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CHINESE BALLOON OVER THE UNITED STATES

SURVEILLANCE OR BREAKAWAY?

A lesson from the history of overhead reconnaissance. Project GENETRIX

AIAA American Institute of Aeronautics and Astronautics Los Angeles - Las Vegas Section

Newsletter

(Cover Story) Chinese balloon over the United States

-- A lesson from the history of overhead reconnaissance. Project GENETRIX

by Mike Gruntman, Professor of Astronautics at USC (February 7)

https://www.linkedin.com/pulse/chinese-balloon-over-united-states-lesson-from-history-gruntman

Pilot Took a Selfie With the Chinese Spy Balloon One Day Before Military Shot It Down. Photo: U.S. Department of Defense (public domain photos: (https://www.dvidshub.net/image/7644960/u-2-pilot-over-central-continental-united-states)

A story about a Chinese reconnaissance balloon hovering over the continental United States dominated the news in early February 2023.

Was it worth the purpose? As President Eisenhower noticed more than 65 years ago the reconnaissance balloons had given "more legitimate grounds for irritation than" for anything else. Or, was such irritation exactly the purpose of the Chinese Communist Party? And, perhaps, probing the capabilities and testing response of the United States?

Some historical background (excerpts from "Blazing the Trail," pp. 388, 390, 391) follows.

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-- A lesson from the history of overhead reconnaissance. Project GENETRIX

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"The importance of peacetime overhead reconnaissance in the postwar world was recognized by a number of military officers, scientists, and industrial leaders. An American veteran of World War II aerial reconnaissance, Richard S. Leghorn, became a leading proponent of strategic overflights. The new intercontinental weapons were changing the very nature of armed conflict. As early as 1946 when he was invited to speak at the dedication of the Boston University Optical Research Laboratory (BUORL), Leghorn argued for importance of defensive reconnaissance overflight of the territory of potential adversaries, if needed without their permission ... In 1951–1952, the Air Force conducted a special study that focused, in part, on national reconnaissance needs. This important assessment, known as the Beacon Hill study … strongly endorsed aerial reconnaissance in peacetime and urged development of high-altitude aircraft that would operate, if required, in the denied Soviet airspace.

The overflights by balloons, Project GENETRIX, would come first however. The balloon program, also known as WS-119L, started in November 1955 and lasted for half a year. After release, the balloons reached altitudes between 50,000 and 100,000 ft (15–30 km), above the contemporary fighter plane capabilities, and drifted across the Soviet Union and communist China. It was planned to recover the balloons over friendly territory.

The GENETRIX balloon development was coordinated with other balloon research programs of the U.S. Air Force studying airflows over the continental United States. As operational ceiling of aircraft was continuously increasing, one needed to know the conditions at high altitudes. Studies of air currents provided a reasonable cover for balloon development for reconnaissance and could plausibly explain carrying photographic cameras allegedly for recording cloud patterns. High-altitude balloons required production of quality thin polyethylene film without weak spots. Mastery of this critical technology did not come easily because industry saw little incentive to tackle the problem, with the big money being in the wraps for groceries and not in esoteric military and reconnaissance applications.

The first balloons were launched for flights over Soviet and Chinese territories in January 1956. By the end of February, a total of 516 balloons had been sent in the sky. The program produced a storm of international protests and adverse publicity. Winds often carried balloons away from the target areas, and many balloons were shot down or landed in wrong places.

Only 34 balloons, or 7% of the total number, succeeded in obtaining useful photographs covering more than one million square miles. President Eisenhower pragmatically summarized that "the balloons gave more legitimate grounds for irritation than could be matched by the good obtained from them" (Pedlow and Welzenbach 1998, 86).

The balloon program had been terminated, and a new, more powerful means of photoreconnaissance was coming. Clarence L. "Kelly" Johnson's team at the Lockheed's Skunk Works in Burbank, California, was completing crash development of a revolutionary high-altitude aircraft CL-282 that would become known as the U-2 …"

More info at http://astronauticsnow.com/bttp/btt_pp_390-391.pdf