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National Defence Headquarters
Ottawa, Canada
K1A 0K2

July 1986

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REPORT NO. 28
HISTORICAL SECTION (G.S.)
ARMY HEADQUARTERS

DECLASSIFIED

AUTHORITY: DHD 3-12

BY 000 FOR DHIST NDHQ

DATE: NOV 10 1986

15 Oct 49

The Japanese Balloon Enterprise Against North America

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The Japanese Balloon Enterprise Against North America

1. This Report is an account of the Japanese balloon attacks against the United States and Canada in the final year of the Second World War, and the measures adopted, especially in Canada, to meet this new type of warfare. To show something of the limitations of the balloon, a brief non-technical description of the equipment is given.

2. Material for this Report is principally derived from Headquarters Secret files, which contain official correspondence relating to balloon incidents and periodic reports by Canadian Operational Research and United States Military Intelligence. Supplementing these are Canadian press releases and military district and command files held in the Historical Section. Occasional reference has been made to the War Diary of the Directorate of Military Operations and Planning. Recommended for detailed information concerning the balloon are the précis, The Standard Japanese Balloon and Technical Air Intelligence Centre Report No. 41. Japanese Balloons and Attached Devices.* Considerable assistance in preparing the attached map, "Balloon Incidents in Canada" has been obtained from a map supplied by the National War Museum, Ottawa.

OBJECT OF ENTERPRISE

3. Japanese civilian morale was so seriously affected by the Doolittle raid** of 18 Aug 42 that some form of reprisal was considered a psychological necessity. Aided by pre-war experience with meteorological balloons and by the direction of the prevailing winds*** over the Pacific, the Japanese decided on retaliation by means of bomb-bearing balloons. At first it was intended to use submarines and battleships as mobile balloon bases, but failing to maintain the necessary naval strength the enemy was forced to employ the new weapon from his own soil. (H.Q.S. 8872-2, vol 4: U.S. Military Attaché to D.M.O. & P., 8 Nov 45, attached Report of G.H.Q. U.S. Army Forces, Pac, 25 Sep 45, para I)****

* In H.Q.S. 9012-560, vol 15 and 16.

** The first "sweep" of the Japanese mainland, led by Lt-Col (later Maj-Gen) Jas. H. Doolittle, U.S.A.A.F.

*** The westerlies.

**** The information contained in this source is stated as not necessarily representing the final opinion of United States Military Intelligence; however, none of its statements referred to in this Report are seriously challenged by other evidence.

The fact that the balloons were launched from Japan itself was subsequently represented by propagandists as a positive moral factor. (See Appendix "A" to this Report.)

4. A United States government official's description of Japanese propaganda methods proceeds as follows:

...They take a couple of balloons to a war factory, make a lot of speeches, stir up the workers to a frenzy, and then launch the balloons from the war plant* for their trip to the United States....

(H.Q.S. 8872-2, vol 5:
Canadian Army Staff,
Washington, to Defensor,
31 May 45, last para)

The entry for 19 Feb 45 in the diary of an unidentified Japanese infantryman (found on Okinawa) reads:

The newspapers...gave an account of the air raids on the United States mainland made by the bombing balloons...which my brother invented. He deserves a civilian order of the Golden Kite decoration....

(Ibid, vol 3: Japanese
Balloon Report (Mil Int Div
(U.S.)) No. 94, 15/16 Jun 45,
para 5)

Generally speaking, however, the enemy did not fully or systematically exploit the propaganda value of the balloon campaign ((H.S.)1-0-9-2, Press Releases, Japanese Silent V/Weapon - Balloon: P.N. 106-46, post-dated 8 Feb 46, p. 7),

EQUIPMENT AND LAUNCHING

5. The following description of Japanese balloon equipment is substantially supported by P.N. 106-46, op cit, pp 5-7 and W.D., D.M.O. & P., April 1945: Appx 2, General Summary Japanese Balloons in Canada. The standard operational balloon, made of mulberry bark paper, was some 33 feet in diameter, holding 19,000 cubic feet of hydrogen.

* Another American source describes the very elaborate installations used (and presumably required) for launching. This article also suggests that the Japanese maintained the strictest secrecy regarding the purpose of the balloons. ((H.S.) 028.001 (D1), Equipment, Japanese: Freedman, Capt S. Ambrose, "Balloon-Launching Sites Found!", in Stars and Stripes (Pac), 11 May 47) This is scarcely consistent with the theory that their object was one of propaganda, but it is thought possible that propaganda efforts were to some extent modified by security considerations.

