

ORGANIZATION AND ADMINISTRATION

DEFENCE RESEARCH NORTHERN LABORATORY

FOR CROSS REFERENCES SEE INSIDE COVER

ROUTING				P.A. & B.F. ENTRIES				REGISTRY ONLY	
REFERRED	REMARKS	DATE OF PASS	INITIALS	DATE OF P.A.	INITIALS	DATE OF B.F.	CANCEL B.F.	DATE RECEIVED	IN-SPECTED
✓ DBL/1/64	Request	25/3/64	CR	24/3/64	FR			MAR 26 1964	6
DS15 (Mrs Carlos)	Request	9/4/65	CR	23/4/65	FR			APR 26 1965	
DC/ORB 7	PER REQUEST	DEC 15 1965		16/2/65	DR			DEC 16 1965	

**“B.F.”—DO NOT HOLD THIS FILE WHEN LAPSE
IN ACTION MAY EXCEED 48 WORKING HOURS**

FILE NUMBER: *DRBS. 100-30/0 Vol 1*

CLOSED VOLUME

VOLUME *2.* FOLLOWS

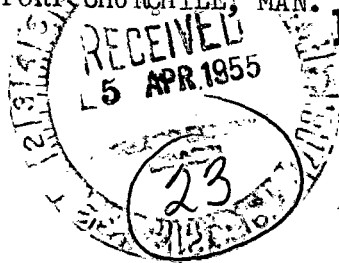
NO FURTHER CORRESPONDENCE TO BE PLACED ON THIS FILE



DEPARTMENT OF NATIONAL DEFENCE
CANADA

DEFENCE RESEARCH BOARD
DEFENCE RESEARCH NORTHERN LABORATORY
FORT CHURCHILL, MAN.

IN REPLY PLEASE QUOTE
DRNL/C-1002(A)



P. A. → 100 - 30/0
CONFIDENTIAL

30th March, 1955.

Chairman,
Defence Research Board,
"A" Building, NDHQ,
OTTAWA, Ontario.

Referred to Grants & Con
APR 4 1955
100-30/0
Chgd to 4/4

Attention: Mr. A.S. Shore, File 100-30/0
Grants and Contracts

Dear *aff.*

Reference is made to your DRB 100-1 (SSO/GC) dated 17th March, 1955.

I have studied your memo and have broken down the effort of the staff as you suggest. Please find enclosed:-

- (1) A list of professional personnel, DESO's and DRTO's, employed in the Establishment as of 30th March, 1955.
- (2) A breakdown of the scientific and administrative organization of the Establishment as of 31st December, 1954.
- (3) An estimate of the probable expenditure in the Technical Fields for the fiscal year 1954-55.

Item 3 above is a rather difficult one to detail with any degree of accuracy, for this Establishment, like any other, suffers from a staff turnover and it is very hard to average out the effort throughout the year. However, the figures quoted are more than a guess, they are a rough estimate.

I am sorry this information will not reach you before 31st March, but I did not receive it here until the 22nd and the dog team only goes out every second day.

With every best wish to yourself and Mel,

Le. M. Pennie
Superintendent. (Per *W. H. R.*) 000003

CONFIDENTIAL

APPENDIX I

Station	Group or Section	Name and Grade	Projects Engaged on		Effort per Technical Field	
DRNL	Physics & Chemistry	Brandy, J.H. DSSO 4A	D45-82-10-02 D77-94-40-03	D45-93-10-02 D72-97-40-02	Land Vehicles 5% Arctic Specific 30% Maths & Physics General 15%	Subsistence 10% Electronics General 30% Operational Evaluation General 10%
DRNL	Physics & Chemistry	Seaman, E.A. DRTO 2	D45-93-10-02		Electronics General	100%
DRNL	Physics & Chemistry	Lytle, E.A.L. DRTO 2	D45-82-10-02		Land Vehicles 20% Electronics General 50%	Maths & Physics General 15% Mechanical & Electrical Engineering 15%
DRNL	Physics & Chemistry	Worrall, K.A. DRTO 2	D72-97-40-02	D77-94-40-05	Arctic Specific 80% Electronics General 5% Human Engineering & Work Methods 10%	Mechanical & Electrical Engineering 5%
DRNL	Mechanical Engineering	Templeton, J.B. DSSO 4B	D45-50-01-01 D72-97-40-02	D45-69-10-02 D77-94-40-03	Land Vehicles Engines 50% Arctic Specific 20%	Mechanical & Electrical Engineering 30%
DRNL	Operational & Human Resources Research	Coffey, M.F. DSSO 2	D45-93-10-02 D77-94-40-03 D72-94-40-02	D77-94-40-02 D77-94-40-05	Clothing 25% Arctic Specific 20%	Survival Equipment 30% Human Engineering and Work Methods 25%
DRNL	Operational & Human Resources Research	Ross, D.I.	D77-94-40-02 D77-94-40-05	D77-94-40-03 D72-97-40-02	Clothing 15% Habitations 10% Selection & Training 25%	Subsistence 5% Survival Equipment 15% Human Engineering & Work Methods 30%

sen L

Lennie - Supr -

divided - all categories

...../2

CONFIDENTIAL

APPENDIX I

-- page 2 --

Station	Group or Section	Name and Grade	Projects Engaged on		Effort per Technical Field	
DRNL	Operational & Human Resources Research	Looker, A.J. DSSO 2	D77-94-40-02 D77-94-40-05	D77-94-40-03 D72-97-40-02	Clothing 15% Survival Equipment 10% Human Engineering & Work Methods 20%	Habitations 15% Arctic Specific 30% Selection & Training 10%
DRNL	Physics & Biochemistry	Leblanc, J.S. DSSO 3	D45-68-01-02 D77-94-40-02 D77-94-40-05	D45-93-10-02 D77-94-40-03	Clothing 15% Pest Control 10% Occupational Medical 30%	Subsistence 15% Survival Equipment 10% Arctic Specific 20%
DRNL	Physics & Biochemistry	Eagan, C.J. DRT0 2	D45-93-10-02	D77-94-40-02	Clothing 20% Survival Equipment 10% Arctic Specific 25%	Subsistence 15% Occupational Medical 30%
DRNL	Entomology & Botany	Beckel, W.E. DSSO 2 (on financial assistance at Cornell University)	D45-68-01-02		Pest Control 100%	
DRNL	Operational & Human Resources Research	Easterbrook, J.A. DSSO 3	D72-94-40-08		Easterbrook has been on loan to JSORT, Edmonton and has made no scientific contribution to this Establishment.	

Listed with ORG.

mb

CONFIDENTIAL

DRBS 100-1 (SSO/GC)

LIST OF TECHNICAL FIELDS

<u>ATOMIC WARFARE</u>	<u>Number of Scientists</u>	<u>Expenditures in \$ x 10⁻³</u>
Atomic Weapons		
Protective Devices (A)		
Radiation Detection		
Radiological Intelligence		
<u>BIOLOGICAL WARFARE</u>		
B-Agent Weapons		
Detection and Protective Devices (B)		
<u>CHEMICAL WARFARE</u>		
C-Agent Weapons		
Detection and Protective Devices (C)		
Flame and Smoke		
<u>ARMAMENT</u>		
Conventional Weapons		
Rocket Weapons		
Guided Missiles		
Explosives and Ballistics		
<u>WEAPON CARRIERS</u>		
Ships		
Marine Engines		
Aircraft		
Aircraft Engines		
Land Vehicles	0.20	6.0
Land Vehicle Engines	0.80	24.0
Dockyard Laboratories		

-2-

CONFIDENTIAL

ENVIRONMENT

Clothing	1.0	30.0
Subsistence	0.3	9.0
Habitations	0.5	15.0
Pest Control	0.5	15.0
Survival Equipment	0.3	9.0
Arctic Specific	1.5	45.0

MEDICAL

Occupational Medical	0.6	18.0
A/W and C/W Medical		
Medical Treatment		

HUMAN RESOURCES

Human Engineering and Work Methods	1.0	30.0
Selection and Training	0.5	15.0
Sociological Research		
Manpower		

INFORMATION

Communications		
Radio Detection		
Navigational Aids	0	0
Data Processing		
E.C.M.		
Undersea Detection		
Visual and Photographic Observation		

000007

CONFIDENTIAL

-3-

SUPPORTING RESEARCH

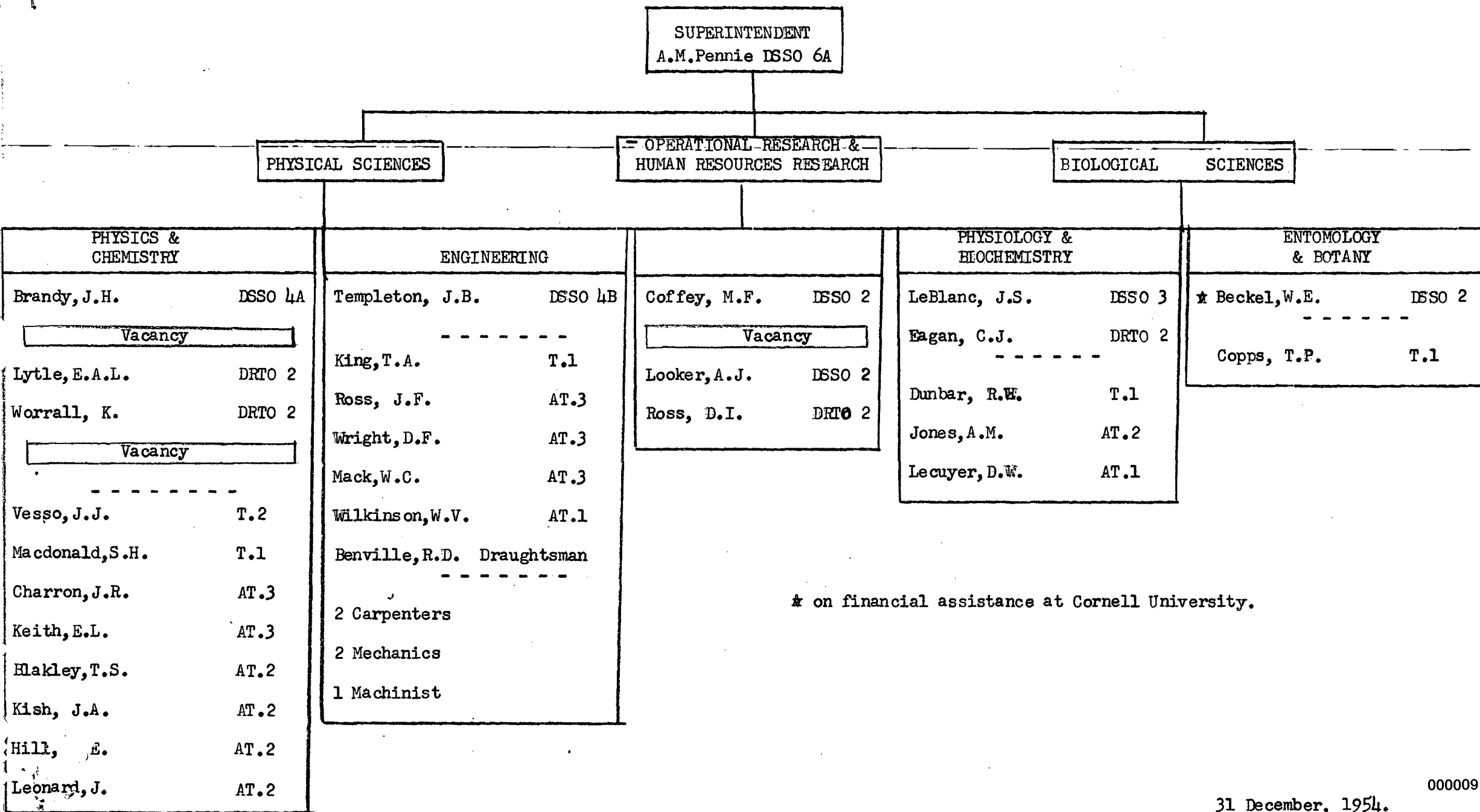
Aeronautics General		
Biology General		
Chemistry General		
Electronics General	2.5	75.0
Maths and Physics General	0.3	9.0
Mechanical and Electrical Engineering	0.5	15.0
Metallurgy		
Oceanography and Hydrography		
Operational Evaluation	1.5	45.0

SPECIAL MILITARY CATEGORIES

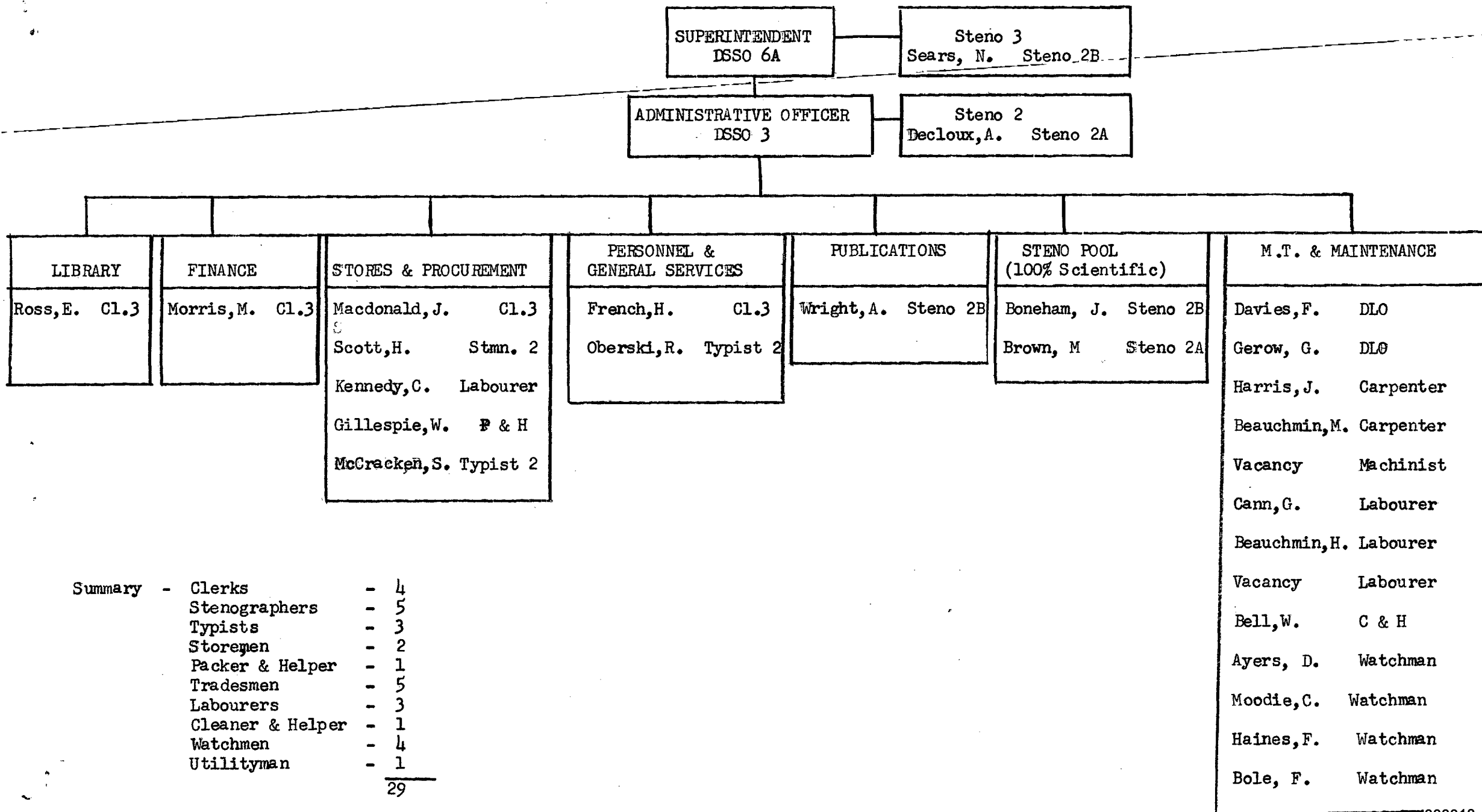
Engineering Development
Mine Disposal
General Stores

Total number of scientists - 12
1954-55 Cash Estimates \$361,000. ?
360,000

DRNL TABLE OF ORGANIZATION - SCIENTIFIC



DRNL TABLE OF ORGANIZATION - ADMINISTRATION



E.R.
6090

as flag A is better from
HKRH re their winter
programme.

as flag B. is list of
projects which are in
the "deep-freeze" for the
present.

Would you like to
discuss with me when
you have time.

Might be as well to
let Med & HKRH see this
& maybe all of us get
together. Will speak about
this when you get back.

\$
Antic

000011

70243
DEPARTMENT OF NATIONAL DEFENCE
ARMY



1955 MAR 31 PM 4:16

HQS 2482-2 TD 5088 (CAORE)

REFERRED TO *DRB (Arctic)*
FILE *DRBS 52-750-266*
CHG'D TO *7/2*

30 Mar 55

OTTAWA

The Chairman
Defence Research Board

Summer Programme, DRNL

1. Reference is made to your letter DRBS 52-750-266 (Arct) dated 11 Jan 55.
2. Attached are self-explanatory letters from DE&CD, DVD and DID which were passed to us through DQMG (D&D). It is suggested that further negotiations on the above subject be carried out between SSO/Arctic and the directorates concerned through the office of the DQMG (D&D).
3. The directorates mentioned in para 2 were the only directorates from which a positive reply was received concerning the possibility of having problems investigated in the summer programme of DRNL.

D.B.W. Robinson
(D.B.W. Robinson)
Senior Research Officer
Canadian Army
Operational Research Establishment

DBWR/0185/

Encl: 6

cc: DQMG (D&D) less attachments



CANADA

Department of National Defence
Army

IN REPLY PLEASE QUOTE

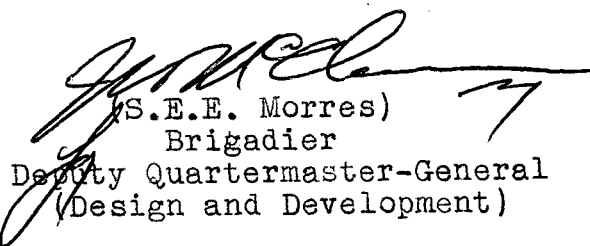
No. DQMG BDF 1-0-4.
1-1
DQMG(D&D).

OTTAWA, 24 Mar 55

Senior Research Officer
Operational Research Establishment

Summer Programme
DRNL

1. Reference your memo on above subject dated 9 Feb 55 which was addressed directly to all development directorates.
2. Attached herewith are replies from DE&CD, DVD, and DID asking for investigations and also replies from DAD and DED stating they have no tasks for DRNL at present.
3. Please advise action taken.


(S.E.E. Morris)
Brigadier
Deputy Quartermaster-General
(Design and Development)

Encl.

MEMORANDUM

DECD S3-2

OTTAWA, 17 MAR 55

DQMG (D&D)

Summer Programme, DRNL

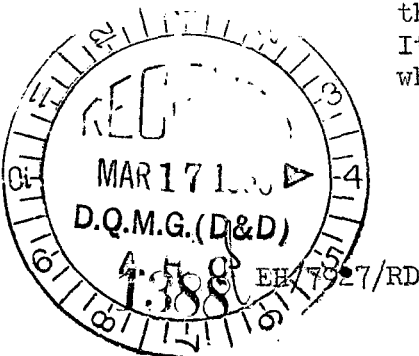
1. Reference DRNL/C-1002 dated 8 Jan 55 and covering memo from CAORE dated 9 Feb 55.

2. LF Antenna System

- CASEE*
bury in
layer
- (a) It is desired to have DRNL make measurements which will determine the effective impedance of a portable low frequency antenna system over the variety of ground conditions existing in the Churchill area, and to determine the variation with different seasons of the year. This information would extend the information obtained from work done at Ottawa, and would form a basis for further work at other locations throughout the North.
- (b) Measurements are required of the impedance of ground systems laid over the earth at various times during the summer and over various depths of snow in the winter. As a reference a typical ground system (or systems) should be buried under the earth, and impedance measurements performed concurrently.
- (c) Simultaneous measurements of properties of the earth are also in order. Wave tilt, mutual coupling between loops on the ground, or some related method may be employed. Information concerning depth of permafrost, summer thaw, and other forms of stratification would be most useful.
- (d) If this work is undertaken by DRNL further information as to the types of antenna and ground systems of interest will be supplied by CASEE. The required antenna kits may also be obtained from CASEE.

3. VHF Propagation

- (a) Another problem has to do with propagation at VHF, particularly at the frequencies of the one mile and five mile sets. It has been found in field trials that the range obtained at Churchill is not as great as that achieved at Valcartier, in spite of the fact that the ground is more level at Churchill. It was also observed that reception is more dependant upon antenna orientation and the position of the body with respect to the set. The effects may be due to poor ground conductivity in the North, to local anomalies in the ground, or to some unusual reflection effects.
- (b) It is suggested that ground characteristics be investigated in the frequency range 20-70 mc/s, or some portion thereof. Measurements may also be made of the rate of attenuation and the polarization of the field at distances up to 10 miles. It should be possible to correlate these results by formulae which have been published by Norton and others.



E. Haman
JH Haman
(JH Haman) Colonel
DE&CD

000014

MEMORANDUM

HQ 2380-1975/4 (DVD 2)

OTTAWA, 3 Mar 55

DJMG(D&D)

Summer Programme
Defence Research Northern Laboratory (DRNL)

1. While DRNL are providing assistance to DVD in Arctic tests at Churchill this winter, the full capabilities of the laboratory are not known. It is requested that a synopsis of the facilities available be passed to DVD in order that full use may be made of them.

2. At the present time it appears that DRNL assistance would be of value in

(a) Tests of a light-weight, low temperature flexible tarpaulin, which are expected to commence late this summer on a year around basis.

*nylon, rubber-coated
product, designed to
fit 2 1/2-ton vehicles
-65°F*

(b) Instrumentation of a Space Link Track test rig prior to test in the Churchill type of muskeg.

*trunk cargo
2 1/2-ton 6x6
M1135 series*

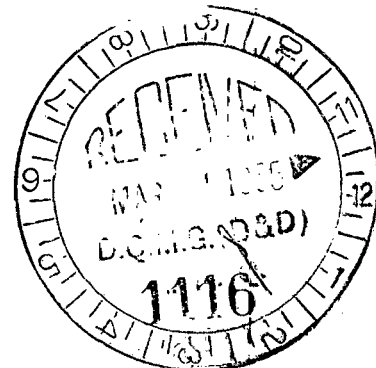
See also HQ 2380-1975/4

(R L FRANKLIN)
for Colonel

Ree

TRH/7268/1s

Director of Vehicle Development



M E M O R A N D U M

3 Mar 55.

CAORE
thru DQMG (D&D)

Summer Programme
Defence Research Northern Laboratory

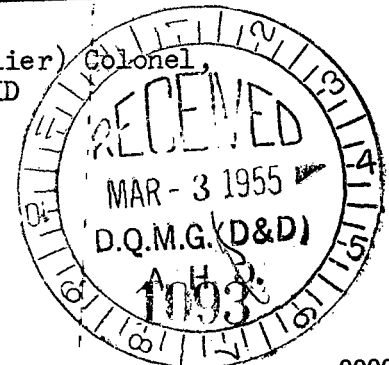
Reference CAORE letter dated 9 Feb 55, concerning the m/n subject.

2. Cdn. operational research on the north has in the main concentrated on extreme cold conditions, with the result that little is known of the conduct of operations during the in-between seasons particularly, and more generally during the summer months.

3. It is suggested that one week of each month from now until Nov. be employed by an operational research team at Churchill, to define the significant factors of the warmer period and their effect on tactical doctrine, and evaluate the performance of standard or developmental clothing and general stores when used in the total environment under service conditions.

4. DID would be prepared to assist in such a programme. If the suggestion receives favourable consideration a small conference could be held to work out the details.

H.A. Delcellier
(H.A. Delcellier) Colonel,
DID



000016

PA

DRBS 52-750-266 (HRR)

OTTAWA, ONTARIO,

1 March, 1955.

Supt.,
DRNL.

Visit - Dr. Ruth Hoyt

1. I should like to express my appreciation both to you and your staff for the very pleasant and informative week I spent at Churchill. I do have a much better concept of your program and also a better idea of what can be conducted in the way of research at Churchill effectively.
2. I have not as yet had a chance to discuss the program with Colonel Schmidlin or Dr.K.C. Fisher, but expect to see Dr. Fisher also Dr. George Smith next week.
3. Will you please convey my thanks especially to Mr. Winser and Mr. Coffey.

Ruth Hoyt

(Ruth Hoyt)
Human Resources Research Section,
for Chairman, Defence Research Board.

RE/gv

PA

DRBS 52-750-266 (HRR)

OTTAWA, ONTARIO,

1 March, 1955.

Supt.,
DRNL.

Attention: Mr. M.F. Coffey

1. Please refer to your DRNL/Coffey, M.F. (DO)
dated February 23, 1955.

2. I have received the pictures of the igloo
sent to me by Miss Brown. Thanks very much indeed for these
photos. I also would like to thank you for the great amount
of time and effort which you spent making my stay at
Churchill pleasant and informative. I have not as yet had
an opportunity to discuss the program either with Colonel
Schmidlin or Dr. K.C. Fisher, but hope to in the near future.

Ruth Hoyt

(Ruth Hoyt)

Human Resources Research Section,
for Chairman, Defence Research Board.

RH/gv



Department of National Defence
Army

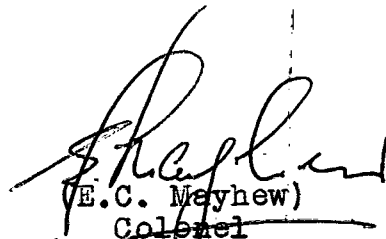
IN REPLY PLEASE QUOTE
HQ 2001-50/46
NO. (DAD)

OTTAWA, FEB 24 1955

DQMG (D&D)

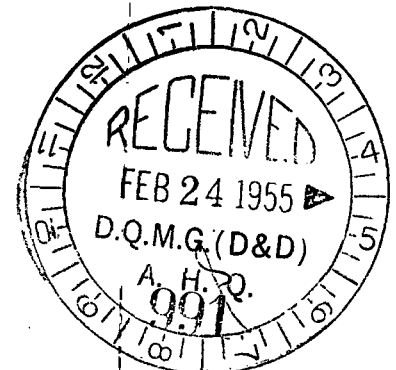
Summer Programme
Defence Research Northern Laboratory (DRNL)

1. Reference CAORE memorandum dated 9 Feb 55 and attached copy of letter from Supt DRNL on possible investigations which might be undertaken at DRNL in the summer of 1955.
2. There are no specific investigations which this directorate wishes to have included in the programme. However, Major Benson will be at DRNL early in March and opportunity will be taken to discuss possible items of interest at that time.



(E.C. Mayhew)
Colonel

Director of Armament Development





DEPARTMENT OF NATIONAL DEFENCE
CANADA

99166
DEFENCE RESEARCH BOARD

DEFENCE RESEARCH NORTHERN LABORATORY

IN REPLY PLEASE QUOTE

DRNL/Coffey, M.F.(D)

1975 FEB 25 PM 2:43



REFERRED TO

SRB
SRB 555-1

52-750-266
\$100.30/0
Fort Churchill, Manitoba
2/23 February, 1955

Chairman,
Defence Research Board,
"A" Building, NDHQ,
Ottawa, Ontario.

Attention: Human Resources Section (Dr. Ruth Hoyt)

1. Enclosed are the pictures of the igloo construction, which you requested. If you wish to obtain further copies of any of these prints, please refer to the number on the back of the picture.

M. G. Brawn

for M. F. Coffey

Encl.(8)

OTAG 69-0-260

OPERATIONAL RESEARCH GROUP

Ottawa, Ontario,
22 February, 1955.

Superintendent,
Defence Research Northern Laboratory,
Fort Churchill, Manitoba.

Staff for the Operational Research Section

1. I would like to assure you that we have been attempting to find someone suitable for the Operational Research Section of DRNL. Unfortunately, those persons who are suitable and who have expressed an interest in northern research are married and I gather that you do not have additional married quarters. I think you will appreciate that this makes our job much more difficult and, at the moment, I do not have any person in sight. The few single people already in the organization are relatively new recruits and I would be reluctant to move any of these people until they have spent some time in their present postings. Any thoughts that you may have on this matter will be welcome.

(H. Petric),
Superintendent.

END

c.c.: Arctic Section

HQS 52-750-266 (DED 1)

M E M O R A N D U M


18 Feb 55

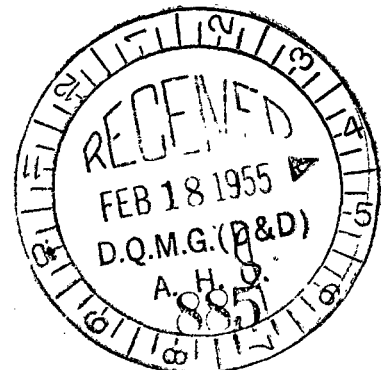
DQMG(D&D)

Summer Program

Defence Research Northern Laboratory (DRNL)

1. Reference is made to letter dated 9 Feb 55 from Senior Research Officer, CAORE, regarding summer field testing at DRNL, Fort Churchill.
2. At this time DED has no projects or investigations that could be carried out by DRNL.


(W.A. Capelle)
Colonel
Director of Engineer Development



DRBS 4-78-53 (MED)

Ottawa, Ontario
16 February 1955

Secretary
Inter-Service Medical Committee

Attention - Lt. W.A. Walsh
Room 2094, 'B' Building

Programme at DRNL Churchill

1. The Superintendent of DRNL Churchill is reviewing the programme of work for the summer of this year and the Head of the Arctic Section at DRB Headquarters has suggested that it is possible that you might have under consideration the investigation of problems in connection with the care and evacuation of wounded in which the facilities of DRNL would be of assistance.
2. The summer programme will be consolidated in March so that any suggestions involving summer activities should be put forward as early as possible.
3. The programme for the winter of 1955-56 will be reviewed during the period 1 May to 31 July. If you have any problems that you feel might be investigated during the winter they could be considered at that time.
4. As you know, the DRB facilities at Churchill include laboratory space which could be made available to a medical team. There is also an engineering section which can give assistance in connection with construction of experimental gear etc. The staff at DRNL include a group interested in operational research, a physiologist and a psychologist.
5. The services of the DRB Panel on Arctic Medical Research and the other facilities of DRB would be available for advice including the staff of DRNL and the Arctic Medical Research Unit at the University of Manitoba.
6. These suggestions are forwarded for your consideration.

Yours sincerely,



CWM/LM

c.c. to Brig. Crawford
Arctic (2)
Dr. J. Doupe

Medical Section
for Chairman, Defence Research Board

P.A. 

IN REPLY PLEASE QUOTE

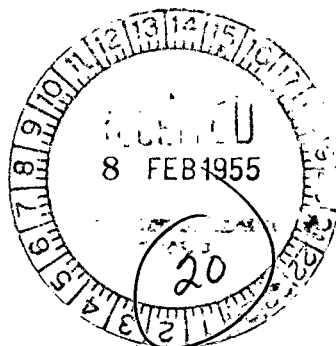
DRNL/C-1002



DEPARTMENT OF NATIONAL DEFENCE
CANADA

DEFENCE RESEARCH BOARD
DEFENCE RESEARCH NORTHERN LABORATORY
FORT CHURCHILL, MAN.

CONFIDENTIAL



4th February, 1955.

Chairman,
Defence Research Board,
"A" Building, NDHQ,
OTTAWA, Ontario.

Referred to *8713*
FEB 8 1955
file No. *52-750-266*
Chgd to *2/2*

Attention: S.S.O. Arctic

Summer Programme

1. Many thanks for your letters
DRBS 52-750-266 (Arct) dated 12th and 27th January
dealing with the summer programme for DRNL. I have
discussed many of the points you brought to the surface,
with Training Wing, Fort Churchill and slowly but
surely we are evolving what I think will be a useful
programme. It is too early at the moment to go into
working details.
2. I appreciate what you are doing
drumming up business from the services and I would
set a deadline of the end of March for summer problems.
3. When the summer programme is more
crystalized here I will pass it to you for your
information.

A.M. P. ...
Superintendent.

