

The Harassment from Chinese High-altitude Balloons and the Way to Respond

Po-Chou Lin
Assistant Research Fellow

Division of Chinese Politics, Military and Warfighting Concepts
Topics: Gray Zone, US-China Competition, High-altitude balloons

After several days of political struggle, the White House ordered the US military to shoot down a Chinese high-altitude surveillance balloon intruding on its airspace for days on February 5, 2023 and postponed Secretary of State Antony Blinken's visit to China.¹ The military use of high-altitude balloons is not uncommon; the two Koreas and both sides of the Taiwan Strait have used small balloons for political propaganda and sending various goods to the others. In 2020, South Korea's Moon Jae-in government legislated to restrict similar behavior in the private sector, while Kim Yo-jong, the North Korean leader's

sister and vice-department director of the Central Committee of the Workers' Party of Korea, has also angrily accused South Korea of spreading COVID-19 virus with balloons. In September 2021, the US Forces held the Thunder Cloud exercise in Northern Europe, in which the newly established Army 2nd Multi-Domain Task Force (2MDTF) conducted validation of new operational capabilities for high-altitude balloons, sensors, strikes, and long-range precision fires to strengthen the resilience of military reconnaissance and targeting capabilities.² Since the balloons are visible to the naked eye on the ground, the psychological effect on

1. "Press Gaggle by Press Secretary Karine Jean-Pierre En Route Philadelphia, PA," *The White House*, February 3, 2023, <https://reurl.cc/lZ3A4Q>.

2. Joshua Thorne, "US Army Partnerships in the Arctic Circle Result in Success of Exercise 'Thunder Cloud,'" *U.S. Army*, September 21, 2021, <https://reurl.cc/ROa8m6>.

the people is obvious and immediate, and how the government responds will also have a direct impact public opinion on government support.

A typical “gray zone” harassing activity

China’s official response to the incident has been mixed. On February 3, Chinese Foreign Ministry spokesperson Mao Ning first said that the Chinese side has verified it and later admitted that a “civilian unmanned airship” had into US airspace due to force majeure factors; the Chinese government would continue to communicate with the US and properly handle this situation.³ After the US shot down the balloon on the 5, the Chinese Ministry of Foreign Affairs accused the US side are “unacceptable and irresponsible,” expressed that “the US made an overreaction by using force

on a strayed unmanned civilian airship. This violates customary international practice.”⁴ On the same day, Chinese Defense Ministry spokesperson Tan Kefei criticized the US’s action was “an obvious overreaction” and expressed “reserve the right to take necessary measures to deal with similar situations.” This response is obviously a cover-up of its aggressive acts and maintains Xi Jinping’s usual “wolf warrior diplomacy” posture.

China has a long history of developing its defense technology industry with mutual integration. In 1982, Deng Xiaoping demanded that China’s defense industry should follow the path of “combining the military and civil, combining peace and war, giving priority to military products, and making the civil support the military,” while Jiang Zemin demanded that the defense industry should carry out the policy

3. Spokesperson Mao Ning said, “The airship is from China. It is a civilian airship used for research, mainly meteorological, purposes. Affected by the Westerlies and with limited self-steering capability, the airship deviated far from its planned course. The Chinese side regrets the unintended entry of the airship into US airspace due to force majeure. The Chinese side will continue communicating with the US side and properly handle this unexpected situation caused by force majeure.” “Foreign Ministry Spokesperson’s Remarks on the Unintended Entry of a Chinese Unmanned Airship into US Airspace Due to Force Majeure,” *Ministry of Foreign Affairs, China*, February 3, 2023, <https://reurl.cc/Ad0z7e>.

4. “Foreign Ministry Spokesperson Mao Ning’s Regular Press Conference on February 6, 2023,” *Chinese Ministry of Foreign Affairs*, February 6, 2023, <https://reurl.cc/5M4Lr6>.

of “combining the military and civil, combining military efforts with civilian support, investing on both military and civilian industries, and enhancing the capabilities of independent innovation.” Hu Jintao also asked the defense technology industry to “insist on military and civilian combination, combining military efforts with civilian support, promote the positive interaction between military and civilian, and development with proper coordination.”⁵ In 2015, Xi Jinping converged the principles into a single “military-civil fusion” and elevated it to a national strategic level. During the “military-civil fusion” phase of its military technology development, China emphasizes that its balloons are used for meteorological research. However, since the acquired meteorological information is also important intelligence in wartime; its nature and purpose will depend on how the operators use it.

According to the Chinese PLA’s academic institutions experts, the military use of high-altitude balloons includes psychological warfare propaganda, route blocking, deception interference, reconnaissance and monitoring.⁶ In recent years, China has often harassed neighboring countries under the guise of civilian activities. Since these were malicious “gray zone” activities with military effects, no wonder they had drawn many accusations from outside. Under the Chinese propaganda convention, China would mock the weakness of US air defense that allowed foreign aircraft to enter its territories if the balloon succeeded; if it failed, China would use civilian and experimental flights as a cover-up to ridicule the US for making a big deal out of the situation, which in any case is material for cognitive, political, or propaganda warfare. China could have released the test flight information if this

5. “Answers to Questions on Promoting Military-civilian Integration and Military Development in the Civilian Capacity, by Yu Liegui, Deputy Director of the National Defense Science and Industry Commission,” *Central People’s Government of the People’s Republic of China*, June 27, 2007, http://www.gov.cn/zwhd/2007-06/27/content_664157.htm.