Another type, made of rubberized silk and apparently used only for ranging, was slightly smaller. Production plans called for 20,000 balloons, but only 9,300 were completed; these included 300 of the rubberized silk type. All the balloons constructed were released. The balloon was designed for a journey of about five days, at heights ranging between 15,000 and 30,000 feet. Its altitude - and thus also its duration of flight - were controlled by devices which functioned automatically at various heights, one for partially deflating the envelope and one for dropping sand ballast. The bomb load varied between 25 and 65 pounds. The normal load, it would appear, consisted of five bombs totalling about 50 pounds - four incendiaries accounting for two-thirds of this weight, and one high explosive. Early in the campaign a single 33-pound H.E. was sometimes carried; a later variant consisted of one 26-pound incendiary. The bombs were released, either at intervals in the same manner as ballast, or simultaneously on the last sandbag being dropped. Some* of the balloons carried "radiosonde" apparatus, which furnished information on altitude and enabled the course to be "tracked" for about 1200 miles. Many, if not all, of the balloons were fitted for self-destruction, but such equipment frequently failed.

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6. It was from the Kanto district of Honshu** , the largest of the Japanese islands, that the balloons were launched (G.H.Q. U.S. Army Forces Report, op cit, para III, 7e). Japanese sources state that as early as 11 Feb 44, 200 balloons had been released; most of these carried only sand for test purposes, but a few were fitted with incendiaries (ibid, para III, 3). No evidence has been encountered of such balloons reaching the target area. The same source (para III, 5) gives, as the opening date of the campaign proper, 20 Nov 44; however, most evidence suggests that balloon operations commenced earlier in that month. The date given by the Japanese for the termination of the enterprise is 20 Apr 45 (ibid); this is supported by the opinion (of United States Military Intelligence) that few if any balloons arrived over this continent after the middle of April (H.Q.S. 9012-560, vol 15: Mil Int Div (U.S.) General Report No. 7, para 1). However, almost until the end of hostilities the enemy continued to study meteorological conditions over the Pacific (P.N. 106-46, op cit, p. 4).

7. Whenever surface winds exceeded ten miles per hour, or rain was falling, no balloons were dispatched. Weather conditions were often most favourable early in the morning or evening. The best time of year for launching was considered to be from late December to mid-February, although it was in March that the greatest number of balloons - 3,000 - was released. In the same month freak winds carried two balloons back to Japan, but these landed in the snow and caused no damage. The time normally required for launching, by a crew of 30, was half an hour;

* Apparently all the rubberized silk balloons and about one-tenth of the paper type.

** Aomori, Iwanunsa, Nakoso, Otsu, Mohara and Ichinomiya

there were, however, several days of exceptionally good weather in which it was found possible to release 150 balloons. A Japanese officer, estimating ten percent of the balloons dispatched to have reached the United States*, has attributed 20 to 30 percent of the failures to faulty launching. (Ibid, pp 4, 5)

BALLOON INCIDENTS

8. On 4 Nov 44 a balloon was found at sea, 66 miles off San Pedro, California, but this is believed to have been only an experimental specimen. The first operational balloon was recovered ten days later, in the region of the Hawaiian Islands. ((H.S.) 168,009 (D12), Japanese Balloons: Operational Research Summary No. 1, 1 Feb 45, para 2 and Appx, p. 1) Canada's first taste of this new warfare came on 12 Jan 45 when a balloon released several bombs near Minton, Sask; all but one failed to explode, and there were no casualties (ibid (D11): D.D.M.I.(S) Ottawa to D.O.C. M.D. 12, 13 Jan 45; ibid: R.S. 4-7-16, G.S.O. 3 (Int) Regina to Secretary D.N.D., 16 Jan 45). An earlier balloon arrival is estimated by United States Military Intelligence as having occurred about 1 Jan at Stony Rapids, Sask, where only fragments of an envelope were found; however, this is listed by Canadian Operational Research as merely a "related incident" (H.Q.S. 9012-560, vol 15: General Report No 7, Inclosure "A"; see also H.Q.S. 8872-2, vol 3: H.Q.S. 9012-560, Balloon Incidents in Canada, 30 Jun 45, p.1). The following extracts from Operational Research reports concerning typical balloon incidents serve to illustrate the erratic nature and the general ineffectiveness of the campaign and the difficulty of tracing its course accurately or in close detail:

Delburne and Pine Lake, Alta

Three independent observers near Pine Lake heard two explosions about 5 minutes apart during the evening of 20 Mar...witnesses estimate it was between 1745 and 1900 hrs. The second explosion was thought to be in the air. A bomb was subsequently found, which had penetrated to a depth of 6 ft...Patches of grass were burnt within a 20 ft. radius... The bomb was sent to NDHQ...

