

WEATHER STATIONS IN THE CANADIAN NORTH AND SOVEREIGNTY

Gordon W. Smith, Edited and introduced by P. Whitney Lackenbauer

Gordon W. Smith, Ph.D. (1918-2000) dedicated much of his life to researching Canada's sovereignty in the Arctic. A historian by training, his 1952 dissertation from Columbia University on "The Historical and Legal Background of Canada's Arctic Claims" remains a foundational work on the topic, as does his 1966 chapter "Sovereignty in the North: The Canadian Aspect of an International Problem" in R.St.J. Macdonald's The Arctic Frontier. This article is derived from his unpublished manuscript, A Historical and Legal Study of Sovereignty in the Canadian North and Related Law of the Sea Problems, which was written over three decades and remained incomplete at the time of his death in October 2000. Consisting of 1600 typewritten pages (and approximately 3000 handwritten pages), this document is a treasure trove of meticulous research, rich in subtle analysis and insight. Part A, from which this article is drawn, is concerned with terrestrial sovereignty and contains 50 chapters in eight volumes. Part B deals with the law of the sea and Canadian Arctic sovereignty and contains 15 chapters in three volumes. All of the material is thoroughly and intricately footnoted, making his manuscript an invaluable base for further research into the history of Canadian sovereignty over its Arctic inheritance. I am currently working with Professor Armand de Mestral, Dr. Smith's literary executors, and the Department of Foreign Affairs to identify which sections (drawn from classified material) of this monumental study must remain closed. Our hope is to make the remainder available to scholars of Canadian and Northern history in the near future. As Arctic sovereignty and security issues return to the forefront of public debate, this invaluable resource will serve as a comprehensive foundation upon which to expand our understanding of how Canada's claims have evolved since the original transfers of the northern territories in 1870 and 1880.

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A network of weather stations was established in the Canadian North during World War II, mainly by the United States, to supplement the thin scattering of Canadian stations that were already there. These weather stations were for the most part set up not specifically as projects in their own right, but rather as supportive elements in connection with the large enterprises in both the Northeast and Northwest which held the spotlight at that time. Thus, in the Northeast the weather stations were established

mainly as adjuncts to the air routes designed to facilitate the delivery of planes to the European theatre of war. In the Northwest, they were similarly designed to help in the flying of planes to the U.S.S.R. and they were also considered to be essential supplements to the huge projects which were being carried to completion in that area. During the later stages of the war, and following it, the United States embarked on a massive withdrawal from these northern projects, and almost complete American abandonment of the weather stations took place as part of this general withdrawal. After only a short interval, however, the Cold War was looming on the horizon; and the United States, and to a lesser extent Canada, began to fret once again about the safety and security of their northern regions. Partly because of this growing sense of danger, but also for economic, scientific, and technical reasons not directly related to the Cold War, there was a revival and expansion of activity in the North. As had been the case during the war, the United States was the chief instigator and principal participant in most of this activity. A major feature of it was the further development of the existing system of meteorological services, which involved both the reactivation of abandoned stations and the establishment of new ones, as well as extension to regions not previously covered. By far the most sensitive new region, in relation to both the Cold War and Canadian-American relations, was the remote, most northerly part of the Canadian Arctic Archipelago.

Weather Stations in the Northeast during World War II

In the Northeast, during the early stages of the war, about the only flights across the North Atlantic, relating to the delivery of planes, were those of bombers taking off

from Newfoundland. Such weather services as were available and useful were confirmed to the region from whence the planes departed. However, as alternative routes were developed using airports in the interior and northern parts of the continent, it became necessary to expand meteorological facilities and services. Meteorological services were provided at Goose Bay practically from its beginning in the summer and autumn of 1941, when construction of that huge base was undertaken. This was normal, of course, throughout the North, where the airports generally doubled as weather stations. Among the services provided were weather recording, weather reporting, and weather forecasting, in such detail as was considered necessary at each location. Following an urgent American request made initially through Permanent Joint Board of Defence (P.J.B.D.) channels in August 20, 1941, the Canadian Government agreed to construction of the three so-called "Crystal" stations in the Northeast and by late November the Americans had Crystal I (Fort Chimo), Crystal II (Frobisher Bay), and Crystal III (Padloping Island) established and in operation as radio, weather and emergency outposts.¹

When the United States decided, early in 1942, that it was necessary to embark upon a vast expansion of ferrying and staging facilities in the Northeast, it was recognized that this expansion would require a large network of meteorological stations. P.J.B.D. Recommendation No. 2S (June 9, 1942), which would become the working agreement between the two governments, provided for the construction of this network.²

¹ Library and Archives Canada (LAC), RG 25, Vol. 2908, File 2403-40, Breadner to Power, 21 August 1941, quoting Bissell to A.M.A. S., 21 August 1942; Moffat to Acting S. S. E. A., No. 467, 22 August 1941; Beaudry for Acting S. S. E. A. to U.S. Minister, No. 152, 22 August 1941; *Cabinet War Committee Meeting* No. 104, 22 August 1941, Minutes, secs. 1-2, 1; Alexander Forbes, *Quest for a Northern Air Route*, (Cambridge: Harvard University Press, 1953), pp. 17-37.

² LAC, RG 25, Vol. 5948, File 5021A-A-40, PJBD Recommendation No. 26, sec. (d). See in Stanley Dziuban, *Military Relations Between United States and Canada, 1939-1945*, (Washington: Office of the

Practically all of the locations were in Northern Manitoba, Keewatin, and the northern Hudson Bay region, and thus were clearly intended to aid in the establishment and use of the Crimson Route. However, the American authorities were by no means sure of what they wanted to do or how they wanted to do it and one consequence was confusing and indecisive modifications and reversals of their plans during the months that followed. In a memo to Air Vice-Marshal Anderson of the Canadian section of the P.J.B.D. on May 29, 1943, Major General Henry outlined plans for the partial or total abandonment of a considerable number of weather stations which were either functioning or under construction. On the other hand the plans called for the installation or completion of posts at River Clyde (Baffin Island), Foxe Basin (Baffin Island), Hebron (northern Labrador), Stillwater (southwest of Fort Chimo in Northern Quebec), Mecatina (south of Goose Bay in Labrador), Seal Lake north of Goose Bay in Labrador), Cape Harrison (coast of Labrador), and Brochet (Northwest Manitoba).³ The fact that most of the stations to be abandoned were in the west, and most of those to be put into operation were in the east, shows that the intention now was to downgrade the Crimson Route and rely more extensively on the Goose Bay route as well as, in a smaller way, the Fort Chimo-Frobisher Bay route.

There were more revisions, but in a letter to Keenleyside on July 23, 1943, Henry set down a plan which he hoped would not be subject to further change, and which may be summarized as follows: (a) retention of 24-hour forecasting service at Frobisher Bay

Chief of Military History, Department of the Army, 1959), p. 358; and in DHH 955. 013 (D10), Vol. 3, *PJBD Journal*, 9 June 1942, sec. 12. The Journal contains also a memo dated 23 May 1942 from Col. H. A. Craig, Assistant Chief of U.S. Air Staff Plans to the U.S. senior army member P. J. B. D, detailing expected needs for radio weather stations on the N. E. Air Route.

³ LAC, RG 24, Vol. 5201, R.C.A.F. File S15-24-30, Vol. 4, Henry to A/V/M Anderson, 29 May 1943, secs. 4, 5.

and Fort Chimo, (b) retention of limited forecasting and observing stations at The Pas, Churchill, and Coral Harbour, (c) retention of the following as observing stations - Duck Lake, York Bay, Island Falls, Wabowaen, Eskimo Point, Hudson Bay Junction, Gillam, Lake Harbour, and Padloping Island, (d) installation of observing stations at Brochet, Foxe Basin, Stillwater Lake, River Clyde, Hebron, Mecatina, and Indian House Lake, (e) installation of a weather reporting station and a radio range at Cape Harrison, and (f) abandonment of stations of Flin Flon, Tavani, Cape Low, Amadjuak, Fullerton, Cape Dorset, and Amadjuak Lake.⁴ The lack of correlation between this summary of stations and earlier summaries gives an indication of the fluctuations and changes in American plans.

As American interest in the Crimson Route declined, Canadian concern about the ultimate fate of the extensive facilities which had been constructed increased. Under the agreement all such facilities of a permanent nature would revert to Canada six months after the war was over;⁵ but there were also the fundamental questions of what proportion of them the Canadian Government would want to keep in working order, what use could be made of the facilities maintained, and what would happen to the remainder. This applied, of course, in both the Northeast, and the Northwest. The predominant feeling among Canadian officials was that it would be irresponsible and wasteful simply to abandon everything that had been constructed at such labour and

⁴ LAC, RG 24, Vol. 5201, R.C.A.F. File S15-24-30, Henry to Keenleyside, 23 July 1943. An ionospheric measurement station was established by the Carnegie Institute, Washington, D. C., at Clyde River in July 1943, and was taken over by the Canadian Government in April 1945. See Department of Transport File 200-20-1, "Misc. Canadian Sovereignty in the Arctic: General," Smith to Connell, 27 July 1948.

⁵ LAC, RG 25, Vol. 5948, File 50218-A-40, PJBD Recommendation No. 26, sec. (g); DHH File 314.009 (D25), Vol. 1, U.S.A.A.F. "Appreciation of the North Atlantic Ferry Routes," 6 June 1942; Vol. 2, minutes of meeting of Canadian section of PJBD, 7 January 1944, sec. 4 (h).

expense and leave it to disintegrate in ruin; and neither should an indefinite situation be perpetuated in which the United States could later assert claims of any kind.

Under the financial settlement with the United States in June 1944, dealing generally with construction in northern Canada, the Canadian Government paid \$76,811,551 to the U.S., in return acquiring "complete title to all works of permanent value at or connected with" a number of specified projects including the Hudson Bay Air Route. In addition, Canada assumed financial responsibility for \$29,599,963 worth of projects which she had constructed for the U.S. and for which it had originally been intended that she would be reimbursed. She acquired, without payment, complete title to \$13,872,020 worth of non-permanent works which the U.S. had erected in connection with the northern projects. This was a general settlement, as indicated, which was intended to apply as comprehensively as possible to all northern projects. According to the agreement, however, these financial terms would not affect existing arrangements for the maintenance, operation, and defence of the facilities in question for the duration of the war; and any modifications of these arrangements would require the mutual agreement of the two Governments.⁶

By agreement between the two parties, the target date for American withdrawal from the weather stations connected with the Crimson Route was set at July 1, 1945;⁷ and on September 22 Canadian officials were informed that this withdrawal had been

⁶ Department of External Affairs, *Canada Treaty Series* No. 19., (Ottawa: Department of External Affairs, 1944). See also Prime Minister King's announcement of the agreement, with considerable detail, in Canada, House of Commons *Debates* 1 August 1944, pp. 5706-8.

⁷ LAC, RG 25, Vol. 2908, File 2403-40, Macdonnell to Henry, 2 April 1945; LAC, RG 12, Vol. 1415, File 5150-30, Vol. 4, Graling to Deputy Minister of Transport, 15 June 1945. On 14 February 1945, the C.W.C. had approved a recommendation of the Interdepartmental Meteorological Committee that Canada take over the weather stations on the N. E. Staging Route. See Minutes of C.W.C. Meeting No. 332, 14 February 1945, secs. 17-18; also C.W.C. Document 942.

completed so far as Central Canada was concerned.⁸ However, also by mutual agreement, the U.S. continued weather operations at Fort Chimo and Frobisher Bay, where, in any case, Canada was not anxious to take over quickly.⁹

Weather Stations in the Northwest during World War II

The provision of meteorological facilities in the Northwest during World War II was initiated largely in connection with the establishment of the Northwest Staging Route. The development of such a route became a matter of considerable concern to the Permanent Joint Board on Defence as soon as it was created in August 1940. In its first defence plan and also its first report, both of which appeared in October of that year, the Board recommended that Canada should develop as soon as possible staging facilities for aircraft flying between the continental United States and Alaska.¹⁰ The P.J.B.D. reiterated this advice in its 10th Recommendation on November 14, 1940, adding that to implement the plan Canada should “at the earliest possible date” provide “suitable landing fields, complete with emergency lighting, radio aids, meteorological equipment and limited housing for weather, communication, and transient personnel ... at Grande Prairie, Fort St. John, Fort Nelson, Watson Lake, Whitehorse, Prince George, Smithers.”¹¹ The Canadian Government released funds for the project in December

⁸ LAC, RG 12, Vol. 1415, File 5150-30, Vol. 4, Graling to Macdonnell, 22 September 1945.

⁹ Here and there, and from time to time there were cases where U.S. station personnel failed to fly the Canadian flag. e.g., a U.S. Army progress report dated 14 February 1947, contained the following note: - “It was found that at the Canadian-owned airfields at Mingan, Fort Chimo and Frobisher Bay, occupied by U.S. troops, the American flag only was flown. Instructions have now been issued by the US AAF to insure the flying of the Canadian flag, in addition to the American flag, at all Canadian-owned, U.S. occupied installations.” See DHH 955.013 (D10), Vol. 5, U.S. Army Progress Report, 14 February 1947.

¹⁰ The final draft of the first defense plan, dated 10 October 1940, may be seen in DHH File 112.11 (D1A) Vol. 1. The first report is given as Appendix B in Dziuban, *op. cit.*, pp. 366-369.

¹¹ See the 10th Recommendation in Dziuban, *op. cit.*, p. 351.

1940, and by September 1941 the main route from Edmonton to Whitehorse was usable by daylight in reasonable weather.¹²

When the United States entered the war in December 1941, the War Department immediately endeavoured to use the route to make emergency supply and reinforcement flights to Alaska; but the combination of unfamiliarity with local geography, inadequate and incomplete facilities, and unusually bad weather meant that many planes failed to reach their destination and many lives were lost. In these circumstances, in 1942, the Canadian authorities undertook a large program of extension and improvement of Northwest Staging Route facilities, including meteorological. They were joined in March by the first instalments of Americans, who had as their primary immediate objective the building of an Alaska highway. By the end of the year, progress was such that basic meteorological observations were being taken at the main Canadian and American airports associated with the Northwestern air route to Alaska.¹³ Other wartime enterprises in the Northwest, most notably the Canol pipeline and its subsidiary projects, gave rise to continued expansion and development of meteorological facilities. When activity in this sector was at its height, there existed a network of stations providing weather services which was considerably more comprehensive than somewhat comparable one in the Northeast.

Canadian efforts to expand facilities on the Northwest Staging Route were soon found inadequate by the Americans, who maintained pressure for greater expansion on a scale not hitherto contemplated by Canadians. They wanted also a freer hand in

¹² Department of Transport, *Annual Report of the Department of Transport (1 April 1939- 31 March 1940)*, (Ottawa: Department of Transport, 1940), p. 22; *Annual Report of the Department of Transport (1 April 1940-31 March 1941)*, pp. 14, 23; *Annual Report of the Department of Transport (1 April 1941- 31 March 1942)*, pp. 115, 133.

