THE TRAIL COMMUNICATIONS PROJECT

FORT FRANKLIN, N.W.T.

Report of A

Communications Canada

Pilot Project

by

R.S. Robbins

Projects Manager

Northern Communications

Central Region

Winnipeg, Manitoba

April 17, 1974

FOREWORD

Many communities in northern Canada do not conform to our southern concept of a community where the population resides within an established boundary encompassing a limited area. In northern situations where land resource subsistence is a way of life, a significant part of a community's population resides in the surrounding bush and barrenlands on a seasonal basis to hunt, fish and trap. These semi-nomadic residents are as much a part of the community as the permanent inhabitants and the boundaries of the community are in effect, extended outwards for hundreds of miles at certain times of the year.

This report acknowledges the concept of the extended community and describes the results of a Pilot Project aimed at evaluating extended intra-community communications through the use of modern communication technology. The service makes use of portable transceivers carried on the trail for direct communication with the community in the language of the area and is commonly referred to as "trail radio".

Communications services, from the national network on down the system to the community level, are acknowledged to be public facilities and are provided by common carrier organizations. Sound communication planning would suggest that a viable trail communication service should similarly be available to northern communities as an extension of the public communication facility.

A.A. Simpson
Chief, Northern Communications
Central Region

SUMMARY

The past two years have seen an increased sense of awareness within Communications Canada to the desires and needs of the Canadian people. This is nowhere more evident than in the Canadian Arctic.

Trail Communications was a move to meet an expressed need, that of finding a viable answer to the problem of allowing nomadic hunters and trappers a communication link back to the home community for emergency and other purposes.

Initiated under the umbrella of the Northern Pilot Project, Trail Communications went into the field using high frequency portable radios in December, 1973 on an experimental basis. It operated successfuly until March, 1974 at which time the following assessment was completed and the concerned parties solicited for comment.

Present indications are that this is indeed a viable method of meeting a Northern Communication problem expressed and experienced by northern people.

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INTRODUCTION

Of the communities existing in the northern half of the prairie provinces and throughout the Northwest and Yukon Territories, many still have an economic base which is in large part dependent upon land resource enterprises. These communities consist of self sufficient people who are still quite capable of extracting subsistence from the land alone. The communication needs of such people then must be considered from an internal as well as the external point of view. This implies that a requirement for communication between people making up the community may have as great a priority as communications outward from the community to other centres. Indeed, one of the specific recommendations to come out of the Northern Communications Conference held at Yellowknife, N.W.T. in September, 1970, was that nomadic or hunting groups should be provided with low cost, light weight, transportable radio units to contact their resident community in emergency or other situations. The Trail Communications project of the Northern Pilot Project was an attempt to meet this expressed need on an experimental basis by selecting light compact self contained portable radios, placing them in the hands of the people and ensuring that the people were adequately trained in their use. The overall object of the Trail Communications project being to determine if this was a viable method of meeting such an internal communications requirement. Originally planned as a trial project in two areas, one in northwestern Ontario and the other in the Eastern Arctic's Keewatin District, Ontario Region was to administer the former and Central Region to be responsible for the Keewatin area. Ontario Region did not proceed with their project, leaving only the Central

Region project available for evaluation purposes. It was felt in Central Region that conditions appeared more favourable for evaluation of this type of communication in the Northwestern Arctic's Mackenzie District.

A Northern Communications Officer, socially oriented but with access to technical knowledge and resources, responsible to the Central Region was based in the Mackenzie Delta. Through a process of visiting various communities and ascertaining what existing communications needs were, Fort Franklin was selected as the most appropriate community in which to carry out such a trial project. Its economic base and geographical location made it a relatively independent community but with a strong requirement for improved internal communications.

