



**Delhi Policy Group**

Advancing India's Rise as a Leading Power



# POLICY BRIEF

## China's Balloon over America and Implications for India

### *Author*

Lalit Kapur

Volume VIII, Issue 10

February 15, 2023



**Delhi Policy Group**

Core 5A, 1st Floor, India Habitat Centre, Lodhi Road, New Delhi- 110003

[www.delhipolicygroup.org](http://www.delhipolicygroup.org)



# Delhi Policy Group

Advancing India's Rise as a Leading Power

Policy Brief Vol. VIII, Issue 10

February 15, 2023

## ABOUT US

Founded in 1994, the Delhi Policy Group (DPG) is among India's oldest think tanks with its primary focus on strategic and international issues of critical national interest. DPG is a non-partisan institution and is independently funded by a non-profit Trust. Over past decades, DPG has established itself in both domestic and international circles and is widely recognised today among the top security think tanks of India and of Asia's major powers.

Since 2016, in keeping with India's increasing global profile, DPG has expanded its focus areas to include India's regional and global role and its policies in the Indo-Pacific. In a realist environment, DPG remains mindful of the need to align India's ambitions with matching strategies and capabilities, from diplomatic initiatives to security policy and military modernisation.

At a time of disruptive change in the global order, DPG aims to deliver research based, relevant, reliable and realist policy perspectives to an actively engaged public, both at home and abroad. DPG is deeply committed to the growth of India's national power and purpose, the security and prosperity of the people of India and India's contributions to the global public good. We remain firmly anchored within these foundational principles which have defined DPG since its inception.

## Author

**Commodore Lalit Kapur (Retd.)**, Senior Fellow for Maritime Strategy, Delhi Policy Group

*The views expressed in this publication are those of the author and should not be attributed to the Delhi Policy Group as an Institution.*

## Cover Photographs:

*USN Personnel Recover Debris of the Chinese High Altitude Surveillance Balloon off Myrtle Beach, South Carolina, February 2023. USS Carter Hall is seen in the Background. Source: USN Photo Gallery*

*The Lockheed Martin U-2 Dragon Lady. Source: Lockheed Martin Website*

*White House Coordinator for Strategic Communications John Kirby Responding to Questions About the Balloon during the Daily Press Briefing, February 2023. Source: White House.*

© 2023 by the Delhi Policy Group

## Delhi Policy Group

Core 5A, 1st Floor,  
India Habitat Centre,  
Lodhi Road, New Delhi- 110003  
[www.delhipolicygroup.org](http://www.delhipolicygroup.org)

# China's Balloon over America and Implications for India

by  
Lalit Kapur

## Contents

Introduction .....	1
The Credibility of China's Explanation .....	1
Did the Balloon Breach International Norms?.....	3
Assessing China's Action .....	5
Did the US Overreact? .....	5
The Aftermath.....	6
Lessons for India .....	7
Conclusion.....	8

# China's Balloon over America and Implications for India

by  
Lalit Kapur

## Introduction

As a report by the firm Hindenburg Associates on the Adani Group was commanding media headlines in India, another Hindenburg dimension was invading the US and generating headlines. This was an inflatable helium filled balloon. The Hindenburg disaster of May 1937 may have put an end to the use of such balloons for trans-Atlantic transportation<sup>1</sup>, but their use for trans-Pacific surveillance has evidently become part of China's toolkit.

China's balloon crossed the Aleutian Islands into Alaska on January 28, 2023. It then crossed the border into Canada on January 30 and entered Continental US on January 31. Its path took it across sensitive military installations in Idaho, Montana, Missouri and the Carolinas, till it was shot down by an F-22 in US territorial waters on February 4, 2023<sup>2</sup>. US Secretary of Defense Lloyd Austin described it as "being used by the PRC to surveil strategic sites in the Continental United States"<sup>3</sup>. China, however, maintained it was a civilian airship used for mainly meteorological purposes, with limited self-steering capabilities, which had deviated far from its planned course. Its spokesperson regretted the unintended entry of the airship into US airspace due to force majeure<sup>4</sup>.