Cal beach
Noted.
Shots over
enforced re
we have details
written.
8 Feb 55

670

M E M O R A N D U M

Col. E.F. Schmidlin

Revised Programme for DRNL


1 Reference your minute 2 to the folio below.

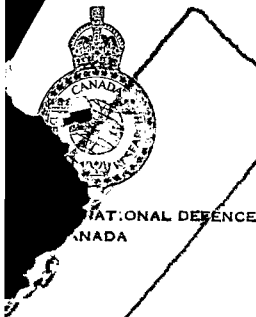
2 It would appear, from perusal of DRNL project list No.9 dated 5 Apr 54, that the following items are included in the watching-brief and discarded category:-

<u>Serial</u>	<u>Item</u>	<u>Project No.</u>	<u>Remarks</u>
1	Routine Measurements	D45-63-01-01	Measurements discontinued until such time as building sheltering fire hydrant is removed from area of measuring instrument, or test hut is moved.
2	Design and Use of a Portable Meteorological Station for Use with an MSF	P-15	
3	Design and Construction of a Portable Recording Equipment for Physiological Use	P-16	
4	Candle Lanterns for Use in the North	P-6	
5	Herbarium of Arctic Plants	D45-62-01-01	Completed
6	Seasonal Changes in the Temperature Gradient of the Active Layer	D45-97-67-02	Project now suspended
7	Indoctrination Training for Military Operations in the North	D72-94-10-05	
8	Survey of Military Reports and Exercises	OR-2A	
9	Job Analysis of the Infantryman in the North	OR-2B	Completed
10	Investigation of Special Characteristics of Troops of Native Origin	OR-2C	Completed
11	Examination of Characteristics of a "Good Soldier" in the North	OR-2D	Completed
12	Development and Evaluation of Tests of Indoctrination Training	OR-2E	Completed

- 2 -

<u>Serial</u>	<u>Item</u>	<u>Project No.</u>	<u>Remarks</u>
13	Assessment of Current Equipment and Methods Used by Army Personnel for Ground Navigation in the North	D72-97-71-01	
14	A Study towards Preparation of Diagram Showing Factors Peculiar to the North which Affect Northern Mil Ops with Their Actions	OR-5	
15	Collection and Analysis of Over-snow Vehicle Breakdowns, Repair, and Running Analysis	OR-8	No work done in over a year
16	Study of Trigger Attachments and Firing Devices	OR-9	Completed
17	Cold-Weather Testing of Sterling-Cycle Engine (Philips Air Engine)	D45-47-01-01	Suspended. Manufacturer has withdrawn engines at full purchase price
18	Storage Behaviour of Fuels and Lubricants in Use in the North	D45-50-01-03	Completed


(J.E. Leach) Lt-Col



DEFENCE RESEARCH BOARD
DEFENCE RESEARCH NORTHERN LABORATORY
FORT CHURCHILL, MAN.

IN REPLY PLEASE QUOTE

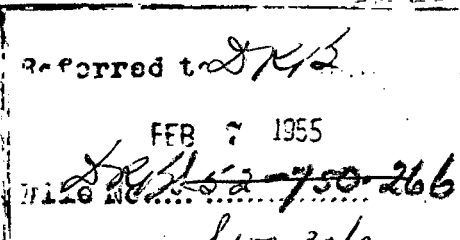
DRNL/C-1002

SECRET



4th February, 1955.

Chairman,
Defence Research Board,
"A" Building, NDHQ,
OTTAWA, Ontario.



Attention: S.S.O. Arctic Igld to... 100-30/0

Revised Programme for the
Defence Research Northern Laboratory

1. As agreed some weeks ago I have critically reviewed the work items of this station and have drawn up a revised programme which is attached for your information.
2. You will observe that a considerable amount of work has been relegated to watching brief status, or has been discarded temporarily. At first inspection the cut may appear drastic but I think it will pay off. Even with the large cut in the work load, I am still convinced that we have too much on the plate at the moment.

② Deal head
make comparison
with present project
list to determine
what is in the
watching brief a
discarded category.
JD

③ T.A.H.
What comments have
you on this letter?
for a long time, the
wages are a pitiful effort.
Work out as approx. 1000 per annum
per project.
T.A.H. 20 Feb 65

A.M. Pennie
Superintendent.

Encl.

REVISED PROGRAMME

SECRET

for the DEFENCE RESEARCH NORTHERN LABORATORY

4th FEBRUARY, 1955.

1. The programme for the Defence Research Northern Laboratory has been critically reviewed and as a result of earlier discussions and agreements, a considerable amount of the work has been relegated to a watching brief status and many projects have been suspended. The overall terms of reference of the station remain unchanged but the field of operation has been considerably narrowed in order to concentrate effort and increase effect.
2. The main responsibility of the laboratory will be - "The Effect of Arctic Environment on the Performance of Personnel and Equipment in the Field", and only projects which fall into this category will be accepted and tackled.
3. Ad hoc scientific assistance will continue to be given to the Services and other Research and Development Agencies operating within the Fort.
4. The following are the active projects within the laboratory:-

<u>No.</u>	<u>Title</u>
D-45-50-01-01	✓ Sampling and Analysis of Fuels and Lubricants in Use in the North. ✓
D-45-68-01-02	Laboratory Rearing of Arctic Mosquitoes. <i>may be harmful in fact.</i>
D-45-69-10-02	✓ Application of Heat Pump to Arctic Conditions.
D-45-82-10-02	✓ Intensity of Ultraviolet in the Arctic.
D-45-93-10-02	✓ Physiological Responses Produced in Man by Cold.
D-77-94-40-02	✓ Deterioration of Performance of Elementary Tasks due to Cold.
D-77-94-40-03	✓ Work Decrement under Arctic Conditions.
D-77-94-40-05	✓ Deterioration of Human Function Due to Arctic Clothing.
D-72-97-40-02	✓ Personal and Tent Group Equipment Required for One Infantry Company on Northern Operations.

5. These projects break down into the following work headings:-

A. Operations Research and Human Resources Research

1. Participation in DID and DWD user trials and tests.
2. Study of packboard - sled combination.
3. Study of tent and shelter heating.
4. Study of clothes drying.
5. Study of construction and usefulness of small winter shelters.
6. Evaluation of Arctic clothing and equipment including stoves, goggles, vapour barrier sleeping bags, sleeping systems, anti insect equipment, head, hand, face and foot protectors, tents, etc.
7. Development of tests for evaluation of stress.
8. Development of tests for evaluating attitude and morale.
9. Study of factors which affect northern military operations.
10. Manual dexterity in the cold.
11. Night watchkeeping studies.

...../2

SECRET

- 2 -

Revised Programme for the Defence Research Northern
Laboratory, 4th February, 1955.

B. Biology and Physiology

12. Development of method of assessing energy expenditure and its evaluation in the field.
13. To correlate the vitamin C levels in the blood with the length of time personnel of Fort Churchill have been exposed to cold.
14. To find out if skin temperature affects the biting rate of mosquitoes.
15. To elucidate the mechanism of cold induced vasodilation in the fingers and to compare that of the Eskimo with the white man.
16. To determine if the topical application of vitamin A is a factor in determining greater manual dexterity of eskimos over that of white controls when the hands of both groups are exposed to cold.
17. To compare melting points of subcutaneous fat of eskimos and whites.
18. To devise a system of limiting the high heat losses which occur from the face of a man exposed in the cold by means of a face protective device.
19. To evaluate objectively, using physiological methods the insulating values of different sleeping bag arrangements.
20. Physiological responses to cold.
21. To procure evidence of acclimitization.
22. To assess any differences in the response to cold of white people and eskimos.
23. To study the loss of finger dexterity due to cooling of synodial fluid.

C. Engineering

24. To study the operation of the heat pump under arctic winter conditions.
25. To test and evaluate vehicle components.
26. To provide mechanical engineering assistance locally and visiting teams.
27. To provide P.O.L. laboratory service for local and visiting teams.
28. Investigation of vehicle problems in arctic winter conditions.
29. Operation of machine and carpenter shops.
30. Provision of photographic and drafting services.

D. Physics and Chemistry

31. To provide electronic and electrical assistance locally and to visiting teams.
32. To develop instruments and instrumentation techniques for laboratory and field trials in the Churchill area.
33. To operate a field party and mobile field laboratory for all applied studies and field trials.
34. Study of ultraviolet light intensity in the Churchill area.
35. To maintain basic physics and chemistry facilities to meet local requirements.

J. R. P. P. P.
Superintendent.

Defence Research Northern Laboratory
Fort Churchill, Man.,
4th February, 1955.

DEPARTMENT OF NATIONAL DEFENCE
MINISTÈRE DE LA DÉFENSE NATIONALE

O. H. M. S.
SERVICE DE SA MAJESTÉ

C. A. F. A. 211
400M-8-54 (7865)
H.Q. 4554-A-211

000030

Superintendent,
Defence Research Northern Laboratory,
Fort Churchill, Manitoba.

Summer Programme

- 1 Reference your DRNL/C-1002 dated 8 January, 1955, and our DRBS 52-750-266 (Arct) dated 12 Jan 55.
- 2 The enclosed memo and other papers from EP contain some further suggestions for your summer programme.
- 3 In line with your overall object it would seem appropriate to concentrate on the human and his problems. The idea expressed in para 3 seems worth considering.
- 4 Nothing has been forthcoming from the Services to date. What is the deadline for planning your programme? It would be wise to let the Services have such a date.
- 5 It is suggested, if you consider it possible, that you submit a programme to us which we can hand over to the Services for comment and endorsement. This seems the only way we can stir them to action in these matters.

EFS:JB
Attmts.


Chairman,
Defence Research Board

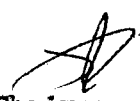
DRBS 52-750-266(Arct)

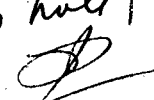
Ottawa, Ontario
12 January, 1955

Mr. A. M. Pennie,
Superintendent,
Defence Research Northern Laboratory,
Fort Churchill, Manitoba.

Summer Programme

1. Reference your letter DRNL/C-1002 dated 8 Jan 55.
2. We have instituted an enquiry with the Army as you suggest. We will also make enquiries from the RCN and RCAF. You will be advised of the results in due course.
3. Some of our own thoughts on this matter are along the following lines: -
 - (a) Improved protection against biting flies and mosquitoes. Have you any ideas on this vexing problem?
 - (b) Engineering problems of movement over muskeg. This may require resources beyond what you have, but we would appreciate any suggestions for investigations through other channels.
 - (c) Land navigation in summer may have aspects not encountered in winter. Does this need assessing?
 - (d) Camouflage might bear looking into. Are present methods successful and is the equipment of the right kind.
 - (e) Water supply during summer may or may not be troublesome. Are there any problems connected with sources of supply and sterilization etc.
 - (f) Summer clothing and tent group equipment probably differs from winter. What do you recommend in this regard?
 - (g) Transporting equipment in summer operations. Toboggans or sleds are obviously ruled out. How does the soldier transport the gear which he cannot carry on his back. Is there a requirement for some sort of wheeled sled?
4. The above are ideas which may or may not have merit. Perhaps a discussion with Training Wing might be fruitful. Should you evolve problems requiring study, would you send them along in order that we can enlist the support of the Army or other service for them.


Chairman,
Defence Research Board.

CDC,
To note plan.




DRBS 52-750-266(Arct)


Ottawa, Ontario,
11 January 1955.

S.R.O.
CAORE

Summer Programme
DRNL

1. The attached copy of a letter from Superintendent, DRNL is self-explanatory.
2. Would you enquire from the Army as to any projects which they want DRNL to evaluate or investigate for them please.

IFS:JB
Encl.

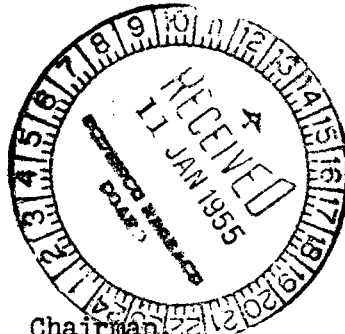

(E.F. Schmidlin)
Arctic Section

IN REPLY PLEASE QUOTE

DRNL/C-1002

DEFENCE RESEARCH BOARD
DEFENCE RESEARCH NORTHERN LABORATORY
FORT CHURCHILL, MAN.

DEPARTMENT OF NATIONAL DEFENCE
CANADA



Chairman,
Defence Research Board,
"A" Building, NDHQ,
OTTAWA, Ontario.

8th January, -1955.

Referred to *DRB*

JAN 11 1955

DRB 52-750-266
File No.

Chgd to *\$100.30/0*

Attention: S.S.O. Arctic

DRNL Summer Programme

1. Although we are at present heavily engaged in our winter field programme, I feel the time has come to give thought to a possible summer programme.
2. There are one or two items on the books here which will be investigated as soon as field work is completed, but I feel that some overtures should be made to DMT to find out if they have any specific projects which require evaluation here during the summer.
3. If you agree with this suggestion, please contact DMT and encourage them to give some thought to summer field testing at DRNL.

A. H. Panni
Superintendent.

DRBS 58-0-240(Arct)

CONFIDENTIAL

Ottawa, Ontario,
30 December, 1954.

Mr. A. H. Pennie,
Superintendent,
Defence Research Northern Laboratory,
Fort Churchill, Manitoba.

Dear

Your letter DRNL/C-1183 dated 22 December to hand and I will report such progress as I have made in connection with the points we discussed.

(1) The Future of the Entomological Section. I have discussed this matter again with both Colonel Carrie and Alex Jones. We feel that the work should continue, but at the same time agree that higher priority should be given to the more acute problems of environmental protection. Jones and I plan to have a discussion with Dr. Glen, Department of Agriculture, to see if we can arrive at some solution to the continuance of this work in some place other than Churchill. I will report further after I have seen Dr. Glen.

(2) After Treatment of DRNL Reports. In regard to DRNL reports I finally ended up with Don Robinson. He has a plot which I think will be extremely helpful. It has not yet been officially put forth but he agreed that there would be no harm in giving you the general picture. As you know there is an Operational Research Committee set up to direct the activities of CAORE. The proposal is that all projects dealing with Operational Research, Human Resources and Environmental Protection be submitted to this Committee who will undertake to enlist the interest and support of the Army Director or Directorates concerned. This will ensure a continued interest by the Army in the project. I suggested to Don that you should also work in reverse, which is to say, that when reports on the project are submitted, it will be the responsibility of this Committee to ensure that the reports are read, commented on and acted upon by the interested directors. I agreed to this. I think that this is the answer to this particular question. As soon as the proposal is put forward officially and accepted I will let you know.

.....2

Mr. A. M. Pennie

-2-

30 December, 1954


(3) Radar Stations in the Northland. I have nothing to report on this at the moment but will start some enquiries after the new year through Group Captain Poole. In the meantime I think it a sound idea to revive the heat pump project and carry it to some conclusion this winter if possible. It might be helpful if Templeton could write a short brochure on this project up to its present status which we could give to Group Captain Poole or anyone else who might be interested. No doubt there are reports on this project, but I think a brief synopsis would be helpful at the present time if it isn't too great a task for Templeton to take on.

(4) Staff in General. I have sown the seed in regard to longer term of service and additional accommodation, but it is too early to know whether it has fallen on barren or fertile ground. I am enclosing a copy of a report I made to CD(C) regarding my visit in which I have stressed the two points of longer service and additional accommodation.

I will discuss Templeton's future after the new year when people have settled down from their holiday spirit(s). I will see Frank Davies at the first opportunity in regard to the Electronics staff.

Since returning I have started the ball rolling in respect to the overall review of the defence research in the Arctic for the ABC countries. I am enclosing an outline plan for obtaining the necessary information to make this review for your information. You will note one of the factors is the conditions affecting the continue of military operations in high latitudes. It occurred to me that you people plus the Army would be in an extremely good position to supply information in regard to this factor. Mace Coffee attended the meeting here where this review was thrashed out and was quite familiar with what we were trying to arrive at, hence he would be able to give you the details rather than me putting them in this letter. Would you have a shot at getting something together in this respect for me in the next two or three months.

As I told you in a previous letter I feel that my visit was extremely profitable and I am sure that I will be in a better position to assist you now that I have seen your establishment. Good luck to you all in the New Year,



EFs:JB
Encls.

IN REPLY PLEASE QUOTE

DRNL/C-1183

DEFENCE RESEARCH BOARD

DEFENCE RESEARCH NORTHERN LABORATORY
FORT CHURCHILL, MAN.

DEPARTMENT OF NATIONAL DEFENCE
CANADA

CONFIDENTIAL

Mr. Frank Schmidlin,
S.S.O. Arctic,
Defence Research Board,
"A" Building, NDHQ,
OTTAWA, Ontario.

Dear *Frank*.



22nd December, 1954.

Referred to *DRB*.....

DEC 27 1954

DRB 52-0-240
File No.....

Chgd to *17/12*

This is a note to confirm our discussions and conversations during your visit to DRNL.

1. The Future of the Entomological Section

We agreed that in view of the new proposed programme for the Establishment that Entomology is not what one would call a priority item. I think everyone is agreed that the work is of a high order and that Beckel is a capable and competent research worker. However, I do feel that there is less need for this type of work and that serious thought should be given to employing Beckel elsewhere - either at Department of Agriculture or perhaps at Kingston where some Entomological work is in force. There is no great urgency for a final decision on this topic but I would like to be able to tell Beckel by the end of January exactly how he stands.

2. After Treatment of DRNL Reports

I think there is room for considerable improvement in the consumption of DRNL reports, particularly those emanating from the Operations Research Section, in which sensible and well thought out recommendations are made to the Services. As you know the majority of these recommendations are not observed or accepted and one often feels that the reports are not read or considered by the proper authorities. We agreed that the Scientific Adviser for the CGS should be more closely informed of the work from this Laboratory and that he should, as part of his function, make sure that it is drawn to the attention of the CGS or his representatives. We would appreciate hearing from Army Directorates as a result of reported work. In other words we are prepared to accept criticism, to accept a little praise and to accept recommendations for future work. I

- 2 -

22nd December, 1954.

Mr. Frank Schmidlin,
OTTAWA, Ontario.

am tempted to attach a question and answer page to each report in order that the reader may append his comments and return them to us.

3. Radar Stations in the Northland

As a result of my discussions with the Chairman, I feel that there is room for a considerable amount of assistance to the authorities involved in the planning and designing of the advanced radar stations. The Board I think has considerable responsibilities in advising the contractors and we at DRNL feel that we can be of some value in giving advice on the selection of some of the mechanical items which will no doubt be included in a station. I have in mind the possible use of the heat pump as a source of heat and as a prime mover for power generation. The Chairman agreed that we ought to do something about this and 'phoned Air Commodore Hendricks and discussed the situation with him. Hendricks agreed that there was room for this type of assistance and suggested that overtures should be made to Group Captain Poole who is head of the Systems Engineering Group involved in the planning and laying out of these stations.

The general idea would be that DRB should be invited to look over the shoulders of the planners and offer themselves as consultants to the contractor. If the heat pump shows a high degree of success then the Chairman is anxious that it should be set up as a test unit on one of the sites whenever convenient. As you know, I am most anxious to rejuvenate this project here and I hope that by springtime I will be able to give you a report on its performance and feasibility.

4. Staff in General

I will be very interested to hear the reactions to your proposal concerning a longer term of service here and the possibilities of additional accommodation. I think the proposal has great merit but we are at the mercy of the Fort Churchill Coordinating Committee and the Army with respect to accommodation. If you have time you might confer with Watson of the Armament Section or Petrie concerning the future employment of Templeton. Please check with Frank Davies on the execution of the agreements we reached concerning the Electronics staff here.

...../3 000038

- 3 -

22nd December, 1954.

Mr. Frank Schmidlin,
Ottawa, Ontario.

I think these are most of the points which arose during our most interesting discussions and I trust that you will be able to find an answer to most of them.

I enjoyed having you here as a visitor and a colleague and I feel that the visit was well worth while both professionally and socially.

With every best wish.

Yours faithfully,

A handwritten signature in cursive script, appearing to read "Archie".

DRBS 52-0-240 (Arct)

Ottawa, Ontario,
23 December 1954.

Mr. A. M. Pennie,
Superintendent,
Defence Research Northern Laboratory,
Fort Churchill, Manitoba.

Dear

My visit to DRNL was highly profitable to me. I trust I can now be more helpful to you.

I wanted you to know how very much I appreciated the time and effort of yourself and your staff to make my visit informative, pleasant and interesting. Please accept my gratitude for it all.

I told you, I think you have a "happy ship". I am sure good results will accrue from your combined efforts.

All the best,



E.F. Schmidlin

DRBS 52-0-240 (Arct)

22 December, 1954

Handwritten notes:
Glo mtr
HARRIS
to info
CD(C)
C of A
24 Dec 54

Visit to DRNL
SSO/Arctic

1. I visited the Defence Research Northern Laboratory at Fort Churchill, arriving in the afternoon of 14 December and leaving the afternoon of the 18 December. During this period I had the opportunity of seeing the various laboratories and other facilities available for research, and of meeting and talking with members of both professional and sub-professional staff. I was also, thanks to the hospitality of members of the staff, able to visit the homes and meet the families of several employees. In the course of my visit I had several talks with Colonel J. M. Houghton, Commander Fort Churchill. I attended a co-ordination meeting which is held each week on Friday mornings. This is attended by the senior officer of the Navy, Army, Air Force, U.S. Army, DRNL and Department of Transport. The object of this conference is to deal with questions and problems affecting all services at Fort Churchill which are administered by the Army.

2. My general impressions are as follows. The morale of DRB personnel is good. It is slightly better among married personnel than among single personnel. This is obviously due to the amenities of home life as opposed to the less comfortable, but adequate facilities for single personnel. The relationship between DRNL and the Army is excellent. Colonel Houghton stated quite frankly that he was more than satisfied with both the attitude and cooperation of DRNL. The Superintendent and the Administrative Officer also stated that they were quite happy in their relations with the Army. I found the staff enthusiastic about their work and interested in solving the problems that were presented to them. There are two major difficulties in the operation of this station: staff and married accommodation. They, the difficulties, have existed since the inception of the Station on a permanent basis.

3. It has been agreed that DRNL will work on problems within the general field of "the effect of Arctic environment on performance of personnel and equipment in the field". The Superintendent is now conducting a review of all projects at the laboratory and will submit his recommendations as to their continuance or suspension depending on whether or not they fall within this general field. This will have the effect of concentrating on fewer projects, therefore, better and more conclusive results will be obtained as a result.

4. To my mind the Operational Research Section and the Physiological Section are the spearheads of the work at DRNL while the Engineers, Physics and Electronics Groups supply the necessary services and provide experimental equipment and instrumentation. While we look to the services to provide us with problems for study it is quite evident that our own people are in as good, if not a better, position ~~to~~ appreciate these problems than are the services. For this reason, projects will continue to be put forward by the Ops Research and Physiological Groups.



Visit to DRNL
SSO/Arctic

- 2 -

We should continue our efforts with the services but at the same time must be prepared to accept and support recommendations from DRNL for the study of various aspects of Arctic operations.

5. The Army Test Team of one sergeant, one bombardier and eight men will be of great value in studying many of the problems connected with the human element in the Arctic. The personnel supplied are of good calibre and are being carefully indoctrinated into all aspects of the work in which they play a part. I made it quite clear that these men must be treated as part of the technical staff and that the "whys" and "wherefores" of what they are requested to do be carefully and fully explained. I was assured that this was being done and in conversation with the sergeant this assurance was confirmed.

6. Some laboratory space is available for visiting test teams. This is a great advantage to the teams and the Superintendent welcomes the opportunity to have them there. To avoid over-loading the facilities of the Engineering and Physics Sections, however, it would be well to have all test teams forward their programmes fairly well in advance in order that they could be advised whether or not some of the facilities which they might want can be provided. At the present time two test groups are using DRNL facilities, one being a team from DVD working on Centurion tanks, and the other a U.K. team working on clothing.

7. I have had several talks with the Administrative Officer and his senior assistants. I think the Station is being well administered. Each of the people I talked to knew their jobs very well and were anxious and interested in performing their duties creditably.

8. There appears to be some dissatisfaction over the question of paid-out leaves and the discontinuance of the Fort Churchill allowance under certain circumstances. I was given to understand that we recognize only two points of departure - namely Toronto and Winnipeg - for Fort Churchill. This dictates the points to which an employee and his family can be transported at government expense on a paid-out leave. I also understand that his transportation may be paid to any point between these two points of departure. The feeling at DRNL is that this is not a reasonable regulation. I agree as obviously this ruling is unfair and works a hardship on employees who volunteer for service at DRNL from such points as Quebec, Halifax, Medicine Hat (SES) and Vancouver. It would be much better to recognize at least those places where the Board has Stations as points of departure. I suggest this be done.

9. It is also my understanding that the Fort Churchill allowance is discontinued during the period of absence of an employee from the Fort Churchill area. In the case of a single employee the allowance is stopped immediately on his departure and in the case of a married employee it is reduced 50% after 14 days absence. As the regulation now stands, it operates even when the employee proceeds on duty to areas or points still north of the 56th parallel of latitude (e.g. Baker Lake). As the Northern Allowance and Fort Churchill allowance were instituted as recompense for the difficult living conditions in northern latitudes, it seems odd the Fort Churchill allowance is stopped when an employee undertakes duties in areas where living conditions are worse than they are in Fort Churchill. I suggest this regulation be amended to delete this anomaly.

Visit to DRNL
SSO/Arctic


- 3 -

10. The problem of staff at DRNL is by no means new or simple of solution. I feel, and the senior members of the staff at DRNL agree, that a longer period of service would result in considerable improvement in the output of work. It would provide the continuity necessary and would allow us to obtain the maximum benefit from the individual. A longer period of service for the sub-professional staff is especially desirable since most of the people are recruited from the street and have to be trained.

11. Very tightly bound up with this question of staff and longer tours of duty is the question of housing. The single people are more anxious to leave DRNL than the married people. Were it possible to provide more housing the longer period of service would, I think, follow.

12. DRNL is unique in defence research. It is the only station of its kind in the tripartite family. There is much to be done yet, before warlike operations can be successfully prosecuted in the high latitudes. Because of this I think we are justified in providing adequate facilities, both scientific and domestic. Unless we do, we cannot expect the maximum results for the effort expended.

13. In conclusion I would like to again emphasize the fact that this station is a good one and the staff are enthusiastic. I could find no fault with any of the aspects of this operation, nor was I subjected to complaints or criticisms by any member of the staff in respect to the service from this headquarters.


(E. F. Schmidlin)
Arctic Section

DRBS 52-0-240 (Arct)

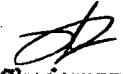
Ottawa, Ontario,
21 December, 1954.

Superintendent,
Defence Research Northern Laboratory,
Fort Churchill, Manitoba.

Visit SSO/Arctic to DRNL

1. Reference your letter DRNL/Pennie A.M. dated 1 Dec. 54.
2. The purpose of this letter is to record and confirm discussions held during visit of SSO/Arctic.
3. The question of additional married quarters cannot be answered in a very encouraging vein at present. The need for additional quarters is appreciated and we will endeavour to secure more. This question is now under review by the Fort Churchill Committee and our position will be made quite clear to them. We cannot expect any increase immediately as things stand now.
4. The question of Beckel will be settled by the end of January. As agreed we will advise him of the situation re living accommodation and determine whether he wants to continue in DRNL under this condition or not. It may be possible for him to carry on at DRKL. This will be explored also.
5. We agreed in principle regarding your programme. You will now undertake a review of all projects in hand or contemplated and make your recommendation accordingly. This should be done as soon as possible to allow us here, to amend the project lists etc.
6. Other points raised during the visit will be dealt with here as quickly as possible and you will be advised of the results.

EFS:JB


Chairman,
Defence Research Board.

P.A. 

9 August, 1954.

Superintendent Designate,
DRNL.

1. During your tenure of office, you will organize the staff and facilities of DRNL so that their efforts may be directed in the most practical manner possible towards solving or assisting to solve such problems as may arise in connection with the conduct of war in northern latitudes.
2. The closest liaison and cooperation with the armed forces of Canada, the U.K. and the U.S. will be maintained, and you will render them every assistance within the capabilities of your establishment.
3. You will be prepared to render assistance to representatives of other departments of government whose work is compatible with your programme, provided such assistance will not hinder, halt or otherwise seriously interfere with your main object of assisting the armed services.

G.M. Carrie,
Chief of Division (C)

CONFIDENTIAL

P41

DRBS 52-0-240 (Sec DRB)

Ottawa, Ontario,
19 May 1954.

→ C of A

Appointment of an Administrative Officer
DRNL

We spoke yesterday. Would you please make all the necessary administrative arrangements for the appointment of Cedric Winser as A/O DRNL.

We agreed that he should be reclassified to a DSSO grade II at a salary of \$4,950. He will hold this grade whilst so employed.

I have had discussions with DRP and if it is convenient, Winser should report to Churchill on or about the 1st of August, thus releasing Simpson at the beginning of September.

DRP
we spoke
19/5/54

A. M. Pennie
(A. M. Pennie)
Secretary
Defence Research Board.

C. R. to

P.A. 

DRBS 52-0-240 (Sec DRB)

Ottawa, Ontario,
18 May 1954.

S/DRNL,
Attention Mr. C. C. Simpson,
Administrative Officer,
Fort Churchill.

Dear Jock:

I have been discussing several of the points you brought up during my visit and in particular, I was talking to Mr. Dunn concerning the status of people who do not fulfill their contract.

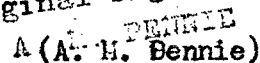
You may recall that you told me that the Board reclaimed incoming expenses from individuals when they left Fort Churchill before the completion of their tour. The Department of National Defence Manual, does not specifically say that this shall be the practice.

Mr. Dunn assures me that we follow the same practice as the Department of National Defence as a whole, and he went as far as telephoning and establishing the fact that DND do reclaim incoming expenses from individuals who have left prior to the completion of their tour.

I gathered from you that this was not the case and I would appreciate it if you could give me a statement to this effect. If possible, let me have the names of anyone from Headquarters who 'got away' under these conditions.

Yours sincerely,

Original Signed By:


A (A. H. Bennie)

Secretary
Defence Research Board.

AMP/mlm

IN REPLY PLEASE QUOTE

DRNL 0105



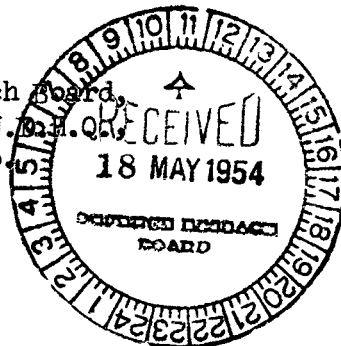
DEPARTMENT OF NATIONAL DEFENCE
CANADA

DEFENCE RESEARCH BOARD
DEFENCE RESEARCH NORTHERN LABORATORY
FORT CHURCHILL, MANITOBA

12th May, 1954.

P.A. →

Chairman,
Defence Research Board,
"A" Building, N.B.S.Q.,
Ottawa, Ontario.



Referred to *DRB*

MAY 17 1954

to *DRB 52-0-240*

Engd to

Hand-Over DRNL

Dr. D.B.W. Robinson

1. On Dr. Robinson's departure from DRNL, Mr. J.B. Templeton will be Acting Superintendent until the arrival of Mr. A. Pennie. However, Mr. Templeton will not be available until approximately 22 May 1954.
2. Under these circumstances and in accordance with para 18 of Stores Accounting, Mr. C.C. Simpson has completed Part 'B' of the enclosed Handing-over certificate, and similar action will be taken on Mr. Templeton's return to duty or Mr. Pennie's arrival at Fort Churchill.
3. May Part X of "Signing Authorities" be amended giving Mr. J.B. Templeton the authority now vested in Dr. D.B.W. Robinson. Approval of this change by signal would be appreciated.

② *Finance* Para 3 *being actioned R. Pennie 19/5/54.*
③ *SO/stores*
D.B.W. Robinson,
Superintendent.

Your actions, please.
W.D. Simpson
18/5/54

Action taken
DRB 52-0-7
mtg
20/5/54.

MEMORANDUM

23 March 1954

→ CD(C)

Superintendent, Defence Research Northern Laboratory

1. It has been agreed that Mr. Pennie will be the next S/DRNL taking up his appointment about August or September of this year.
2. It is now time that all this is put on paper so that DRP, Dr. Robinson and Mr. Pennie know exactly where they stand.
3. I believe the arrangements were that Mr. Pennie would proceed to Churchill on attachment for about four weeks in April - May of this year and that Dr. Robinson would return to Ottawa at the end of this period. Mr. Templeton would then take charge of the Station as Acting Superintendent until Mr. Pennie returned to take full charge in the Fall.
4. Please have this put on an official file and arrange with DRP to carry out all the necessary administrative details.

Arctic
B/F when Robinson
is here
Emil

[Signature]
VC/DRB

MEMORANDUM



16th September, 1953.

FROM: Superintendent.
TO: Circulation.

Referred to... *DRB*.....

SEP 21 1953

File No... *DRB 52-0-240*.....

Chgd to.....

During the absence of the Superintendent,

Mr. J. B. Templeton will be Acting Superintendent.

Distribution: Mr. Templeton
Dr. Brandy
Mr. Law
Mr. Coffey
Mr. Ross
Mr. Copps
Mr. Irvine

DRB, Ottawa.-

② DRB L.E.M. 22/53
Do Supts appoint their own deputies and acting replacements?
W.D. [signature]
219/53
DGS

③ [signature]
Emp. [signature]
Mr. [signature]
In note & pass to DGS, L.E.M. 22/53

DGS
I think it is reasonable for Superintendents to appoint their own deputies etc for short absences. The Superintendents are, after all, responsible for their subordinates and therefore in the best position to know who should speak for them when they are away. Also, the subordinates should be able to define the limits of their authority and have control over the department.
000050
22-1

DEAL 24-4



Defence Research Medical Laboratory,
Post Office Box 62, Postal Station "K",
Toronto, Ontario.

c.c. Med Section

CDRB

23 July, 1953

Referred to *L.R.B.*

JUL 21 1953

File No. *DRS 52-0-240*

Attention: CD(D) and Med Section

"ARCTIC MEDICAL RESEARCH" IN DRS.

