

(THE FIREFLY PROJECT)

JAPANESE INCENDIARY BALLOONS
1945

Transcription of a tape recording
in which the activities of the
California Division of Forestry
are discussed with C.R. Clar and

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THE FIREFLY PROJECT JAPANESE BALLOONS IN 1945

C. R. Clar speaking -

The State of California's Division of Forestry played an important part in the plans of the military to protect the west coast of the United States during the Second World War. The Army and the Navy and internal security forces, as represented by the FBI, had a great interest in preventing forest fires along the coast which could serve as beacons to an enemy fleet or submarines. And the Navy was especially interested in preventing a mixture of fog and smoke to develop as a screen along the coast. The Western Defense Command was centered at the presidio at San Francisco.

One incident in which the Division of Forestry played a part was commonly referred to among officials as Project Fire Fly. This involved the drifting balloons which came from Japan and which were intended to explode and start forest fires and possibly just disturb American citizens. Any curious person touching the explosive charge which was carried by the balloons would certainly be killed.

In year 1945 the United States Forest Service apparently prevailed upon military authorities to establish three camps in California made up of men from the armed forces who were about ready for discharge. The intention was that these camps would be used to augment regular fire fighting forces in the event that fires were started by these Japanese balloons. A camp was located at Camp Hahn in Riverside County; another one in Chico, and another at Santa Rosa.

The general story of the Japanese balloons can be read in several popular news magazines. First articles appeared in the January 1st issues of both Time and News Week. Apparently the government had given permission to make this information public now for the first time. The fact that these balloons were landing along the west coast was known to the officials of the Division of Forestry considerably earlier, but this, like many other secrets, was well kept by government officials at all level and also by the news media.

News Week, January 1, 1945, said under the heading "Balloon Mystery":

"Kalispell, Montana, hugged the secret to its bosom for nine whole days. Then on Dec 18 a Federal Bureau of Investigation announcement gave the news to the rest of

the country. In a snow covered, heavily forested area southwest of the Montana town two wood choppers had found a balloon with Japanese markings on it. Made of processed paper, a 33-1/2 foot bag carried on its side a small incendiary bomb apparently designed to explode and prevent seizure of the balloon intact. Also attached were 45 foot rope cables roughly hacked as if to show that the balloons gondola had been purposely severed. A number of unanswered questions remained last week for Kalispell, the FBI and the nation. Had the balloon carried any passengers, if so, where were they? Where were the parachutes or the gondola by which they might have descended earthward. Had the big bag come from an enemy sub operating off the west coast, or had it been flown all the way from the Japan homeland?"

The January 1st issue of Time carried an article under "What Next Please." It said some of the same things that the News Week article had said. It also said that the parchment like paper bearing the Rising Sun of Japan was a sizeable object but nobody saw it apparently. It said eventually a 70 foot fuse connected to a small incendiary bomb on the inflammable paper bag sputtered and went out. The balloon drifted on across the northwest. Kalispell is 475 miles from the Pacific Ocean. Quaint as it appeared, the balloon was a practical and efficient affair inflated with hydrogen that was capable of lifting 800 pounds. The FBI discovered that the Japanese had obligingly printed a good deal of information on the bag. It had been completed only a few weeks before on Aug 31 at a Japanese factory. Japanese characters also revealed the number of hours spent in its manufacture.

It is also interesting to note in this article this statement, "Like the small sea plane which dropped an incendiary bomb and started a forest fire in Oregon during 1942 the balloon had presumably been launched from an off shore submarine. But why? If it had carried men where had they parachuted to earth?"

Then on January 15 News Week followed with another article headed "Trial Balloons." It started out with a statement as follows:

"Little was being said, little was known but the discovery of 3 Jap balloons on American soil in less than a month plainly has Washington worried. The first was found in Montana shortly before Christmas. The second in Oregon a few days later. The locale of the third was not disclosed."

It apparently was still a puzzle. At least, the news media weren't giving any answer as to what these balloons were suppose to do. The fact that they could carry 800 to 1000 lbs. of dead weight seemed to indicate that it was intended that men would ride in them and possibly they would be dropped by parachute or by letting the balloon down so that they could sabotage the area. But the fact that there seemed to be an explosive which was intended only to destroy the balloon was a puzzle. As a matter of fact, authorities still doubted that a balloon this particular size could travel more than 400 miles

under normal weather conditions and with a favorable wind. If it didn't have a favorable wind it probably wouldn't get half that distance. Therefore, they still rather strongly believed that submarines a few hundred miles off the coast were launching these balloons. As a matter of fact, the Japanese had gathered a great deal of knowledge about prevailing high air currents.

It is also interesting to note it was felt by authorities that any Japanese in any community who were not known locally would be conspicuous and therefore be under suspicion as saboteurs. And the article says, "The best conclusion therefore, is that any saboteurs probably would be Germans as carefully fitted out with American clothes and American credentials as the two landed by submarine on the Maine coast whose arrest was announced in New York by the FBI last week.