COMMUNITY BACKGROUND

Located at latitude 65° 11' N, longitude 123° 16' W on the shore of Great Bear Lake, Fort Franklin's environment is often considered harsh by more southern standards. It is generally subject to strong cold lake winds and winter conditions were considered sufficiently severe to give a fair test of any field equipment. The nearest neighbouring community is Fort Norman, some 90 miles west down the Great Bear River. As the Fort Franklin people originally came from the Fort Norman Band, family ties and traditions are still very strong between these two communities despite their separation in a rather harsh environment. Fort Franklin is a small community of approximately 450 people, less than 10% of which are white, the balance are Slavey Indian. It recently attained Hamlet status and is presently governed as such. Approximately one third of the community earn their livelihood by trapping, hunting and fishing and about the same number of people may be absent from the Hamlet at any given time. Naturally, the absent one third of the population may often include the Chief, some councillors or other prominent people in the community. With the decision makers of the community absent on hunting or trapping excursions it is not unusual for a community such as Fort Franklin to make no decision at all on a matter which may seem very urgent to an outsider, simply because a respected community member or leader could not be contacted to give his opinion. The remaining two thirds of the population are employed either in Government positions, with exploration companies or in the operation of the Hamlet

proper (maintaining supply of power, water, fuel, etc.). There is some unemployment but it is seasonal in nature and the man who is unemployed in winter may work as a guide all summer while the winter trapper may find more time on his hands during the summer season. The people of Fort Franklin still often hunt as a community and are sufficiently isolated that Slavey remains their first language with English a second language particularly among the younger people. They hunt and trap according to the seasons prescribed by Game Officials of the Territorial Government and work co-operatively as a community with Game and Forestry Departments. While trapping, they operate singly and in groups of three to ten families which might reach a total of 30 to 40 people at maximum, along with their living tents, dogs or skidoos, sleighs, traps and food supplies. These family units make up small base camps from which they work outward.

EXISTING COMMUNICATIONS

Existing communication out of Fort Franklin consists of a two channel VHF breakout from the CNT Mackenzie pole line. Apparantly this is frequently inoperable and though it partially meets a need for communication southward, it is not designed for, nor applicable to, meeting a communication need between people in the community and others in the bush. Northward Aviation have an HF radio for company business only. The Indian Brotherhood of the Northwest Territories have an HF radio which provides inter-community communication. A Game Department high frequency radio exists year round in the community but its primary function is to supply inter-departmental communications. During summer months the Lands and Forest Service operate in the area, but again these are departmentally oriented high frequency radios whose function is meeting communication requirements of forestry personnel. No broadcast station covers the area, thus no broadcast of general information or "northern message" service is available. The RCMP do not have a detatchment at Fort Franklin, consequently no RCMP HF radio link exists either. It was felt that some form of communication must be provided to the man on the trail or trapline, and a study of suitable communication equipment available on the market was commenced with a view to the purchase of suitable units for the project.

SELECTION CRITERIA

Due to terrain and propagation it was decided that the medium to high frequency of the radio spectrum would be most suitable for this type of communication, preferably with a family of frequencies falling between one and ten megahertz. The area of operation was considered to be in a 100 mile radius around Fort Franklin, (Appendix H). To provide the communication needed, certain rather specific technical criteria had to be met:

(a) The equipment must be light in weight, preferably under ten pounds.

(b) It must be of rugged construction, able to withstand the rigours of rough trail operation.

(c) It should have a waterproof case.

(d) It must be battery operated by small sealed power cells, easily obtainable, of chargeable and non-rechargeable construction.

(e) It should come with its own antennas, preferably of both horizontal and vertical polarized radiation patterns, directional and non-directional.

(f) Power output must be in the order of five watts minimum.

(g) It must be capable of operating at extreme temperatures, particularly cold temperatures near -70^{o} Fahrenheit.

(h) It should have a minimum of two channels, preferably more.

(i) Recharging of the units should be compatible to both AC and DC sources if possible.

As well as the technical aspects, certain social factors had to be considered. The radios must:

(a) Be relatively simple to operate with a minimum of training and not subject to damage by misplaced switching.

(b) They must provide a form of communication that permits the people to converse in their native tongue.

(c) As near as possible the units should meet future requirements as well as present, that is, be of a type easily maintained by those with limited technical knowledge, be adaptable to improved power sources, meet future license requirements and in general not necessitate changes in these areas in the near future.

After a thorough study of equipment available, conducted by CRC, an HF transceiver of four channels was selected as meeting all the specifications for this particular project. Five units were purchased and shipped to the newly formed Northern Communications Section of Communications Canada's Central Region for introduction into the community.