## The Credibility of China's Explanation

In deciding how credible China's explanation is, three aspects merit consideration: the payload of the balloon, its manoeuvrability, and the duration of flight. General Glen Van Herck, Commander of the North American Aerospace Defence Command (NORAD) and the United States Northern Command described the balloon as about 200 feet tall, but that size could be due to expansion of volume on account of the much lower atmospheric pressures at high altitudes. More important, he described the payload as about

<sup>1</sup> Hindenburg, German Airship, <https://www.britannica.com/topic/Hindenburg>

<sup>2</sup> Statement from Secretary of Defense Lloyd J Austin III, <https://www.defense.gov/News/Releases/Release/Article/3288535/statement-from-secretary-of-defense-loyd-j-austin-iii/>

<sup>3</sup> Ibid

<sup>4</sup> Foreign Ministry Spokesperson's Remarks on the Unintended Entry of a Chinese Unmanned Airship into US Airspace Due to Force Majeure, [https://www.fmprc.gov.cn/mfa\\_eng/xwfw\\_665399/s2510\\_665401/2535\\_665405/202302/t20230203\\_11019484.html](https://www.fmprc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/2535_665405/202302/t20230203_11019484.html)

the size of a small regional jet such as the (Embraer) ERJ, which has a length approaching 100 ft. He also estimated the payload to be in excess of a couple of thousand pounds, including glass from solar panels<sup>5</sup>. This is substantially larger than typical balloons used for meteorological purposes. It is also larger than some reconnaissance satellites – India's RISAT-1, for example, had a total weight of only about 300 Kg.

On manoeuvrability, China's spokesperson stated that the balloon had "limited self-steering capabilities". How limited they were remains an unknown. The airship Hindenburg had sufficient manoeuvrability to cross the Atlantic at speeds of about 70 knots. That similar Chinese balloons have been spotted across the world, including in Latin America and the Andaman and Nicobar Islands, makes it possible that they possess sufficient manoeuvrability to drive them along a chosen path.

The duration of flight generates suspicion. Meteorological balloons are typically used for weather observation within a limited region and have a flight time of a few hours at most. They do not undertake trans-continental flights lasting weeks, if not longer. As for the claim that it was a civilian balloon, it is noteworthy that China also maintains that its fleet of Yuan Wang missile and satellite tracking ships, including Yuan Wang-5 which had made a port call at Colombo in August 2022<sup>6</sup>, are civilian.

At the time of writing, some sensors that formed part of the balloon's payload had been recovered and a classified briefing conducted for Congress<sup>7</sup>. The information has not, however, been made public. On balance, the probabilities of the balloon being an instrument for intelligence gathering are far higher than those of its being an innocuous civilian meteorological object.

---

<sup>5</sup> Gen. Glen Van Herck, Commander, North American Aerospace Defense Command and United States Northern Command, Holds on Off-Camera, On-the-Record Briefing on the High Altitude Surveillance Balloon Recovery Efforts, <https://www.defense.gov/News/Transcripts/Transcript/Article/3289888/gen-glen-vanherck-commander-north-american-aerospace-defense-command-and-united/>

<sup>6</sup> See Lalit Kapur, "The Yuan Wang-5 Affair", <https://www.delhipolicygroup.org/publication/policy-briefs/the-yuan-wang5-affair.html>

<sup>7</sup> Administration scrambles to quell Congress's frustration over balloon, UFOs, <https://thehill.com/homenews/senate/3857797-administration-scrambles-to-quell-congress-frustration-over-balloon-ufos/>

## Did the Balloon Breach International Norms?

International law (and norms) does not derive from acts of parliament or established codes. It is based primarily on precedent and treaties between states, as well as principles recognised by civilised nations and the judgements of the most highly qualified jurists. Precedent and treaties are the most used sources, so let us consider precedent first

The US is reported to have used hundreds of spy balloons for surveillance over the Soviet Union in the 1950s<sup>8</sup>. However, being driven by the wind, balloons had severe limitations. US surveillance measures thus graduated to flights by high-flying aircraft such as the U-2, which carried out its first mission over the USSR in 1956<sup>9</sup> and continues flying today. It remained out of the reach of adversary air defences till Gary Powers, flying out of Badaber in Pakistan, was shot down by a Soviet SA-2 Surface-to-Air Missile on May 1, 1960. Its successor, the SR-71 Blackbird, flew higher and faster without ever being intercepted. These means were specifically designed and used to breach an adversary's sovereignty and airspace, so the brouhaha on this account now appears hypocritical.