1. Further to a recent letter written by Dr. C. W. MacCharles of Med Section, and to subsequent conversations with CD(D) and Dr. MacCharles on the a/n subject, the following is a summary of our current views:

- (a) If the direction of the work in DRML on physiological problems to be provided outside that establishment, there will be serious limitations imposed by distance in achieving first-class scientific results. I do not feel that DRML can take the responsibility of directing junior scientists in a program of physiological work in DRML, from Toronto. (The word 'program' here implies continuing relatively long-term projects). Doubts are also expressed as to whether this can be done adequately from Winnipeg for the same reason. In my opinion, the only way to ensure adequate supervision of first-class research is through 'on the spot' supervision by a senior physiologist who is stationed where the work is in progress;
- (b) The difficulties in securing senior physiological personnel have been pointed out. There is one question which should be fully answered before it is concluded that recruiting senior men for three to five year terms is impossible. That question is, "Have the inducements been made attractive enough?" The inducements should include provision of adequate living quarters and educational facilities for secondary school education, as well as extra leave, extra remuneration and seniority. Another inducement, more important, would be a well-defined program of work. The most important lack is a clear definition of long-term projects which require the presence of physiologists at Churchill. The assistance of the Arctic Medical Research panel in defining these should be sought;
- (c) Some discussion should be held on the meanings of the terms "Arctic Medicine" and "Arctic Medical Research". If the program is to be clinical in character and concerned with cold injury, then the 'base' for such work could logically be Winnipeg; if physiological (and related biochemical), the 'base' would logically be in DRML;

.....2

*Original on
DRS 68.0-240*

*Copy on
DRS 350-0-183
DRS 135-50-267*

*W. H. Wood
24/10/53*

000051

DEIL 24-4

Att'n: CD(D) & Med Sec. - 2 -

20 July, 1953.

"Artistic Medical Research" in DSS - continued.

- (d) DRML's usefulness would be most clear to all if it contained the work of the other laboratories within the DSS. Numerous important projects in the various laboratories could have some phase of the work planned to include tests or important research studies in DRML. The 'hmo' laboratory responsible for the project would send its workers up to Churchill to conduct that phase of the work calling for the facilities and environment of DRML. If such workers were to be assigned to DRML, they could be fitted in to such other DRML activities as Superintendent, DRML, sees fit. If planning is made sufficiently in advance, such dovetailing of activities should not be difficult, and could be done with the cooperation and knowledge of the Superintendent of the 'hmo' laboratory.
2. If continuing long-range projects are a necessary part of DRML's activities, and, if we are going to insist on first-quality work in such activities, then nothing less than full-time 'on the spot' direction is called for. A further study of instruments to secure such direction by
- (a) defining a program of scientific work;
 - (b) altering necessary secondary considerations.
3. Until a well defined program has been formulated, then the employment of DRML as set forth in para. (d) is the only way by which physiological studies in DRML can fall to justified.

H. G. WHILLANS
Superintendent
Defence Research Medical Laboratories

(H. G. Whillans)
Superintendent
Defence Research Medical Laboratories

HGN:ru

c.c. Sups/DRML

P.A.

RESTRICTED

DRML 2/1,

Defence Research Medical Laboratories,
Post Office Box 62, Postal Station "T",
Toronto, Ontario.

23 June, 1953.



GDRE

Report

File No.

Attention: Med. Section

DRB Responsibility for Arctic Medical Research

1. With reference to letter from Dr. C. W. MacCharles (no file reference), dated 17 June, this letter has been read with interest and I feel that there may be a very useful development here in linking up the University of Manitoba, Dept. of Physiology and Medical Research, more closely with the work of DRML. However, we have some misgivings which are recorded herewith.
2. The term "Arctic Medical Research" should be defined if this matter is to be discussed further. If what is intended is the furtherance of studies on clinical conditions, with Arctic Military Operations, the suggestion appears to have real merit. The combination of clinical facilities with clinical research facilities in association with a strong Dept. of Physiology, would greatly strengthen the Board's activities in this field. We think this would be a logical development.
3. However, Dr. MacCharles' letter indicates only physiological and biochemical work. If such a medical man is to be appointed, it is our feeling that the "home base" should be DRML with exchange of personnel and travel to and from DRML involved in the responsibilities. Because of the already existing studies in DRML in this field, the important associated activities including Food, Sonics, and other fields here, and because of the large projected outlay in climatic chambers, the exclusion of DRML from direct partnership and responsibility would be unthinkable.
4. It is therefore recommended that the terms "Arctic Medicine" and "Arctic Medical Research" be defined for the purposes of planning the responsibilities set forth for the medical man in question.

MGW:w

(H. G. Whillans)
Superintendent
Defence Research Medical Laboratories

c.c. CD(D)

Original on
DRB 5-0-183
copied on DRB 64-0-240

52-0-240 Vol 2

MEMORANDUM

ANSWER DAN M

OR [Signature]

To:

DRG (Mr. Mayne)

To:

Re DRNL letter at
Flag 7:

I feel the necessity
for "selling" DRB's
usefulness to the
Services is one of our
most important P.R.
objectives.

This, and all other
similar addresses,
should emphasize our
eagerness and available
facilities for assisting
the Services.

Should not however,
S/DRNL be consulted
on the material for the
address? He is very
P.R. conscious and I
am almost certain
he has several points
he wishes to make
with Service officers
at every opportunity.

PRD/DRB

10/6/53.

CONFIDENTIAL

IN REPLY PLEASE QUOTE

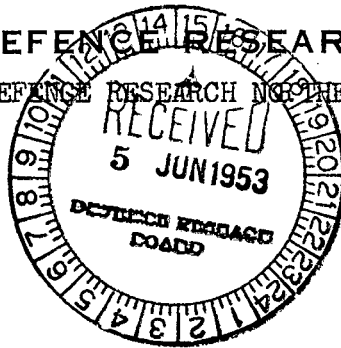
DRNL/2-4



DEPARTMENT OF NATIONAL DEFENCE
CANADA

DEFENCE RESEARCH BOARD

DEFENCE RESEARCH NORTHERN LABORATORY



Fort Churchill, Manitoba.
28 May, 1953.

Superintendent,
Operational Research Group,
"A" Building, N.D.H.Q.,
Ottawa, Ontario.

Referred to *SRB*

JUN 4 1953

SRB 52-0-240
File No.

Attention: Mr. J.W. Mayne

ed to

Colonel H.R. Millen's Talk on Northern Exercises

1. Colonel H.R. Millen, Commandant, Fort Churchill is scheduled to give a two hour talk on Northern exercises, past, present, and future. This talk is to be given about the 1st September at Kingston to the Staff College. Colonel Millen wishes to include in this talk about 20 minutes on Defence Research Northern Laboratory's part in past, present, and future exercises. We feel, however, that policy demands that the talk should rather include 20 minutes on Defence Research Board's part as a whole.
2. Since this is obviously a golden opportunity for subtle propaganda as well as education of future users, we feel full advantage should be taken.
3. Colonel Millen has asked us to prepare 20 minutes on D.R.N.L.'s part for him and he would like to have this done by the end of July. We would be interested in discussing with you this material during our visit in Ottawa.

C.E. Law
C.E. Law,

Operational Research Section,
for Superintendent. ✓

Copies to: O.R.G., Arctic Section, Ottawa
J.S.O.R.T., Edmonton

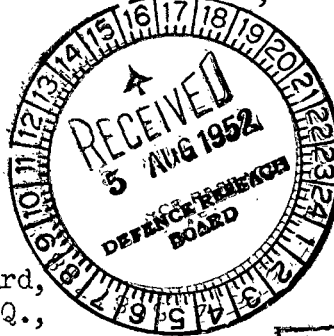
IN REPLY PLEASE QUOTE

DRNL 4 - 0



DEPARTMENT OF NATIONAL DEFENCE
CANADA

DEFENCE RESEARCH BOARD
DEFENCE RESEARCH NORTHERN LABORATORY
FORT CHURCHILL, MANITOBA.



24th July, 1952.

Chairman,
Defence Research Board,
"A" Building, N.D.H.Q.,
OTTAWA.

Referred to... *SRB*

Attention: Mr. G. W. Rowley (Arct.) 1952

File No.....
Chgd to.....

1. Reference is made to your letter DRBS 52-0-240(Arct) dated 14th July, 1952.

2. The table of organization which I received recently seems to me to be reasonably adequate, although I think that at some future date I shall attempt to obtain a few more technicians. I believe that a 1-1 Technician-Officer ratio is a bit low.

3. I noted with interest the last paragraph of your letter and look forward to the ultimate accomplishment of this plan.

H. Stannan
Superintendent.

*CD(C)
To note per *[Signature]*
R. J. R.
Arctic
6 Aug 52*

P.A. →

DRBS 52-0-240 (Arct)

CONFIDENTIAL

Ottawa, Ontario,
14 July, 1952.

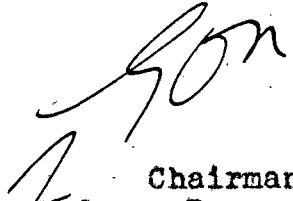
Superintendent,
Defence Research Northern Laboratory,
FORT CHURCHILL, Manitoba.

I refer to DRBC 1-0-82 (DRP) of 9 July 1952.

Would you please let me know if you have any
comments on this table of organization.

It had been intended to request a seconded
army officer for your establishment as well as for
the Arctic Section. After preliminary discussions
with the Army however it was decided to defer this
for the time being.

G.R/D7


Chairman,
Defence Research Board.

PERSONAL and CONFIDENTIAL

DRBC 1-0-82 (DRP)
DRBC 52-0-82 (DRP)

DEFENCE RESEARCH BOARD

Department of National Defence
Canada

Ottawa, Ontario,
9 July, 1952.

Superintendent,
D.R.N.L.,
FORT CHURCHILL, Man.

Table of Organization

DRNL

It is now possible to provide you with a Table of Organization for DRSO, DRT0, Technician and Assistant Technician positions for your Establishment, as shown in the attached sheet. This Organizational Structure, based on your Establishment for 1952-53 approximates your permanent, long-term Table of Organization very closely. It is considered to be a very favourable distribution of grades, although it may not meet exactly the requirements that you have suggested. This, of course, is to be expected as the combined demands of all our Establishments exceeded the numbers available to the Board in each grade. It is anticipated that future increases in the higher grades in the over-all organization will be negligible.

It will be understood that this Table of Organization is provided to permit you to make long-term plans for your staff and it is not an invitation to promote or employ staff immediately in the grades allotted. It will continue to be the normal practice to employ people in the lowest possible grades reserving the higher grades for promotions.

Att.

for J. Pearce
Chairman, Defence Research Board.

c.c. to CD(C) 

Archer
In this ok.
Shadrumbke

1 - TSO I - 640P - 1
Final

Spoke to A.G. Brown.
The D.R.M. TSO. had been
taken out as a result of the
discussion with CD(C) 000058
18 Nov 52

PROPOSED ORGANIZATIONAL STRUCTURE

for DRNL

Position and Grade	For fiscal years:			Remarks
	1952	1953		
D.R.S.O.				
7)				
6)	1			
5	2			
4	4			
3	5			
2	2			
1				
Total	14			
D.R.T.O.				
9				
8				
7				
6				
5	2			
4				
3	1			
2	1			
1				
Total	4			
Technician				
4				
3	1			
2	2			
1	4			
Total	7			
A. Tech.				
3	4			
2	4			
1	2			
Total	10			
Total Tech. and A. Tech.	17			
Seconded Officers Men				
Total				
Tradesmen				
Clerical, Admin., etc.				
GRAND TOTAL				

DRNL 1-5-15-2



DEFENCE RESEARCH BOARD
DEFENCE RESEARCH NORTHERN LABORATORY
FORT CHURCHILL, MANITOBA

RESTRICTED

Chairman,
Defence Research Board
"A" Bldg., N. B. H. Q.
OTTAWA



23rd May, 1952.
Referred to *DRB*
MAY 29 1952
File No. *DRNL 52-0-240*
Chgd to.....

1. I would refer you to the statement on the future program of DRNL for 1952-53 which was prepared for you for use at the meeting of the Fort Churchill Ad Hoc Committee, special reference to Section 6, para 2 dealing with Canadian troops.

2. A group of ten native soldiers whose posting to Fort Churchill for attachment to DRNL was arranged by the GOC, Western Command, has just recently arrived for duty. It is expected that their posting will be for one year.

3. We have arranged a program of work which will make use of these men as subjects. This work includes a study of their abilities in connection with northern military operations. It is planned that they should engage in all of the military exercises which are to be conducted in this area for the next year. During the in-between periods it is planned to study various physiological and psychological features of these men which may show up differences between them and the white soldier.

4. Care is being taken to ensure that these men receive the normal amount of military training which they would obtain if they were at a regular training station. This will mean that when they leave Fort Churchill their use as experimental subjects will not have jeopardized their chances for military advancement. It is understood that Commandant, Fort Churchill, plans to make some use of these men as demonstration troops after they have some experience in northern military operations.

5. It is most desirable that we have available a group of white soldiers with approximately the same amount of training which could act as a control group. The two groups could then be handled in a similar manner throughout all training, experimental work and participation in exercises with the view of making comparisons of their capabilities and usefulness in northern military operations.

6. Would your office approach Army Headquarters with the proposal that ten men, with NCO in charge, with training similar to that of the native troops presently here, be posted to Fort Churchill for attachment to DRNL, for experimental purposes, for a period of one year.

D. B. W. Robinson
Dr. D. B. W. Robinson,
Superintendent.

*Copy in
DRNL 52-0-260-1
T-2
Metric
DRNL does not say whether he has discussed
with Co. Army at Churchill and whether
they agree and will support the request. Will
you discuss with DRG Gmb
25M-10-47 (431)*

000060

DRBS 52-0-240 (Arct)

26 May, 1952

CD(C)

Comments on Joint Organization Order No.1

1. The order has been referred to DGS who has no comments.
2. I have the following comments which might be worth bringing up.

para 9 How does the committee come to decisions? -
by majority vote?

Does its authority extend to those functions for which the Canadian Army is responsible, e.g. safety of Fort Churchill, security, etc. (para 7)? If so, is the Canadian Army responsible for these - or the committee on Fort Churchill coordination?

para 40 I suggest that public relations matters relating to the work carried out on technical matters by any service or agency should be submitted to the Commandant for his concurrence before being submitted to the headquarters concerned. This would probably prevent their having to be referred back to Commandant at a later stage should it be considered at headquarters that they affect Fort Churchill as a whole.


(G.W. Rowley),
Arctic Research.

DRBS 52-0-240 (Arct)

15 May, 1952

D.G.S.

①

1. I attach the draft Joint Organization Order No.1 - Fort Churchill. This will be discussed at the next meeting of the Ad Hoc Committee on Fort Churchill Coordination, which will be held towards the end of the month.

2. I understand that this Joint Organization order, which is largely based on the draft prepared by D.S.D., has been gone through in detail by the various service representatives at Fort Churchill and has been modified to meet their wishes. In particular I understand from CD(C) that Superintendent DRNL has seen the draft order and that he has no objections to it.

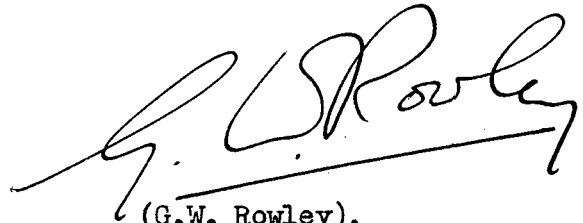
② ARCTIC

DGS has no comments.

W.D. Humphrey
P.D.S.

26⁵/52

PA 202



(G.W. Rowley),
Arctic Research.

RESTRICTED

HQS 2000-1975/9 (DWD 2)
7 May 52

JOINT ORGANIZATION ORDER NO 1

FORT CHURCHILL

AIM

- 1 This Joint Organization order defines:
 - (a) The responsibilities of the various services and agencies involved in the operation of Fort Churchill.
 - (b) The arrangements under which facilities and services are provided for common use, and the arrangements under which common use is made of them.
 - (c) The division of responsibility for work at the station.

GENERAL

- 2 Fort Churchill is both a joint service and inter-service station, established for the conduct of training, trials and research under Arctic and Sub-Arctic conditions.
- 3 The general object is the acquisition of knowledge and the development of technique and equipment to enable men to live and fight under the various conditions found in the Arctic and Sub-Arctic on a year-round basis.

AGENCIES CONCERNED

- 4 The following agencies are concerned:
 - (a) CANADA
Department of National Defence
Department of Transport
Other Canadian Government Departments
 - (b) UNITED KINGDOM
War Office
Air Ministry
Ministry of Supply
 - (c) UNITED STATES
Department of Defence
 - (d) In special cases civilian organizations sponsored by other departments of the Government of Canada.

- 5 The RCN Radio Station which is situated outside the general administrative area of the Camp comes under the general provisions of this order only where special reference is made. Personnel of the Radio Station, when outside the area of the Radio Station, will be subject to this order or other camp orders as applicable.

RESTRICTED

- 2 -

METHOD OF OPERATION

COMMAND

6 The Canadian Army provides as a command, administrative and housekeeping element, a unit designated Fort Churchill.

7 The Canadian Army is vested with the overall responsibility for the safety of Fort Churchill, for security of information, and for the conduct and welfare of all personnel stationed there; for necessary local coordination and general administrative control of the activities of all groups; and for ensuring that internal administrative orders of any agency do not impede the work of any other agency or the administration of Fort Churchill as a whole. These functions are exercised through the Commandant, Fort Churchill.

8 Activities of units of other Services, Canadian or foreign, and of civilian agencies, insofar as they do not affect the operation of Fort Churchill as a whole, are as ordered by the responsible Service or civilian authorities.

COMMANDANT'S COMMITTEE

9 There will be a Commandant's Committee at Fort Churchill, acting under the chairmanship of the Commandant and consisting of representatives of the following services and agencies:

Royal Canadian Navy
Canadian Army
Royal Canadian Air Force
Defence Research Board
US Defence Forces

Representatives from other agencies using the facilities at Fort Churchill may be called by the chairman as required.

10 The Committee will deal with problems which concern more than one service or agency, referring those matters which it cannot resolve to the Committee on Fort Churchill Coordination, with copies to the immediately superior headquarters of each service and agency (see para 39).
41

COMMITTEE ON FORT CHURCHILL COORDINATION

11 There will be a committee on Fort Churchill Coordination at NDHQ which will function as a sub-committee of the Chiefs of Staff Committee and consist of representatives of the following:

Royal Canadian Navy
Canadian Army
Royal Canadian Air Force
Defence Research Board

Representatives from other agencies using the facilities at Fort Churchill may be called as required.

12 This committee will resolve problems concerning more than one service or agency, which are referred to it by the Commandant's Committee, or which may originate elsewhere.

RESTRICTED

- 3 -

PRINCIPAL USERS

13 The joint responsibilities of the Canadian Services, DOT, and United States forces, as principal users, are set out below:

(a) Royal Canadian Navy

- (i) Command and administration of the RCN Radio Station;
- (ii) Experimental work connected with the above station.

(b) Canadian Army

- (i) Administrative control of Fort Churchill;
- (ii) Operational control of all Fort Churchill units (including RCN Radio Station) and establishments in the event of an emergency;
- (iii) The provision and maintenance of inter-communication within the station area, and with the National Defence communication system.

(c) Royal Canadian Air Force

- (i) Control, maintenance and supervision of airfield, hangar, control tower and associate equipment and facilities less the radio range;
- (ii) Provision and maintenance of air/ground communication facilities for service to military aircraft;
- (iii) The provision of aircraft and aircrew to carry out the air requirements for the Canadian and United States forces based at Fort Churchill;
- (iv) Assist Department of Transport in the maintenance of the landing strip at Coral Harbour.

(d) Defence Research Board

- (i) Basic research concerned with military problems peculiar to living, working and fighting in the Arctic;
- (ii) Provision of facilities to visiting scientists operating out of Fort Churchill on short term or seasonal projects.

RESTRICTED

- 4 -

(e) Department of Transport

- (i) Financing of landline communications for the RCAF Aviation Forecast Office;
- (ii) Responsibility for the upper air observing programme;
- (iii) Ionosphere Measurement Station;
- (iv) Provision and operation of the radio range at Fort Churchill;
- (v) Provision and maintenance of air/ground communication facilities for service to civil aircraft.

(f) United States Forces

- (i) United States experimental projects;
- (ii) Provision of logistical and administrative support for various United States test detachments and units;
- (iii) No 1 Arctic Test Detachment of the United States Army operates and maintains a radio station for trials. Frequencies for this purpose are requested by the United States Joint Communications - Electronics Committee through the Canadian Joint Telecommunications Committee.

DISCIPLINE

14 The Commandant is responsible for the maintenance of discipline and order at Fort Churchill. Each service or agency retains full responsibility for the trial and punishment of its own personnel.

15 In accordance with special orders issued by the Royal Canadian Navy, Canadian Army, Royal Canadian Air Force and the United States Army, members of these services stationed at Fort Churchill will obey the lawful commands of officers superior to them in relative rank or rating irrespective of the service to which they belong.

16 Civilian personnel at Fort Churchill, serving in whatever capacity within the camp, are subject to such rules and regulations, governing general deportment or affecting the safety and security of the camp, as may be issued by the Commandant.

SECURITY

17 The Commandant is responsible for the overall security of the camp, and imposes such regulations, restrictions and controls as he considers necessary. Each service and agency will ensure that security measures adopted within their respective establishments conform to the overall security plan for Fort Churchill. The security clearance of visitors will be arranged as shown in Appendix "A".

RESTRICTED

- 5 -

VISITORS

18 Arrangements for the accommodation of visitors are shown in Appendix "A".

ACCOMMODATION

19 The Canadian Army provides and maintains accommodation used in common or required for the general administration of the Station. This includes electric power, water, and sewage disposal. Initial provision and maintenance of accommodation is in accordance with the table at Appendix "B".

20 The Commandant will allocate accommodation used in common or required for the general administration of the camp.

21 The allocation of married quarters is governed by the provisions of Canadian Army Orders.

22 The Canadian Army will coordinate new construction. Proposals for construction by other services or agencies must be agreed to by the Committee on Fort Churchill Co-ordination. In assessing projects, in addition to the full implications and future responsibilities for operation and maintenance, the following points will be considered:

- (a) Utilities needed for new constructions (power, water, heat, sewage disposal).
- (b) Siting, runway clearances, supply of utilities in relation to overall camp plan.
- (c) Fire protection (including water supply).
- (d) Type of construction, mechanical services and equipment (to effect standardization where possible and reduce maintenance stocks).

CAMP UTILITIES

23 The Canadian Army will provide and maintain:

- (a) Utilities services, including heat, electric power, water and sewage disposal, within economic reach of existing camp utility systems.
- (b) Roads serving the camp proper and outlying installations.
- (c) Railway services as governed by specific agreements with the Canadian National Railway.

RATIONS AND MESSING

24 The Canadian Army will provide rations and messing facilities for all personnel stationed or employed at Fort Churchill, excluding those personnel who are in receipt of subsistence allowance. Rations only will be provided to personnel at the RCN Radio Station. Rations and messing facilities will be provided to members of the US Armed Forces under Privy Council authority.

25 The Canadian Army will provide, subject to yearly authority, certain food commodities for sale to personnel occupying married quarters.

RESTRICTED

- 6 -

PETROL, OIL AND LUBRICANTS

26 The Canadian Army will supply petroleum and associated products at Fort Churchill; with the exception of aviation spirits which will be provided by the RCAF.

ACCOMMODATION STORES

27 The Canadian Army will provide all accommodation stores required for the administration of the camp, except for those buildings which are provided for the exclusive use of another service or agency.

TRANSPORT AND REPAIRS

28 The Canadian Army provides, operates, maintains and repairs all transport such as cars, trucks, and other load or personnel carrying vehicles intended for joint use and the general administration of the camp.

29 Each service and agency separately is responsible for the provision, operation, maintenance and repair of technical and experimental vehicles and equipment for its own use.

30 Each service or agency is responsible for the provision of administrative transport such as cars, trucks, and other load or personnel carrying vehicles, required for exclusive use by any one of the services or agencies. In order to prevent an increase in the overhead the number of such vehicles will be kept to a minimum. To simplify maintenance and supply of spare parts, such vehicles are generally of the same type as those held for joint use at the station. The repair facilities of the Canadian Army are available, within the limits of workshop capacity, to the other services. If repairs are in excess of workshop capacity, they will become the responsibility of the user service or agency. Such repairs will be limited to Field Repairs and other services or agencies will be responsible for their own Unit and Base Repairs.

31 The Canadian Army provides, on a recoverable invoice basis, spare parts for Canadian military pattern vehicles used by other services or agencies.

32 Manufacturing of articles which can be obtained through normal civilian suppliers in Winnipeg or other centres will not be performed by Canadian Army workshops.

MOVEMENTS

33 Each service or agency is responsible for making its own arrangements for movement of personnel and freight by rail, sea and air to and from Fort Churchill.

HEALTH AND SANITATION

34 The Canadian Army is responsible for provision of medical and dental care to personnel of the Canadian, United Kingdom and United States Armed Forces, and to personnel of other government agencies stationed at Fort Churchill. Dependents of such personnel may be given medical and dental care within the resources of the Royal Canadian Army Medical and Royal Canadian Dental Corps. By direction of the Minister of National Defence, emergency medical and dental care may be extended to civilians of the general area.

RESTRICTED

- 7 -

EDUCATIONAL FACILITIES

35 The Canadian Army provides educational facilities which include the teaching of children from kindergarten to senior matriculation without charge for children of service personnel, children of civilian employees of the Department of National Defence, children of foreign service personnel and children of employees of other government departments when such personnel are employed at the camp regardless of whether they occupy public quarters or not. Children other than those mentioned above are allowed to attend the Fort Churchill school upon payment of a fee on the authority of Army Headquarters.

FIRE PROTECTION

36 The Canadian Army will provide fire fighting service within one mile of the Camp Administrative Building. Assistance may be despatched to the town of Churchill or other outlying locations at the discretion of the Commandant. The DOT Radio Range will be provided with normal fire fighting services.

37 The Commandant is responsible for the arrangements for fire prevention and fire fighting.

38 The RCAF is responsible for the arrangements for fire prevention, fire fighting and the provision of fire fighting services for operation of aircraft.

PUBLIC RELATIONS

39 Public relation problems affecting Fort Churchill as a whole will be referred by the Commandant to the Director of Public Relations, Department of National Defence through Prairie Command.

40 Problems peculiar to or relating to the work carried out on technical matters by any service or agency will be forwarded to the headquarters of the parent unit for disposal.

CHANNELS OF COMMUNICATION

- 41 (a) The immediately superior headquarters of the principal users of Fort Churchill are:
- | | | |
|-------|---|---|
| (i) | Supplementary Radio Station, RCN | - Naval Headquarters
Ottawa |
| (ii) | Fort Churchill, Canadian Army | - HQ, Prairie Command
Winnipeg, Man. |
| (iii) | RCAF Unit (Joint Services Experimental Establishment) | - Air Transport Command
Lachine, P.Q. |
| (iv) | Defence Research Northern Laboratory | - Defence Research Board
Ottawa |
| (v) | Department of Transport, Fort Churchill | - Department of Transport, Ottawa |
| (vi) | First Arctic Test Detachment, US Army | - Military District of Washington, Washington, D.C. |

RESTRICTED

- 8 -

(b) Channels of communication will be as follows:

- (i) The normal channel of communication will be from a service or agency to its immediately superior headquarters;
- (ii) Matters concerning more than one service or agency, which cannot be resolved by the Commandants Committee, will be referred to the Committee on Fort Churchill Coordination at NDHQ, with copies to the immediately superior headquarters of each service and agency.

RESTRICTED

APPENDIX "A" to
HQS 2000-1975/9 (DWD 2)
dated 7 May 52

Control of Visitors

1 Security

(a) Visitors Sponsored by Canadian Army

Army Headquarters' directorates sponsoring visitors to Fort Churchill will arrange for their security clearance through Army Headquarters Director Military Intelligence and will notify Commandant Fort Churchill. Visitors sponsored by Prairie Command will be cleared by that Command.

(b) Visits Sponsored by RCN, RCAF, Defence Research Board, United Kingdom and United States Armed Forces

Visitors sponsored by the RCN, RCAF, Defence Research Board, United Kingdom and United States Armed Forces will be cleared by their appropriate intelligence organization. The security classification of the visitor will then be sent by the Service concerned to the Commandant, Fort Churchill, through the Commander of the Service or Agency stationed at Fort Churchill.

(c) Department of Transport and National Research Council

Visitors from Department of Transport, National Research Council, and other agencies not specified, when not sponsored by any Service, will be cleared by Army Headquarters Directorate of Weapons and Development through Army Headquarters Director of Military Intelligence.

2 Accommodation

(a) Services or agencies which have units stationed at Fort Churchill, deal with the Commandant through the commanders of their units.

(b) Accommodation arrangements for visitors sponsored by the Canadian Army, other than those from Prairie Command, are made with the Commandant by Directorate of Weapons and Development, through Prairie Command.

(c) Accommodation for visitors sponsored by Prairie Command is arranged by that Command direct with the Commandant.

RESTRICTED

FORT CHURCHILL

INITIAL PROVISION AND MAINTENANCE OF ACCOMMODATION

APPENDIX "B" to
HQS 2000-1975/9 (DWD 2)
dated 7 May 52

SERVICE OR AGENCY

TYPE OF ACCOMMODATION

	LIVING & ADMINISTRATIVE (1)		EXCLUSIVE USE (2)		MARRIED QUARTERS	
	INITIAL SUPPLY	MAINT.	INITIAL SUPPLY	MAINT.	INITIAL SUPPLY	MAINT.
RCN)	Army	Army	RCN	RCN	(RCN)	Army
CDN ARMY)	Army	Army	Army	Army	Army (3)	Army
RCAF)	Army	Army	RCAF	RCAF (4)	Army	Army
DRB)	Army	Army	DRB	Army	Army	Army
U.S. Army	Army	Army	Army	Army	Army	Army
Dept. of Transport	Army	Army	DOT	Army (5)	DOT	Army (5)
National Research Council	Army	Army	NRC	Army	NRC	Army (5)
United Kingdom	Army	Army	Army	Army	Army	Army

- Notes: (1) Includes: Single quarters messing, recreation, camp adm buildings, garage and veh. workshops, hospital, chapels, school and other "common use" facilities.
(2) Includes: Accn. other than living and administrative, which is primarily provided for the specific function of the agency concerned.
(3) RCN initially provided funds for MQs. Current policy is for Army to provide.
(4) To be reviewed.
(5) On repayments at rates mutually agreed upon between DND and DOT.

THE DEFENCE RESEARCH NORTHERN LABORATORY

Personnel

- (a) Present strength at Churchill Officer status - 10
O.R. status - 26 (includes those employed at prevailing rates)
- (b) Probable future establishment Officer status - 22
O.R. status - 37 (includes those employed at prevailing rates)
- (c) Others - It is estimated that at any one time up to a maximum of 20 additional scientists (officer status) may be visiting the laboratory, or working in the area under DRB auspices and requiring administrative support. There will also be approximately 16 students during the summer months.

Accommodation

- (a) Laboratory (i) Current - one large two storey laboratory building (approximately 28 rooms)
one single storey building (approximately 10 rooms)
- (ii) Under consideration - one additional large two storey laboratory building
- (b) Living quarters (i) Current - 10 permanent married quarters (an additional 5 have been allotted but not yet released)
- 9 Female single quarters
15 Male single quarters
- (ii) Future - On the assumption that 40% of the staff would be married, 24 married quarters would be required.

Transport

- (a) Current - Sedans - 2
Station wagon jeeps - 4
Standard jeeps - 2
Truck 3/4 ton - 1
Truck 3 ton - 1
Bombardier Snowmobile - 2

DEFENCE RESEARCH NORTHERN LABORATORY

PROGRAMME FOR PERIOD MARCH 1952 to MARCH 1953

The Defence Research Northern Laboratory is at present carrying out work on the following projects.

(a) own programme

- (i) D45-50-01-03 Storage Behavior of Fuels and Lubricants under Arctic Conditions
- (ii) D45-62-01-01 Herbarium of Arctic Plants
- (iii) D45-68-01-02 Laboratory Rearing of Arctic Mosquitoes
- (iv) D45-63-01-01 Routine Measurements
- (v) D45-89-70-01 Sanitation Problems in the Arctic
- (vi) D50-93-10-02 Physiological Response Produced in Man by Cold
- (vii) D45-93-10-03 Cold Tolerance and Behavior of Arctic Small Animals
- (viii) D72-94-40-02 Deterioration of Elementary Tasks Due to Cold
- (ix) D72-94-40-03 Work Decrement Under Arctic Conditions
- (x) D72-94-40-05 Deterioration of Human Function Due to Arctic Clothing
- (xi) D45-78-70-03 Arctic Plants as Food

(b) in collaboration with other agencies

- (i) D45-50-01-01 Sampling and Analysis of Fuels in Use in the North
- (ii) D50-78-70-01 Ration Pack, Arctic, Five Man and related projects (carried on this year at Shilo, Manitoba. DRNL has sent 1 officer.)
- (iii) D52-82-20-03 Arctic Respirator

During the next twelve months it is intended to initiate work on the following projects.

