⁹ Huang Panyue, ed., “First homemade airdrop-capable wheeled armored vehicle enters military service,” *Global Times*, May 11, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-05/11/content_9810768.htm.

³⁰ Wang Xinjuan, ed., “First batch of Air Force pilot cadets flying JL-10 jet trainers graduate,” *China Military Online*, July 20, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-07/20/content_9857204.htm.

³¹ Li Wei, ed., “PLAAF sends Y-9 ambulance aircraft for first medical evacuation mission,” July 20, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-07/20/content_9857199.htm.

- carry out such a mission since its full operational commissioning in 2017.³² See Section 5.
22. February 2020: Six Y-20 transports airlifted medical supplies to Wuhan, marking the Y-20's first debut in MOOTW.³³ See Section 5.
 23. April 2020: A Y-20 flew to Pakistan to send nucleic acid testing kits, protective suits, and other medical supplies for epidemic prevention and control as well as a military anti-epidemic expert team, marking the first time that a Y-20 had flown abroad.³⁴ See Section 5.
 24. August 2020: A Y-20 flew from the Shenyang Taoxian International Airport to Russia with a flight of over 7,600 km, carrying a total of 57 soldiers from the PLA Northern Theater Command (NTC) to participate in the *IAG 2020*.³⁵ See Section 7.
 25. August 2020: In August 2020, PLAAF airborne troops went to Russia to participate in the Airborne Platoon contest of the *IAG 2020* and used Russian infantry fighting vehicles for the first time.³⁶ See Section 7.
 26. January 2022: In 2021, the PLAAF assigned J-10 fighters to the Shijiazhuang Flight Academy, which was the first time that the fighter was assigned to any flight academies.³⁷ The first class of cadets conducted their first solo flights in the aircraft in early 2022. See Sections 5 and 9.
 27. August 2022: A YY-20 aerial tanker participated in the Changchun Open-house Event and Airshow, which was the first opportunity for the public to get a close look at the YY-20 since it was declassified at the end of July 2022.³⁸ See Sections 5 and 7.
 28. August 2022: The PLAAF dispatched Y-20 transport aircraft to multiple locations for the first time on July 31 to carry newly-admitted pilot cadets to the Air Force Aviation University (AUAF) for registration, in an effort to boost their sense of honor and professional pride.³⁹ See Section 9.
 29. September 2022: A Y-20 participated in the Austria Airpower 22 Airshow, which was the first time a Y-20 aircraft flew to Europe for an airshow.⁴⁰ See Sections 4 and 5.
 30. May 2023: The PLAAF's August 1st aerobatics team has been equipped with J-10C fighter jets and will fly them at an international maritime and aerospace exhibition in Malaysia at

³² The Y-9 entered PLAAF service in 2012, with full operating capability being announced in December 2017. See "Shaanxi Y-9," *Wikipedia*. Accessed at https://en.wikipedia.org/wiki/Shaanxi_Y-9.

³³ Chen Zhuo, ed., "For first time, Y-20 aircraft uses civil airport to conduct cross-border delivery mission," *China Military Online*, August 13, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-08/13/content_9881261.htm.

³⁴ *Ibid.*

³⁵ *Ibid.*

³⁶ Li Wei, ed., "PLA Air Force progresses on road to become world-class," *China Military Online*, November 11, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-11/11/content_9934462.htm.

³⁷ Wang Xinjuan, ed., "PLAAF flying college introduces J-10 fighters in flight training program of pilot cadets," *China Military Online*, June 1, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-01/06/content_10121211.htm.

³⁸ Wang Xinjuan, ed., "New PLA refueling aircraft to feature at Changchun public event," *China Daily*, August 26, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-08/26/content_10180641.htm.

³⁹ Lin Congyi, ed., "Air Force Y-20 aircraft sends newly-enrolled pilot cadets to universities," *China Military Online*, August 3, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-08/03/content_10175525.htm.

⁴⁰ Lin Congyi, ed., "China's Y-20 transport aircraft draws attention at Airpower 2022 in Austria," *China Military Online*, September 5, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-09/05/content_10182919.htm.

the 16th Langkawi International Maritime and Aerospace Exhibition, scheduled from May 23 to 27, which will be the team's first performance abroad since the equipment change.⁴¹

31. July 2023: J-20, J-16 and Y-20 took center stage in the skies as the 26th Changchun Airshow kicked off Wednesday in Changchun City, northeast China. The Y-20 made its debut alongside a formation of four J-20 fighter jets. It was also the first time the Y-20 conducted aerial refueling simultaneously with the J-20 and J-16 aircraft.⁴²

4. Airshows and Open-house Events

This section provides information about six airshows, conferences, and open-house events, in which the PLAAF has introduced new aircraft and capabilities, and featured performances from flight demonstration teams. The six events highlighted within China Military Online were the Zhuhai Airshow, Military Flight Training Conference, Changchun Open-house Event and Airshow, Lhasa Open-house Event, Nanchang Flight Convention, and Austria's Airpower 2022 Airshow. This section also includes China Military Online's coverage of the PLAAF's Bayi (August 1) Aerobatics Team, which regularly performs at China's airshows.

4.1 Zhuhai Airshow

Since 1996, China has held 14 China International Aviation and Aerospace Exhibitions, also known as the Zhuhai Airshow, in Zhuhai, Guangdong Province. The airshow is typically held on even numbered years, but the 2020 airshow was delayed until 2021 due to COVID restrictions.⁴³ In many ways, Zhuhai is the most public element of the PLAAF's military diplomacy efforts; the airshow is open to the public and is extensively covered by Chinese and foreign media. It typically attracts visitors and delegations from many different countries.

The PLAAF has been actively involved in all of Zhuhai Airshows in various ways. Most importantly, it has demonstrated some of its newest combat aircraft both on the ground and in the air at the airshows. In addition, the Bayi Flight Demonstration (Aerobatics) Team has flown in several of the airshows, starting in 1998, and including 2018, 2021, and 2022.⁴⁴ The "Bayi" team also performed at the 10th Zhuhai Airshow in November 2014, along with the Russian "Knights" aerobatic demonstration team.⁴⁵ Finally, the Air Force Aviation University's Red Eagle Aerobatic Team,

⁴¹ Li Jiayao, ed., "PLA aerobatics team to fly J-10C fighter jets at Malaysia Air Show," *China Military Online*, May 16, 2023. Accessed at http://eng.chinamil.com.cn/ARMEDFORCES/AirForce/News_209159/16224643.html.

⁴² Chen Zhuo, ed., "J-20 and J-16 amaze audience at Changchun Airshow alongside the Y-20," *China Military Online*, July 26, 2023. Accessed at http://eng.chinamil.com.cn/ARMEDFORCES/AirForce/News_209159/16240083.html.

⁴³ "China International Aviation & Aerospace Exhibition," *Wikipedia*. Accessed at https://en.wikipedia.org/wiki/China_International_Aviation_%26_Aerospace_Exhibition.

⁴⁴ Huang Panyue, ed., "Airshow China 2018 Closed in Zhuhai" *China Military Online*, November 12, 2018. Accessed at http://english.chinamil.com.cn/view/2018-11/12/content_9342180.htm; and Huang Panyue, ed., "Bayi Aerobatics Team performs aerobatic stunts in Airshow China 2021," *China Military Online*, October 8, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-10/08/content_10096866.htm; and Li Wei, ed., "PLA Air Force unveils equipment lineup at Airshow China 2022," *China Military Online*, November 7, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-11/07/content_10197701.htm.

⁴⁵ Kenneth W. Allen and Cristina L. Garafola, *70 Years of the PLA Air Force*. China Aerospace Studies Institute, May 2021. Accessed at <https://www.airuniversity.af.edu/CASI/Display/Article/2564684/70-years-of-the-peoples-liberation-army-air-force/>.

which was established in 2011, made its maiden appearance at the 2018 Zhuhai Airshow and also performed in the 2022 airshow.⁴⁶

According to a recap of the 2018 Zhuhai Airshow, “The six-day exhibition has attracted more than 770 exhibitors from 43 countries and regions, with a 10 percent year-on-year growth. Up to 200 military, political and trade delegations from more than 50 countries visited the Airshow. What’s more, the air exhibition has attracted about 150,000 professional visitors and 300,000 amateur visitors, receiving an order of 239 aircraft of all kinds at the fair. The scale of the exhibition has reached a new high, improving not only in quantity but also quality.”⁴⁷ Three years later, at the 2021 Zhuhai Airshow, “about 400 firms from countries including the United States, United Kingdom, Germany, Sweden, Switzerland, Russia, Canada, and Brazil confirmed their participation, including giant multinationals like Boeing, Airbus, Embraer S.A., General Electric Aviation, Rolls Royce Plc., Honeywell, etc.”⁴⁸

In 2018 at the 12th Zhuhai Airshow “more than 30 representative equipment [systems], selected by the PLA Air Force, were displayed at the show, which systematically demonstrated the new achievements of the Chinese Air Force. China unveiled the J-20 stealth fighter jet, as well as [sic] J-10B fighter jet, JH-7 fighter-bomber, Y-20 military transport aircraft, the KJ-500 airborne early warning [and command] aircraft, and GJ-2 UAV.”⁴⁹ At the same show the PLAAF displayed the Y-9 cargo plane and three types of “airdrop-capable four-wheeled vehicles”: one with a fixed turret larger caliber gun, one with an airborne multiple launch rocket system, and one featuring an “airborne 120mm howitzer”.⁵⁰ The *China Military Online* article about the 2018 airshow stated “This year’s AirShow comprehensively demonstrated China’s breakthrough achievements in the fields of aerospace and defense-related science and technology over the 40 years since the reform and opening-up.”

On the eve of the 2022 Zhuhai Airshow, a PLAAF spokesperson stated that “about 50 types of weapons and equipment, including [the] J-20, Y-20, and KJ-500, H-6K, and HQ-9B will be displayed, among which YY-20 [aerial tankers], J-16 and GJ-2 UAV will make their first public flights in the airshow. All of them will show the historical achievements of the PLA Air Force in the past decade of the new era and the phased results of the modernized strategic air force construction.”⁵¹ According to a *China Military Online* article about the airshow, the YY-20 tanker “is China’s new-generation aerial refueling equipment, which has carried out aerial refueling training with multiple types of fighter jets including J-20, J-16 and J-10C for many times, effectively enhancing the [PLAAF’s] capability of long-range maneuverability.”⁵² The article highlighted that “The PLA Air Force’s new combat forces in new domain [sic] will also be displayed. The GJ-2 UAV, which will perform its first flight demonstration, is a medium-to-high-altitude, long-endurance

⁴⁶ Yao Jianing, ed., “Air Force Spokesman: Highlights of Air Show China 2018,” November 5, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-11/05/content_9332399.htm_Li Wei, ed., “PLA Air Force unveils equipment lineup at Airshow China 2022,” *China Military Online*, November 7, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-11/07/content_10197701.htm.

⁴⁷ Huang Panyue, ed., “Airshow China 2018 Closed in Zhuhai” *China Military Online*, November 12, 2018. Accessed at http://english.chinamil.com.cn/view/2018-11/12/content_9342180.htm.

⁴⁸ Huang Panyue, ed., “Air Force’s latest aircraft to be showcased at Airshow China,” *China Military Online*, June 22, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-06/22/content_10051632.htm.

⁴⁹ Huang Panyue, ed., “Airshow China 2018 Closed in Zhuhai” *China Military Online*, November 12, 2018. Accessed at http://english.chinamil.com.cn/view/2018-11/12/content_9342180.htm.

⁵⁰ Huang Panyue, ed., “First homemade airdrop-capable wheeled armored vehicle enters military service,” *Global Times*, May 11, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-05/11/content_9810768.htm.

⁵¹ Li Wei, ed., “PLA Air Force unveils equipment lineup at Airshow China 2022,” *China Military Online*, November 7, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-11/07/content_10197701.htm.

⁵² *Ibid.*

reconnaissance and combat UAV system developed by China. It is an important weapon for border patrol and anti-terrorism operations. Other UAVs including the WZ-7, WZ-8, and WZ-10 will be on static display on the ground.”⁵³

4.2 Military Flight Training Conference⁵⁴

During the 2018 Military Flight Training Conference, whose theme was “talent, innovation, collaboration, and development,” more than 220 military and civilian representatives from 35 countries participated.⁵⁵ *China Military Online*’s article about the conference quoted a PLAAF representative who stated that the PLAAF “has enhanced its ability to fight and win battles and further improved its ability to maintain world peace in the process of carrying out joint training with friendly countries and drawing on the beneficial practices of other countries’ air forces in recent years.” The representative also elaborated on the air force’s training improvements, stating that the PLAAF “has been working on the training of flight elites in recent years. Such challenging training subjects as plateau flight, valley flight, and pelagic flight have become the conventional subjects. Training fields, including international rescue, joint military exercises, and military competitions, have been constantly expanding. Combat aircraft, like fighter jets, transport aircraft, and bombers, have been included in the military colleges for carrying out training. The in-flight spin recovery training, regarded as a death trap, was also resumed on the JL-8 fighter trainers.”⁵⁶ The article concluded with the observations of an unnamed Brigadier General of the Pakistani Air Force, who noted, “[The] Chinese Air Force has been rapidly developing into a modern air force. The Chinese Air Force is reforming its training system and developing itself in accordance with modern standards, and they have been doing very well.”⁵⁷



Figure 1: 2018 Military Flight Training Conference⁵⁸

During the two-day 2022 Military Flight Training Conference, whose theme was also “talent, innovation, collaboration and development,” 28 Chinese and foreign representatives delivered speeches, either onsite or via video link, “concerning exchanging ideas, approaches, and

⁵³ *Ibid.*

⁵⁴ Since 2010, the PLAAF has held a biennial two-day Military Flight Training Conference during the Zhuhai Airshow.

⁵⁵ Huang Panyue, ed., “Military Flight Training Conference 2018 concludes in Zhuhai, China,” *China Military Online*, November 6, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-11/06/content_9334111.htm.

⁵⁶ *Ibid.*

⁵⁷ *Ibid.*

⁵⁸ Huang Panyue, ed., “Military Flight Training Conference 2018 concludes in Zhuhai, China,” *China Military Online*, November 6, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-11/06/content_9334111.htm.

methods of leveraging scientific and technological innovation to foster air force defense construction, training reform, and personnel training”.⁵⁹ According to *China Military Online*’s article about the conference, “Discussions were focused on two topics, ‘Air Force Military Exchanges and Cooperation’ and ‘Talent Training and College Construction’”. PLAAF representatives made keynote speeches on “Military Exchanges and Cooperation of Chinese Air Force”, “Rapid Development of Chinese Air Force Flight Education and Training”, and “Technology Enabling New Command Talent Training”.⁶⁰ The article also noted, “Relevant leaders of the PLA Air Force introduced that in the great cause of strengthening and rejuvenating the Chinese military, the PLA Air Force has always adhered to reform and innovation, openness and cooperation, and is willing to further expand exchanges and strengthen cooperation with air forces of all countries and make greater contributions to promoting the building of a mutually beneficial, win-win, safe and harmonious aerospace environment.”⁶¹

4.3 Changchun Open-house Event and Airshow

*In 2011, the PLAAF began hosting a grand open-house event, which includes an airshow, in Changchun, Jilin Province, to celebrate the anniversary of the PLAAF’s founding on 11 November 1949. The PLAAF has held the annual event in September, October, or November each year except for 2020 and 2021 due to COVID.*⁶² According to a 2019 *China Military Online* article about the event, “The venue of these events is permanently set in Changchun, which is a city historically significant to the PLAAF. In March 1946, the first flight school of the CCP’s armed forces was set up in Jilin province’s Tonghua, which was later moved to Changchun.”⁶³ The school is regarded as the cradle of the Chinese Air Force.”⁶⁴

In 2019, the Changchun Airshow included aerial demonstrations by the Bayi Aerobatics Team and the AUAF’s Red Eagle Aerobatic Team, and “featured the flight performance of 35 aircraft in 10 types in active service with the Air Force, such as the J-20 fighter jet and JL-10 advanced trainer jet. Some 46 different types [of weapons and equipment] out of a total of 71 ground weapons also went on display.”⁶⁵ These included “the J-10B fighter jet, JH-7 fighter bomber, H-6K bomber, GJ-

⁵⁹ Li Weichao, ed., “International Military Flight Training Conference 2022 kicks off in Zhuhai, China,” *China Military Online*, November 11, 2022. Accessed at http://eng.mod.gov.cn/news/2022-11/07/content_4925376.htm.

⁶⁰ *Ibid.*

⁶¹ *Ibid.*

⁶² Chen Zhuo, ed., “Highlights of J-20’s performance at Changchun Air Show,” *China Military Online*, September 5, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-09/05/content_10182874.htm; and Huang Panyue, ed., “Chinese Air Force’s strategic projection capability proven in epidemic,” *Global Times*, February 18, 2022. Accessed at http://eng.chinamil.com.cn/view/2020-02/18/content_9744789.htm; and Huang Panyue, ed., “Reaching for the skies,” *China Daily*, October 10, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/28/content_9662496.htm.

⁶³ The PLAAF’s first flight school is identified as the Northeast Old Aviation School. It was later renamed as the Air Force Changchun Flight College and the 7th Flight College. These institutions were merged into the Air Force Aviation University (AUAF) in 2004. See Kenneth W. Allen and Mingzhi Chen, *The People’s Liberation Army’s 37 Academic Institutions*, China Aerospace Studies Institute, 2020. Accessed at https://www.airuniversity.af.edu/Portals/10/CASI/documents/Research/Other-Topics/2020-06-11%20PLA%20Academic_Institutions.pdf.

⁶⁴ Huang Panyue, ed., “Reaching for the skies,” *China Daily*, October 10, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/28/content_9662496.htm.

⁶⁵ *Ibid.*

2 drone, Z-10K attack helicopter, Y-9 and Y-20 transport planes, KJ-200 and KJ-500 early warning aircraft, and HQ-9B, HQ-22 surface-to-air missiles, and multiple types of early warning radars.”⁶⁶

During aerial demonstrations in 2019, a pair of J-20 stealth fighter jets “showcased two short-range combat missiles, which rotated out from their side missile bays, where they were usually stored to maintain the aircraft’s stealth capability. This is only the second time the J-20 showcased its missiles. The first was at the 2018 edition of [the Zhuhai Airshow].”⁶⁷ Other performances featured J-11 fighter jets, J-10 fighter jets, [JL-10] training aircraft,⁶⁸ and parachute drops.⁶⁹



Figure 2: A Flight Demonstration of the Y-20 at the 2019 Changchun Airshow⁷⁰

At the 26th Changchun Airshow in July 2023, “One [of the event’s highlights] is to demonstrate the development achievements of the PLAAF. In addition to a number of representative equipment such as J-20, J-16, YY-20, Z-20, and reconnaissance drone-10 (UAV), the aviation open day activities will include performance subjects such as simulated air combat, refueling formation flight, and airborne assault. The [PLAAF] spokesperson pointed out that such arrangements can reflect the overall improvement of the PLAAF’s combat capability and show the phased results of its transformation.”⁷¹ During the event’s aerial demonstrations, “The Y-20 made its debut alongside a formation of four J-20 fighter jets. It was also the first time the Y-20 conducted aerial refueling simultaneously with the J-20 and J-16 aircraft.”⁷²

The Changchun Airshow also showcased “the characteristic culture of the PLAAF. During the event, the Bayi, Red Eagle and Sky Wing aerobatic teams will perform in the blue sky, and the Bayi and Blue Eagle parachute teams will take the stage again. Among them, the Bayi aerobatic team will make its first public appearance in China after being refitted with the J-10C fighter jet. New flight performances added for the first time this year will include JL-9 aircraft stand-alone

⁶⁶ Dong Zhaohui, ed., “J-20 jets showcase missiles,” *Global Times*, October 18, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/18/content_9655315.htm.

⁶⁷ *Ibid.*

⁶⁸ These were assigned to the Bayi Flight Demonstration (Aerobatics) Team.

⁶⁹ *Ibid.*; and Huang Panyue, ed., “PLA Air Force to host aviation open day activities in Changchun,” *China Military Online*, August 29, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-08/29/content_9266704.htm.

⁷⁰ Huang Panyue, ed., “Reaching for the skies,” *China Daily*, October 10, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/28/content_9662496.htm.

⁷¹ Lin Congyi, ed., “Highlights to expect in PLA Air Force3’s aviation open-day activity,” *China Military Online*, July 24, 2023. Accessed at http://eng.chinamil.com.cn/ARMEDFORCES/AirForce/News_209159/16240110.html.

⁷² Chen Zhuo, ed., “J-20 and J-16 amaze audience at Changchun Airshow alongside Y-20,” *China Military Online*, July 26, 2023. Accessed at http://eng.chinamil.com.cn/ARMEDFORCES/AirForce/News_209159/16240083.html.

performance display, simulated dual-aircraft air combat performance, J-16 dual-aircraft maneuver flight, YY-20 and J-20 four-aircraft escort formation low-altitude pass, and J-20 dual-aircraft or four-aircraft formation maneuver flight.”⁷³

4.4 Lhasa Open Day Event

On July 29, 2020, the PLAAF held its third open day activities in Lhasa, Tibet Autonomous Region, which attracted “thousands of local people from all ethnic groups to take a tour.”⁷⁴ According to the *China Military Online* article about the event, “On the open day, after performances of guard boxing and bayonet charge exercise, multi-type military aircraft soared into the sky successively, carrying out a number of tactical training courses, such as low pass, high-speed rolling, and release of jamming bombs.”⁷⁵ One of the participating pilots, a squadron leader assigned to an aviation brigade under the PLA Western Theater Command, said their flight performance subjects at the open day event “are the same as their routine training.”⁷⁶

4.5 Nanchang Flight Convention

On November 2, 2019, three flight academy trainers, including the CJ-6 basic trainer, intermediate trainer jet K-8, and advanced training and light combat aircraft JL-10 (aka the L-15) “jointly put on a flight performance for the first time at Nanchang [Jiangxi Province] Flight Convention.”⁷⁷

4.6 Austria’s Airpower 2022 Airshow

In September 2022, a Y-20 “came under the spotlight at the two-day Airpower 2022 in Austria, the largest airshow in Europe.”⁷⁸ The Y-20 “set off from an airport in central China and arrived in Zeltweg on the same day, with a one-way distance of nearly 10,000 kilometers.” According to the article, it was “the first time for the Y-20 aircraft to head toward Europe to participate in an international airshow.”