Between 1930 and 1945 hrs. on 20 Mar, 5 miles north of Delburne, two people heard a dull boom and shortly afterwards saw a white object falling in a nearby field. Souvenir hunters removed much material before the R.C.M.P. arrived and it is not clear whether or not the envelope ignition charge [self-destruction device] had operated...

The distance between the site of the balloon recovery and the bomb incident at Pine Lake is 15 miles. The time between the incidents appears to be between 1 hr. and 2 hrs....the Meteorological Office at Calgary was unable to state the exact

* Presumably North America generally.

** Associated with some other event or discovery and therefore not considered evidence of a separate balloon arrival.

wind velocity and direction at Delburne. It is possible, however, that the bomb was dropped by the Delburne balloon....

Wimborne, Alta

About 1930 hrs. on 20 Mar, 6 miles SE of Wimborne, a bomb was heard falling and exploding in a field about 100 yds. from the observers. It was reported that flames 20 ft. in height issued from the hole in the ground for about 2 minutes...

Although Wimborne is only 35 miles to the southwest of Delburne, it seems unlikely that this bomb was dropped by the Delburne balloon, since the two incidents were nearly simultaneous. ...the times given can hardly have been sufficiently in error to allow time for the balloon to have travelled 35 miles....

(168.009 (D12), op cit:
Summary No. 8, Appx "C",
items 158, 187)

9. On 5 May 45, near Bly, Oregon, a party including a woman and five children found a balloon. One of the attached bombs was accidentally exploded, and these six persons were killed. These were the only casualties of the entire balloon campaign. (General Reports, op cit, No. 5, para 1(b)). By 28 Aug 45 almost 300 balloon incidents had been reported, including 88 in Canada (see Appendices "B" and "C" to this Report). Only two later

Three later recoveries were made in Canada -- the latest occurring at Centreville, in Northern British Columbia, where a bomb was exploded in November 1953 (D.P.R. Press Index No. 3133, 23 Nov 53).

10. It is by no means to be assumed that only 300 balloons - roughly three percent of those launched - reached this continent. In view of the vastness of the target area, much of which is uninhabited, and allowing for the disappearance of a proportion of the balloons through self-destruction, a Canadian press release seems to support a Japanese estimate that nine hundred balloons arrived in America (P.N. 106-46, pp 4,5). Neither can one be certain that as many as 300 balloons reached these shores; some allowance must be made for failure, despite the closest cross-checking, to establish relation between two or more incidents in all cases where it existed. The figures given simply represent the number of events and discoveries which at the time - 7 Sep 45 - seemed to indicate separate balloon arrivals. The attached map, based on Canadian Operational Research summaries, shows only 73 incidents in Canada for practically the same period; this discrepancy - 73 as against 88 - may be partly due to differences of opinion in the classification of incidents and related incidents, and/or delay in the passage of information regarding reclassification. Also, further allowance must

be made for error; it is now known, for instance, that of six balloons reportedly brought down by the R.C.A.F., only three were thus accounted for ((H.S.) 182.013 (D4), Air Historian to Lieut F.R. McGuire, 28 Sep 49). The chronological distribution of incidents (see Appendix "B" and "C") implies that recovery of a balloon generally occurred shortly after arrival; March 1945, in which the greatest number of balloons was launched, saw also the most recoveries for any single month, whereas after the end of the enterprise in April the recovery incidence rapidly diminished. It is therefore believed that further finds of balloon material will be infrequent and quite sporadic.

COUNTER MEASURES

11. Canada's anti-balloon programme provided for the spotting (both visually and by radar) and reporting of new arrivals, their disarming or safe destruction, and the collection and examination of salvage. It required the co-operation of the Royal Canadian Mounted Police, provincial police, the Pacific Coast Militia Rangers^{*}, forest rangers, trappers, inter-service bomb disposal squads^{**}, the three services and research experts. It also involved close liaison with the United States authorities. The co-ordination of anti-balloon activities in Canada was the responsibility of the Directorate of Military Operations and Planning, National Defence Headquarters, Ottawa. On 24 Jan 45, at a co-ordinating meeting called by D.M.O. & P., the detail of the initial programme was issued; it summarized the respective responsibilities of the various agencies co-operating in anti-balloon measures in Canada. (See Appendix "E" to this Report.) During the months that followed this programme was considerably expanded in preparation for biological warfare. Human and animal (and presumably crop) diseases were to be investigated and controlled by provincial health departments and the federal Department of Agriculture respectively; also, special provision was made for the co-operation of the armed forces medical services. (W.D., D.M.O. & P., September 1945: Appx 2)