Then on June 4 News Week published an article under the title "Musn't Touch." That article starts out by saying,

"In the Western part of the United States and Canada the stories about mysterious balloons had been common coin for months. Between believing the more fantastic reports and the simple truth it was easy to develop jitters. Last week censorship was relaxed enough to permit the main fact to be revealed; the Japanese for some time had been sending over unmanned balloons carrying explosives to land in western North America. Though no property damage had been done there was such a chance of personal danger to unsuspecting civilians that the War and Navy Departments felt compelled to warn the public."

Then it went on to say that because vacation time was approaching, people would be outdoors and it seemed wise to tell people to leave things alone if they did not understand them. The article also had a little better description of the balloons. They were still 33 feet in diameter. They were made of grey, white or greenish blue paper. They carried either high explosive demolition bombs or incendiaries. Airplane pilots in this country had reported seeing them. The chances of the balloons hitting a military target was given as about 1 in many millions.

Specific information about the balloons was still not to be released by newspapers or magazines.

In August of 1950 Readers Digest carried an article titled "Those Japanese Balloons" by W. H. Wilbur, Brig. General, U.S. Army, retired. He had been chief of staff of Western Defense Command. Later he had gone to Japan and made a study of the balloons there on the ground. Of course the war was over and he had access to authentic information from the Japanese government. General Wilbur made it very clear that officials of the U.S. were very much worried about this ingenious device. After General Doolittle's attack on Tokyo in 1942 the Japanese knew they had to do something rather dramatic. After about two years study they were ready to release their first balloons on

November 1, 1944. In total they had released 9000 of these balloons with their ingenious devices. Wilbur says that it is a conservative estimate that 900 to 1000 of them reached this continent and they dropped all the way from Alaska to Mexico. He says nearly 200 more or less complete units were found in the Pacific northwest and western Canada. Fragments of 75 more were picked up on land elsewhere or fished out of the coastal waters of the Pacific, and flashes in the sky indicated to observers that at least 100 exploded in midair.

Some people have tried to belittle this attack. The fact remains that it marked a significant development in the art of war. For the first time missiles were sent overseas without human guidance. And the threat of great damage was very real. Wilbur also says that fortunately winter snow eliminated forest fire hazard during most of this balloon attack. In March of 1945 the Japanese were launching an average of 100 balloons a day.

Four days after the first balloon release (November 4, 1944) the U.S. had a first report. A Navy patrol boat spotted some queer looking thing. It looked like a bunch of cloth floating out at sea. A sailor tried to get it on board but the thing was too heavy so he cut off the weight hanging on it and thus allowed the undercarriage, which was of most interest, to go under the water. They learned from the balloon envelop that it was definitely made in Japan. Of course, this was a great mystery. So they sent out the word to bring in any parts found of this queer thing. Not only were Federal government agencies alerted but "forest rangers, state and national, were informed that we wanted reports of balloon landings and any portions of balloons or undercarriages that were recovered."

The first successful capture was up in Oregon where an Air Force pilot saw one of these things coming in. We actually pushed it into the earth by making sweeps at it. This was a very daring trick. But it did cause the balloon undercarriage to tilt and it lost some of its gas and floated gently to ground without anything exploding.

Then after thoroughly studying the situation and admiring the very clever work of the Japanese in producing these rubberized silk bags to hold hydrogen they determined that the actual explosive power of the bombs was no great consequence. The real threat was in possibly causing fires, and especially forest fires. "We needed the timber in our forests," said the article, "so paratroop firefighting units were organized to cooperate with the ranger service and civilian forest fire fighting agencies. At best however, our blanket of protection would have been thin."

The government also enlisted all the farm specialists in germs and disease because they thought the Japanese might be sending over plant disease spores or animal plagues or even human disease germs.

The General also declared that the voluntary censorship of the news agencies of the U.S. and Canada was, as he says, "One of the marvels of the war." That was actually what caused the Japanese government to call off this attack. They thought it was a failure. They had seen these earlier articles (Which have been quoted) and they therefore figured that if the balloons had been landing they would have heard about it. They felt that their resources were dwindling too fast and this was a waste of money. Japanese authorities said to General Kusaba, who was in charge of this project, "Your balloons are not reaching America; if they were reports would be in the newspapers. Americans could not keep their mouths closed this long."

Colliers of January 17, 1953, published an article by Dr. Lincoln Lapaz with Albert Rosenfold. The title of the article under a banner "Now It Can be Told" was "Japan's Balloon Invasion of America." The lead paragraph says, "The balloons had us scared reveals a scientist who worked on the project. Especially when word came the Japs were planning germ warfare."