When Powers was shot down, the US initially claimed his U-2 had been conducting a routine weather monitoring flight but had drifted over the USSR as the pilot experienced a blackout on account of failure of the aircraft's oxygen delivery system<sup>10</sup>. The cognoscenti would have noted the similarity in explanations offered by the US then and China now. It was only when the Soviet Union paraded both Gary Powers and the U-2's aerial camera system that it became evident that the weather flight story was cover for a spying programme authorised by the US President. In a similar manner, the shooting down of the balloon now will remain an inconsequential allegation till the US can conclusively demonstrate (through the payload) that China was indulging in espionage. The significant difference from the past, however, is that President Eisenhower refused to apologise and said that such flights were necessary in the absence of an Open Skies Treaty<sup>11</sup>. In contrast, China's

---

<sup>8</sup> A Brief History of Project Moby Dick, the Cold War's Least Believable Surveillance Strategy, <https://www.atlasobscura.com/articles/cold-war-balloon-surveillance>

<sup>9</sup> The History and Historiography of National Security Space, P 512-513, see <https://history.nasa.gov/SP-2006-4702/chapters/chapter15.pdf>

<sup>10</sup> U2 Overflights and the Capture of Francis Gary Powers, 1960, <https://history.state.gov/milestones/1953-1960/u2-incident>

<sup>11</sup> Ibid.

spokesperson has expressed regret over the balloon's unintended entry into US air space<sup>12</sup>.

The US aerial surveillance programme further evolved into reconnaissance satellites. A variety of US optical, electronic and radar imaging satellites continue to operate even today, as do those from Russia, China, France and even India. The USSR initially objected to such surveillance, but withdrew its objections when it was able to orbit its own systems<sup>13</sup>. The precedent thus is that surveillance is fine so long as the means employed remain undetected out of reach of adversary action or can be credibly denied.

Turning to the sovereignty aspect, how high does a nation's airspace extend? There is no international treaty or law to determine this. Some have suggested adopting the logic of UNCLOS, which provides that a nation's territorial waters extend to 12 nautical miles from its coast<sup>14</sup>. Balloons flying below about 72,900 ft (12 nm) would then be considered as intruding into national air space. In the absence of an international convention or treaty, however, this must be considered a grey zone.

Let us then turn to US domestic law. The US Federal Aviation Administration defines controlled airspace as extending up to Flight Level 600 (60,000 feet pressure altitude) above MSL<sup>15</sup>. The US Code of Federal Regulations prescribes guidance for the operation of unmanned balloons at below Flight Level 600, but not above that altitude<sup>16</sup>. There is, however, a requirement to monitor the course of the balloon and its position every two hours, and to notify the nearest ATC in case a position report is not recorded in any two-hour period. So even as per US domestic law, there would appear to be a grey zone regarding the height at which national air space ends.

---

<sup>12</sup> Foreign Ministry Spokesperson's Remarks on the Unintended Entry of a Chinese Unmanned Airship into US Airspace Due to Force Majeure, [https://www.fmprc.gov.cn/mfa\\_eng/xwfw\\_665399/s2510\\_665401/2535\\_665405/202302/t20230203\\_11019484.html](https://www.fmprc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/2535_665405/202302/t20230203_11019484.html)

<sup>13</sup> The History and Historiography of National Security Space, P 512-513, see <https://history.nasa.gov/SP-2006-4702/chapters/chapter15.pdf>

<sup>14</sup> Peter Layton, "Chinese grey zone spy balloons over the American heartland," <https://www.lowyinstitute.org/the-interpreter/chinese-grey-zone-spy-balloons-over-american-heartland>

<sup>15</sup> Section 2, Controlled Airspace, [https://www.faa.gov/air\\_traffic/publications/atpubs/aim\\_html/chap3\\_section\\_2.html#:~:text=Generally%2C%20that%20airspace%20from%2018%2C000,contiguous%20States%20and%20Alaska%20within](https://www.faa.gov/air_traffic/publications/atpubs/aim_html/chap3_section_2.html#:~:text=Generally%2C%20that%20airspace%20from%2018%2C000,contiguous%20States%20and%20Alaska%20within)

<sup>16</sup> Code of Federal Regulations, Title 14, Part D, Sections 101.31 – 101.39, <https://www.govinfo.gov/content/pkg/FR-1964-01-03/pdf/FR-1964-01-03.pdf> ,



## Assessing China's Action

As indicated by the experience of the last decade, China has become adept at exploiting grey zones for its own benefit. The world has witnessed such exploitation at sea in the South China Sea and on land in Ladakh. The balloon incident confirms that the air domain has not been left behind. Moreover, balloon technology may be considered outmoded and may have been replaced by other systems in the West, but there is no saying yet how such technology has evolved in China.