4.7 Bayi Aerobatics Team

A 2019 *China Military Online* article about the Bayi Aerobatics Team stated that it was founded in 1962 as the Chinese military’s first air display team and was named after the PLA’s founding date, August 1. Since it was established, “The elite unit has performed more than 660 aerobatic shows at home and abroad.”⁷⁹

In October 2019, the PLAAF’s Bayi (August 1) Aerobatics Team performed during an airshow at Changchun celebrating the 70th anniversary of the PLAAF.⁸⁰ According to *China Military Online*’s coverage of the event, “The team performed 22 sets of solo and formation display maneuvers each day during the five-day open house.” A PLAAF spokesman noted that the Bayi team “is not only a display group but also a combat-ready unit. Their flight maneuvers are connected with their

⁷³ *Ibid.*

⁷⁴ Li Jiayao, ed., “PLA Air Force holds open day activities in Lhasa,” *China Military Online*, July 29, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-07/29/content_9868538.htm.

⁷⁵ *Ibid.*

⁷⁶ *Ibid.*

⁷⁷ Huang Panyue, ed., “Chinese Air Force intensifies jet training for pilots,” *Global Times*, March 9, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-03/09/content_9763199.htm.

⁷⁸ Lin Congyi, ed., “China’s Y-20 transport aircraft draws attention at Airpower 2022 in Austria,” *China Military Online*, September 5, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-09/05/content_10182919.htm.

⁷⁹ Huang Panyue, ed., “Bayi aerobatic group has world-class aspirations,” *China Daily*, October 21, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/21/content_9657444.htm.

⁸⁰ The Bayi aerobatics team has been flying the J-10 fighter since switching from the J-7 in 2009.

combat tasks and are close to fighting tactics. In addition to display drills, they also train to fly above complex terrains, such as mountain valleys, and they train at night to strengthen their combat skills.”⁸¹

The 2019 article also noted that the demonstration team is striving to become a world-class air display group as it keeps learning from those that preceded it, and in particular as it draws lessons from overseas aerobatics teams. The Bayi team’s chief of staff told reporters, “Through these overseas missions, we have witnessed the air force become stronger, and we also got the chance to expand our horizons and develop new ideas. Attending foreign air shows enables the team to understand the gaps between us and top-tier aerobatic teams in the world and to contemplate how we can catch up. We encourage innovation and creative ideas from our members. We work out two to three new aerobatic maneuvers each year.”⁸²



Figure 3: The Bayi (August 1) Aerobatics Team Performing at the Changchun Airshow in 2019⁸³

The following bullets highlight the foreign airshows at which the Bayi team has performed:⁸⁴

- The first foreign performance was at the 2013 Moscow Air Show (MAKS), which included seven J-10s and two IL-76 support aircraft.
- Its third show was in March 2015, at the Langkawi International Maritime and Aerospace Exhibition in Malaysia. After performing in the air show, the Bayi Aerobatics Team flew back through Thailand and participated in a military exchange program.⁸⁵
- In November 2015, following the *Falcon Strike* exercise, the team performed in Thailand at the invitation of the Royal Thai Air Force at the Korat Royal Thai Air Force Base.⁸⁶
- In November 2017, the team performed for the first time in the United Arab Emirates at the 15th Dubai Airshow.⁸⁷ On the way home from Dubai, the team performed in Quetta, the

⁸¹ *Ibid.*

⁸² *Ibid.*

⁸³ Huang Panyue, ed., “Bayi aerobatic group has world-class aspirations,” *China Daily*, October 21, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/21/content_9657444.htm.

⁸⁴ Allen and Garafola, *70 Years of the PLA Air Force*.

⁸⁵ Cristina L. Garafola and Timothy R. Heath, *China’s First Steps toward becoming an Expeditionary Air Force*, RAND, 2017. Accessed at https://www.rand.org/pubs/research_reports/RR2056.html.

⁸⁶ Yao Jianing, “Chinese Bayi Aerobatic Team Makes Debut in Thailand,” *China Military Online*, November 27, 2015. Accessed at http://english.chinamil.com.cn/news-channels/china-military-news/2015-11/27/content_6789790.htm.

⁸⁷ Li Jiayao, “Four Spotlights in Dubai Airshow,” *China Military Online*, November 14, 2017. Accessed at http://english.chinamil.com.cn/view/2017-11/14/content_7825193.htm.

capital city of Pakistan's Balochistan Province, which was the first time it had performed at high altitude.⁸⁸

- In August 2018, it performed for the second time in Moscow at the Army 2018 International Military and Technical Forum.
- In March 2019, the Bayi Aerobatics Team visited Pakistan and flew during Pakistan's National Day.⁸⁹
- From 5 to 18 February 2020, nine aircraft and 100 personnel assigned to the Bayi Aerobatics Team visited Singapore to participate in the Singapore Airshow.⁹⁰

5. Aircraft Variants and UAVs

This section provides a snapshot review of China Military Online articles in which 13 different PLAAF aircraft variants were identified and described, offering some insight into their roles and capabilities. The following subsections include the number of articles about each variant, as well as a citation (where applicable) with brief information about the variant, concerning where the aircraft is produced and its North Atlantic Treaty Organization (NATO) designation.

In the order in which they appear, the 13 aircraft discussed in this section are:

1. J-10
2. J-11B
3. J-16
4. J-20
5. Su-30
6. Su-35
7. JL-10
8. K-8
9. H-6
10. H-20
11. Y-9
12. Y-20
13. YY-20

In addition, this section also highlights instances in which China Military Online has covered the PLAAF's UAVs.

⁸⁸ Li Jiayao, "Bayi Aerobatics Team Performs at High Altitude for First time," *China Military Online*, November 21, 2017. Accessed at http://english.chinamil.com.cn/view/2017-11/21/content_7835530.htm.

⁸⁹ Chen Zhuo, "Chinese Fighter Jets Arrive in Pakistan for Its National Day Parade," *Global Times*, March 17, 2019. Accessed at http://english.chinamil.com.cn/view/2019-03/17/content_9451597.htm.

⁹⁰ Li Jiayao, "Chinese Air Force's Aerobatics Team to perform at Singapore Airshow," *China Military Online*, February 5, 2020. Accessed at http://english.chinamil.com.cn/view/2020-02/05/content_9733702.htm.

PLAAF aircraft are identified by their generation; however, the third- and fourth-generation aircraft in Chinese standards are roughly equivalent to fourth- and fifth-generation in international standards.⁹¹ The PLAAF's aircraft and their generations are shown below:

- Third-generation:⁹² J-10, J-11, J-16, Su-35 fighters, JL-10 trainer (aka L-15 export model)
- Fourth-generation:⁹³ J-20 fighter, Y-20 transport, YY-20 aerial tanker, and H-20 bomber.

5.1 J-10 (31 articles)⁹⁴

The PLAAF has multiple units with J-10 variants, including (since 2009) the Bayi Aerobatics Team.⁹⁵ In October 2021, the PLAAF's Shijiazhuang Flight Academy added the J-10 to its training aircraft.⁹⁶ This is significant because previous cadets only flew trainer aircraft and did not fly the operational aircraft until after they were assigned to their operational unit.

The PLAAF has deployed J-10As and J-10Bs to participate in Russia's IAG-2018 and IAG-2021 military competitions, respectively.⁹⁷

According to *China Military Online*, the J-10C made its debut when the PLA marked its 90th anniversary in July 2017 at the Zhurihe military training base in Inner Mongolia Autonomous Region, and J-10C fighters "have been involved in actual combat training and played [sic] great role in two combat maneuvers - "Red Sword 2016" and "Red Sword 2017".⁹⁸

The PLAAF deployed its first J-10Cs to an operational unit in April 2018. At that time, *China Military Online* ran two articles introducing the new variant.⁹⁹ Both articles cited a PLAAF statement marking the occasion. According to the PLAAF's statement, "Equipped with an advanced avionics system and various airborne weapons, the domestically-developed fighter has airstrike

⁹¹ Huang Panyue, ed., "Chinese Air Force intensifies jet training for pilots," *Global Times*, March 9, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-03/09/content_9763199.htm.

⁹² *Ibid.*; and Huang Panyue, ed., "Su-35, J-20 fighter jets help maintain China's airspace safety," *China Military Online*, February 12, 2018; Accessed at http://eng.chinamil.com.cn/view/2018-02/12/content_7942685.htm; and Wang Xinjuan, ed., "First batch of Air Force pilot cadets flying JL-10 jet trainers graduate," *China Military Online*, July 20, 2020; Accessed at http://eng.chinamil.com.cn/view/2020-07/20/content_9857204.htm.

⁹³ Huang Panyue, ed., "PLA Air Force plans expansion into space to modernize capability," *China Daily*, November 13, 2018, http://eng.chinamil.com.cn/view/2018-11/13/content_9342733.htm; and Huang Panyue, ed., "New PLA Air Force bomber set to be 'best in world'," *China Daily*, July 22, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-07/22/content_10065329.htm.

⁹⁴ The J-10, identified as the Vigorous Dragon in China and as the Firebird by NATO, is produced at the Chengdu Aircraft Corporation in Chengdu, Sichuan Province, See https://en.wikipedia.org/wiki/Chengdu_J-10; and https://en.wikipedia.org/wiki/List_of_AFIC_reporting_names_for_fighter_aircraft.

⁹⁵ Huang Panyue, ed., "Bayi Aerobatics Team performs aerobatic stunts in Airshow China 2021," *China Military Online*, October 8, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-10/08/content_10096866.htm; and "August 1st (acrobatic team)," *Wikipedia*. Accessed at [https://en.wikipedia.org/wiki/August_1st_\(acrobatic_team\)](https://en.wikipedia.org/wiki/August_1st_(acrobatic_team)).

⁹⁶ Wang Xinjuan, ed., "PLAAF flying college introduces J-10 fighters in flight training program of pilot cadets," *China Military Online*, January 6, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-01/06/content_10121211.htm.

⁹⁷ Li Jiayao, ed., "PLA air force to send H-6K bombers to Int'l Army Games," *Xinhuanet*, July 12, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-07/12/content_8088139.htm; and Wang Xinjuan, ed., "China's military aircraft to debut in International Army Games 2021," *Xinhuanet*, August 13, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-08/13/content_10075693.htm.

⁹⁸ Yao Jianing, ed., "China's fighter jet J-10C begins combat duty," *China Daily*, April 17, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-04/17/content_8006517.htm; and Yao Jianing, ed., "PLA Air Force activates J-10C fighter jet," *Global Times*, April 16, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-04/16/content_8005514.htm.

⁹⁹ *Ibid.*

capabilities within medium and close range and is capable of precisely striking land and maritime targets.”¹⁰⁰ *China Military Online* also summarized analysis about the plane from other media sources, noting that, “Taiwan’s [Central News Agency] reported in November 2016 that the J-10C is more streamlined than the J-10B to reduce drag. Moreover, Hong Kong military analyst Leung Kwok-leung says that the J-10C has stealth capabilities entirely different from existing stealth warplanes. [Leung’s] report says that because [sic] the J-10C absorbs radar waves into its fuselage, thus weakening its signals, so that the radar waves will not bounce back to the radar. This is a brand new stealth technology.”¹⁰¹

In early 2023, the PLAAF’s Bayi aerobatics team was equipped with J-10C fighter jets and flew them at an international maritime and aerospace exhibition in Malaysia at the 16th Langkawi International Maritime and Aerospace Exhibition, scheduled from May 23 to 27, which was the team’s first performance abroad since the equipment change.¹⁰²

In March 2023, the PLAAF celebrated the 25th anniversary of the J-10’s maiden flight.¹⁰³

5.2 J-11B (18 articles)¹⁰⁴

*The most notable China Military Online article about the J-11B was published in November 2019, spurred by the appearance of a new variant of the jet on Chinese television.*¹⁰⁵ *As it has done on other occasions, China Military Online featured commentary and speculation about the plane from military experts to describe its possible capabilities and role, rather than any official statements from the PLAAF.*

According to the article, “China reportedly developed a new variant of the J-11B fighter jet with new radar that can see farther and enable long-range missile use, a move that will significantly boost the PLAAF’s capability.” The basis for the speculation was a China Central Television (CCTV) report on the upcoming 70th founding anniversary of the PLAAF, which at one point included a shot of the mystery J-11B. According to one expert, “Unlike other J-11Bs that serve in the PLA Air Force, which have black radar domes (radome), this particular J-11B has a white one, suggesting it is equipped with a new type of radar.”¹⁰⁶

¹⁰⁰ Yao Jianing, ed., “China’s fighter jet J-10C begins combat duty,” *China Daily*, April 17, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-04/17/content_8006517.htm.

¹⁰¹ Yao Jianing, ed., “PLA Air Force activates J-10C fighter jet,” *Global Times*, April 16, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-04/16/content_8005514.htm.

¹⁰² Li Jiayao, ed., “PLA aerobatics team to fly J-10C fighter jets at Malaysia Air Show,” *China Military Online*, May 16, 2023. Accessed at http://eng.chinamil.com.cn/ARMEDFORCES/AirForce/News_209159/16224643.html.

¹⁰³ Chen Zhuo and Li Weichao, “25th Anniversary of J-10’s Maiden Flight,” *China Military Online*, March 23, 2023. Accessed at http://eng.chinamil.com.cn/ARMEDFORCES/AirForce/News_209159/16211604.html.

¹⁰⁴ The J-11, identified as the Flaming Dragon in China and as the Flanker-B by NATO, is produced at the Shenyang Aircraft Corporation in Shenyang, Liaoning Province. See “Shenyang J-11,” *Wikipedia*. Accessed at https://en.wikipedia.org/wiki/Shenyang_J-11; and “List of NATO reporting names for fighter aircraft,” *Wikipedia*. Accessed at https://en.wikipedia.org/wiki/List_of_AFIC_reporting_names_for_fighter_aircraft.

¹⁰⁵ Huang Panyue, ed., “Chinese fighter jet gets long-range radar: reports,” *Global Times*, November 6, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-11/06/content_9669648.htm.

¹⁰⁶ *Ibid.*



Figure 4: A Screenshot of a J-11B Fighter Jet with a White Radar Dome¹⁰⁷

An expert quoted in the article observed, “The new radar is likely an active electronically scanned array (AESA) radar, which has longer detection capabilities, can better identify targets and enable the use of long-range air-to-air weapons. This will also allow the J-11B to conduct a wider variety of missions, including reconnaissance over sky, sea, and land.” The same expert also noted “that the Su-27, from which the J-11B was developed, uses mechanically scanned radar that has low detection distance and scan speed.”¹⁰⁸

Citing unnamed analysts, the article noted that a J-11B was spotted in early 2019 “carrying what seemed to be a powerful PL-15 long-range air-to-air missile. Military observers said back then the advanced missile’s range is longer than the detection range of the fighter’s outdated radar, so the fighter might have to rely on data from other warplanes, like early warning aircraft, to target its enemies. But with the new radar, the J-11B variant could launch a PL-15 at maximum efficiency on its own.”¹⁰⁹

In its conclusion, the article offered a point of analysis from another expert, who stated, “If China’s vast fleet of J-11s can be outfitted with AESA radars, it will significantly boost the PLA Air Force’s overall combat capability.”¹¹⁰

5.3 J-16 (21 articles)¹¹¹

China Military Online articles have identified the J-16 as a fighter,¹¹² warplane,¹¹³ fighter

¹⁰⁷ Huang Panyue, ed., “Chinese fighter jet gets long-range radar: reports,” *Global Times*, November 6, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-11/06/content_9669648.htm.

¹⁰⁸ *Ibid.*

¹⁰⁹ *Ibid.*

¹¹⁰ *Ibid.*

¹¹¹ The J-16 is produced at the Shenyang Aircraft Corporation in Shenyang, Liaoning Province. “Shenyang J-16,” *Wikipedia*. Accessed at https://en.wikipedia.org/wiki/Shenyang_J-16. The NATO designation is Flanker. See “List of NATO reporting names for fighter aircraft,” *Wikipedia*. Accessed at https://en.wikipedia.org/wiki/List_of_AFIC_reporting_names_for_fighter_aircraft.

¹¹² Wang Xinjuan, ed., “China’s military aircraft to debut in International Army Games 2021,” *Xinhuanet*, August 13, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-08/13/content_10075693.htm.

¹¹³ Huang Panyue, ed., “PLA Air Force releases video and commemorative envelopes of J-16 warplane,” *China Military Online*, March 1, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/01/content_7956431.htm.

bomber,¹¹⁴ strike fighter,¹¹⁵ multipurpose fighter,¹¹⁶ and multirole fighter,¹¹⁷ that is a two-seat, dual-engine aircraft with beyond-visual-range air-to-air and air-to-ship strike capabilities.¹¹⁸ One article noted that the J-16 fighter bomber “is considered as a good partner of the J-20 stealth fighter jet. The powerful combination of the two with operational superiority in the air, sea, and land combat will further enhance the PLAAF’s capabilities of air attack and air defense.”¹¹⁹

On February 28, 2018, “the PLAAF published a promotional clip and commemorative envelope for the country’s latest J-16, a two-seat, dual-engine multi-role fighter with beyond-visual-range air-to-air and air-to-ship strike capabilities.”¹²⁰ On March 12, 2018, the PLAAF released a promotional video, looking back on its accomplishments over the previous five years.¹²¹ Named “Soaring into the Spring,” the two-minute video included training scenes of the J-16 fighters. According to a *China Military Online* article about the commemorative activities, the J-16 made its parade debut along with the J-20 stealth fighters in July 2017.¹²²

The PLAAF deployed J-16s to participate in Russia’s *IAG-2021*.¹²³

5.4 J-20 (38 articles)¹²⁴

*The J-20 is typically identified in China Military Online articles as a fourth generation medium- and long-range stealth fighter jet. It made its maiden flight in 2011 and was first shown to the public at the 11th Airshow China in Zhuhai, Guangdong Province, in November 2016. The J-20 was officially commissioned into service in September 2017.*¹²⁵

¹¹⁴ Huang Panyue, ed., “PLA Air Force releases video and commemorative envelopes of J-16 warplane,” *China Military Online*, March 1, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/01/content_7956431.htm.

¹¹⁵ Wang Xinjuan, ed., “New PLA refueling aircraft to feature at Changchun public event,” *China Daily*, August 26, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-08/26/content_10180641.htm.

¹¹⁶ Dong Zhaohui, ed., “J-20 jets showcase missiles,” *Global Times*, October 18, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/18/content_9655315.htm.

¹¹⁷ Li Jiayao, ed., “PLA’s Air Force to host open-house event in Changchun,” *China Daily*, October 16, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/16/content_9652589.htm.

¹¹⁸ Yao Jianing, ed., “Chinese air force releases new promotional video recapping last five years,” *Xinhuanet*, March 13, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/13/content_7969777.htm.

¹¹⁹ Huang Panyue, ed., “PLA Air Force releases video and commemorative envelopes of J-16 warplane,” *China Military Online*, March 1, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/01/content_7956431.htm.

¹²⁰ *Ibid.*

¹²¹ Yao Jianing, ed., “Chinese air force releases new promotional video recapping last five years,” *Xinhuanet*, March 13, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/13/content_7969777.htm.

¹²² Huang Panyue, ed., “PLA Air Force releases video and commemorative envelopes of J-16 warplane,” *China Military Online*, March 1, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/01/content_7956431.htm.

¹²³ Wang Xinjuan, ed., “China’s military aircraft to debut in International Army Games 2021,” *Xinhuanet*, August 13, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-08/13/content_10075693.htm.

¹²⁴ The J-20, identified as the Mighty Dragon in China, is produced at the Chengdu Aircraft Corporation in Chengdu, Sichuan Province. See “Chengdu J-20,” *Wikipedia*. Accessed at https://en.wikipedia.org/wiki/Chengdu_J-20. There is no NATO designation for the aircraft. See “List of NATO reporting names for fighter aircraft,” *Wikipedia*. Accessed at https://en.wikipedia.org/wiki/List_of_AFIC_reporting_names_for_fighter_aircraft.

¹²⁵ Huang Panyue, ed., “Su-35, J-20 fighter jets help maintain China’s airspace safety,” *China Military Online*, February 12, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-02/12/content_7942685.htm; and Huang Panyue, ed., “China air force stages real combat training,” *Xinhuanet*, February 12, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-01/12/content_7905419.htm.

Three J-20s joined the military parade at the Zhurihe Military Training Base in July 2017, then four of the jets performed in an aerobatic show at the November 2018 Zhuhai Airshow.¹²⁶ During the 2018 Zhuhai Airshow, it was revealed that the J-20 was capable of aerial refueling.¹²⁷ According to the article about this revelation, a pixilated photo of the J-20 from CCTV (China Central Television) showed the J-20's fuel-receiving probe popping out from the right side of the cockpit., noting that the jet does so "only when conducting refueling operations to keep its stealth capability."¹²⁸ The article stated that the J-20's fuel-receiving probe was embedded under the fuselage, and only pops up when the fighter conducts an aerial refueling mission. When the refueling is completed, the probe is retracted into the fuselage. At the same airshow, the J-20 displayed its missiles for the first time. The missiles were kept in the aircraft's missile bays and were only shown when the bay doors were open. During the airshow, two J-20 formations, each consisting of two fighters, made a low pass through the airport, after which one of them put on a solo aerobatics performance. They soon left without landing at the airport.¹²⁹

On March 12, 2018, the PLAAF released a promotional video, looking back on its accomplishments over the previous five years.¹³⁰ Named "Soaring into the Spring," the two-minute video clip features scenes from real combat training involving J-20 stealth fighters.

During the 70th Anniversary of the PLA in 2019, five J-20s flew in tight formation over Tiananmen Square, which was the first time five J-20 fighters had been seen in public.¹³¹

The PLAAF commissioned its first operational J-20s into the force in January 2018 in an unidentified unit.¹³² In 2021, J-20s were also assigned to two operational air brigades.¹³³ The first air brigade was only described as a unit with the honorary title "Pioneer Aviation Group in Strengthening the Military," which was involved in the Korean War in the 1950s. The other unit was the "Wanghai Fight Group," described as "a unit with outstanding combat exploits of having shot down 59 enemy aircraft and embracing many combat heroes."¹³⁴

¹²⁶ Li Jiayao, ed., "PLA Air Force showcases signature equipment at Airshow China," *Xinhuanet*, November 8, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-11/08/content_10197921.htm.