This very comprehensive article contains several pictures of balloons and the device which was slung at the bottom. One interesting aspect of this Colliers article involves the bombing missions over Japan. American pilots seeing these balloons naturally thought that they were let loose to interfere with their work. It was hard to convince even experts that these balloons were intended to drift clear across the Pacific Ocean. And apparently the fact that the balloons were intended to be self destroying caused the authorities a great deal of trouble. It was a long time before they finally saw the complete balloon and could make a determination of what was intended.

The writer also says, "Western forest fires suddenly became so numerous and so bad that military personnel had to help fight them."

From my own experience (Clar) being close to actual fire reporting by the California Division of Forestry and the general fire situation in the State, I must say that we did not have an unusual number of fires. As a matter of fact, the normal resident incendiaries were patriotic enough not to start fires that they probably would have started under normal conditions. At least I am sure the figures will show that we actually had a lesser number of incendiary fires during 1942 and 1943. Otherwise, the weather was the dominant factor, as usual.

Colliers article also makes the statement, or strong inference, that Japanese scientists were aided by Germans in developing this really very clever and very complex device. This author says, "But the Japanese made one miscalculation. They used a wet cell battery to power the balloons electrical circuits. Had they used dry cells we might even yet be wondering what hit us. The below zero temperatures at high altitudes often froze the wet cells, rendering all circuits inoperative and making it possible for us to capture enough balloons intact to give us a good idea of what we were up against."

The article also stated that some of the catches of the balloons were quite dramatic. One man was carried back and forth across a valley from one hillside to another several times hanging stubbornly to the balloon's shroud lines until help came. Then this author says that as time went on another worry began to keep him awake at night. The first balloons had been hand-made affairs, and then later in the spring of 1945 balloons were unmistakably machine tooled.

It seems that the Japanese had determined that their first balloons were successful and now they were ready to mass produce them. As to the landing places of the balloons, this article says most of the balloons had clustered in the northwest. But some had drifted as far as Detroit. In June of 1945 the balloon offensive tapered off but that did not allay our suspicions. Obviously the thing that frightened this expert and many others was the possibility of germ warfare. Here's a quote:

"If the Japanese used the full arsenal of dangerous animal diseases available to them, one alarmed veterinary expert said, perhaps with some exaggeration, within 6 months there might not be a hooved animal left between the Arctic circle and the Panama Canal, and those were only the beginnings of the dread possibilities."

This author says further, "Then came the great reprieve. The first "A bomb exploded in Hiroshima and the second was dropped at Nagasaki. Some people talked about how inhuman we Americans were. If they had only known what we avoided."

This article ends with an unhappy thought that such warfare could be carried on again and it also points out that the United States is not in a position to extend it to other countries because the wind movements are not dependable. This, of course, was said before the great missile program was developed.

In the July 1946 issue of Fire Control Notes (U.S.F.S. Wash. D.C.) there was printed a small article by Neal M. Rahm, titled "The Fire Fly Project." At that time Rahm was liaison officer with the Air Force. Later he was supervisor of the Lassen National Forest.

This short article contains much information about the fire fighting aspect of the anti-balloon project. Before considering its ramifications it is interesting to note that Supervisor Melvin Barron of the Modoc National Forest made one of the earliest discoveries of a complete balloon. Barron had just recently left the employ of the Division where he had been one of the young technical assistants working under my direction. His father, at the time of the balloon incident, was Assistant Fire Chief of the Division. Also mentioned in the article was the near demise of District Ranger Raymond Beals at Hayfork when a balloon hit a tree nearby and exploded.

Rahm tells of the difficulty of shooting down some balloons because of their height and speed. He also mentions that planet Venus was the objective on 18 separate fighter aircraft sorties in one day when it was visible in daylight.

The Forest Service and State Foresters were alarmed at the prospect confronting them in the early summer of 1945. In Washington the military and forestry authorities developed a plan of fire fighting assistance. Assistant Regional Forester Frank J. Jefferson at San Francisco was made the grand coordinator for the western states.

Three hundred paratroops and 2700 ground troops were assigned to the total western states program. The conversion of army paratroopers to smokejumpers is an interesting bit of history, too briefly told in the article. The use of air transport for men and provisions was another important aspect of the program.

Rahm quotes some valuable broad statistics and has no adverse criticism of the operation. He says:

"The cooperation and coordination required to make the organization function efficiently was remarkably good. The fire record of 1945 reflects the success of the organization. The Fire Fly project, with its joint control by several branches of the Forest Service and the Army, all working together toward a common objective, will remain forever unique in Forest Service history."

All correspondence related to the Fire Fly Project in Division of Forestry files should have been destroyed years ago in accordance with good "paper work management." Some items were unquestionably destroyed as demanded by the issuing military authority. Fortunately for the sake of the historical record a few documents survived in one Southern California Ranger Unit.