¹³ *Annual Report of the Department of Transport (1 April 1942-31 March 1943)*, pp. 127, 132, 142, 143.

looking after their own needs.¹⁴ General Henry put the American case to Keenleyside in a letter on July 24:

As the land telegraph, telephone and teletype lines from Edmonton to Fairbanks paralleling this Staging Route are nearing completion, it seems appropriate that there should be presented to the interested Canadian agencies the United States' position regarding the control and monitoring of the weather teletype circuit along this route. Basically it is this:

I. The United States desires to retain complete control of the LANDLINE weather teletype circuit, Northwest Staging Route. This control includes:

- (a) Location of the controlling transmitting-receiving teletypewriter(s) in the United States Army Air Forces weather station at points where both Canadian and United States facilities are located. In general, these instruments would be placed in U.S. Army Air Forces buildings, but, wherever desired, loops would be run to Canadian units, on which loops to transmit-receive equipment could be installed for reception of such data as the Canadians need and for the transmission of such material necessary for their operations within the agreed upon scheduling.
- (b) Scheduling of weather collections (the Canadian Government's interests will be consulted in such scheduling); and
- (c) Monitoring of the circuit. This monitoring should include the establishment of standard operating procedures and the enforcement thereof through the agencies having direct control over the operating units.

The United States feels that the above is the most feasible and operable arrangements since the landlines and equipment for the installation, as well as by far the major part of the personnel involved, are being operated by and furnished by the United States. Specifically, as of 30 June 1943 there were fifteen (15) officers and one hundred two (102) enlisted men of the United States army Air Forces Weather Service dispersed in Canada along or supporting the Northwest Staging Route, engaged in servicing all weather information. They are operating six (6) forecasting stations and eighteen (18) observing stations. By 30 December 1943 it is expected that the personnel will be increased by 50%

¹⁴ Differences of opinion about arrangements made in June and October 1942 meetings of the R.C.A.F., Department of Transport, and U.S.A.A.C., surfaced some time afterwards, and were over certain technical matters relating to operation of the weather service. The Canadian officials who had been involved stressed that the Canadian service was established, permanent, and essential for normal purposes, while the American additions were temporary and superimposed upon what was already there. According to the Canadians the agreement had specified that new teletype machines which were to be installed would be placed in the principal Department of Transport meteorological offices along the route, with subsidiary loops and machines to serve American needs. On the other hand they admitted agreeing, reluctantly, that monitoring of the line might remain in the charge of the U.S. forces, so long as the Canadian Meteorological Service was consulted on all matters pertaining to the operation. The American officials were not inclined to accept all Canadian interpretations of the arrangements made, and, more particularly felt that the developing situation necessitated changes. LAC, RG 25, Vol. 4154, File 463-Y-40, Edwards to U.S.S.E.A., 8 April 1943; and again, 22 April 1943.

and the stations 25%. Under present scheduling, 80% of the weather traffic on the circuit originates in Alaska, the United States and United States Army Air Forces weather stations in Canada.¹⁵

The Americans refused to take this forbidding message as the last word on the subject, however, and on August 17, Keenleyside informed the Deputy Minister of Transport that he had just received a telegram from General Henry asking for a conference to settle the matter in the best interests of all concerned. Keenleyside's note included the following: "General Henry's telegram indicates that the United States officers' understanding of what was agreed at the recent conference was different from the understanding apparently reached by the Canadian officers who attended."¹⁶ The conference was held the next day, with key American and Canadian officials present. What evidently amounted to a very satisfactory compromise arrangement was worked out. In essence, a compromise arrangement was to prevail so far as the installation of teletype facilities and the transmission of messages were concerned, while the U.S. Army Air Forces (U.S.A.A.F.) would retain control of the discipline, supervision, and monitoring of the long line circuit.

This awkward little affair, which seems to have been characterized by misunderstanding and lack of confidence on both sides as much as by real disagreement, provides an apt illustration of the problems and difficulties which inevitably cropped up from time to time in connection with American projects and activities in Canada during the war. It is indicative also of how, on the one hand, Canadian fears, reservations, and requirements frustrated American officials and limited their freedom of action. On the other hand it shows how, in the extraordinary

¹⁵ LAC, RG 25, Vol. 4154, File 463-Y-40, Henry to Keenleyside, 24 July 1943.

¹⁶ LAC, RG 25, Vol. 4154, File 463-Y-40, Keenleyside to D/M Transport, 17 August 1943.

circumstances which then prevailed, the cards were generally stacked against Canada being able to resist successfully any major demands which the Americans, in their eagerness to carry out their plans and projects and get on with the war, might make upon her.

Canadian officials seem to have had a good deal of difficulty keeping posted about American plans respecting the northern weather stations and how these plans were being carried out. Dr. Patterson summarized the plans for the Northwest Staging Route which the American representatives presented at the meetings. In addition to Edmonton, they proposed to establish "main meteorological centers at Fort Nelson and Whitehorse with secondary stations at Lethbridge, Grande Prairie Fort St. John, and Watson Lake."¹⁷ On the other hand, J. R. Baldwin reported that the main station between Edmonton and Whitehorse was to be at Watson Lake.¹⁸ Lt. Col. J. H. Jenkins, in a P.J.B.D. report dated July 8, 1942, wrote that the June meeting had made arrangements for the necessary facilities at Watson Lake, Whitehorse, Fort St. John, Lethbridge, Calgary, Kamloops, Grande Prairie, Prince George, and Edmonton, and that the U.S.A.A.F. member had raised the question of similar installations at Aishihik, Taslin Lake [sic], and Snag.¹⁹ Such discrepancies, although not necessarily very important in themselves, are nevertheless observable in numerous instances, and may be taken as an indication of what was undoubtedly the case at the time, i.e., considerable uncertainty and unawareness on the part of Canadian authorities regarding the extent of American activities in the North. This lack of complete

¹⁷ LAC, RG 25, Vol. 4154, File 463-Y-40.

¹⁸ LAC, RG 22, Vol. 133, File 84-32-2.

¹⁹ DHH File 314.009 (D17), Vol. I, report by Lt. Col. Jenkins, 8 July 1942, of 32nd meeting of PJBD in New York, 6 July 1942.

information, incidentally, seems in some degree to have characterized Washington officialdom as well.

These details reveal that as the war proceeded, and especially during the years 1942, 1943, and 1944, the Americans were building and gradually expanding a vast network of meteorological stations in northern Canada, which extended into remote and otherwise practically unpopulated areas. It is also evident that, in spite of the various arrangements and settlements which had been made, Canadian nervousness over this vast network continued. After a meeting of Canadian officials at RCAF Headquarters on January 26, 1944, the Canadian War Commission was asked to consider the following recommendation for policy with respect to meteorological services in Canada:

- (a) That Canada is prepared to accept full responsibility for the provision of meteorological facilities within her borders;
- (b) That any meteorological installations which the U.S.A. desires to put in be first discussed with the Canadian authorities and their agreement be obtained;
- (c) That Canada be responsible for providing and operating all installations which are an essential part of the general meteorological system of Canada or which Canada intends to retain after the War; and that the U.S.A. be permitted to install and operate supplementary meteorological facilities only.²⁰

The Canadian position was fortified by a decision of the Cabinet War Committee (C.W.C.) to adopt these recommendations that Canada should take full responsibility for providing meteorological facilities within her own borders. A.D.P. Heeney transmitted these commendations to the C.W.C. on February 3, along with a request from the departments concerned that they be given a directive in the matter prior to the meeting. His memo included the remark that "... the increasing importance of the northern areas in connection with post-war aviation makes it desirable that weather services in the

²⁰ LAC, RG 85, Vol. 823, File 7140, minutes of meeting of Canadian officials in Ottawa, 26 January 1944.

north be expanded and that, to avoid any possible future difficulties with the United States, they be under Canadian control.”²¹

By this time, the Americans were becoming increasingly anxious to abandon some of their flight strips and landing fields, in the Northwest as well as in the Northeast, and negotiations with Canadian officials were proceeding with this end in view.²² Abandonment of some of the meteorological facilities would follow almost as a matter of course, and negotiations in this direction were also proceeding, although there was a pronounced American feeling that these facilities would have a continuing utility and, therefore, should not be completely given up.

Weather Stations, Mainly in the Far North, during the Postwar Years - Background and Establishment

What seems to have been the initial American approach to Canadian officials respecting the establishment of weather stations in the Far North, as distinct from Northeast and Northwest, came at a comparatively early stage after the United States became involved in the war. On the morning of April 14, 1942, a party of four U.S. officers of the Army Air Corps and the Coast Guard, headed by Col. R. W. Wimsalt, arrived without advance notice in Ottawa and, through arrangements made by U.S. Air Attaché Col. J. S. Gullet, met with several Canadian officials in the office of J. A. Wilson, Director of Air Services in the Department of Transport. Among the Canadians present were R. A. Gibson and D. L. McKeand of the Department of Mines and Resources. Since the visit seemed to be connected primarily with the war, the Americans were

²¹ *Minutes and Documents of the C.W.C.*, Doc. No. 704, memo, Heeney to C.W.C., 3 February, 1944.

²² See, e.g., LAC, RG 25, Vol. 2744, File 463-N-40, Brig. Gen. Worsham to Maj. Gen. Foster, 19 January 1944; Foster to Heeney, 5 February 1944; Foster to Heeney, 3 March 1944; Henry to A/V/M Curtis, n. d., but approx. 22 April 1944; Henry to Secretary Canadian Section PJBD, 12 May 1944.

referred to Air Commodore F. V. Heakes, one of the Canadian members of the P.J.B.D., in whose office a further meeting was held later the same day.

Captain Edward H. Smith of the U.S. Coast Guard explained the American plan, designed primarily to obtain meteorological information in the Far North which would help in flying the northeastern ferry route to Great Britain and the northwestern route to and in Alaska. The American authorities were interested also in ice and hydrographic information, magnetic observations, and studies of the "heavy side layer" in connection with radio. In order to carry out their plan, they wanted to establish three meteorological and scientific stations along Lancaster and Melville Sounds, at Dundas Harbour (Devon Island), Fort Ross (Somerset Island), and Winter Harbour (Melville Island); each station to be equipped with a suitable aircraft. They were anxious to discover whether Canada would undertake the entire project herself or, alternatively, cooperate with the United States in getting it under way.

Heakes was willing to recognize the value of additional meteorological information but felt that Captain Smith had not made "a convincing case" for the other three aspects of the plan. It was pointed out to the Americans that the Hudson's Bay Company was already operating private radio stations at Arctic Bay and Fort Ross which sent weather reports twice daily to Toronto via the Department of Transport radio station at Nottingham Island. To American expressions of interest in finding and exploiting a deep-water channel through the Northwest Passage, comparable to the one the Russians had established through their Northeast Passage, the Canadian replied that the Eastern Arctic Patrol had failed in an earlier attempt to get their ship through. At the suggestion of Heakes, the meeting agreed that the project should be presented for

discussion in the P.J.B.D., in such a way that it would receive also the attention of “both State Departments” - presumably the American State Department and the Canadian Department of External Affairs.²³

At the next meeting of the P.J.B.D., on April 27, Keenleyside described to the American members, with the help of a map, the limited Canadian meteorological services which were already being provided in this vast area. The Americans agreed to restudy their plan in the light of the information given. The Canadian members expressed the view that this was properly a Canadian responsibility and that if additional weather stations were needed Canada should provide them; however, they also stated that Canada would “install and man or permit the United States to install and man” such additional stations as might be found necessary.²⁴

Further information on this matter has not come to light and few details about the fate of these wartime plans for weather stations in the Far North can be given here. So far as can be determined from the available evidence, however, the Americans (for one reason or another) did not persist in their project to set up weather stations at Winter Harbour, Fort Ross, and Dundas Harbour; and no American posts of any kind appear to have been established north of Lancaster Sound, during the war. On the other hand, according to the report of a U.S. naval observer in 1946, a small U.S. weather station did function at Arctic Bay in 1942 and 1943. Part of his report reads as follows:

The present DOT weather stations was activated here [i.e., at Arctic Bay] in September 1943. The U.S. Weather Bureau maintained a weather station

²³ DHH File 112.11 (D1A), VCGS, “Canadian Section PJBD Memoranda,” Vol. 3, memo by A/C Heakes, 15 April 1942. See also LAC, RG 85, Vol. 2270, File 1005-2-3, “U.S. Activities in Northern Canada,” Vol. 1, memos, McKeand to Gibson 15 April and 21 April 1942.

²⁴ DHH File 955.013(D10), *Journal of PJBD*, Vol. 3, minutes of 29th meeting, New York, 27 April 1942, sec. 2. See also DHH File 314. 009 (D17), “PJBD,” Vol. 1, memo by Lt. Col. Jenkins, 29 April 1942; LAC, RG 22, Vol. 133, File 84-32-2, Keenleyside to Camsell, 11 May 1942, with enclosures.

here during 1942 and 1943. HBC kept weather records here from 1936 to 1942.²⁵

This weather station was evidently the most northerly installation established by the U.S. in the Arctic islands during the war. Even though there is little concrete evidence on the subject, it may safely be assumed that Canadian authorities were something less than enthusiastic about any extension further north. If wartime circumstances had made such an extension necessary, they would doubtless have agreed to it but their worries over American activities in northern Canada would have been increased, to say the least, considerably.²⁶

The idea of establishing additional weather stations in the Far North, and especially in the remote areas still completely lacking any such service, came up again in a somewhat different context, later in the war. This renewed effort, which ultimately bore fruit in the postwar years, was initiated and promoted primarily by Lieut. Col. Charles J. Hubbard of the U.S. Army (A.T.C.), who was also associated with the

²⁵ "USN Observer's Report on Eastern Arctic Patrol 1946, of R. M. S. Nascope," Strategic Plans Division Records Series III (Box 37), Operational Archives Branch, Naval Historical Center, Washington, D. C., Microfilm Reel No. "F-108" AR-126-78, held at DHH.

²⁶ An interesting footnote to the events just recounted is provided by an article which appeared in the *Ottawa Journal* on 28 January 1950. By this time four of the five joint Canadian-American weather stations in the Far North (Eureka, Resolute, Isachsen, and Mould Bay) had been established, and the fifth (Alert) was being planned. The Canadian most directly involved in the activities of 1942 which are referred to in the article was a man named Louis Bisson, and an extract from the article gives the essential details "According to Louis Bisson, now president of the Hull Transport Company, who during World War II was one of the two men to make the initial surveys from which the project grew, the four stations already placed along the nation's northern rim are primarily weather stations, but are equipped for many phases of basic research.... The first conception of the advanced stations had its birth in 1942. At that time Mr. Bisson was attached to the Royal Air Force at Dorval, Que., and was assigned as United Kingdom representative to survey the possibilities of air routes across the roof of the continent. The United States representative was Charles Hubbard, now chief of Arctic Operations for the United States Weather Bureau. The two made the surveys together, Mr. Bisson submitting his report to Sir Frederick Bohill, chief of the RAF Transport Command, and Mr. Hubbard submitting his to the United States Air Force.

Following World War II the United States approached Canada with the proposal that the results of these surveys be used to lay the groundwork for scientific weather stations along the Dominion's northern boundary. This suggestion was approved." John Dalrymple, "Canada 'Digging In Atop the Pole," *Ottawa Journal*, 28 January 1950. The survey described here was undoubtedly related to, or part of, the American initiative in 1942 which I have tried to summarize.