¹²⁷ Huang Panyue, ed., "J-20 now capable of aerial refueling," *Global Times*, November 15, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-11/15/content_9345611.htm.

¹²⁸ *Ibid.*

¹²⁹ Yao Jianing, ed., "Air Force Spokesman: Highlights of Airshow China 2018," *China Military Online*, November 5, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-11/05/content_9332399.htm; and Huang Panyue, ed., "J-20 stealth fighters to join Airshow China 2018 in Zhuhai: expert," *Global Times*, October 31, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-10/31/content_9327285.htm.

¹³⁰ Yao Jianing, ed., "Chinese air force releases new promotional video recapping last five years," *Xinhuanet*, March 13, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/13/content_7969777.htm.

¹³¹ Li Jiayao, ed., "PLA Air Force showcases signature equipment at Airshow China," *Xinhuanet*, November 8, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-11/08/content_10197921.htm.

¹³² Huang Panyue, ed., "Su-35, J-20 fighter jets help maintain China's airspace safety," *China Military Online*, February 12, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-02/12/content_7942685.htm; and Zhang Tao, ed., "China's Su-35 fighter jets, J-20 stealth jets to maintain airspace safety," *Xinhuanet*, February 11, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-02/11/content_7942528.htm.

¹³³ Although these units were not identified in *China Military Online* by number or location, these were the former 1st Air Division in Anshan, Liaoning Province, and the 3rd Air Division in Wuhu, Anhui Province, respectively. Starting in 2017, both air division headquarters were abolished and the subordinate regiments became brigades.

¹³⁴ Huang Panyue, ed., "More J-20 fighter jets commissioned to PLA Air Force," *China Military Online*, June 21, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-06/21/content_10050988.htm; and Dong Zhaohui, ed., "Five J-20 stealth fighter jets send hearts soaring in Beijing," *Global Times*, October 1, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/01/content_9641992.htm.

After its commissioning, the J-20 has taken part in air warfare training with J-16, J-10C, and other fighter jets, “boosting the PLAAF’s combat strength”.¹³⁵ In addition, in May 2018, the J-20s began their first-ever combat training over the ocean. Concerning their mission, a June 2018 article stated that the J-20 “is capable of destroying a hostile air defense system”.¹³⁶

5.5 Su-30 (6 articles)¹³⁷

Of note, five of the six articles about the Su-30 on China Military Online were published in 2018; the sixth was published in January 2019. No articles about the Su-30 have appeared on China Military Online since then.

During March 2018, the PLAAF conducted a high-sea training mission in the Western Pacific that included H-6K bombers that were escorted by Su-30 fighters that flew through the Miyako Strait¹³⁸ to verify their long-range operational capabilities.¹³⁹ On September 1, 2018, some Su-30s participated in a flight demonstration during the Changchun Airshow.¹⁴⁰

A January 2019 *China Military Online* article highlighted an unidentified Su-30 air brigade¹⁴¹ that was commanded by Senior Colonel Hao Jingwen. The article stated that the air brigade “has strengthened joint training with other types of military forces, continued to raise its standards and difficulty of training and never stopped studying new tactics in each drill.”¹⁴² Hao observed that “Joint operations will be the major form of warfare on the future battlefield, particularly informationized joint operations, which makes joint training very necessary. For example, after exercising with ground-to-air missile troops, we can figure out ways to avoid interception by low-altitude surface-to-air missiles, but in the meantime they are also able to learn how to confront air

¹³⁵ Li Jiayao, ed., “China’s J-20 stealth jets conduct first over-the-sea combat training,” *Xinhuanet*, May 9, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-05/09/content_8027418.htm.

¹³⁶ Li Jiayao, ed., “China’s fighter jets hold ‘perfect combination’ training,” *Global Times*, June 3, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-06/03/content_8049150.htm.

¹³⁷ The Su-30 is produced in Russia and identified as the Sukhoi-30. The PLAAF received its first batch, identified as the Su-30MKK, in December 2000, followed by the second and third batches in August and December 2001. In July 2001, the PLAAF ordered 38 more. By 2011, about 73 Su-30MKKs were in service with the PLAAF. PLA Naval Aviation signed a contract for 24 modified variants, known as “Su-30MK2”, in 2003, and all the aircraft were delivered in 2004. See “Sukhoi Su-30,” *Wikipedia*. Accessed at https://en.wikipedia.org/wiki/Sukhoi_Su-30#China. The NATO designator is Flanker. See “List of NATO reporting names for fighter aircraft,” *Wikipedia*. Accessed at https://en.wikipedia.org/wiki/List_of_AFIC_reporting_names_for_fighter_aircraft.

¹³⁸ The Miyako Strait, also known as the Kerama Gap, is a waterway which lies between Japan’s Miyako Island and Okinawa Island. The Miyako Strait is “one of the few international routes through which the Chinese military can get access to the Pacific Ocean,” and Chinese air force planes flew over it for the first time in May 2015. See Nectar Gan, “China Dispatches One of Its Largest Air Force Fleets Ever Near Okinawa in Show of Force to Japan,” *South China Morning Post*, September 25, 2016. Accessed at <https://www.scmp.com/news/china/diplomacy-defence/article/2022467/china-dispatches-big-air-force-fleet-near-okinawa-show>.

¹³⁹ Li Jiayao, ed., “Chinese air force conducts high-sea training,” *Xinhuanet*, March 25, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/25/content_7982829.htm; and Huang Panyue, ed., “PLA Air Force tests abilities over water,” *China Daily*, March 26, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/26/content_7983206.htm; and Dong Zhaohui, ed., “H-6K bomber video showcases PLA Air Force capability,” *Global Times*, April 1, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-04/01/content_7989853.htm.

¹⁴⁰ Huang Panyue, ed., “PLA Air Force to host aviation open day activities in Changchun,” *China Military Online*, August 29, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-08/29/content_9266704.htm.

¹⁴¹ Other sources revealed that the unit was upgraded from a regiment in 2017 and was assigned to the Eastern Theater Command Air Force (ETCAF). See Lu Hui, Lin Yuan, and Su Xiao, “Eastern Theater Command Air Force aviation unit commander Hao Jingwen interview,” *China Air Force*, No. 11 (2017), p. 26-27.

¹⁴² Yao Jianing, ed., “Air Force brigade aims to become world-class,” *China Daily*, January 4, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-01/04/content_9396056.htm.

power. It is a two-way learning process that enhances our overall combat capability.” Accordingly, *China Military Online* reported that “Since its establishment in 2017, the brigade has carried out drills with PLA ground forces, Navy destroyers, ground-to-air missile troops and electronic countermeasure forces to explore more tactics with mixed resources.”¹⁴³

During 2017, the brigade was one of the test units for the PLAAF’s revised Outline of Military Training and Evaluation (OMTE) that was implemented in 2018.¹⁴⁴

5.6 Su-35 (7 articles)

Of note, all seven articles about the Su-35 that appeared on China Military Online were published in 2018, with none published on the website since then.

The Su-35 (Sukhoi-35) is produced by Russia’s Komsomolsk-on-Amur Aircraft Production Association.¹⁴⁵ In November 2015, China became the Su-35’s first export customer when the Russian and Chinese governments signed a contract worth \$2 billion to buy 24 aircraft for the PLAAF.¹⁴⁶ The PLAAF received the first four aircraft in December 2016.¹⁴⁷

In February 2018, Su-35s conducted a joint combat patrol mission with J-20s in the South China Sea.¹⁴⁸ This was the first sortie by Su-35s into the South China Sea. According to Wang Mingzhi, who is a professor at PLAAF Command College,

“The Su-35 fighter jet is a typical third-generation enhanced multi-purpose fighter aircraft. It has advantages in long range, combat radius, mobility, situational awareness and information combat capability, and it also has strong air combat and assault capability against ground and maritime targets. It is equipped with advanced mid-range air-to-air missiles and short-range combat missiles and is therefore capable of effectively striking various air targets beyond near-field visual range. The aircraft also has a strong precision strike capability and can launch long-range strikes against ground targets and ships at sea. The deployment of the Su-35 is expected to improve the PLAAF’s adaptive capacity in various complicated situations in the air and on the sea, and enhance China’s ability to maintain national sovereignty and security and maritime interests in the South China Sea.”¹⁴⁹

Concerning the signals that the joint patrols send, Wang also noted that, “The patrol mission involving the Su-35 fighters is an annual training and it also sends three important messages to the outside world: The first is the PLA Air Force’s resolution to implement missions in the new era and firmly maintain national sovereignty and security and maritime interests. The second is that

¹⁴³ *Ibid.*

¹⁴⁴ *Ibid.*

¹⁴⁵ Huang Panyue, ed., “PLA Air Force tests abilities over water,” *China Daily*, March 26, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/26/content_7983206.htm. The NATO designator is Flanker. See “List of NATO reporting names for fighter aircraft,” *Wikipedia*. Accessed at https://en.wikipedia.org/wiki/List_of_AFIC_reporting_names_for_fighter_aircraft.

¹⁴⁶ See “Sukhoi Su-35,” *Wikipedia*. Accessed at https://en.wikipedia.org/wiki/Sukhoi_Su-35.

¹⁴⁷ Li Jiayao, ed., “China sends Su-35 fighter jets for island patrol training,” *Xinhuanet*, May 11, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-05/11/content_8029377.htm.

¹⁴⁸ Huang Panyue, ed., “Su-35, J-20 fighter jets help maintain China’s airspace safety,” *China Military Online*, February 12, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-02/12/content_7942685.htm; and Li Jiayao, ed., “China sends advanced jet fighters to South China Sea for joint combat missions,” *Global Times*, February 2, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-02/07/content_7936489.htm.

¹⁴⁹ Huang Panyue, ed., “Su-35, J-20 fighter jets help maintain China’s airspace safety,” *China Military Online*, February 12, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-02/12/content_7942685.htm.

the PLA Air Force has made new improvements in its capabilities in safeguarding national sovereignty and security and maritime interests. It also shows that the PLA is capable of coping with the complicated situations in the South China Sea. The third is that the PLA Air Force will further enhance its maritime combat capability, especially under long-distance and high-sea conditions.”¹⁵⁰

In March 2018, a group of H-6Ks, Su-35s, and other aircraft conducted a joint combat patrol over the South China Sea, practicing aerial maneuvers and strike tactics at sea.¹⁵¹ Following the February patrol noted above, this was the second time the PLAAF sent its Su-35s to take part in exercises over the South China Sea. In May 2018, the PLAAF conducted patrol training around Taiwan.¹⁵² According to a PLAAF spokesperson, “Su-35 fighter jets flew over the Bashi Channel¹⁵³ in formation with H-6Ks for the first time, which marked a new breakthrough in island patrol patterns.”¹⁵⁴ As reported by *China Military Online*, the aircraft came from the Eastern Theater Command (ETC) and Southern Theater Command (STC) to conduct coordinated actions during the training. “Two groups of H-6K bombers started the training simultaneously from both north and south of Taiwan, with one group flying clockwise and the other going counter-clockwise. KJ-2000 airborne early warning aircraft and Su-35 and J-11 fighter jets flew over the Bashi Channel and Miyako Strait regions to accompany the bombers.”¹⁵⁵ Commenting on the patrol training, a PLAAF spokesperson stated, “The air force has the resolve, the confidence, and the ability to safeguard national sovereignty and territorial integrity.”¹⁵⁶



Figure 5: A Chinese Pilot During an Exercise over the South China Sea¹⁵⁷

¹⁵⁰ *Ibid.*

¹⁵¹ Huang Panyue, ed., “PLA Air Force tests abilities over water,” *China Daily*, March 26, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/26/content_7983206.htm.

¹⁵² Li Jiayao, ed., “China sends Su-35 fighter jets for island patrol training,” *Xinhuanet*, May 11, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-05/11/content_8029377.htm.

¹⁵³ The Bashi Channel is a waterway between Taiwan and the Philippines. See “Bashi Channel,” *Wikipedia*. Accessed at https://en.wikipedia.org/wiki/Bashi_Channel.

¹⁵⁴ *Ibid.*

¹⁵⁵ *Ibid.*

¹⁵⁶ *Ibid.*

¹⁵⁷ Huang Panyue, ed., “PLA Air Force tests abilities over water,” *China Daily*, March 26, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/26/content_7983206.htm.

In December 2018, a *China Military Online* article revealed that the PLAAF's Su-35s had begun to switch from static ground targets to buoy targets at sea.¹⁵⁸ Citing reporting from *PLA Daily*, the article stated that “retired armored vehicles, tanks, artillery, missiles, radars and full-sized model planes were hidden in a field, where the People's Liberation Army (PLA) Northern Theater Command deployed warplanes for live-fire target practice with rockets, missiles and bombs.”¹⁵⁹ This was a change in training, because “in the past, targets were usually painted on the ground, like a huge circle with a crosshair or mound in the middle, which were obvious and easy to aim at.”¹⁶⁰ According to the article, the shift aimed to train pilots in not only destroying, but also in searching for targets. It noted that in actual combat, a target is much different than a crosshair target in terms of the reflection of light and radar wave, making it harder to be spotted, and “troops should not deceive themselves with simple practices that will not help much in combat.”¹⁶¹ The article concluded with an observation from a professor at China's National Defense University, who argued that “the Chinese warplane pilots have already mastered shooting static targets, and that it was time to move on to more challenging ones.”¹⁶²

5.7 JL-10 (L-15) (4 articles)¹⁶³

The JL-10, also known as the JL-10 Falcon and as the L-15 for its export model, is a light-combat trainer designed as an incubator for third- and fourth-generation jet fighter pilots, including fighter jets like the J-10, J-11, J-16, and J-20.¹⁶⁴ It uses “advanced technology, including an advanced aerodynamic design, a fly-by-wire control system, and an open avionics structure. It is equipped with many advanced technologies that other Chinese trainers, like the K-8, do not have.”¹⁶⁵ One expert noted that “When required, the JL-10 can also be equipped with weapons and serve as a ground attack aircraft, so it is not just a trainer.” In addition, “It also has the potential to be developed into a type of aircraft carrier-based training jet.”¹⁶⁶

The JL-10 was first assigned to the Shijiazhuang Flight Academy in 2018, at which time the academy spent six months developing a program to train flight instructors how to teach cadets.¹⁶⁷

JL-10 trainers assigned to the Bayi Aerobatics Team performed flights during the first day of the 2018 and 2019 Changchun Airshow.¹⁶⁸

¹⁵⁸ Huang Panyue, ed., “Pilots use mock targets to simulate real combat,” *Global Times*, December 7, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-12/07/content_9371345.htm.

¹⁵⁹ *Ibid.*

¹⁶⁰ *Ibid.*

¹⁶¹ *Ibid.*

¹⁶² *Ibid.*

¹⁶³ The JL-10 is produced at the Hongdu Aviation Industry Corporation in Nanchang, Jiangxi Province. See “Hongdu_JL-10”, *Wikipedia*. Accessed at https://en.wikipedia.org/wiki/Hongdu_JL-10. The export variant is known as the L-15.

¹⁶⁴ Huang Panyue, ed., “Chinese Air Force intensifies jet training for pilots,” *Global Times*, March 9, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-03/09/content_9763199.htm.

¹⁶⁵ *Ibid.*

¹⁶⁶ *Ibid.*

¹⁶⁷ *Ibid.*

¹⁶⁸ Huang Panyue, ed., “PLA Air Force to host aviation open day activities in Changchun,” *China Military Online*, August 29, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-08/29/content_9266704.htm; and Huang Panyue, ed., “Reaching for the skies,” *China Daily*, October 28, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/28/content_9662496.htm.

On November 2, 2019, three flight academy trainers: the basic trainer aircraft CJ-6, intermediate trainer jet K-8, and advanced training and light combat aircraft JL-10 jointly put on a flight performance for the first time at the Nanchang Flight Convention.¹⁶⁹

In July 2020, the first batch of pilot cadets who trained in the JL-10 all graduated “with excellent performance” from the Shijiazhuang Flight Academy, “and qualified for the requirements of combat troops”.¹⁷⁰ *China Military Online* noted that “On the basis of the PLAAF’s new-generation training outline, the [Shijiazhuang Flight Academy] initiated the training program with JL-10, a new type of advanced jet trainer based on the third-generation fighter jet, in a bid to shorten the training period of pilot cadets and to promote their familiarization with the equipment in combat troops. After one year of training, the cadets completed all the prescribed training subjects and achieved excellent examination results. Compared with their predecessors, their per capita consumption of airborne ammunition doubled under the same flight duration. As such, once they were assigned to the combat troops, they were qualified to carry out actual combat flight training after necessary adaptation training.”¹⁷¹

5.8 K-8 (4 articles)¹⁷²

On November 2, 2019, three flight academy trainers, including the CJ-6 basic trainer, JL-10 light-combat aircraft, and K-8 advanced trainer jointly put on a flight performance for the first time at the Nanchang Flight Convention.¹⁷³

5.9 H-6 (32 articles)¹⁷⁴

On March 12, 2018, the PLAAF released a promotional video, looking back on its accomplishments over the past five years.¹⁷⁵ Named “Soaring into the Spring,” the two-minute video clip includes training scenes of the H-6K bombers.

In early 2018, H-6K bombers and Su-30 fighters carried out a real combat training mission in the West Pacific via the Miyako Strait.¹⁷⁶ H-6K bombers and Su-35s also conducted their first joint combat patrol mission in the South China Sea area in February 2018 and their second mission in March 2018. According to a PLAAF spokesperson, the training in both areas aimed to improve high-sea combat ability, verify their long-range operational capabilities, practice aerial maneuvers

¹⁶⁹ *Ibid.*

¹⁷⁰ Wang Xinjuan, ed., “First batch of Air Force pilot cadets flying JL-10 jet trainers graduate,” *China Military Online*, July 20, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-07/20/content_9857204.htm.

¹⁷¹ *Ibid.*

¹⁷² The K-8 (Karakorum-8) is a single-engine, advanced jet trainer and light attack aircraft designed and manufactured jointly by Hongdu Aviation Industry Corporation (HAIC) of China and Pakistan Aeronautical Complex (PAC). See “K-8 Karakorum Light Attack and Jet Trainer Aircraft,” *Airforce Technology*, 30 July 2021. Accessed at <https://www.airforce-technology.com/projects/hongdu-k8/>.

¹⁷³ Huang Panyue, ed., “Chinese Air Force intensifies jet training for pilots,” *Global Times*, March 9, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-03/09/content_9763199.htm.

¹⁷⁴ The H-6 is produced at the Xi’an Aircraft Industrial Corporation in Xi’an, Shaanxi Province. See “Xian H-6,” Wikipedia. Accessed at https://en.wikipedia.org/wiki/Xian_H-6. The NATO designator for the H-6 is Badger. See “List of NATO reporting names for fighter aircraft,” Wikipedia. Accessed at https://en.wikipedia.org/wiki/List_of_AFIC_reporting_names_for_fighter_aircraft.

¹⁷⁵ Yao Jianing, ed., “Chinese air force releases new promotional video recapping last five years,” *Xinhuanet*, March 13, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/13/content_7969777.htm.

¹⁷⁶ Li Jiayao, ed., “Chinese air force conducts high-sea training,” *Xinhuanet*, March 25, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/25/content_7982829.htm; and Huang Panyue, ed., “PLA Air Force tests abilities over water,” *China Daily*, March 26, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/26/content_7983206.htm.

and strike tactics at sea, and “were in line with international law and practice”.¹⁷⁷ According to a *China Military Online* article about the training, photos released by the PLAAF showed air-launched cruise missiles under the wings of the H-6K bombers participating in the exercises. It described the H-6K as “the PLA’s most advanced bomber” that “is capable of carrying supersonic cruise missiles to make precision strikes against land targets or ships.” It also disclosed that “Foreign military observers said that the bomber has a flight range of about 3,500 kilometers, while its [CJ-10 series of air-launched cruise missiles (ALCM)] has a minimum range of 1,500 km, which means the bomber is able to hit targets at least 5,000 km from its takeoff point.”¹⁷⁸ An expert from the PLA Air Force said that “ocean-bound exercises verify not only the Air Force’s long-distance combat capability, but also its logistics support and electronic warfare abilities.”¹⁷⁹

In early 2018, “a division of the Chinese People’s Liberation Army (PLA) Air Force dispatched 12 H-6K bombers to carry out actual combat military training.”¹⁸⁰ As the *China Military Online* article about the training observed, “Some analysts believe that the deployment of 12 large bombers at the same time is relatively rare even at the international level. Such a force can devastate any large-scale ground air defense system by launching long-range cruise missiles. The Chinese PLA Air Force undoubtedly aims to send a strong signal to the outside world by the news releases.”¹⁸¹ The article about this training cited an unnamed Chinese military expert who theorized that according to the current analysis of the performance of the H-6K bomber, its maximum load is about 15 tons. “If these 12 bombers are fully loaded, they can theoretically dump 180 tons of ammunition in one operation. They can also carry 72 “CJ” cruise missiles for precision strikes.”¹⁸² The article noted that, “Such combat intensity can allocate one or two missiles for each large and mid-sized air defense system of Taiwan. If a precision guided missile is launched outside a large defense area, it can even ‘hit the desk through the window.’”¹⁸³

In April 2018, the PLAAF released a three-minute video showcasing the H-6K bomber’s capabilities.¹⁸⁴ The video noted that, during wartime, the H-6K can drop bombs and launch missiles, and, because of its long flight time, it can fly over the Nansha Islands for reconnaissance, surveillance, and patrols. A military expert stated that the H-6K “can achieve high accuracy when it arrives at the target. The H-6K is capable of releasing a nuclear strike bomb and it would be used in patrolling the East China Sea when facing a threat from countries including the United States and Japan. And the South China Sea would be H-6K’s main stage.”¹⁸⁵

On April 26, 2018, a formation consisting of fighters, early warning and surveillance aircraft, and H-6K bombers took off from various military airfields and flew as a formation over the Miyako Strait and Bashi Channel to complete an island patrol.¹⁸⁶

¹⁷⁷ *Ibid.*

¹⁷⁸ Huang Panyue, ed., “PLA Air Force tests abilities over water,” *China Daily*, March 26, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/26/content_7983206.htm.

