

# China's Perspective on the Use of Russian Airpower

## What lessons is the People's Liberation Army learning from the air battle in Ukraine?

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### Introduction

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The aim of this study is to examine what lessons the Chinese People's Liberation Army (PLA) is learning from the air battle in Ukraine. This Part 1 of a two-part commentary analyzes and explains "(1) China's perspective on the use of Russian airpower." Part 2 will analyze and explain "(2) China's vision of future air battle."

The Russian invasion of Ukraine, initiated on February 24, 2022, is approaching its one-and-a-half-year mark. Contrary to most expectations, Russia, a military great power, has struggled in its aggression against Ukraine,<sup>1</sup> with the Ukraine war becoming a war of attrition and still no clear signs of de-escalation. In particular, unable to gain air superiority, Russia's airpower remains unable to affect the overall war situation.<sup>2</sup>

Since the initial outbreak of the war, the Russian forces have lost many operational aircraft due to shoot-downs and self-caused accidents.<sup>3</sup> Furthermore, Russian Air Force aircraft have been successively shot down by anti-aircraft missiles of the air defense forces,<sup>4</sup> while an Su-34 Russian Air Force fighter-bomber accidentally bombed a Russian city (Belgorod) near the border with Ukraine, exposing the poor coordination and cooperation of Russian military operations.<sup>5</sup> Some suggest that they are the result of a complex interplay of diverse factors, such as limited military budget, outdated weapons technology, insufficient flight hours of pilots, low aircraft operational readiness (OR) rates, uncoordinated command, and a lack of precision-guided munitions.<sup>6</sup>

While the West assesses that Russia's air operations are not progressing smoothly,<sup>7</sup> what is China's assessment of the operations? This question is worthy of examination, especially considering that assessments and discussions by Chinese military officers may be applied to future PLA strategies and tactics. However, from the immediate outset of Russia's invasion of Ukraine, the PLA's official newspapers such as

the *PLA Daily* and *National Defense News* have published very few articles that explicitly explain the lessons from the Ukraine war. Conversely, China's mainstream media have begun to frequently carry discussions by military officers.

This article presents and offers a partial discussion of how Chinese military officers perceive the Russian forces in terms of the air battle in Ukraine. The analysis draws on insights from the limited number of Chinese discussions available and, where there are inadequacies, supplements with insights from Western discussions.

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## A former PLA major general's assessment of the Russian Air Force

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In February 2023, former PLA Major General Jin Yanan commented on the Russian forces and the Ukraine air battle in an interview with *Shanghai Observer*. As *Shanghai Observer* is not affiliated with the PLA like the *PLA Daily* and Jin Yanan is a retired military personnel, the views expressed may not necessarily represent the official views of the PLA. Nevertheless, his comments are still worthy of reference. The former PLA major general makes the observation that the low level of Russia's air operations was inevitable.<sup>8</sup>

The Ukraine conflict not only exposed the vulnerability of Russia's limited airpower (空中力量薄弱) but also had an adverse impact on Russia's entire special military operations. If Russia had succeeded in capturing Antonov Airport and steadily landed more than 70 Il-76 transport aircraft (70 多架伊尔-76 顺利降落), allowing for the smooth airlift of heavy weaponry, it could have promptly occupied Kyiv and turned the war in its favor. However, the Ukrainian heavy brigade near Antonov Airport destroyed the runway, preventing the transport aircraft of the Russian Air Force from landing. As a result, the Russian forces' initial operational plan had to be extensively revised. They were clearly ill-prepared, and their airpower was evidently inadequate.<sup>9</sup>

If the U.S. Air Force were to undertake such a mission, it would have likely conducted sufficient suppression of enemy air defenses (SEAD) and air interdiction (AI) operations. In contrast, the Russian Air Force only dispatched helicopters. It neither sent attack aircraft (没有出动强击机), nor provided the necessary air support to the airborne units that occupied the airport (也没有给占领机场的空降兵部队提供有效的空中掩护). Their special military operations continued without effective cover, and the low level of the operational capability of the Russian Air Force was showcased to the world.<sup>10</sup>

The assessment reflects the personality of Jin Yanan, who is known as a hardliner in the PLA.<sup>11</sup> But even leaving that aside, it is unusual for a former PLA major general to openly criticize the Russian Air Force to the above extent.