Department of Meteorology at the Massachusetts Institute of Technology. In the autumn of 1944, Hubbard wrote a letter to Dr. Keenleyside in which he stressed the need for more meteorological stations in the North. Apparently, he spoke also with Deputy Minister of Mines and Resources Charles Camsell on the same subject.²⁷ A few months later Hubbard spoke with Escott Reid and Lester Pearson in Washington, in what he emphasized was a personal and confidential conversation, and indicated his strong feeling that his plans should be carried out on an international basis. When Pearson suggested to him that Canadians would not be enthusiastic about such stations in the Canadian North unless they were under Canada's own control, "Colonel Hubbard quite appreciated this but suggested that some doubt still existed as to the extent of our sovereignty over some of these Arctic districts north of Canada."²⁸ In a confidential note to Pearson, R. M. Macdonnell commented that the advice of high officers of the Arctic, Desert and Tropic Information Center of the U.S.A.A.F. was "to treat proposals emanating from this particular source with - to put it mildly - a certain amount of reserve," and he added his own impression that "Hubbard is far from being persona grata to the Arctic experts of that organization...."²⁹

Col. Hubbard found a powerful ally in Senator Owen Brewster of Maine who, in March 1945, introduced in the Senate Bill S. 765 "Concerning the establishment of meteorological observation stations in the Arctic region of the Western Hemisphere,"

²⁷ LAC, RG 25, Vol. 3347, File 9061-A-40, "United States Proposals for Arctic Weather Stations," Vol. I, C. W. Jackson (Acting D/M Mines and Resources) to D/M Transport, 13 October 1944. Details are given in this letter, but Hubbard's letter, which Jackson says he is enclosing, is not in the file.

²⁸ LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1, Pearson to N. A. Robertson, 6 March 1945. Pearson suggested to Hubbard that he might consult the recently-created Arctic Institute of North America regarding scientific aspects of the plan; Pearson to Hubbard, 18 April 1945.

²⁹ LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1, Macdonnell to Pearson, 8 March 1945. See a copy of Escott Reid's memo on his talk with Hubbard on March 2 in LAC, RG 85, Vol. 823, File 7140. At this time Hubbard visualized about ten stations, six or seven of them in the Canadian Arctic; and he hoped for Soviet cooperation.

and providing for action by the Chief of the Weather Bureau “to initiate and participate in the development of an international basic meteorological reporting network in the Arctic region of the Western Hemisphere....”³⁰ Another strong supporter of the plan was Vilhjalmur Stefansson, who wrote to Brewster on September 19, 1945, complimenting his initiative and suggesting that the scope of the stations provided for in the bill be enlarged so as to compare more favourably with the many Soviet stations, some of which had a technical staff of seventeen or more scientists and were, in Stefansson’s words, “not so much weather stations as general stations for Arctic study.”³¹

Although the bill did place much emphasis on international cooperation, some American thinking did not and this was rather more disturbing for Canadians. In a confidential U.S. document dated November 6, 1945 and entitled “Arctic Aviation Development Program for the United States Recommended by the Standing Subcommittee on the Arctic,” a copy of which was sent by Gen. Henry of the U.S. Section of the P.J.B.D. to Gen. McNaughton, the following appeared as a recommendation (No. 5) about a “Weather Station on possible Undiscovered Land in Canadian Quadrant”:

It is recommended that the ACC ask the State Department whether reported Canadian claims of sovereignty over all known islands and lands that may be discovered in the sector west of Greenland and east of meridian 141 W, northward to the pole, have been officially asserted by that government and, if so, whether the official position of the United States would be to support any claims by this country if land is discovered and occupied by the United States west of Grant’s Land, site “(d)” of recommendation #1.

³⁰ U.S. Senate, 79th Congress, 1st session, Bill S. 765, introduced by Senator Brewster, 21 March 1945, legislative day 16 March 1945.

³¹ Stefansson to Brewster, 19 Sept. 1945, in Senate Report No. 656, U.S. Senate, 79th Congress, submitted by Senator Brewster to accompany Bill S. 765, 24 October and legislative day, 22 October 1945.

If it is the policy of the United States to support such claims *it is recommended* that the Army make northwest of Grant's Land to determine whether (as many Arctic authorities believe) islands exist which might be claimed by the United States. In case new claimable land is found, *it is recommended* that the proper agencies of the Department of Commerce take action to establish a primary weather and magnetic station.³²

In the meantime, the Canadian authorities, who had taken no action, had not left the question of northern weather stations entirely out of their considerations. On February 9, 1944, J. G. Wright included the following in a note to R. A. Gibson:

If we wish to strengthen our claims to Arctic sovereignty by setting up weather stations and other scientific stations, that is still another matter and rather outside the scope of the existing U.S. weather stations, which are all in regions where no one is likely to question our sovereignty. As I understand the matter, it is the far northern and western islands, which are reached by our administration mostly in theory, where our claims to sovereignty are most likely to be questioned. In similar cases, Russia has strengthened her claims to islands north of her mainland of installing and operating scientific stations in those areas. We may have to do something like that ourselves, in which case we would require weather stations to service air travel to reach some of our otherwise scarcely accessible islands.³³

After a considerable lapse of time, Gibson put this idea before Dr. John Patterson, Controller of the Meteorological Service of Canada, in a letter written on January 2, 1945. Remarking that Inspector Larsen's voyage through the Northwest Passage in the *St. Roch* in 1944 "was organized with the object of maintaining Canada's sovereignty in the Arctic," he continued:

In connection with the sovereignty question, we are giving some consideration to the possible activities which might be undertaken in the Canadian Archipelago, and it occurs to us that your Service might be interested in the establishment of meteorological stations in the region....³⁴

³² LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1, memo by R. A. J. Phillipps for file, 24 May 1946, attaching extract of recommendations from U.S. document of 6 November 1945. Evidently the "ACC" mentioned in the document was the Air Coordinating Committee.

³³ LAC, RG 85, Vol. 823, File 7140, Wright to Gibson, 9 February 1944.

³⁴ LAC, RG 85, Vol. 823, File 7140, Gibson to Patterson, 2, January 1945.

In his reply on January 16, Dr. Patterson (evidently associating the proposal with northern R.C.M.P. posts) wrote that:

if police posts are established anywhere in the polar archipelago, with the object of maintaining Canada's sovereignty up to the North Pole, this Service will be especially willing to supply meteorological instruments for the maintenance of regular meteorological stations by the police personnel.³⁵

In a report to a meeting of the Interdepartmental Meteorological Committee on January 15, outlining the weather services desired by the various branches of his department (Mines and Resources), Wright wrote as follows respecting the northern islands:

The maintenance of Canadian sovereignty in the far northern Arctic Islands is receiving consideration. Apart from value for weather forecasting and biological and other studies it would seem that the installation of suitably located weather stations on these islands, perhaps in connection with research stations, would be a valuable contribution towards recognized occupation of these regions.³⁶

The foregoing gives some of the background information on this subject and indicates the situation that had been reached when, on May 1, 1946, the United States formally requested Canadian approval for an Arctic weather station program. Just two days earlier, at a meeting of the P.J.B.D. in Ottawa on April 29, Secretary J. G. Parsons of the U.S. Section informed the members that this request was about to be made, and he remarked that the U.S. authorities intended that "the Board should be kept informed of all developments and should be consulted on any defence aspects that might require consideration."³⁷ Thus, from the time of the first official approach to the Canadian

³⁵ LAC, RG 85, Vol. 823, File 7140, Patterson to Gibson, 16 January 1945.

³⁶ LAC, RG 85, Vol. 823, File 7140, Report by J. G. Wright to meeting of the Interdepartmental Meteorological Committee on 15 January 1945, p. 4.

³⁷ DHH File 955.013 (D10), Vol. 5, minutes of 55th meeting, Ottawa, 29 April 1946, sec. 7

Government, the American authorities related the weather stations in some degree to the defence situation and this was known to Canadian officials.

At the same time, it has to be kept in mind that the context in which the Americans developed their plans for northern weather stations had changed drastically. When Col. Hubbard broached the idea to Canadian officials in the autumn of 1944 the United States and Soviet Russia were still wartime allies in the struggle against Nazi Germany. When the United States made her formal request to Canada for approval of a weather station program in the remote Canadian North, the opening phase of the Cold War had already begun. Just how this evolution of events and circumstances had affected the attitude of American officials toward their project might be difficult to assess but, obviously, this attitude had been undergoing an evolution of its own.

The American request took the form of a memorandum which was presented at the Department of External Affairs by Lewis Clark of the U.S. Embassy on May 1. Referring to the adoption by the interdepartmental Air Coordinating Committee of the recommendations of its Subcommittee on the Arctic, and also to the enactment of Public Law 296, the memo stated that the Secretary of State had been asked "to secure the approval of the Government of Canada for an Arctic weather station program." The main elements of this program were to be: (1) the establishment, by surface ships with air support, in 1946 or otherwise as soon as possible, of a principal weather station "central to the western Canadian Arctic archipelago," and (2) the establishment, by aircraft with the help of surface shipping or any other means possible, during 1947 or otherwise as soon as possible, of three smaller weather stations on islands "along the western portion" of the archipelago. Included also would be a program of Arctic weather

reconnaissance by plane, some components of which had already been approved by the Canadian authorities. The memo explained the need for the program in the following terms:

In the view of the Department of State the establishment of the proposed Arctic weather stations is necessary to improve weather forecasting in the United States, Canada, and the North Atlantic area generally for domestic purposes and for international civil aviation activities, and also for the purpose of meeting the requirements of the service departments of the two Governments. In the light of the significance of Arctic weather information for the security of the North American continent, it is felt that this matter should be considered as one of primary concern to the United States and Canada.³⁸

In amplifying the memo, Clark stated that the U.S. would be willing either to handle the project alone or to help Canada with it, or to give whatever cooperation was possible while Canada handled it alone. He emphasized "that his Government wished to work out a programme on a fully cooperative basis and had no thought of interfering in any way with Canadian sovereignty." In a note to the Deputy Minister of Transport, Norman Robertson mentioned his own department's feeling that it would be unwise to let the United States have complete control of the project and that joint participation would be preferable. His own suggestion was to inform the U.S. Embassy that the Canadian authorities were prepared to give favourable consideration to the proposal but would like first to arrange a meeting of technical officers from both countries to discuss details.³⁹

The meeting suggested by Gordon Robertson took place in Ottawa on May 17, with about twenty Canadian and American officials in attendance. R. M. Macdonnell of External Affairs acted as chairman; the other Canadians present included J. G. Wright

³⁸ LAC, RG 85, Vol. 823, File 7140, copy of U.S. memo re-weather stations, 1 May 1946. The original is in LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1.

³⁹ LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1, Robertson to D/M Transport, 4 May 1946.

of Mines and Resources and Andrew Thomson of the Meteorological Service. The Americans included Lewis Clark of the U.S. Embassy and Col. Hubbard. Clark expressed uncertainty whether defence or civil aviation was the more important factor in the Arctic weather station program but that both demonstrated the need for action. Hubbard, outlining the program in detail, gave two reasons for the urgency of the situation, including the pressing need for better meteorological coverage of this area and the current availability of U.S. funds. He stressed that the ships must sail not later than July 15 because of the short navigation season. He asked for an early decision from the Canadian authorities. Macdonnell, although giving assurance that the American desire for haste was understood, nevertheless declined to predict a precise date for this decision. After the joint meeting had ended, the Canadians remained for a further discussion among themselves and Wright expressed the concern of the N.W.T. Council about the aspect of sovereignty in these remote and practically unoccupied parts of the archipelago.⁴⁰

Clearly, the ball was in Canada's court, and, equally clearly, there wasn't very much time for Canada to make up her mind what to do with it. Canadian meteorological officials strongly favoured the plan, for the most part, simply from the point of view of getting more meteorological information from the north. In certain other quarters, there was scepticism and even suspicion. R. A. Gibson, for example, sent the following caustic comment to his deputy minister:

We share your view that Canada should establish and operate any necessary stations even if U.S. official publications admit Canada's

⁴⁰ See a copy of the minutes of this meeting in LAC, RG 88, Vol. 19, File SE. 4-1-83, "Establishment of Weather Stations in the Arctic," 17 May 1946; and in the same file, two reports on the meeting to the acting deputy minister by J. M. Wardle, Director of the Branch, 18 and 20 May 1946. See also LAC, RG 85, Vol. 823, File 7140, report by Wright to Gibson, 18 May 1946.

sovereignty. This looks like one of these defence (?) projects that look as though we were getting everything for nothing but the beginning and then we wake up after awhile to find that the U.S. Senate has turned everything upside down and that the U.S. diplomats are back again to ask us to pay for work we could have done better and cheaper ourselves.⁴¹

Col. J. H. Jenkins, Director Military Operations and Plans, who had attended the joint meeting as Canadian Army representative, wrote a summary of it for the Vice Chief of the General Staff which included the following:

This is another case where there is a tendency for the U.S. to press for a quick decision on a long term project. There were indications in the discussions that all the US planning had been rushed because of the funds for the project having become available.⁴²

Ambassador Pearson, who had been provided with a copy of the revised memo for the C.D.C. by Hume Wrong,⁴³ stepped into the proceedings with enthusiasm in his reply on June 5. Expressing his own opinion that "from every political point of view" it would be desirable for the Canadian Government to do all such work itself, and that Canadian preoccupation with the sovereignty aspect of the proposal was "wise and understandable," Pearson asserted:

I am wondering whether we could not take advantage of the present situation to secure from the United States Government public recognition of our sovereignty of the total area above our northern coasts, based on the sector principle.... I feel that if I were authorized to mention this matter informally to the State Department, there would be a good possibility of prevailing on them to adopt this view and take the necessary action. If you agree, therefore, I would be glad to try this on an entirely exploratory and informal basis. If it were done in that way, I do not see that we would have anything to lose and there might be something to gain.

⁴¹ LAC, RG 85, Vol. 823, File 7140, Gibson to Camsell (n. d.), handwritten note on Wright to Gibson, 18 May 1946.

⁴² DHH File 112.3M2 (D331), "Corresp, msgs, instrs rpts, mins of meetings, plans, etc. re Cdn & US operated weather stations in Northern Areas", Col. Jenkins to VCGS, 18 May 1946.

⁴³ LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1, Macdonnell (for Acting U.S.S.E.A.) to Pearson, 1 June 1946.

Pearson thought that the time might be opportune to get an "open and formal statement" from the United States recognizing Canadian sovereignty to help forestall any Russian attempt to make inclusions therein.⁴⁴

Wrong's reaction to Pearson's proposal was that there was "merit in the idea" but that it was most unlikely the United States would accord any recognition of sovereignty based upon the sector theory.⁴⁵ He informed Pearson by letter that he was passing the suggestion on to Minister of National Defence Douglas Abbot, in the latter's capacity as Chairman of the C.D.C., and, at the same time, was expressing his own "hesitations" about it.⁴⁶ In his note to Abbot, he went into some detail about these hesitations, suggesting that Pearson was probably underestimating the difficulties of getting the U.S. to give any credence to the sector principle and questioning the wisdom of raising the issue, since "for a good many years now we have proceeded without difficulty on the assumption that our sovereignty was not challenged...."⁴⁷ The revised memo for the Cabinet Defence Committee was discussed at a meeting of that body on June 6, and the Committee:

were in general agreement that it would be preferable to withhold authorization for this programme until next year, but in view of the urgency which the U.S. authorities attached to its initiation this season, it be recommended to the Cabinet that the United States be authorized to proceed on the understanding that:

- (a) the project be carried out as a civilian undertaking, using maximum number of Canadian personnel;
- (b) that Canada should have the right to take over the installations at anytime upon payment of the cost involved;
- (c) that requirements of the Department of National Health and Welfare for the protection of the health of the Eskimos be met; and

⁴⁴ LAC, RG 25, Vol. 3347, File 9061-A-40C, Vol. 1, Pearson to Wrong, 5 June 1946.