COMMUNITY ACCEPTANCE AND INPUT

A second visit into the Fort Franklin community had been made by the Northern Communications Officer. Further discussion with community representatives took place. It was explained what units had been selected, what might be expected of the units, and generally co-ordinating the requirements of the community to the market product available. Out of this came a number of factors which were to prove highly relevant later in the program.

(a) The people requested that they be given both the Game and Forestry Department frequencies on the units. Subject to a non-abuse basis this was arranged. (Appendix A and B)

(b) The Indian Brotherhood of the Northwest Territories, operating some 25 HF radios throughout the Great Slave and Mackenzie areas already had a Marconi CH-25 transceiver located in the Community Chief's house. This was to be the primary base station into which the trail units would operate. Accordingly, the remaining two channels were assigned to IB-NWT frequencies. This was done on the IB-NWT condition that they assume ownership of the units at the project's end. (Appendix C)

(c) The people were made aware that a response would be made and that their input into the project would have an effect. The suggestions they made would be considered and wherever possible implemented or a reason given for any rejection.

(d) The units would be brought in, not sent in, and they would be shown how to properly set up and operate them.

PLACEMENT IN THE FIELD

On December 6, 1973, a Project Manager of the Northern Communications Section, technically oriented but with some sociological training and northern experience, went in to Fort Franklin with the units, (Appendix D and E). Training on operation and operating maintenance was given to all who were interested in it and several members of the community went out with the units to surrounding trapping camps and demonstrated their ability to set the units up and properly operate them on their own, before the Project Manager prepared to leave the community. Only male operators were trained at Fort Franklin, no females expressed interest in the training at Fort Franklin and an attempt was made by the DOC representative at all times to avoid disrupting what might be a normal social pattern. In addition, the Project Manager set up one unit in the Hamlet Council office as a back-up to the IB-NWT radio located in the Chief's house, as access to this radio was inhibited by the Chief's varying absences on the traplines. While in Fort Franklin, an urgent request for one of the five units was received from the IB-NWT headquarters in Yellowknife to supply communication to the isolated community of Snare Lake (population approximately 40), located approximately 126 miles north of Yellowknife. This was agreeable to representatives of the Fort Franklin community, and one unit was then taken to Yellowknife and turned over to the IB-NWT Communications Co-ordinator. The Co-ordinator was given training in operation and operational maintenance and he was to see to its installation at Snare Lake on the

next charter flight in. It was agreed at that time that this unit would be considered an extension of the Fort Franklin Trail project and make up part of the evaluation at a later date. Necessary log sheets were left with the unit in Yellowknife. The Project Manager then returned to Regional Headquarters and the people were left on their own with the units for the next three months with the Northern Communications phone number to call if they felt it necessary. No calls were received.

PROJECT ASSESSMENT

At the end of February, 1974, the Project Manager returned to Fort Franklin to assess the units after approximately one quarter year's operation in mid-winter, which probably offers the most difficult operating period insofar as environment is concerned. The four remaining radios were all found to be operational, as was the IB-NWT base station. The only damage was a broken dipole antenna which was damaged when a walk-in freezer unit supporting one end of the antenna was moved. All units were active in the field. One unit was at Johnny Hoe River trapping camp replacing a Game Department radio that had gone defective. A second unit was at Cloud Bay trapping camp, another at the Russell Bay camp and the fourth being used on a combined Game Department and community caribou hunt. A request had been made to the Hamlet Secretary/Manager, when the units were first taken in, to keep a record of who signed radios in and out of the Hamlet Office during the pilot period. A form was designed and provided which would supply pertinent data in a simplified form (Appendix F). This was maintained until the gentleman went to Inuvik, N.W.T. to represent his people at a conference and his successor did not perpetuate the paper work, though the movement and exchange of radios continued. On the Secretary/Manager's return the practice of keeping track of the movements on paper was allowed to lapse entirely and was not resumed. A log sheet had likewise been designed (Appendix G) that would help indicate how, when and where the units were used. Another reason for setting up one unit in the Hamlet Office was to allow the staff there to monitor

and log as much of the activity as possible since it was impractical to ask a native trapper to carry pencil and log sheets out on the trapline, particularly if he was unilingual Slavey, or with limited education insufficient to allow him to comprehend or complete the log. The Hamlet monitor system worked only to a limited degree, in that they appeared to log only whatever incidents caused significant responses such as excitement, worry, etc. Within a month, the antenna was damaged as noted earlier in this report, and the monitoring by the Hamlet staff was terminated. The people did not repair the broken antenna, instead they elected to use the unit in a new role in a mobile situation in snow vehicles and occasionally in an aircraft where permanent antennas were already available and where they considered the radio to be fulfilling a more useful role than in the monitoring.