(a) own programme

- (i) D45-62-01-02 Strength of Ice
- (ii) D45-82-10-02 Intensity of Ultra-Violet in the Arctic
- (iii) D45-69-10-02 Application of the Heat Pump to Arctic Conditions
- (iv) An Assessment of Current Equipment and Methods used by Army Personnel for Ground Navigation in the North

- 2 -

- (v) Visual Air Reconnaissance as a Method of localizing an enemy lodgement in the North
 - (vi) Evaluation of weapons for ground forces on mobile striking force operations
 - (vii) Determination of the Maximum Distance for Economic Use of Overland Transportation of Forces, Supplies and Equipment in Northern Canada
 - (viii) Relative Costs of Vehicular Transport and Foot Passage on Military Operations in Northern Canada
 - (ix) Methods of Hiding an Enemy Lodgement and of Reporting
 - (x) Assessment of the Effectiveness of Air Weapons on Enemy Lodgement in the North
 - (xi) A study of the Accessibility by Ground Approach of Enemy Lodgements in the North
- (b) in collaboration with other agencies
- (i) SES - Chemical Corps Trials
 - (ii) U.K. Winter Smoke Trials
 - (iii) Department of Agriculture Team (Summer 1952)

In addition the following problems are being considered as further projects. In some cases exploratory work is being carried out.

- (i) Engineering Analysis of Trouble Occurring at Fort Churchill in Present Army Vehicles due to Cold Weather, Ice Formation and Snow.
- (ii) Bulk Rations
- (iii) A study of arctic Slids and Toboggans for Use in Northern Military Operations
- (iv) Investigation of the Possible Use of Wind Power in the Arctic and Useful Methods of Storing or Using Such Energy
- (v) Determination of Best Size and Material for Construction of Container for Carrying Naptha or Fuel on the Trail
- (vi) Investigation of Present Method of Illuminating Tents (investigation of Swiss Candle Lantern)
- (vii) Study of "Penguin" Failures on the Trail
- (viii) A study of the Efficiency of Training for Northern Operations
- (ix) Investigation of Better Methods of Dispensing Fuel under Arctic Conditions
- (x) Cooling Rate and Insulation of Vehicle Engines
- (xi) Investigation into Ice Crystal Formation of Fuel Lines in Vehicles
- (xii) Study of the Prevalance of Ice Fog. Study of Methods of Suppression of Vehicle Exhaust Vapor.

DRB 52-0-240 (Arct)

P.A.

21 January, 1952.

CD(c)

The present number of DRB personnel at
DRNL is:

professional officers-	9
technical officers	2
technicians	12
others	15

The NRC Engine Testing has one man permanently at Churchill. When they send an engine up for testing they send a crew (around five men) with it and the crew return with the engine.

The Department of Agriculture plans for this summer are not yet firm. They will probably have about 15 people at their field station at Warkworth Creek. They draw rations from Fort Churchill and have a radio link with them provided by Fort Churchill. Last summer they had a room in the lab for local work in the camp area and a room in the quarters for people to use when having baths etc.

So far I only know of three or four extra mural workers intending to go to Churchill this summer. There are of course a number of people who go there for a few days.

GWR
(G.W. Rowley),
Arctic Research.

DRBS 52-0-240 (Arct)

Ottawa, Ontario,
16 January, 1952.

Superintendent,
Defence Research Northern Laboratory,
FORT CHURCHILL, Manitoba.

1. Thank you for your letter DRNL 4-5-0 dated 9th January 1952.
2. I understand that Dr. Britton is returning to Toronto University in the near future and that his transfer to DRNL is therefore being cancelled.
3. With reference to your para 4, administrative details of personnel matters, such as allowances etc., should certainly be handled directly between DRNL and DRP, but I like the Arctic staff at Headquarters to be kept informed of proposed changes of professional or technical staff and other matters which affect the scientific program at DRNL. As well as being necessary from my point of view, I think this will prove useful to DRNL.

G.M.C.

Chief of Division (C)

G.R./EJ

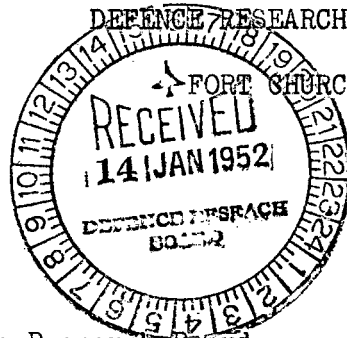


DEFENCE RESEARCH BOARD

DRNL 4-5-0

DEFENCE RESEARCH NORTHERN LABORATORY

FORT CHURCHILL, MANITOBA



9th January 1952

Defence Research Board,
"A" Bldg., N.D.H.Q.,
OTTAWA

Referred to *SRB*

File No. *DRBS 52-0-240*

Attention: Mr. G. M. Carrier, to.....
Chief of Division C

Reference DRBS 52-0-240

1. Thank you for your letter of 2 January 1952 concerning the appointment of Mr. C. E. Law to the staff of DRNL. I regret that there seems to have been a certain lack of information available to you concerning this matter.

2. There will be another request for a transfer for Dr. Donald Britton, presently employed with ORG. This request will come momentarily as I made the request some time ago in conjunction with the request for Law's transfer. (Reference DRNL 879E, DRB 4108, DRNL 886E and conversations Robinson - Morton - Fisher - Carrie held during my visit to Ottawa in December).

3. These transfers are in line with the general program of operational research discussed with Morton and Fisher and represent in part the commitment initially accepted by DRNL. While the long term program for DRNL in respect to operational research is not entirely settled it is extremely unlikely that it will be cut back beyond the limit agreed upon in the initial discussion - Fisher - Robinson - Morton held in August 1951. In these discussions Fisher had committed DRNL to provide three scientists for operational research on MSF topics. At that time, I agreed to carry out this commitment and nothing has happened in the meantime to change my opinion.

4. With reference to para 3 of your letter I should appreciate some guidance since it was my impression that staff matters in general were handled directly between the station and DRP.

Dr. D. B. W. Robinson
Dr. D. B. W. Robinson,
Superintendent.

000078

Compliments 7/1/52

*Copied on
C9-52-549
C9-52-841*

DRBS 52-0-240 (Arct)

Ottawa, Ontario,
2 January, 1952.

Superintendent,
Defence Research Northern Laboratory,
FORT CHURCHILL, Manitoba.

Mr. Law's file has just been referred to me by Arctic from D.R.P. In order to avoid delay I have concurred in his proposed transfer to D.R.N.L.

I have nothing from you since our conversation with Morton to indicate that you have decided to employ Law at D.R.N.L. and that this fits in with your long term programme for D.R.N.L.

It would avoid delays if you keep Arctic here in the picture on all matters which sooner or later must come through him.

GMR/WD

Signed
Chief of Division (C)

DRNL 4-5-R-3 - P



DEPARTMENT OF NATIONAL DEFENCE
CANADA

DEFENCE RESEARCH BOARD

DEFENCE RESEARCH NORTHERN LABORATORY

FORT CHURCHILL, MANITOBA.

4th October, 1951.

oms 11/10
ve
CD
To note
Dr. O. M. Solandt,
Chairman,
Defence Research Board,
"A" Bldg., N.D.H.Q.,
OTTAWA

Referred to... *DRB*

OCT 6 1951

File No. *DRB 52-0-240*

Chgd to.....

Dear Dr. Solandt:

Before I return to Suffield to wind up my affairs there and to move my family I want to take this opportunity to mention to you how much I have appreciated Ken Fisher's assistance to me. He has made the work of getting established here infinitely easier by his willingness to spend many hours during and outside of the regular work period to make certain that I was given all the information and advice necessary to begin carrying on here.

By now I have a fair grasp of the work which is going on and am making arrangements to begin exploratory investigations of one or two new problems which seem to invite examination. The Heat Pump problem has been reactivated to the extent that repairs are being made to the steam and water lines leading from the main pump house to the building enclosing the Heat Pump. The completion of these repairs should permit experimental work to be carried out this winter. The procurement of a mechanical engineer is the only remaining obstacle; one which I hope will not be too difficult to surmount. Most of the projects initiated while Dr. Fisher was here are still proceeding on the momentum given them by him. At present there is little information to add to the annual report which is by now presumably in your hands.

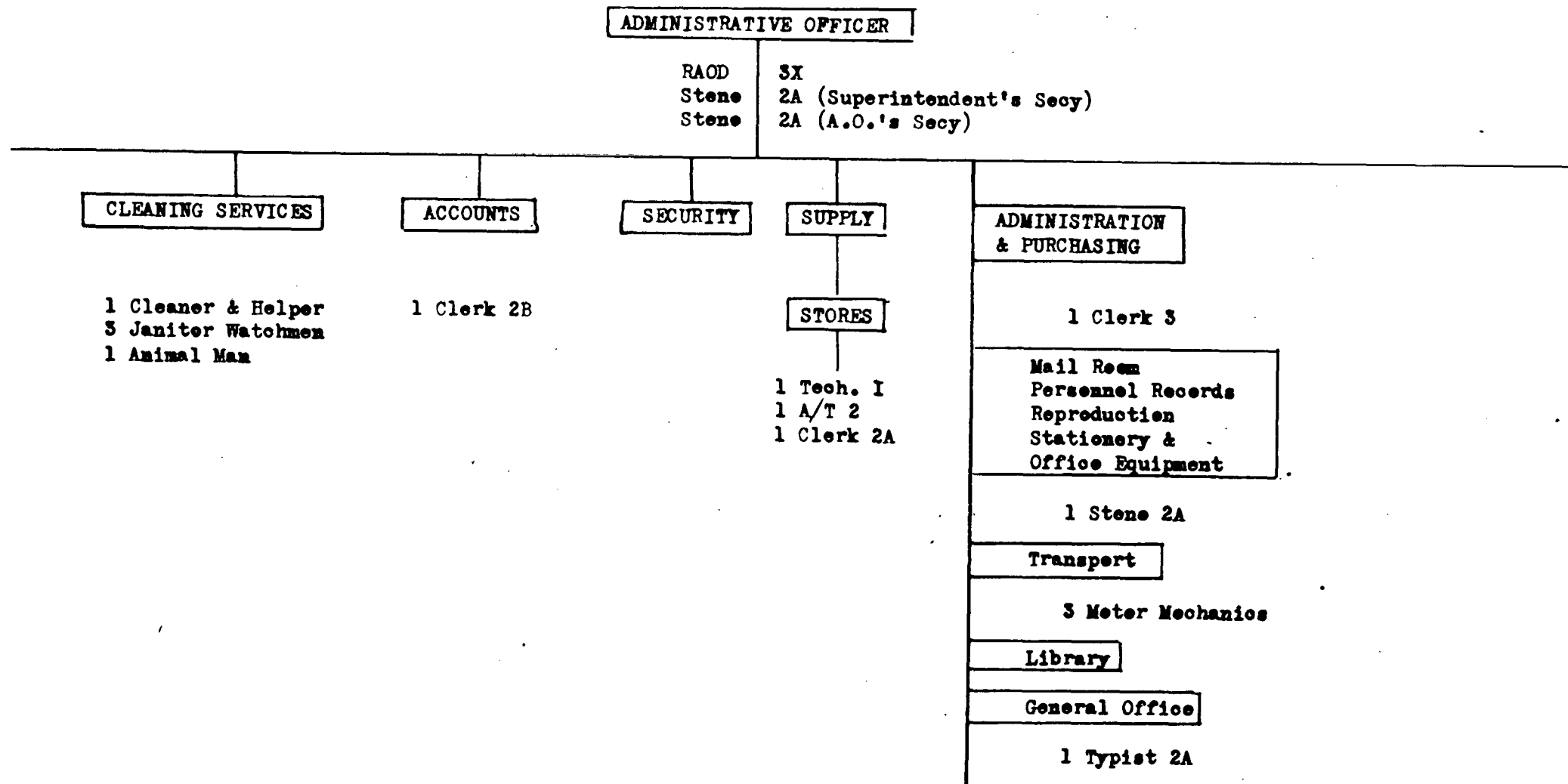
I have found conditions here very comfortable and am quite pleased with the type of accommodation provided for married personnel. I am sure that Mrs. Robinson will find things to her liking. It is to be hoped that you will find the opportunity to visit us at Churchill once we have become established. With all good wishes, I am,

Very truly yours,

D B W Robinson
Dr. D. B. W. Robinson,
Superintendent.

PA → DRBS 52-0-240

DEFENCE RESEARCH NORTHERN LABORATORY
ORGANIZATION CHART - ADMINISTRATIVE BRANCH



DRNL 4-5-3-R-P

DEFENCE RESEARCH BOARD

DEFENCE RESEARCH NORTHERN LABORATORY

FORT CHURCHILL, MANITOBA.

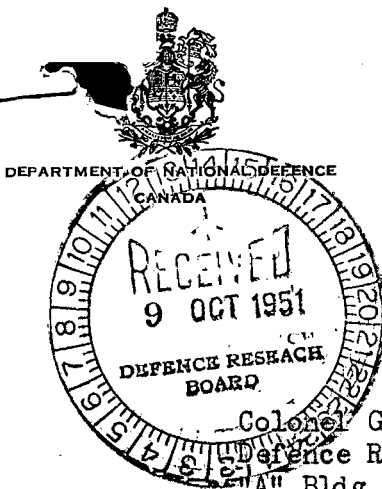
4th October, 1951.

Referred to..... *SRB*

OCT 3 1951

File No. *DRNL 52-0-240*

Chgd to.....



Colonel G. M. Carrie,
Defence Research Board,
"A" Bldg., N.D.H.Q.,
OTTAWA

Dear *Reg.*

PA
SW

Ken Fisher departed from here on the 25th of September and by now I am beginning to digest some of the enormous amount of information which he passed on. I should like to record with you how much I appreciate the great service which you rendered me.

To date most of my time has been spend in becoming familiar with people, places and problems, pretty much in that order. Today I plan to leave for Suffield to wind up my affairs there and return with my family on the 20th. Perry I understand should be arriving in Suffield around the 15th so I should have a little time with him.

Hamphill
SON

Ken and I have been over all the scientific problems being investigated here and I find that there is not much to add to the annual report which you had received while I was in Ottawa. I have arranged to have the outdoor plumbing for the Heat Pump repaired and reinsulated so that it should be possible to do something with it this winter. Would you please advise me what the status is at present of our participation in the experimentary work on it. Are the problem and equipment still considered to be in Mr. Hooper's hands?

Spoke to Robin
& gave him the
inf. He is
working on his
comments
the 10th

I had a chat with Commander Hall recently and asked him if while you had been here you had mentioned the subject which we discussed with Jack Arnell while I was in Ottawa. On receiving a negative reply I then approached him on the matter. He replied that so far as he was concerned he would even put up a "ruddy wind-mill" if we wanted it except that he would prefer to have the request made officially at Ottawa by the DRB with the navy. He showed some slight concern over the size and weight of the installation and the amount of noise it might make. Would you care to take the matter from this point?

Hamphill
Guth

I learned just recently from a Captain Newton of the U. S. Army and more recently from Graham Rowley that the Office of The Surgeon General, U.S. Army, has arranged for a bacteriologist to come to Churchill. It would be my advice that before he proceed this far he should visit Ken Fisher in Toronto to be briefed on what went on in the earlier stages of the problem. He should also visit Dr. Leyton of the Department of Public Health, Province of Manitoba whose offices are in Winnipeg and who did much of the bacteriological work in connection with the problem. Finally I enclose two statements drafted by Ken Fisher on the conduct of two researches with which he was associated during the period of his official stay. They are self-explanatory and while I have no comment since they are about matters which have gone on before my arrival I can readily imagine the difficult conditions under which Dr. Fisher had at times to operate.

In closing let me say that I find things running well. The staff seem to be industrious and fairly happy although the lack

...2

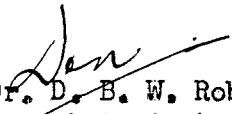
DRNL 4-5-3-R-P
4th October, 1951

Colonel G. M. Carrie

of sufficient married quarters seems to be a matter of some discontent among a few. I hope to begin a search immediately for a suitable mechanical engineer and probably a physicist both of whom I feel can be usefully employed.

I hope this letter finds you well, my kindest regards to my associates in headquarters, with all best wishes,

Yours very truly,


Dr. D. B. W. Robinson,
Superintendent.

Re: National Research Council Test Hut at Fort Churchill

The conduct of this project in the opinion of the Defence Research Northern Laboratory leaves a bit to be desired. Several aspects of the administrative detail did not seem to be quite as adequate as they might be.

What has happened in the past is as follows:

The National Research Council has independently contacted the army and arranged for the building and installation of the test hut and more recently for modifications to it. These arrangements were not communicated in any way with DRNL. After the test hut had been erected or simultaneously with the erection, Mr. Solveson with the NRC at Saskatoon suddenly appeared at Fort Churchill for the purpose of supervising the installation of the measuring equipment and the temperature regulating equipment. Initially this was done, in our opinion, without proper briefing with us, since DRNL was expected to make some regular daily readings of instruments set up in it. Because the importance of the receipt of these readings weekly in Saskatoon was not appreciated certain local conditions with regard to the obtaining of weather data were permitted to greatly delay the forwarding of these daily readings to Saskatoon. During the summer of 1951 independent approaches were apparently made by the National Research Council to the local army at Churchill without communicating with us and further modifications of the test hut were made. Upon this occasion it was emphasized to Mr. Solveson that a more complete liaison with DRNL staff while he was here was definitely indicated and this liaison and briefing was in fact accomplished. He did however leave without making it perfectly clear to DRNL staff as to when readings were to be commenced and when the papers on which the records were to be kept would be forthcoming.

It possibly also should be noted that Mr. Solveson arrived in Churchill with a desire to visit Baker Lake and that he had attempted to make the arrangements to go to Baker Lake through the army, we believe, in Winnipeg. This of course was not the proper way to go about the matter and consequently led to the necessity of wires being dispatched in several different directions in order to straighten the matter out.

It is felt very strongly by the Superintendent of DRNL that if this or any other project at Fort Churchill is to be carried out in any sense jointly by the National Research Council and DRNL that full details at every stage of the operation should be in the hands of DRNL. It is however felt that it would simplify administration for the construction of anything in Fort Churchill which would involve DRNL were arranged by the Defence Research Board at Churchill and not by an independent arrangement with the local camp authorities. This likewise applies to the arrangement for air transport. If DRNL is to be responsible in Churchill for NRC representatives then the whole requirements of these representatives with respect to construction or transport or any other materials or arrangements should be communicated well in advance to DRNL so that appropriate action may be taken. It is to be understood in the case of air transport north from Churchill that it can in most instances be arranged right at Churchill with more convenience than anywhere else.

It should perhaps be emphasized again that the NRC has a permanent representative here. If National Research Council business in this area cannot be handled by this individual then it is felt that it should be handled by the Defence Research Board.

We would be pleased to have your comments on this matter and where you think it appropriate to have these comments communicated to the National Research Council

Dealth

Re: Heat Pump Project at Fort Churchill, Spring, 1951.

Several circumstances with respect to the conduct of the heat pump trials at Churchill this season were felt to be unreasonable if not even improper and are therefore being drawn to the attention of headquarters.

Mr. Laird caused some difficulty on personal grounds. In order to carry on his work most efficiently we assigned a jeep to Mr. Laird enabling him to travel from the laboratory to the pump house at his own convenience. It developed after a period of time that the privilege of having a vehicle assigned to him for business purposes was being grossly misused. Upon two occasions his conduct with the vehicle was the subject of Provost complaints to DRNL. One of these involved speeding the second involved the bringing in to camp of a young girl from town whose reputation was somewhat in question. In addition DRNL was privately informed that the vehicle assigned to Mr. Laird was driven by him when he was definitely under the influence of liquor and that it was loaned by him to various personnel who had no connection whatsoever with DRNL. As a consequence the vehicle was finally taken away from him and transportation to the pump house was provided by a vehicle with driver upon request from him. It is understood that he felt that the taking away of the vehicle was evidence of a failure to cooperate on the part of the Defence Research Northern Laboratory.

Upon a number of occasions Mr. Laird passed personal cheques, in Fort Churchill which were ultimately turned down by the bank because of a lack of funds. In every instance the Sergeants' Mess, the Accounts Officer or the bank manager communicated with DRNL. It may be argued that since these were personal cheques they were not the concern of the laboratory. The fact however is that since Laird was here under DRB auspices the local authorities certainly regarded it as normal to compalin to DRNL about this type of behaviour. In reply to queries about this matter Laird maintained that there were no funds available because Mr. Hooper of the University of Toronto had not put to his credit in Toronto the money promised him as an employee on the DRB grant administered in fact by Mr. Hooper.

It became apparent to us in Churchill toward the end of Mr. Laird's stay here that he was not in fact spending an appreciable amount of time working on the heat pump. Upon querie regarding this matter Mr. Laird said that he was awaiting some parts which were to be built into the equipment and that arrangements for shipment of these parts were to be made by Mr. Hooper. It was suggested to Laird that since his support was coming ultimately from DRB that he should appear at the laboratory daily for the purpose of being assigned any other tasks pending arrival of these parts. This Mr. Laird absolutely refused to do on the grounds that he was employed by the University of Toronto through Mr. Hooper and had in fact no responsibility whatsoever as far as DRNL was concerned. Ultimately the parts in question arrived at the freight office in Churchill. They were not removed from the freight shed because they came collect and Mr. Laird claimed that he was not supplied with funds necessary to pay these charges. We understand that there was no mechanism by which DRNL could pay these charges and therefore they remained in the freight shed for a considerable period of time still therefore delaying any progress on the project in question.

Mr. Laird in setting up the heat pump ran into difficulties which he duly reported to us and to Mr. Hooper and as a consequence was unable to have the machine operating in the way that was intended. When the project was visited briefly by Mr. Hooper he informed the Superintendent personally that Mr. Laird was "off the track" in his analysis of the trouble and he (Hooper) had put him right on the matter. As indicated above however certain parts required did not come in time for the pump actually to be put into operation.

---2

Heat Pump

It is understood that Laird and possibly Mr. Hooper feel that they did not receive the cooperation reasonably to be expected from the staff of DRNL. Perhaps the reasons for this feeling will be cleared up from the above. It is felt in fact that there are no grounds for claiming lack of cooperation.

In view of the above it is felt that under no circumstances should any organization or grantee be permitted to use facilities at Fort Churchill except under the auspices of DRNL and further that under no circumstances will personnel involved in such use of the facilities of DRNL in Fort Churchill be permitted any status other than one requiring responsibility in every respect to the Superintendent of DRNL.

N. This project is regarded as a worthy one by the Superintendent of DRNL. It is felt however that there is some question about the virtue of any further movements of the equipment in queation between Fort Churchill and Toronto. The conditions under which the heat pump must operate in Churchill are identical to those under which it has to operate in Toronto. There appears little reason from the standpoint of the equipment itself in the shipment of it to Churchill. If the equipment is to be used at Fort Churchill it would appear necessary to have more adequate supervision of its setting up and operation than can be provided by a mechanical technician such as the Mr. Laird sent this year. This statement is based on the personal statement made by Mr. Hooper that Laird was incorrectly diagnosing the difficulty involved in placing the equipment in operation.

DRBS 1-0-240 (DRP)

DRBS 52-0-240 (DRP) ← PA.

DEFENCE RESEARCH BOARD

Department of National Defence
Canada

Ottawa, Ontario,
21 August, 1951.

To: Distribution

Appointment
DRNL

Dr. D. B. Robinson, to be Superintendent
of the Defence Research Northern Laboratory, effective
1 September, 1951.



Vice Chairman

DISTRIBUTION

List 'A'
List 'B'
Files
Diary



R E S T R I C T E D

ARMY HEADQUARTERS

HQS 2000-1975/9 (SD 1)

OTTAWA, 9 Jul 51

①

Terms of Reference - Fort Churchill
Joint Organization Order No

1 Reference is made to HQS 2000-1975/9 (SD 1) dated 9 Feb 51.

2 Attached is a copy of the final draft of the Joint Organization Order for Fort Churchill. It is requested that your concurrence in, or comments on, this draft be received by 27 Jul 51.

② Arctic
May DGS have your
com wants in ample
time to meet deadline
set by CGS?
W.D. Dwyer
11/7/51

③ C.D.(C)
You may be interested in this. It seems
very reasonable and I have no comments.
I have underlined the more important parts
of these para 18 is in fact the most
important.
G. OR
12 July 51

④ Dear General
Am
11/7/51

(GG Simonds)
Lieutenant-General
Chief of the General Staff

DISTRIBUTION

Chief of Naval Staff
Chief of Air Staff
USA Military Attache (through MI Liaison)
UK Army Liaison Staff in Canada
DRB
DE
DMO & P
DMI
DMT
DWD
D Army Budget
D Sigs
AG Coord
DQOP

⑤ DGS.
No comments.
L 572
17 July 51

R E S T R I C T E D

HQS 2000-1975/9 (SD 1)

JOINT ORGANIZATION ORDER NO _____

FORT CHURCHILL

GENERAL

1. Trials, research and training are conducted under arctic conditions in the area of Fort Churchill by military and civilian agencies of the governments of Canada, the United Kingdom and the United States. The general object is the acquisition of knowledge and the development of tactical doctrine and equipment to enable men to live and fight in the arctic. Coordination of the effort is achieved by liaison at all levels.

2. The following agencies are concerned:

- (a) Department of National Defence (Canada)
- (b) Department of Defence (United States)
- (c) War Office (United Kingdom)
- (d) Department of Transport (Canada)
- (e) National Research Council (Canada)
- (f) Air Ministry (United Kingdom)
- (g) Ministry of Supply (United Kingdom)

3. In order to provide a command, administrative and housekeeping element, a unit of the Canadian Army, designated Fort Churchill, was formed under authority of GO 255 dated 30 Oct 46. The Commandant is provided by the Canadian Army.

4. These Terms of Reference will:

- (a) State the responsibilities of the Commandant for the overall operation of Fort Churchill.
- (b) Outline the arrangements under which facilities and services are provided for common use, and the arrangements under which common use is made of them.
- (c) Indicate the division of responsibility for work at the station.

.../2

5. A statement of the responsibilities of the Commandant arising from development of Arctic ground warfare doctrine, training of Canadian Army personnel and conduct of Canadian Army trials will be issued separately.

6. Duties of units of other Services, Canadian or foreign, and of civilian agencies, insofar as they do not affect the operation of Fort Churchill as a whole, are as ordered by the responsible Service or civilian authorities.

RESPONSIBILITIES OF THE COMMANDANT

7. The overall responsibility for the safety of Fort Churchill, for security of information and for the conduct and welfare of personnel stationed there, except for personnel of the RCN Radio Station, rests with the Commandant.

8. The Commandant is commander of all Canadian Army personnel posted to Fort Churchill.

9. He is responsible for necessary local coordination and general administrative control of the activities of all groups, except the RCN Radio Station, operating in Fort Churchill. "Administrative control" is defined as that control which the Commandant exercises to ensure that internal administrative orders of any agency do not impede the work of any other agency or the administration of Fort Churchill as a whole. Control, to the limit defined above, is exercised over the following subjects:

- (a) Security
- (b) Overall discipline of the camp and reports on action taken in connection with overall discipline.
- (c) Construction of or alteration to buildings.
- (d) Changes in personnel other than normal replacement.
- (e) Accommodation
- (f) Health and sanitation
- (g) Welfare
- (h) Transport
- (j) Provision, through normal channels, of equipment and stores which may affect the station administration.

R E S T R I C T E D

- 3 -

10. He is responsible for providing housekeeping services, medical care, education and facilities for welfare and recreation for personnel stationed at Fort Churchill, with the exception that he is not responsible for providing housekeeping services for personnel of the RCN Radio Station.

11. He allocates accommodation used in common or required for the general administration of the camp.

12. He is responsible for arrangements for fire prevention and fire fighting except those connected with operation of aircraft.

13. During periods of local emergency he exercises operational control over all personnel at Fort Churchill.

14. His responsibilities in event of a national emergency will be notified separately.

15. The Commandant, Fort Churchill, is responsible for the overall security of the camp, and imposes such regulations, restrictions and controls as he considers necessary. Each Service and agency in Fort Churchill appoints a Security Officer, who is responsible for ensuring that security measures adopted within their respective establishments conform to the overall security plan for Fort Churchill. The system of clearing visitors for security is detailed in Appendix "A".

16. Orders have been issued by the Royal Canadian Navy, Canadian Army, Royal Canadian Air Force and the United States Army providing that all members of these Services stationed at Fort Churchill will obey the lawful commands of officers, chief petty officers, warrant officers, petty officers and NCOs superior to them in relative rank or rating irrespective of the Service to which they belong. Copies of these orders are attached as Appendices "B", "C", "D" and "E". Each Service at Fort Churchill retains full authority for the administration of discipline of its own personnel. Civilian personnel at Fort Churchill, serving in whatever capacity within the camp, are subject to such rules and regulations either governing general deportment or affecting the safety and security of the camp, as may be issued by Commandant, Fort Churchill. Recognition is, however, granted to the fact that Fort Churchill is a mixed station and that civilians are also serving the Government. The interpretation of regulations and orders with respect to civilians is on the basis of common sense rather than strict application of the rules. Civil law is administered by the local civilian authorities.

.... / 4

R E S T R I C T E D

- 4 -

17. Fort Churchill is under command of Headquarters, Prairie Command, in all respects concerned with administration of the camp. A direct channel is authorized between Army Headquarters and Fort Churchill on questions of policy and preliminary planning connected with the carrying out of trials, training and related matters, and reports arising therefrom, except when Prairie Command is responsible for coordination and/or supervision. When the direct channel is used, copies of all correspondence which affect the administration of Fort Churchill will be sent to Headquarters Prairie Command. On strictly technical matters, a direct channel is authorized between each unit or group and its higher headquarters.

18. Approval is given for Canadian Army trials, and accommodation requirements are received for them and for trials and research projects of other Services and civilian agencies by Army Headquarters, (Directorate of Weapons and Development (DWD)) for transmission to Commandant, Fort Churchill.

19. Arrangements for visitors, other than those affecting security which are detailed at Appendix A, are made as follows:

- (a) Services, excluding the Canadian Army, or civilian agencies which have units stationed at Fort Churchill deal with the Commandant through the commanders of their units.
- (b) Arrangements for visitors sponsored by the Canadian Army are made with the Commandant by DWD, through Prairie Command.
- (c) Arrangements for visitors other than those in the classes mentioned above are made with the Commandant by DWD, through Prairie Command.

ARRANGEMENTS

20. Accommodation for the exclusive use of a Service or civilian agency is provided maintained and controlled by the Service or agency concerned, except for the general administrative control vested in the Commandant by para 9 above. The Canadian Army provides and maintains accommodation used in common or required for the general administration of the station. All plans for construction are referred to Army Headquarters, which ensures that they are considered by the appropriate individuals or committees and passed to the competent authority for final decision. Provisions of CAO 5-2 govern allocation of married quarters. The Canadian Army is responsible for the provision of a fire fighting service, electric power, water, sewage disposal and maintenance of the main roads in the camp area. Responsibility for provision of a fire fighting service does not extend to the service required for operation of aircraft.

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R E S T R I C T E D

- 5 -

21. The Canadian Army is responsible for provision of medical and dental care to personnel of the Canadian, United Kingdom and United States armed forces, and to personnel of other government agencies stationed at Fort Churchill. Dependents of such personnel may be given medical care within the resources of the Royal Canadian Army medical and Dental Corps. By direction of the Minister of National Defence, emergency medical and dental care may be extended to civilians of the general area.

22. The Canadian Army provides all accommodation stores required for the administration of the camp, spare parts for administrative transport as well as transport used for purposes of the Canadian Army and, on a recoverable invoice basis, spare parts for Canadian military pattern vehicles used for other purposes. Laundry facilities are also provided by the Canadian Army.

23. Rations and messing facilities are provided by the Canadian Army to all personnel stationed or employed in Fort Churchill, except personnel of the RCN Radio Station, for whom rations only are provided, and personnel in receipt of subsistence allowance. Certain food commodities are sold to married personnel through the commissary, under authority of the Minister of National Defence. Rations and messing facilities are provided members of the US armed forces under the terms of PC 53/3988.

24. The Canadian Army provides, operates, maintains and repairs all transport such as cars, trucks, and other load or personnel carrying vehicles intended for joint use by the Services for station maintenance. Each Service separately is responsible for the provision, operation, maintenance and repair of technical and experimental vehicles and equipment peculiar to each Service--in the case of the RCAF, for example, snow blowers, crash tenders, tankers, emergency landing equipment and any other specialized equipment required in the operation of the airfield. Provision of administrative transport such as cars, trucks, and other load or personnel carrying vehicles required for exclusive use by any one of the Services is the responsibility of that Service. This transport, although provided, operated and used exclusively by each Service, is under the control of the Camp Supply and Transport Officer at Fort Churchill. In order to simplify maintenance and supply of spare parts, such vehicles are generally of the same type as those held for joint use at the station. The repair facilities of the Canadian Army are available, within the limits of workshop capacity, to the other Services.

.... / 6

- 6 -

R E S T R I C T E D

25. At Fort Churchill, the Canadian Army provides educational facilities, which include the teaching of children from Kindergarten to Senior Matriculation, without charge, for children of Service personnel and children of civilian employees of the Department of National Defence, and for children of foreign Service personnel and employees of other government departments, free of charge when these personnel reside at the station, and for a charge when they do not. Children, other than those mentioned above, are allowed to attend the Fort Churchill school upon payment of a fee, on the authority of Army Headquarters.

DIVISION OF RESPONSIBILITIES

CANADA

26. Royal Canadian Navy

- (a) Command and administration of the RCN Radio Station.
- (b) Experimental work connected with the above station.