⁴⁵ LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1, Wrong to Heeney, 8 June 1946.

⁴⁶ LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1, Wrong to Pearson, 13 June 1946.

⁴⁷ LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1, Wrong to Abbott, 13 June 1946, enclosing copy of Pearson's letter.

(d) that the whole matter be subject to review when the Joint Canadian-United States defence plan had been considered.⁴⁸

At the same meeting, Mr. Abbot, referring to an army memo on arctic sovereignty which advised that Canadian sovereignty over the areas in question should be safeguarded before defence projects were undertaken, introduced several suggestions on how to accomplish this. Canada should assume full control over all military or quasi-military installations in her arctic territories, provide the majority of personnel for them, and have a presence in all arctic manoeuvres or exercises. Associate Under-Secretary of State for External Affairs, Hume Wrong, who was present, responded that Canada's claims to the territories in question were better established than the army memo would indicate. It was decided to postpone further consideration of the matter for the time being.⁴⁹

Meanwhile, American authorities were keeping up the pressure to have the question disposed of quickly and in accordance with their wishes. On June 17, General Henry sent an anxious message through the Canadian Embassy for the Canadian Section of the Canada-U.S. Military Cooperation Committee, asking frankly for this unit's support in getting the program approved and admitting openly that "the United States planners believe that the establishment of these weather stations would provide an important contribution to the military security of the northern portion of the western hemisphere."⁵⁰ Andrew Thomson of the Meteorological Service, although strongly in favour of the program, was being kept "under very great pressure" from the U.S.

⁴⁸ DHH File 112.3M2 (D125), CC Mann (for CGS) to DCGS (A), 12 June 1946, giving extract from minutes of 19th meeting of C.D.C. on June 6.

⁴⁹ DHH File 112.3M2 (D125), CC Mann (for CGS) to DCGS (A), 12 June 1946), enclosing further extract from minutes of C.D.C. meeting on June 6.

⁵⁰ LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1, Canadian Ambassador to S. S. E. A., No. WA-2495, 17 June 1946, message from Gen. Henry through Parsons and Macdonnell for Canadian Section, Canada-U.S. Military Cooperation Committee.

Weather Bureau.⁵¹ On June 20, Lewis Clark of the American Embassy wrote a memo for U.S. Ambassador Atherton, which was apparently passed on to Norman Robertson, and in which Clark summarized the situation in forthright terms. He wrote *inter alia*, "I have pressed Mr. Macdonnell from time to time to expedite the Canadian Government decision but so far without success. I gather, although he has not said so, that this is one of the matters on which Cabinet felt it desirable to defer decision until the return of the Prime Minister."⁵²

Matters were coming to a head and, for practical reasons as well as others, a decision could not be postponed much longer. On June 24, Hume Wrong wrote a note to Arnold Heeney giving expression to his own feelings, in part as follows:

I hope that the U.S. request concerning the establishment of Arctic weather stations this summer will be considered by Cabinet this week as they are using a number of different channels in an effort to extract a prompt and favourable decision. I think myself that we should agree to the request under the conditions mentioned in the Cabinet Defence Committee. If the discussion in Cabinet gives rise to argument over Canadian sovereignty in the unoccupied islands, it might be well to point out that our refusal to cooperate might have the effect of stimulating some challenge to our sovereignty.⁵³

Prime Minister King, who had just returned from a trip to Great Britain, attended a meeting of the Cabinet on June 20. He confided his thoughts on the matter to his diary:

Before Council was over, the question was brought up of the U.S. seeking to get certain weather stations established in our territory and reference was made to a discussion of Council during my absence as to not allowing the Americans the use of Canadian territory for the protection of their own country. Gardiner had suggested that the exchange be made of the Panhandle on the Pacific Coast for certain islands on the North. I am not at all sure that the pan handle is not in many respects a very strong protection to our own country. However, apart from this, I told Council what I had said in

⁵¹ LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1, memo for file by Macdonnell, 26 June 1946.

⁵² LAC, RG 25, Vol. 3347, File 9061-A-40C, Vol. 1, memo for U.S. Ambassador by Lewis Clark, 20 June 1946. On the memo is a handwritten note saying, "Left with Mr. Robertson by U.S. Ambassador."

⁵³ LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1, Wrong, note for Heeney 24 June 1946.

conference with Attlee, Lord Addison and Ismay with respect to the arrangements that would have to be made on this continent between the Americans and ourselves for the protection of North America; that the British admitted they could not hope to hold their own against Russia without the aid of the U.S. Also the belief was very strongly that the only war that was likely to come in the future would be a war with Russia and would be a war for world conquest.

In overtaking the U.S. the Russians would make the base of operations - Canada, and on the whole we had to re-orient all our ideas about protection. I insisted there should be the fullest discussion with the British before we made any agreement with the U.S. which might affect the general plan, and also that we were not to be rushed in settlement on what was to be done. I said this whole matter needed the fullest possible discussion.⁵⁴

This passage, characterized by typical Mackenzie King fuzziness, reveals that he was in no mood to be pushed around on the issue, or to be stampeded into committing Canada to any course of action without detailed consideration of the proposition and all related ramifications.

The question was settled, at least for the time being, at a Cabinet meeting on June 27 which decided to deny authorization for the Americans to initiate their weather stations program in 1946. The United States was formally notified of this decision on July 2.⁵⁵ In a memo for file, Macdonnell commented that, "as could be expected, the United States authorities are considerable upset." He had informed Lewis Clark promptly by telephone of the Government's decision, saying that he understood it "did not rule out future consideration of the project." Macdonnell accounted for the Government's decision: "It was felt that, so far as defence considerations went, it would be necessary to await further progress in joint defence planning, while so far as civil

⁵⁴ William Lyon Mackenzie *King Diaries*, Vol. 154, 1 June-15 August 1946, entry for 20 June 1946, 572. Now available online at: <http://king.collectionscanada.ca/EN/default.asp>.

⁵⁵ LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1, Pearson, Vol. I, memo for file by Macdonnell, 28 June 1946. See also LAC, RG 25, Vol. 3347, File 9061-A-40C, S. S. E. A. to Canadian Ambassador Washington, 19, No. EX-1670, 2 July 1946, giving word of the Government's decision. No copy of the memo to the U.S. Embassy, mentioned therein, is in the file.

aspects are concerned, there is a need for careful study of Canadian Government on May 1 and the sailing deadline of July 15 for adequate study of the plan.” He wrote that although the Americans had “reiterated informally that they had no intention of questioning Canadian sovereignty,” nevertheless:

they were not lacking indications of developments not calculated to increase Canadian confidence in the intentions of some United States officials. Some irresponsible enthusiasts in lower levels in Washington were known to have made ill considered remarks about the possibility of raising the Stars and Stripes in unoccupied Arctic territory.⁵⁶

King, who undoubtedly had the last word in the decision taken, recorded it briefly in his diary: “At Council, turned down discussion on matters pertaining to the establishment of meteorological stations by the U.S. until whole question of policy could be considered by the Cabinet. Felt annoyed at extent to which Heeney presses these matters forward unduly.”⁵⁷

Although the weather stations program did not get under way in 1946, another related American project had better luck. This was Operation “Nanook,” planned as a cruise by several U.S. Navy ships partly in Canadian Arctic waters around Baffin and Devon Islands. The primary purposes were the training of navel personnel in Arctic operations and the carrying out of a variety of scientific investigations. The exercise was related to the weather stations program but not dependent on it (i.e., the U.S. Navy wanted to go ahead with Operation “Nanook” regardless of what happened in connection with the weather stations).

⁵⁶ LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1, memos by R. A. J. Phillips, 2, 4 July 1946. See also LAC, RG 25, Vol. 3347, File 9061-A-40C, S. S. E. A. to Canadian Ambassador, Washington, No. EX-1670, 2 July 1946, giving news of the Cabinet’s decision. A copy of the official note to the U.S. Embassy, mentioned therein, is not in the file.

⁵⁷ *King Diaries*, Vol. 154, 1 June-15 August 1946), entry for 27 June, 594.

This project was brought formally to the attention of the Canadian authorities on May 14, 1946. J. G. Parsons, Secretary of the American section of the P.J.B.D., wrote to R. M. Macdonnell, his opposite number in the Canadian section: "Since it is understood that the Canadian Government desires to supervise magnetic work in the area, any work of this nature undertaken by the United States will be performed under Canadian supervision." He requested official approval as soon as possible because of the small amount of time available.⁵⁸ About a week later, he requested "appropriate clearance" to allow the Navy to expand its plan, which would involve the addition of several more ships and the landing of approximately 28 Marines for about a month during the summer of 1946 in the vicinity of Dundas Harbour on Devon Island.⁵⁹

The American request was considered by the D.N.D. Chiefs of Staff, Heeney and Wrong, at a meeting on June 7. They recommended approval with certain qualifications. These included avoidance of the term "Operation Nanook" (because of its assumed naval connotation), joint publicity at minimum level, if possible landing the Marines in Greenland rather than Devon Island (the alternative already suggested by the Americans), and the inclusion of several additional Canadian observers beyond those already identified for invitation. This recommendation was approved by the Ministers of National Defence and the U.S. authorities were informed accordingly.⁶⁰

In these circumstances, the project went ahead, apparently without any serious hitch. The Americans were willing to accept the qualifications summarized above,

⁵⁸ LAC, RG 25, Vol. 3347, File 9061-B-40, "Arctic Cruise By United States Navy (Operation "Nanook")," Parsons to Macdonnell, 14 May 1946.

⁵⁹ LAC, RG 25, Vol. 3347, File 9061-B-40, Parsons to Macdonnell, 22 May 1946.

⁶⁰ LAC, RG 25, Vol. 3347, File 9061-B-40, A/Lt. Cdr. J. W. C. Barclay, Secretary C. S. C., to Secretary Canadian Section PJBD, 19 June 1946; S. S. E. A. to Canadian Ambassador Washington, No. EX-1583, 20 June 1946.

except that, because of shortage of time, they landed their Marines at Dundas Harbour rather than Greenland.⁶¹ Even though they did not object to dropping the title “Operation Nanook”, the name apparently stuck and later exercises of a similar kind used the same designation (e.g. “Nanook 51” in 1951). Minister of National Defence Douglas Abbot was inclined to let public announcements emanate from Washington only but the prime minister felt otherwise and a press release on June 29, providing details about the exercise, was released simultaneously in Washington and Ottawa. “Since the cruise will take place partly in Canadian Arctic waters,” it noted, “the approval of the Canadian authorities has been obtained.”⁶²

The expedition was satisfactory from a scientific point of view. Magnetic observations were made at seven locations on Devon Island and other adjacent Canadian islands in the vicinity of the north magnetic pole.⁶³ On the other hand, the idea of continuing and sailing right through the Northwest Passage had to be abandoned. Constable H. H. MacLeod, in charge of the R.C.M.P. detachment at Dundas Harbour, reported to his superior officer in Ottawa that “large fields of ice west of Devon Island” had forced the Americans to cancel their plans.⁶⁴

Meanwhile, the weather stations proposal had attracted attention in the press. An article by Kenneth R. Wilson in *The Financial Post* on June 29, 1946, appeared under the alarming title “Canada ‘Another Belgium’ In U.S. Air Bases Proposal? Hear

⁶¹ LAC, RG 25, Vol. 3347, File 9061-B-40, Canadian Ambassador Washington to S. S. E. A., No. WA-2569, 24 June 1946, sending message for Macdonnell from Parsons.

⁶² LAC, RG 25, Vol. 3347, File 9061-B-40, of joint press release, 29, June 1946. See also memo by Heeney for Prime Minister, 26 June 1946; memo by Heeney for Robertson 27 June 1946; memo by Macdonnell for PJBD file, 28 June 1946.

⁶³ LAC, RG 25, Vol. 3347, File 9061-B-40, Canadian Ambassador Washington to S. S. E. A., No. WA-3686, 16 October 1946, sending message for Macdonnell from Stone.

⁶⁴ LAC, RG 25, Vol. 3347, File 9061-B-40, copy of report, Cst. H. H. MacLeod to O. C. “G” Div., Ottawa, 24 August 1946.

Washington Insists Dominion's Northern Frontier be Fortified - 'Atomic Age Maginot Line' is Feared." The article began:

A virtual ultimatum from the United States, calling on Canada to fortify her northern frontier, is reported to have hastened Prime Minister King's return from England this month, and to be causing furrowed brows in cabinet ranks here.

Through its membership on the Permanent Joint Defense Board, the United States is understood to have said in effect to Canada:

"In order to do your part in the defensive protection of the American Arctic, we want you to build, or let us build for you, a system of northern frontier air bases to be maintained and equipped as part of the general defensive machinery of this continent."

To a government which, in 1938, completely repudiated British proposals for establishment here of a United Kingdom air training scheme, this bold and forthright proposition has come with thunderbolt effect. Were it to be implemented in its present form, it would mean that Canada had, in effect, abdicated sovereignty along her northern frontier....

Wilson suggested that King's solution would be to find a compromise, and that Ottawa recognized that Canada must henceforth "pay far more attention to her northland than she has ever done in the past."⁶⁵

Mackenzie King reacted strongly to this article in the House of Commons on June 28.

"This wholly misleading article contains so many serious inaccuracies that I am bound to take exception to it in the strongest terms," he proclaimed:

It is, of course, absurd to imagine that the government of the United States would present anything that could, by any stretch of the imagination, be described as an ultimatum, and there is no foundation whatever for this allegation. It is also untrue, as claimed in the article, that the United States government has presented a plan for northern air bases. In view of what I have said, I perhaps need hardly add that my return from the United Kingdom was in no way influenced by any such imagined developments....

⁶⁵ K. R. Wilson, "Canada 'Another Belgium' In U.S. Air Bases Proposal? Hear Washington Insists Dominion's Northern Frontier be Fortified - 'Atomic Age Maginot Line' is Feared," *The Financial Post*, 29 June 1946.

King added that the P.J.B.D. was indeed studying northern defences as part of its overall responsibilities and commented caustically that it “would be remiss in its duties if it did not.”⁶⁶

Kenneth Wilson had another article in *The Financial Post* of July 20, “Ottawa Scotches U.S. Plan to Man Weather Bases in Canadian Arctic,” in which he gave considerable detail about the project and the circumstances surrounding Ottawa’s refusal to approve it. In the same issue, an editorial comment in the column *The Nation’s Business* showed that the paper was not in the least inclined to admit that its earlier reporting had been very much in error:

In this incident there is ample confirmation of the information given a few weeks ago in *The Financial Post* about Cabinet concern for Canada’s northern “sovereignty.”