12. The attached summary of responsibilities does not include mention of the Navy, nor does it fully anticipate the role of the Air Force. The R.C.N. was responsible only for its own property but would, when so required, supply personnel and equipment to assist the Army ((H.S.) P.C.S. 508-1-1-4, Possible Enemy Action-Balloons: H.Q. Pac Comd Directive, 7 Feb 45, para I). The R.C.A.F. assumed the additional task of forcing the balloons down. This was preferably to be accomplished by other means than machine gun fire [e.g. contact with wingtip, direction by slipstream], in view of the desirability of capturing balloons intact and

* For further information see (H.S.) 145.2P (D1) and 112.1 (D35), Pacific Coast Militia Rangers.

** Furnished by S-19 Canadian Bomb Disposal School (Joint Services), Ottawa (Lt Cdr E.L. Borradaile, R.C.N.V.R., commanding). Special courses in bomb disposal were conducted at A-5 Canadian Engineer Training Centre, Petawawa, Ont.

the danger of using machine guns over populated areas (H.Q.S. 8872-2, vol 2: S.15-13-10 (2/Ops), R.C.A.F. Instructions in Respect to Balloons, 28 Mar 45, para 3(b)). Three balloons were accounted for by the R.C.A.F. (see para 10). American fighter aircraft also sought and engaged balloons, and bombers attacked launching sites in Japan (General Reports, op cit, No. 6, para 1 (2)).

SECURITY AND PUBLICITY

13. A further precaution against the balloon bomb was the adoption of an appropriate security policy. In this, as in other respects, Canada and the United States were generally in complete harmony. At first, to deny to the enemy knowledge of any effects of his activities [and as well to prevent alarm among civilians], the press and radio of both countries voluntarily observed a complete blackout on matters relating to the balloon (P.N. 106-46, p.7). But this purely negative aspect of security was not adequate, in that it failed to promote either public safety or popular co-operation with the authorities; almost inevitably Col J.H. Jenkins, O.B.E., E.D. (D.M.O. & P.) had occasion to report as follows:

Experience with the Minton incident and the recent Alberta incident (where boys used a red-hot poker to unsolder the connections from the container of explosive) indicates the advisability of discreet publicity. The OC - K. Division RCMP ... considers it essential for proper detection and collection of balloon material that the general public be put in the picture....dependence must be placed on ranchers, trappers, H.B. Posts, etc passing word along of findings. They will not do this unless they know that proper information of these balloons is wanted by the police and military. A co-ordinated Cdn - US policy regarding publicity (other than by radio) is essential. I therefore propose, if you approve, to discuss this with the RCMP in Ottawa and with [the American Military Attaché]....

(H.Q.S. 8872-2, vol 1: H.Q.S. 8704-1 F.D. 92 (Oprs 195-P), Memo to C.G.S. (through D.C.G.S. (A)), 18 Feb 45, para 29)

On 23 Mar, in reply to an inquiry as to what extent forest rangers and "similar persons" in isolated districts had been informed regarding the balloon, D.M.O. & P. was able to state:

... It has now been decided that in British Columbia, Saskatchewan, Alberta and Manitoba it will be in order for Military authorities, RCMP and where applicable Provincial Police to inform any members of the public whom these authorities consider it desirable to be told of balloon occurrences.

It is considered that the information should be passed by word of mouth rather than circularization and should be restricted to the broad problem of detection, reporting and collection of balloon equipment so that prompt notification of occurrences

will be passed to the proper authorities and to prevent tampering with equipment prior to its removal by experts.

At this stage it is definitely considered that reference should not be made to the possibility of contaminated substance being carried by these balloons and it is sufficient if information is given to the effect that persons should be kept away from balloon material because of possible danger from explosive missiles.

I may say in this connection that no relaxation of press or radio censorship is proposed and as the chief purpose in keeping publicity to a minimum is to deprive the enemy of useful intelligence, it is stressed that all who are informed should endeavour to curtail loose discussion about these occurrences....

(Ibid, vol 2: D.M.O. & P. to
Dept Mines & Resources, 23 Mar 45)

14. Following the one fatal incident of 5 May^{**} the security and publicity policy was further modified. In the United States a programme was devised for disseminating limited information concerning the balloon bomb among all the inhabitants of areas affected by the campaign; this was to be implemented through the medium of state educational systems and civic organizations (H.Q.S. 9012-560, vol 16: Japanese Balloon Report No. 63, 10/11 May 45, para 4). Soon a special release was issued to the press and radio, for the benefit of the whole nation. This measure was adopted almost simultaneously in Canada, and on 22 May the first in a series of articles on the balloon bomb was released to the Canadian public (Press Releases: P.N. 421-45, 22 May 45).