¹⁷⁹ *Ibid.*

¹⁸⁰ Notably, the article did not identify where the sorties occurred, which most likely referred to a flight into the Western Pacific, or if all 12 aircraft flew together in a single formation.

¹⁸¹ Yao Jianing, ed., “Show China’s will: PLA Air Force sends 12 H-6K bombers for remote maneuver,” *China Military Online*, March 29, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/29/content_7986473.htm.

¹⁸² *Ibid.*

¹⁸³ *Ibid.*

¹⁸⁴ Dong Zhaohui, ed., “H-6K bomber video showcases PLA Air Force capability,” *Global Times*, April 1, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-04/01/content_7989853.htm.

¹⁸⁵ *Ibid.*

¹⁸⁶ Li Jiayao, ed., “Chinese PLA air force conducts island patrol training,” *China Military Online*, April 26, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-04/26/content_8017085.htm.

In May 2018, the PLAAF landed its H-6K bomber aircraft at an airport in the South China Sea during an exercise, marking the first time Chinese bombers used an airport in the region.¹⁸⁷ Several H-6Ks from an unidentified aviation division, headed by division commander Hao Jianke, took off from an undisclosed air base in South China and made a simulated strike against sea targets before landing on an island in the South China Sea. The aircraft then conducted takeoff drills using the island's airport. The operation provided experience for bomber units to use islands as their bases. According to a researcher quoted in the article, "Takeoff and landing exercises on islands in the South China Sea will help the PLAAF strengthen its combat capability to deal with marine security threats." A second expert also noted that "After the bombers are able to be deployed on islands in the South China Sea, their operational range, as well as China's maritime defense parameters, will be tremendously extended, adding to existing prowess to deter any plots to compromise China's territorial integrity from the sea."¹⁸⁸



Figure 6: An H-6K Bomber During an Exercise¹⁸⁹

In May 2018, the PLAAF conducted patrol training around Taiwan. Su-35 fighter jets flew over the Bashi Channel in formation with H-6Ks for the first time, which "marked a new breakthrough in island patrol patterns."¹⁹⁰ The aircraft came from the ETC and STC to conduct coordinated actions during the training. Two groups of H-6K bombers started the training simultaneously from both north and south of Taiwan, with one group flying clockwise and the other going counter-clockwise. KJ-2000 airborne early warning aircraft and Su-35 and J-11 fighter jets flew over the Bashi Channel and Miyako Strait regions to accompany the bombers.

In July 2018, China Military Online reported that the PLAAF intended to deploy H-6K bombers, J-10A fighters, JH-7A fighter-bombers, IL-76 and Y-9 transport aircrafts, and a team of airborne troops to Russia to participate in the *IAG-2018*. This was to be the first time that H-6K bombers and Y-9 transport aircraft deployed abroad to take part in military competitions.¹⁹¹

¹⁸⁷ Yao Jianing, ed., "Air Force bombers land on island airport for first time," *China Daily*, May 21, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-05/21/content_8037485.htm.

¹⁸⁸ *Ibid.*

¹⁸⁹ Li Jiayao, ed., "China sends Su-35 fighter jets for island patrol training," *Xinhuanet*, May 11, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-05/11/content_8029377.htm.

¹⁹⁰ Li Jiayao, ed., "China sends Su-35 fighter jets for island patrol training," *Xinhuanet*, May 11, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-05/11/content_8029377.htm.

¹⁹¹ Li Jiayao, ed., "PLA air force to send H-6K bombers to Int'l Army Games," *Xinhuanet*, July 12, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-07/12/content_8088139.htm.

In September 2019, PLAAF H-6Ks participated in *Tsentr-2019 (Center-2019)* strategic drills in Russia's Orenburg region – an event that is discussed later in the “Exercises” section of this report.¹⁹²

On October 1, 2019, three of China's latest H-6N bombers flew in formation above Tiananmen Square in Beijing during the National Day parade.¹⁹³ A China Military Online article about the new variant explained that unlike the H-6K, the H-6N can be refueled in the air. According to experts consulted for the article, this capability can give the H-6N a much longer operational range and expanded weapons load, with more powerful missiles compared to the H-6K.¹⁹⁴

An article on November 8, 2019, provided clarification about the H-6N's capabilities in response to speculation from foreign analysts, stating that “recent images in the Chinese magazine *Modern Ships* that show an H-6N bomber carrying an air-launched ballistic missile (ALBM) are not official confirmation of the H-6N's ALBM capability. The images were computer generated, merely conceptual, and have no official background.”¹⁹⁵ The article also noted that foreign reports questioned whether the H-6N “might also be used to launch the WZ-8 high-altitude, high-speed reconnaissance drone” but “neither the Chinese military nor official Chinese media have yet confirmed the H-6N's capabilities.”¹⁹⁶

Concerning H-6K joint strategic patrols with the Russian Air Force (RAF), in July 2019 China and Russia conducted their first joint strategic patrol in Northeast Asia, with the Chinese side dispatching two H-6K bombers and the Russian side dispatching two Tu-95 bombers.¹⁹⁷ On December 22, 2020, China and Russia held their second joint aerial strategic patrol in the Asia-Pacific region. China sent four H-6K bombers to form a joint formation with two Tu-95 bombers from the Russian side to conduct the joint patrol in relevant airspace over the Sea of Japan and the East China Sea. During the flight, the aircraft of the two air forces “strictly observed the relevant provisions of international law and did not enter the airspace of other countries.”¹⁹⁸

On November 19, 2021, the PLAAF and RAF conducted a joint aerial strategic patrol in the Asia-Pacific region.¹⁹⁹ Two PLAAF H-6K bombers and two RAF Tu-95MC bombers conducted the joint patrol in related airspace over the Sea of Japan and the East China Sea. During the flight, the aircrafts of the two air forces “strictly abided by the relevant provisions of international law and did not enter the airspace of other countries.” This was their third joint aerial strategic patrol. Each of the articles noted that the patrols aimed to further develop the China-Russia comprehensive strategic partnership of coordination in the new era, upgrade the level of strategic coordination and joint operational capabilities of the two sides, and jointly protect global strategic stability. The

¹⁹² Huang Panyue, ed., “China sends H-6K bombers to Russia for strategic drills,” *Global Times*, September 9, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-09/09/content_9614996.htm.

¹⁹³ Dong Zhaohui, ed., “China unveils new H-6N bomber with extended range, extra capabilities,” *Global Times*, October 1, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/01/content_9642053.htm.

¹⁹⁴ *Ibid.*

¹⁹⁵ Huang Panyue, ed., “Illustrations (sic) showing ballistic missile on H-6N bomber not real: insider,” *Global Times*, November 8, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-11/08/content_9671445.htm.

¹⁹⁶ *Ibid.*

¹⁹⁷ Huang Panyue, ed., “China sends H-6K bombers to Russia for strategic drills,” *Global Times*, September 9, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-09/09/content_9614996.htm.

¹⁹⁸ Li Jiayao, ed., “China, Russia hold 2nd joint aerial strategic patrol in Asia-Pacific,” *China Military Online*, December 23, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-12/23/content_9957168.htm.

¹⁹⁹ Li Jiayao, ed., “China, Russia hold annual joint aerial strategic patrol,” November 19, 2021. Accessed at http://english.chinamil.com.cn/view/2021-11/19/content_10109351.htm.

article stated that the patrols are “part of the annual military cooperation plan between China and Russia and not targeted at any third party.”²⁰⁰

In March 2023, an H-6Y tanker regiment under the Southern TCAF received an order to conduct an aerial refueling mission for fighter jet formations. Before taking off, a thunderstorm settled in the area, but three HY-6 aerial refueling tankers took off as scheduled. As described in the article, “Braving thunder and lightning, the pilots flew through cumulonimbus clouds, rushed to the temporary refueling airspace, and completed the refueling mission at a height of nearly 10,000 meters.” A video included with this article showed the weather conditions in detail, including thunderstorms.²⁰¹



Figure 7: Screenshot from a *China Military Online* Video About an H-6Y Refueling Mission During a Thunderstorm²⁰²

5.10 H-20 (1 article)²⁰³

One *China Military Online* article in July 2021 noted the development of an H-20 bomber. According to interviews in the article, the next-generation bomber, described as “one of the Chinese military’s most anticipated aircraft,” will be world-class in terms of technology and capability.²⁰⁴ The new bomber, dubbed the H-20, “will be more powerful than the United States’ Northrop Grumman B-2 Spirit, now the mightiest bomber in the world, and will be bigger than the Northrop Grumman B-21 Raider, the next United States long-range, stealth strategic bomber. The world-class design of the new Chinese aircraft, whose official code name has not yet been disclosed, will outshine its peers around the world.”²⁰⁵ According to the article, in May 2018, the China’s leading aircraft maker – Aviation Industry Corp of China (AVIC) – displayed a front view of “what appeared to be a flying-wing aircraft concept” at the end of a promotional video. The clip

²⁰⁰ *Ibid.*

²⁰¹ Chen Zhuo and Li Weichao, eds., “HY-6 tankers take off in the rain,” March 23, 2023. Accessed at http://eng.chinamil.com.cn/ARMEDFORCES/AirForce/News_209159/16211603.html.

²⁰² Chen Zhuo and Li Weichao, eds., “HY-6 tankers take off in the rain,” March 23, 2023. Accessed at http://eng.chinamil.com.cn/ARMEDFORCES/AirForce/News_209159/16211603.html.

²⁰³ NATO has not yet provided a designator for the aircraft.

²⁰⁴ Huang Panyue, ed., “New PLA Air Force bomber set to be ‘best in world’,” *China Daily*, July 22, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-07/22/content_10065329.htm.

²⁰⁵ *Ibid.*

was released to mark the 60th anniversary of the Xi'an Aircraft Industry, an AVIC subsidiary in Shaanxi province that is China's major builder of bombers.²⁰⁶

5.11 Y-9 (15 articles)²⁰⁷

In July 2022, CCTV broadcast a 1 minute and 44 second video of about 10 Y-9s assigned to a Western Theater Command (WTC) Air Force unit conducting what it called an “elephant walk” along the runway before they all took off together one at a time to conduct an airdrop exercise.²⁰⁸ According to the video, the aircraft, which are identified as mid-size cargo aircraft, have various missions, including cargo delivery, airdrop and airborne landing, and transporting the wounded. For this specific airdrop exercise, they conducted their mission “without ground guidance, meteorological information, or target range sign.”²⁰⁹

The Y-9 has been used several times for medical-related issues. For example, in March 2018, the WTC sent a Y-9 transport aircraft to Lhasa, Tibet, and successfully transferred an officer in critical condition suffering from adenovirus pneumonia to Chengdu, Sichuan Province. The *China Military Online* article stated that this was the first time that the PLA used a Y-9 for air medical rescue.²¹⁰

In July 2020, the WTCAF dispatched a Y-9 ambulance aircraft for the air medical evacuation of a sick officer from “the plateau area” to Xi'an, Shaanxi Province, which is 5,200 kilometers away and a 4.5-hour flight.²¹¹ The article stated that the July 2020 flight was the first time for the “Y-9 ambulance aircraft” to carry out such a mission since its commissioning.²¹² It stated that the officer was injured during training and got worse during the treatment in a local hospital. The Y-9 ambulance aircraft was “fitted with advanced medical equipment,” and “has the capabilities of air evacuation and in-flight ambulance service.” Furthermore, “For this mission, the accompanying medical team members covered a variety of departments such as critical care medicine, anesthesia, orthopedics, and surgery, who could provide life-sustaining treatment for the injured during the evacuation process.” According to the article, after arriving at the plateau airport, the medical team completed the transfer of the patient in just 10 minutes. And the onboard mobile rescue platform began to operate as soon as the Y-9 took off. Medical staff used on-board medical equipment including electrocardiogram monitor, infusion pump and sputum aspirator to carry out the in-flight emergency treatment for the patient, who already went into a coma.²¹³

²⁰⁶ *Ibid.*

²⁰⁷ The Y-9 is produced at the Shaanxi Aircraft Company in Hanzhong, Shaanxi Province. See “Shaanxi_Y-9,” *Wikipedia*. Accessed at https://en.wikipedia.org/wiki/Shaanxi_Y-9. Development of the Y-9 may have begun as early as 2002 as the Y-8X program. The program was a collaborative effort with the Ukraine's Antonov State Enterprise, which designed the An-12 transport. The Y-9 entered PLAAF service in 2012, with full operating capability being announced in December 2017.

²⁰⁸ Wang Xinjuan, ed., “China's Y-9 military transport aircraft stage “elephant walk”,” *China Military Online*, July 18, 2022. Accessed at http://eng.mod.gov.cn/news/2022-07/18/content_4915953.htm.

²⁰⁹ *Ibid.*

²¹⁰ Li Jiayao, ed., “Air force sends transport aircraft to Tibet to evacuate sick soldier,” *China Military Online*, March 21, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/21/content_7978839.htm.

²¹¹ Li Wei, ed., “PLAAF sends Y-9 ambulance aircraft for first medical evacuation mission,” *China Military Online*, July 20, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-07/20/content_9857199.htm.

²¹² A related article (which was not published in *China Military Online*) revealed that the new medical Y-9 variant was displayed in public for the first time during the 2019 military parade in Beijing marking the 70th founding anniversary of the PRC. See Li Wei, ed., “China's Y-9 medical aircraft completes maiden mission,” *Xinhuanet*, July 18, 2020. Accessed at <https://www.chinadaily.com.cn/a/202007/18/WS5f1278d3a31083481725a6ef.html>.

²¹³ Li Wei, ed., “PLAAF sends Y-9 ambulance aircraft for first medical evacuation mission,” *China Military Online*, July 20, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-07/20/content_9857199.htm.

As noted in the Zhuhai Airshow section of this report, Y-9 cargo planes were displayed at the 2018 Zhuhai Airshow alongside the Y-20.²¹⁴

In late January to mid-February 2020, the PLAAF flew four batches of transport aircraft, including Y-9s, IL-76s, and Y-20s, to carry 1,600 military medics to Wuhan, Hubei Province, to combat the COVID outbreak.²¹⁵

As discussed in exercises section, the PLAAF sent IL-76 and Y-9 transport aircrafts, H-6K bombers, J-10A fighters, JH-7A fighter-bombers, and a team of airborne troops to Russia to participate in the *IAG-2018*. This was the first time that Y-9 transport aircraft and H-6K bombers went abroad to take part in military competitions.²¹⁶

Also, as discussed later in the “Exercises” section of this report, in September 2019 IL-76 and Y-9 transport planes, H-6K bombers, JH-7A fighter bombers, J-11 fighter jets, and Z-10 attack helicopters participated in *Tsentr-2019* strategic drills in Russia’s Orenburg region.²¹⁷

As discussed in the Changchun Airshow section, during the 2019 airshow, the PLAAF put 46 types of weapons and equipment on ground display, including Y-9 and Y-20 transport planes.²¹⁸

5.12 Y-20 (33 articles)²¹⁹

The PLAAF received its first two Y-20 transport aircraft, which is codenamed “Kunpeng”²²⁰ and “Chubby Girl”,²²¹ in July 2016.²²² The aircraft, which conducted its first test flight in 2013,²²³ is described in several different ways within China Military Online articles, including independently developed transport aircraft, homegrown large transport aircraft, domestic transport aircraft, large

²¹⁴ Huang Panyue, ed., “First homemade airdrop-capable wheeled armored vehicle enters military service,” *Global Times*, May 11, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-05/11/content_9810768.htm; and Yao Jianing, ed., “Air Force Spokesman: Highlights of Airshow China 2018,” *China Military Online*, November 5, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-11/05/content_9332399.htm.

²¹⁵ Huang Panyue, ed., “Air Force’s operation in Wuhan shows its mobility, capabilities, military official says,” *China Daily*, March 2, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-03/02/content_9756961.htm; and Chen Lufan, ed., “PLA air force fulfills consecutive challenging airlift operations,” *China Military Online*, February 2, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-02/18/content_9745738.htm; and Huang Panyue, ed., “Chinese Air Force’s strategic projection capability proven in epidemic,” *Global Times*, February 18, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-02/18/content_9744789.htm.

²¹⁶ Li Jiayao, ed., “PLA air force to send H-6K bombers to Int’l Army Games,” *Xinhuanet*, July 12, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-07/12/content_8088139.htm.

²¹⁷ Huang Panyue, ed., “China sends H-6K bombers to Russia for strategic drills,” *Global Times*, September 9, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-09/09/content_9614996.htm.

²¹⁸ Dong Zhaohui, ed., “J-20 jets showcase missiles,” *Global Times*, October 18, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/18/content_9655315.htm.

²¹⁹ The Y-20 transport is produced at the Xi’an Aircraft Industrial Corporation, in Xi’an, Shaanxi Province. See “Xi’an Y-20,” *Wikipedia*. Accessed at https://en.wikipedia.org/wiki/Xi%27an_Y-20.

²²⁰ Lin Congyi, ed., “China’s Y-20 transport aircraft draws attention at Airpower 2022 in Austria,” *China Military Online*, September 5, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-09/05/content_10182919.htm. There is no NATO designator for the aircraft.

²²¹ “Xi’an Y-20,” *Wikipedia*. Accessed at https://en.wikipedia.org/wiki/Xi%27an_Y-20.

²²² *Ibid.*; and Huang Panyue, ed., “Y-20 aircraft tanker’s variant to debut soon, AEW variant to follow: Air Force officer,” *Global Times*, February 26, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-02/26/content_9752203.htm.

²²³ Huang Panyue, ed., “Air Force’s operation in Wuhan shows its mobility, capabilities, military official says,” *China Daily*, March 2, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-03/02/content_9756961.htm.

transport aircraft, heavy transport aircraft, and strategic transport aircraft.²²⁴ Its mission is described as long-range delivery, including transporting various materials and personnel under complex weather conditions.²²⁵ At least two photos of Y-20s that have appeared in China Military Online articles have included tail numbers (11058 and 20041),²²⁶ which can be used to identify their units as the 4th and 13th transport air divisions, respectively.



Figure 8: Y-20 Transport Aircraft with Tail Number 20041²²⁷

On March 12, 2018, the PLAAF released a promotional video that looked back on its accomplishments over the previous five years. Named “Soaring into the Spring,” the two-minute video clip included training scenes of the Y-20 heavy transport aircraft.²²⁸

In May 2018, a Y-20 conducted its first airborne and air delivery training at an unidentified location. According to a PLAAF spokesperson, “it marked a leap in the air force’s strategic delivery and long-distance airborne combat abilities... The strategic capability of the air force should be able to extend wherever China’s national interests reach to provide reliable air security assurance for the country’s development.”²²⁹ *China Military Online’s* coverage of this training stated that the plane “joined the People’s Liberation Army Air Force in July 2016 and has a maximum takeoff

²²⁴ Yao Jianing, ed., “Air Force Spokesman: Highlights of Airshow China 2018,” *China Military Online*, November 5, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-11/05/content_9332399.htm; and Huang Panyue, ed., “Y-20 aircraft tanker’s variant to debut soon, AEW variant to follow: Air Force officer,” *Global Times*, February 26, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-02/26/content_9752203.htm; and Li Jiayao, ed., “Y-20 heavy transport aircraft conducts first airborne, air delivery training,” *Xinhuanet*, May 8, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-05/08/content_8026284.htm; and Li Jiayao, ed., “Chinese “20 series” military aircraft wow public in NE China,” *Xinhuanet*, October 20, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/20/content_9656331.htm.

²²⁵ Yao Jianing, ed., “Air Force Spokesman: Highlights of Airshow China 2018,” *China Military Online*, November 5, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-11/05/content_9332399.htm.

²²⁶ Huang Panyue, ed., “Reaching for the skies,” *China Daily*, October 28, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/28/content_9662496.htm; and Chen Zhuo, ed., “For first time, Y-20 aircraft uses civil airport to conduct cross-border delivery mission,” *China Military Online*, August 13, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-08/13/content_9881261.htm.

²²⁷ Chen Zhuo, ed., “For first time, Y-20 aircraft uses civil airport to conduct cross-border delivery mission,” *China Military Online*, August 13, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-08/13/content_9881261.htm.

²²⁸ Yao Jianing, ed., “Chinese air force releases new promotional video recapping last five years,” *Xinhuanet*, March 13, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/13/content_7969777.htm.

²²⁹ Li Jiayao, ed., “Y-20 heavy transport aircraft conducts first airborne, air delivery training,” *Xinhuanet*, May 8, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-05/08/content_8026284.htm.

weight of around 200 tonnes, [and] is ideal for transporting cargo and people over long distances in diverse weather conditions.”²³⁰

The Y-20 has been highlighted on the ground and in the air at the Zhuhai Airshow in 2018, and the Changchun Airshow in 2018, 2019, and 2022.²³¹ During the 2019 Changchun Airshow, the four-engine Y-20 performed a hover, low-altitude assault at low speed, and combat landing for the crowds.²³² According to *China Military Online*'s article, “The performance displayed the outstanding short-range take-off and landing capability, superior flying performance and low-speed maneuverability of the 200-ton strategic transport aircraft, showcasing that the Y-20 can deliver precise airdrops in real combat situations.”²³³

In late January 2020, the PLAAF began using 12 transport aircraft, including Y-20, Y-9, and IL-76, to carry 1,600 military medics to Wuhan, Hubei Province, to help combat the COVID outbreak.²³⁴ According to one article, this was the first time the Y-20 participated in non-war operations since its first flight in 2013.²³⁵ For one of the transport efforts, a total of eight transport aircraft, including three Y-20s, one IL-76, and three Y-9s, left their bases across China at the same time, arriving in Shenyang, Zhanjiang, Lanzhou, Datong, Chengdu, Shanghai and Xinjiang to load personnel and supplies, before taking off again to arrive at Wuhan's Tianhe International Airport. In about 21 minutes, the eight aircraft that took off from seven different locations across China and all landed in Wuhan. According to one military expert, “this would require very accurate air traffic control, coordination and support, making it a challenging task.”²³⁶ A second, unnamed military expert noted, “While this might not seem so significant in fighting the epidemic, it will play a very important role in a war.”²³⁷

China Military Online articles stressed that the PLAAF learned a lot from its COVID support mission.²³⁸ For example, an official with the Central Military Commission stated that “the People's

²³⁰ *Ibid.*

²³¹ Yao Jianing, ed., “Air Force Spokesman: Highlights of Airshow China 2018,” *China Military Online*, November 5, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-11/05/content_9332399.htm; and Li Jiayao, ed., “Chinese “20 series” military aircraft wow public in NE China,” *Xinhuanet*, October 20, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/20/content_9656331.htm; and Huang Panyue, ed., “Chinese Air Force's strategic projection capability proven in epidemic,” *Global Times*, February 18, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-02/18/content_9744789.htm; and Huang Panyue, ed., “Reaching for the skies,” *China Daily*, October 28, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/28/content_9662496.htm; and Wang Xinjuan, ed., “PLAAF aviation open-house activity & Changchun air show kicks off,” *China Military Online*, August 26, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-08/26/content_10180738.htm. As a reminder, no airshows were held during 2020 and 2021 due to COVID.