... The Post has learned in unimpeachable quarters - and since the King “denial” has further confirmed - that this project is being pushed in some high U.S. quarters and that it has had discussion with some Canadian officials....

... There can now be no doubt whatever that very considerable pressures are being exerted on Canada by the United States looking toward the defense and the development of the North American Arctic....

... Canadian officials seem to have eagerly co-operated when given a chance. Then officialdom, worried about Canadian “sovereignty” and how Russia would view the undertaking, stepped in and stalled the undertaking.

The moral is clear: Canada must quickly get a policy of her own for developing the North or someone else may insist on doing it for us.⁶⁷

⁶⁶ House of Commons *Debates*, 28 June 1946, pp. 2987-2988. External Affairs had sent King a draft statement for use in the House of Commons on June 27. The accompanying memo referred to the *Financial Post* article as “irresponsible and mischievous”, and added that the State Department had asked “whether we thought that a joint denial should be issued.” External had replied that they “were inclined to favour such independent action as each Government might wish to take.” See LAC, RG 25, Vol. 5282, File 9061-40, “Cooperation with the United States in the Arctic and Defence of the Arctic, General File,” (P. A. R. C.), Vol. 1, memo for Prime Minister, drafted by Macdonnell, with draft statement, 27 June 1946.

⁶⁷ Kenneth Wilson, “Ottawa Scotches U.S. Plan to Man Weather Bases in Canadian Arctic,” *Financial Post*, 20 July 1946.

Whether Lester Pearson was given any authorization to approach the State Department informally, as he had *suggested*, is a question to which I have seen no clear answer. In any case, one thing he did do (whether with his government's blessing or not seems also uncertain) was to write an article on the Canadian North for publication in the July 1946 issue of the American quarterly *Foreign Affairs*. This brief article, obviously written primarily for the enlightenment of American readers, dealt with the Canadian North and certain Canadian attitudes toward it from a fairly typical, although not completely official, Canadian point of view. It attracted attention and has since been frequently cited, chiefly because of Pearson's definition of the Canadian Arctic:

A large part of the world's total Arctic area is Canadian. One should know exactly what this part comprises. It includes not only Canada's northern mainland, but the islands and the frozen sea north of the mainland between the meridians of its east and west boundaries, extended to the North Pole.

Elsewhere, Pearson stressed Canada's clear title within this area, the harmonious Canadian-American joint enterprise in the North during the war, the need to continue working together in worthwhile activities, and Canada's desire for cooperation not only with the United States but with other northern states possessing Arctic territories and interests. For example:

The Canadian Government, while ready to cooperate to the fullest extent with the United States and other countries in the development of the whole Arctic, accepts responsibility for its own sector.... In all these wartime projects there has been a remarkable spirit of cooperation between Canada and the United States.... This wartime cooperation will continue now that the war is over There is no question now as to ownership and control of bases and such things, which might give rise to misunderstandings between the two countries. On the contrary, there is a clear understanding by the United States that Canada has complete ownership of and responsibility for everything within her borders while ready and anxious to cooperate with the

United States to the fullest possible extent in everything that pertains to the development and security of the Arctic regions....

Canada has no desire, however, to cooperate exclusively with the United States in Arctic questions. It is in Canada's interest, and in the general interest, that each northern nation should cooperate with every other in all Arctic problems.... So far as Canada is concerned, she does not relish the necessity of digging, or having dug for her, a Maginot Line in her Arctic ice. Peaceful development in cooperation with all the northern nations is Canada's sole desire....⁶⁸

Although the American desire to establish weather stations on the more northerly islands of the archipelago had been frustrated, at least in 1946, the situation was not quite so discouraging in the more southerly parts of the vast Canadian North. Although the drastic withdrawal which had taken place during the final stages of the war and afterwards had been almost completed, the Americans nevertheless still operated several weather stations and had small numbers of personnel at several others. On August 14, 1946, Maj. Gen. Henry, senior U.S. Army member of the P.J.B.D., requested permission for the U.S.A.A.F. Weather Service to reopen its wartime stations at Padloping Island (Baffin Island) and Indian House Lake (Quebec). He requested also that the Canadian weather service provide certain observations at River Clyde and Arctic Bay (Baffin Island), where it had small stations and indicated the intention of the U.S.A.A.F. Weather Service to continue operating stations at Mingan, Fort Chimo, and Mecatina (Quebec), Cape Harrison (Labrador), and Frobisher (Baffin Island). The Department of Transport responded that the U.S.A.A.F. should be permitted to reopen and operate Padloping Island and Indian House Lake until Canada could take over, and that the U.S.A.A.F. should also take over River Clyde temporarily because it wanted more there than Canada could supply. Canada, however, should continue to operate

⁶⁸ L. B. Pearson, "Canada Looks 'Down North'," *Foreign Affairs*, Vol. 24, No. 4, (July, 1946), pp. 638-647.

Arctic Bay without American assistance. The Department of External Affairs was willing to go along with these recommendations but sought the views of the Chiefs of Staff Committee.⁶⁹ This body at a meeting on September 5 also concurred but, in its recommendations to the Cabinet Defence Committee, included the following:

... that in the circumstances, the U.S. requests be accepted, but on a temporary basis only and on the explicit understanding that Canadian personnel at the discretion of the Canadian Government, be included on the staff of any station operated by the United States with the object of eventual operation by Canada, and that US authorities be asked to employ civilian weather bureau personnel rather than military personnel in the operation of these stations.⁷⁰

This recommendation was approved by the Cabinet Defence Committee at a meeting on September 18,⁷¹ and Macdonnell informed General Henry of this decision by letter on September 24.⁷²

Thus, something had been gained from the American point of view but it did nothing to solve the problem of weather stations in the most northerly islands. The

⁶⁹ LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1, memo, drafted by Macdonnell, for Chiefs of Staff Committee, D.N.D., 29 August 1946. See also DHH File 112.3M2 (D117), "Chiefs of Staff Committee papers," brief for C. S. C. on "U.S. Meteorological Installations in Canada and Labrador" (n. d.); DHH File 955.013 (D10), Vol. 5, U.S. Army Progress Report, 13 September 1946.

⁷⁰ DHH File 112.3M2 (D331), extract from minutes of the 362nd meeting of the CSC, 5 September 1946.

⁷¹ DHH File 112.3M2 (D125), extract from minutes of 22nd meeting of CDC, 18 September 1946.

⁷² LAC, RG 85, Vol. 823, File 7140, Macdonnell to Henry, 24 September 1946. It would seem that here may have been another instance where American eagerness got ahead of Canadian authorization. Reporting on 22 July 1946, to E.G. Frere, O/C of "G" Division, R.C.M.P. Constable M. L. Cottell at Frobisher Bay wrote as follows respecting increased American activity in the area: "A number of new men are being sent up here constantly and this base is enlarging its personnel. This base is the Number one alternate Base for B29's Bombers." He complained also of the expected imposition of American censorship at the base. Frere passed on word of these and other developments, either actual or anticipated, as reported by Cst. Cottell, to the R.C.M.P. Commissioner, observing, "We have no information in this office of any such proposed projects of the U.S. Government in the vicinity referred to." He made the rather surprising suggestion that to overcome the censorship of mail the R.C.M.P. should if necessary send mail out from Lake Harbour, 100 miles distant, where there was normally only one mail pickup per year, by the *Nascope*. There was some discussion of the matter in Ottawa, and on 6 September Deputy Minister H. F. Gordon (D.N.D.-Air), answering a letter of 12 August from the U.S.S.E.A., stated that inquiries had been made to Maj. Gen. Henry, and "We have now been informed that the American Army Air Force have approximately fifty men on temporary duty at Frobisher Bay The base may, therefore, be looked on only as a continuing weather reporting station at which facilities will be maintained for servicing by air and at the same time it will act as an emergency landing aerodrome for any aircraft flying in that area." See above letters in LAC, RG 85, Volume 2271, File 1005-2-3, Vol. 2.

United States was not inclined to accept the Canadian refusal to sanction action in 1946 as the final word on the subject, and the American members of the P.J.B.D. brought the matter up again at a meeting of that body on September 19-20. In a memo which he had already written for the P.J.B.D. on September 9, General Henry, citing a joint appreciation of the situation which had been prepared, put forward the American point of view as follows:

The Joint Appreciation also shows that an aerial attack against the North American continent will almost certainly come over the Polar regions, which, due to Canada's geographical position, means over Canadian territory. This places Canada in a peculiar position.... From now on, however, within the foreseeable future, the security of the homeland of both Canada and the United States is unalterably bound up one with the other and will require the utmost of coordination.....

I am positive that in carrying out this view, the High Command of the United States in no way wishes to infringe on Canadian sovereignty or Canadian rights, nor in any way interfere with Canadian ties or obligations to the British Commonwealth. That High Command looks upon it purely as a military problem, the efficient solution of which will require a more intimate and complicated joint cooperation than has heretofore been achieved between the forces of two sovereign nations.

An effective air defense will require a comprehensive air warning, meteorological and communications system with air bases for interceptor aircraft, all placed at the maximum practical distance from vital strategic areas. For the local defense of the North American continent this means United States installations in Alaska, Greenland and Iceland, and either similar Canadian or joint United States - Canadian installations in Canada, Labrador and Newfoundland....

As the members of the Board know the United States Weather Bureau requested, through diplomatic channels, authority to install certain weather stations in the Canadian Arctic. This request was purely civilian. It does, however, fit into the military picture and is one step in the meteorological coverage for the military security of North America as contained in a Committee report submitted to the Board by memorandum dated 4 September 1946....⁷³

⁷³ DHH File 955.013 (D10), Vol. 5, memo for members of PJBD by Maj. Gen. Henry, 9 September 1946.

Three features of Henry's memo stand out conspicuously and are worthy of particular note: (1) his strong assertion of the U.S. feeling that Canadian-American cooperation and coordination in northern defence were essential; (2) his categorical assurance that the U.S. had no designs on Canadian sovereignty; and (3) his frank admission that the weather station program had a military aspect.⁷⁴

The formal U.S. request was made in a note from Ambassador Atherton, dated November 6, accompanied by an aide-memoire and a memorandum summarizing the American proposals. Atherton referred to the earlier U.S. request of May 1 and the negative Canadian response, at least so far as 1946 was concerned, on July 2. He observed that a similar request made of the Danish Government had been granted, resulting in the establishment that summer of a meteorological station at Thule, Greenland. The note continued:

I have now been directed to reaffirm and to stress the interest of my Government in this program and to urge upon the Canadian Government the necessity of proceeding without delay toward the establishment in the northern areas of this hemisphere of adequate meteorological and other reporting stations.

There was not a great deal in the aide-memoire apart from references to the memorandum and inquiries as to whether the Canadian Government had any plans to establish magnetic stations at Baker Lake, Clyde, and Churchill. The memorandum, however, set forth the American plans in comprehensive but abbreviated form amounting to the following: (1) establishment in the spring of 1947 by air transport from Thule of a small station at Eureka Sound on Ellesmere Island; (2) establishment in the summer of 1947 by surface ship of a larger station at Winter Harbour; and (3)

⁷⁴ LAC, RG 85, Vol. 1515, File 1009-28, Vol. 1, copy of memo for file by R. M. Macdonnell, 23 September 1946.

reconnaissance in 1947 and establishment in spring 1948 by air transport from Winter Harbour of two small stations on Banks Island and Borden on Isachsen Island. Plans for transportation and communication facilities included the construction of emergency airstrips where practical. The anticipated participation of the military services was also outlined, principally the air lifting of personnel, supplies, and mail by the U.S.A.A.F., and the transport of personnel and supplies by the U.S. Navy in cargo ships supported by icebreakers.⁷⁵

By February 6, External Affairs had prepared a draft reply to the American proposals,⁷⁶ which was first passed on for the comment of the interested departments⁷⁷ and then examined at an interdepartmental meeting on February 13.⁷⁸ With only minor changes, it became the official reply which was sent to the American ambassador on the same day.

The Canadian note recapitulated briefly the background of the project and then stated: "The Canadian authorities concerned with meteorological questions...are in agreement with the view expressed in your note that a more complete and detailed knowledge of Arctic weather is essential." The text indicated strongly that so far as the Canadian Government was concerned the weather stations would be for civil purposes and there was no specific mention of any military aspect or even of any role for the armed forces in setting up and supplying the stations. The note went on:

⁷⁵ LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1, Atherton to S. S. E. A., No. 592, 6 November 1946, enclosing aide-memoire, 6 November 1946; and memorandum (n. d.).

⁷⁶ LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1, draft note to U.S. ambassador by Saul Rae, 6 February 1947.

⁷⁷ LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1, notes drafted by S. F. Rae (for U.S.S.E.A.) to D/M Mines and Resources et al, and replies, 7-12 February 1947.

⁷⁸ LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1, memo for file on meeting of Feb. 13 by D. Johnson, 13 February 1947.

As a result of studies made by Canadian officials, which took into consideration the views of the United States authorities, the Canadian Government has approved a plan for the establishment of a number of weather stations in the Arctic during the years 1947, 1948, and 1949. It will be observed that this plan is similar to that proposed by the United States authorities, although differing in some respects.⁷⁹

Whether by accident or design, this exchange of notes coincided almost exactly in point of time with a joint Canadian-U.S. statement on defence cooperation, which was made simultaneously in Ottawa and Washington on February 12. The joint statement asserted that Canada and the United States would continue wartime defence cooperation to a limited extent in the postwar period, that all cooperative arrangements would be “without impairment of the control of either country over all activities in its territory,” and that what was done would be within the framework of the United Nations.⁸⁰ The Canadian announcement was made by Prime Minister King in the House of Commons and he took advantage of the opportunity to make some additional comments about the situation in the North. In so doing, he obviously tried hard to represent the basic intent of joint activities in this region as being essentially peaceful:

As the government views it, our primary objective should be to expand our knowledge of the north and of the conditions necessary for life and work there with the object of developing its resources.

Canada's northern programme is thus primarily a civilian one to which contributions are made by the armed forces.... Since the United States, as well as Canada, recognizes the need for greater familiarity with northern conditions, we have arranged for its government to participate in the work of this establishment. It may be that other tests and projects will require to be undertaken on a joint basis, in order to extend with a maximum of economy and effectiveness, our knowledge of the north....⁸¹

⁷⁹ LAC, RG 25, Vol. 3347, File 9061-A-40, Vol. 1, L. B. Pearson for S. S. E. A. to U.S. Ambassador Atherton, No. 16, 13 February 1947.

⁸⁰ *Canada Treaty Series* (1947), No. 43, 12 February 1947.

⁸¹ House of Commons *Debates*, 12 February 1947, pp. 345-348.