27. Canadian Army

- (a) Administrative control over Fort Churchill.
- (b) Canadian Army experimental projects.
- (c) Canadian Army training.
- (d) Operational control of all Fort Churchill units and establishments in the event of a local emergency.
- (e) The Royal Canadian Corps of Signals establishes and maintains inter-communication within the station area and also the following communications:
 - (i) with the National Defence Communication System;
 - (ii) when possible and necessary, a monitoring station for parties operating outside the station;
 - (iii) a transmitting station of at least 300 watts power, with associated receivers, within the camp defended area, to contact the National Defence Communication System in an emergency.

28. Royal Canadian Air Force

- (a) Command and maintenance of airfield, hangar, control tower and associated equipment and facilities less the radio range.

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- 7 -

R E S T R I C T E D

- (b) RCAF experimental projects.
- (c) RCAF operational training.
- (d) Provision and maintenance of air/ground communication facilities.
- (e) The provision of aircraft and aircrew to carry out the air requirements for the Canadian and US forces based at Fort Churchill.
- (f) The maintenance and service of the landing strip at Coral Harbour when necessary.
- (g) The provision of Air Search and Rescue facilities at Fort Churchill.
- (h) The control and maintenance of adequate facilities to provide for the safe landing, parking and securing of commercial aircraft within the control area of Fort Churchill.
- (j) Aviation Forecast Office.

29. Defence Research Board

- (a) Supervision and control of all DRB and DRB-sponsored personnel.
- (b) Basic research concerned with military problems peculiar to living, working and fighting in the Arctic.
- (c) Provision of facilities to visiting scientists operating out of Fort Churchill on short term or seasonal projects.

30. Department of Transport

- (a) Payment of the cost of landline communications for the RCAF Aviation Forecast Office.
- (b) Responsibility for the upper air observing programme.
- (c) Ionosphere Measurement Station.
- (d) Provision and operation of the radio range at Fort Churchill.

31. National Research Council (Canada)

National Research Council experimental projects.

UNITED STATES

32. United States Forces

- (a) United States experimental projects.
- (b) Command of all US personnel.

...../8

- 8 -

R E S T R I C T E D

- (c) Provision of logistical and administrative support for various US test detachments and units.
- (c) No 1 Arctic Test Detachment of the US Army operates and maintains a radio station for trials. Frequencies for this purpose are requested by the US Joint Communications-Electronics Committee through the Canadian Joint Telecommunications Committee.

GREAT BRITAIN

33. War Office

British Army experimental projects.

34. Air Ministry

RAF experimental projects, in conjunction with RCAF.

35. Ministry of Supply

Experimental projects in conjunction with War Office and Air Ministry.

R E S T R I C T E D

Appendix "A" to
HQS 2000-1975/9 (SD 1)
Dated July, 51

Control of Visitors

1. Security arrangements for visits of parties, such as groups of newspapermen, diplomatic representatives, members of parliament will be made by DWD with advice of the Directorate of Military Intelligence (DMI).
2. DWD will arrange security clearance, with DMI, of visitors sponsored by the Canadian Army, and will notify the Commandant, through Prairie Command, of the security classification of the visitor.
3. Visitors sponsored by the RCN, RCAF and the US Army will be cleared by the appropriate intelligence organization. The security classification of the visitor will then be sent by the Service to the Commandant, through the commander of the unit of the Service stationed at Churchill.
4. Security clearance of all others, such as visitors from Canadian and United Kingdom departments of government, visitors from the United States not sponsored by the US Army and so forth, will be arranged by DWD on advice of DMI. These arrangements may take the form of investigation or of certification of clearances presented by the sponsor.

R E S T R I C T E D

Appendix "B" to
HQ5 2000-1975/9 (SD 1)
Dated July 51

To the Officer, Chief Petty Officer
or Petty Officer in Charge, Fort Churchill,
CHURCHILL, Manitoba.

Powers of Command

It is anticipated that in the normal course of operations and business at Fort Churchill, Canadian Naval personnel will of necessity, be called upon from time to time to obey orders and instructions given to them both verbally and otherwise by superior officers of the Canadian Army, the Royal Canadian Air Force or the United States Army. In order to establish clearly the position of Canadian Naval personnel in relation to superior officers of these other services and/or force, and to ensure that all Naval personnel under your command are fully aware of their duty to carry out such orders and instructions, and their liability to punishment for disobedience or non-compliance therewith, you will issue the following Order:-

ORDER

"Members of the Canadian Naval Forces serving at Fort Churchill are hereby notified that they will obey the orders and instructions of officers, non-commissioned officers of the Canadian Army, the Royal Canadian Air Force and the United States Army, superior to them in relative rank or rating. All such orders and instructions as are not contrary to Canadian Naval law shall have the same force and effect as if they had been issued by a superior officer of the Naval Forces of Canada and will be obeyed accordingly. It will therefore be clearly understood that when personnel of the Canadian Naval Forces are serving at Fort Churchill in conjunction with the Canadian Army, The Royal Canadian Air Force with the Canadian Army, the Royal Canadian Air Force or the United States Army, the members of such services and force will be treated and will have over such personnel of the Canadian Naval forces, as individuals only, powers of command, (but not discipline and/or punishment) as if they were members of the Canadian Naval Forces of relative rank or rating. Similarly, pursuant to orders issued by the officers commanding the detachments of such services and force serving at Fort Churchill, personnel of the Canadian Naval Forces will be treated and will have over individual members of the Canadian Army, the Royal Canadian Air Force or the United States Army the same powers of command as if they were members of those forces of relative rank. Failure to observe the terms of this Order will render the individual offender liable to disciplinary action under Canadian Naval law."

.....
Vice Admiral, R.C.N.,
CHIEF OF THE NAVAL STAFF.

R E S T R I C T E D

Appendix "C" to
HQS 2000-1975/9 (SD 1)
Dated July, 51

HQ Prairie Command,
Fort Osborne Barracks,
WINNIPEG, Man.

Powers of Command - Fort Churchill

1. Reference PC letter 38-4-1 (A&Q) dated 8 Jan 47 and this HQ letter 142,14-5 FD 3 (Adm 82a) dated 25 Feb 47.
2. In this HQ letter referred to above, instructions were issued for the simultaneous promulgation of orders precisely similar in effect, governing discipline among personnel of the three Canadian services stationed at Fort Churchill.
3. Arrangements have now been made with the senior Army Member, United States Army, for the issue of a similar order for the maintenance of discipline of personnel of the United States Army at Fort Churchill.
4. New Orders have been issued by the RCN and RCAF providing that all members of these services will obey the commands of officers, warrant officers and NCOs of the RCN, Canadian Army, RCAF, and United States Army superior to them in relative rank or rating. A similar order governing personnel of the Canadian Army is included in this letter.

ORDER

5. "Members of the Canadian Army serving at Fort Churchill are hereby notified that they will obey the orders and instructions of the petty officers and non-commissioned officers of The Royal Canadian Navy, Royal Canadian Air Force and the United States Army superior to them in relative rank or rating. All such orders and instructions as are not contrary to Canadian Military Law shall have the same force and effect as if they had been issued by a superior officer, warrant officer or non-commissioned officer of the Canadian Army, and will be obeyed accordingly. It will therefore, be clearly understood that when Canadian Army personnel are serving at Fort Churchill in conjunction with the Royal Canadian Navy, Royal Canadian Air Force and United States Army, the members of such services will be treated and will have over such Canadian Army personnel, as individuals only, powers of command (but not discipline and/or punishment), as if they were members of the Canadian Army of relative rank or rating. Similarly, pursuant to orders issued by the officers commanding the detachments of such services serving at Fort Churchill, Canadian Army personnel will be treated and will have

Appendix "C"

- 2 -

over individual members of the Royal Canadian Navy, Royal Canadian Air Force and United States Army the same powers of command as if they were members of those forces of relative rank. Failure to observe the terms of this order will render the individual offender liable to disciplinary action under Canadian Military law."

6. It is therefore directed that you instruct the Commander, Fort Churchill, to cancel the previous orders issued in consequence of this HQ letter referred to above and to issue the new order set out in para 5 herein and to take the proper action to effect simultaneous promulgation of orders of the three Canadian Services. The United States Army will publish its orders governing US personnel under its own arrangements.

(Sgd Brig) for Major General
Adjutant-General

R E S T R I C T E D

Appendix "D" to
HQS 2000-1975/9 (SD 1)
Dated July 51

"Members of the RCAF serving at Fort Churchill are hereby notified that they will obey the orders and instructions of officers, warrant officers and NCOs of the US Army and US Air Force superior to them in relative rank. All such orders and instructions as are not contrary to Air Force law shall have the same force and effect as if they had been issued by a superior officer, warrant officer or NCO of the RCAF and will be obeyed accordingly. It will, therefore, be clearly understood that when RCAF personnel are serving in conjunction with the US Army or US Air Force, the members of such Services will be treated and will have over such RCAF personnel, as individuals only, powers of command, (but not discipline and/or punishment), as if they were members of the RCAF of relative rank. Failure to observe the terms of this order will render the individual offender liable to disciplinary action under Air Force law."

R E S T R I C T E D

APPENDIX "E" to
HQS 2000-1975/9(SD 1)
Dated July 51

WAR DEPARTMENT
The Adjutant General's Office
Washington 25, DC

AGAO-C 259 (5 May 47) WDGPO

9 May 1947

SUBJECT: Instruction to United States Armed Forces
serving at Fort Churchill, Manitoba, Canada.

TO: Commanding Officer
United States Armed Forces
Fort Churchill
Manitoba Province, Canada.

1 It is anticipated that in the normal course of military operations and business at Fort Churchill, Manitoba, United States troops must of necessity obey the standing orders of the Canadian Commanding Officer of that station and be called upon from time to time to obey orders and instructions given to them orally or otherwise by superiors in relative rank who are members of the Canadian Armed Forces.

2 In order that the United States Forces may be fully aware of their duty in this matter, the United States Commanding Officer and/or Detachment Commanders will, upon arrival at Fort Churchill, issue the following order in writing:

ORDER

In order that the United States Armed Forces serving at Fort Churchill may work harmoniously and efficiently with the Canadian Armed Forces, the following is ordered:

Members of the United States Armed Forces serving at Fort Churchill are hereby directed to obey the standing orders of the Canadian Commanding Officer of that station and, in addition thereto, to obey the orders or instructions of officers and non-commissioned officers of the Canadian Forces superior to them in relative rank. Failure to obey the terms of this order will render the individual offender liable to disciplinary action by proper United States military commanders.

Members of the Canadian Armed forces have been issued like instructions regarding their relationship with the United States Armed Forces.

BY ORDER OF THE SECRETARY OF WAR:

/S/ Edward F Witzell
Major General
The Adjutant General

MEMORANDUM

Ottawa, Ontario
12 April, 1951.

C of A

Notes raised during VC/DRB
tour of field stations

1. Para. 2: "In emergencies, can we use radio link - RPL
Churchill to contact DRNL."

The DOT receiving station at Churchill is installing, this spring, a 1,000 kilowatt receiver-transmitter. RPL, Prescott Highway, has a 500 kilowatt receiver-transmitter. This link should permit direct contact between DOT, Churchill and RPL, Ottawa, by key, 90% of the time. Voice intercommunication would be possible when atmospheric conditions are favourable.

In case or cases of emergencies, it would, therefore, be possible to contact DRNL through the RPL - DOT Churchill link.

2. Para. 3: "Married quarters becoming short again at DRNL. 25 have been handed back to RCN. No. spares at present to attract staff. 2 on waiting list. Approximately 5 of new quarters will be available in spring, 1952. Can we do better?"

The following personnel are now provided with permanent married quarters -

- (a) In officer's block -

Dr. Fisher
Mr. Barlow

- (b) In other rank's block -

Mr. Bloore
Mr. Dobson
Mr. Easterbrook
Mr. Hastie

- (c) Temporary suites -

Mr. Hyde and Mr. McBride

- (d) From Army allocation -

Mr. Mills
Mrs. Campbell
Mrs. White

Mr. Hastie has now been posted to Ottawa and his married quarters will be available for reallocation by DRNL.

It is understood Mr. McBride and Mr. Hyde are leaving DRNL. The temporary accommodation which they now occupy will no longer be available.

- 2 -

Mr. Mills' permanent accommodation was allocated from Army quota as a compensation for having Mrs. Mills as teacher.

Mrs. Campbell and Mrs. White are wives of service men who have been allocated permanent married accommodation by the Army. They will be subject to posting at any time.

When the 56 quarters are completed in 1951, it is expected that two additional permanent married quarters will be allocated to DRNL for officer personnel. No additional allocation can be expected until the 148 married quarters, on which construction will commence this year, are completed, in 1952 and 1953.

Based on the provision of married quarters for Churchill and the present over-all married strength at Churchill, DRNL has been allocated an equitable share.

3. Para. 5: "Foundation Company at Churchill state that a firm order for buildings should be awarded before February in order to have chance of quickest completion."

On 6 April, 1951, I discussed with Mr. Pope, Mr. Barron, representatives of Foundation Company of Canada Limited, the matter of construction procedure at Churchill. They advised as follows -

- (a) Any major project will require two years to complete. The first year will be required for the preparation of plans and specifications, the preparation of the site and foundations, ordering and stockpiling construction materials. The second year will be required for erection of the superstructure, closing in of the building and interior finishing.
- (b) The construction program for completion in 1951 at Churchill includes only those projects for which plans, site, foundations and materials were taken care of in 1950.
- (c) New projects will be commenced in 1951 for completion in 1952.
- (d) Construction camp facilities will not permit contractors engaging more employees than are now being used at Churchill. The cost for increasing construction camp facilities would be high, would delay other construction and would increase the over-all cost of other construction.
- (e) It is not economical during the months of December - March to carry out construction operations.
- (f) Ground conditions do not permit opening of gravel pits until June and generally, foundations cannot be poured before that time.
- (g) The construction facilities and equipment at Churchill are fully committed for 1951. The work to be done is as follows:
 - (1) 148 housing units to be commenced and completed in 1952-53.
 - (ii) 10-room school to be commenced and completed, if possible.

- 3 -

- (iii) Water treatment plant.
 - (iv) Signals building.
 - (v) RCE stores and workshop.
 - (vi) Chapel.
 - (vii) Commissary - foundations only.
 - (viii) DRNL extension - to complete as much as possible.
- (h) The Foundation Company advises that the DRNL extension cannot be completed for occupancy before August, 1952. They estimate the cost of preparing the site and pouring the foundations to be \$75,000 and they are not in a position to give, at this time, the estimate of the cost of constructing the building.
- (i) The plans and specifications for the DRNL extension are now in the preliminary lay-out stage and should be completed for tender call on or about 1 June, 1951.
- (j) DCL will be asked, within the next week, to arrange a contract with Foundation Company for the preparation of the site and the pouring of the foundations.
- (k) If the above information should in any way change the present plans to proceed with the DRNL extension, such an indication should be given immediately.
4. Para. 6: "AFRO reads the Service personnel only have leave priorities on aircraft - civilians have no official priority. Can DRB personnel be included as Service personnel proceeding on leave"?
- The Air Force Routine Order provides that civilian dependents of service personnel and civilian employees of the Department may be carried on a "Space Available" priority, meaning no priority at all.
- This matter has been discussed with the Air Force on many occasions and we have now reached a point where nothing further can be done at the staff level. The decision would have to be made at the highest policy level, i.e., Defence Council, and would involve obtaining from the Deputy Minister his concurrence in DRB staff having priority over all other civilian employees of the Department, in obtaining for DRB a semi-service status. It would also involve changes in service orders as gentlemen's agreements at Ottawa cannot be applied at service stations where they naturally have to "go by the book".
5. Para. 7: "Churchill - Sgts. Mess - DRB are getting quite a lot of trouble here. They are not welcomed by the NCOs and life is being made uncomfortable. This may lead to trouble when all the non-professional girls are transferred from the Officers to Sgts. Mess."
- The Army authorities should be made to realize that Churchill cannot be operated as a static Army camp subject to Army regulations

- 4 -

and traditions. The living arrangements should resemble a government hotel, like Deep River, and any attempt to impose petty military restrictions should be firmly opposed. It should be understood that the sergeants mess is not the private club of the Army sergeants and other people, sailors, airmen and civilians, treated as interlopers. This point has been argued out before with the Army authorities but only regarding the treatment of civilians in the Officers Mess.

We are willing to raise the subject again with the Army here but we can do absolutely nothing until the Superintendent has used his own influence to solve the difficulty and has failed. The responsibility rests entirely on him to take the matter up formally with the Commandant, quoting chapter and verse to support his complaints of unfair treatment. It is only after we have his full report of refusal or neglect on the part of the Commandant to rectify the unhappy situation that we can act here.

If the Commandant refuses to do anything and we have a strong case to put forward, we can then make the most vigorous complaint. But we have to be able to show facts; if necessary, going to the Minister if Army takes no corrective action.

Director of General Services.

WDH/ok

Ottawa, Ontario

9 April, 1951.

Chief of the General Staff,
Army Headquarters,
Ottawa.

Terms of Reference - Fort Churchill
HQS 2000-1975/9 (DSD)

1. The delay in forwarding the Defence Research Board's comments on the draft terms of reference dated February 9 is regretted but they came to hand only on April 2.

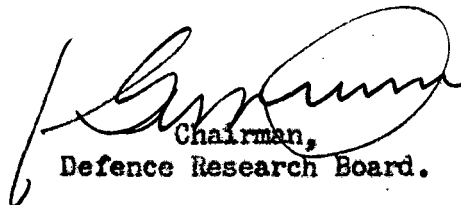
2. In view of past experiences I would respectfully suggest that too much stress cannot be laid upon the fact that Fort Churchill is different from any other station. It is, in fact, not a straightforward Army post or even a tri-services installation but a very mixed community in which several services, government departments and agencies are cooperating for mutual benefit.

3. I feel that the terms of reference should include an acknowledgment of this fact and would accordingly recommend for your consideration that paragraph 12 of the draft terms of reference be amended to read as follows:

"12. Civilian personnel at Fort Churchill are subject to such rules and regulations as may be issued by the Commandant, Fort Churchill. Recognition will, however, be granted to the fact that Fort Churchill is a mixed station and that civilians are also serving the Government. Frequently they are eminent scientists contributing their services without charge to the public. The interpretation of regulations and orders with respect to civilians will be on the basis of common sense rather than strict application of the rules.")

4. The Board is anxious that its employees and all others who are posted to Churchill under its sponsorship fully understand that they are subject and must conform to the Commandant's orders. Attached is a copy of the joining instructions issued to such people.

WDH/sk


Chairman,
Defence Research Board.

Ottawa, Ontario
9 April, 1951.

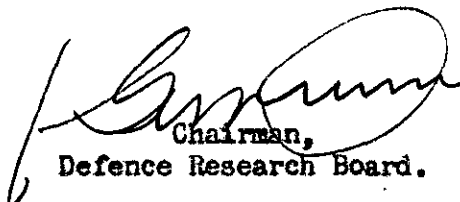
Chief of the General Staff,
Army Headquarters,
Ottawa.

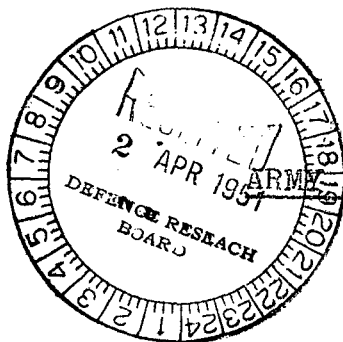
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WDH/sk


Chairman,
Defence Research Board.



RESTRICTED

Reference to *DRB*
APR 2 1951
DRB 52-0-240
RECEIVED
2 APR 1951

HQS 2000-1975/9 (SD 1)

9 Feb 51.

①

Terms of Reference - Fort Churchill

1. It is considered that it would be appropriate, at this time, to produce terms of reference for the Combined Experimental and Training Station, Fort Churchill, to replace pertinent data, which is in the form of Long Term Planning Notes.

2. Draft Terms of Reference are an Appendix "A". It is requested that your concurrence and/or comments be indicated, so that a final draft can be prepared for issue.

② Archie through DRB for consideration and comments, please.
W.D. Simonds
for DRB

34/51

Given your suggestion is correct but would require a lot of work at Fort Churchill should be a negotiation etc.
W.D. Simonds
Lieutenant-General
Chief of the General Staff

DISTRIBUTION

Chief of Naval Staff
Chief of Air Staff
USA Military Attache (through MI Liaison)
UK Army Liaison Staff in Canada

✓ DRB

D.G.S.
I agree with your observations — and will DRB comments on it.
I feel however that para 2 (1) of your observations would be out of place within the terms of reference. It would be better in the covering letter.
I understand the Army forgot to refer this to DRB., a fact I had to point out to D.S.D. — and hence the date on the draft letter.

W.D. Simonds
Archie
7 Apr 51

RESTRICTED

APPENDIX A to
HQS 2000-1975/9 (SD 1)
Dated 9 Feb 51

TERMS OF REFERENCE

TCR

THE COMBINED EXPERIMENTAL AND TRAINING STATION FORT CHURCHILL

GENERAL

1. The purpose of Fort Churchill is to provide the facilities, whereby the particular requirements, at that location, can be met, for the following:

- (a) Department of National Defence (Canada)
- (b) Department of National Defence (United States)
- (c) War Office (Great Britain)
- (d) Department of Transport (Canada)
- (e) National Research Council (Canada)
- (f) Air Ministry (Great Britain)
- (g) Ministry of Supply (Great Britain)

2. The particular requirements of individual users of Fort Churchill shall be determined by the users and notified to all concerned.

OBJECT

3. The object of these Terms of Reference is to outline the responsibilities for command and control of the Combined Experimental and Training Station, Fort Churchill.

COMMAND

4. (a) The overall responsibility for the safety, security, and welfare of Fort Churchill and for the conduct of personnel stationed therein except for the RCN Radio Station, rests with the Commandant, Fort Churchill.

- (b) All agencies at Fort Churchill except the RCN Radio Station, are under administrative control and, during periods of local emergency, all agencies are under operational command of Headquarters, Fort Churchill.
- (c) On strictly technical matters, training, and trials, control is exercised by higher Headquarters of Agencies concerned and direct channels of communication will be used.

5. Administrative control referred to in paragraph 4 (b), is defined as that control, which the Command exerts, to ensure that any internal administrative orders, which one agency considers necessary, do not impose, any other agency, or the administration of Fort Churchill, as a whole. This will include such matters as:

- (a) Security
- (b) Overall discipline of the camp and reports of disciplinary action taken.
- (c) Construction or alteration to buildings.
- (d) Changes in personnel other than normal replacement.
- (e) Accommodation
- (f) Health and sanitation
- (g) Welfare
- (h) Transport
- (j) Procurement of equipment and stores which may affect the station administration.

DIVISION OF RESPONSIBILITIES

6. The general division of responsibility in the Fort Churchill area is:

CANADA

(a) Royal Canadian Navy

- (i) Command and administration of the RCN Radio Station.
- (ii) Experimental work connected with the above station.

(b) Canadian Army

- (i) Administrative command of Fort Churchill station, other than the RCN Radio Station.
- (ii) Canadian Army experimental projects.
- (iii) Canadian Army Training.
- (iv) Operational control of all Fort Churchill units and establishments in the event of an emergency.

(c) Royal Canadian Air Force

- (i) Command and maintenance of airfield, hangar, control tower and associated equipment and facilities less the radio range and the meteorological facilities.
- (ii) RCAF experimental projects.
- (iii) RCAF operational training.
- (iv) Provision and maintenance of air/ground communication facilities.
- (v) The provision of aircraft and aircrew to carry out the air requirements for the Canadian and US forces based at Fort Churchill.

- (vi) The maintenance and service of the landing strip at Coral Harbour and Baker Lake when necessary.
- (vii) The provision of Air Search and Rescue facilities at Fort Churchill.
- (viii) The control and maintenance of adequate facilities to provide for the safe landing, parking and securing of commercial aircraft within the control area of Fort Churchill.
- (d) Defence Research Board
 - (i) Supervision and control of all DRB and DRB-sponsored personnel.
 - (ii) Basic research concerned with military problems peculiar to living, working and fighting in the Arctic.
 - (iii) Provides facilities to visiting scientists operating out of Fort Churchill on short term or seasonal projects.
- (e) Department of Transport

Responsible for radio range and meteorological facilities.
- (f) National Research Council (Canada)

National Research Council experimental projects.

UNITED STATES

- (g) United States Forces
 - (i) United States experimental projects.
 - (ii) Command of all USA personnel.
 - (iii) provide logistical and administrative support for various USA Test Detachments and units.

GRANT BIRCHALL

(h) War Office

British Army experimental projects.

(j) Air Ministry

RAF experimental projects, in conjunction with RCAF.

(k) Ministry of Supply

Experimental projects, in conjunction with War office and Air Ministry.

SECURITY

7. Commandant, Fort Churchill is responsible for the overall security of the camp, and will impose such regulations, restrictions and controls as he considers necessary.

8. Each Service and Agency in Fort Churchill will appoint a Security Officer who will be responsible for ensuring that security measures adopted within their respective establishments conform with the overall security plan for Fort Churchill.

9. The system of control of visitors is as detailed in Appendix "A".

DISCIPLINE

10. Orders have been issued by the Royal Canadian Navy, Canadian Army, Royal Canadian Air Force and the United States Army providing that all members of these Services stationed at Fort Churchill will obey the lawful commands of officers, chief petty officers, warrant officers, petty officers and NCOs superior to them in relative rank or rating irrespective of the Service to which they belong. Copies of these orders are attached as Appendices "A", "C", "E" and "F".

11. Each Service at Churchill retains full authority for the administration of discipline of its own personnel.

12. Civilian personnel at Port Churchill, serving in whatever capacity within the camp, are subject to such rules and regulations, either governing general deportment or affecting the safety and security of the camp, as may be issued by Commandant, Fort Churchill.

INTERCOMMUNICATION

13. The Royal Canadian Corps of Signals will be responsible for providing the necessary inter-communication within the station area.

14. The Royal Canadian Corps of Signals will establish and maintain necessary communication with:

- (a) Ottawa
- (b) Winnipeg
- (c) RCAF (Joint Service Experimental Station) ,
Unit.
- (d) When possible and necessary, a monitoring station for parties operating outside the station.

15. No. 1 Arctic Test Detachment of the USA Forces, operates and maintains an administrative radio and monitoring station (see para 14 (d) above) for USA Forces on assigned frequencies, from Washington.

APPENDIX "A"

CONTROL OF VISITORS

1 All visitors other than press, diplomatic representatives and Churchill townspeople to be cleared by the following methods:

(a) Visitors sponsored by the Canadian Army

To be cleared and granted permission by D&D at AHQ or through Prairie Command who will notify the Commandant, if possible, at least 48 hours in advance of all proposed visits and the security classification of the visitor.

(b) Visitors sponsored by the RCN or RCAF

To be cleared and granted permission by the Director of Intelligence of their respective Service and the Security classification of the visitor notified to the Service Commander.

(c) Visitors sponsored by the British and American Forces

- (i) To be given security clearance by the Director of Intelligence of their respective service and to be issued with a written clearance stating the security classification for presentation to the Security Section, Fort Churchill, on arrival.

or

- (ii) To be cleared by telegram to Officer Commanding, No 1 Arctic Test Detachment Fort Churchill, in the case of British forces stating degree of security classification.

(d) Visitors sponsored by DRE

To be cleared through their own agency and provided by such agency with a card for presentation to Security Section, Fort Churchill on arrival, showing the security classification of the visitor.

2 In all cases of visitors to Churchill, regardless of service or sponsoring agency, the Commandant should be notified, if possible, at least 48 hours in advance of arrival.

NOTE: A copy of Fort Churchill Security Orders is attached as Annexure I.

APPENDIX "B"

N.S. 4250-12 Vol. 1

18 February, 1947.

To the Officer, Chief Petty Officer
or Petty Officer in Charge, Fort Churchill,
CHURCHILL, Manitoba.

Powers of Command

It is anticipated that in the normal course of operations and business at Fort Churchill, Canadian Naval personnel will, of necessity, be called upon from time to time to obey orders and instructions given to them both verbally and otherwise by superior officers of the Canadian Army or the Royal Canadian Air Force. In order to establish clearly the position of Canadian Naval personnel in relation to superior officers of the other services and to ensure that all Naval personnel under your command are full aware of their duty to carry out such orders and instructions, and their liability to punishment for disobedience or non-compliance therewith, you will issue the following Order:

ORDER

"Members of the Canadian Naval Forces serving at Fort Churchill are hereby notified that they will obey the orders and instructions of officers, non-commissioned officers of the Canadian Army and the Royal Canadian Air Force, superior to them in relative rank or rating. All such orders and instructions as are not contrary to Canadian Naval law shall have the same force and effect as if they had been issued by a superior officer of the Naval Forces of Canada and will be obeyed accordingly. It will therefore be clearly understood that when personnel of the Canadian Naval Forces are serving at Fort Churchill in conjunction with the Canadian Army or the Royal Canadian Air Force, the members of the other services will be treated and will have over such personnel of the Canadian Naval Forces, as individuals, only, powers of Command, (but not discipline and/or punishment) as if they were members of the Canadian Naval Forces of relative rank or rating. Similarly, pursuant to orders issued by the officers commanding the detachments of such services serving at Fort Churchill, personnel of the Canadian Naval Forces will be treated and will have over individual members of the Canadian Army and the Royal Canadian Air Force the same powers of command as if they were members of those forces of relative rank. Failure to observe the terms of this Order will render the individual offender liable to disciplinary action under Canadian Naval law."

.....
Vice Admiral, RCN,
CHIEF OF THE NAVAL STAFF.

ATTACHMENT "C"

HQ 142-14-3 FD 3 (Adm B2a)

19th March 1947

HQ Prairie Command
Fort Osborne Barracks
WINNIPEG, Man

Powers of Command - Fort Churchill

- 1 Reference PG letter 38-4-1 (A&Q) dated 6 Jan 47 and this HQ letter numbered as above and dated 25 Feb 47.
- 2 In this HQ letter referred to above, instructions were issued for the simultaneous promulgation of orders precisely similar in effect, governing discipline among personnel of the three Canadian services stationed at Fort Churchill.
- 3 Arrangements have now been made with the senior Army Member, United States Army, for the issue of a similar order for the maintenance of discipline of personnel of the United States Army at Fort Churchill.
- 4 New orders have been issued by the RCN and RCAF providing that all members of these services will obey the commands of officers, warrant officers and NCOs of the RCN, Canadian Army, RCAF, and United States Army superior to them in relative rank or rating. A similar order governing personnel of the Canadian Army is included in this letter.

ORDER

- 5 "Members of the Canadian Army serving at Fort Churchill are hereby notified that they will obey the orders and instructions of the petty officers and non-commissioned officers of The Royal Canadian Navy, Royal Canadian Air Force and the United States Army superior to them in relative rank or rating. All such orders and instructions as are not contrary to Canadian Military Law shall have the same force and effect as if they had been issued by a superior officer, warrant officer or non-commissioned officer of the Canadian Army, and will be obeyed accordingly. It will therefore, be clearly understood that when Canadian Army personnel are serving at Fort Churchill in conjunction with the Royal Canadian Navy, Royal Canadian Air Force and United States Army, the members of such services will be treated and will have over such Canadian Army personnel, as individuals only, powers of command (but not discipline and/or punishment), as if they were members of the Canadian Army of relative rank or rating. Similarly, pursuant to orders issued by the officers commanding the detachments of such services serving at Fort Churchill, Canadian Army personnel will be treated and will have over individual members of the Royal Canadian Navy, Royal Canadian Air Force and United States Army the same powers of command as if they were members of those forces of relative rank. Failure to observe the terms of this order will render the individual offender liable to disciplinary action under Canadian Military law."

APPENDIX "C"

- 2 -

6 It is therefore directed that you instruct the Commander, Fort Churchill, to cancel the previous orders issued in consequence of this HQ letter referred to above and to issue the new order set out in para 5 herein and to take the proper action to effect simultaneous promulgation of orders of the three Canadian Services. The United States Army will publish its orders governing US personnel under its own arrangements.

(Sgd Brig) for Major General
Adjutant-General

APPENDIX "D"

"Members of the RCAF serving at .Fort. Churchill.....
are hereby notified that they will obey the orders
and instructions of officers, warrant officers and
NCOs of the US Army and US Air Force superior to
them in relative rank. All such orders and
instructions as are not contrary to Air Force law
shall have the same force and effect as if they had
been issued by a superior officer, warrant officer
or NCO of the RCAF and will be obeyed accordingly.
It will, therefore, be clearly understood that when
RCAF personnel are serving in conjunction with the
US Army or US Air Force, the members of such Services
will be treated and will have over such RCAF
personnel; as individuals only, powers of command,
(but not discipline and/or punishment), as if they were
members of the RCAF of relative rank. Failure to
observe the terms of this order will render the
individual offender liable to disciplinary action
under Air Force law."

APPENDIX "B"

WAR DEPARTMENT

The Adjutant General's Office

Washington 25, DC

AGAO-C 259 (5 May 47) WDGP0

9 May 1947

SUBJECT: Instruction to United States Armed Forces serving
at Fort Churchill, Manitoba, Canada.

TO: Commanding Officer
United States Armed Forces
Fort Churchill
Manitoba Province, Canada.