The trapping element of the community is well represented on the Fort Franklin Hamlet Council. Although it need not necessarily be so, the present Band Chief is also Chairman of the Council and over half of the present council are trappers, hunters, fishermen or guides. Evaluation data was, therefore, obtained by meeting with the Council as well as talking to individuals in the settlement who had used the units under field conditions. The following information was compiled:

(a) The units are meeting standards of ruggedness quite adequately.

(b) At Fort Franklin, little or no problem is being encountered with rechargeable batteries and for this reason, this type is preferred.

(c) Using only batteries as a power source is no problem as they can easily be warmed to body temperature. Because there are relatively large numbers of people working in a comparatively small triangular area, (Appendix H), the radio need not be brought in to recharge the batteries, individuals travelling from one point simply carry charged batteries out of Fort Franklin to a camp with a radio, while others, coming in bring low batteries in for recharge.

(d) The dipole antennas are being used almost exclusively because of their directional capability and the greater range they provide.

(e) Setting up the dipole in an area like Fort Franklin with its adequate tree cover is no problem.

(f) The units cover the required and desired area fairly consistently. Depending on the propagation conditions the units will work much greater distances but with less regularity, i.e. Franklin to Yellowknife.

(g) The people consider them excellent as transportable equipment, being neither too heavy, bulky or difficult to set up and operate.

(h) The radios are versatile enough to operate as base, transportable and mobile stations from snow track vehicles and aircraft, and have already been employed in these capacities with good communications results.

(i) The people anticipate utilizing the units from boats as well with the vertical antennas as soon as the lakes and rivers are open. The radios were used both during the day and evening. Generally the camps with radios come on approximately 9 AM and again shortly after darkness falls in the evening. These were general times, no fixed or rigid schedules were set up or maintained.

(j) The radios were used primarily as a means of exchanging information on the day's activities, movement of game, and for social conversation.

(k) Slavey language was used almost exclusively among the Fort Franklin people.

(l) English was used when they worked other bands, (Dogrib people at Fort Rae, Slavey people at Franklin, common language would be English).

(m) Although no occasion arose where they worked Forestry stations, they frequently worked Game Department stations. They pointed out that the requirement for a Forestry frequency will be in the summer during fire season.

(n) The 4 MHz IB-NWT frequency was the favoured and primarily employed frequency.

(o) Only one situation occurred during this period of operation which could be considered as an emergency situation. A Bombardier snow vehicle broke down some 40 miles out of Fort Franklin during a period of very low temperatures. The Bombardier was equipped with radio and one of the Fort Franklin people intercepted the call on one of the trail units and sent assistance.

(p) All members of the community had access to the radios.

THE SNARE LAKE EXTENSION

As mentioned previously, one of the five original units was dispatched to Snare Lake to meet an urgent communications need. Here the unit was used as a base station from an isolated community, fixed at one location and the IB-NWT Communications Co-ordinator gave the operations training and operating maintenance training to a female who established the station at Snare Lake. Log sheets were not kept up by either the Snare Lake unit or the Yellowknife control station so data as to type and hours of operation came from conversation with the Communications Co-ordinator, Yellowknife. He requested that they come on once daily at approximately 4 PM. However, once given the unit, the Snare Lake people tended to come on early and leave late, working other IB-NWT stations, so there is little doubt that the unit is meeting a communication need. These people do not lend themselves readily to structured rigid schedules. One problem has developed with the Snare Lake unit that was not apparent in the Fort Franklin situation. Since these people have neither power generators or storage batteries and as their travel to and from a settled area is limited, they have no method of recharging the batteries since this is done with the batteries in the radio by connecting an AC or DC source. Few charter flights go into the settlement and at present, the supply of power is being met by continued purchase of the cheaper non-rechargeable batteries. A requirement of some form of charger, perhaps wind driven, exists here and would be useful though not necessary in Fort Franklin. The reluctance of the Snare Lake people to stick to a rigid reporting schedule compounds

the problem of battery supply. The Snare Lake radio is established in a private home, not the Chief's, and the primary controlling operator is the female designated by the IB-NWT Co-ordinator.