The joint meeting of technical experts which the Canadian note had suggested took place in Ottawa on February 25-26, and broad agreement was reached on the main outlines of a far northern weather stations program. The main base would be at or in the vicinity of Winter Harbour, and would be set up using water transport during the summer of 1947. A smaller station would be established at Eureka Sound (west coast of Ellesmere Island) during the spring of 1947, using air transport from Thule. Tentative plans were made to establish another station at Cape Kellett (Banks Island) in 1948, and to carry out reconnaissance for more stations in the future. Other arrangements followed along lines already visualized or specified: equal numbers of Canadians and Americans at each station with Canadian officers in charge, an R.C.M.P. officer at Winter Harbour with separate housing, Canadian control of customs, radio communications, publicity, etc. The Canadian Government would provide all permanent installations and pay and subsistence for half the staff; the U.S. would bear all other costs including equipment, transportation, fuel, and arctic supplies. These arrangements would be subject to periodic review.⁸²

Actual establishment of the two stations planned for 1947 was carried out with a large measure of success. Reconnaissance flights over Eureka Island were made from Thule on September 8, 1946 and March 25, 1947, and, following selection of a favourable site on the north shore of Slidre Fiord at 80° 00' N. and 85° 56'W, the initial landing was made on April 7. Construction materials for temporary buildings, as well as basic supplies for over a year, were airlifted by repeated flights from Thule, and the six

⁸² LAC, RG 88, Vol. 19, File SE. 4-1-83, minutes of joint Canadian-U.S. meeting 25-26 February 1947, 27 February 1947. See also in LAC, RG 25, Vol. 8177, File 6700-40. Vol. 1. The terms of this agreement were summarized by Mr. St. Laurent in a note to Mr. Atherton on March 18. See LAC, RG 25, Vol. 3347, File 9061-A-40C, Vol. 2.

men staffing the station commenced the weather observation program immediately. During the month of July, with the aid of machinery airlifted in, they were able also to construct a usable airstrip about six miles from the camp. An icebreaker which succeeded in pushing through to the base on August 9 brought with it materials for permanent buildings, additional equipment, another year's supply of stores, and two more men for the staff.

To establish the main station at Winter Harbour, the cargo ship U.S.S. *Wlyandot*, accompanied by the icebreaker U.S.S. *Edisto*, sailed from Boston on July 16. After being stopped by ice at about 108° W. in Viscount Melville Sound in late July and after being stopped again in the same area on another try in mid-August, the expedition was compelled to give up the idea of reaching Winter Harbour that season. A survey of the neighbouring island coasts which could be reached led them to conclude that the best alternative site was at 74° 41'N and 94° 54' W in Resolute Bay on Cornwallis Island. Approval for this new location having been secured from both Canadian and American Governments, they began construction of the base on August 31.⁸³ By the time the ships departed on September 13, the shells of about a dozen buildings had been set up, an airstrip was under construction, and the weather program was under way. The personnel of the station were eight Canadians and eight Americans, plus an R.C.M.P. constable.⁸⁴ It did not take long for realization to sink in that the enforced abandonment

⁸³ See E. A. LAC, RG 25, Vol. 3347, File 9061-A-40C, Vol 2, for a variety of communiqués respecting the difficulties of getting through to Winter Harbour and the choice of an alternative site, e.g., Cowley to Johnson, 21 August 1947, Reichelderfer to Thomson, 29 August and 15 September 1947, Auman to Chief of Bureau Arctic Operations, 2 September 1947, enclosing wireless messages from Hubbard and Cleghorn, etc. See also the press release about the two weather stations which was given out by C. D. Howe on 3 July, at the same time as a similar press release was given out in Washington. The file has also a number of 1947 reports from and about the two weather stations, including one by Hubbard.

⁸⁴ For a good brief account of the establishment of the two stations, see *Joint Arctic Weather Stations: Five Year Report 1946-1951*, compiled by the Canadian Meteorological Division and the U.S. Weather

of Winter Harbour was a blessing in disguise, and in a report dated November 19, 1947, the Chairman of the Interdepartmental Meteorological Committee (I.M.C.), C. P. Edwards, wrote that both Canadian and American authorities concerned had decided that Resolute Bay should be developed as the main base.⁸⁵

The two new stations planned for 1948 were both established without undue difficulty in April of that year. Both were established by means of airlift from Resolute, where the necessary supplies and equipment had been delivered in 1947. After aerial reconnaissance, Isachsen was set up on April 3 at approximately 78° 47' N and 103° 32'W near Deer Bay on Ellef Ringnes Island; and Mould Bay was set up on April 11 at approximately 76° 14'N and 119° 20'W in the bay of that name on Prince Patrick Island. Each was to be staffed with three Canadians and three Americans but the work load

Bureau (n. d., but evidently 1953), 8-12. See also Department of Transport, *Annual Report*, 1 April 1947-31 March 1948, 185-186; "Task Force 68," *The Arctic Circular*, Vol. I, No. 1 (January 1948), pp. 2-3; *The Polar Times*, No. 24 (June 1947), 26; No. 25 (December 1947), p. 20; *The Polar Record* Vol. 5, No. 33, 34 (Jan. -July, 1947), pp. 95-97. A Canadian report on the task force (author not identified) indicates the wide gap, all too common, which existed between Canadians and Americans on such matters as Canadian independence, Canadian sovereignty the Canadian North, and defence:

On board USS Edisto it was quite evident that the ordinary US serviceman knew little, if anything, of Canadian history, resources, relationship with the United Kingdom, or status as an independent nation. The knowledge possessed by the officers was deplorable, and that of the enlisted men practically non-existent. To a large extent they view Canada as a small portion of the British Empire, taxed and governed by a descendent of His Majesty George III. Again and again the subject of sovereignty of the Arctic Islands came up in conversation. Canada's position was explained to the officers of the Task Force, and Bernier's expeditions, the Canadian Government's Eastern Arctic Patrol, and the St. Roche's voyages were described. These explanations were received with interest by US personnel.

It appears to the citizen of the US that the Canadian Government is doing practically nothing in the role of defence for the Canadian Archipelago, while the United States is placing men, aircraft, ships, and an unending stream of money and materials at the disposal of her defence forces....

The leaders of this expedition, while keen, conscientious, and anxious to observe all regulations concerning Canadian territory, were misinformed on many matters....

See in Department of Northern Affairs and Natural Resources (D.N.A.N.R.) File N1225-8 (formerly 1009-18), "Defence Matters: Canadian Sovereignty in the North," Vol. 1, paper entitled "Extracts from Canadian Service Reports" (n. a., n. d., but "1947" is pencilled in, indicating the year)

⁸⁵LAC, RG 25, Vol. 8177, File 6700-40, Vol. 1, C. P. Edwards to C.D.C. (Cabinet Defence Committee), memo on weather station program, 19 November 1947.

was heavy. For the time being at least, an extra Canadian was added at one of the stations and an extra American at the other. Thus overall equality was maintained.⁸⁶

The U.S. Navy task force delivered supplies at Thule, Resolute, and Eureka, but was unable to reach the new stations at Mould Bay and Isachsen. The two icebreakers forming part of the task force, *Eastwind* and *Edisto*, established a new northerly record for ships, at least in Greenland-Ellesmere Island waters, when they attained approximately 82° 35'N while making a reconnaissance for a fifth joint weather station on the northern coast of Ellesmere Island. Later they made the first passage (for sea-going vessels) through Fury and Hecla Strait, while on the way back to southern waters.⁸⁷

⁸⁶ *Joint Arctic Weather Stations: Five Year Report 1946-1951*, pp. 12-15.

⁸⁷ For a variety of reports on the task force, and other information, see LAC, RG 85, Vol. 302, File 1009-5, "Arctic Weather Stations (Inc. Joint Arctic Weather Station Program, Canada-U.S.A.) (Incl. Interdept'l Meteorological Committee," Vol. 1 (July 1948-June 1949), e.g. Weir to Lloyd, 24 July, 5 August 1948; Gajda to Lloyd, 24 July, 8 August, 13 September, 1948; Interim report compiled in Geographical Bureau, 24 August 1948; extract from report by J. P. Kelsall, 9, August 1948. See also LAC, RG 25, Vol. 6297, File 9057-40, "Canadian Sovereignty in the Arctic, General File," Vol. 4, bulletin, 29 September 1948, announcing passage of *Eastwind* and *Edisto* through Fury and Hecla Strait; *The Arctic Circular*, I, No. 5 (May, 1948), 45-46, 47-48; I, No. 6 (Aug., 1948), pp. 68-69; I, No. 8 (Dec., 1948), pp. 90-91; *Annual Report of the Department of Transport*, 1 April 1948-31 March 1949, 219-220; DHH File 112.3M2 (D331), Brigadier, BGS (Plans) to CGS, 17 November 1948; U.S. Navy Task Force Eighty, U.S. Atlantic Fleet, "Report of Arctic Summer Operation 1948," esp. Capt. George J. Dufek, U.S. N., Commander Task Force Eighty, "Report of Task Force Eighty: Summer Arctic Operation 1948," 3 (sec. 7(i)), 4 (sec. 7 (k)). The two icebreakers did not make their successful transit of Fury and Hecla Strait without arousing the ire of some Canadian officials. Commenting on this as one of "only three unfortunate incidents connected with the Task Force" which had come to his attention (the other two being leakages in the American press and a proposal to name two places in the northern Ellesmere Island region for American officers), C. C. Eberts (External Affairs) wrote as follows: -

"The Task Force was authorized on the understanding that, inter alia, it would stick to certain routes while sailing in the Canadian Arctic. The Government, of course, did not want the U.S. N. to feel that they could sail far and wide as they pleased. During the summer, when officers from 'Edisto' took up with our C. N. S. the possibility of their going through Fury and Hecla Strait, the U.S. N. were informed, through the Joint Staff Mission in Washington, that permission for a departure from agreed routes would have to be sought if there were any desire to travel through that strait.

Despite this, 'Edisto', preceded by the U.S. G. G. 'Eastwind', eventually returned to Boston via the Strait [sic] mentioned. At our request, the Embassy in Washington informed the State Department, in a letter dealing with other matters, that this unauthorized departure from agreed routes was the sort of thing that made it difficult for us at times to obtain serious consideration in Ottawa for proposals for U.S. activities in Canada. The State Department eventually replied, in effect, that the decision of the Task Force C.O. to go through the Strait had been supported by one of our observers, and that he, therefore, felt it to be in order. The Operational Plan, the instructions to observers and other documents relating to

A number of Canadians accompanied the expedition in a variety of capacities, but mainly as observers. Evidently, everything went very smoothly and harmoniously, except for a few minor “incidents.” One of the representatives from the Canadian Geographical Bureau, Dr. R. T. Gajda, reported from Thule that the attitude of the Danish authorities toward the American mission was “very suspicious.”⁸⁸ A rather strained situation was created when Col. Hubbard, who was accompanying the expedition, opened Peary’s cairn at Cape Sheridan and removed a document by Peary and a copy of one by Nares. The Americans intended to place these relics in the U.S. Naval Academy and were somewhat taken aback when the Canadian observers brought to their attention the N.W.T. ordinance respecting the protection and care of archaeological sites. The outcome was that the Americans retained the documents, after the Canadians had photographed them and also made copies which were (1) put back in the cairn (2) kept for presentation to their own government authorities.⁸⁹ Afterwards, Deputy Minister of Mines and Resources Hugh Keenleyside expressed his belief that, in removing the originals and replacing them with exact copies, Task Force Commander Captain Dufek had simply been following the “usual custom” in such matters.⁹⁰ Equally awkward and embarrassing was an occurrence at Slidre Fiord, where two American photographers went ashore to hunt and shot four hares in violation of

the Task Force, of course, made it perfectly clear that the Task Force C.O. was in complete command of the whole operation. We must, therefore, hold the U.S.N. responsible for the departure made, and it is our intention to ask the Embassy to merely state orally to the State Department in reply that we do not wish the matter to be treated as a serious incident but that it would seem that the C.O. was in complete command of the expedition and should have arranged for Ottawa to be consulted, especially in view of the action taken by our C.N.S. during the summer. At the next meeting with the U.S. officials, on the 1949 programme, we can, of course, make it quite clear that there must be no further excursions into areas that are quite irrelevant to the weather station programme.” (See LAC, RG 25, Vol. 5912, File 50197-40, “A.C.N.D.-General,” Vol. 1, memo by C. C. Eberts. 19 November 1948.

⁸⁸ LAC, RG 85, Vol. 302, File 1009-5, Vol. 1, Gajda to Lloyd (Aug. 8, 1948).

⁸⁹ LAC, RG 85, Vol. 302, File 1009-5, Vol. 1., Weir to Lloyd, 5 August 1948.

⁹⁰ LAC, RG 85, Vol. 302, File 1009-5, Vol. 1., Keenleyside to Lloyd, 30 August 1948.

both Canadian laws and task force order. John P. Kelsall of the Dominion Wildlife Service reported the transgression to a senior America officer, saying that he would be expected to inform Ottawa. Although the photographers were evidently and unaccountably in complete ignorance of the regulations, "a very serious view of the offence" was taken and the captain severely and publicly reprimanded both men." Otherwise, reported Kelsall, "all game laws have been adhered to in the most gratifying manner and ...there can be no doubt in the mind of anyone that Canadian Game laws will be respected at all times."⁹¹

Before the next sea supply mission set sail, certain efforts were made in Ottawa to improve Canadian participation in it and to assure that Canadian personnel were better organized and better prepared. A meeting of the I.M.C. on December 9, 1948, agreed that Canadian observers on the 1949 mission should be placed under the administrative control of an appointed senior government official, who would exert this control through an appointed senior Canadian observer on each ship.⁹² A later meeting on January 4, 1949, decided that the senior official should be supplied by the N.W.T. Administration⁹³ and their choice fell upon J. W. Burton, a former wing commander in the R.C.A.F. who had served as Deputy Director of Intelligence during the war.⁹⁴ Burton, who obviously involved himself with keen interest in all aspects of the coming voyage, was curious about some of the contentious international legal questions respecting

⁹¹ LAC, RG 85, Vol. 302, File 1009-5, Vol. 1, *d*, Kelsall to Lewis, 31 August 1948.

⁹² LAC, RG 85, Vol. 302, File 1009-5, Keenleyside to D/M D.N.D., 10 February 1949. See also LAC, RG 25, Vol. 8177, File 6700-40, Vol. 1, minutes of 10th I. M. C. meeting, 9 December 1948, sec. 20.

⁹³ LAC, RG 85, Vol. 302, File 1009-5, Vol. 1, Keenleyside to D/M D.N.D., 10 February 1949. Keenleyside, evidently in error gives the date of this meeting as 6 January.

⁹⁴ LAC, RG 85, Vol. 302, File 1009-5; also Gibson to D/M, 4 April 1949; Keenleyside to Capt. Rittenhouse, 30 June 1949.

territorial waters, permanent ice, etc., and asked whether the matters should be taken up with External Affairs.⁹⁵ There are no responses on file.

Operations nevertheless continued in the years ahead. In April 1950, the fifth joint weather station was established near Cape Sheridan on the northern coast of Ellesmere Island at approximately 82° 30'N and 62° 20' W. Christened "Alert" to commemorate the wintering there of Sir George Hare's ship of that name in 1875-1876, the operation was carried out by air transport in which the R.C.A.F. as well as the U.S.A.F. took part. The initial landing was made on Easter Sunday and the remainder of the supplies were ferried in by airlift from Thule. The annual resupply voyage was carried out by the U.S. Navy and Coast Guard; the ships assigned to the task being the icebreakers *Edisto* and *Eastwind* and the cargo vessels *Whitley* and LST-533. They were able to reach Resolute, Eureka, and Alert but not Isachsen and Mould Bay. The sea operations were carried out without serious mishap but tragedy struck the air operations when an R.C.A.F. Lancaster crashed at Alert on July 31, killing all personnel aboard including eight Canadians and Col. Hubbard of the U.S. Weather Bureau.⁹⁶ The plans for the sea supply mission could not be carried out completely because the ships were unable to reach Alert. Consequently, the cargo for this station was left at Thule for later delivery by airlift. The voyage to Eureka was cancelled at an early stage, but later was successfully accomplished. A reconnaissance of Bridport Inlet, Melville Island, was successfully carried out by the icebreaker U.S.S. *Atka*, and supplies for the projected

⁹⁵ LAC, RG 85, Vol. 304, File 1009-5.