1 It is anticipated that in the normal course of military operations and business at Fort Churchill, Manitoba, United States troops must of necessity obey the standing orders of the Canadian Commanding Officer of that station and be called upon from time to time to obey orders and instructions given to them orally or otherwise by superiors in relative rank who are members of the Canadian Armed Forces.

2 In order that the United States Forces may be fully aware of their duty in this matter, the United States Commanding Officer and/or Detachment Commanders will, upon arrival at Fort Churchill, issue the following order in writing:

ORDER


In order that the United States Armed Forces serving at Fort Churchill may work harmoniously and efficiently with the Canadian Armed Forces, the following is ordered:

Members of the United States Armed Forces serving at Fort Churchill are hereby directed to obey the standing orders of the Canadian Commanding Officer of that station and, in addition thereto, to obey the orders or instructions of officers and non-commissioned officers of the Canadian Forces superior to them in relative rank. Failure to obey the terms of this order will render the individual offender liable to disciplinary action by proper United States military commanders.

Members of the Canadian Armed forces have been issued like instructions regarding their relationship with the United States Armed Forces.

BY ORDER OF THE SECRETARY OF WAR:

/s/ Edward F. Litzell
Major General
The Adjutant General.

P.A.  DRBS

52-8-240

24th March, 1951.

~~VEG~~ 

1. DSD is at present rewriting the terms of reference for Fort Churchill. I understand that a draft will be sent to us in the near future. I do not think that they imply any major change.

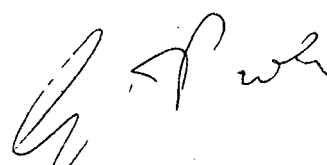
2. The only official order I know of defining the responsibilities of the Commandant is contained in Canadian Army Order 152-1 (Joining Instructions for Fort Churchill) para 5. This reads as follows:

"The overall responsibility in matters pertaining to the safety, security and welfare of the station and the conduct of Canadian troops rests with the Army Commandant.

This responsibility does NOT extend to the conduct of operations and functional efficiency of Service and civilian personnel charged with special tasks."

3. Would you please return the U.S. orders (attached) to me as I have borrowed them from the Army.

PA 


(G.W. Rowley),
Arctic Research.

Ottawa, Ontario
29 December, 1950.

ADM(S)

Issues of Petroleum Products to Department
of Transport and NRC at Fort Churchill

1. We have looked into the question of the assistance provided to DND at Fort Churchill as requested in your memorandum of December 18 at folio 11.
2. The Department of Transport has a number of detachments at Churchill, e.g. forecast office (this is an RCAF forecast office, salaries being paid by the RCAF and using RCAF sub-technical personnel), radiosonde detachment, wireless station, ionospheric station, field intensity station. The DOT provides normal weather information for DRB and any particular data which may be required for special experiments. (For instance the cosmic ray flights during the last two summers, work on movements of air masses as determined from aerobiota, and the investigations of the effect of climatic conditions on biting flies have all been largely dependent on meteorological cooperation).
3. The NRC has one permanent man at Churchill and usually sends up teams of five or six for winter testing of aircraft engines. This is done by the Division of Mechanical Engineering and is arranged through and for the RCAF, DRB not being concerned.
4. It would appear that the RCAF is the principal recipient of assistance from NRC and the Department of Transport.
5. In any evaluation of the services provided to DND by the Department of Transport, the immeasurable aid given DRB in the operation of the Grosse Ile Experimental Station in the St. Lawrence River below Quebec should be considered. The Department of Transport's agent at Quebec has been authorized by his deputy minister to lend every aid he can to the Board, and in this he has been unstinting. Heavy cargoes of passengers, animals and supplies are carried from Quebec to GIES on Department of Transport ships. The icebreakers are the only reliable means of communication during the winter months, and there has never been any recovery from DRB for any costs involved.
6. In addition, the motor launch which the Board operates at GIES is picked up by the Department of Transport each autumn, taken to Quebec and overhauled during the winter, being returned to GIES at the opening of navigation in the spring. The Board pays only for the cost of materials and labour expended on the overhaul. We hope to have a larger boat in operation this year and the Department of Transport has agreed to look after it.

HQ 5703-1

29th December, 1950

DGS (Attention: Mr. Humphrey)

1. The Department of Transport has a number of detachments at Churchill, e.g. forecast office (this is an RCAF forecast office, salaries being paid by the RCAF and using RCAF sub-technical personnel), radiosonde detachment, wireless station, ionospheric station, field intensity station. The DOT provides normal weather information for ~~DRNL~~ and any particular data which may be required for special experiments. (For instance the cosmic ray flights during the last two summers, work on movements of air masses as determined from aerobiota, and the investigations of the effect of climatic conditions on biting flies have all been largely dependent on meteorological cooperation).

2. The NRC has one permanent man at Churchill and usually sends up teams of five or six for winter testing of aircraft engines. This is done by the Division of Mechanical Engineering and is arranged through and for the RCAF, ~~DRNL~~ not being concerned.

DRB

3. I have not checked these statements with Churchill but I will do so if you wish.



(G.W. Rowley),
Arctic Research.

MEMORANDUM

ANSWER

To: ARCTIC RS

To:

Can you tell us what assistance the Department of Transport renders the Board at Churchill?

Even if DOT does nothing for us there, in preparing the reply to ADM(S) we intend to point out that in other respects, if the matter is to be considered on a quid pro quo basis, DOT gives us immeasurable assistance at GIES.^{and}

Can you also tell us what assistance NRC gives us at DRNL?


Director of General Services

December 22, 1950

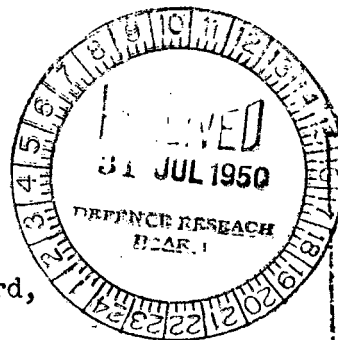
DRNL 2-1



DEPARTMENT OF NATIONAL DEFENCE
CANADA

DEFENCE RESEARCH BOARD
DEFENCE RESEARCH NORTHERN LABORATORY

July 20, 1950



Referred to..... *DRB*
JUL 30 1950
File No..... *DRB 52-0-240*
Chgd to.....

⑥ Security Office
You Min + is not fully
understood as security is
an administrative function.
W.D. Humphrey
W. D. HUMPHREY
Plans & Legislation Section
Directorate of General Services
Defence Research Board

4 8/50

Defence Research Board,
"A" Building,
Ottawa, Ont.

Attention: DGS

① DGS (Mr Humphrey)

Control of Material

Regardless of the
fact that this is to be
included in Camp
Security Orders, it is not
considered that
the content is
truly a security
matter. It is
primarily a
police or
military concern.
Revised 3 Aug 50

1. Further to our DRNL 2-1 dated 10th July 1950,
we attach herewith for your information and retention a
copy of the orders issued for Control of Material.

2. We have arranged a satisfactory system where-
by our Pass Slips are shown as DRB Stores only.

A. M. T. O. J. 2
Director General, Defence Research Board

AUG 1 1950

A. V. Hannam
A. V. Hannam,
Administrative Officer. ④

Enc. ③ (a) Security Office
(b) Supply Section DGS

⑤
Tele
EST
4 Aug 50

Any comments?

AUG 1 - 1950

W.D. Humphrey
W. D. HUMPHREY
Plans & Legislation Section
Directorate of General Services
Defence Research Board

W.D. Humphrey
This appears to be
an administrative
rather than a security
matter but it is noted
that a system satisfac-
tory to DRNL has been
arranged. It is sug-
gested that Arctic Research
may wish to comment.

3 AUG 50

Revised
for DRB

DEPARTMENT OF NATIONAL DEFENCE

Army

Headquarters
FORT CHURCHILL, Man

13 Jul. 50

CONTROL OF MATERIAL
Fort Churchill.

1 The following regulations with regard to the movement of stores, equipment or material out of Fort Churchill will become effective 17 Jul. 50. These regulations will be included in Fort Churchill Security Standing Orders.

(a) All outgoing vehicle loads of stores, equipment or material must be authorized.

(b) Authorization will consist of the completion of an Authorization Slip, a sample copy of which is attached as Appendix "A". These forms will be supplied by the Security Office and an initial supply is attached hereto. It will be noted that each Authorization Slip bears the Security Office stamp and a serial number. Slips will be used in consecutive order of serial numbers to facilitate checking by the Security Office.

(c) Attached as Appendix "B" is a list of persons empowered to sign Authorization Slips. Only slips signed by these persons will be accepted by the Security guard at the Camp barrier. Amendments to this list will be notified in Station Orders.

(d) The completed Authorization Slip will be given to the person in charge of the vehicle concerned, who will surrender it to the Security guard at the barrier. The guard will inspect the vehicle to ensure that only items listed on the Authorization Slip are being carried.

(e) A list of persons empowered to sign Authorization Slips, with a specimen signature of each will be maintained at the barrier. Any outgoing vehicle containing stores, equipment or material which is not listed on an Authorized Slip signed by an authorized person, will not be permitted to pass the barrier.

(f) The NCO i/c C Pro C Det will ensure that all Authorization Slips turned in at the Camp barrier on any given day are turned in to the Security Office on the following morning.

(2)

2 The institution of the control system outlined above is essential to ensure that no stores, equipment or material of any kind are removed from Fort Churchill without proper authority. It is therefore in the interest of all Service and Unit Commanders and Heads of Civilian Agencies to ensure that this order is enforced.

(signed) C. A. Greenleaf, Maj.
for (J B ALLAN) Col
Commandant
FORT CHURCHILL Man.

Certified true copy.

APPENDIX "B" to FC 3-2 (G)
dated 13 Jul 50

SIGNING AUTHORITY - AUTHORIZATION SLIPS

The persons listed hereunder are empowered to authorize movement of stores, equipment or material from Fort Churchill to outside points.

CANADIAN ARMY

HQ, Fort Churchill

Comd - Col J. B. ALLAN
AA&QMG - Lt Col N M GEMMELL
GSO II - Major C. A. GREENLEAF
Staff Capt - Capt B L WHITE
Camp Comd - Major R. G. BEWLEY
Quartermaster - Capt J. W. DEVITT
Accounts Officer - Capt W. J. NEWELL

18 Works Coy RCE

OC - Major J. H. REEVES
2 i/e - Capt P. R. JACK
Works Offr - 2/Lt G LANGLOIS

Fort Churchill Signal Troop

OC - Capt N. S BENVIE

18 Coy RCASC

OC - Capt D L HANNAH
Tpt Officer - Lt J H LANDRIAULT

18 Det RCAMC

OC - Major J R ARSENAULT
Adm Offr - Lt J H N COTE

18 Coy RCOC

OC - Major D A CARMICHAEL
Ord Stores Officer - Capt M F SMITH

18 Coy RCEME

OC 223 Wksp - Capt A B OTTO

RCN

OIC Naval Radio Stn - Lt J G WATERS
Lt W G POWELL
C2 G HEWITT
C2 D W SMITH
C1 L S STONE
P1 D W CROWHURST
C2 J A FLOOD
P2 O J L'HEREUX

RCAF

OC JSES Unit - S/L C E HARRIS
Adjut - F/O F C MILLER
NCO i/c Eqpt Sec - F/S WILSON GW

(2)

United States Forces

CO	-	Lt Col. W G TRAINER
Exec Offr	-	Maj G C BLACKWELL
Oprs Offr	-	Maj W J SCHUBMEHL
OICm Engr Test Team	-	Capt J K FOLK
Supply Offr	-	1st Lt W L BAILEY
Trans Offr	-	Capt A W MCCARTNEY
Ord Offr	-	Capt R R DICKINSON

D R B

Supt D R N L	-	Dr K C FISHER
Adm Offr	-	Mr A V HANNAM

D O T

Radio Range	-	Mr. O E Brown
Met Division	-	Mr G B Kennedy
Radio Field Intensity	-	Mr. G BULGER

Foundation Co of Canada

Mr. G R ADAMS
Mr P LeSAGE
Mr L T BAIRD
Mr G C GODDARD
Mr F DOWNES
Mr G GRIEVE
Mr G W WYLLIE
Mr O R JENSEN
Mr F REID
Mr F A MCNAMARA
Mr OSUPEENE

R.A. → DRB 52-0-240 (DGS)

Ottawa, Ontario
13 July, 1950.

AIR MAIL

Superintendent,
Defence Research Northern Laboratory,
Fort Churchill, Man.

Security Measures
Fort Churchill

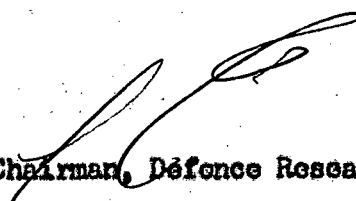
1. In considering your letter of 10 July, we are left wondering if the satisfactory solution of this matter does not lie in local give-and-take rather than in arguing questions of legal right and dignity. The following remarks represent our impression of what is reasonable and what is not.
2. In the first place, Fort Churchill is a sensitive, military establishment. It is the duty of the commandant to take whatever steps he feels may be necessary to safeguard government property and classified information. Obviously, one does not expect such steps to be impracticable or ludicrous. It seems, however, perfectly reasonable that the camp guards should be required to identify positively every individual entering or leaving the camp and to examine (in a rapid, superficial Customs officer fashion) the interior and closed compartments of any vehicle to ensure that no "contraband" is carried. We support the right of the commandant to do this, and request your cooperation.
3. As to checking vehicles out of the camp, we feel that it is perfectly reasonable, if the commandant so wishes, that each vehicle proceeding out should be covered by a pass slip signed by a designated person stating vehicle identification number, driver and summary of contents. The object of the journey and what is being done with the contents is of no concern to anybody but yourself. This pass slip system might be criticised as unnecessarily cumbersome; we feel that it should cover any interests of security for a properly signed work ticket to be shown at the gate. If the commandant feels it necessary to supplement this with a pass slip, we do not object. However, we do think it is impractical, time wasting and unnecessary for such a pass slip to contain a detailed list of the contents of any vehicle which, in the case of DRB field parties, may consist of dozens of items which are, in any case, on charge to you and are not within the accounting responsibility of the commandant. Moreover, such a list serves no useful purpose unless the guard is expected and prepared to check each and every item -- to say nothing of the fact that he would probably not know the difference between a thermometer and a hygrometer. We feel that it should be sufficient for a pass slip to state something like "DRB field party with scientific equipment". Surely, all the commandant can expect of the guard is to check anything that is obvious like building materials, accommodation stores, food, liquor and to report anything which does not seem consistent with the duties of the vehicle?
4. We can hardly conceive that it is a serious intention of the commandant that a completely detailed list of contents or a

- 2 -

completely detailed inspection of the list is intended. We feel sure that if this is discussed with him, from the point of view of what is reasonable and practicable, a mutual satisfactory arrangement can be concluded.

5. To summarize, we would be prepared to make issue over any regulations which could be argued as impractical and of nuisance value only, but we are not prepared to dispute the right of the commandant:

- (a) Properly to search all outgoing and incoming vehicles.
- (b) To require a responsible officer to sign a suitable pass for vehicles leaving the camp.



Chairman, Defence Research Board.

AJP/sk

DRNL 2-1-1

DEFENCE RESEARCH BOARD

CONFIDENTIAL

DEPARTMENT OF NATIONAL DEFENCE
CANADA



Defence Research Board,
"A" Building, N.D.H.Q.,
Ottawa, Ontario.

Attention D.G.S

Fort Churchill, Manitoba,
10th July, 1950.

Recorded to <i>DRB</i>
JUL 12 1950
File # <i>52-0-222</i>
Chgd to <i>DRB</i> 3/3

Search of Defence Research Board Vehicles
Canadian Provost Corps

1. Reference is again made to the m/n subject which was discussed by (Hannam - McNamara) and our legal branch.
2. At 1500 hours 8th July, while proceeding from Churchill to Camp Churchill the staff car driven by the writer with passengers, Misses Brown, Merry and Russell stopped at the Barrier for identification purposes.
3. The Provost on duty came out of his hut and walked to the rear of the staff car and opened up the trunk compartment. He then asked for identity cards which were produced by all concerned. He was asked why he had opened the trunk compartment and he answered "I have to search all cars and trucks."
4. As no order had been issued I took the occasion to speak to Col. J.B.Allan and he assured me it was an error, however, on Sunday morning 9th July, at 0745 hours while proceeding to town to meet the train I was again searched and again on my returning to camp at 0815. *hours.*
5. I have been advised though not officially that a search will be made of all vehicles commencing 12th July when official notices are to be given.
6. We are expected to list every item being carried and the Administrative Officer has to sign a slip designating destination, contents, etc. It is obviously impossible to keep track of all items of equipment being moved by the Entomologists, Botanists, et al, which is apparently what will be requested and I have too many other duties to perform without making inspections of vehicles leaving this station at all hours.
6. However, before refusing to obey these instructions issued in Col. Allans name I think Defence Research Board Headquarters should send me a ruling in writing which will be our authority to refuse "Right of Search" to the C.P.C.
7. It is requested therefore that our position be clarified and a copy sent to Col. J.B.Allan for his information and guidance.
8. Since writing the aforementioned we have received

...2

- 2 -

the communication referred in Para 5 and a copy is attached for your guidance. Needless to say this order will be obeyed pending written instructions from Defence Research Board Headquarters.

9. May this be treated as Urgent, please



A.V. Hannam,
Administrative Officer

encl.

DEPARTMENT OF NATIONAL DEFENCE

Army

File No FC 3-2-(G)

Headquarters
FORT CHURCHILL Man

10 Jul 50

Superintendent
Defence Research Northern Laboratory
FORT CHURCHILL Manitoba.

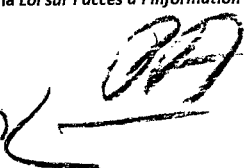
CONTROL OF MATERIALS
Fort Churchill

1 Regulations designed to control the movement of stores, equipment or material from Fort Churchill camp area will become effective at an early date. These regulations will provide that the driver of any loaded vehicle proceeding out of Camp through the barrier will have in his possession an Authorization Slip, signed by a person empowered to do so, and listing the stores, equipment or material being carried in the vehicle.

2 This control system is essential if the Commandant Fort Churchill is to exercise effectively his responsibility for the overall security of Fort Churchill. It is considered to be in the interest of every service or Agency at Fort Churchill to ensure that no material of any kind is removed from the camp area without proper authority.

3 In order that this control system may be started with the least possible delay, you are requested to advise this Headquarters as soon as possible, the names of DRNL personnel who will be empowered to authorize the movement of DRB stores, equipment or material from the camp area. It is emphasized that, in order to ensure efficient operation of this system, it is essential that the number of persons so empowered be kept to a minimum.

Sgd. J.B.Allan
(J.B.Allan) Col
Commandant
FORT CHURCHILL

DRBS 52-0-240 (DRP) 

DEFENCE RESEARCH BOARD

Department of National Defence
Canada

Ottawa, Ontario,
2 June, 1950.

To: Distribution

Appointment
D.R.N.L.

Dr. K. C. Fisher, to be Superintendent
of the Defence Research Northern Laboratory, effective
1 June, 1950.


Vice Director General

DISTRIBUTION

List 'A'
List 'B'
File
Diary

DEFENCE RESEARCH BOARD
DEFENCE RESEARCH NORTHERN LABORATORY

MEMORANDUM

To DRP (attention Mr Wright)

Establishment DRNL

1. Dr. K.C. Fisher and myself have been discussing lately the question of establishment for the Defence Research Northern Laboratory. Dr. Fisher's plans call for more personnel than there are vacancies available on the present establishment. We both feel that an increase in the establishment is necessary to correct the situation and provide Dr. Fisher with vacancies available on the establishment to cope with employment of personnel as required by future projects.

2. The present establishment calls for the following staff:

<u>Professional</u>	<u>non-professional</u>
1 RSD 9	1 Tech 4
1 RSD 6	2 Tech 3
2 RSD 4	2 Tech 2
2 RSD 3	3 Tech 1
3 RSD 2	1 A/Tech 3
	1 Clerk 3
<u>Total 9</u>	1 Clerk 2
	2 Steno 2
	1 Cleaner and Helper
	<u>Total 14</u>

This makes a total of 23 positions available under the present establishment.

3. Professional staff

As of June 15th 1950, the professional staff will total 11. This will include the actual staff and the scientists that Dr Fisher has already hired or proposes to hire in a near future. The staff will be as follows:

Dr. Fisher	Mrs. Fisher
Mr. Hannam	Mr. Leblanc
Mr. Beckel	Mr. Meyers
Mr. Barlow	Mr. Esterbrook
Mr. Mills	Miss Merry
Miss Brown	

This already exceeds by 2 the number of scientists authorized for DRNL. It is suggested that the present establishment for professionals be increased by 4 to provide a total of 13 vacancies for scientists. This would take care of the staff Dr. Fisher will have no 15 June and would provide him with 2 vacancies to be filled when needed.

Proposed establishment for professionals

1 RSD 9
1 RSD 6
3 RSD 4
3 RSD 3
5 RSD 2
<u>Total 13</u>

- 2 -

4. Technical staff

Under the present establishment 9 vacancies are provided for technicians. We have already 2 technicians in Churchill and we are working on the transfer of a third one from DRCL. Dr. Fisher has hired 1 female technician already and would like to get 1 instrument mechanic (high grade technician), 1 technician (electronics), 1 in zoology, 3 in physiological chemistry and 2 in experimental psychology; these last 6 could be female technicians. This makes a total of 12 which already exceeds by 3 the number of technicians authorized for DRNL. To correct this situation and provide for any future employment, it is suggested that 6 vacancies are added to the present establishment for a total of 15 positions authorized. This new establishment would provide a better ratio technicians/scientists

Proposed establishment for technicians

1 Tech 4
4 Tech 3
4 Tech 2
4 Tech 1
2 A/Tech 3

Total 15

5. Clerical Staff

The present establishment calls for:

1 Clerk 3
1 Clerk 2
2 Stenos 2

This is not adequate even at the present time and the following establishment should be authorized:

1 Clerk 3 ; position occupied by Mr. Hastie. This clerk to act as Chief Clerk and to be in charge of Finance Section.

1 Clerk 3; to be in charge of Stores Section.

1 Storeman 1

1 Clerk 2; to be under the Chief Clerk. This clerk will take care of the mail, filing and general office work.

2 Steno 2

1 Typist, to act as such and as a receptionist.

This would give us a total of 7 vacancies for clerical personnel.

6. Casual Labor

A total of 8 casual laborers is required. This number includes mechanics, janitors and laboratory attendants.

- 3 -

7. The different additions suggested in this memorandum, excluding casual laborers, will bring the number of vacancies authorized for DRNL to 35. This suggested establishment would be more adequate to serve the present and future needs of the Defence Research Northern Laboratory.

8. May I have your comments on the subject.

(Guy Marier, D.Sc.)
A/Superintendent

24 March 1950

MEMORANDUM

December 21st, 1949.

CDRB

VDG

(1)

Visit to Fort Churchill, Man., December 13th and 14th, 1949.

Due to the vagaries of air transportation, I was able to spend only about twenty-four hours in Churchill, arriving at 2:00 p.m. on December 13th and departing at 1:30 p.m. on the following day.

After lunch on December 13th I was taken to Lt. Col. A.J. Todlio's office where, in company with Col. Woolley (U.S. Army, Big Delta) we were briefed on the organization of Fort Churchill. This was followed by a tour of part of the camp covering in particular the newly constructed living quarters for officers and other ranks, and the hospital, etc.

The evening was spent with Dr. G. Carrier and Mr. A.V. Hannam in the DEIL Laboratories, discussing the various problems of the establishment. In order to improve the working conditions at Fort Churchill, the following remarks should be given consideration:

1. It is bad policy to leave people at Churchill longer than two years. It is recommended that appointments to Churchill be on a definite two-year basis, with the date of transfer specifically indicated in the initial appointment. If a firm policy were established in this regard, it should decidedly improve the morale of the staff. It is noted that Army appointments to Fort Churchill are on a two-year basis, which serves to emphasize the lack of such a policy in the case of DEIL staff. In some cases it might be that personnel could wish a longer term of duty. This could be allowed for by one-year extensions of the initial appointment, on a voluntary basis. The introduction of such a policy would require a review of all positions in the various DEIL establishments in order to determine which personnel are interchangeable with those presently at Churchill.

If the introduction of such a definite policy is not possible, arrangements might be made for all members of the staff to be brought out from Churchill for reasonable periods of temporary duty not less than twice a year.

2. The question of the availability of married quarters at Churchill should be investigated at Headquarters. The lack of married quarters is considered to be a very serious problem. DEIL and the Canadian Army operate on the same quota. This may be satisfactory in principle but, because of the very much smaller staff at DEIL, the lack of married quarters is bound to be more pronounced. This situation could be aggravated by the lack of policy regarding term of appointment and by other differences between conditions of appointment in the Army and in DEIL. It is noted that because the Department of Transport had squatter's rights at Churchill they have been able to insist on all the married quarters they require.

Some policy should be laid down covering the allocation of married quarters at Churchill. Among the factors which should be considered are the length of time that personnel have been at the establishment, the date of marriage and whether or not the staff concerned were members of the Armed Services during the War and were separated from their wives.

Lt. Col. Todlio has recommended to propose command the establishing of an allocation list with props. from each service. Don't know how accumulation stand all

②
DGS
DHP.
For information
& any necessary
action
③
old (H. R. R.)
For information
We have
DHP

Probs
to note

P. 22

- 2 -

3. It is strongly urged that officers in the Personnel Directorate at Headquarters should visit Churchill in order to experience, at first hand, the conditions under which the DEML staff are working. Such visits would allow the Personnel Directorate to appreciate the type of man who would be most likely to succeed at Churchill, or perhaps what is more important, the type of man whose temperament and habits would lead to discord at Churchill. These visits would also enable the Personnel Officers to answer the questions of prospective DEML employees and would permit them to give a true picture of summer and winter conditions at DEML.

In this regard, it is important that personnel posted to Churchill should have a good idea of Army procedures and preferably some experience in working with Army personnel. Lacking this, it might be possible to give them some indoctrination prior to their posting to Churchill.

4. The Northern Allowance paid to DEML staff is subject to income tax. The similar allowance paid to Service personnel is not taxed. This is rank discrimination, involving only a paltry sum when one considers the relative numbers of personnel. It is recommended that this question be discussed in the appropriate quarters. The National Research Council have been able to get over this difficulty by allowing their non travelling expenses while at Churchill. This is possible in their case because they are at Churchill for only a few months during the winter season.

5. Regarding the stores situation at Churchill, I believe that Dr. Marier has already replied to Mr. Dunn's letter concerning the audit report. The Administrative Officer at Churchill did not ask for a complete stores accounting procedure, which might be implied by the Regional Auditor's report. What in fact happened was that the Administrative Officer asked the Regional Auditor to let him know if he saw anything wrong with the system which was in operation at DEML.

Dr. Marier insists that the stores were never out of control at DEML, even if they may have appeared to be so from the Regional Auditor's viewpoint. It was pointed out that Mr. Dunn's letter of February 7th, 1949, was a covering letter for some observations concerning the issue of stores to DEML and not the handling of stores items at this establishment.

In making an appreciation of the stores situation at DEML, it should be remembered that they are under the handicap of lack of help. Finally, it is interesting to learn that the Regional Auditor's report on DEML compared most favourably with his report on other branches of IND at Port Churchill.

6. The Superintendent of DEML complained that he was not apprised of the visit of Dr. K.C. Fisher to Churchill on November 21st and he considered this an important omission. Upon my return to Headquarters, I discovered that a signal had in fact been sent to Dr. Marier and confirmation of the receipt of this signal had been received at Headquarters from the Army. Unfortunately, the signal was never delivered to Dr. Marier. This has apparently occurred before and is the responsibility of the Signals who deliver all messages to the Adjutant. Perhaps this matter could be discussed with the Army to ensure that in future all signals specifically addressed shall be delivered to the addressee.

Letter to Sup
DRBS 2-0-162
P65
of 16 Jan 50
JMD

- 3 -

7. In administrative matters it is of course essential in most cases to follow the rules and procedures laid down for the operation of the establishments. In following such rules and procedures it is only natural that Churchill's isolation becomes overlooked at times and personnel are treated on the same basis as those at Headquarters or in other establishments. It sometimes happens that circumstances arise in which a judicious breaking of rules and regulations on justifiable grounds would lead to improved morale, not only of the individual concerned but of the whole establishment, and would foster a better understanding between Headquarters and DRNL.

The relationship between DRNL and the Canadian Army at Churchill is now on an excellent basis. Credit for this must primarily rest with Dr. Marier and the Commandant, but in some degree all members of the staff at DRNL are responsible.

DRNL and the Navy are working particularly well together, especially since the DRB have given the Navy accommodation in three small, stout huts. Again, good relations exist between the DRB and REME. The two DRB driver-mechanics are using REME buildings and facilities for vehicle repair and maintenance. This helps REME, who are responsible for all vehicle maintenance at Churchill.

I saw personally one or two instances where DRNL were doing jobs for the Army or the camp generally. Such co-operation, over and above the normal duties of the laboratories, is recognized as essential to the DRB's good name.

On the morning of December 14th I had a talk with every member of the DRNL staff who was present in camp. I was very favourably impressed with all of them. It was obvious that Mr. J. LeBlanc will fit in very well with personnel at Churchill and should do good work on the Vitamin "C" project which Dr. Marier hopes to press forward. Mr. Hannam feels the isolation at Churchill as keenly as anyone else, but he has a pleasant temperament which, I believe, has contributed considerably to the morale of the staff at DRNL. He has been at Churchill for over two years and admits that he would like a transfer.

The non-professional staff at Churchill are of good calibre. Mr. Peter Hyde was originally from England but he is most enthusiastic about Canada and is very happy in Churchill. He was recently married and is proposing to share temporary married quarters with Mr. C.K. McBride, who is to be married on December 26th. There was some difficulty about McBride being able to leave Churchill to get married because the Superintendent had already allowed him to take time off earlier this year. However, this matter has now been satisfactorily arranged.

Mr. T.P. Copps is a young man living with his parents in Churchill, his father being in charge of the heating plant. He is obviously not worried at the moment by the isolation of Churchill.

Mr. G.L. Hastie and Mr. J.R. Fisher were also interviewed. The former is married and living in one of the married quarters allotted to the DRB. Mr. Fisher has only recently been appointed to Churchill. I think he feels the strain of separation from his family and has applied for married quarters next year, although the Superintendent has not been able to hold out any hope for him. Mr. Fisher is about forty-five years of age and during the War was an officer in the RCAF. His daughter has about two years of high school to complete before starting to train as a nurse. This period is one of financial burden for him and he appreciates that only by being at Churchill can he accomplish it. His wife is also working in Ottawa.

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- 4 -

Mrs. M. Campbell is employed as a typist and handles the work of the establishment. She cannot take shorthand, which necessitates all work being given to her in longhand. Her husband is in the Army at Churchill and she is quite happy at DRNL. When her husband's two-year term expires she will of course be leaving. Her daughter flew in from Winnipeg to spend the Christmas season with her parents.

Dr. Marier emphasized that in so far as the work is concerned he has absolutely no personnel troubles with his present staff.

Following my interviews with the staff, Dr. Marier and I proceeded to Col. Tedlie's office where we discussed the question of centralized photographic facilities. The results of these discussions are reported separately.

At the conclusion of our talks, Col. Tedlie took me on a tour of the rest of the establishment, including the heating plant, generating station, ordnance stores, and the new RCAF motor transport building. A courtesy call was also paid to the National Research Council building. Mr. Carter, who is presently in charge, and Mr. Chadwick of Metropolitan-Vickers had only just arrived in Churchill and, together with Mr. Brown, the resident maintenance man, were preparing for a winter programme of testing gas turbine power plants.

ORIGINAL SIGNED BY
J. J. GREEN

(J.J. Green)

JJG/LMS.

Ottawa, Ontario
13 September, 1949.

Deputy Minister

Financial Arrangements between Army and DRNL
Fort Churchill

1. Inadvertent delay is regretted in submitting comments upon proposal of QIG dated 19 July at third folio hercunder.
2. The procedure recommended, or any other which may simplify accounting, would be acceptable to DRB. It is felt that the simplest method would be that suggested by DST at paragraph 3, folio 5, i.o., DRB to provide a suitable amount in the estimates of each primary and to pass the funds to Army at the beginning of each fiscal year.
3. Since the total amount is not very substantial, it is felt, if you agree, that cost accounting in detail would be undesirable. To do so would not save much paper work over the present system of recoverable invoices.
4. For your information, a summary of the present situation and the amounts involved in the various primaries concerned is attached hereto.
5. If it is your wish that this procedure be adopted, it is suggested that suitable amounts for each primary be estimated by QIG and submitted to DRB for concurrence and inclusion in DRB estimates.


Chairman, Defence Research Board.