²³² Li Jiayao, ed., “Chinese “20 series” military aircraft wow public in NE China,” *Xinhuanet*, October 20, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/20/content_9656331.htm.

²³³ *Ibid.*

²³⁴ Huang Panyue, ed., “Air Force's operation in Wuhan shows its mobility, capabilities, military official says,” *China Daily*, March 2, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-03/02/content_9756961.htm; and Chen Lufan, ed., “PLA air force fulfills consecutive challenging airlift operations,” *China Military Online*, February 2, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-02/18/content_9745738.htm; and Huang Panyue, ed., “Chinese Air Force's strategic projection capability proven in epidemic.” *Global Times*, February 18, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-02/18/content_9744789.htm.

²³⁵ Huang Panyue, ed., “Air Force's operation in Wuhan shows its mobility, capabilities, military official says,” *China Daily*, March 2, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-03/02/content_9756961.htm.

²³⁶ Huang Panyue, ed., “Chinese Air Force's strategic projection capability proven in epidemic.” *Global Times*, February 18, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-02/18/content_9744789.htm.

²³⁷ *Ibid.*

²³⁸ Huang Panyue, ed., “Air Force's operation in Wuhan shows its mobility, capabilities, military official says,” *China Daily*, March 2, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-03/02/content_9756961.htm; and Chen

Liberation Army Air Force's large-scale airlift operation and dispatching large- and medium-sized transport aircraft to support Wuhan showed rapid mobility and long-range delivery capabilities."²³⁹ As an expert explained in a different article, "This means a large number of Chinese soldiers, together with heavy weapons and equipment like tanks and anti-aircraft installations, can be deployed by air in a short time instead of being transported slowly, allowing them to form combat capabilities in the frontline very quickly to grasp valuable battle opportunities."²⁴⁰ With only a three-day interval in between the third and fourth batch of transport flights to Wuhan, the fourth batch of flights "showed the Air Force's combat readiness in logistics support, loading, command, maintenance and flight," and also emphasized that the many airfields involved also "showed very high logistics support capabilities". According to one expert, "This is an example of the achievements of the PLAAF transforming into a real combat-oriented strategic force."²⁴¹

In 2020, Y-20s participated in their first three MOOTW. As described by *China Military Online*, "On February 13, the PLA Air Force dispatched six Y-20 transport planes to airlift medical supplies to Wuhan, marking Y-20's first debut in MOOTWs. On April 24, Y-20 urgently flew to Pakistan to send nucleic acid testing kits, protective suits and other medical supplies for epidemic prevention and control as well as a military anti-epidemic expert team, marking the first time that Y-20 has flown abroad. On August 9, a Y-20 military transport aircraft flew from the Shenyang Taoxian International Airport to Russia with a flight of over 7,600 km, carrying a total of 57 soldiers from the [PLA NTC] to participate in the [IAG-2020]."²⁴²

In August 2021, Y-20s transported a total of 700 personnel organized into 17 teams from the PLA Army, Navy, Air Force, Strategic Support Force, and Joint Logistics Support Force to compete in the 17 events of the *IAG-2021*, which took place in Russia, Belarus, Uzbekistan, and Iran.²⁴³

In early March 2022, an airborne brigade and a Y-20 regiment joined hands to conduct an armed parachuting training exercise "across the day and night".²⁴⁴ This exercise, which involved about one thousand paratroopers, aimed to temper the troops' full-time airborne assault and full-unit parachuting capability.

On July 31 and August 1, 2022, the PLAAF dispatched Y-20s to transport newly selected pilot cadets to the AUAF in Changchun, "in an effort to boost their sense of honor and professional

Lufan, ed., "PLA air force fulfills consecutive challenging airlift operations," *China Military Online*, February 2, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-02/18/content_9745738.htm; and Huang Panyue, ed., "Chinese Air Force's strategic projection capability proven in epidemic." *Global Times*, February 18, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-02/18/content_9744789.htm.

²³⁹ Huang Panyue, ed., "Air Force's operation in Wuhan shows its mobility, capabilities, military official says," *China Daily*, March 2, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-03/02/content_9756961.htm.

²⁴⁰ Huang Panyue, ed., "Chinese Air Force's strategic projection capability proven in epidemic." *Global Times*, February 18, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-02/18/content_9744789.htm.

²⁴¹ *Ibid.*

²⁴² Chen Zhuo, ed., "For first time, Y-20 aircraft uses civil airport to conduct cross-border delivery mission," *China Military Online*, August 13, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-08/13/content_9881261.htm.

²⁴³ Wang Xinjuan, ed., "All 17 Chinese PLA teams to IAG 2021 arrive at contest venues," *China Military Online*, August 19, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-08/19/content_10078402.htm; and Wang Xinjuan, ed., "China's military aircraft to debut in International Army Games 2021," *Xinhuanet*, August 13, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-08/13/content_10075693.htm; and Huang Panyue, ed., "Chinese participants for Airborne Platoon contest of IAG 2021 take first trial," *China Military Online*, August 17, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-08/17/content_10077217.htm.

²⁴⁴ Wang Xinjuan, ed., "Thousand paratroopers carry out day and night parachuting training by Y-20," *China Military Online*, March 4, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-03/04/content_10137330.htm.

pride.”²⁴⁵ The PLAAF set up boarding points in Shijiazhuang, Jinan, Nanjing, Changsha, and Chengdu, where newly-admitted pilot cadets boarded the Y-20s for a direct flight to Changchun. As *China Military Online* noted, “This is the first time the PLAAF has sent Y-20s to deliver pilot cadets to school.”²⁴⁶



Figure 9: Newly Selected Pilot Cadets Transported to the AUAF in Changchun via Y-20²⁴⁷

In August 2022, the PLAAF flew two Y-20s from Shuangliu International Airport in Sichuan Province to Karachi, Pakistan on two separate days to carry some 3,000 tents and batches of humanitarian aid to support flood-hit Pakistan.²⁴⁸ *China Military Online*'s article noted that Y-20s have conducted multiple missions of delivering disaster relief supplies to overseas countries. For example, in 2021, two Y-20s carrying disaster relief supplies arrived in Tonga after traveling a “record-breaking distance of more than 10,000 kilometers and withstanding challenges including the presence of volcanic ash. Experts said a single Y-20 is said to be able to carry more than 60 tons of cargo.”²⁴⁹

In September 2022, a Y-20 was featured at the two-day Airpower 2022 in Austria, the largest airshow in Europe.²⁵⁰ The Y-20 set off from an airport in central China and arrived in Zeltweg on the same day, with a one-way distance of nearly 10,000 kilometers. “It was the first time for the Y-20 aircraft to head toward Europe to participate in an international airshow.”²⁵¹

5.13 YY-20 (6 articles)

China Military Online revealed in February 2020 that the PLAAF would soon debut the YY-20 aerial tanker variant of the Y-20, and that an airborne early warning (AEW) variant was also under

²⁴⁵ Lin Congyi, ed., “Air Force Y-20 aircraft sends newly-enrolled pilot cadets to universities,” *China Military Online*, August 3, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-08/03/content_10175525.htm.

²⁴⁶ *Ibid.*

²⁴⁷ Lin Congyi, ed., “Air Force Y-20 aircraft sends newly-enrolled pilot cadets to universities,” *China Military Online*, August 3, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-08/03/content_10175525.htm.

²⁴⁸ Wang Xinjuan, ed., “China dispatches Y-20 large transport aircraft with 3,000 tents to aid flood-hit Pakistan,” *Global Times*, August 31, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-08/31/content_10181719.htm.

²⁴⁹ *Ibid.*

²⁵⁰ Lin Congyi, ed., “China’s Y-20 transport aircraft draws attention at Airpower 2022 in Austria,” *China Military Online*, September 5, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-09/05/content_10182919.htm.

²⁵¹ *Ibid.*

development.²⁵² According to the article, a prototype tanker variant of the Y-20 was spotted on commercial satellite photos by foreign media in 2018. In addition, “It was widely expected that the tanker variant will work together with and eventually replace the very few imported Il-78 tankers and the domestically developed but less capable HU-6.”²⁵³ The article stated that when repurposed for aerial refueling, the YY-20 will be able to carry about 90 tons of fuel, similar to the Il-78, and much more than the HU-6’s capacity of under 30 tons. “It will greatly expand the PLAAF’s operational range, allowing fighter jets and bombers to travel much greater distances, transforming the Air Force from a regional force into a strategic one.”²⁵⁴

Several *China Military Online* articles in 2022 highlighted the new aerial tanker version of the Y-20, which by then was identified as the YY-20. For example, during the August 2022 Changchun Airshow, the PLAAF’s YY-20 tanker aircraft made its debut in public.²⁵⁵ As one article described, “Displaying a photo showing a YY-20 flying with a J-20 stealth fighter jet and a J-16 strike fighter, Senior Colonel Shen Jinke, spokesman for the PLAAF, told a news conference in Changchun that the event would be the first opportunity for the public to get a close look at the YY-20, which was declassified at the end of July 2022.”²⁵⁶ He described the new tanker as a variant of China’s Y-20 strategic transport plane. At a separate news conference in Beijing in July 2022, Shen said that the YY-20 had carried out aerial refueling exercises with a J-16 aircraft above the sea, “which marks an improvement of the combat training level.”²⁵⁷ He also said the YY-20 boosts the PLAAF’s long-range capabilities and can also transport personnel and cargo like the Y-20 transport aircraft. Emphasizing the potential benefits of the new planes, one article stated, “Before the YY-20, the PLAAF made use of a small number of HY-6 tankers, refitted versions of the decades-old H-6 bombers. It also has several Ilyushin Il-78 aerial refueling jets purchased from Russia.”²⁵⁸

During the 14th Zhuhai Airshow in November 2022, the YY-20 was on display. According to *China Military Online*’s article about the new equipment being debuted at the airshow, “Aircraft YY-20 is China’s new-generation aerial refueling equipment, which has carried out aerial refueling training with multiple types of fighter jets including J-20, J-16 and J-10C for many times, effectively enhancing the PLA Air Force’s capability of long-range maneuverability.”²⁵⁹

²⁵² Huang Panyue, ed., “Y-20 aircraft tanker’s variant to debut soon, AEW variant to follow: Air Force officer,” *Global Times*, February 26, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-02/26/content_9752203.htm. This is the only time that the AEW variant was discussed in one of *China Military Online*’s articles about the PLAAF.

²⁵³ *Ibid.*

²⁵⁴ *Ibid.*

²⁵⁵ Wang Xinjuan, ed., “PLAAF aviation open-house activity & Changchun air show kicks off,” *China Military Online*, August 26, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-08/26/content_10180738.htm; and Wang Xinjuan, ed., “New PLA refueling aircraft to feature at Changchun public event,” *China Daily*, August 26, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-08/26/content_10180641.htm; and Lin Congyi, ed., “PLA’s air tanker YY-20 boosts combat readiness training,” *China Military Online*, August 1, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-08/01/content_10175194.htm.

²⁵⁶ Wang Xinjuan, ed., “New PLA refueling aircraft to feature at Changchun public event,” *China Daily*, August 26, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-08/26/content_10180641.htm.

²⁵⁷ Lin Congyi, ed., “PLA’s air tanker YY-20 boosts combat readiness training,” *China Military Online*, August 1, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-08/01/content_10175194.htm.

²⁵⁸ Wang Xinjuan, ed., “New PLA refueling aircraft to feature at Changchun public event,” *China Daily*, August 26, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-08/26/content_10180641.htm.

²⁵⁹ Li Wei, ed., “PLA Air Force unveils equipment lineup at Airshow China 2022,” *China Military Online*, November 7, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-11/07/content_10197701.htm.

Finally, according to one 2023 article, “During the Changchun Airshow in July 2023, Multiple J-20s and YY-20s will form a group in flight display while the J-10S and J-11S twin-seat fighter jets will carry out aerial combat performance.”²⁶⁰

5.14 Unmanned Aerial Vehicles (8 articles)²⁶¹

China unveiled the GJ-2 UAV at the November 2018 Zhuhai Airshow.²⁶² As *China Military Online* described it, “The domestically-developed GJ-2 is a medium- and high-altitude, long-endurance reconnaissance-strike drone, which has played an important role in border patrol and the anti-terrorism fight.”²⁶³

UAVs were the subject of a lengthy *China Military Online* article in early November 2020, which described how they were used “to conduct such exercises as continuous airdrops, decentralized delivery, fast-roping delivery, wounded evacuation, etc.” in remote or otherwise difficult to reach areas.²⁶⁴ As the article noted, “According to the Director of the Transportation and Delivery Bureau under the PLAAF Logistics Department, the unmanned transport aircraft provides a new solution to the so-called ‘last-mile problem’ in airborne combat support operations when the large transport aircraft are unable to reach remote or decentralized areas. With the continuous improvement of the UAV’s load, range and performance, such a mode will have broad application prospects both in peace time and war time.”²⁶⁵ The article also provided details about the types of missions performed by the UAVs during the drill. “At the drill site, the airborne combatants exhausted the ammunition and requested airdropped replenishment. An unmanned transport aircraft equipped with an intelligent airdrop system quickly delivered the airdrop box loaded with ammunition to the target area under the control of the drone pilot. At the same time, another type of UAV hung with emergency supplies including blood plasma rushed to the medical center of the battalion on the battlefield.”²⁶⁶ A PLAAF airborne battalion commander quoted in the article concluded, “In future battlefields, unmanned systems will play a positive role in improving situational awareness, reducing the burden on soldiers and strengthening the troops’ support capability and maneuverability.”²⁶⁷

In September 2022, an unidentified type of reconnaissance and strike integrated UAV appeared in training conducted by a PLAAF drone unit in Northwest China. The article stated that as a new

²⁶⁰ Chen Zhuo, ed., “Top fighter jets to take part in Changchun air show,” *China Military Online*, July 21, 2023. Accessed at http://eng.chinamil.com.cn/ARMEDFORCES/AirForce/News_209159/16240109.html.

²⁶¹ The Chengdu GJ-2, also known as Wing Loong 2, is an unmanned aerial vehicle (UAV) capable of remotely controlled or autonomous flight developed by the Chengdu Aircraft Industry Group in Chengdu, Sichuan Province. Intended for use as a surveillance and aerial reconnaissance and precision strike platform, Chengdu unveiled the concept of Wing Loong II at the Aviation Expo China in Beijing in September 2015. Wing Loong II has long range strike capability with a satellite link. See “CAIG Wing Loong II,” *Wikipedia*. Accessed at https://en.wikipedia.org/wiki/CAIG_Wing_Loong_II. Of note, UAVs are also identified as drones.

²⁶² Yao Jianing, ed., “Air Force Spokesman: Highlights of Airshow China 2018,” *China Military Online*, November 5, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-11/05/content_9332399.htm; and Chen Zhuo, ed., “More than just an airshow,” *Global Times*, November 2, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-11/02/content_9329449.htm.

²⁶³ Yao Jianing, ed., “Air Force Spokesman: Highlights of Airshow China 2018,” *China Military Online*, November 5, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-11/05/content_9332399.htm.

²⁶⁴ Chen Lufan, ed., “PLA Air Force organizes UAV cargo delivery drill in mountainous area,” *China Military Online*, November 3, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-11/03/content_9929747.htm.

²⁶⁵ *Ibid.*

²⁶⁶ *Ibid.*

²⁶⁷ *Ibid.*

combat force of the PLAAF, the indigenous drone can perform all-around reconnaissance and precision strikes.²⁶⁸

At the 14th Zhuhai Airshow in November 2022, GJ-2 UAVs conducted their first public flights.²⁶⁹



Figure 10: A GJ-2 UAV Rehearses for a Flight Performance in Airshow China 2022 in Zhuhai²⁷⁰

On February 22, 2023, the PLAAF organized a seminar in Beijing on the development and application of UAVs, with 23 domestic research institutes, military industry groups, civilian universities and private enterprises involved.²⁷¹ According to *China Military Online*'s article, "The participants of this seminar were mainly manufacturers of foreign trade and civil UAVs. They actively exchanged experience and practices, analyzed the future trends in technological development, collaborative innovation and industrial application of UAVs, and shared the successful experience in the fields of normalization of UAV industrial application, modularization of product design and low-cost development and production."²⁷² In addition, "The seminar put forward the key points for future research and development such as open architecture, dynamic networking, intelligent algorithms, and cluster control, and established relevant mechanisms in the fields of military-civilian openness and cooperation, agile response, performance testing, airspace support, risk management and control, so as to guarantee the smooth and efficient dialogue in the future."²⁷³

6. Surface-to-Air Missiles

6.1 HQ-9B and HQ-22 (4 articles)²⁷⁴

²⁶⁸ Chen Zhuo, ed., "A glimpse of one PLA air force drone unit," *China Military Online*, September 21, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-09/21/content_10186312.htm.

²⁶⁹ Li Wei, ed., "PLA Air Force unveils equipment lineup at Airshow China 2022," *China Military Online*, November 7, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-11/07/content_10197701.htm.

²⁷⁰ Li Wei, ed., "PLA Air Force unveils equipment lineup at Airshow China 2022," *China Military Online*, November 7, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-11/07/content_10197701.htm.

²⁷¹ Li Jiaoyu, ed., "Air Force holds UAV development and application seminar," February 28, 2023. Accessed at http://eng.chinamil.com.cn/ARMEDFORCES/AirForce/News_209159/16204766.html.

²⁷² *Ibid.*

²⁷³ *Ibid.*

²⁷⁴ The Hong Qi 9 (HQ-9) is a long-range air defense missile system developed by China Precision Machinery Import & Export Corporation (CPMIEC), a defense company based in Beijing. The HQ-9 can intercept various threats such as air-to-ground missiles, helicopters, aircraft, UAVs, guided bombs, and tactical ballistic missiles. The missile system

At the 2018, 2019, and 2022 Zhuhai Airshows, the PLAAF displayed the HQ-9B surface-to-air missile, which is also identified as a ground-to-air missile.²⁷⁵ The 2018 and 2019 Zhuhai Airshows also displayed the HQ-22, but *China Military Online*'s articles about the 2022 Zhuhai Airshow did not include any mention of them.²⁷⁶

According to a November 2019 article on China's ground air defense capabilities, "In recent years, with the introduction of new-type homegrown ground-to-air missiles into the military training and combat preparedness of the new era, the ground-to-air defense units of the PLA Air Force (PLAAF) have formed a combat system with comprehensive coverage ranging from long, medium to short range, as well as from high, medium, to low altitude. Their systematic combat capability under the conditions of information technology has been fully improved."²⁷⁷ The article stated, "The ground air defense forces consist of anti-aircraft artillery unit and ground-to-air missile unit.... The new domestic missiles such as HQ-9B and HQ-22 have been successively commissioned, forming a structure with the third-generation equipment as the main body and the fourth-generation as the backbone, and accelerating the transformation of air defense mode from anti-aircraft to anti-aircraft and anti-missile. In recent years, the PLAAF ground air defense units have continuously updated their combat concepts, highlighted the capabilities to search, find and strike the targets under ultimate conditions of weapons performance, and innovated the multi-model and multi-service joint air defense training forms, in an all-round way to enhance the rapid maneuvering capability of their troops."²⁷⁸ The article concluded, "The ground air defense troops of the PLAAF have now become an important component of China's air defense system...."²⁷⁹

7. Exercises

Of the 169 China Military Online articles reviewed for this report, a total of 22 articles used the word "exercise". These articles can be grouped into the following three categories, each of which discuss training over land and over water:

achieved initial operational capacity in 1997 and is believed to be based on the Russian S-300PMU missiles, and the American Patriot air defense systems. See "Hong Qi 9 (HQ-9) Air Defence Missile System," *Army Technology*, 28 May 2021. Accessed at <https://www.army-technology.com/projects/hong-qi-9-hq-9-air-defence-missile-system/>. The HQ-22 air defense system was developed as the second generation of the HQ-12 missile. The HQ-22 is manufactured by Jiangnan Space Industry, also known as Base 061, which is a part of the China Aerospace Science and Industry Corporation (CASIC). See "HQ-22," *Wikipedia*. Accessed at <https://en.wikipedia.org/wiki/HQ-22>.

²⁷⁵ Yao Jianing, ed., "Air Force Spokesman: Highlights of Airshow China 2018," *China Military Online*, November 5, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-11/05/content_9332399.htm; and Dong Zhaohui, ed., "J-20 jets showcase missiles," *Global Times*, October 18, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/18/content_9655315.htm; and Li Jiayao, ed., "PLA Air Force showcases signature equipment at Airshow China," *Xinhuanet*, November 8, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-11/08/content_10197921.htm.

²⁷⁶ Yao Jianing, ed., "Air Force Spokesman: Highlights of Airshow China 2018," *China Military Online*, November 5, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-11/05/content_9332399.htm; and Dong Zhaohui, ed., "J-20 jets showcase missiles," *Global Times*, October 18, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-10/18/content_9655315.htm.

²⁷⁷ Li Jiayao, ed., "PLA Air Force improves comprehensive combat capability of ground air defense system," *China Military Online*, November 7, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-11/07/content_9671124.htm.