⁹⁶ LAC, RG 85, Vol. 304, File 1009-5, External Affairs press release, No. 20, 6 April 1950; S. S. E. A. to Canadian Ambassador in Washington, EX-1015, 29 June 1950, containing draft press release; *Joint Arctic Weather Stations: Five Year Report 1946-1951*, pp. 15-16; *The Arctic Circular*, Vol. 3, No. 4 (Oct., 1950), pp. 46-48; *The Polar Record*, 6, No. 44 (July, 1952), pp. 518-520; *Annual Report of the Department of Transport*, 1 April 1950-31 March 1951, pp. 130-132.

new weather station were cached, not on the exact site, but a few miles away. The spring airlift to Mound Bay and Isachsen was carried out by R.C.A.F. planes, based at Resolute; while that to Alert and Eureka was carried out by U.S.A.F. planes, using Thule as their base. Smaller airlifts to these stations were carried out in September and December.⁹⁷

Efforts had been made from an early stage in the joint weather stations program to incorporate the basic agreements and understandings in a formal exchange of notes but, for one reason or another, these efforts had met with repeated delays and had not materialized. At first, the concentration had been upon framing documents that would cover initiating the program and establishing the stations and attendant facilities but most of this was outstripped by the passage of events. (In fact the stations were constructed and went into operation without benefit of the formal exchange of notes which had been judged desirable.) Of course, practically everything of importance that was done was covered by agreements reached by other means including through negotiations, conferences, correspondence, etc. Only the formal documents were lacking.⁹⁸ Eventually, in late 1951 and early 1952, a formal exchange of notes took place, following a meeting on May 31, 1951 between representatives of the R.C.A.F.

⁹⁷ LAC, RG 85, Vol. 303, File 1009-5, Rear Adm. Thack, U.S. N., to State Department Directors, 15 May 1951; LAC, RG 85, Vol. 306, File 1009-5, Vol. 5, Sykes to Thomson by wireless, 2 August 1951, and other documents. See also *Joint Arctic Weather Stations: Five Year Report 1946-1951*, pp. 16-19; *The Polar Record*, Vol. 7, No. 51 (Sept., 1955), p. 489; *The Arctic Circular*, V, No. 4 (April-May, 1952), 45; V, No. 6 (Nov. -Dec., 1952), pp. 65-66; *Annual Report of the Department of Transport*, 1 April 1951-31 March 1952, pp. 138-139.

⁹⁸ See LAC, RG 25, Vol. 4254, File 9061-R-40, Vol. 1, Bruce to Rogers, 13 January 1954: "Briefly, I gather that no formal agreement was ever made to cover the construction and operation of the joint weather stations. In addition, the programme apparently proceeded on the approval by each annual meeting of the arrangements for the re-supply programme."

and the U.S.A.F., but in essence it dealt only with the question of joint resupply (which fell under the overall administrative control of the R.C.A.F.).⁹⁹

The 1952 resupply was carried out in fairly routine fashion. In a note to the U.S. Ambassador dated January 17, 1952, the Secretary of State for External Affairs was “pleased to extend an invitation to the United States to participate in the annual sea supply mission in the summer of 1952 and to enter Canadian waters and ports for that purpose.”¹⁰⁰ This rather typical and misleading sentence must have induced wry smiles on the faces of American officials. The plain truth was that, up to that time at least and apart from the presence of a few Canadian observers and scientists, American “participation” had amounted to practically everything that was done, and without it there would have been no sea supply voyages. The anxiety to preserve at least the outward appearance, or illusion, of Canadian leadership in these activities taking place on Canadian territory and to some extent in Canadian waters, is again evident.

An additional feature of the 1952 season was the establishment by the United States of a temporary combined weather station and research base on ice island T-3.¹⁰¹ American interest in such a project was by no means new and had manifested itself since 1950 by a succession of landings and experiments on the sea ice north of Alaska. Canadian JAWS officials were informed of this interest at least as early as January 1951, and indicated their willingness to cooperate.¹⁰² A little over a year later, the R.C.A.F. received separate and uncoordinated requests from both the U.S.A.F. and the

⁹⁹ *Canada Treaty Series* (1952), No. 36. “Weather Stations: Exchange of Notes between Canada and the United States of America,” 9 October, 12 December 1951; 7 February 1952.

¹⁰⁰ LAC, RG 85, Vol. 1963, File 1009-5 to U.S. Ambassador, No. D-13, 17 January 1952.

¹⁰¹ This subject is treated more fully in the chapter on ice islands, so only a bare summary is given here.

¹⁰² LAC, RG 85, Vol. 304, File 1009-5, Vol. 2-A, minutes of Canadian JAWS meeting, 9 January 1951, sec. 1.4, and of Canada-U.S. JAWS meeting, 11 January 1951, sec. 1.4.

U.S. Navy for authority to use the JAWS airstrips in connection with investigations of the ice islands and establishment of one or more weather stations upon them.¹⁰³ The reaction from the Department of National Defence and the Department of External Affairs was rather discouraging; the Canadian feeling being that the proposals should be postponed for six months, and, when renewed, should be combined and presented through official diplomatic channels.¹⁰⁴ The American authorities complied to the extent that on March 21 they made an official request for the use of Alert in connection with the U.S.A.F. project;¹⁰⁵ but, in fact, they had already made the initial landing on T-3 on March 19 and the station was established without any use of Alert by means of direct flights from Thule. Learning of the U.S.A.F. wish to use Alert in later phases of the project, however, the Canadian Government gave belated authorization for this plan on April 17.¹⁰⁶ Occupation of T-3 was maintained continuously till May 1954 when it was abandoned, at least temporarily, because by this time it had drifted so close to Ellesmere Island that it was providing little weather information that was not being provided by the nearby weather stations.

JAWS During the Remainder of U.S. Participation - Approx. 1952 - 1972

There appears to be no need to give any detailed treatment of the joint weather stations during the remainder of the period of American participation. No additional joint stations were established after 1952 although this had been in view.

¹⁰³ LAC, RG 25, Vol. 4254, File 9061-R-40, "United States Proposal for Re Establishment of Weather Station on Arctic Island," Vol. 1, e.g., Wershof (for MacKay), memo for U.S.S.E.A, 3 March 1952, enclosing telegrams on subject.

¹⁰⁴ LAC, RG 25, Vol. 4254, File 9061-R-40, e.g., R.C.A.F. to Alaska Air Command, 22 February 1952; G/C Edwards to Naval Attaché U.S. Embassy, 3 March 1952.

¹⁰⁵ LAC, RG 25, Vol. 4254, File 9061-R-40, U.S. Ambassador to S. S. E. A., No. 233, 21 March 1952.

¹⁰⁶ LAC, RG 25, Vol. 4254, File 9061-R-40, Acting Secretary of State for External Affairs to U.S. Ambassador, 17 April 1952.

During the years of the joint program, however, a fundamental change took place regarding responsibility for resupplying the stations. In the early years, as already seen, the United States carried out this task practically alone, with only token Canadian participation. As time went on, however, Canada took over an increasing share of the load, and eventually it became almost as completely a Canadian show as it had originally been American.

American planes and ships were used exclusively in setting up the five joint stations, except that in 1950 the R.C.A.F. had a small role in the establishment of Alert. During the first three or four years, also, American planes and ships only were used for resupply. In 1950, however, the Canadian Government decided to take a hand in resupply, and henceforth Canadian participation increased. In 1951 R.C.A.F. planes based on Resolute handled the spring airlift to Mould Bay and Isachsen while U.S.A.F. planes from Thule took care of Alert and Eureka. The sea supply remained completely American. This division of responsibility, fortified by formal agreement respecting the airlift, was continued in 1952, except that the *C. G. S. C. D. Howe* helped in the delivery of supplies by sea to Resolute. It was continued also in 1953, and again a Canadian ship helped with the sea supply, in this case the new icebreaker *d' Iberville*.

In December 1953, Cabinet decided that Canada should take over, as soon as practicable, full responsibility for both the air and sea supply of the joint weather stations.¹⁰⁷ On February 9, 1954, Minister of Transport Lionel Chevrier announced that "Canada will be able to assume full responsibility for the resupply of all but one of the

¹⁰⁷ LAC, RG 25, Vol. 6510, File 9061-A-40, Vol. 4, "Weekly Division Notes" by B. Rogers, 19 January 1954.

joint Arctic weather stations" (Alert).¹⁰⁸ All ships used for the 1954 sea supply were Canadian. The plan that a U.S. task force should look after the sea supply to Alert could not be carried out since very bad ice conditions blocked the route and it was, therefore, necessary to supply Alert by airlift, provided by the U.S.A.F. Otherwise, the airlift was carried out mainly by the R.C.A.F.¹⁰⁹

The pattern established in 1954 was generally followed thereafter with certain variations according to need. The U.S.A.F. continued to participate in the airlift as needed and according to circumstances,¹¹⁰ but little innovation turned out to be necessary as the years went by, and arrangements and procedure for the resupply tended to become rather standardized and routine. A significant change took place in the later 1960s when, following a major decision by the Canadian Government, the R.C.A.F. was gradually phased out of the airlift and was replaced by commercial air carriers. This change was discussed at least as early as January 1965 at the preliminary meeting of Canadian JAWS delegates. One of them reported that: "In 1966 the R.C.A.F. will participate in northern resupply aided for the first time by commercial air carriers. In ensuing years more and more of the work will be taken up by commercial carriers."¹¹¹ However, the transfer of responsibility took considerable time. It was discussed regularly in the annual JAWS meetings. At the 1968 meeting Chairman Gaskell said the changeover would be virtually completed by April 1 of that year but, at

¹⁰⁸ Canada, *House of Commons Debates*, 9 February 1954, 1905-1906. See also LAC, RG 25, Vol. 6510, File 9061-A-40, Vol. 5, envelope of enclosures, final draft of report "Canadian Operation of the Joint Arctic Weather Stations" by Joint Planning Committee for C. S. C., 6 May 1954, esp. Secs. 7, 9.

¹⁰⁹ *The Polar Record*, 8, No. 53 (May, 1956), 153; Department of Transport, *Annual Report for the Year Ended 31 March 1955*, 32; LAC, RG 85, Vol. 651, File 1009-5, Vol. 8, agenda for 7th annual JAWS conference held 14 January 1954, and notes, Sec. 10.

¹¹⁰ LAC, R G 85, Vol. 511, File 1009-5, Vol. 9, minutes of 11th annual JAWS conference held 6 February 1958, Sec. 7.1.

¹¹¹ LAC, RG 85, Vol. 511, File 1009-5, Vol. 10, S. A. Kanik to Chief Resources Div., 22 March 1965. At the time of writing this file was still held in I. A. N. D.

the 1970 meeting, Chairman How observed that the complete transition was a “new” feature of the 1970 JAWS operation.¹¹²

As already indicated, the Canadian Government was typically much more concerned about the observance of formalities and the requirements of protocol in connection with the weather stations than was the American, and sought to underline the idea that the Americans were participating in these activities in Canada by invitation, and should therefore pay due heed to Canada’s role as host country and ultimate decision-maker about what was done within Canadian territory. There were occasions, especially during the early years of the stations, when the sensibilities of Canadian officials were aroused by what they regarded as the failure of their American counterparts to keep this in mind and to appreciate that they could not properly, especially in such matters as publicity, overlook Canada’s contribution or treat it as non-existent.

The primary responsibility for ensuring that diplomatic formalities were observed naturally fell to External Affairs. For example, at the annual JAWS conference on January 6, 1955, during a discussion on airstrip construction, the External Affairs representative, Benjamin Rogers, took care to underline that “as in the past, diplomatic clearance would be obtained for construction work carried out by a U.S. agency in the Canadian Arctic.”¹¹³ Many examples could be given of American efforts to meet Canadian wishes regarding such requirements. For example, when the Canadian Government indicated in September 1952 that it would like to have an “informal written

¹¹² D.N.A.N.R. File 587-2-2, Vol. 7, minutes of 21st annual JAWS conference held 15 February 1968, Sec. 1; D.N.A.N.R. File 587-2-2, Vol. 8, minutes of 23rd annual JAWS conference held 19 February 1970, 3. (I. A. N. D.). See also D.N.A.N.R. File 587-2-2, Vol. 6, Rowley to Gordon, 28 February 1966.

¹¹³ D.N.A.N.R. File 587-2-2, minutes of 8th annual JAWS conference held 6 January 1955, Sec. 5.5.

request” from either the U.S. Weather Bureau or the State Department for the proposed installation of some gasoline tanks at Alert and Eureka, the State Department made the request in the desired form without delay. The Canadian Government granted the request with equal promptitude.¹¹⁴

At the annual JAWS conference of February 9-10, 1956, Glenn Dyer of the American delegation said that the U.S. Atomic Energy Commission wanted to get snow samples from several of the northern islands, naming Bylot, Devon, Axel Heiberg, and Ellesmere. The External Affairs representative, K. C. Brown, “pointed out that an exchange of notes would be required if the proposed project was not already authorized or was not an extension of an authorized project.”¹¹⁵ On March 2, the U.S. Ambassador wrote a note to Mr. Pearson regarding the project, saying “It is hoped that the Canadian Government will find it possible to give both its authorization and support,” and requesting a scientist’s license for the collection of the samples. Not long afterwards a reply was sent from External Affairs granting the desired authorization and enclosing the license.¹¹⁶

These examples illustrate the point made above, respecting the concern of Canadian officials about formalities and protocol, but they show also the apparent willingness of the Americans to oblige in these matters even if they were, at times, forgetful of Canada’s role and uninformed about her contribution. Additional examples could be given by the dozen but this does not seem to be necessary. The essential

¹¹⁴ LAC, RG 25, Vol. 6510, File 9061-A-40, Vol. 4, S. S. E. A. to Canadian Ambassador in Washington, No. EX-1812, 10 September 1952; Canadian Ambassador to S. S. E. A., No. WA-2240, 13 September 1952; S. S. E. A. to Canadian Ambassador, No. EX-1850, 15 September 1952.

¹¹⁵ LAC, RG 25, Vol. 7118, File 9061-A-40, Vol. 6, minutes of 9th annual JAWS conference held 9-10 February 1956, Sec. 10.2.

¹¹⁶ LAC, RG 85, Vol. 2271, File 1005-2-3, Vol. 3, U.S. Ambassador to S. S. E. A., No. 221, 2 March 1956; S. S. E. A. to U.S. Ambassador, 15 March 1956, draft only.

point has already been adequately made - that apart from occasional instances of oversight or misunderstanding, or something of that sort, the United States typically manifested complete willingness to meet Canada's wishes regarding formalities connected with the weather stations, even in trifling matters such as the collection of a few samples of snow.