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## **An issue from China’s perspective: Russian Air Force unable to depart from outdated tactics**

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Also emerging are discussions on the causes of the low operational capability of the Russian Air Force. Among them, a commentary titled “One Year of the Russia-Ukraine War” in China’s aviation military magazine, *Aerospace Knowledge* (March 2023), is noteworthy for introducing a new perspective.<sup>12</sup> The author and senior editor, Lao Hu, has been publishing analyses on the air battle in Ukraine.<sup>13</sup> In this piece, he suggests the factors contributing to Russia’s low operational capability.

Lao Hu contends that the ongoing Ukraine air battle is “an ‘old-style war’ waged by the Russian Air Force without a vision.”<sup>14</sup> He strongly criticizes the Air Force for using its already limited precision-guided munitions in a dispersed manner against tactical rather than strategic targets (俄空军始终将本不充裕的精确制导弹药分散使用) since the war’s inception.<sup>15</sup>

According to Lao, the Russian Air Force has continued to adhere to tactics inherited from World War II and deployed most of its operational aircraft only for operations that provide aerial support to the ground battle. Consequently, the Air Force relies on outdated tactics (作战样式老套) that do not concentrate but disperse airpower.<sup>16</sup> In effect, Lao is raising issues with the Russian forces’ organizational tendencies, which are also adversely affecting Russia’s military doctrine.

Yet, at the same time, Lao defends Russia, noting that its Air Force certainly has its own line of thinking, which is distinct from Western standards such as the U.S.-originated “Five Rings Model (五环作战思想)”<sup>17</sup> theory for aerial combat. He further asserts that “Russia has its own way of fighting.”<sup>18</sup>

Lao’s view—that the Russian concept of using airpower may not necessarily align with Western standards—is a critical observation, reminding us of the need to conduct in-depth studies of the military doctrines of other countries. The validity of Lao’s observation is also substantiable from a historical context.

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## **Russia’s air operations unable to depart from traditional orientations**

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A brief look is taken at how Russians have employed airpower. During World War II, Soviet forces were engaged in fierce battles with German forces on the Eastern Front. Meanwhile, the U.S. and British forces were engaged in combat with German forces on the opposite Western Front. Renowned aviation expert Martin van Creveld notes that the aerial combat situations on the Western and Eastern Fronts stood in clear contrast to each other.

On the Western Front, the U.S. and British forces conducted airpower operations that concentrated on air

interdiction (AI) to disrupt the supply lines of German forces and ensured that German military vehicles could not pass the supply routes. In contrast, the Soviet forces on the Eastern Front undertook airpower operations that prioritized close air support (CAS) to assist the Soviet ground forces from above. As a result, supply activities were continued without damaging the German forces and the supplies headed toward combat areas.<sup>19</sup> The Soviet Air Force prioritized battlefield dominance (equivalent to CAS) over any other flight missions, contrary to the U.S. and British forces.<sup>20</sup>

Such tendencies were also observed in Russia following the collapse of the Soviet Union. During the Second Chechen Conflict that began in the fall of 1999, the Russian Air Force exhibited behavior similar to that seen in the ongoing Ukraine war. The airpower deployed for the Chechen conflict primarily comprised of flight units from the 4th Air Army of the Russian Air Force and air defense forces dispatched from the Moscow Air and Air Defense District.<sup>21</sup> These air assets were generally deployed for CAS. The Su-24M Fencer-D fighter-bombers of the Russian Air Force flew at high altitudes (above 3,500 meters) to protect themselves from attacks by man-portable air defense systems (MANPADS) and frequently dropped precision-guided bombs. On the other hand, a majority of operational aircraft, including the Su-25 Frogfoot fighter-bomber, flew at low altitudes (1,000 to 3,000 meters) and commonly used non-precision-guided weapons for their attacks.<sup>22</sup>

The Russian forces continued their operations without fully coordinating the use of the air assets and frequently experienced friendly fire.<sup>23</sup> Russia could not execute smooth air operations, even against adversaries with minimal airpower as in the case of the Chechen conflict. Lack of sufficient operational coordination among the air force operating aircraft, the air defense forces operating anti-aircraft missiles, and other units<sup>24</sup> later became a lesson for the Russian forces.