15. Editors and broadcasters were asked to avoid mentioning the following details "without prior submission to censorship":

1. The number of balloons arriving, beyond the term 'some', 'a number' or similar.
2. The place they have been seen, beyond 'western Canada', 'western United States', 'the Canadian Prairies' or similar (reference to any provinces or localities would spot the shot across the target).
3. Times of arrival or discovery beyond 'during the past few months' or similar.
4. Reference to the balloons or enemy action in the case of any casualty or property damage which might result (so far there have been no casualties in Canada).

* See para 9.

5. Description of the balloon or condition after descent other than contained in official statements.

(H.Q.S. 8872-2, vol 5:
Censorship Directive, Ottawa,
22 May 45)

The object of the last-named restriction was to disguise the incidence and probable causes of failure of the self-destruction apparatus, thus hindering the enemy in improving this. A further restriction, designed to prevent undue alarm in this country, was that no mention should be made of the possible use of the balloon in biological warfare (ibid: "Reference Directive XI", Ottawa, 31 May 45). The initial press release, in warning the public against tampering with unfamiliar objects, did not mention the procedure to be followed in the event of discovery of a balloon or bomb; the proper action was to notify immediately the nearest police or service headquarters (ibid: D.M.O. & P. to C.G.S., 23 May 45, attached D.P.R. draft, p.2).

16. In their co-operation in matters of security, both the Canadian and American press were generally consistent; there were, however, a few exceptions. Deviating from the initial policy of complete silence, an American broadcasting station and several newspapers in Montana commented on the Minton incident of 12 Jan (168.009 (D11), op cit: Pencilled Memo, 19 Jan 45 (1025 hrs)). On 31 May, after the lifting of the general blackout but while certain restrictions still remained, the early edition of the Toronto Daily Star carried the following article (offending portions indicated here by underlining):

GERM, FIRE, DEATH DROPPED ON
BRITISH COLUMBIA BY JAP BALLOONS

Mass incendiarism in the forests of western North America would be possible if the Japanese balloon bomb attack proved successful, examination of balloons brought down in British Columbia reveals. About 190 have been sighted crossing the coast of British Columbia since the first of the year ...

Examination of equipment and "harness" on the balloon indicates their purpose to be incendiarism, but some carry one or more crystalite, tubular containers, filled with a jelly-like substance now being analyzed in the belief that this matter is bacterial culture intended for use against humans, crops or stock.

On being advised by Press Censorship that it had abused its privileges, the Star deleted from later editions all references to biological warfare and numbers of balloons. (H.Q.S. 8872-2, vol 5: F.D. 10 (D.M.O. & P.)(Oprs 200-R), 2 Jun 45)

THE CESSATION OF BALLOON OPERATIONS

17. The last operational balloons are believed to have been launched on 20 Apr 45 (see para 6). For this apparent abandonment of the campaign, United States Military Intelligence has suggested four possible reasons, which will be discussed in the following paragraphs. As will be shown, only the last of these can in itself be considered adequate cause for the cessation of the enterprise, but even in its absence the other three combined might well have produced the same result.

18. One reason which has been suggested for the termination of the campaign is that the Japanese believed that wind conditions had become too erratic and unfavourable (General Report No. 6, para 1). It may be pointed out that although fewer balloons could have reached this continent during the summer, their incendiary effect, at least in the forested areas of Canada, would have been considerably greater (168.009 (DL2): Summary No. 5, para 4). Therefore, although wind conditions after the optimum period for launching might well account for a suspension of balloon activities, these would hardly, in view of the prospects of greater incendiary effect in the summer, explain its complete abandonment.

19. Another reason suggested for the discontinuance of the balloon campaign is the bombing and strafing attacks by United States aircraft against manufacturing and launching points and transportation facilities (General Report No. 6). But although well directed bombing and strafing on a sufficient scale might have seriously hampered the enemy's efforts, it does not necessarily follow that such activity could, in itself, have constituted a decisive, final factor. This appreciation of the effectiveness of bombing not supplemented by other offensive action would apply in almost all fields of warfare; there is no apparent reason for assuming the balloon launchings to be an exception.