COST-BENEFIT ANALYSIS

All technical requirements are being quite adequately met by the selected units and their adaptability and versatility are proving to be a valuable asset in the northern environment. Although emergency requirements are of course essential, the real value of these units appears to be in the improved communication they bring to their daily lives. Prior to the introduction of the trail units, communication was by word of mouth and community decisions were often delayed for long periods of time. Trail radios eliminate a good portion of this. A desire for more of these units was strongly expressed by several individuals in the community and by Chief George Kodakin, both in and out of Council. Chief Kodakin felt that four more would meet Fort Franklin's needs of providing communications to nomadic groups from the community. By the Chief's estimation, this would be a requirement of approximately one radio per fifty people for a community of this size, in this area, with this type of economic base and social patterns. Actual cost of placing the units into the area is difficult to determine. The units themselves were approaching one thousand dollars each and when one considers the travel expenses and man hours of the Northern Communications Officer and the Project Manager involved, the cost could easily be doubled. Another difficulty in assessing cost versus benefit is the fact that it is exceedingly difficult for one to place a price tag on social benefits derived by a community whose fragmentation by physical separation is no longer as complete or whose community administration functions more smoothly because long delays

awaiting the return of specific individuals is no longer a problem. It is generally accepted that emergency communications involving safety of life, are not priceable commodities. These units are serving an emergency communications function as well, and this cannot be ignored as a benefit. When we consider that we have here a communication technology that is adapted to culture factors of language and subsistence skills rather than adapting the culture to the technology, the cost would certainly appear to be reasonable for the benefit gained. This view is further supported by conversation with the Communications Co-ordinator of the IB-NWT who, knowing existing costs, has expressed an interest in expanding into trail communications. The IB-NWT assumed licensing responsibility of the Fort Franklin Trail Communication units as of March 31, 1974.

EXPANSION PROBLEMS

Expansion into other communities might be carried out by organizations such as the IB-NWT or individual Hamlet or Settlement Councils. In any event, it is well within the Central Region's existing capabilities to respond with technical advice and to provide operational training to settlements wishing to expand into trail communications. Inherent with expansion will come problems not previously encountered:

(a) Apathy by the people if they are not first educated as to just what trail communications can provide.

(b) Improper use of the radio spectrum if the people are not properly trained in proper operating technique.

(c) Abuse of equipment if the people do not have the desire or pride in their communications system.

(d) Maintenance problems due to the selection of poor or unsuitable equipment.

(e) Routine maintenance problems as the equipment ages.

(f) Varying results with varying terrain, i.e. operation in the treeless barren land as opposed to heavily treed areas where dipole antennas are more easily erected.

What social changes may arise in the future it is difficult to assess. Certainly present indications are that Trail Communications will result in better self-administration by the people and still allow them to maintain cultural habits of livelihood and language while competing in a rapidly expanding technological society. The units became operational

in early December, 1973 and the present assessment completed in early March, 1974. On the basis of the limited amount of field trial, it would appear that Trail Communications is a viable way of meeting present requirements in remote areas where the socio-economic base is still established in primary land resource enterprises of guiding, hunting, trapping and fishing.

APPENDIX A
PLEASE QUOTE
FILE 63-001-028

GOVERNMENT OF THE NORTHWEST TERRITORIES
CANADA

Yellowknife, N.W.T.,
X0E 1H0

April 2nd, 1973.

District Manager,
Department of Communications,
P.O. Box 540,
Fort Smith, N.W.T.

Dear Sir:

This refers to our telephone conversation of today's date.

We have no objection to your Department installing frequency 5031 in radios to be used in the Fort Franklin area. It is understood that the radios are to be used by trappers and this frequency is required for emergency use only. This authority is subject to review June 1st, 1974.

We would be very interested in hearing of the details of your experimental program. It is encouraging to hear that more communication will be available in the remote areas but there is some concern that some co-ordination of effort should be considered.

Yours sincerely,

P.A. Kwaterowsky,
Superintendent
of Game.