²⁷⁸ *Ibid.*

²⁷⁹ *Ibid.*

- *PLAAF arms (aviation and airborne)*²⁸⁰ *exercises*²⁸¹
- *Joint exercises with two or more PLA services*²⁸²
- *Bilateral and multilateral joint exercises with foreign militaries.*

These articles also sometimes discussed weapons capabilities, but since that information is already covered in other sections of this report, it is not duplicated here.

7.1 PLAAF Arms Exercises

PLAAF arms exercises can be broken into single arms, such as aviation and airborne, or two or more arms working together, such as aviation and airborne, which the PLA calls “combined arms” or “joint”.

In early February 2018, *China Military Online* reported that Su-35 Russian-made advanced fighters were dispatched to the South China Sea for “joint combat cruise missions”.²⁸³ The article quoted the Air Force’s post on its official Weibo social media account concerning the training, stating, “This is a pragmatic action for the air force to fulfill its mission in the new era and conduct a combat training military exercise.”²⁸⁴ According to a retired major general who was interviewed for the article, “If [the planes] landed on a South China Sea island, that could act as a significant deterrent to any outside forces trying to disturb the regional stability.”²⁸⁵ The retired general also commented on the use of Su-35s for this training. Given that the PLAAF only received the first batch of aircraft from Russia in late 2016 and more in 2017, he argued, “The deployment showed that pilot training for new jets was surprisingly fast. We just received a group of planes from Russia

²⁸⁰ The PLAAF’s Airborne Force was created in 1950 as a branch/arm and was known as the 15th Airborne Corps. In April 2017, the 15th Airborne Corps was re-named the Airborne Corps—dropping the “15th” appellation. The PLAAF is responsible not only for “delivering” troops from its subordinate Airborne Branch to their landing zones, but also for the creation and training of the units. The Airborne Force remains directly subordinate to PLAAF HQ. As part of the latest reforms, the three former airborne division headquarters were abolished whilst their six subordinate regiments were upgraded to brigades. The revised Airborne Corps has, at a minimum, the following units: six Airborne Brigades, a Transport Air Brigade, a Special Operations Brigade, a Combat Support Brigade, and a Training Base. Prior to the reorganization, the 15th Airborne Corps had a single helicopter regiment that still apparently exists, but it is now directly subordinated to the Transport Air Brigade. See Allen and Garafola, *70 Years of the PLA Air Force*.

²⁸¹ The term *bingzhong* (兵种) refers to what the PLA translates as both “branches” and “arms”. See “Air Force Branches” (空军兵种), in Zhu Rongchang, ed., [*Air Force Dictionary*] (空军大辞典). Shanghai: Shanghai Dictionary Press, September 1996, p. 154; and “Arms” (兵种), in Academy of Military Science All-Army Military Terminology Management Committee, [*People’s Liberation Army Military Terminology*] (中国人民解放军军语), Second Edition. Beijing: Academy of Military Science Press, December 2011, p. 332. China’s 2012 Defense White Paper (published in 2013) uses “arms”. See *The Diversified Employment of China’s Armed Forces* (中国武装力量的多样化运用). Beijing: PRC State Council Information Office, 2013. Accessed at https://www.gov.cn/zhengce/2013-04/16/content_2618550.htm (Chinese text); and at <http://en.people.cn/90786/8209362.html> (English text). Other sources that use “arms” include Lu Xiaoping, ed., *The PLA Air Force*. Beijing: China Intercontinental Press, 2012, p. 85-108; and the U.S. Department of Defense’s annual reports to Congress concerning China’s military development.

²⁸² For the PLA, “joint” (联合) refers to two or more services working together, but the PLA also uses it for bilateral and multilateral training with foreign countries, which the U.S. calls “combined”. Unfortunately, the PLA is not consistent and often uses the term “joint” for two or more arms, which it also calls “combined arms” (合成/合同).

²⁸³ Li Jiayao, ed., “China sends advanced jet fighters to South China Sea for joint combat missions,” *Global Times*, February 7, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-02/07/content_7936489.htm.

²⁸⁴ *Ibid.*

²⁸⁵ *Ibid.*

last year, and now we can put them into a real combat mission in the South China Sea. It also shows that China-Russia military cooperation is solid, mutually benefited [sic], and reliable.”²⁸⁶

A March 2018 article provided a brief overview of PLAAF “combat exercises” over the Western Pacific and South China Sea.²⁸⁷ As the article noted, the PLAAF began performing long-range, ocean-bound drills in March 2015 and “has organized dozens of such operations since then”. Concerning the overall mission, a PLAAF spokesperson asserted that “The PLA Air Force has become adept at organizing sophisticated joint operations and is able to safeguard the country’s sovereignty, national security and interests.” An expert from the PLAAF also commented on the significance of this training, stating that “Ocean-bound exercises verify not only the Air Force’s long-distance combat ability, but also its logistics support and electronic warfare abilities.”²⁸⁸

The same article offered brief details regarding a recent training flight. “A group of aircraft including H-6K bombers and Su-30 fighter jets flew over the Miyako Strait [in late March 2018] and then carried out combat training over the Western Pacific to verify their long-range operational capabilities. At the same time, another group of H-6Ks, Su-35 fighter jets, and other aircraft conducted a joint combat patrol over the South China Sea, practicing aerial maneuvers and strike tactics at sea.... Photos released by the PLAAF showed air-launched cruise missiles under the wings of the H-6K bombers participating in the exercises.”²⁸⁹ Concerning the use of the Su-35s, the article noted, “This was the second time the PLA Air Force sent its Su-35s—built by Russia’s Komsomolsk-on-Amur Aircraft Production Association and introduced to China in late 2016—to take part in exercises over the South China Sea. The first was in early [February 2018]. The article also stated that “a news release published by Japan’s Joint Staff said that in addition to bombers and fighter jets, the PLAAF had dispatched a Tupolev Tu-154 signal intelligence jet and a Y-8 electronic warfare aircraft to participate in the western Pacific training exercise.”²⁹⁰

In early April 2018, a *China Military Online* article highlighted the PLAAF’s first live-fire drill on an unnamed plateau, “a move hailed by experts as a significant progress on the military’s capability in cross-regional missions.”²⁹¹ The article briefly described the drill, in which a PLAAF aviation brigade from the ETCAF “successfully hit all targets with four rocket-propelled grenades”. In order to make the exercise more challenging, “the unnamed brigade chose a target that was only one-tenth the size of a simulated target, instead of targets that are large and easily seen.” Furthermore, “The exercise encountered turbulence as the jets flew over the mountain valleys, as well as a sudden sandstorm which blurred the pilots’ vision.”²⁹²

In underscoring the significance of this first for the PLAAF, the article cited a military expert who explained, “Ballistic trajectories are different on high plateaus as the air is thinner at altitude, which demands greater ability from pilots to project and adjust the firing. The oxygen deficit on plateaus is also physically challenging for pilots. The 100 percent hit rate shows that the PLAAF is able to accomplish attacking missions in regions they are not stationed in and also in extreme environments and geographic regions.” He concluded that the exercise “aims to simulate the

²⁸⁶ *Ibid.*

²⁸⁷ Huang Panyue, ed., “PLA Air Force tests abilities over water,” *China Daily*, March 26, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/26/content_7983206.htm.

²⁸⁸ *Ibid.*

²⁸⁹ *Ibid.*

²⁹⁰ *Ibid.*

²⁹¹ Huang Panyue, ed., “PLA air force conducts successful live-fire exercise on high plateau,” *Global Times*, April 10, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-04/10/content_7998945.htm.

²⁹² *Ibid.*

situation in highland regions in the island of Taiwan, and also the attacking of an air force base in Taiwan's Hualian county."²⁹³

On April 18, 2018, the PLA conducted live-fire military exercises in the Taiwan Straits.²⁹⁴ The following day, the PLAAF dispatched H-6K bombers to "patrol around Taiwan to practice and upgrade their capability to protect national sovereignty and territorial integrity." One week later, the PLAAF sent warplanes for the second time in a week "to patrol around the island of Taiwan in a gesture to deter 'Taiwan independence' forces and show the Chinese mainland's resolution to safeguard sovereignty."²⁹⁵ According to the official Sina Weibo account of the PLAAF, the participating warplanes in this second patrol included "H-6K bombers, fighter jets, reconnaissance planes, and air early warning planes," which "flew over the Miyako and Bashi straits to complete their circuit of the island."²⁹⁶ A PLAAF spokesperson quoted in the article asserted that "The PLAAF's ability to prepare for and fight a war has experienced a historic shift. The PLA Air Force has firm resolution, ample confidence and sufficient capability to safeguard national sovereignty and territorial integrity." A military commentator cited in the article also stated that "In terms of defense capability, the PLA Navy and Air Force are able to cover the entire East China Sea, the island of Taiwan, the Yellow Sea and the majority of the South China Sea."²⁹⁷

On April 18, 2018, the PLAAF kicked off its annual competitive assessment codenamed *Golden Dart-2018* in northeast China.²⁹⁸ According to a *China Military Online* article about the competition, "The *Golden Dart* competitive assessment is one of the PLAAF's four real combat training exercises. The other three are the Red Sword systematic confrontation training exercise, the *Golden Helmet* air battle competition for fighter pilots, and the *Blue Shield* exercise for land-to-air missile combat units. In recent years, the venues of the *Golden Dart* competitive assessment have expanded from the desert and the Gobi areas to canyons, seas, and grasslands amid [sic] with increasingly difficult battlefield situations for competitors."²⁹⁹

In 2018, over 200 fighter jet pilots from dozens of air force combat units competed for the "*Golden Dart*" award, the top prize for the "most skillful pilots in the fierce air defense penetration and assault operations."³⁰⁰ As the *China Military Online* article explained, "According to the assessment regulation, the participating pilot will fly his fighter jet to conduct penetration (breaking through enemy air defense systems) first, and then launch [sic] assault (attacking enemy land/sea targets). In order to create a real combat environment, the competitions will be staged both at daytime and night and live ammunitions will be used in the assault operations. The assessment aims to test the pilots' defense penetrating and assaulting tactics when flying at low altitudes, and the abilities to quickly locate targets in complex environments and conduct continuous attack with different weapons."³⁰¹

²⁹³ *Ibid.*

²⁹⁴ Huang Panyue, ed., "PLA sends planes round Taiwan for second time in a week," *Global Times*, April 27, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-04/27/content_8017508.htm.

²⁹⁵ *Ibid.*

²⁹⁶ *Ibid.*

²⁹⁷ *Ibid.*

²⁹⁸ Yao Jianing, ed., "PLA Air Force pilots chase "Golden Dart"," *China Military Online*, April 19, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-04/19/content_8009028.htm.

²⁹⁹ *Ibid.*

³⁰⁰ *Ibid.*

³⁰¹ *Ibid.*



Figure 11: A J-10A Fighter Jet Fires at Targets in an Annual Air Battle Tactics Competitive Assessment³⁰²

On May 23, 2018, the PLAAF began its regular annual combat exercise in the country's northwest desert.³⁰³ The "Red Arrow-2018" drill involved nearly 100 aircraft, including fighter jets, bombers, early warning and reconnaissance aircraft, radars, and surface-to-air missiles. Citing the PLA Air Force, the article stated, "The purpose of the exercise is to train the capabilities of the air force's command centers." It also noted that "The 'Red Arrow' series has been a signature for the PLA air force's realistic combat exercises for the past 18 years."³⁰⁴

An April 24, 2020 article provided detailed information about "recently held fully armed jump exercises, a type of mission experts said... can enable large numbers of troops to arrive in locations that are otherwise difficult to gain access to, and they can infiltrate deep into hostile territory."³⁰⁵ The exercises were held in "in [sic] mountainous area of central China's Hubei Province" and involved more than 1,000 paratroopers assigned to an unnamed brigade under the PLAAF's airborne troops. According to the article, each person [involved in the exercise] had different types of weapons and equipment corresponding to their combat positions. For example, a reconnaissance company commander was carrying a pistol, an auto rifle, a reconnaissance drone, living supplies and a parachute, weighing a total of 40 kilograms. Reconnaissance teams could carry reconnaissance drones, attack teams could carry light machineguns or rocket launchers and others could carry sniper rifles, "which gives the entire brigade comprehensive capability compared to when all members carry the same load."³⁰⁶ As the article noted, "Carrying different equipment of different weight will bring challenges to the jump and control of the

³⁰² Yao Jianing, ed., "PLA Air Force pilots chase 'Golden Dart'," *China Military Online*, April 19, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-04/19/content_8009028.htm.

³⁰³ Yao Jianing, ed., "Chinese air force begins regular combat exercise," *Global Times*, May 24, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-05/24/content_8040442.htm.

³⁰⁴ Of note, no other references were found to this exercise. Historically, PLAAF training was characterized by highly scripted scenarios that did not reflect the realities of modern combat. The PLAAF's desire to advance its strategic transformation through qualitative changes is evidenced by its development of what it called the "four key training brands" (四大品牌). These include the *Golden Helmet* (金头盔) competition; the *Golden Dart* (金飞镖) competition; the *Blue Shield* (蓝盾) exercise, which includes the *Golden Shield* (金盾) competition; and the *Red Sword* (红剑) exercise. In 2019, the PLAAF announced the addition of a fifth key training brand likely focused on electronic warfare (电子战) that was identified in Chinese as "Qingdian" (擎电); although no official English name has been found, a good translation is "electron surge." This information came from Allen and Garafola, *70 Years of the PLA Air Force*.

³⁰⁵ Huang Panyue, ed., "Paratroopers hold fully armed parachute jump exercises," *Global Times*, April 24, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-04/24/content_9799963.htm.

³⁰⁶ *Ibid.*

parachute in mid-air. This kind of fully armed parachute jump can make sure troops, once on the ground, are well-equipped and have all kind of weapons and equipment at their disposal.”³⁰⁷ As part of the exercise, multiple transport aircraft took off and arrived at the designated air zone, and the paratroopers jumped out of the cabin in order at low altitude, accurately opened their parachutes and formed formations, with the reconnaissance and guidance teams arriving on the ground first to conduct reconnaissance on the battlefield and guide teams into positions. An expert quoted in the story stated that paratroopers in large numbers can arrive in inaccessible locations, like islands and plateaus, and noted that this will work also in deep infiltration into hostile territories after air superiority is gained.³⁰⁸



Figure 12: Paratroopers Assigned to a Brigade under the PLA Air Force's Airborne Troops Open Their Parachutes After Jumping out of a Transport Aircraft During a Parachute Training Exercise in 2020³⁰⁹

A June 10, 2020, article marking the 70th anniversary of the formation of airborne troops in the PLA Air Force discussed how the airborne force has improved in recent years.³¹⁰ According to the article, “After rounds of military reforms, the airborne troops were incorporated into the joint combat commanding and force system, tasked with performing ‘integrated air-land’ missions in multiple strategic directions, in various battlefield environments, and with diverse services and arms. Thus the airborne troops have focused on developing new weapons and equipment for air projection, air-to-ground assault, command and control, and guided assault, which are more information-based and synthetic. The upgrade of equipment has given a strong impetus to enhancing the new-style combat force of airborne troops.”³¹¹ Describing recent exercises the airborne troops have conducted, the article stated, “During a training aimed to test their combat capability, an entire airborne brigade was quickly projected to grassland thousands of miles away, where they, with the help of information system [sic], gathered soon after landing and successfully seized and controlled important targets. In another airborne surprise attack exercise, the Leishen Commando dropped directly on the combat area across the sea and set up positions with the new command and reconnaissance equipment, while the commander had a clear picture of the overall situation at the command center.”³¹² The article concluded by summing up the airborne troops’

³⁰⁷ *Ibid.*

³⁰⁸ *Ibid.*

³⁰⁹ Huang Panyue, ed., “Paratroopers hold fully armed parachute jump exercises,” *Global Times*, April 24, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-04/24/content_9799963.htm.

³¹⁰ Chen Zhuo, ed., “PLA airborne troops accelerate combined combat capability building,” *China Military Online*, June 10, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-06/10/content_9832176.htm.

³¹¹ *Ibid.*

³¹² *Ibid.*

most recent signs of progress. “At present 90 percent of the officers at battalion and company level in the airborne operational force have had experience in joint exercises and training, and over 60 percent of the troops are able to use multiple weapons while being particularly expert on one. The intensified cultivation and training of talents is pushing the combat force building to a new high.”³¹³

According to a lengthy article in early November 2020, a PLAAF combined arms airborne battalion recently organized a cargo delivery drill using unidentified UAVs in the mountainous area of northern Hubei Province.³¹⁴ During the drill, officers and soldiers used unmanned transport aircraft to conduct such exercises as continuous airdrops, decentralized delivery, fast-roping delivery, and wounded evacuation, etc. [See the UAV section for more details.]

On 26 September 2021, two [J-10] fighter jets attached to an aviation brigade of the Southern Theater Command Air Force (STCAF) conducted a midnight flight training exercise.³¹⁵

In early March 2022, a PLAAF airborne brigade and Y-20 transport regiment “joined hands to conduct an armed parachuting training exercise across the day and night. This exercise, which involved about one thousand paratroopers, aimed to temper the troops’ full-time airborne assault and full-unit parachuting capability.”³¹⁶

In July 2022, CCTV had a 1 minute and 44 second video of about 10 Y-9s assigned to a WTCAF unit conducting what it called an “elephant walk” along the runway before they all took off together one at a time to conduct an airdrop exercise.³¹⁷ [See the YY-20 section for more information.]

In mid-2022, the PLAAF’s new YY-20 aerial tanker carried out aerial refueling exercises with a J-16 aircraft above the sea.³¹⁸

7.2 Joint Multi-service Exercises

On the morning of June 5, 2018, the PLAAF with participation of air defense units from the Army, Navy, Air Force, and Rocket Force kicked off a ground joint air defense exercise codenamed “*Blue Shield-18*” at an unnamed mission area in north China.³¹⁹ According to the exercise’s directing group, this *Blue Shield* exercise “highlights realistic combat training with coordination of air defense troops of multiple military services, aiming to enhance the inter-service coordinated combat capability and the commanding capability of [sic] air defense base. The joint exercise consisted of drills of 10 subjects such as force projection, combat planning, and air-ground confrontations.”³²⁰ The article also quoted the chief director of the exercise, who stated, “Coordinated and joint operation is the key to success in the future battlefield. The air defense base is the main entity in future air defense operation. Going forward, more efforts will be made

³¹³ *Ibid.*

³¹⁴ Chen Lufan, ed., “PLA Air Force organizes UAV cargo delivery drill in mountainous area,” *China Military Online*, November 3, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-11/03/content_9929747.htm.

³¹⁵ Huang Panyue, ed., “Fighter jets get ready for midnight flight,” *China Military Online*, October 14, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-10/14/content_10099085.htm.

³¹⁶ Wang Xinjuan, ed., “Thousand paratroopers carry out day and night parachuting training by Y-20,” *China Military Online*, March 4, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-03/04/content_10137330.htm.

³¹⁷ Wang Xinjuan, ed., “China’s Y-9 military transport aircraft stage “elephant walk,”” *China Military Online*, July 18, 2022. Accessed at http://eng.mod.gov.cn/news/2022-07/18/content_4915953.htm.

³¹⁸ Wang Xinjuan, ed., “New PLA refueling aircraft to feature at Changchun public event,” *China Daily*, August 26, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-08/26/content_10180641.htm.

³¹⁹ Yao Jianing, ed., “PLA Air Force “Blue Shield-18” joint air defense exercise kicks off,” *China Military Online*, June 6, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-06/06/content_8054096.htm.

³²⁰ *Ibid.*

to promote the normalization, standardization and institutionalization of the joint air defense training exercise, so as to boost the IT-based joint air defense capabilities of the PLA.³²¹

In early May 2022, a special operations brigade under the PLA 74th Group Army [Huizhou, Guangdong Province] held a joint parachute training exercise with an unidentified PLAAF unit “in unfamiliar areas”.³²²



Figure 13: Joint Parachute Training Exercise with a Unit of the Air Force³²³

7.3 Bilateral and Multilateral Joint Exercises with Foreign Militaries

In June 2018, a PLAAF Ilyushin IL-76 military transport aircraft participated in the bilateral joint *Exercise Skytrain-18* with the New Zealand Defense Force.³²⁴ The aircraft stopped over in the Philippines and Australia during the flight to the exercise, which included “necessary service” for the aircraft. “The stopovers followed international conventions and regulations of the Philippines and Australia, and also got support from these two countries.” According to the article, the training, for humanitarian aid, disaster relief and maritime rescue operations, was the first bilateral joint exercise between China and New Zealand’s air forces.³²⁵

From September 4-21, 2018, PLAAF [J-10] fighters participated in the third joint exercise codenamed “*Falcon Strike-2018*” at the Udorn Royal Thai Air Force Base (Udorn RTAFB).³²⁶ The previous two “*Falcon Strike*” joint exercises were held in Thailand in 2015 and 2017, respectively. According to *China Military Online*’s article, “The exercise aims to deepen the cooperation and

³²¹ *Ibid.*

³²² Chen Zhuo, ed., “Special operations soldiers in parachute training,” *China Military Online*, May 5, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-05/05/content_10152322.htm.

³²³ Chen Zhuo, ed., “Special operations soldiers in parachute training,” *China Military Online*, May 5, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-05/05/content_10152322.htm.

³²⁴ Yao Jianing, ed., “China, New Zealand air forces conduct joint training exercises,” *China Daily*, June 12, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-06/12/content_8059033.htm; and Li Jiayao, ed., “Chinese military aircraft arrives in New Zealand for joint exercise,” *Xinhuanet*, June 12, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-06/12/content_8058599.htm.