20. United States Military Intelligence considered also the possibility that the Japanese had obtained the desired ranging information and were then preparing for a different type of attack, such as biological warfare, the transportation of agents or one-way attacks by long-range bombers (*ibid*). As for biological warfare, there is no apparent reason to doubt a statement that the Japanese had had no intentions of introducing this type of attack (P.N. 106-46, p.3). The transportation-of-agents idea, though suggested in Japanese propaganda (see Appendix "A" to this Report) and not considered impracticable, would have involved serious technical problems^x for which experience with the standard operational balloon could scarcely have proven adequate. The possibility of one-way attacks by long-range bombers, though not entirely out of the question, cannot on the basis of available evidence be related to the balloon campaign. It is interesting to note that for months after

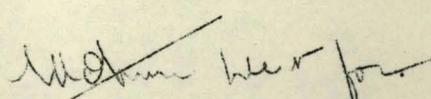
* It is estimated that a balloon used for this purpose would, in order to carry one man with the necessary survival equipment, have to be 62 feet in diameter. For 100-hour trip such a balloon would require 1,350 pounds of ballast (over six times that used with the standard balloon). (General Report No. 6, para 3b (3))

the end of the enterprise the Japanese continued to study meteorological conditions over the Pacific (see para 6). This and the campaign itself might conceivably have been connected with some new weapon or technique, contemplated or actually under development; but it is thought more probable that the Japanese were merely attempting to conceal their abandonment of the balloon enterprise.

21. The fourth reason suggested for the termination of the campaign is that the Japanese did not consider its results sufficient to warrant further effort. This contention is supported, quite apart from the actual effects of the balloon bomb (six fatal casualties, otherwise negligible damage) and whatever results the enemy seriously believed were being achieved, by the fact that the Japanese produced less than half the intended number of balloons, released them all and then dropped the enterprise. Furthermore, as we have seen, the campaign was designed for morale purposes; yet there appears to have been no intensive organized exploitation of its psychological value. Though maintaining that the balloon bomb was fully utilized in propaganda for home consumption, two responsible Japanese officers have stated that had the war continued, the materials used for balloon production would have been devoted to other uses (G.H.Q. U.S. Army Forces, Pac Report, op cit, para III, 7f).

22. The Second World War saw the introduction by the Axis powers of a number of weapons and other devices hitherto unknown in warfare, in their desperate attempt to gain victory. Some of these - the magnetic mine and the V-1 and V-2 missiles - took a heavy toll of Allied life and property. By contrast with these the balloon campaign of the Japanese partners of the Axis must be judged an unimpressive effort.

23. This report was drafted by Lieut F.R. McGuire,
R.C.I.C.


(C.P. Stacey) Colonel,
Director Historical Section (G.S.)

Japanese Propaganda Broadcast (in English)
Singapore to Australia, 4 Jun 45

" The attack against the United States mainland in the near future by means of bomb-carrying stratosphere balloons manned by death-defying Japanese pilots was predicted by Lieutenant Colonel Nakajima, chief spokesman of Imperial forces in the southern regions, at his regular press conference.

Referring for the first time to the attacks on the American continent by Japanese balloon bombs, the spokesman revealed that this novel method of raiding the enemy mainland was first launched on 10 Mar^x of this year--Japanese Army Day -- 'and since then hundreds of these bomb-carrying balloons have been released from Japan every day'.^{xx} Reports from enemy sources, he added, while admitting these attacks, did not divulge the extent of the damage caused by the bombs, 'but we can surmise they are creating havoc in the enemy country'.

The spokesman pointed out that thus far these attacks have been on an experimental scale. He predicted when actual results of the experiment have been obtained large-scale attacks with death-defying Japanese airmen manning the balloons will be launched.

The balloon bomb is one of Japan's unique originations and it is especially significant in that by the use of this method of bombing we can attack the enemy mainland directly from Japan--'something which the enemy cannot boast of', he emphasized.

Giving the press some details of the novel bomb, the spokesman disclosed that these balloons have a ceiling of over 15,000 meters^{xxx} --far beyond the reach of enemy interceptors--and take just over 100 hours to reach the United States mainland."

(H.Q.S. 9012-560, vol 10:
Japanese Balloon Report No. 83,
2-4 Jun 45, para 4)

x Obvious mis-statement.

xx The average daily rate for March, in which the greatest number of launchings was made, was less than 100 (3,000 during the entire month (see para 7)).

xxx The normal maximum altitude of the balloon was 9,000 metres (30,000 feet (see para 5)).