YK 673-261

APPENDIX B

Indian and Northern Affairs / Affaires indiennes et du Nord

P. O. Box 7
Fort Smith, N.W.T.
XOE OPO
March 19, 1973

Your file Votre référence

Our file Notre référence

Dept. of Communications
Fort Smith, N. W. T.

Dear Sir:

This letter will constitute your authority to utilize the frequency 5730 KHZ (SCF) in D.O.C. proposal for communications in the Fort Franklin area.

It is understood that this system will be operated by local people in the area and the above frequency will be used only for emergency traffic and the reporting of forest fires. Abuse of the above will result in cancellation of this authority.

Yours truly,

A. Edge
Communications Super.
for B. F. Simpson
Superintendent
Northwest Lands &
Forest Service

5731.5 KC/S
(5730.0)

RECEIVED
MAR 20 1973
DEPARTMENT OF
COMMUNICATIONS

APPENDIX C

Indian Brotherhood of the Northwest Territories

EXECUTIVE OFFICE

P.O. Box 2338,
Yellowknife, N.W.T.

File: Communications
Radio Telephones.

January 30, 1973.

Miss Rosalie Tizya,
Dept. of Communications,
Inuvik Research Laboratory,
Inuvik, N.W.T.

Dear Rosalie:

Regarding your proposal for setting up five mobile radios for trappers in a community such as Fort Franklin on an experimental basis, the Brotherhood would be pleased to have these mobiles incorporated into our radio-telephone network.

We have four channels. It has been suggested that you would need two for your purposes, 2240 R.E.F. & 4967 R.E.F. (Assigned frequency 224 1.5 K cls & 4968.5 K cls.) This letter will authorize you to use these frequencies.

We understand that the Department of Communications will apply for the licences, but upon completion of your experiment and research we would want the mobiles turned over to the Brotherhood to remain as part of its radio-telephone net-work.

We hope this is satisfactory to your Department. If you have any questions or comments please let us know.

Sincerely

James J. Wah-Shee

James J. Wah-Shee
President.

JJW/rh

TELEX 037-4-5556

TELEPHONE 873-4081 (AREA CODE 403)

APPENDIX D

600 - 266 Graham Avenue
Winnipeg, Manitoba
R3C 0K7

December 18, 1973

6831-44

Mr. P.A. Kwaterowsky
Superintendent of Game Branch
Government of the Northwest Territories
Yellowknife, N.W.T. X0E 1H0

Dear Sir:

Reference is made to your letter of April 2, 1973 to the District Manager, Department of Communications, Fort Smith in which you indicate that you have no objection to the installation of your assigned frequency 5031 KHz in five transportable stations to be used in the Fort Franklin area as a part of this Department's Northern Pilot Project.

The experimental project started on December 6, 1973 when the five transportable units were taken into Fort Franklin and evaluation will be carried out over the winter months. One unit has since been relocated to Snare Lake at the request of the Indian Brotherhood of the Northwest Territories and its function will be evaluated at that location.

The units were set up to operate primarily on the Brotherhood frequencies with the Game Branch and Forestry Services frequencies as an emergency back-up and while locally coordinated communication with your stations will likely develop, please let us know if un-coordinated use of your frequency causes a problem to your system.

We will keep you informed of the progress and results of this experimental project involving trail communications for hunters and trappers in remote areas.

Yours very truly,

A.A. Simpson
Chief, Northern Communications
Central Region

APPENDIX E

600 - 266 Graham Avenue
Winnipeg, Manitoba
R3C 0K7

December 18, 1973

6831-44

Mr. A. Edge
Communications Supervisor
Northwest Lands and Forests Service
Department of Indian and Northern Affairs
P.O. Box 7
Fort Smith, Northwest Territories

Dear Sir:

Reference is made to your letter of March 19, 1973 to the District Manager, Department of Communications, Fort Smith in which you indicate that you have no objection to the installation of your assigned frequency 5730 KHz in five transportable stations to be used in the Fort Franklin area as part of this Department's Northern Pilot Project.

The experimental project started on December 6, 1973 when the five transportable units were taken into Fort Franklin and evaluation will be carried out over the winter months. One unit has since been relocated to Snare Lake at the request of the Indian Brotherhood of the Northwest Territories and its function will be evaluated at that location. The units were set up to operate primarily on the Brotherhood frequencies with the Forestry Service and Game Branch frequencies as emergency back-up. Please let us know if un-coordinated use of your frequency by these stations causes a problem to your system.