On January 12, 1945, Acting District Deputy State Forester Edwin S. Miller sent a confidential letter to the Rangers of his District VI. From Major Lutz of G-2 at Fort MacArthur a telephone message stated that Japanese balloons recovered at sea would be Navy responsibility; Those recovered on land would be the responsibility of the Army. The FBI would guard the balloon and investigate all aspects of the recovery. It was noted that the retrieving party should include a bomb disposal officer, balloonist, radio and mechanical engineers.

On February 6, 1945, a confidential letter to all Deputy State Foresters and Rangers was transmitted from Sacramento. It was signed by C. R. Clar, Chief Deputy, but was apparently prepared by W. D. Winters, Fire Control Officer.

The letter began by noting that a number of balloons had been found and that they were "undoubtedly of Japanese Origin." The whole subject was to be treated on a "confidential basis," at least for the present. The Division would naturally be glad

to assist military authorities in reporting, locating, and guiding Army men to any known landings.

Reports were to be made directly by Rangers to the military "Controller" in either northern or southern California, as the case may be. The dividing line of authority was indicated on a sketch map furnished by the Army. This line ran at the border of Monterey and San Luis Obispo counties, thence northeast across Tulare and then east across the middle of Inyo County.

A sketch of the balloon and under carriage was also transmitted.

After the report to the Army it was requested that a written summary be sent to the Sacramento Fire Dispatcher (Note: I have no recollection of any such report being received. It is possible, however, that I was not informed. We were all very conscious of the need to refrain from discussing any aspects of official war actions).

Rangers were warned (in the letter) that only qualified military personnel were to touch any parts of the balloon, and further, the entire device was to be regarded as a "booby trap." Pending such time as authorized personnel arrived at the scene of a balloon landing, Division men were to throw up a guard around it.

On April 24th another confidential letter to District Deputies was transmitted by State Forester DeWitt Nelson. Obviously there had recently been a meeting of top Division personnel to discuss "possible enemy action incidents." The letter confirmed three points.

1. The organization must be ready to move to any distress area on short notice. First movement would be made by Mobile Pool trucks. These trucks, with at least two men as driver and crew, were a special wartime addition to the Division. Their acquisition was primarily made to offer aid to small communities or the periphery of cities in the event of fire sabotage or enemy bombing.

Secondly, regular Division tanker equipment was to be made constantly available for immediate service.

Thirdly, bulldozers should be available for movement to distress areas for clearing debris.

2. All dispatching of Division men and equipment was to follow regular channels (Note: the easy possibility of agents of other official agencies attempting to dominate and thus confuse the orderly dispatch and direction of Division of Forestry men and facilities was then, and still is, regarded as thoroughly undesirable in times of civil emergency. C.R.C.)

3. "Paper" incidents were those recently discussed in the Bomb Reconnaissance Schools. In other words, "Paper" was the adopted code word for the incendiary balloons. The special camps of firefighters were separately referred to as "Fire Fly Project" camps. This area of the letter of instructions said that radio should not be used in reporting "paper" incidents. Lookouts were to be alerted to watch for "objects in the air" and report them.

(Note: many fire lookout stations were heavily burdened by the necessity of reporting all aircraft flying within their field of observation. Further, some stations were manned the full 24 hours to make such reports).

A number of Division firetrucks were manned and selected lookout stations were put into operation immediately upon the news of the Pearl Harbor Attack. This was done in conformance with plans established months earlier in the State Council of Defense. (Note: this activation, after the fire season and the funds of 1941 had expired caused me a particular embarrassment very shortly thereafter. I was called before the Senate Committee of Governmental Efficiency to explain by what authority I had ordered the expenditure of \$38,000 which had not been appropriated. At this time, State Forester Pratt took very little part in the intense war-born activity of the Division. C.R.C.)

The letter closed with an admonition that fire crews and other personnel were to be alerted in regard to "SAFETY around incidents."

On May 21, 1945, Nelson sent a letter to District Deputies and Rangers which included a bulletin issued by the Western Defense Command and pertaining to the balloons. This initiated the program of wide verbal dispersal of information. Rangers were told to read the bulletin before service clubs, farm groups, and so forth. Thereafter the bulletin was to be destroyed. No radio or newspaper publicity was to be permitted. (Note: I distinctly remember State Forester Nelson reading the bulletin to the total assembled office staff at Division Headquarters. C.R.C.)

On May 23, 1945, another letter was transmitted by Nelson to all members of the Department of Natural Resources. Reference was made to radio and newspaper publicity on the Japanese balloons. We had questioned the need to continue only a word of mouth publicity campaign as the situation now stood.

The Western Defense Command had informed us:

1. Continue the verbal dispersal of information.
2. Give no publicity of any kind regarding specific incidents because this would "play directly into the hands of the enemy."

3. The radio and newspaper information released on May 22 had been intended as a "one shot job" to allay any possible public hysteria.