Why use a balloon instead of a satellite? Satellites have predictable orbital characteristics, making it possible to conceal activities on ground at the expected time of the pass. Balloons are unobtrusive and can be tracked (at considerable expense – it is notable that the US used U-2 aircraft to track the balloon), but only after they are detected. The Commander of NORAD has stated on record that NORAD did not detect previous balloon flights and this constitutes a domain awareness gap that must be figured out<sup>17</sup>. The fact is that existing air defence systems do not appear to be designed to detect slow and high-flying balloons.

## Did the US Overreact?

Balloons can and have been used to carry destructive payloads, or for surveillance in the past. They could conceivably carry a nuclear warhead, or biological / chemical agents. However, the NORAD Commander has categorically stated that in his assessment, the balloon did not present a physical threat to North America<sup>18</sup>. He has also stated that every precaution was taken to ensure the sites along the balloon's path were covered and any (intelligence) collection was minimised<sup>19</sup>. The US Department of Defence, briefing the press, specifically said, "whatever the surveillance payload is on this balloon, it does not create significant value added over and above what the PRC is likely able to collect through things like satellites in Low Earth Orbit"<sup>20</sup>.

Did the balloon pose a danger to the US use of its airspace? Commercial aircraft do not fly at 60,000 ft, in fact most remain below 45,000 ft. Information in the public domain indicates the service ceiling of the F-35 is 50,000 ft, that of the F-16 is 58,000 ft, and that of the F-15 and F-22 is 65,000 ft. Given that the

---

<sup>17</sup> General Glen Van Herck, see footnote 5 above.

<sup>18</sup> Ibid.

<sup>19</sup> Ibid.

<sup>20</sup> Senior Defense Official Holds a Background Briefing on High-Altitude Surveillance Balloon, <https://www.defense.gov/News/Transcripts/Transcript/Article/3287204/senior-defense-official-holds-a-background-briefing-on-high-altitude-surveillance/>



balloon was reported as flying at 60,000 ft or higher, a threat to US aircraft can hardly be the reason to bring it down.

The US must see for itself what technology China has developed for surveillance. This can be done only after the payload is recovered. Add to this the need to conclusively prove (and not merely allege) that the balloon was involved in unauthorised surveillance. To minimise damage to the payload, it would have to be brought down over water. This partly explains why the US waited to bring it down and the current effort underway to recover the debris. Domestic political pressure also constitutes an important factor: the homeland not having been physically invaded since the establishment of the Republic, the US domestic constituency is particularly sensitive to the appearance of an invasion of its territorial space, including airspace.

## The Aftermath

The first casualty following detection of the balloon was cancellation of the visit by Secretary of State Antony J Blinken to Beijing<sup>21</sup>. The visit was part of the agreed plan for reengagement between the US and China when Presidents Biden and Xi Jinping met at Bali on November 14, 2022<sup>22</sup>. The US State Department described the balloon's usage as "an irresponsible act and a clear violation of US sovereignty and international law that undermined the purpose of the trip"<sup>23</sup>. Significantly, responding to a question on what was different this time, a senior State Department official identified the fact that this was the first time that such an incident had happened on the eve of a planned Secretary of State visit to the PRC<sup>24</sup>.

China does have a history of carrying out acts designed to embarrass visiting dignitaries during their visit. As observed by Senator Bob Menendez, "either this was a huge mistake by some entity within the Chinese government, or it was a test of our resolve by Xi"<sup>25</sup>. If it was the latter, China continued to test the US by

---

<sup>21</sup> Secretary Blinken's Call with People's Republic of China (PRC) CCP Central Foreign Affairs Office Director Wang Yi, <https://www.state.gov/secretary-blinkens-call-with-peoples-republic-of-china-prc-ccp-central-foreign-affairs-office-director-wang-yi/>

<sup>22</sup> Remarks by President Biden in a Press Conference, Bali, Indonesia, <https://www.whitehouse.gov/briefing-room/speeches-remarks/2022/11/14/remarks-by-president-biden-in-a-press-conference-bali-indonesia/>

<sup>23</sup> Secretary Blinken's Call, see footnote 20.

<sup>24</sup> Special Briefing, Senior State Department Officials on the People's Republic of China, <https://www.state.gov/senior-state-department-officials-on-the-peoples-republic-of-china/>

<sup>25</sup> Menendez Opening Remarks at Full Committee Hearing: "Evaluating US-China Policy in the Era of Strategic Competition", <https://www.foreign.senate.gov/press/dem/release/menendez-opening-remarks-at-full-committee-hearing-evaluating-us-china-policy-in-the-era-of-strategic-competition>

rebuffing an attempt by the US Defense Secretary to speak telephonically to his counterpart, General Wei Fenghe<sup>26</sup>. Irrespective of the posturing by the two sides, neither wants to be seen as keen to resume diplomatic interaction. The thaw envisaged at the Biden - Xi Summit in Bali will have to wait.