We will keep you informed of the progress and results of this experimental project involving trail communications for hunters and trappers in remote areas.

Yours very truly,

[illegible]

A.A. Simpson
Chief, Northern Communications

Unit Number 3 Serial Number _____ Call Sign XL1861

(- - - Check (✓) Here - - -)

APPENDIX F

COMPLETE WITH

Date Issued	To	Unit No.	Dry Bat.	Nic. Bat.	Vert.	Di-pole	Date Returned	As Issued	Remarks
1/11/74	Jeremy Dillon	3		✓	✓	✓			TRAP Line (Grizzly Bear Mountain unit Taken To people at Russel Bay Camp
8/12/73	Dolphus Tutcho	1	✓	✓	✓	✓			
10/1/74	Napoleon	4	✓	✓	✓	✓			Trapping Line
11/1/74	DolPHus Baton	1	✓	✓	✓	✓			Unit At Russel Bay To Be Taken To MacKINTOSH Bay (SKed 3-5 week Day) by D. Bato
28/1/74	MoiSE BayHA	5	✓	✓	✓	✓			TRAP LINE XL1863
26/2/74	GAME Johnny Vaydla	4	✓	✓	✓	✓			CariBou hunt
	Joe NAEDZO		✓	✓	-	-			TRAP LINE -