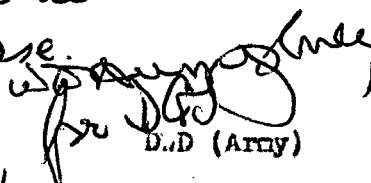
AIF/ok

<u>Primary</u>	<u>Expenditures to 31 July, 1949</u>	<u>Estimates 1950-51</u>	<u>Remarks</u>
07	0477.85	0 500	<p>The expenditures cover fuel oil and coal required to heat the H hut at Churchill. This hut was turned over to the Army in May '49 and the heating thereof then became an Army responsibility.</p> <p>At the present time only one building is in use by DRNL - the laboratory - but another one is in process of construction. The laboratory is heated from the Army's central heating plant, as will be the second building. DRB has not been billed to date for any heat, light, power or sanitary services for the laboratory.</p>
09	NIL	2,000	<p>The Army has been doing the minor items of maintenance and repairs for DRNL on a non-recoverable basis. For major items, DRB provides the Army with F.Es. to cover each project.</p>
53	493.27	5,600	<p>It is estimated that in 1950-51, DRNL will have the following vehicles on hand:</p> <ul style="list-style-type: none">2 Jeeps (civilian)2 Jeeps (station wagon)2 Bombardiers (snowmobiles)1 2½-ton Truck1 Tractor (D-7)1 Ford (sedan staff-car)

NOTE - In connection with Primary 61, it is desirable that the present arrangement not be disturbed since DRB cannot deal with civilians on a Part II order basis. DRNL also arranges for the provision of rations from the Army to various civilian parties, and it is not intended that either the Army or DRB pay for such food supplies; these are recovered from the parties concerned.

P.A.  DRBS 52-0-240 (DGS)

② Arctic RS

To note and PA,
please 
for D.D (Army)

OTTAWA, Ontario

22 June, 1949.

①

Accommodation at Fort Churchill

1. It will be recalled that as an emergency measure to fulfil commitments which had been made and which could not be cancelled, an H-hut was shipped to Fort Churchill in sections and erected under the direction of the Defence Research Northern Laboratory. The hut was used to considerable advantage for emergency purposes both by the Army and the RCAF as well as DRB.
2. It is now considered that for the purposes of practical administration the building should be handed over to the Commandant, together with all furniture, barrack stores, messing equipment and related sundries. Scientific research equipment and technical stores will remain with DRNL.
3. The Defence Research Northern Laboratory will wish to retain the space in the building now used for workshop and storage facilities.
4. It is understood that this transfer of temporary accommodation does not affect the regular allotment of permanent space to DRNL as it becomes available, and it is further understood that as far as temporary and emergency requirements are concerned the Commandant will accord DRB's requirements some measure of priority.
5. If the present proposal meets with your concurrence, it would be appreciated if the Commandant, Fort Churchill, were so informed and asked to appoint a Board of Officers for the hand-over. At the present moment, most of the barrack stores and messing equipment has been turned over to him for his use as a loan to meet his emergency requirements arising out of the recent fire in the men's mess hall.


Director of General Services.

000146

P.A. → DRBS 52-0-240 (DGS)

DEFENCE RESEARCH BOARD

Ottawa, Ontario
17 January, 1949.

To: Distribution

Files -- DRNL

1. Files DRBS 52-750-1 and DRBS 52-750-104
having been broken down, the following files have been
created:

DRBS 52-0-1	DRNL - Accommodation - general
DRBS 52-0-1-2	" - " - lands & bldgs.
DRBS 52-0-1-2-1-1	" - " - Weekly Progress Reports
DRBS 52-0-1-2-2	" - " - Stores Bldgs.
DRBS 52-0-1-3-3	" - " - Water Supply
DRBS 52-0-1-7	" - " - Housing
DRBS 52-0-1-10	" - " - Laboratories
DRBS 52-0-1-14	" - " - Garages
DRBS 52-0-1-23	" - " - Allotment of Accommodation
DRBS 52-0-91	" - Emblems
DRBS 52-0-168-3	" - Instructions - DRB personnel joining Fort Churchill

2. File DRB 52-0-240 -- DRNL - Organization and
Administration has been upgraded to Secret.


(A.M. Fordyce)
Director of General Services.

DISTRIBUTION

List A
File
Diary

MEMORANDUM

ANSWER

See 16/12/48
To: Arctic Research (Attention: Mr. McNamara) To:

Attached please find a copy of the letter from the R.C.M.P. dated 22 October, 1948. I believe you were enquiring about this.

You will find all related correspondence on DRBC.1-O-303-5.

Would you kindly inform D.R.N.L. of the finding of this letter. *done*

R. Brown
for (G.S. Wright)
Director of Research Personnel.

16 December, 1948.

ARCTIC RESEARCH

COPY

ROYAL CANADIAN MOUNTED POLICE
OFFICE OF THE COMMISSIONER
OTTAWA

REF. No. C 311-2-14

December 4, 1948.

Re: Investigation of Sudden &
Accidental Deaths, Dept.
of National Defence

Further to our communication of October 22, 1948, in connection with action to be taken by this Force where members of the Armed Forces lose their lives whilst in the Northwest Territories or Yukon Territory, it would be appreciated if you would instruct your various Officers Commanding in the Territories that they are to notify our nearest office every time a sudden or accidental death occurs among their personnel.

2. If this cooperation is rendered, our personnel in the Territories will be in a much better position to secure all facts relating to the death and place same in the hands of the nearest coroner for his decision as to whether an inquest is to be held.

3. May we, at your earliest convenience, have your views in connection with the point raised.

FOR COMMISSIONER.

The Deputy Minister,
Department of National Defence,
OTTAWA, Ontario.

Original on 200-2-4

Original on DACC 1-0-303-1

COPY

All Correspondence to Be Addressed
The Commissioner
R.C.M. Police
Ottawa

ROYAL CANADIAN MOUNTED POLICE

Office of the Commissioner
Ottawa

Ref. No 48 D 637-2-L-19

October 22, 1948

TO: The Deputy Minister,
Department of National Defence,
O T T A W A, Ontario.

Recently the question arose at this Headquarters as to what action our personnel stationed in the Northwest Territories and the Yukon Territory are to take in cases where members of the Armed Forces lost their lives.

2. We have instructed that any death of Armed Forces personnel in the Territories is to be investigated by members of this Force and all facts relating to the death made available to the nearest coroner. The coroner will then decide whether an inquest is in order. As you no doubt will recall this is the procedure we follow in the Provinces of Canada where we have the sole responsibility of policing same.

3. In the Territories the Public Administrators are charged with the responsibility of administering any estates of individuals who die intestate. We have suggested to our Officer Commanding in the Territories that he communicate with the Public Administrators for the Territories, i.e. Northwest and Yukon, and ascertain their wishes in connection with estates of deceased Armed Service personnel. We suggested to our Officer Commanding that it might be advisable for the Department of National Defence to handle the disposition of personal effects of their deceased and to make this suggestion to the Public Administrators. However, insofar as this Force is concerned, if the Public Administrators instruct that estates be handled through

handled through

000150

COPY

-2-

3. (cont'd)

their office, this Force is legally bound to adhere to their wishes.

4. At your earliest convenience, we would appreciate being advised as to your views relating to this matter.

for COMMISSIONER.

Original on 200-2-4

RA

DRB-52-0-240.

Room 4201,
"A" Building,
N.D.H.Q., Ottawa, Canada.

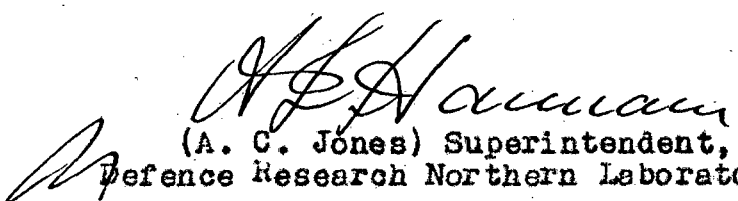
September 28th. 1948.

A.D.

D.R.N.L. - Setting up of Separate Departmental
Accounting Vote.

1. It was my understanding, and that of Financial Section, D.G.S., that D.R.N.L. would be set up as a separate accounting vote w.e.f. 1 April 1949, and that meanwhile it would operate on funds provided by the Central Scientific and Administrative Organization.

2. I would appreciate your confirmation of this plan, in view of the necessity of preparing estimates for the operation of the station.


(A. C. Jones) Superintendent,
Defence Research Northern Laboratory.

DRB 52-0-240

Room 4201,
"A" Building,
N.D.H.Q., Ottawa, Ontario.

September 27, 1948.

D.G.S.

Generators - Emergency Quarters - Fort Churchill

1. We have contacted DOS - ADOS (TS) with reference to acquiring on an indefinite loan basis, three (3) generators for supplying power and light to the Emergency Quarters and the present Laboratory at Fort Churchill.

2. Ordnance have on hand at their depot in Montreal the following generators which can be made available to us on application:

(1) 9 KW - 115V - D.C. 70 Amps.
- Gasolene Driven - 2 Wheel Trailer Mounted

(2) 5 KW - 110V - A.C. 45.4 Amps.
- Gasolene Driven - 2 Wheel Trailer Mounted

(3) 5 K - 110V - A.C. 63 Amps.
- Gasolene Driven - 2 Wheel Trailer Mounted

3. It is our understanding that the 9 KW generator is serviceable and can be shipped at once. The two 5 KW generators are presently non-serviceable but if some priority can be given, they can be made serviceable with very little effort.

4. It is our intention to use the 9 KW for the Emergency Quarters, using one of the 5 KW generators as a stand-by and to use the other 5 KW for power and lighting in the present Laboratory.

5. May this be treated as Urgent, please.

229

(A.C. Jones) Superintendent,
Defence Research Northern Laboratories.

DRB 52-0-240

Room 4201,
"A" Building,
N.D.H.Q., Ottawa, Ontario.

September 20th. 1948.

Major R. L. Mammery,
c/o R.C.A.S.C. School,
Camp Borden, Ontario.

Special Delivery

Kitchen Plan for Proposed Defence Research Building
for Churchill, Manitoba.

1. As promised by Mr. Jones, we are enclosing herewith sketch of the space available for kitchen purposes in the building to be erected by the Defence Research Board at Fort Churchill.
2. You will note in the marginal note on the sketch under Facilities Available, that steam has been marked "Nil". We are endeavouring to arrange with the Harbour Board at Fort Churchill to be able to tap their steam line from the central heating plant. Depending upon the answer we receive from the Harbour Board, this situation may be arranged.
3. We expect to have a lot of answers by Wednesday or Thursday of this week, relative to heat, water and electricity.
4. We shall be pleased, however, to receive your suggestions and complete list of equipment necessary for us to accomodate 100 people.
5. Your earliest reply will be appreciated.

A. V. Hannam

(A.V. Hannam) Administrative Officer.

000154

PA → DRB SA-0-240

Ottawa, Ontario
7 September, 1948.

Chief Engineer (Army)

Engineering Services

1. The suggestions and views contained in your memorandum of 24th August at folio 1 hereunder are appreciated.
2. It would, as you point out, be difficult to set up an engineer section in DRB. Moreover, it is not desirable, in the interests of Departmental efficiency and economy, to duplicate functions in which your staff is well organized and adequately able to continue advice and assistance.
3. It is, therefore, suggested that the present relationship be modified only to the extent of those aspects which prove mutually inconvenient, namely:
 - (a) Excessive demands upon the Army Works Service in detailed consultation, preparation of plans and specifications, and supervision of major projects. This would be relieved by placing such tasks under contract to civilian consultants.
 - (b) The complication and delay factors occasioned by the diverse Army and DRB channel and divided responsibilities in dealing with work at ESS and CARDE. Since both these establishments have Station Engineers and are responsible for their own maintenance, this would be taken care of generally by practice of (a) above and by eliminating the Command Engineer channel, i.e., ESS and CARDE would deal only with HQ DRB, and DGS (DRB) would consult with CE (DWA) when necessary. You may be agreeable, however, to authorizing such informal direct local advice and assistance as may be practicable on the part of the Command Engineer.
4. The original arrangement between QMG and DRB was contained in SD 1 Letter 3414 of 31st January 1947, issued in connection with the transfer of various Army units to DGDR (now DRB). The relevant paragraph is as follows:

"QMG will continue to supervise and control construction work on behalf of DGDR until a date mutually agreed upon between QMG and DGDR, such services to be within authorized postwar engineer facilities."
5. If you agree with Paras. 2 and 3 above, it would no doubt suffice if Western and Quebec Commands were informed in this sense.
6. The Board has accepted your suggestion that the Suffield water problem should be turned over to a consultant. CCC has been requested to engage the services of the firm of Davis & Ripley, Edmonton, as recommended by Western Command.

(Signed) A.M. FORDYCE
for (G.W. Dunn)
Administrative Deputy.

MEMORANDUM

DRB 53-0-1-3-3 (DWA)

To: DRB
(Attention Mr. G. W. Dunn)

24 Aug 48

Engineering Service

1. Reference is made to a recent conference Mr. Dunn - Mr. Fordyce - Lt.-Col. Darwin concerning the performance of engineering Service for DRB, in which you stated you were now prepared and willing to assume complete responsibility for the construction and upkeep of DRB buildings and installations.
2. I am completely in agreement with this proposal. The Army engineering staff is too small to cope with army work alone, and the assumption of this responsibility by you will not only reduce the overload on my staff, but should liquidate the complications and delays in review and approval actions, which have grown up through the handling of your work in two diverse executive channels.
3. The development of an organization in DRB to handle this function will not be easy, especially with the dearth of technical personnel which now exists. Please be assured of the continued co-operation of the Army Works Service not only during the transition, but also at any time when our advice or assistance would be of value to you. There may be functions such as fire prevention, stores provision, etc which you would wish to continue as they are.
4. I do not know whether or not any formal approval is required for this transfer of responsibility. You will be able to decide this on the basis of the charter and terms of reference of DRB, and take the appropriate action.
5. In the meantime, I suggest that you take over the complete works function at Suffield forthwith. I have instructed Western Command to finalize the sewer and gas proposals, which should leave Edmonton by air on 24 Aug, and to continue discussions on the water system with a view to handing over to a consultant under your direction in the near future. I have also asked Western Command to recommend one or more suitable consultants for this work.
6. Similarly, I suggest that you should now take over complete control of the Suffield housing project, eliminating the present duplication of reports from the field and within MDEQ.
7. If you agree with paras 5 and 6 above, I will issue instructions accordingly to the Army Works Service. I will await further advice from you as to para 4, and as to the programme for the transfer of responsibilities at CARDE, and as to the last part of para 3.

(Signed) H.W. LOVE, COL.
for H.L. Meuser, Colonel,
Chief Engineer.

BHD/7140

file

DRBC 52-0-240
P.D. ~~DRBC 56-0-240~~

DEFENCE RESEARCH BOARD

9 August, 1948

To Distribution

DRNL

Consequent upon the redesignation of the Defence Research Laboratory, Churchill, and the appointment of Mr. A. C. Jones as Superintendent, communications directed to DRNL will be addressed as follows:

Superintendent,
Defence Research Northern Laboratory
Fort Churchill, Man.

G.W. Dunn
(G.W. Dunn)

Administrative Deputy

DISTRIBUTION

Lists "A" and "B"
Diaries
File
DRBC 1-0-240

DEFENCE RESEARCH BOARD

✓ DRBS 52-9-240

~~DRB. 50-0-240~~

19 July 1948

TO: Distribution

Defence Research Laboratory Churchill

In order to avoid the confusion that might arise between the title of the above-mentioned laboratory and that of the Defence Research Chemical Laboratories, it has been decided to change the title of the former to Defence Research Northern Laboratory (D. R. N. L.).

E. L. Davies

(E. Ll. Davies) Vice Director General

Distribution

List "A"
List "B"
Arctic Research
DRBS. 1-0-240

DRBS 52-750-1 (Arct)
DRBS 52-750-104

14th July, 1948.

Memo to file

1. At the regular conference held on Wednesday morning, 7 July 48, the Defence Research Lab at Fort Churchill was considered as the second item on the agenda.
2. D.Res.Pers. stated that an establishment was being set up for Fort Churchill out of the overall establishment of DRB and Mr. A.C. Jones had been appointed as superintendent at Fort Churchill.
3. The VDG stated that there would be a gradual change-over of power in command at Churchill and no sharp break in control would occur. There would be a small permanent scientific staff working at the station together with a small administrative staff. The staff would consist of:
 - 1 Head scientist
 - 6 Scientists
 - 1 Admin officer
 - 12 Others including technicians and administrative personnel.
4. The actual division of responsibility between Mr. Jones and the Arctic Research Section, DRB, would not be set out immediately but would be decided by experience. Extra-mural research personnel going anyplace in the North would still be the responsibility of the Arctic Research Section, who would also be responsible for arranging transportation for people visiting Fort Churchill. The Arctic Research Section would continue to act as coordinators between the Fort Churchill establishment and the Defence Research Board in Ottawa as well as with the other Services in Ottawa.

(C.P. McNamara),
Arctic Research Section.



DEPARTMENT OF NATIONAL DEFENCE
CANADA

DEFENCE RESEARCH BOARD
CHEMICAL LABORATORIES



OTTAWA, 9 Jul 48

Director of General Services,
Defence Research Board,
"A" Building,
OTTAWA, Ontario.

Referred to <i>DRB</i>
20162 JUL 12 1948
<i>DRB 52-0-240</i>
File No.....
Chgd to.....

Title of Churchill Laboratory

1. We have noted circular DRBS 52-0-240 outlining proposal to set up separate establishment at Churchill to be known as Defence Research Laboratory Churchill (D.R.L.C.).

2. It is respectfully submitted that the choice of title for this station will lead to some confusion, especially in records and mailing. Other government departments also will find D.R.L.C. misleading, and from a security viewpoint, mention of location (Churchill) should be avoided.

3. For your consideration, it is recommended that the title of Churchill Laboratory be amended to Defence Research Northern Laboratory. (D.R.N.L.)

(W. McLintock),
FOR Superintendent of Research,
Defence Research Chemical Labs.

WM:LC

VDL
The year
commented pl.
L.S. Wright
DRB
13 July 48

DRP
I am putting
this on the
agenda for Friday's
Staff Meeting.
W.H.B.
P.C.S.

14/7/48

DEFENCE RESEARCH BOARD

DRBS. 52-0-240

To: Distribution

Defence Research Laboratory Churchill

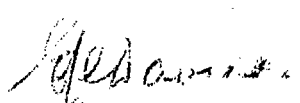
It has been proposed to set up a separate establishment at Churchill to be known as Defence Research Laboratory Churchill (D.R.L.C.).

The actual composition of the table of organization is awaiting the authorization of the overall table of organization for the Defence Research Board.

In the meantime, although the establishment is not yet authorized, Mr. A.C. Jones is assuming the duties of Superintendent and is engaged in the necessary staff planning and organization.

concerned.

This is for the information of all



(E. Ll. Davies) Vice Director General

DISTRIBUTION

List "A"
List "B"
Arctic Research

P.A. 

DRB 52-0-240 (DGS)

Ottawa, Ontario.
3 June, 1948.

DND

Defence Research Laboratory, Fort Churchill

1. The following information is submitted for planning consideration and such action as may be appropriate.
2. Defence Research activity at Fort Churchill indicates the need for a more permanent type of organization than has been possible up to the present. It is, therefore, proposed that about 1st September, 1948, Defence Research staff at Fort Churchill will be organized as a Defence Research Laboratory with the same degree of semi-autonomous responsibility for operation and administration as obtains in other Defence Research field stations. The projected staff will consist of:
 - 1 Superintendent
 - 7 personnel of officer grade
 - 12 personnel of sergeants' mess or junior grade
3. Of this staff it is anticipated that 4 officer grade and three sergeants' mess grade personnel will be available for posting at 1st September, and that the establishment will be completed by the end of the year.
4. The foregoing figures represent permanent staff and do not include temporary attachments and short term visitors which may be anticipated as averaging to present experience, viz. approximately 15 per month during December to March inclusive, and June to September inclusive.
5. It is presumed that planning chiefly affected will concern quarters. In respect of married quarters, it is requested that at least two be made available this fall. As the intended occupants have several children, it is hoped that quarters with three bedrooms can be provided.
6. It will be appreciated if planning can be arranged to meet these requirements.


(A.M. Fordyce)

Director of General Services.

ALF:AW

PA → DRBC. 52-0-240 (DRP)

, May 1948.

V/DG

Attached is a short story on the newly-proposed establishment at Churchill.

As Mr. Jones has been tied up with other organization problems, it has not been possible to decide on ranks of the organization or the breakdown of the technicians any further than was done at the meeting last week. I suggest, however, that we do not tie ourselves down to more rigid organization for the moment than that agreed upon.

WJM/can
Attach.

W. J. MacCallum
(W. J. MacCallum)
Director of Research Personnel.

DEFENCE RESEARCH LABORATORY CHURCHILL

As indicated at the last meeting of the Board, it is proposed to set up an independently functioning laboratory at Churchill to be called the Defence Research Laboratory Churchill (DRLC).

The positions for this unit are all to be taken from the proposed overall Table of Organization for the Defence Research Board and hence no further increase in the Table of Organization is required.

It is proposed that the organization be kept flexible in gradings and the table listed below gives the maximum grading expected in each case, although it is not intended that all scientists will be employed here at the maximum grading.

At the moment the employees who would be working in these positions receive a further allowance of \$30.00 per month if single, \$45.00 per month if married. This allowance is payable under an interim Order-in-Council pending clarification of all northern allowances for all Government employees.

It is proposed that Mr. A.C. Jones, now RSD.5 at \$4560. per year, will be appointed Superintendent in the grading RSD.6 at \$5400. per year.

	<u>Maximum</u>
1 Superintendent	✓
2 scientist working on clothing and equipment	RSD.3 2
1 scientist working on medical problems	RSD.4 1
2 physicists	RSD.2 } 3
1 administrative officer	AOD.2
9 technicians of various grades	Tech. Gr. 4
2 stenographers	
1 storeman (clerk)	
1 librarian	Lib. Gr. 2

20
12

WJH

DRB 52-0-240 (DGS)

P.A.

Ottawa, Ontario

9 Mar 48.

C.T.O. (Accounts Payable)

Framing of Photographs


For Presentation to Officers' Mess, Fort Churchill

1. The attached invoice rendered by Frank Jarman Limited in the amount of \$9.40 covers an order placed by the Administrative Deputy, Defence Research Board, for the following, preparatory for presentation by the Minister of National Defence during his forthcoming visit to Fort Churchill:

- (a) Framing, engraving of Baron Churchill of Aymouth, afterwards Duke of Marlborough.
- (b) Framing certificate of presentation to the Defence Research Board for the Officers' Mess, Fort Churchill, by Sir Henry Tizard, Sir Ben Lockspeiser, Dr. O.H. Wansbrough-Jones and Dr. J.A. Carroll.
- (c) Framing autographed photograph of the Rt. Hon. Winston S. Churchill.

Arrangements were then made to cover this order by Defence Research Local Purchase Order No.345219.

2. The invoice has been approved, coded and certified, and is forwarded for payment.


(A.I. Fordyce) Director of General Services
for Chairman, Defence Research Board.

Encl.
PJL/7619

243 BANK STREET

DIAL 2-5874

OTTAWA, *March 2* 194*4*

M. Defence Research Board

Room 4114 Navy Bldg.

BOUGHT OF **FRANK JARMAN LIMITED**

F. W. HILLS, Manager

CLEANING, VARNISHING, RESTORING OIL PAINTINGS, OLD ENGRAVINGS AND PRINTS, ETC., PICTURES
PICTURE FRAMING, ARTISTS' MATERIALS AND SUPPLIES

Att. - Mr V. L. Dixon

DATE	MONTHLY STATEMENT OF PURCHASES	FOLIO	DEBIT	CREDIT	TOTAL
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ACCT. RENDERED

<i>Jan 2</i>	<i>To: - 1 Engraving fed. in 1" Bldg.</i>		<i>5 70</i>		
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<i>Feb 16</i>	<i>To: - 1 Cert. fed. in 1/2" Bldg. Red</i>		<i>1 70</i>		
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	<i>To: - 1 Photo. fed. in 1/2" M. & L.</i>		<i>2 00</i>		
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I certify that the articles specified in this account have been received in good condition, that the prices charged are fair and just, and that no item in this account has been previously certified by for payment. I recommend payment.

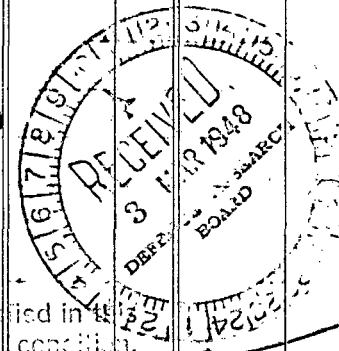
9.40


000166

Approved:

Administrative Deputy
Defence Research Board
Order no: - 345219

for Chairman
Defence Research Board



H. O. F.E. No.	DIV.	EST.	VOTE	PRI	D.A. OR H.O. SUB	OBJ.	AMOUNT
4078			160 99	30	670		9 40
CLASSIFIED BY		EXAMINED BY		AUTHORITY			
		FOR TREAS. OFF				TOTAL	

DRB 2-0-80 (DGS)

DRB 1-1-269 (DGS)

DRB 52-0-240-X (DGS)

PA7

Referred to..... <i>PA</i>
7011 MAR 11 1948
File No. <i>DRB 52-0-240</i>
Chgd to.....

6 March, 1948.

CGS

Presentation, Officers' Mess Fort Churchill

1. Since their visit to Canada last Fall, Sir Henry Tizard, Sir Ron Lockspeiser, Dr. O.H. Kinsbrough-Jones and Dr. J.A. Carroll have presented to the Defence Research Board for the Officers' Mess, Fort Churchill, an engraving of the first Baron Churchill, after whom the Churchill River was named, and also an autographed portrait of his distinguished present-day descendant the Rt. Hon. Winston S. Churchill.
2. I have discussed the matter with the Minister and, since he hopes to pay a visit to Fort Churchill in early April, he would like to make the formal presentation to the Officers' Mess of the Station.
3. In the meantime it is thought that it would be advantageous to forward the presentation to the Commandant to permit ample time for safe delivery and to enable a suitable position for display to be selected.
4. It would be appreciated, therefore, if you would be good enough to accept the following for transmission to the Commandant, Fort Churchill, together with appropriate instructions concerning the formal presentation.
 - (a) Framed engraving of Baron Churchill of Aymouth, afterwards Duke of Marlborough.
 - (b) Framed certificate of presentation to the Defence Research Board for the Officers' Mess, Fort Churchill, by Sir Henry Tizard, Sir Ron Lockspeiser, Dr. O.H. Kinsbrough-Jones and Dr. J.A. Carroll.
 - (c) Framed autographed photograph of the Rt. Hon. Winston S. Churchill.
5. I have made an initial informal acknowledgement of the presentation. It is suggested that it would be appropriate for a further acknowledgement to be made on the part of the Officers' Mess at Fort Churchill after the presentation by the Minister. In view of the phrasing of the certificate of presentation, this might perhaps be addressed to the undersigned for transmission to the gentlemen concerned.

- 2 -

6. For your information, photographs have been taken of the presentation pieces by Director of Public Relations to accompany news releases at the time of the formal presentation.

Orig. signed Orl. S.

Chairman,
Defence Research Board.

c.c. The Minister

P.A. 

100-30/0
~~DRBS 52-750-104~~ (DGS)

OTTAWA, Ontario,

27th February, 1948.

Special Instructions for DRB
Personnel at Fort Churchill

1. The following instructions supplement and are to be read in conjunction with General Joining Instructions and such other general instructions as may be issued from time to time by Commandant, Fort Churchill:

- (1) A senior member of the DRB detachment at Fort Churchill will be detailed as "DRB Representative".
- (2) Subject to the overriding responsibility of the Commandant, Fort Churchill, for general administration of the Station, the DRB Representative at Fort Churchill is responsible for co-ordinating administrative requirements of all DRB personnel permanently stationed at Fort Churchill, and of all visiting DRB personnel or personnel sponsored by DRB throughout their stay at this station.
- (3) The DRB Representative at Fort Churchill will not have direct control over scientific projects being conducted at or from this station except where special permission for such control is authorized. He may, however, with the approval of the project officer, detail personnel employed on specific projects to assist in carrying out other duties which affect the success of other DRB projects.
- (4) All DRB personnel, or DRB sponsored personnel, on arriving at Fort Churchill must report to the DRB Representative as soon as possible after clearance with the Station Report Centre to sign the register in the DRB office.
- (5) The Representative of the Defence Research Board acts as the liaison officer with the Canadian Army and other Services. All liaison with the Services must be carried out through this Representative.
- (6) Officers in charge of DRB projects, or their representatives, will submit a very brief summarized report to the Representative every week, in order that it may be incorporated in the weekly progress report from the station. This applies to any branch of DRB that may be carrying out tests or trials at Fort Churchill.
- (7) All issues of protective clothing, equipment and stores for DRB personnel will be endorsed by the DRB Representative. This equipment is issued on loan and must be returned before personnel will obtain a clearance to leave the area. Any

- 2 -

discrepancies between the stores issued, and those returned, will be noted and a recoverable invoice will be passed to DRB for an amount covering the value of such discrepancy, with an attached note of explanation as to the cause of the discrepancy.

- (8) All requests for transportation from Churchill either by air or by rail, and whether the party concerned has a return half of a ticket or not, must be notified to the DRB Representative 48 hours in advance of such trip in order that accommodation and clearances may be arranged.
- (9) All requests for Army transport, engineer services, etc., must be arranged through the DRB Representative. All transport is under the Camp Supply and Transport Officer, and 24 hours notice is required to make it available.
- (10) All signals originating at Fort Churchill which are of an official nature must be approved and signed by the DRB Representative before being passed to the RC Signals for transmission. All signals of a personal nature must be passed by commercial channels.
- (11) All official mail from branches of DRB to their representative in Fort Churchill will be addressed as follows:

Defence Research Board Representative,

Fort Churchill, Manitoba.

2. For purposes outlined above, and until further notice to the contrary, the DRB Representative will be Mr. A.V. Hannam. Previous instructions quoting Mr. J.P. Croal will be amended accordingly.

(Signed) G.W. DUNN

Administrative Deputy for Chairman,

Defence Research Board

DISTRIBUTION

Lists "A" & "B"

RPL

Diaries

File

DRB 52-0-360

DRB 52-0-361

DRB 52-750-1

DRB 52-751-1

DWD (ARMY)

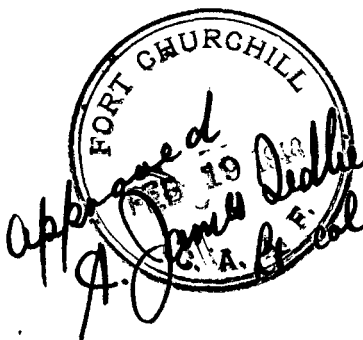
DAdm (ARMY)

~~D-R-A-F-P~~

~~DRB Representative,~~
~~Fort Churchill, Manitoba~~

1. The following instructions supplement and are to be read in conjunction with General Joining Instructions and such other general instructions as may be issued from time to time by ~~the~~ Commandant, Fort Churchill;

- (1) A senior member of the DRB detachment at Fort Churchill will be detailed as "DRB Representative".
- (2) Subject to the overriding responsibility of the Commandant, Fort Churchill, for general administration of the Station, the DRB Representative at ~~Fort~~^{out} Churchill is responsible for co-ordinating administrative requirements of all DRB personnel permanently stationed at ~~Fort~~^{out} Churchill, and of all visiting DRB personnel or personnel sponsored by DRB throughout their stay at this station.
- (3) The DRB Representative at ~~Fort~~^{out} Churchill will not have direct control over scientific projects being conducted at or from this station except where special permission for such control is authorized. He may, however, with the approval of the project officer, detail personnel employed on specific projects to assist in carrying out other duties which affect the success of other DRB projects.
- (4) All DRB personnel, or DRB sponsored personnel, on arriving at ~~Fort~~^{out} Churchill must report to the DRB Representative as soon as possible after clearance with the Station Report Centre to sign the register in the DRB office.
- (5) The Representative of the Defence Research Board acts as the liaison officer with the Canadian Army and other Services. All liaison with the Services must be carried out through this Representative.



- 2 -

- (6) Officers in charge of DRB projects, or their representatives, will submit a very brief summarized report to the ~~Re~~ Representative every week, in order that it may be incorporated in the weekly progress report from the station. This applies to any branch of DRB that may be carrying out tests or trials at ~~Ft.~~^{Port} Churchill.
- (7) All issues of protective clothing, equipment and stores for DRB personnel will be endorsed by the DRB ~~Re~~ Representative. This equipment is issued on loan and must be returned before personnel will obtain a clearance to leave the area. Any discrepancies between the stores issued, and those returned, will be noted and a recoverable invoice will be passed to DRB for an amount covering the value of such discrepancy, with an attached note of explanation as to the cause of the discrepancy.
- (8) All requests for transportation from Churchill either by air or by rail, and whether the party concerned has a return half of a ticket or not, must be notified to the DRB ~~Re~~ Representative 48 hours in advance of such trip in order that accommodation and clearances may be arranged.
- (9) All requests for Army transport, engineer services, etc., must be arranged through the DRB ~~Re~~ Representative. All transport is under the Camp Supply and Transport Officer, and 24 hours notice is required to make it available.
- (10) All signals originating at ~~Ft.~~^{Port} Churchill, which are of an official nature, must be approved and signed by the DRB ~~Re~~ Representative before being passed to the RC Signals for transmission. All ~~Re~~ signals of a personal nature must be passed by commercial channels

- 3 -

(11) All official mail from branches of DRB to their representative in Fort Churchill will be addressed as follows:

Defence Research Board Representative,
Fort Churchill, Manitoba.

2. For purposes outlined above, and until further notice to the contrary, the DRB Representative will be Mr. A.V. Hannam. Previous instructions quoting Mr. J.P. Croal will be amended accordingly.

