

## Japanese Fu Go: Secret Balloon Bomb Program

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### Introduction to Fu Go

The Fu Go was a bomb carried by a huge balloon weapon that the Japanese launched against North America during World War II. The official name of the weapon was *fusen-bakudan*, which means “balloon bomb” in Japanese. Fu Go was also the secret name for the *fusen-bakudan* program.



The launching of a balloon bomb (Uenuma)

A Japanese army major, Shijo Kondo, attempted to find a way to make a disposable airship during World War II, and he came to make a bomb balloon (Wikipedia). Traditional Japanese paper *washi* and a paste of arum root (*konnyaku-nori*) were the two main materials used to create the balloon part of the bomb. The idea for Fu Go came up with when he saw an advertising balloon of a department store. He submitted a proposal that the army adopt Fu Go; however, it did not get approved. Thus, he left the army and set up his own research institution called *Kokusan Kagaku Kogyo Kenkyujo* (国産科



Building used for producing balloon bombs. (Kindai)

学工業研究所) to continue his study deeply about how to make Fu Go successful.

Kondo eventually developed balloons with a diameter of about ten meters, which were often produced in gymnasiums and dome-shaped buildings. A lot of young women were deployed producing those balloons, and some of the girls' lives were lost in accidents. They were strictly ordered to keep the operation details secret even to their families (*Fu Go Sakusen*).



A young woman preparing *washi* to produce the balloon. (WNYC)

Once the balloons are released up into the sky, the loaded sand bags fall off and get buoyancy to adjust the weight.

Based on a control system, the balloons were predicted to arrive at the United States in two days after they were

launched, so the balloons raised or lowered in attitude to fly over the Pacific Ocean (*Fu Go Sakusen*).

### **Implementation of Project Fu Go**

Project Fu Go was officially launched in November, 1944 and lasted for about five months (Wikipedia). The method to launch those balloons was to let them float on the westerlies of the Jet Stream high up in the skies over the Pacific Ocean. An estimated 9,300 of them were launched but, despite its ingenuity, only 1,000 or so reached their target, landing anywhere from Northern Mexico to Alaska to Michigan. The reason why only one ninth of the balloons successfully landed was that they could neither be tracked nor controlled.

The Fu Go program stopped as the war situation was worsening and Japan had not heard much about the effectiveness of the program; until after the war ended, army personnel in Japan judged that it was an ineffective strategy (*Gendai*). However, in fact, there were great psychological effects on the United States as they grasped the Fu Go program nervously, and it is said that Japan was not able to know that Fu Go was actually impacting them since they strictly regulated the media and censored reports related to Fu Go as a way to prevent from being attacked by Fu Go any further (swm459).

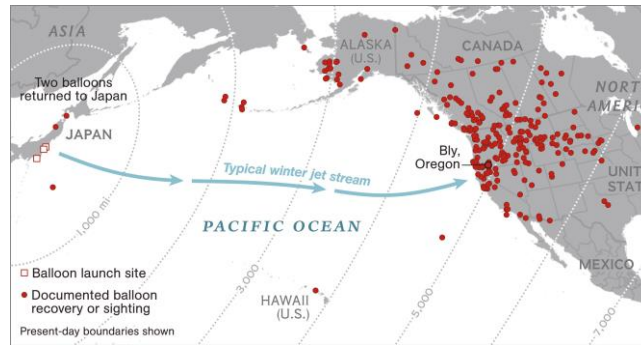


Fu Go in flight  
(Wikipedia)

The first bomb balloon Fu Go found in the United States was by U.S. Forces on November 4, 1944 (Leffler). At the time, a U.S. Navy patrol boat was navigating on the coast of Southern California and discovered a fragment of a massive balloon. The Navy lifted it up and identified a mark on it which showed that it was made in Japan. However, they could not comprehend the purpose of the bomb. After ten days, as the same kind of balloon bomb was collected in Oahu, Hawaii, the U.S. Forces presumed that the bombs were launched for a military purpose. On December 6, a bomb dropped and exploded in the mountains of Thermopolis, Wyoming. Therefore, the true purpose of the bomb balloon was revealed.

## The North American Experience of Fu Go

In December 1944, an American military intelligence committee began evaluating the weapon by collecting the various evidence from the downed balloon sites. An analysis of the ballast revealed the sand to be from a



Map indicating where balloon bombs were known to land. (KCSi)

beach in the south of Japan, which helped narrow down the launch sites. They also concluded that the main damage from these bombs came from the incendiaries, which were especially dangerous for the forests of the Pacific Northwest. The winter was the dry season, during which forest fires could turn very destructive and spread easily. Yet overall, the military concluded that the attacks were scattered and aimless. Because the military worried that any report of these balloon bombs would induce panic among Americans, they ultimately decided the best course of action was to stay silent. This also helped prevent the Japanese from gaining any morale boost from news of a successful operation. In January 4, 1945, the Office of Censorship requested that newspaper editors and radio broadcasts not discuss the balloons. The silence was successful, as the Japanese only heard about one balloon incident in America, through the Chinese newspaper *Takungpao* (Matthias).

It could have been lot worse, but only six people were reported to be the victim of the Fu Go program. On May 5, 1945, Bly minister Archie Mitchell, his pregnant wife Elsie, and five



Elsie and Archie Mitchell  
(Tuohy)

children from Mitchell's Sunday school class were on a Saturday morning picnic (Juilleart). Thirteen miles northeast of Bly, or about sixty miles northeast of Klamath Falls, Mitchell parked the car, and Elsie and the children headed to Leonard Creek. Mitchell later remembered: "As I got out of the car to bring the lunch, the others were not far

away and called to me they had found something that looked like a balloon. I heard of Japanese balloons so I shouted a warning not to touch it.

But just then there was a big explosion. I ran up there—and they were all dead." As that was the only incident that taken away some people's life in the United States, a memorial was put up at the exploded site.



The Mitchell Monument (Atlas)

The Fu Go program was a very closely-guarded secret in Japan, so when the military terminated producing them in March, 1945, all the related documents were burned, and thus, there is almost no data left. However, according to the people who were involved in the disposal, the expenses paid for the dyeing and weaving manufactures and machining cost was about 3.6 million yen.

## **The Legacy of Fu Go**

The remains of balloons continued to be discovered after the war. Eight were found in the 1940s, three in the 1950s, and two in the 1960s. In 1978, a ballast ring, fuses, and barometers were found near Agness, Oregon, and are now part of the collection of the Coos Historical & Maritime Museum. The remains of a balloon bomb were found in Lumby, British Columbia, in October 2014 and detonated by a Royal Canadian Navy ordnance disposal team. The Canadian War Museum, in Ottawa, Ontario, has a full, intact balloon on display (Wikipedia).

After doing a long research on Fu Go program, I firstly realized that I innocently take peace for granted. Like the incident that occurred in Oregon due to the Fu Go project, a normal day in an ordinary time has a chance to change into a tragedy. If I were born 70 years earlier, I could have been one of the women deployed for producing the balloons, some of which were launched from a nearby town, south of where I live. We all have to keep in mind that every person has a possibility to get involved in a war or some movement that ultimately works against peace. From my perspective, those are the reasons why we must learn history and pass down the realities of it to the next generation. People can and do learn from failure, and that is why we study.

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