Meanwhile, in North America, at least three other unidentified flying objects were shot down by USAF aircraft over Alaska, Canada and Lake Huron between February 10-12, without serious attempts to identify them<sup>27</sup>. China's spokesperson alleged that US high-altitude balloons had flown over Chinese airspace without authorisation at least ten times in the last year<sup>28</sup>. Describing the US as the world's No. 1 surveillance country with the largest spy network in the world, he also noted that US ships and aircraft conducted close-in reconnaissance of China through 647 sorties last year, and 64 in January this year in the South China Sea alone, thus undermining China's national security and regional peace<sup>29</sup>. Japan's Ministry of Defense began considering how constitutional requirements regarding the use of weapons only in self-defence could be reconciled with the need to act against foreign balloons and drones violating Japanese air space<sup>30</sup>. And the US media began debating whether successive US administrations had covered up prior incidents of Chinese balloon sightings by directing attention towards alien UFOs<sup>31</sup>.

## Lessons for India

If slow moving objects such as balloons are difficult for US radars to detect, it is a safe bet to assume they will also be difficult for India's radars to detect. There have been reports of such balloons over the Andaman and Nicobar Islands<sup>32</sup>. Whether India can respond to them adequately, given that the reported service ceiling of its frontline aircraft is below 57,000 ft, is a matter of conjecture. There

<sup>26</sup> China declines US proposal for phone call between defense chiefs on civilian unmanned airship incident, [http://eng.mod.gov.cn/xb/News\\_213114/NewsRelease/16201266.html](http://eng.mod.gov.cn/xb/News_213114/NewsRelease/16201266.html)

<sup>27</sup> Rep Jim Hines on Unidentified Object Shootdowns, [Rep. Jim Himes on unidentified object shootdowns : NPR](https://www.npr.org/2023/02/06/115024546-rep-jim-hines-on-unidentified-object-shootdowns)

<sup>28</sup> Foreign Ministry Spokesperson Wang Wenbin's Regular Press Conference on February 13, 2023, [https://www.fmprc.gov.cn/mfa\\_eng/xwfw\\_665399/s2510\\_665401/2511\\_665403/202302/t20230213\\_11024546.html](https://www.fmprc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/2511_665403/202302/t20230213_11024546.html)

<sup>29</sup> Ibid.

<sup>30</sup> Japan to clear way for SDF to shoot down encroaching balloons, <https://asia.nikkei.com/Politics/Defense/Japan-to-clear-way-for-SDF-to-shoot-down-encroaching-balloons>

<sup>31</sup> Chinese Spy Balloons and the UFO Obfuscation, <https://www.wsj.com/articles/china-and-the-ufo-obfuscation-airspace-surveillance-biden-intelligence-china-balloon-nasa-145600ce>

<sup>32</sup> Mystery balloon hovered over Andaman & Nicobar Islands around tri-service military drill, <https://www.indiatoday.in/india/story/mystery-balloon-hovered-over-andaman-islands-around-tri-service-military-drill-2331191-2023-02-06>

is need for India's security managers to carefully assess whether our means to detect and respond to such incidents are adequate.

In the absence of international norms, there is also need to put in place standard operating procedures, based on domestic law, to safeguard India's interests and guide the action of those charged with defending national security. The law in this regard must be shepherded through Parliament as a priority. This applies not just to the air domain, but also on land, at sea, in the cyber domain, and in space.

## Conclusion

The current outrage in the US media at China's transgressions seems to be driven by domestic political considerations and manipulation of information designed to assess how keen China is to salvage its relationship with the US. It also seems somewhat opportunistic, given the precedent of the US itself exploiting such grey zones during the Cold War. On the other hand, China will continue to exploit the grey zone for its own benefit, as will all great powers. Given the rapid advancement of technology, it is important to codify what constitutes unacceptable behaviour to prevent unwanted escalation of tensions between states.

For India, with its stated aspiration of defending its territory and interests in the region, there is need to anticipate grey zones that can and will be exploited by adversaries, and to develop standard operating procedures backed by domestic law to deal with transgressions. These measures must include both domain awareness and carefully calibrated responses.

\*\*\*



**Delhi Policy Group**  
Core 5A, 1st Floor,  
India Habitat Centre, Lodhi Road  
New Delhi - 110003  
India

[www.delhipolicygroup.org](http://www.delhipolicygroup.org)