6. Yang Jianjun, Liao Qiuyan, Wang Weixing, and Zhang, Wei, “The use of airborne balloons in military confrontations,” *Electronic Warfare of Navy Vessels*, vol. 45, no. 2 (April 2022), pp. 28-31; “Military Balloons: Floating among the battlefields,” *People’s Daily Online*, February. 11, 2022, <http://military.people.com.cn/BIG5/n1/2022/0211/c1011-32350170.html>.

high-altitude balloon was in the testing or verification stage. The Chinese Ministry of Foreign Affairs defined the balloon as a civilian, scientific research “unmanned airship” only to play down the sensitivity of military applications. Established in 1961, the Special Aircraft Research Institute has been developing various types of surface and floating aircraft (such as tethered airships, tropospheric airships, and stratospheric airships); its achievements manifest China’s emphasis on technology sharing between military and civilian sectors by adhering to the “military development in the civilian capacity” and “military-civilian integration” principles.

Available means of military response

According to the definition of Chinese scholars, high-altitude balloons refer to unpowered floating vehicles that fly in near space. Near-space aerostats is

flying at an altitude from 20 kilometers to 100 kilometers.⁷ Using high-altitude balloons against hostile countries is a low cost but very effective means. When a high-altitude “civilian” aircraft entered the airspace of another country, it is difficult to shoot it down with ground-based air defense systems such as anti-aircraft guns or close-in weapons; since the spheres are made of composite materials carrying unknown payloads, the possible damage to the property of the people on the ground is hardly predictable. Due to the uncertainties, the balloons have become a national security issue for all countries. In 1997 and 2017, two balloon events of varying duration took place somewhere in China, causing some disruption to electronic communications. Some regions in China, such as Harbin, issued a notice in May 2020 banning the release of hydrogen balloons in all city districts.⁸

According to the US DOD instruction 4540.01 (2015), the U.S. military aircraft

7. Yang Jian-jun, Liao Qiu-yan, Wang Wei-xing, and Zhang, Wei, “Application of Air Floating Ball to Military Confrontation,” *Shipboard Electronic Countermeasure*, Vol. 45, No. 2 (April 2022), pp. 28-31; Liao Jun, Yuan Junjie, Jiang Yi, Yang Zechuan, Li Jun, Lu Zhiyong, Wu Chunhui, Wang Ning “Motion Characteristics of Zero-pressure Balloon in Ascending Process,” *Spacecraft Recovery and Remote Sensing*, Vol. 40, No. 1 (February 2019), pp. 11-19.

8. “Harbin Bans Hydrogen Balloons in the City,” *People’s Daily Online*, May 26, 2020, <http://hlj.people.com.cn/n2/2020/0526/c220024-34043832.html>.

and missile and projectile firings operate with due regard for the safety of all air and surface traffic and must comply with “reasonable warning procedures”. The purpose of the pre-attack warning is to preclude inadvertent, uncontrollable, or other unavoidable factors.⁹ The US Air Force dispatched advanced F-22s to carry out the shoot-down mission; in the future, measures such as directed-energy weapons can be considered.

Although China claimed that its high-altitude unmanned airship was “in civilian nature and used for meteorological and other scientific research,” it did not release the flight paths or areas before launching. When the airship entered other country’s airspace was detected, China irresponsibly claimed that it was civilian and expressed its “strong dissatisfaction and protest” for the US shooting it down to maintain its sovereignty and ensure the safety of civilians.¹⁰ China’s reaction reflected its failure to take the initiative to explain to

the affected countries before the incident; the Chinese Foreign Ministry only accused the US of failing to comply with international practice but did not mention whether it had fulfilled its international responsibilities. This gives a new meaning to Xi Jinping’s “new type of international relations” and may influence the future progress of US-China relations.

(Originally published in the “National Defense and Security Real - time Assessment”, February 8, 2022, by the Institute for National Defense and Security Research.)

(The contents and views in the assessments are the personal opinions of the author, and do not represent the position of the Institute for National Defense and Security Research.)

9. Yang Chang-Rong, “Airspace Intrusion with Drones and ‘the First Strike’,” *National Defense and Security Research Biweekly*, Vol. 65, No. 2022, pp. 5-10, <https://reurl.cc/lZ3lrq>; Tsai Chin-Tsang, “Airspace Intrusion with Drones and ‘the First Strike,’” *Air Force Bimonthly Journal*, Vol. 622 (2011), pp. 130-144, <https://reurl.cc/NGznd9>.

10. “Senior Defense Official and Senior Military Official Hold an Off-Camera, On-Background Press Briefing Update on the High-Altitude Surveillance Balloon,” *U.S. Department of Defense*, February 4, 2023, <https://reurl.cc/91dbmx>; “Statement From Secretary of Defense Lloyd J. Austin III,” *U.S. Department of Defense*, February 4, 2023, <https://reurl.cc/vmyKNN>.