³²⁵ *Ibid.*

³²⁶ Li Jiayao, ed., “China, Thailand host joint air force exercise “Falcon Strike 2018”,” *China Military Online*, September 7, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-09/07/content_9275202.htm.

exchanges between the two air forces, test combat tactics and methods, promote equipment development, and improve the actual combat training level of the two sides.”³²⁷

From mid-August to early September 2019, multiple PLAAF fighter jets participated in the joint exercise codenamed “*Falcon Strike 2019*” [sic] at the Udorn RTAFB.³²⁸ This was the fourth of such exercises between the two air forces. The article noted, “In recent years, Chinese and Thai air forces have carried out a series of pragmatic exchanges and cooperation.”³²⁹

From August 28 to September 4, 2019, the PLAAF’s airborne force participated in the tripartite China-Australia-United States Joint Exercise “*Kowari-2019*” in Keynes, North Queensland, Australia. The 2019 exercise was the sixth of the “annual joint exercises organized by the three countries’ Special Forces [sic].”³³⁰ According to *China Military Online*, “The airborne troops of the Chinese PLA Air Force participated in the survival training exercise by mixing into a number of groups with their counterparts from the Australian Army and the United States’ Marine Corps. The survival training exercise was carried out in a circular propulsion mode and involved a series of training activities such as hiking, sea kayaking, mountaineering and canyoneering.”³³¹ The article also stated that *Kowari-2019* was the first time the PLAAF’s airborne troops participated in the Kowari exercises, “fully demonstrating the openness, confidence and cooperation of the Chinese PLA Air Force.”³³²

A September 9, 2019, article discussed the PLA’s involvement in Russia’s *Tsentr-2019* strategic drills in Russia’s Orenburg region from September 16-21 that involved China, Pakistan, India, Kyrgyzstan, Kazakhstan, Tajikistan, and Uzbekistan.³³³ According to *China Military Online*, “China dispatched more than 1,600 troops from the Western Theater Command and some other units of the People’s Liberation Army (PLA), together with main battle equipment including Type 96A tanks, H-6K bombers, JH-7A fighter bombers, J-11 fighter jets, Il-76 and Y-9 transport planes and Z-10 attack helicopters.” The commander of the participating Chinese forces commented on the goals of the exercises, and stated, “The drills will further enhance and deepen the comprehensive strategic partnership of coordination for a new era between China and Russia. It also has significant meaning on boosting our military’s capability to deal with all kinds of security threats together with other countries’ militaries.”³³⁴ The same article noted other instances of Sino-Russian joint exercises, stating that in August 2018, China sent 3,200 troops to Russia for the *Vostok-2018 (East-2018)* strategic drill, marking the first time a foreign army took part in the Russian military exercise. In addition, in July 2019, China and Russia conducted their first joint strategic patrol in Northeast Asia, with the Chinese side dispatching two H-6K bombers and the Russian side dispatching two Tu-95 bombers.³³⁵

In August 2021, a total of 700 personnel organized into 17 teams from the PLA Army, Navy, Air Force, Strategic Support Force, and Joint Logistics Support Force competed in the 17 events of

³²⁷ *Ibid.*

³²⁸ Xu Yi, ed., “China, Thailand host joint air force exercise “Falcon Strike 2019”,” *China Military Online*, August 21, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-08/21/content_9597046.htm.

³²⁹ *Ibid.*

³³⁰ Xu Yi, ed., “China-Australia-US Joint Exercise “KOWARI 2019” held,” *China Military Online*, September 5, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-09/05/content_9611995.htm. Of note, the US Marine Corps does not have special forces as stated in the article. It has Special Operations Forces.

³³¹ *Ibid.*

³³² *Ibid.*

³³³ Huang Panyue, ed., “China sends H-6K bombers to Russia for strategic drills,” *Global Times*, September 9, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-09/09/content_9614996.htm.

³³⁴ *Ibid.*

³³⁵ *Ibid.*

the *IAG-2021*, which took place in Russia, Belarus, Uzbekistan, and Iran.³³⁶ A total of 18 countries participated. The PLA troops were transported to each country on PLAAF Y-20s. This was the eighth time the PLA participated in the *IAG*. One of the three *China Military Online* articles about the exercises stated that it “has become an important platform for the Chinese military and the militaries of other countries to learn from each other, cooperate closely, enhance mutual trust, and deepen friendship.”³³⁷ Teams from China, Belarus, Venezuela and Brazil, including 25 PLAAF personnel, competed in the Airborne Platoon Contest that took place in Russia’s Ryazanskaya Oblast. The competition included “airborne assembly and rapid march, as well as fixed-point parachuting competitions”.³³⁸ The PLAAF sent a fleet of three models of aircraft to participate in the *IAG*, including J-10B fighter jets, J-16 fighter jets, and Y-20 large transport aircraft. The aircraft took part in two competitions.³³⁹

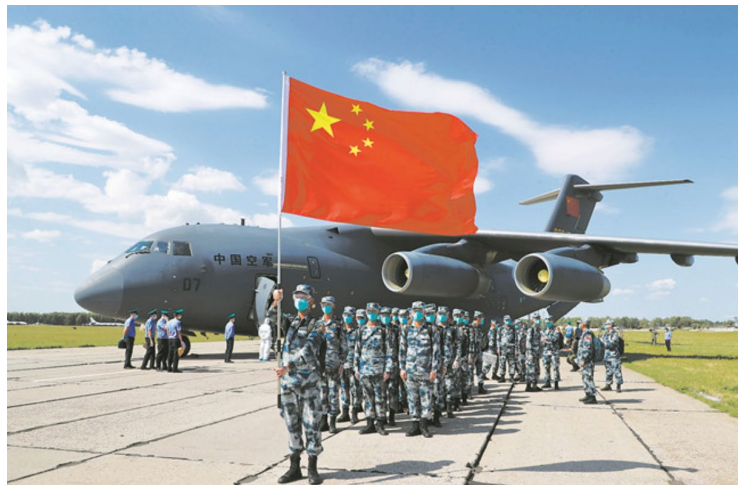


Figure 14: Chinese Troops Arriving for *IAG-21*³⁴⁰

7.4 Combat Training Exercise at Night

In early January 2023, a PLAAF training base launched a flight training exercise after midnight and at dawn.³⁴¹ According to a *China Military Online* article about the exercise, “The training started at 2 AM. As multiple fighter jets entered the combat airspace, the beyond-visual-range air

³³⁶ Wang Xinjuan, ed., “All 17 Chinese PLA teams to *IAG 2021* arrive at contest venues,” *China Military Online*, August 19, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-08/19/content_10078402.htm; and Wang Xinjuan, ed., “China’s military aircraft to debut in International Army Games 2021,” *Xinhuanet*, August 13, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-08/13/content_10075693.htm; and Huang Panyue, ed., “Chinese participants for Airborne Platoon contest of *IAG 2021* take first trial,” *China Military Online*, August 17, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-08/17/content_10077217.htm.

³³⁷ Wang, ed., “All 17 Chinese PLA teams to *IAG 2021* arrive at contest venues” *China Military Online*, August 19, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-08/19/content_10078402.htm.

³³⁸ Huang Panyue, ed., “Chinese participants for Airborne Platoon contest of *IAG 2021* take first trial,” *China Military Online*, August 17, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-08/17/content_10077217.htm.

³³⁹ Wang Xinjuan, ed., “China’s military aircraft to debut in International Army Games 2021,” *Xinhuanet*, August 13, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-08/13/content_10075693.htm.

³⁴⁰ Huang Panyue, ed., “Chinese participants for Airborne Platoon contest of *IAG 2021* take first trial,” *China Military Online*, August 17, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-08/17/content_10077217.htm.

³⁴¹ Li Weichao, ed., “Various fighter jets in air combat exercise,” January 3, 2023. Accessed at http://eng.chinamil.com.cn/ARMEDFORCES/AirForce/News_209159/16199241.html. This is an excellent video showing the flight activity and discussing the key issues fighter pilots face. For example, it notes that night flights are prone to spatial disorientation and it also discusses the aircraft maintenance process.

combat began. At the same time, the ground maintenance personnel and the support force of the training base accomplished hot-pit support for the fighter jets without stopping their engines or cutting off power supply.”³⁴²

8. Military Operations Other Than War

*Although the PLAAF has always conducted domestic disaster relief operations, such as the 2008 Sichuan (Wenchuan) earthquake, its international relief efforts were minimal until the 2000s.*³⁴³ *Since then, it has conducted several MOOTW missions abroad, which include humanitarian assistance and disaster relief (HA/DR). One of the key challenges for the PLAAF is the growing use of its heavy transports to support operations outside China’s borders and advance military relations.*

A very detailed October 30, 2018, article on *China Military Online* identified five PLAAF MOOTW missions going back several years, described below in the following bullets:³⁴⁴

- One of the primary units involved is the 13th Air Division, which was founded in 1952. Since 1964 it has been known as the Kunlun Eagle Group, and is headquartered in Wuhan, Hubei Province. According to the article, in the past 40 years more than 300 members of the transport unit have traveled to 32 countries on tasks such as providing humanitarian aid, international rescue and relief, and taking part in joint military exercises.
- In 2015, a PLAAF transport aircraft carried humanitarian supplies from Nanjing, Jiangsu Province, to Kathmandu, Nepal, after an earthquake in Nepal.
- In March 2015, a PLAAF transport flew from Incheon, South Korea, back to Shenyang, Liaoning Province, with the remains of soldiers from the Chinese People’s Volunteer Army who died in the Korean War. In September 2021, the PLAAF completed its eighth such mission, which used a Y-20 for this flight.³⁴⁵
- In March 2014, PLAAF IL-76 transport aircraft and 37 crew members participated in the search for Malaysia Airlines Flight MH370 (Boeing 777) that was carrying 239 passengers and crew, including 154 Chinese citizens, when it disappeared from radar screens during a flight from Kuala Lumpur to Beijing on March 8. The IL-76 deployed to Perth, Western Australia. According to the article, “By the time the search ended about six weeks later, the squadron had spent about 260 flying hours covering about 210,000 square kilometers of the southern Indian Ocean, and had provided the Malaysian authorities with 65 sightings of possible debris for further investigation.”³⁴⁶ All of this was touted as a means of improving international relations and cooperation.
- In February 2011, following the ousting of Libyan leader Muammar Gaddafi, the PLAAF deployed after receiving orders from the Central Military Commission to help evacuate Chinese citizens out of Libya within 24 hours. Four IL-76s flew from Urumqi, Xinjiang, to Libya with a refueling stop in Sudan, and the temperature rose by more than 50 degrees centigrade. After flying 9,500 kilometers in about 30 hours, the four planes arrived at Sebha International Airport, in the capital of south Libya’s Sebha district, and saw armed

³⁴² *Ibid.*

³⁴³ See Allen and Garafola, *70 Years of the PLA Air Force*, for more information.

³⁴⁴ Huang Panyue, ed., “Air Force transport squadron soars to elite status,” *China Daily*, October 30, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-10/30/content_9326273.htm.

³⁴⁵ Li Wei, ed., “S. Korea returns 109 remains of Chinese soldiers killed in Korean War,” *Xinhuanet*, September 2, 2021. Accessed at http://eng.mod.gov.cn/news/2021-09/02/content_4893834.htm.

³⁴⁶ *Ibid.*

soldiers everywhere as a result of the insurgency. The four transport planes carried 287 people back to China, while another 1,655 were safely ferried to Sudan. This was the first time the PLAAF had evacuated Chinese nationals from overseas.

In early February 2020, eight large PLAAF transport aircraft landed at Wuhan Tianhe International Airport, “delivering 795 military medical staff and 58 tons of supplies to help the city fight against the novel coronavirus epidemic.”³⁴⁷ As *China Military Online* relayed, “Under the command of the CMC, the aircraft took off in the early hours on Sunday from a military airport and headed for the cities of Shenyang, Lanzhou, Guangzhou, and Nanjing. Once loaded with the medical staff and supplies, the aircraft took off again and arrived in Wuhan between 8:55 a.m. to 9:30 a.m. successively.”³⁴⁸ According to the article, this was the largest number of large transport aircraft dispatched by the PLAAF in non-combat military operations since its disaster relief efforts in the 2008 Wenchuan earthquake in Sichuan Province and the 2010 Yushu earthquake in Qinghai Province.

On August 3, 2022, the PLAAF dispatched two Y-20 large transport aircraft carrying some 3,000 tents to aid flood-hit Pakistan.³⁴⁹ The aircraft took off from Shuangliu International Airport in Southwest China’s Sichuan Province and arrived in Karachi Airport. Two more aircraft were scheduled to carry another batch of humanitarian aid to Pakistan the next day. The *China Military Online* article about the relief effort noted that the Chinese Embassy in Pakistan said that China will provide a batch of emergency humanitarian supplies, including 25,000 tents and other supplies in dire need, “as well as \$300,000 emergency cash assistance to the flood-affected Pakistan People in times of need.”³⁵⁰

China Military Online’s coverage of China’s aid to Pakistan emphasized both China’s friendship with Pakistan as well as the suitability of the Y-20 for this type of mission. Regarding the former, the article cited remarks from a spokesperson from the Foreign Ministry, who said, “As all-weather strategic cooperative partners and ‘ironclad’ friends, China and Pakistan have been sharing weal and woe for a long time, reaching out to each other and responding to major challenges such as natural disasters side by side. In the wake of Pakistan’s floods, China responded immediately and will continue to provide much needed help to Pakistan in its disaster relief work.”³⁵¹

Regarding the Y-20, one of the pilots asserted that the Y-20 “is fully capable of complicated long-range transport missions in fast speed and adaptable to emergency use. The use of this military equipment is to ensure the most needed humanitarian aid can be delivered to Pakistan at an early time so as to help Pakistani people to combat floods and rebuild their homes.”³⁵² According to the article, Y-20s had already participated in multiple missions of delivering disaster relief supplies to overseas countries. It cited an example from 2021 in which two Y-20s carrying disaster relief supplies arrived in Tonga “after traveling a record-breaking distance of more than 10,000 kilometers and withstanding challenges including the presence of volcanic ash.” The article cited unnamed experts who said a single Y-20 “is said to be able to carry more than 60 tons of cargo.”³⁵³

On September 11, 2022, a regiment subordinate to the WTCAF dispatched a helicopter to transport three experts to the epicenter of an earthquake in Sichuan for a post-earthquake

³⁴⁷ Dong Zhaohui, ed., “PLA air force dispatches 8 transport aircraft to support Wuhan’s coronavirus fight,” *Xinhuanet*, February 3, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-02/03/content_9730791.htm.

³⁴⁸ *Ibid.*

³⁴⁹ Wang Xinjuan, ed., “China dispatches Y-20 large transport aircraft with 3,000 tents to aid flood-hit Pakistan,” *Global Times*, August 31, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-08/31/content_10181719.htm.

³⁵⁰ *Ibid.*

³⁵¹ *Ibid.*

³⁵² *Ibid.*

³⁵³ *Ibid.*

geological disaster survey.³⁵⁴ The epicenter was in Wandong Village, Detuo Town in Luding County. According to *China Military Online*'s article, "Since the Wandong Village is sandwiched by mountains and there isn't a relatively flat ground for landing, the helicopter landed on the roof of a dilapidated building with a single wheel to ensure that the experts could reach the ground safely."³⁵⁵

On January 15, 2022, tsunami waves hit the South Pacific island nation Tonga following a series of violent volcanic eruptions from underwater Hunga Tonga-Hunga Ha'apai volcano, 65 km north of the Tongan capital.³⁵⁶ The tsunami had a significant impact on part of the foreshore of Tonga, with boats and large boulders washed ashore and shops along the coast damaged. It also caused adverse conditions such as volcanic ash. Two PLAAF transport aircraft left Guangzhou, south China, for Tonga and made a stopover in Fiji. The aircraft landed in the Tongan capital of Nuku'alofa the following day. The aircraft left Fiji for China after delivering more than 30 tons of relief supplies to Tonga. The relief supplies included food, drinking water, water purifiers, tents, prefab houses, tractors, and radio communication equipment.³⁵⁷

China Military Online ran three articles in 2021 regarding the PLA's efforts to aid flood-stricken areas in Henan, Central China.³⁵⁸ According to the articles, the Central Theater Command (CTC) dispatched a total of 67 rescue batches to flood-stricken areas in Henan. These included more than 8,600 officers and soldiers of the PLA and People's Armed Police Force (PAP), together with more than 11,000 militia and reserve personnel. With more than 1,300 vehicles and equipment and 217 rafts, they continued to carry out rescue operations and reconstruction tasks in over 30 places in Henan. Concerning the PLAAF's involvement, an aviation brigade assigned to the Central Theater Command Air Force (CTCAF) dispatched 171 officers and soldiers to carry out dredging operations in the tunnel underneath the Huanghe Road, Zhengzhou, and successively cleared hundreds of cubic meters of silt. In addition, a brigade of the airborne troops dispatched about 650 members to the breach section of Jialu River to reinforce the dam and block the overflow. The PLA CTC also used reconnaissance satellites and planes to monitor the situation in flood-hit areas.

9. Pilot Recruitment, Education, and Training

*The MND website has 17 articles about PLAAF pilot recruitment, education, and training, which covers the following topics:*³⁵⁹ *annual cadet recruitment, females, different aircraft variants, and flight training. The information is organized by date from 2018 to 2023. Of note, in 2004, the*

³⁵⁴ Li Wei, ed., "Air force helicopter shows single-wheel landing in special flight mission at epicentral area," *China Military Online*, September 14, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-09/14/content_10184629.htm.

³⁵⁵ *Ibid.*

³⁵⁶ Huang Panyue, ed., "Chinese military planes send relief supplies to tsunami-hit Tonga," *Xinhuanet*, January 29, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-01/29/content_10127755.htm.

³⁵⁷ *Ibid.*

³⁵⁸ Li Wei, ed., "PLA supports reconstruction of the flood-stricken areas in Henan," *China Military Online*, July 27, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-07/27/content_10067439.htm; and Li Wei, ed., "PLA Central Theater Command sends more troops for disaster relief in Henan," *China Military Online*, July 22, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-07/22/content_10065495.htm; and Wang Xinjuan, ed., "Central Theater Command dispatches forces for disaster relief, rescue in Henan," *China Military Online*, July 21, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-07/21/content_10064902.htm.

³⁵⁹ See Allen and Garafola, *70 Years of the PLA Air Force*, for detailed information on this issue. Also see Kenneth W. Allen, *Females in the PLA Air Force*, China Aerospace Studies Institute, November 2021.

PLAAF created the Air Force Aviation University (AUAF) in Changchun, Jilin Province. In 2011, it merged its seven flight academies into three – Harbin, Shijiazhuang, and Xi'an.

On January 30, 2018, pilot cadets at the Harbin Flight Academy received their first free air combat training in a temperature of minus 20 degrees Celsius.³⁶⁰ According to the article, “This was the first time that the PLA Air Force has introduced free combat training in pilot cadets’ training programs of flight academies, conveying a signal of further advancement of the real battle training in flight academies.” It also noted, “The [Harbin Flight Academy] is the pioneer among the flight academies to include the free air combat training in its syllabus of air combat tactics. For this purpose, the academy has refitted the FTC-2000 Mountain Eagle [JL-9] trainer.”³⁶¹ As stated in the article, “The contents of the free air combat training course include the air combats [sic] with offensive position advantage, defensive position disadvantage and balanced positions, as well as other tactics the pilots will take in the real air battle. The fourth-year pilot cadets will be engaged in the free air combat training throughout the whole training session before their graduation. After completing the free air combat training, they will have the basic qualifications of an air force pilot.” The article quoted an official from the flight academy, who said, “At present, the training effectiveness are [sic] way better than the past,” since the free air combat training allows pilot cadets to perceive the battlefield situation in “real confrontations” and helps them to have a better command of flight maneuverability and tactics. During the next step, the pilot cadets receive training on the subjects of two-to-one free air combat, ground targets firing practice, and night formation flying. According to the article, “The free air combat training with the closest proximity to real operations on the basis of risk aversion is the most effective way for the air force aviation troops to improve their fighting capacity. One of the highest honors of PLAAF pilots, the “*Golden Helmet*”, is set for winners in free air combat competitions.”³⁶²

On March 5, 2018, the PLAAF kicked off the pilot recruitment for 2018 by setting up stations in eight cities where over 13,000 junior and senior high school graduates and graduates of military academies were expected to participate in pilot candidates selection examinations.³⁶³ Senior high school graduates from Jiangxi, Heilongjiang, Yunnan and Guizhou provinces and two autonomous regions of Guangxi and Tibet, as well as 16 youth aviation schools affiliated with the PLAAF were expected to participate in selection examinations at stations in the cities of Nanjing, Changsha, Chengdu and Shenyang from March 5 to April 18.³⁶⁴ Senior high school graduates from the rest of the provinces were expected to participate in pilot candidates selection examinations in the stations set by the PLAAF in the cities of Beijing, Changsha, and Chengdu from June 14 to July 2. The pilot recruitment examination for military academy graduates was set to take place in Nanjing from March 15 to 17. The admission examination of the PLAAF’s 16 youth aviation schools for junior high school graduates was scheduled to be held in the cities of Shijiazhuang, Chengdu, Jinan, Nanjing, Changsha, Shenyang and Xi’an from March 19 to May 29.

³⁶⁰ Li Jiayao, ed., “Free air combat training course included in air force flight academy syllabus,” *China Military Online*, February 6, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-02/06/content_7934591.htm. See Allen and Garafola, *70 Years of the PLA Air Force*, for background material on “free air combat.”

³⁶¹ *Ibid.*

³⁶² *Ibid.*

³⁶³ Li Jiayao, ed., “Air Force annual pilot recruitment in full swing,” *China Military Online*, March 7, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/07/content_7963340.htm.

³⁶⁴ See Marcus Clay, *China’s “Little Eagles”: People’s Liberation Army Developing Its Next-Generation Pilots*, China Aerospace Studies Institute, 2019.

In mid-July 2018, the PLAAF's pilot recruitment campaign in 2018 concluded.³⁶⁵ According to *China Military Online*, more than 123,000 graduates of general high schools attended the recruitment examination. After primary and secondary examinations, 5,100 graduates attended final examinations of physical, psychological, and political conditions. Finally, the PLAAF recruited 1,480 out of the 2,452 qualified graduates. The article noted that "This year [2018], the PLA Air Force adopted artificial intelligence, digital simulation and other new technologies in order to improve the standards and accuracy of pilot recruitment." Furthermore, "According to available data, the recruited pilot cadets' average scores in the College Entrance Examination (CEE) are 60 points higher than the admission scores of key universities and colleges in their respective provinces, and about 20% of them had scores higher than 600 points; and the number of high-score students doubled compared with the previous two years. This sets a new record for the quantity and quality of pilot recruitment since the PLA Air Force began self-recruitment of pilots in 1988."³⁶⁶

In mid-March 2018, 17 female pilot cadets studying in the Harbin Flight Academy started to receive night flight training on advanced trainer aircraft at a military airport in western Liaoning Province.³⁶⁷ As described in the article, night flight training is also known as instrument night flying. In the training, pilots mainly rely on the cockpit instruments and ground lighting to operate the aircraft; "therefore, it is a great challenge to pilots' physical and mental conditions as well as their piloting skills." According to a flight instructor of these female pilot cadets, they have been familiar with the lighting landmarks at the airport, the application procedures of lighting equipment in the trainer aircrafts, having a basic command of the skills of piloting the advanced trainer aircraft in a night flight training. The 17 pilot cadets, who enrolled in the academy in 2013, are the 10th group of female pilot cadets of the PLAAF. They were scheduled to graduate from the flight academy in June 2018 and would then begin refitting training for flying fighter jets in the future.