Reported Balloon Incidents Outside Canada
Chronological and Geographical Distribution

	Alaska (incl Aleutians)	Arizona	California	Colorado	Idaho	Iowa	Kansas	Michigan	Montana	Nebraska	Nevada	North Dakota	Oregon	South Dakota	Texas	Utah	Washington	Wyoming	Mexico	Hawaii	At Sea	TOTAL
To 31 Jan 45	5	1	7						3		1		3					2		1	1	24
February	2		5		3	2	1	1	11	3	1	1	6	2		1	7	4				50
March	6		5	2	4	1		1	13	2	2	1	8	4	3	2	9	3	2		1	69
April	18		2		2				2		1		5	1		1	3				4	39
May			1						1	1	1		2	1							1	8
June	2			1					1				2									6
July	1	1							3		2		2								1	10
August	1				1																	2
TOTAL	35	2	20	3	10	3	1	2	34	6	8	2	28	8	3	4	19	9	2	1	8	208

(General Reports op cit, No. 8:
 Inclosure "B", Summary of
 Incidents Reported up to 28 Aug 45)

APPENDIX "C"
to Report No. 28

Reported Balloon Incidents in Canada
Chronological and Geographical Distribution

1945	<u>B.C.</u>	<u>Alta</u>	<u>Sask</u>	<u>Man</u>	<u>Y.T.</u>	<u>D.M.*</u>	<u>TOTAL</u>
January	1	1	2			1	5
February	4	2	2			1	9
March	21	10	2	4	1	1	39
April	6			1	1	1	9
May	4	3	1	1		1	10
June	3	1			2		6
July	6				1		7
August	3						3
TOTAL	48	17	7	6	5	5	88

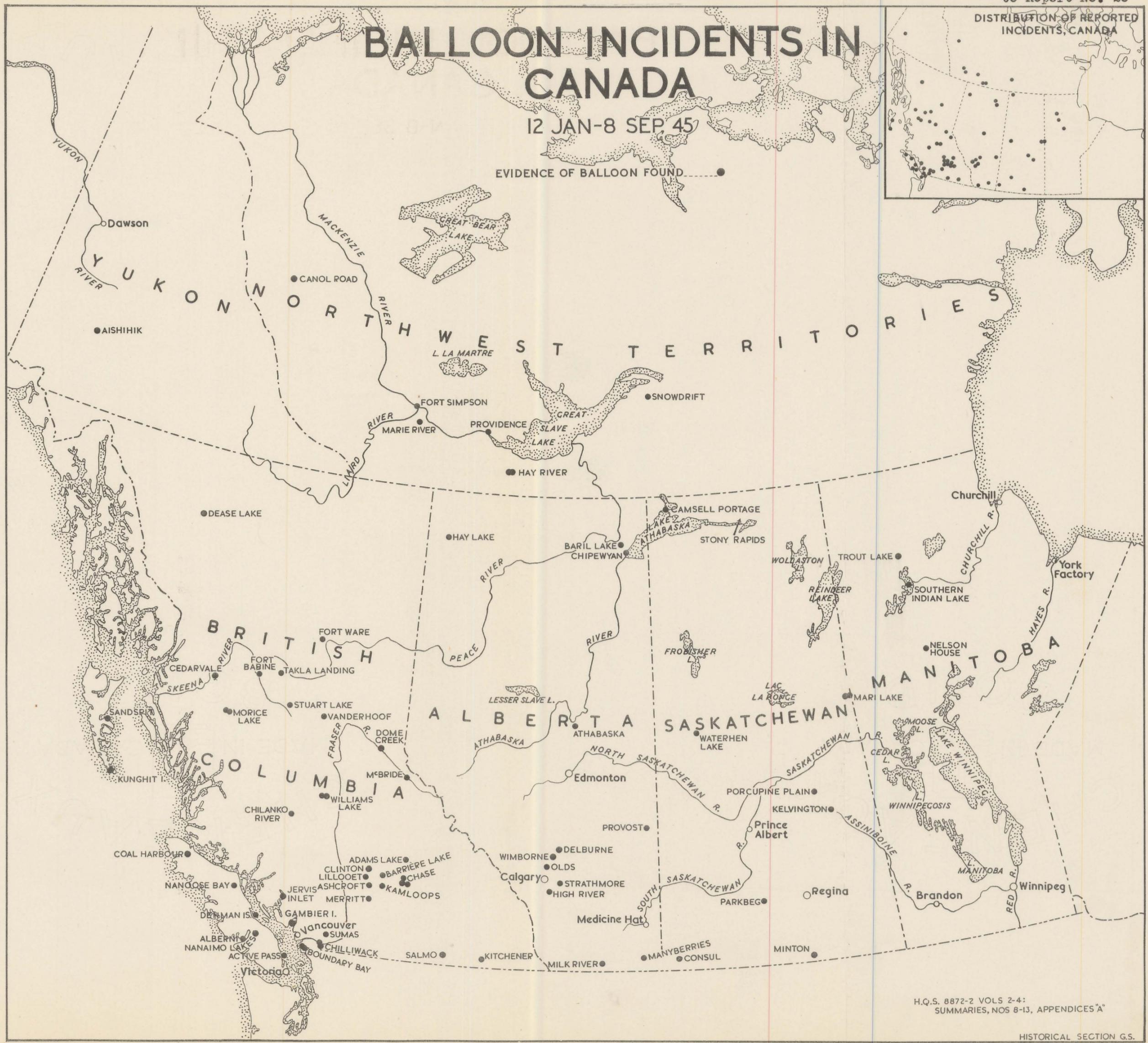
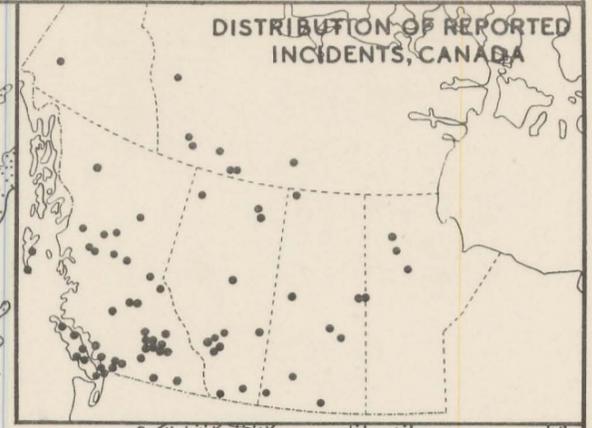
(General Report No. 8:
Inclosure "B", Summary of
Incidents Reported up to
28 Aug 45)