Given this historical context, it is evident that the Russian concept of using airpower does not necessarily align with the American concept. Air operations waged without coordinating with other military services and branches give enough reason to assess that “the Russian forces employed outdated tactics.” They also reveal that the Russian forces, a military designed with a focus on ground battle, have not departed from their traditional orientations.<sup>25</sup> Just as the army was formed based on military doctrines of breaking through the enemy’s line of defense with formidable tank and artillery power and of encircling and annihilating the enemy, the air force was established to provide aerial support to the army.

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## Conclusion

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This article analyzed and explained “(1) China’s perspective on the use of Russian airpower” as part of a broader examination of what lessons the PLA is learning from the Ukraine war.

Needless to say, Russia has been unable to conduct smooth air operations due to a number of underlying issues, such as limited military budget, outdated weapons technology, insufficient flight hours of pilots, and low aircraft operational readiness (OR) rates. But, for further critical studies, it should be understood

that the fundamental issue lies in the organizational tendencies of the Russian Air Force, which has been unable to depart from outdated tactics.

Meanwhile, China's assertion that "Russia has its own way of fighting" is a viewpoint necessary for fostering flexible thinking. In other words, caution is warranted when assessing the Ukraine war solely according to Western standards. As the Chechen conflict illustrated, the primary responsibility for achieving air superiority fell not on the Russian air force, which operates aircraft, but on the Russian air defense forces, which operate anti-aircraft missiles. In this light, it is worthwhile to heed China's assertion that "Russia has its own way of fighting."

Further examination based on these revelations suggests that Russia may not be all that concerned at the current situation of not achieving air superiority. A greater priority for the Russian forces may be continuing the Ukraine war while sustaining operational intensity over several years. This observation reaffirms the need for flexible thinking grounded in multifaceted research and broad knowledge of other countries.

Part 2 will analyze and explain "(2) China's vision of future air battle," taking into account the dynamics of air superiority of Russia and Ukraine in the air battle in Ukraine.

<sup>1</sup> Aita Moriki, "Chugoku kugun wo meguru dejitaru toransufoomeeshon: atarashii seibi kanri shisutemu donyu kara mieru torikumi [Digital Transformation of the Chinese Air Force: Initiatives Observed in the PLAAF's Introduction of a New Maintenance Management System]," *Anzenhosho Senryaku Kenkyu* [Security & Strategy], Vol. 3, No. 2, March 2023.

<sup>2</sup> Justin Bronk, and Reynolds, Nick, Watling, Jack, "The Russian Air War and Ukrainian Requirements for Air Defence," The Royal United Services Institute for Defence and Security Studies, November 7, 2022, <https://rusi.org/explore-our-research/publications/special-resources/russian-air-war-and-ukrainian-requirements-air-defence>, accessed on June 7, 2023.

<sup>3</sup> Phil Stewart and Idrees Ali, "What happened to Russia's Air Force? U.S. officials, experts stumped," Reuters, March 2, 2022, <https://www.reuters.com/world/europe/what-happened-russias-air-force-us-officials-experts-stumped-2022-03-01/>, accessed on June 7, 2023.

<sup>4</sup> "Downed Russian jets 'almost all' taken out by Kremlin's own air defence," The Telegraph, December 30, 2022, <https://www.telegraph.co.uk/world-news/2022/12/30/russian-jets-shot-sky-almost-downed-moscow-air-defence-systems/>, accessed on June 7, 2023; "Friendly Fire: Russian Air Defense Strikes Own Helicopters Down," Defense Express, May 13, 2023, [https://en.defence-ua.com/news/friendly\\_fire\\_russian\\_air\\_defense\\_strikes\\_own\\_helicopters\\_down-6697.html](https://en.defence-ua.com/news/friendly_fire_russian_air_defense_strikes_own_helicopters_down-6697.html), accessed on June 7, 2023.