Message Code

1. Not heard.
2. Very difficult.
3. Fair.
4. Good.
5. Excellent; very clear.

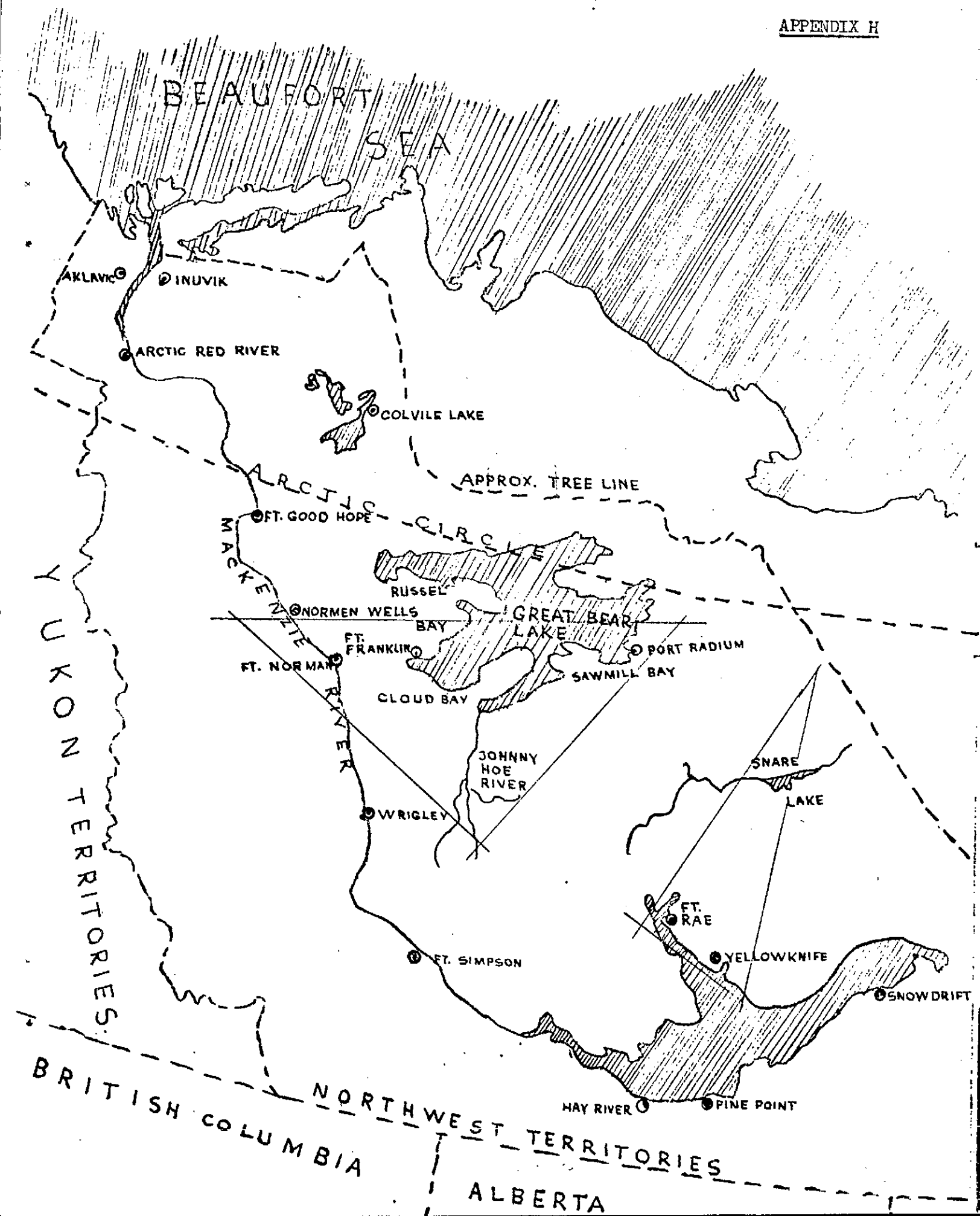
What Message is all About

A. - Aircraft movement.
B. - Business.
G. - Game Dept./Forestry.
E. - Emergency.
N. - News or information.

Station __________________

Date	Time	Channel #	Message Code	Station To	Station From	Callers and Message
8/12/73	7:45 PM	B	3-4	XL1859 Russel Bay	XL1863 Ft FRANKLIN	Establish Communications and Inquiring if Game Dept. plane going to Russel Bay Today. Set up Scheduled Call for 10 AM Tomorrow morning.
8/12/73	8:00 PM	C	3	XL1859 Russel Bay	XL1563 Ft FRANKLIN	Game department wish to talk to Game officer
8/12/73	8:45 PM	C	3	"	"	CONVN Between Game officer and Employee at Russel Bay
9/12/73	10:15 AM	B	2	XL1859 Russel Bay	XL1860 Ft FRANKLIN	Very Weak, Conversation Incomplete
9/12/73	10:30	B	3	XOY544 Yellowknife	XL1860 Ft FRANKLIN	Heard us calling Russel Bay - Readable both ways
10/12/73	10:55	B	4	XOY544 Yellowknife	XL1861 Ft FRANKLIN	Robbins - Blondin - CONVN Re Transfer of 1 unit To Yellowknife and Training program.
DEC73	4:15	B	5	Colville Lake	XL1861 Ft FRANKLIN	Radio check
/1/74	4.45	B	5	Ft Norman	XLI 862 Ft. FRANKLIN	CONVERSATION Between Ft Norman & Ft. Franklin conversation ~~for the first~~ Time between FN & FF
/7/74	10:30	B	3-4	XLI 859 Russel Bay	XLI 862 Ft. Franklin	check to see if every thing is ok. (Roger)
/14/74	10:00	B	2-3	XLI 861 Grizzly Bear Hill	XLI 862 F.F.	Very Weak conversation incomplete.
/14/74	3:00	B	5	Fort Rae	XLI 862 F F	Recieved message Clearly Conversation Complete
/15/74	9:30	B		UNKNOWN	FF	AIRIAL AT HAMLET OFFICE BROKE, CAN HEAR ONLY [illegible] communication with others

APPENDIX H


BEAUFORT SEA
AKLAVIK
INUVIK
ARCTIC RED RIVER
COLVILE LAKE
APPROX. TREE LINE
ARCTIC CIRCLE
FT. GOOD HOPE
MACKENZIE RIVER
RUSSEL
NORMEN WELLS
BAY
GREAT BEAR LAKE
FT. FRANKLIN
FT. NORMAN
PORT RADIUM
SAWMILL BAY
CLOUD BAY
JOHNNY HOE RIVER
SNARE LAKE
WRIGLEY
FT. RAE
FT. SIMPSON
YELLOWKNIFE
SNOWDRIFT
HAY RIVER
PINE POINT
YUKON TERRITORIES
BRITISH COLUMBIA
NORTHWEST TERRITORIES
ALBERTA

RELATED RESOURCE MATERIAL

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