When C. D. Howe announced in the House of Commons on March 4, 1947, that the United States and Canada would together be establishing the stations, he said: "The Canadian government is grateful for this assistance, which will be invaluable until sufficient technically qualified Canadian-trained personnel are available."¹¹⁷ The anticipation that Canada would eventually take over the stations, when she was able, was a running theme in Canadian comments on the program thereafter. After the subject was discussed at the twelfth meeting of the Advisory Committee on Northern Development (A.C.N.D.) on October 19, 1953,¹¹⁸ a paper was prepared in the Department of Transport which outlined a number of problems which would have to be considered if there was to be a Canadian takeover.¹¹⁹ At about the same time, another paper was prepared by the A.C.N.D. Secretariat which went into greater detail and attempted to suggest more specifically both the advantages and the disadvantages of such a move.¹²⁰ The question came up at a meeting of the Chiefs of Staff Committee on November 20, where the Chairman, Lt. Gen. Foulkes, stated his opinion that the main factor in a decision concerning assumption of full responsibility was sovereignty. The

¹¹⁷ House of Commons *Debates*, 4 March 1947, 990.

¹¹⁸ LAC, RG 85, Vol. 333 (PAC), File 1009-3, "ACND-General File," Vol. 4, minutes of 12th meeting A.C.N.D. held 19 October 1953, Sec. VIII (b).

¹¹⁹ LAC, RG 25, Vol. 6510, File 9061-A-40, Vol. 4, D. of T. memo "Report re Suggested Take-Over of Joint Arctic Weather Stations," Doc. ND-69, 16 November 1953.

¹²⁰ LAC, RG 25, Vol. 6510, File 9061-A-40, Vol. 4, memo by Rowley for members of A.C.N.D., 19 November 1953, enclosing D. of T. memo (see preceding footnote) and A.C.N.D. Secretariat paper "Future of the Joint Weather Stations", Doc. ND-69-A (n. d.).

meeting agreed that “there was no disadvantage in continuing to share the operation of the weather stations with the U.S.”¹²¹

The next meeting (thirteenth) of the A.C.N.D. discussed the matter in considerable detail and a great variety of opinions were expressed. Some members, including General McNaughton and Andrew Thomson, felt that the requirements of sovereignty were being met and there was no need to rush taking over the stations. Others, notably the Commissioner of the R.C.M.P., thought that they should be taken over as soon as possible. However, there appeared to be general agreement, as Chairman R.G. Robertson observed, that “the problem of taking over the joint weather stations was primarily one of timing.” In the end the Committee decided that “a memorandum should be submitted to the Cabinet recommending that Canada take over the complete operation of the joint weather stations as soon as time and resources permit.”¹²² This recommendation was embodied in a draft memo to Cabinet, prepared by the A.C.N.D. Secretariat for the signature of Northern Affairs and National Resources Minister Jean Lesage and dated March 5, 1954, as follows:

(a) that the government approve, in principle, the assumption of responsibility by Canada for the complete operation of the joint Arctic weather stations as soon as feasible;

(b) that all necessary measures be taken to enable the stations to be taken over completely at an early date.¹²³

The proposal ran into some stormy weather in the Department of National Defence, where there was fear that it would impose upon the Department excessive

¹²¹ LAC, RG 25, Vol. 6510, File 9061-A-40, Vol. 4, extract from minutes of 550th C. S. C. meeting held 20 November 1953, Sec. I.

¹²² LAC, RG 85, Vol. 333, File 1009-3, Vol. 4, minutes of 13th meeting A.C.N.D. held 23 November 1953, Sec. III.

¹²³ LAC, RG 25, Vol. 6510, File 9061-A-40, Vol. 4, draft memo by A.C.N.D. Secretariat for Cabinet, “Canadian Operation of the Joint Arctic Weather Stations,” 5 March 1954.

additional costs for supply, extra planes, and extra personnel. The Department of External Affairs also had some second thoughts on the subject, and the Acting U.S.S.E.A., in an explanatory letter on May 26, recommended “that at its next meeting the Advisory Committee on Northern Development agreed [*sic*] to postpone the submission to Cabinet of the proposed memorandum until a more appropriate time.”¹²⁴ The A.C.N.D. went at least part way with these recommendations, and at its next (19th) meeting on May 31 “agreed to defer discussion of Canadian assumption of responsibility for the Joint Arctic Weather Stations until the fall.”¹²⁵

From time to time, the matter became a subject for discussion in the House of Commons. On May 24, 1954, for example, Mr. Diefenbaker raised the issue, asking and the following question:

With the establishment of these weather stations and radio stations connected with defence what arrangement is there between Canada and the United States whereby Canadian sovereignty will be protected and whereby the population of some of these ice cubes of the north, these islands of the north, will actually remain subject to Canadian sovereignty and that sovereignty will in no way be interfered with as the result of co-operation?

Remarking that the defence aspects of the problem might well be raised in the estimates of the Department of National Defence or External Affairs, Minister of Transport Lionel Chevrier replied:

I can, however, deal with that part of his question that has to do with joint weather stations because that matter comes under the jurisdiction of the Department of Transport. In so far as those stations are concerned, it is clearly understood, and I refer to joint stations, that the moment we have the required personnel we shall take over these stations....

¹²⁴ LAC, RG 25, Vol. 6510, File 9061-A-40, Vol. 4, Acting U.S.S.E.A. R. A.MacKay to Secretary A.C.N.D., 26 May 1954.

¹²⁵ LAC, RG 25, Vol. 6510, File 9061-A-40, Vol. 4, extract from minutes of 19th meeting of A.C.N.D. on 31 May 1954, Sec. VIII (56 and 57).

Chevrier was supported by Minister of National Defence Brooke Claxton:

As the Minister of Transport has indicated, plans have been worked out under which the operation of the weather stations is being taken over by his department. Everything that has been done has been in recognition of our sovereignty, which up to recent years was questioned only in view of the United States uncertainty about the sector theory....¹²⁶

On August 23, 1958, Mr. Pearson as Opposition leader made the following comment in the House of Commons:

It seems to me, Mr. Chairman, that if this type of operation in the north is going to cause the kind of suspicion we sometimes see in the press and in other places ... then perhaps the time is coming when Canada should exercise its option and take over, man and maintain the D.E.W. line, the weather stations and other Arctic installations now either jointly operated and maintained or operated and maintained by the United States.¹²⁷

As late as the JAWS conference for 1968, there was no outward indication of any American intention to end their participation. Mr. Rockney, the head of the U.S. delegation:

assured those present that, in the view of the United States Government, the cooperative arrangements which had been developed for the establishment and maintenance of the JAWS had been most satisfactory, and the United States would, as a matter of policy, continue to support this programme for as long as this might be in accord with the wishes of the Canadian Government.¹²⁸

The situation had not changed a year later if one can judge from another statement by Rockney at the annual conference on February 20, 1969, when he "confirmed that the

¹²⁶ House of Commons *Debates*, 24 May 1954, 5042-5043.

¹²⁷ House of Commons *Debates*, 23 August 1958, p. 4012.

¹²⁸ D.N.A.N.R. File S-87-2-2, Vol. 7, minutes of 21st annual JAWS conference held 15 February 1968, p. 4.

U.S. Weather Bureau would be glad to continue participation in the Joint Arctic Weather Station project subject to Canadian agreement and to the limitations of budgets.”¹²⁹

There certainly would appear to have been no fundamental disagreement or unpleasantness of any kind which prompted the American withdrawal. Canada-American relations at all levels connected with the JAWS program had been extremely harmonious and there had been no serious policy differences¹³⁰ - a situation which was generally recognized and to which tribute was paid frequently by those in the best position to know. For example, Canadian Eric Gaskell, Chairman of the 1965 JAWS annual conference, noted that the meeting “had been conducted in the spirit of cordiality and constructive discussion that had characterized this programme from its inception. This was in accord with the happiest traditions of Canada/United States liaison in the scientific field.”¹³¹ Three years later, Glenn Dyer of the American delegation reiterated that “one of the most heartening features of the JAWS operation had been the very special kind of comradeship which had developed over the years, and this had been a significant factor in easing the problems of administration and resupply under difficult conditions.”¹³² Remarks such as these abound in the minutes of the regular JAWS conferences, in the JAWS correspondence, and in public pronouncement on the program. In sum, they give ample testimony to the very fine spirit of cooperation and

¹²⁹ D.N.A.N.R. File S-87-2-2, Vol. 8, minutes of 22nd annual JAWS conference held, 20 February 1969, Sec. 1.

¹³⁰ LAC, RG 25, Vol. 10375, Microfiche File 27-16-2-USA-11, Vol. 1, Fiche 1, for the following comment by K. Burbridge of the External Affairs U.S.A. Division on 19 February 1969, with reference to the annual JAWS conference the following day: - “No major policy considerations have, in fact, arisen in recent years and it is not anticipated that any will emerge at this year’s conference.”

¹³¹ External Affairs (DFAIT) File 1009-5 Vol. 10, minutes of 18th annual JAWS conference held 25 February 1965, Sec. 116.

¹³² D.N.A.N.R. File S-87-2-2, Vol. 7, minutes of 21st annual JAWS conference held 15 February 1968, p. 5.

harmony which prevailed between Canadians and Americans in connection with the JAWS program as long as the joint aspect of it was maintained.

At the same time, there remained a lingering feeling among some Canadian officials that it would be well for Canada to take over the weather stations completely. Early indications that the United States might withdraw from the JAWS program came in the fall of 1969, and a meeting of American and Canadian meteorological personnel was held in Toronto on February 18, 1970 with the purpose of preparing preliminary plans and a tentative timetable for the phase-out.¹³³ The Department of Transport decided that, with the cooperation and advice of External Affairs, National Defence, and Indian Affairs and Northern Development, a memo to Cabinet should be prepared which would recommend concurrence in the U.S. proposal (i.e. complete U.S. withdrawal by October 31, 1972) and government authorization for continuation of the program by Canada alone, with the necessary additional increment of personnel, finance, and logistic support.¹³⁴ Accordingly, Cabinet approved a memo, signed by the Minister of Transport and the Secretary of State for External Affairs, on October 1 authorizing the “take-over of the complete operation of the five Arctic Weather Stations Alert, Isachsen, Mould Bay, Eureka and Resolute by October 31, 1972.”¹³⁵

The American withdrawal proceeded on schedule and the last U.S. personnel departed from Resolute in July 1972. A symbolic flag-lowering ceremony was held to terminate officially the joint operation of the five stations at Resolute on August 27,

¹³³ Department of Transport File 5230-26-1, Vol. 3, record of joint meeting of American and Canadian meteorological officials held 18 February 1970, with two attachments.

¹³⁴ Department of Transport File 5230-26-1, Vol. 3, memo to file by E. L. Barclay, 15 Apr. 1970, telling of meeting that day; Scott to D/M (Apr. 30, 1970).

¹³⁵ Department of Transport File 5230-26-1, Vol. 3, Stoner to Minister, 8 Jan. 1971; also M. M. Fleming for W. H. Huck to A.C.M.S., 20 Nov. 1970. The memo itself, in final and considerably expanded form, may be seen in D.N.A.N.R. File S-87-2-1, Vol. 9, as Cabinet Document 1082/70.

1972, with both American and Canadian representatives taking part.¹³⁶ Henceforth JAWS, under its new designation of HAWS (High Arctic Weather Stations), was entirely a Canadian responsibility.

Conclusions

The Joint Arctic Weather Stations were clearly the product of American rather than Canadian initiative and were established mainly by Americans, using American ships, planes, equipment, and supplies. For the first few years, they were largely an American operation, apart from such features as the equal number of Canadians and the Canadian in charge at each station, Canada's equal contribution in funding, provisioning, etc., and the retention of at least a large measure of basic control by Canada. Gradually, however, Canada assumed a larger share of responsibility, to the extent that eventually she played the dominant role in major activities including construction, maintenance, and resupply. Thus, for some years before the American withdrawal, the weather stations had been predominantly a Canadian show.

As was so often the case when such joint enterprises were being undertaken during and after the Second World War, the Americans were more inclined than the Canadians to take the bull by the horns and concentrate primarily upon getting the job done. Not surprisingly, they also showed a greater inclination to cut corners when possible, minimize attention to formalities and protocol, etc., and downgrade the importance of cost. On the other hand, the Canadians were initially less convinced of

¹³⁶ Advisory Committee on Northern Development, *Government Activities in the North*, (Advisory Committee on Northern Development, 1972), booklet issued annually by the A.C.N.D., 58; also see *Government Activities in the North*, 1970, p. 142, 1971, pp. 48-49. See also *The Polar Record*, 16, No. 100 (Jan. 1972), pp. 94-95; Department of Transport File 5230-26-1, Vol. 5, Environment Canada news release, 25 Aug. 1972.

the need for the weather stations and so took a more modest and restrained view of what would be adequate to make the program satisfactory. They were particularly concerned that the stations should be used solely for meteorological, or at least civilian, purposes, and should not give any grounds for suspicion that they were designed to form, or were becoming, part of the North American defence setup. Above all, they were anxious to protect and preserve Canada's position in any and all matters relating to sovereignty. They did not wish to obstruct or reject categorically the U.S. plans even though, especially at the beginning, they were by no means fully convinced that there was anything particularly urgent about them. Thus, Canada's support for the program, at least in the early stages, was somewhat reluctant, cautious, and qualified, and her inclination was to proceed carefully, giving due attention to form and keeping a watchful eye upon expense. From the beginning, the Canadian Government visualized an eventual Canadian takeover and, obviously, as time went on, there was increasing recognition on Canada's part that the stations justified their existence through the amount of meteorological and other scientific information they provided. And so, when the Americans gave notice of their impending withdrawal, the Canadian Government was prepared to continue the program alone.

The Americans occasionally wounded Canadian sensibilities or stirred up Canadian worries by paying inadequate attention to details which the Canadian authorities regarded as important. However, such "sins" of omission or commission as occurred were usually done without malice aforethought. The Canadians, in their anxiety about sovereignty, took a generally rigorous and exacting attitude towards any arrangements or activities relating to it, both in their own private discussions and in their

dealings with American representatives. It must be said that the Americans showed throughout a remarkable tolerance of the requirements the Canadians imposed upon them, even when some of these must have seemed rather picayune, and they demonstrated a genuine willingness to observe Canadian regulations and generally accept Canadian proprietorship. There were a few lapses in matters of this kind but on the whole they do not appear to have been very serious.

From the point of view of the Canadian authorities, as always wary of getting into any situation which might compromise their position respecting northern sovereignty, the most gratifying feature of the entire JAWS experience was the willingness of the U.S. Government throughout to meet their wishes in the establishment and operation of the stations. The virtually unqualified acknowledgment by the Americans that the operation was being conducted on Canadian soil constituted clear-cut *de facto* recognition by the United States of Canadian sovereignty over the islands of the archipelago and was, at least in Canadian eyes, of very far-reaching significance.

So far as the JAWS enterprise itself is concerned, it clearly ranks as one of the most important and successful examples of U.S. -Canadian joint endeavour in northern regions during the World War II and postwar years. In sum, it was a striking illustration of successful international cooperation and collaboration.