<sup>5</sup> "Russia bombed its own city, Defense Ministry says," The Washington Post, April 21, 2023, <https://www.washingtonpost.com/world/2023/04/21/belgorod-russia-bombed-own-city/>, accessed on June 7, 2023.

<sup>6</sup> Mykola Oleshchuk, "Air Power in the Russian-Ukrainian War: Myths and Lessons Learned," The Journal of the Joint Air Power Competence Centre, Edition 35, February 2023, <https://www.japcc.org/articles/air-power-in-the-russian-ukrainian-war-myths-and-lessons-learned/>, accessed on June 7, 2023.

<sup>7</sup> "One year on Russia Shocked," AIRFORCES, No. 420, March 2023, pp. 30-43.

<sup>8</sup> "俄乌冲突一周年，暴露了哪些问题？金一南解读 [What Issues Have Been Exposed on the First Anniversary of the Russia-Ukraine Conflict? Jin Yanan Explains]," 上观新闻 [Shanghai Observer], February 24, 2023, <https://www.jfdaily.com/wx/detail.do?id=586010>, accessed on June 7, 2023.

<sup>9</sup> Ibid.

<sup>10</sup> Ibid.

<sup>11</sup> The assessment seems to reflect the mindset of an older generation of officers who have accepted reliance on Russia's military technology despite China being considered inferior to Russia historically.

<sup>12</sup> 老虎 [Lao Hu], "俄乌战争一年祭 [One Year of the Russia-Ukraine War]," 航空知识 [Aerospace Knowledge], No. 623, March 2023, pp. 20-21.

<sup>13</sup> See 老虎 [Lao Hu], "从来兄弟下手黑？扒一扒俄乌两国的空中军力 [Brothers Are Always Insidious? A Look at the Airpower of Russia and

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Ukraine],” 航空知识 [Aerospace Knowledge], No. 613, June 2022.

<sup>14</sup> “俄乌战争一年祭,” pp. 20-21.

<sup>15</sup> Ibid.

<sup>16</sup> Ibid.

<sup>17</sup> U.S. Air Force Colonel John Warden’s theory of the “Five Rings Model” was put into practice in the Gulf War. The first wave of airstrikes conducted SEAD against the residences of the Iraqi leadership, operational command centers, air defense early warning systems, and C4ISR systems and disabled the enemy’s “center of gravity.” This was crucial for the U.S. forces to swiftly gain air superiority.

<sup>18</sup> “俄乌战争一年祭,” p. 22.

<sup>19</sup> Crevel, Martin van; Canby, Steven L.; Brower, Kenneth S., *Air Power and Maneuver Warfare*, CreateSpace Independent Publishing Platform, August 1, 2012, p. 141.

<sup>20</sup> Martin van Crevel, *Ea pawaa no jidai* [The Age of Airpower], trans. Genda Takashi (Tokyo: Fuyoshobo Shuppan, 2013), pp. 188-189.

<sup>21</sup> Marcel de Haas, “The Use of Russian Air Power in the Second Chechen War,” *Airpower Review*, Volume 6, No. 1, Spring 2003, pp. 7-11.

<sup>22</sup> Marcel, p. 6; Anatoly Kornukov, “Kontrterroristicheskaya operatsiya na Severnom Kavkaze: osnovnyye uroki i vyvody [Counter-terrorist operation in the North Caucasus: basic lessons and outcomes],” *Voyennaya Mysl* [Military Thought], No. 4, July 2000, p. 6.

<sup>23</sup> Marcel, p. 7, 14.

<sup>24</sup> Charles Blandy, *Chechnya: two Federal interventions: An interim comparison and assessment*, Camberley: CSRC, January 2000, pp. 34-35.

<sup>25</sup> Koizumi Yu, “Gunji anzen hoshu kenkyu kara miru Roshia Ukuraina senso [The Russia-Ukraine War from the Perspective of Military and Security Studies],” *The University of Tokyo FEATURES*, February 22, 2023, [https://www.u-tokyo.ac.jp/focus/ja/features/z0405\\_00006.html](https://www.u-tokyo.ac.jp/focus/ja/features/z0405_00006.html), accessed on June 7, 2023.

## PROFILE

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