In March 2018, the Harbin Flight Academy conducted stall and spin recovery training with their JL-8 advanced fighter trainer airplanes.³⁶⁸ According to the *China Military Online* article, this was the first such training on the JL-8 fighter trainer airplane since it was deployed to the PLAAF's flight academies over two decades ago. A flight instructor explained the significance of this training, stating, "The stall and spin recovery is a special stall resulting in autorotation about the vertical axis and a shallow, rotating, downward path. The stall and spin recovery not only leads to a drastic drop in the maneuverability of the aircraft, but also seriously jeopardizes flight safety, thus it is also known as the "death trap". There have been a few serious stall and spin flight accidents in the regular training of the PLA Air Force."³⁶⁹ According to a professor at the PLAAF Command College, "30-odd years ago, the PLA Air Force organized a special training program to prevent stall and spin in response to frequent relevant stall and spin accidents in flight training among aviation troops and academies. The purpose of the stall and spin recovery training on the JL-8 fighter trainer airplanes is to lay a solid foundation for pilot cadets at the basic flight training stage to "prevent stall and spin accidents, strengthen their capability to handle special conditions, and temper their mental qualities".³⁷⁰

³⁶⁵ Li Jiayao, ed., "PLA Air Force's pilot recruitment hits a new record high in quantity and quality," *China Military Online*, July 18, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-07/18/content_8092766.htm.

³⁶⁶ *Ibid.*

³⁶⁷ Li Jiayao, ed., "Air Force female pilot cadets fly advanced trainer aircraft before graduation," *China Military Online*, March 19, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/19/content_7977514.htm.

³⁶⁸ Huang Panyue, ed., "PLA Air Force spreads stall/spin recovery training on JL-8 aircraft in flight academies," *China Military Online*, March 27, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-03/27/content_7985275.htm.

³⁶⁹ *Ibid.*

³⁷⁰ *Ibid.*

A June 2018 *China Military Online* article noted that the “third batch” of female fighter jet pilots will soon begin their service with the PLAAF after graduating from the Harbin Flight Academy.³⁷¹ According to the article, “A total of 38 female high school graduates were recruited for the pilot training program, after being selected from hundreds of thousands of applicants. All of them scored highly in the college entrance exam, and passed the strict physical examination which includes more than 100 tests.” It also stated that the pilot training program has an “intense selection process” that saw about two thirds of candidates eliminated by August 2017. One cadet noted that she “has to complete a 10-kilometer run, two 3-kilometer runs, two 1.5-kilometer runs, and multiple 400-meter runs on a daily basis. In addition, she has to cover plenty of other physical training, including parallel bars and practicing how to body-roll.”³⁷² Apart from physical training, the cadets also face complicated and intricate theoretical studies. They have to finish nearly 20 courses on aviation theory before they begin real flight training. The article added, “The most difficult part about their training is that the requirements are the same for female and male cadets” and included a trainer’s observation that “Though the male cadets are physically stronger, the girls never back down.” The article concluded by stating “The role of a fighter jet pilot is a high-risk job, as these female cadets have known since they first registered for the program, and they are aware of future challenges.”³⁷³

From August 30 to September 2018, the PLAAF hosted its aviation open day activities at the AUAF in Changchun featuring the theme of “Dream High in Aerospace”.³⁷⁴ The PLAAF welcomed more than 1,400 new pilot cadets at the opening ceremony on August 30. [See the Changchun Open-house Event and Airshow section for more detail on the event.]

Beginning in late 2018, the Shijiazhuang Flight Academy received the first JL-10 Falcon advanced trainers and spent six months developing a new training program, which trains flight instructors on how to teach cadets.³⁷⁵ As *China Military Online*’s coverage explained, the newly commissioned JL-10 is “an aircraft designed to familiarize cadets with the country’s top combat planes like the J-16 and J-20.... The JL-10 is an incubator for third- and fourth-generation jet fighter pilots.” It also reported that PLAAF’s new training program with the JL-10 allows the PLAAF to shorten the training period of pilot cadets and to promote their familiarization with the equipment in combat troops.³⁷⁶ In July 2020, *China Military Online* reported that the first batch of pilot cadets trained in the JL-10 all graduated “with excellent performance” from the Shijiazhuang Flight Academy and were qualified for the requirements of combat troops.³⁷⁷ The first class of cadets began flying the JL-10 in 2019 to learn basic flying techniques and began participating in solo tactical training since the Spring Festival holidays ended. The Shijiazhuang Flight Academy was satisfied with the JL-10 and recognized its performance during the specialized training. According to reporting, “After one year’s training, the batch of pilot cadets completed all the prescribed training subjects and achieved excellent examination results. Compared with predecessors, their

³⁷¹ Huang Panyue, ed., “Third batch of female fighter jet pilots to officially join PLA Air Force,” *China Military Online*, June 14, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-06/14/content_8061697.htm.

³⁷² *Ibid.*

³⁷³ *Ibid.*

³⁷⁴ Huang Panyue, ed., “PLA Air Force to host aviation open day activities in Changchun,” *China Military Online*, August 29, 2018. Accessed at http://eng.chinamil.com.cn/view/2018-08/29/content_9266704.htm.

³⁷⁵ Huang Panyue, ed., “Chinese Air Force intensifies jet training for pilots,” *Global Times*, March 9, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-03/09/content_9763199.htm; and Wang Xinjuan, ed., “First batch of Air Force pilot cadets flying JL-10 jet trainers graduate,” *China Military Online*, July 20, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-07/20/content_9857204.htm.

³⁷⁶ *Ibid.*

³⁷⁷ Wang Xinjuan, ed., “First batch of Air Force pilot cadets flying JL-10 jet trainers graduate,” *China Military Online*, July 20, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-07/20/content_9857204.htm.

per capita consumption of airborne ammunition doubled under the same flight duration. Now, they have been assigned to the combat troops, and will carry out actual combat flight training after necessary adaptation training.”³⁷⁸ One expert quoted in the article predicted that “China will train more pilots with advanced aircraft, as more fighter jets are being commissioned by the Air Force.”³⁷⁹

On June 13, 2019, a total of 112 students from 12 provinces (municipalities and autonomous regions), including Beijing, Liaoning, Xinjiang, and Tibet, came for the 2019 PLAAF’s final-stage pilot recruitment examination at the pilot recruitment test base in Beijing.³⁸⁰ As *China Military Online*’s article observed, “This marked the full-scale development of the 2019 PLAAF’s pilot recruitment campaign. Examination at present stage was scheduled to be under way from June 13 to July 1, making final selections according to the combination of the students’ performance in the National CEE and previous comprehensive assessment results. According to the recruiting staff, more than 2,100 ordinary high school graduates, including nearly 200 female ones, would be examined in 17 batches. And the 12th batch of the PLAAF female pilot cadets recruited nationwide every two years would be selected from these candidates, 40 of whom would get enrolled. According to reports, the PLAAF’s admission policy would remain as usual in 2019, such that the candidates who had passed the examinations of physical, psychological, and political conditions and reached the entrance requirement of first-class universities and colleges in CEE would be qualified to apply for the recruitment.”³⁸¹ The reporting concluded, “The whole selection process will be carried out under real-time monitoring, and in line with systems including ‘double check and double signing’ and ‘three-level inspections’. In addition, an inspection team to keep honesty and integrity in pilot recruitment was set up with the telephone number (010-66921813), report box and e-mail address (kjzfb123@163.com) released for public supervision, so as to ensure that the recruitment and selection work is open and transparent, fair and just.”³⁸²

On June 30, 2019, the selection and recruitment of the 12th batch of the PLAAF’s female pilot cadets kicked off in Beijing.³⁸³ As *China Military Online*’s coverage stated, “Nearly 200 female high school graduates from various provinces (including autonomous regions and municipalities directly under the Central Government) who passed the primary selection will go through “a high level in physical and psychological selections to compete for 40 places. According to the recruiting staff, this is the second time that the Air Force has recruited female pilots nationwide since two years ago [2017]. The candidates must undergo 10 categories of over 100 medical tests, and more than 400 psychological tests during the process. The Air Force will select the best nationwide based on the combined consideration of the recruiting criteria of the fighter pilots and the candidates’ performance in the National College Entrance Examination (CEE) and the recruitment examinations.” The article also noted that, “Different from previous years, female cadets with outstanding enlisting results can enter Peking University, or Tsinghua University, for joint training with ‘dual enrollment’ just like their male counterparts.”³⁸⁴ According to the article, the Air Force began to recruit female pilot cadets in 1951 and had enlisted more than 600 people in 11 batches so far. “In the future, female pilot cadets will be given more opportunities to control

³⁷⁸ *Ibid.*

³⁷⁹ Huang Panyue, ed., “Chinese Air Force intensifies jet training for pilots,” *Global Times*, March 9, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-03/09/content_9763199.htm.

³⁸⁰ Chen Zhuo, ed., “PLA Air Force’s pilot recruitment campaign in 2019 is in full swing,” *China Military Online*, June 17, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-06/17/content_9532445.htm.

³⁸¹ *Ibid.*

³⁸² *Ibid.*

³⁸³ Xu Yi, ed., “PLA Air Force recruits its 12th batch of female pilots,” *China Military Online*, July 1, 2019. Accessed at http://eng.chinamil.com.cn/view/2019-07/01/content_9544134.htm.

³⁸⁴ *Ibid.*

more types of aircraft and carry out more diverse tasks than before. They will extensively participate in China-foreign joint trainings and international exchange activities.”³⁸⁵

In March 2020, the first batch of PLAAF female flight instructors and the pilot cadets they instructed flew together in China’s primary trainer aircraft CJ-6 at the training base of a regiment under the AUAF.³⁸⁶ This was the first time for the PLAAF to select female pilots from aviation units to become flight instructors. Once they were selected as pilot cadets several years ago, they received training at the AUAF, the Harbin Flight Academy, and an aviation brigade, successively, accumulating flight experience with different types of aircraft, including primary trainers, advanced trainers, and fighter jets. As the *China Military Online* article explained, “In August 2019, they finished the conversion training for flight instructors, which strictly followed the guideline of latest CJ-6 flight instructor training program and aimed to comprehensively improve their teaching capability. As the first batch of female flight instructors assigned to the PLAAF, they have passed 36 theoretical and practical examinations with excellent performance at the end of February [2019], completing the transition from combatants to instructors successfully.”³⁸⁷



Figure 15: “A Female Flight Instructor Smiles Before Taking off with a Pilot Cadet”³⁸⁸

In July 2020, the PLAAF’s pilot recruitment campaign in 2020 was in full swing.³⁸⁹ More than 3,800 fresh high school graduates who passed the preliminary and second round of selection were in the final-stage test. As *China Military Online* reported, “Given the prevention and control situation of the COVID-19 pandemic [in 2020], no recruitment test base was set up in Beijing for the first time. Instead, three pilot cadet recruitment test bases were established in Jinan of Shandong Province, Chengdu of Sichuan Province, and Changsha of Hunan Province. More than 2,000 candidates from 16 provinces including Shandong, Henan, Heilongjiang, etc. would be examined in 16 batches in Jinan, while more than 1,800 candidates from 15 provinces including Sichuan,

³⁸⁵ *Ibid.*

³⁸⁶ Chen Lufan, ed., “PLA Air Force’s first batch of female flight instructors take cadets to sky,” *China Military Online*, April 7, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-04/07/content_9786495.htm.

³⁸⁷ This most likely took place at the Flight Instructor Training Base in Bengbu, Anhui Province, which was subordinated to the Aviation University in 2011. Of note, it is rare for a pilot for an operational unit to become a flight instructor at the Aviation University or one of the Flight Academies.

³⁸⁸ Chen Lufan, ed., “PLA Air Force’s first batch of female flight instructors take cadets to sky,” *China Military Online*, April 7, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-04/07/content_9786495.htm.

³⁸⁹ Huang Panyue, ed., “PLA Air Force’s pilot cadet recruitment campaign in 2020 in full swing,” *China Military Online*, July 17, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-07/17/content_9855508.htm.

Shaanxi, Xinjiang, etc. would be under test simultaneously in Chengdu or Changsha.”³⁹⁰ The article also noted that, “Prior to testing, all recruiting staff and candidates would be required to take nucleic acid test (NAT), and for the first time, expert examiners will carry out the medical assessment system for selection via video link. The campaign aims to comprehensively evaluate the basic physical fitness, physical adaptability in aviation, mental health and individual mental characteristics of the candidates, which includes two major items, medical selection and psychological selection. Medical selection covers more than 100 physical examination items in 10 categories, and psychological selection includes more than 400 tests on 4 testing platforms.”³⁹¹ Finally, the article stated, “A total of more than 90 medical experts and over 70 psychologists have been selected by the PLA Air Force to participate in this pilot recruitment campaign. The whole selection process would be carried out under real-time monitoring and be completed by early August.”³⁹²

In early January 2022, the first batch of pilot cadets that were directly trained with J-10 third-generation fighter jets completed their solo flight assessment.³⁹³ The PLAAF initiated a brand-new training mode for pilots at the Shijiazhuang Flight Academy in 2021, including introducing the J-10 fighter jets into the flight academy. Previously, they were only commissioned to the combat troops. As *China Military Online* reported, the reason for the changes was so that the young pilot cadets who have been trained with the J-10 at the academy “could turn into combatants of the third-generation fighter jets after graduation.”³⁹⁴

At the end of July 2022, the PLAAF successfully wrapped up its 2022 pilot cadet recruitment, with over 1,000 senior high school graduates enrolled by the PLAAF as pilot cadets.³⁹⁵ The PLAAF dispatched Y-20 transport aircraft for the first time on July 31 to send newly-admitted pilot cadets to the AUAF for registration, “in an effort to boost their sense of honor and professional pride”. As *China Military Online* described, “On July 31 and August 1, the air force set up boarding points in Shijiazhuang, Jinan, Nanjing, Changsha, and Chengdu, where newly-admitted pilot cadets boarded the Y-20 aircrafts which will send them to the Aviation University of Air Force for registration. This is the first time the PLAAF has sent Y-20 to deliver pilot cadets to school.”³⁹⁶ It also cited the pilot selection bureau of the PLAAF, which said “since the Air Force began the admission of pilot cadets independently 30 years ago, the number of newly-admitted pilot cadets [in 2022] has set a new high, including over 400 graduates from the youth aviation schools jointly opened by the Air Force and 16 superior senior high schools in China.”³⁹⁷ The article also added that “The newly admitted pilot cadets’ average score on the National College Entrance Exam was 59 points higher than the threshold score for key universities, and 60 of them will go to Peking University, Tsinghua University, or Beijing University of Aeronautics and Astronautics to spend the first three years of their college life there and then transfer to the AUAF to receive aviation theory learning and flight training. Since 2012, the PLAAF has started to train pilot cadets jointly with the above three universities.”³⁹⁸

³⁹⁰ *Ibid.*

³⁹¹ *Ibid.*

³⁹² *Ibid.*

³⁹³ Wang Xinjuan, ed., “PLAAF flying college introduces J-10 fighters in flight training program of pilot cadets,” *China Military Online*, January 6, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-01/06/content_10121211.htm.

³⁹⁴ *Ibid.*

³⁹⁵ Lin Congyi, ed., “Air Force Y-20 aircraft sends newly-enrolled pilot cadets to universities,” *China Military Online*, August 3, 2022. Accessed at http://eng.chinamil.com.cn/view/2022-08/03/content_10175525.htm.

³⁹⁶ *Ibid.*

³⁹⁷ *Ibid.*

³⁹⁸ *Ibid.*

10. Miscellaneous

This section provides miscellaneous information not included in the previous sections, including regulations concerning aircraft markings and Y-5 small aircraft cloud seeding.

In March 2020, the PLAAF issued *Regulations on Air Force Aircraft Painting and Marking (Trial)*, hereafter referred to as the Regulations.³⁹⁹ As the article noted, “It is known that the low visibility of aircraft painting and marking in the air is a practical requirement and development trend for actual combat, so it is important to reduce the probability of visual discovery. The newly issued Regulations fully correspond to such a requirement and set clear standards for the painting and marking of various aircraft of the PLAAF.”⁴⁰⁰ It further explained, “The Regulations consist of five chapters and 16 articles, which require newly-developed combat aircraft to be fully painted with low-visibility coating, and those old aircraft on active duty to apply unified marking painting. Requirements for special markings, such as national flag, ‘Chinese Air Force’ and ‘Red Cross’ are also included.... The new Regulations will be implemented in 2020 in a gradual manner. It will play an important role in strengthening the aircraft painting and marking management and adapting to actual combat requirements at present and in the future.”⁴⁰¹

As *China Military Online* reported in a February 2021 article, since 1982 the PLAAF has been using its Y-5 Colt small general transport aircraft in western China “to sow tree seeds and grass seeds to the desolate land and to sow clouds to create rain”.⁴⁰² As the article explained, “At the beginning of the 20th century, the natural environment in northwestern China was a severe desert. The violent winds in the Mu Us [Ordos] Desert between Shaanxi Province and Inner Mongolia Autonomous Region continued to sweep sands and expand southward, forcing Yulin City in Shaanxi Province to move southward three times.”⁴⁰³ Since 1982, the aircraft have “sprayed more than 10,000 tons of seeds over more than 300 seeding areas in 130 counties (cities) throughout seven provinces (regions), including Inner Mongolia, Sichuan, Guizhou, Shaanxi, Gansu, Qinghai, and Ningxia. The operating area exceeds 26 million *mu* (17.3 trillion square meters).”⁴⁰⁴ Regarding the use of the older Y-5s, the article stated, “Some people wondered why the aerial seeding and afforestation mission has to use the Y-5 transport aircraft, now that the PLA Air Force has already commissioned many advanced models of aircraft. The reason is that the Y-5 has a very stable flying performance, especially good at low-altitude flight and being able to take off and land at airstrips. At the same time, it boasts an economical operating cost. Aerial seeding and afforestation missions are mostly carried out in barren mountains and ridges, vast deserts, and Gobi wastelands. There are no control towers for aircraft, and the operations have to be completed at ultra-low altitudes, which are difficult and dangerous. The undulating Gobi, the unpredictable sand storms, and the erratic hot and cold air currents make it much more challenging to fly in the seeding areas, compared with regular training flights.”⁴⁰⁵ The article concluded by describing the seeding program’s success. “Thirty-nine years on from 1982, the aerial seeding and afforestation mission by the Air Force has never stopped. They have successfully air-seeded and afforested an area of 5.91 million *mu* (3.9 trillion square meters), and the vegetation coverage has increased from about 5 percent to the current 50.4 percent. They

³⁹⁹ Chen Zhuo, ed., “PLA Air Force issues aircraft painting and marking regulations,” *China Military Online*, March 13, 2020. Accessed at http://eng.chinamil.com.cn/view/2020-03/13/content_9768160.htm.

⁴⁰⁰ *Ibid.*

⁴⁰¹ *Ibid.*

⁴⁰² Li Jiayao, ed., “PLA Air Force turns desert into oasis through 39 years’ efforts,” *China Military Online*, February 4, 2021. Accessed at http://eng.chinamil.com.cn/view/2021-02/04/content_9980721.htm.

⁴⁰³ *Ibid.*

⁴⁰⁴ *Ibid.*

⁴⁰⁵ *Ibid.*

made the impossible possible. For now, the Yulin area of Shaanxi has transformed from a desert area to a granary with an oasis.”⁴⁰⁶

11. Conclusions

The English language articles found in the *China Military Online* website provide valuable information for the international community about what the PLAAF is doing with a focus on the aviation component. As such, the articles provide a good source for foreign military attaches in Beijing to use as a basis for discussions. Unfortunately, there are certain topics that are not covered, including organizational structure, non-aviation education institutions, military diplomacy, larger personnel issues, and the “four key training brands”, which include 1) the *Golden Helmet* competition, 2) the *Golden Dart* competition, 3) the *Blue Shield* exercise, which includes the *Golden Shield* competition, and 4) the *Red Sword* exercise. Given the number of articles continually decreased from 66 in 2018 to 33 in 2019 to 22 in 2020 to 20 in 2021 and 16 in 2022, the website will most likely have only about 20 articles during 2023, and they will cover the same basic topics.

⁴⁰⁶ *Ibid.*

5 APPENDIX A: ACRONYMS

Acronym	Term
ADIZ	Air Defense Identification Zone
AESA	active electronically scanned array
AEW	Airborne Early Warning
ALBM	Air-launched ballistic missile
ALCM	Air-launched cruise missile
AUAF	Air Force Aviation University
AVIC	Aviation Industry Corp of China
CASI	China Aerospace Studies Institute
CASIC	China Aerospace Science and Industry Corporation
CCP	Chinese Communist Party
CEE	College Entrance Examination
CMC	Central Military Commission
CPMIEC	China Precision Machinery Import & Export Corporation
CTC	Central Theater Command
ETC	Eastern Theater Command
ETCAF	Eastern Theater Command Air Force
HA/DR	Humanitarian assistance and disaster relief
HAIC	Hongdu Aviation Industry Corporation
IAG	International Army Games
MAKS	Moscow Air Show
MND	Ministry of National Defense
MOOTW	Military Operations Other Than War
NAT	Nucleic acid test
NTC	Northern Theater Command
OMTE	Outline of Military Training and Evaluation
PAC	Pakistan Aeronautical Complex
PAP	People's Armed Police Force
PLA	People's Liberation Army
PLAAF	PLA Air Force
RAF	Russian Air Force
RTAFB	Royal Thai Air Force Base
STC	Southern Theater Command
UAV	Unmanned Aerial Vehicle
WTC	Western Theater Command
WTCAF	Western Theater Command Air Force