* District of Mackenzie

BALLOON INCIDENTS IN CANADA

12 JAN-8 SEP 45

DISTRIBUTION OF REPORTED INCIDENTS, CANADA



EVIDENCE OF BALLOON FOUND

ANTI-BALLOON MEASURES IN CANADA
Summary of Responsibilities

A. In Province in which Balloon located

Police (RCMP or Provincial)

Notifying nearest Military District HQ.

Guarding bomb site - until bomb and other material removed or otherwise disposed of.

Army (Military District HQ)

Despatching BD^{*} officer and NCO with kit to site (where air transport is required, dealing direct with appropriate RCAF Command HQ).

Notifying NDHQ and nearest RCAF Command HQ of incident.

Keeping NDHQ advised of action taken.

After bomb and other material has been made safe, arranging (in co-operation with RCAF) for rapid movement to BD Centre, Ottawa of all material required for research purposes.

RCAF (Command HQ)

Upon request of DOC^{**} concerned, providing air transport of BD squad and equipment to site and (in present stages of research and investigation) moving material required for research purposes to Ottawa.

B. In Ottawa

RCMP

Exchanging intelligence re balloon incidents with Army (Int).

Keeping Provincial Police in B.C. and Ontario informed of general policy and relevant responsibilities of various authorities concerned.

Army (NDHQ)

DMO & P - Normal operational responsibility for enemy incidents.

Bomb Disposal (explosive and incendiary).

General co-ordination of activities arising from Jap bomb incidents.

* bomb disposal

** District Officer Commanding

Channel for passage of information re Jap balloons, etc, to US (via US Military Attache, Ottawa)

D Int

Rapid passage of intelligence received at NDHQ re balloon incidents in Canada to DMO & P, RCMP and RCAF.

Assembly of data re balloon incidents outside of Canada.

D Research

Co-ordination of all research activities re balloons and their contents and ensuring that all interested research organizations are given an opportunity of studying the various aspects.

Collection and distribution of reports from various research organizations (in case of reports for US War Dept, they will be sent to DMO & P for passing to US Military Attache.)

Interservice
BD Centre

Normal BD responsibilities and duties (co-ordinated with DMO & P requirements).

Study of Japanese bombs, casings and fuze mechanisms and keeping BD officers in Districts informed of developments and new procedure.

Delivery point for all Jap balloon material received in Ottawa. Material (other than bombs) will be allocated for research purposes by D Research.

DCW & S,*
NRC** and
other
research
organizations
or Cttees

Normal research activities, with co-ordination relating to this special Japanese balloon being arranged by D. Research.

RCAF (AFHQ)

Provision of aircraft required for movement of BD personnel from respective Dist HQ to and from bomb site and for movement of research material to Ottawa - with necessary authorization delegated as far as possible to the various Air Commands concerned.

(W.D., D.M.O. & P., January 1945: Appx 7, Report on a Co-ordinating Meeting re Japanese Balloons, Appx "A")

* Directorate of Chemical Warfare and Smoke.

** National Research Council.