(Signed) G.W. DUNN
Administrative Deputy for Chairman,
Defence Research Board

Distribution

Lists "A" & "B"

RPL

DIARIES

File

DRB 52-0-360

DRB 52-0-361

DRB 52-750-1

DRB 52-751-1

DWD (Army)

DAdm (Army)

P.A. → DRBS

52-789-107

Summary of Discussions on Arctic
Research at Fort Churchill held
in the Office of Vice Director
General, Ottawa, at 0930 hours,
5th February, 1948.

I. Letter from Dr. Dugal

(1) A letter from Dr. Dugal concerning Vitamin C research project (letter is on file DRBS 135-500-267-1) was first taken up. Dr. Dugal in his letter outlined progress on this project, problems to date, test team plans for the coming year, possible method of overcoming difficulties in supplying equipment through C.C.C., and requested that a laboratory technician should be supplied for Dr. Marier as soon as possible. Mr. Davies agreed that Marier should have an assistant as soon as possible and requested that D.Res.Pers. should be requested to take action immediately to provide one.

(2) Concerning test team plans, he suggested these should be coordinated with plans of Mr. Jones and early action taken to arrange for such a team.

(3) Mr. Davies suggested that equipment difficulties which may be apparent at the end of the program should be prepared for as soon as soon as possible and that the methods suggested by Dr. Dugal should be reviewed again in May, i.e., an extra-mural grant ~~xxx~~ to Laval under Dr. Dugal, and ~~a possible~~ grant arranged to cover purchase of off-the-shelf items throughout the coming year's program.

Mr. McNamara was requested to draft a letter covering the status of Dr. Dugal on the Vitamin C research project in order to avoid any possible complications in the future, although none have arisen so far.

II. Stores - General

Difficulties in connection with unpacking of items of stores for the lab which are now arriving in Fort Churchill ~~were~~ were described where one packing note is provided for anywhere from 15 to 20 cartons, all of which have to be opened and spread out in order to check delivery before signing receipt vouchers. The necessity of having a lab storeman who could relieve Mr. Hannam of this onerous duty and might also give typing assistance was discussed. Mr. Daignault of the Defence Research Chemical Labs had already approached Arctic Research with the request that he be posted to Fort Churchill, and since this man is a volunteer for the post, and has had some experience on stores coupled with a knowledge of typing, it was agreed that arrangements should be attempted with DRCL through D.Res.Pers. to obtain the services of this man.

III. Transportation

The difficulties in connection with the use of Army transport at Fort Churchill were outlined to Mr. Davies and it was stated that the Army Commandant has recommended that D.R.B. supply their own mechanical transport with a driver mechanic who could be used both as a driver and as a mechanic around the laboratory and to maintain vehicles. It was suggested that any vehicles purchased should be a different colour from the Army, but should be the same type as those currently in Army use in order to facilitate maintenance and spare parts. The present requirement as foreseen for the station was as follows:

- 2 -

1 car 5 cwt.
1 panel truck
1 2½ ton truck
1 Penguin

with one of these vehicles always being held in reserve for maintenance work. It was suggested that these vehicles, with the attention of an experienced mechanic, could be used as test vehicles for POL trials, and could be taken down to show the effects of trials of certain lubricants as well as prepared by installation of thermocouple, etc., to record conditions of use of POL.

IV. Pay and Allowances for Personnel

Negotiations already conducted between D.Res.Pers., Arctic Research and previous discussions McNamara and Davies on this same matter, were reviewed. It was pointed out that personnel living within the camp proper are drawing expenses, but a more complicated condition exists in the case of Ingebrigtsen and Croal who live in the town of Fort Churchill. It was agreed that some standard allowance was required for people living in Fort Churchill and cost of living sheets as supplied by Mr. Hannam were examined. Variations between the price of items in Churchill and those in Ottawa were examined, and it was agreed that some differences do exist which could be compensated for by an extra allowance. Vice Director General suggested that the list should be passed to D.Res. Personnel for their use in the submission which is already underway to Treasury relative to northern allowances.

It was mentioned that the hospital at Churchill camp gives free medical care for all people within the area, but no such provision exists for dental treatment for DRB personnel, their wives and families. Mr. Davies requested Mr. McNamara to write the Army Dental Services concerning arrangements whereby DRB personnel should receive dental treatment either ~~through the Army~~ free or on a recoverable basis. Arrangements which had been made by Mr. Hannam whereby Messrs. Croal and Ingebrigtsen would get water free from the Army and would be supplied with fuel oil through Army channels on a recoverable basis were discussed, and this arrangement was approved by the Vice Director General. Mr. Davies pointed out that the \$17.50 per month which was quoted by Mr. Croal as the cost per month of a married quarter which had been originally promised him, was actually the cost of a renovated hut, whereas cost of new quarters would be somewhat higher when the building program at Churchill is completed. Mr. Davies also pointed out that no promises of accommodation or concessions or northern allowances were ever made to Mr. Ingebrigtsen who came into Arctic Research requesting employment and had been hired mainly because he had his home in Churchill and intended to settle there. It was brought up that both Croal and Ingebrigtsen state they are doing work on the side in order to raise money to meet expenses, and Mr. Davies stated that they should be given a copy of the letter which prevents Government employees from taking outside work when their salary is over a certain figure. Mr. Hannam will arrange that both these men see the letter referred to.

V. Clothing and Dress Regulations

Administrative arrangements concerning dress, etc., ~~etc~~ which had been discussed with Mr. Dunn and Mr. Fordyce, were briefly mentioned and it was agreed that the reply to draft regulations from D.Admin. would appear to have settled this problem. Discomfort experienced by people proceeding to Fort Churchill and returning to Ottawa owing to the fact that winter clothing is not provided, was discussed and at Mr. Davies' suggestion, D.R.C.L. will be contacted and an attempt made to arrange the issue of such clothing to all travellers before leaving Ottawa.

VI. Permafrost

The topic of permafrost research was then taken up and the request of Mr. Croal for a helper was gone into at some length, with Mr. Hannam outlining the difficulties in connection with winter operation of such a drill. The heater which is now on order for this work was also mentioned, but it was agreed that there was a definite need for a helper. This helper had been authorized previously for Mr. Croal on a hired local labour basis, but had been stopped owing to a ~~request~~ ^{request} from Mr. Croal stating that such labour was being provided for him by the camp engineer. No subsequent request had been received up to this date for a helper. Difficulties and differences of opinion between Croal and Dr. Woodcock, who is nominally in charge of the project, were described, in connection with thermocouple measurements of temperatures in the holes which have already been drilled. The fact that DRB already has equipment from DOT Met. Division was mentioned and the need for getting some kind of measurements was also discussed. It was agreed by Mr. Davies that the status of the permafrost project should be reviewed and would be taken up at the same time as the clothing and equipment research problem when W/C Maclure returns to Ottawa. Mr. Davies gave it as his opinion that since Dr. Woodcock is now with DRCL and not with Arctic Research, then some member of Arctic Research will have to take charge of the permafrost project. The interim report from Croal on the project to date was also mentioned and it was stated that it was being passed to Dr. Woodcock for his examination.

VII. DRB Personnel Visitor Rating

A list of visitor ratings for DRB personnel proceeding to Fort Churchill ~~which will~~ ^{to} facilitate the provision of accommodations, etc., for such visitors, both for the Army and the DRB representative, was agreed to as follows:

Army rank equivalent	- 1
Sergeant or NCO equivalent	- 2
Jr. officer Lieutenant or Capt. equivalent	- 3
Maj. or Lt.Col. equivalent	- 4
Col. or Director of a division	- 5
Brig. or Maj.General equivalent such as VDG	- 6
Lt.General or CDRB or equivalent	- 7

VIII General Administration

General administration was then discussed and it was agreed that the provision of stores and stenographer combined would clear up some of the difficulties. The possibility of losing the POL, Vitamin C and general administration hut to the 59th Engineer Company and disrupting projects now underway such as Vitamin C, as well as interrupting plans for entomological research, was mentioned, and Mr. Hannam stated that Maj. Nourse has already informed him that huts now in use for this work will have to be returned to the 59th Engineers approximately the end of April. Accommodation at Fort Churchill ~~was~~ discussed at the meeting in December in Ottawa was touched on briefly and Mr. Davies agreed that it was to our best interests and that of our projects to retain the present accommodations until the new laboratory is ready, which is expected to be around the end of July. Mr. McNamara was requested to get in touch with D.W.A. and obtain month by month their assurance that DRB would not lose the POL, Vitamin C and general office which they are now using, and in case of any change to inform Mr. Davies immediately. The question of moving the Jamesway shelters, which are now near the temporary labs, to the rear of the new lab was also mentioned, and it was agreed that this should be arranged at the proper time with the Commandant.

It was also agreed that all equipment for test at Fort Churchill during next winter would have to be available in Churchill before 1 Nov. 48.

IX. Andrew Croft's Letter

Letter from Lt.Col. Andrew Croft addressed to Mr. Davies together with one addressed to Mr. McNamara were read by Mr. Davies, the main point in these letters being the fact that POL trials were being seriously hampered by the lack of test vehicles for provision of which DVD is the responsible Army agency. Letters on this matter are contained on File DRBS 135-745-267 Vol. 2. In the discussion which followed Mr. Hannam explained that he had received no request from Mr. Perry for provision of such vehicles and if this had been done he was sure these arrangements could have been made without too much difficulty.

X. Mr. Hannam's Salary

Mr. McNamara pointed out that in view of the salaries being paid to other personnel and in the light of work which Mr. Hannam has already carried out at Fort Churchill, and the increased authority which is being given to him, that a commensurate salary increase should be given to this man. Mr. Davies stated that an increase of his salary is arranged for with the new Government ~~regulation~~ increases, but he felt something over and above this was required.

D.R.B. REPRESENTATIVE - FT. CHURCHILL

1. In order to clarify the situation insofar as D.R.B. personnel at Ft. Churchill are concerned the following instructions are issued for the information of all concerned.

- (1) The D.R.B. representative at Ft. Churchill is responsible for administration of all D.R.B. personnel permanently stationed at Ft. Churchill, and for the administration of all visiting D.R.B. personnel or personnel sponsored by D.R.B. throughout their stay at this station.
- (2) The D.R.B. representative at Ft. Churchill will not have direct control over scientific projects being conducted at or from this station except where special permission for such control is authorized. He may, however, with the approval of the project officer, detail personnel, ~~not specifically detailed to him for administrative duties, and employed on specific projects, to assist him in carrying out other duties which concern the welfare and success of other~~ *other* D.R.B. projects.
- (3) All D.R.B. personnel, or D.R.B. sponsored personnel, *on* arriving at Ft. Churchill must report to the D.R.B. representative as soon as possible ~~after their arrival and~~ sign the register in the D.R.B. office.
- (4) The representative of the Defence Research Board acts as the liaison officer with the Canadian Army and other Services. All liaison with ~~other~~ *the* Services must be carried out through this representative.
- (5) Officers in charge of D.R.B. projects, or their representatives, ~~must~~ submit a very brief summarized ~~project~~ report to the representative ~~once a week~~ *every* week, in order that it may be incorporated in ~~the~~ *the* weekly progress report. *to stay on* This applies to any branches of D.R.B. that may be carrying out tests or trials at Ft. Churchill.
- (6) All issues of protective clothing, equipment and stores for D.R.B. personnel will be arranged by the D.R.B. representative through the Army Quartermaster Stores. This equipment is issued on loan and must be returned before personnel will obtain a clearance to leave the area. Any discrepancies between the stores issued, and *those* returned, will be noted and a recoverable invoice will be passed to D.R.B. for an amount covering the value of such discrepancy, *with an attached note of explanation as to the cause of the discrepancy.*
- (7) All requests for transportation, *either by air or by rail and, whether the party concerned has a return half of a ticket or not, must be notified to the D.P.B. representative 48 hours in advance of such trip in order that accommodation, ^{and clearances} may be arranged.*
- (8) All requests for Army transport, engineer services, etc. must be arranged through the D.R.B. representative. All transport is under the Camp Supply and Transport Officer, and 24 hours notice is required to make it available.

- 2 -

- (9) All signals originated^{at} at Ft. Churchill, which are of an official nature, must be approved and signed by the D.R.B. representative before being passed to the R.C. Signals for transmission. All signals of a personal nature must be passed by commercial channels.
- (10) All official mail from branches of D.R.B. to their representative in Ft. Churchill will be addressed as follows:

Defence Research Board Representative,
Ft. Churchill,
Man.

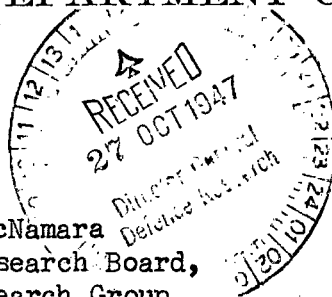
II For purposes outlined above, and until further notice to the contrary, the D.R.B. representative will be Mr. A.V. Hannam. Previous instructions quoting Mr. J.P. Croal will be amended accordingly.

IN REPLY PLEASE QUOTE

No. DRC 1-0



DEPARTMENT OF NATIONAL DEFENCE
ARMY



FORT CHURCHILL, Man.
23 Oct 47.

194

Mr. C.P. McNamara
Defence Research Board,
Arctic Research Group,
Room 3048, "C" Bldg.,
OTTAWA.

Referred to *DRC*
4030 OCT 27 1947 0-240
DRC 52-750-104
File No.
Chgd to

GENERAL INFORMATION FORT CHURCHILL

- ✓ 1. The 59th US Engrs have left and the three stout huts examined during your visit are available for use; heat and water have as yet not been installed.
- ✓ 2. Casing for diamond drill is now in the hands of RCME, where male and female joints are being machined. The flush joints on original casing would be much too weak in a 40 foot length of casing.
- ✓ 3. DRB jeep has been completely winterized and closed in with a canvas hood.
- ✓ 4. Dr. Langille has been given complete tour of the area and surrounding countryside.
- ✓ 5. American churn drill has moved since your visit and is now drilling about 50 yards from laundry. Fresh water in small quantity was struck at 60 feet.
6. Capt Crumlish expects to be finished here about the middle of next month. Suggest letter of invitation be sent him to talk over this summer's work with you, as he will no doubt pass through Ottawa on his return to the U.S.
- ✓ 7. Anderson has had delay in starting my winter quarters. His man at North River trading post had accident with rifle and is now ~~removed~~ ^{removed} from this world. Expect building will start sometime near end of this week.
- ✓ 8. Stakes requested by Maj. Jones are being made up according to specification.
9. CO Fort Churchill confirms no furniture for married quarters can be issued out of camp. This means I will have to have my own shipped up when house is ready. Expect house to be completed early part of November.
- ✓ 10. So far have been unable to obtain helper for drilling. What about sending that new man I met in Ottawa up for a few weeks. I would see there was no heavy lifting involved.

will discuss with DWP. Rm.

underway. D. Pers. are taking action.

[Signature]
28/10

[Signature: J. P. Croal]

(J. CROAL)
Arctic Research Section
Defence Research Board,
FORT CHURCHILL

SECRET

Extract from Minutes of 389th Meeting of the Chiefs of Staff

Committee held 6 May 47

LONG-TERM PLANS - FORT CHURCHILL

10. The Committee had for consideration a memorandum from the Inter-Service Committee on Winter Warfare outlining the proposed long-term plan for Fort Churchill. It was proposed that available accommodation for the 1947-48 period, estimated at 815, be allotted on the basis of 245 for U.S. personnel and 570 for Canadian personnel. It was considered that this would give the United States over fifty per cent of the personnel actually used on testing and training since a large part of the Canadian establishments was utilized for administration and maintenance. It was recommended that existing arrangements for administration and operation continue. In addition, specific proposals for special leave, northern allowances and tours of duty were made.

(Memorandum of 21st April, 1947, from Inter-Service Committee on Winter Warfare - CSC 5-1-4 of 30th April, 1947).

11. The Chief of the Air Staff stated that he was in agreement with the proposals except for those in regard to leave. A joint Service policy on leave had already been agreed and no exception in the case of Churchill would be acceptable.

12. The Chief of the General Staff suggested that, in view of the consideration currently being given by Cabinet to United States participation at Churchill (in particular the expenditure of U.S. funds), this matter be deferred pending Cabinet decision.

13. It was agreed to defer decision on the recommendations of the Inter-Service Committee on Winter Warfare pending a decision of Cabinet with regard to United States participation.

RESTRICTED

21 Apr 47

LONG TERM PLAN
FOR
THE COMBINED EXPERIMENTAL AND TRAINING STATION
FORT CHURCHILL

OBJECT

1. To draw up a long term plan for the establishment of a permanent combined Canadian/USA experimental and training station at CHURCHILL, Manitoba.

PURPOSE

2. To provide facilities to develop the art of warfare in the Canadian Arctic through study, experimentation, and training.

GENERAL

3. Canadian policy requires:-
 - (a) The collective and individual training of Service personnel in Northern Canada and the Arctic.
 - (b) The development and testing of Service equipment for Arctic areas and research related directly or indirectly thereto.
4. The above policy has been operationally implemented by two short term projects:-
 - (a) CHURCHILL PROJECT - Summer 1946

This project was undertaken by the Canadian Army to obtain information on the traversability of the terrain in the Churchill area by available production and prototype vehicles.
 - (b) FORT CHURCHILL - Winter 1946/47

The primary objectives of this project were:-

 - (i) Canadian Army

To assess the suitability of issue equipment and to develop a technique for the indoctrination of personnel.

- 2 -

GENERAL (Cont'd)

(ii) RCAF

The testing of equipment, both air and ground, simulating dispersed operation under Arctic conditions.

(iii) DGDR

Experimentation on Arctic clothing in conjunction with Directorate of Inter-Service Research and Development (DIRD) and assessing future lines of Arctic Research.

(iv) United States Forces

To assess the suitability of certain items of engineer equipment.

TERMS OF REFERENCE

5. The terms of reference for FORT CHURCHILL will be:-

- (a) To study the environmental conditions of the Canadian Arctic and their effect on personnel, supplies and equipment and the logistical problems related thereto.
- (b) To carry out research, development, and trials to provide supplies and equipment suitable for the above environmental conditions.
- (c) To develop a tactical doctrine and to train personnel for Arctic warfare.

RESPONSIBILITY

6. The general division of responsibility in the CHURCHILL area will be:-

(a) RCN

- (i) Command and administration of the RCN W/T station.
- (ii) Experimental work connected with the above station.

(b) Canadian Army

- (i) Administrative command of FORT CHURCHILL station.
- (ii) Canadian Army experimental projects.
- (iii) Operational Training

- 3 -

(c)

RCAF

- (i) Command and maintenance of airfield, hangar, control tower, and associated equipment and facilities, less the radio range and meteorological facilities.
- (ii) RCAF experimental projects.
- (iii) Operational Training.

(d)

DGDR

Basic research on Arctic problems applicable to defence.

(e)

Department of Transport

Responsible for radio range and meteorological facilities. (Subject to agreement by Dept of Transport).

(f)

National Research Council

Tests and trials as from time to time required.

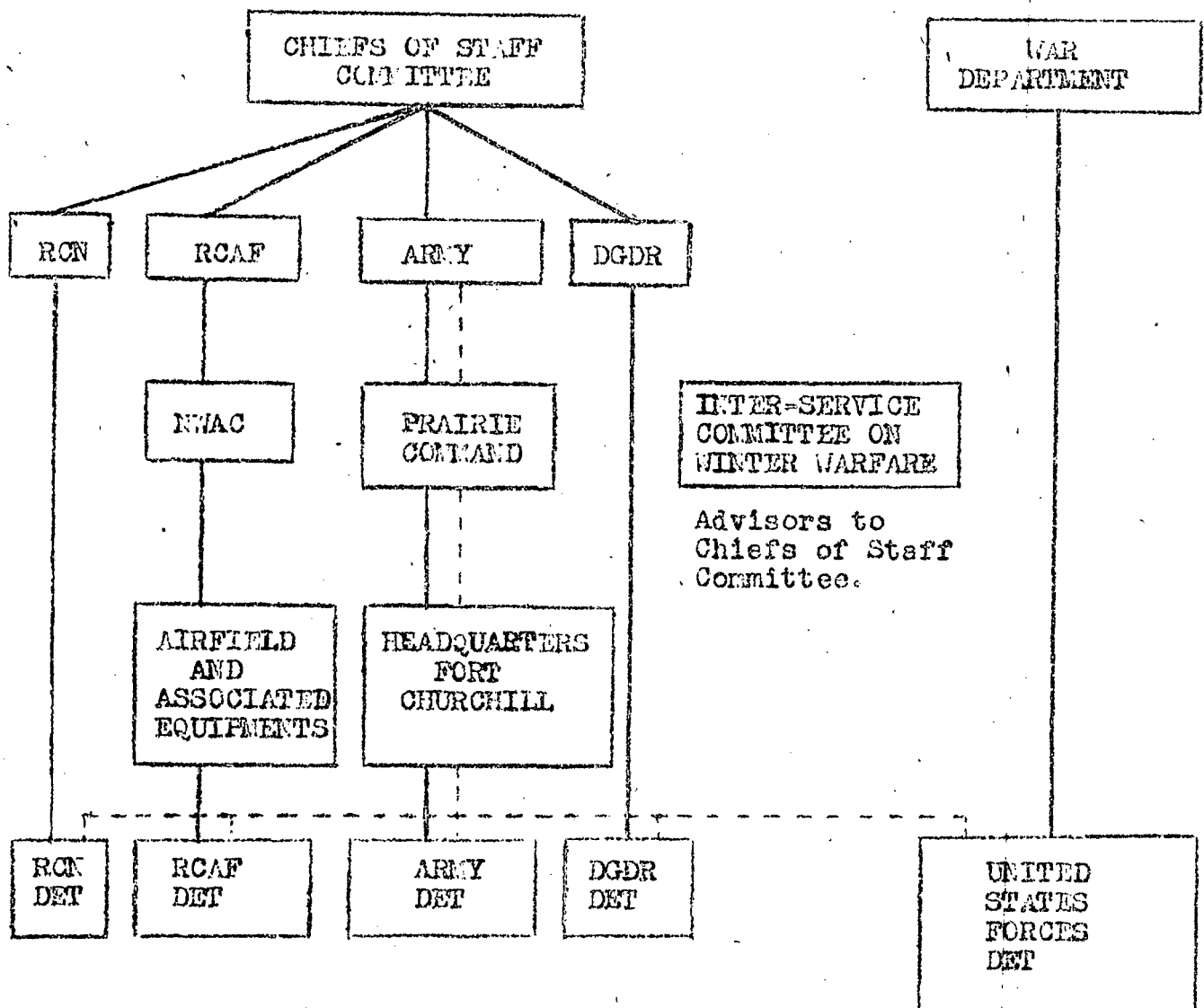
(g)

United States Forces

- (i) United States experimental projects.
- (ii) Training of United States personnel.

ORGANIZATION

7. Control of the FORT CHURCHILL station will be exercised as shown in the following diagram:-



LEGEND

- Functional Control
- - - - - Administrative Control of Station

- 5 -

ACCOMMODATION

8. Details of the present condition of, and future plans for, the accommodation at FORT CHURCHILL are given in Appx "A".
9. The existing buildings will accommodate an estimated 600 single personnel.
10. The estimated future requirements are outlined in Appx "B".
11. Material and labour resources are such that no definite commitment for the completion of buildings for use during 1947-48 can be given. However, it is estimated that on completion of the construction programme for summer 1947 the accommodation available at FORT CHURCHILL, for the remainder of the 1947-48 period, inclusive of married quarters, will be 815.

EXPERIMENTAL AND TRAINING PROGRAMME

12. The proposed experimental and training programmes for the Canadian Army, RCAF, and DGDR are attached at Appx "C".
13. The RCN programme will be carried out at the RCN W/T Station.
14. The future programme for the United States Forces is not known. (This information has been requested).
15. Due to limited accommodation and the construction programme, no experimental and training programme will be undertaken by the Canadian Services during Summer 1947.

PLAN

16.

General

The development of **this plan** is contingent on four main factors:

- (a) Resources
- (b) Construction
- (c) Accommodation
- (d) Experimental and Training Programme.

17.

Resources

(a) Materials

Climatic conditions limit construction to the summer months. Construction materials for each summer should be shipped, when possible, during the preceding winter.

(b) Manpower

Considerable day labour will be required for the construction programme. The availability of local labour at CHURCHILL is very limited.

(c) Finances

The following funds have been included in the 1947/48 estimates for the construction and maintenance of a permanent station at FORT CHURCHILL.

NOTE: The agreement reached, covering the expenditure of USA funds, is attached at Appx "D".

RCN	(exclusive of RCN W/T Station)	NIL
Canadian Army		
	Construction	\$300,000.00
	Maintenance	18,700.00
RCAF		
	Construction of	
	cannon test butt	24,000.00
	Maintenance	5,500.00
DGDR		
	Construction and maintenance	75,000.00
	of a laboratory	
US War Department		350,000.00

- 7 -

18. Construction

1947-48

- (a) The construction programme for summer 1947 should be based on the following priority priority.
- (i) Piped water and sewage system to site of permanent station.
 - (ii) Workshop and garage.
 - (iii) Additional barrack accommodation for 100.
 - (iv) As many married quarters as possible.
- (b) Details of this programme are attached at Appx "E".
- (c) A survey will be made covering the siting of a new hangar and the extension of one runway to very heavy bomber (VHB) specifications, i.e., 8000 feet.

1948 - 52

Continuation of the agreed plan as annual finances and resources permit.

19. Accommodation

1947 - 48

- (a) The allotment of the estimated available accommodation of 815 for winter 1947-48 will be as follows:

RCN	NIL
Canadian Army	
Administration	320
Experimental & Training	125
RCAF	
Administration	30
Experimental	70
DCDR	15
Department of Transport	10
US War Department	<u>245</u>
TOTAL	815

Note: Quotas shown to include visitors.

- (b) The allotment of any additional accommodation made available through a decrease in the tentative strength of 320 for the administration group, or for any other reason, will be made by the Inter Service Committee on Winter Warfare.

PLAN (Cont'd)

1948 - 52

Will be dependent on progress made in the construction programme.

20.

Experimental and Training Programme

(a) The experimental and training programme to be followed at FORT CHURCHILL by the Canadian Army, RCAF, and DGDR is outlined in Appx "C".

(b) Due to construction, the winter programme will not commence prior to 1 Nov 47.

21.

Administration

(a) The following policies, at present in effect, are to continue:-

Security - See Appendix "F".

Discipline for the Canadian Services - See Appendix "G".

Airmail - continuation of airmail service between FORT CHURCHILL and Winnipeg.

(b) The policy regarding discipline for a combined Canadian/USA Force has recently been approved by the PJBD but has not yet been promulgated.

(c) An Inter-Service, or where necessary, a Joint Canadian/USA policy should be promulgated on the following matters. The recommendations of the Inter-Service Committee on Winter Warfare are covered in the respective appendices.

Visits

Delegation of authority to approve visits to FORT CHURCHILL -- see Appx "H".

Tour of Duty

Defining tours of duty for personnel employed on the permanent establishment at FORT CHURCHILL -- See Appx "J".

Leave

Special leave concessions to apply to personnel on the permanent establishment at FORT CHURCHILL -- See Appx "K".

PLAN (Cont'd)

22. Administration - (Cont'd)

(b) Married Quarters

Regulations governing their
allotment -- See Appx "L".

Northern Allowances

The payment of Northern
Allowances to Canadian
personnel stationed at
FORT CHURCHILL -- See
Appx "M".

RESTRICTED

Appx "A"

21 Apr 47

ACCOMMODATION - BUILDINGS

FORT CHURCHILL

GENERAL:

1. A survey of the CHURCHILL area has recently been completed by the RCE, Canadian Army, and the following represents their views.

PRESENT

2. The present site of the station, due to muskeg and excessive drifting of snow, is not suitable as a permanent site.

3. The present buildings are of a temporary nature with a life expectancy of from one to five years. They are wasteful of maintenance funds, constitute a serious fire hazard, require temporary provision of water and sewage services, and are not functionally laid out.

4. Workshops, offices, married quarters and administrative buildings are at present inadequate in relation to the potential capacity of the station for personnel.

FUTURE

5. As FORT CHURCHILL is to be a permanent station, the long term construction programme is to be based on the provision of permanent installations.

6. However to meet the present urgent requirements for increased accommodation, the long term programme is to be supplemented by a short term plan. This plan will utilize materials from the old construction camp to construct additional temporary accommodation.

7. The permanent site for the station will be the ridge on which the hospital is at present located.

8. An adequate water supply is available.

9. In general buildings will be of fire resistant, single storey, frame construction laid out in spider formation so that individuals will be able to perform as many as possible of their duties and normal functions without leaving their building block.

10. Each block, or group of blocks, will have its own steam heating plant and will be protected by an automatic sprinkler system.

ACCOMMODATION -- PERSONNEL

RESTRICTED

Appx "B"

21 Apr 47

ESTIMATED REQUIREMENTS

	1947/48	1948/49	1949/50	1950/51	1951/52
RCE (exclusive of RCE W/T station)	NIL	NIL	NIL	NIL	NIL
Canadian Army					
Permanent Establishment	320	365	470	500	500
Experimental	125	125	200	200	250
Training	28	167	529	720	720
RCAF					
Permanent	30	40	50	50	50
Experimental	70	80	100	100	100
Training	0	100	150	150	150
DGDR	15	20	25	25	25
Department of Transport	10	10	15	15	15
United States Forces	328	335	485	500	500
TOTAL	926	1242	2024	2260	2310

RESTRICTED

APPX "C"

21 Apr 47

EXPERIMENTAL AND TRAINING PROGRAMME

FORT CHURCHILL

CANADIAN ARMY

SUMMER - 1947

NIL

WINTER - 1947/48

1. Technical and user trials on weapons, supplies, and equipment on issue to the Canadian Army.
2. Training of an instructional cadre.
3. Development of a tactical doctrine for Arctic Warfare.

1948-52

1. Continuation of above.
2. Training of platoons and companies (or equivalent) units of the Active Force Brigade Group.

RCAF

SUMMER - 1947

NIL

WINTER - 1947/48

1. The testing of equipment, both air and ground, peculiar to the RCAF simulating dispersed operation under Arctic conditions.
2. The physiological problems of clothing, working conditions, and survival of personnel engaged in such operations.

1948-52

1. Continuation of above.
2. Operational training of all regular squadrons under Arctic conditions.

...../2

- 2 -

DGDR

SUMMER - 1947

1. Analysis of soil mechanics for trafficability and the relation of these features to coloured air photography and botanical cover.
2. Entomological research and methods of insect control and repellents.

WINTER - 1947/48

1. Continuation of protective clothing research combined with physiological studies on cold tolerance, adaptation, and rations.
2. Further research on fuels and oils suitable for low temperature and high windchill areas.
3. Permafrost investigations. Ground temperature regimes, experimental equipment assessment, and use of permafrost for refrigeration.
4. Control of drifting snow.
5. Physical qualities of snow and ice, mechanics of freezing of rivers and salt water and the strength of ice for traversability and aircraft landings.
6. Research into the practicability of arctic automatic weather measurements.

RESTRICTED

Appendix "D"

21 Apr 47

DEPARTMENT OF NATIONAL DEFENCE

OTTAWA, Canada

25 March, 1947

AGREEMENT FOR EXPENDITURE OF U.S. FUNDS.
FORT CHURCHILL, MANITOBA, CANADA

The United States War Department, represented by the Corps of Engineers, U.S. Army, hereby requests the Quartermaster-General, Canadian Army, to furnish the use of facilities at Fort Churchill, Canada, for United States personnel at a lump sum cost not to exceed Three hundred and fifty-thousand Dollars, (\$350,000.00), United States currency. Such facilities shall include, but not be limited to, housing, shops, storehouses and utilities. To fulfill this agreement it is recognized that the Canadian Department of National Defence will be required to construct new or rehabilitate existing facilities. The exact work to be done shall be decided upon by joint agreement between the United States and Canadian technical authorities, having in mind obtaining the use of maximum facilities for the United States personnel concerned. It is agreed that such housing, shops, storehouses and utilities constructed by the Canadian Department of National Defence in accordance with this agreement shall be occupied or used by United States personnel without payment of rental for such period as United States personnel may remain at Fort Churchill. The work in question to be performed by the Canadian Army Quartermaster-General, (or such other agency as the Canadian Department of National Defence may designate), shall be performed with the general supervision of an authorized representative of the United States Corps of Engineers, and all bills presented to that representative for payment by the United States Corps of Engineers to the designated Canadian Agency from the Appropriation 2170905 Engineers Service, Army, 1947, (Project 430). Further, the Canadian Quartermaster-General will make every effort to have the facilities under this agreement ready for occupancy or use by United States personnel not later than 15 September 1947.

ACCEPTED BY THE CANADIAN DEPARTMENT OF NATIONAL DEFENCE:

25 March 1947 By N.E. Rodger Maj Gen QMG
Title G.C. Mann Maj Gen VCGS

ACCEPTED BY THE UNITED STATES WAR DEPARTMENT:

28 March 1947 By Phillips W. Smith
Title Chief Current Procurement Branch
SS & PDW. W.D.G.S.

RESTRICTED

Appex "E"

21 Apr 47

T E N T A T I V E
JOINT CONSTRUCTION PROGRAMME
For
1947 - 48
F O R T C H U R C H I L L

<u>Serial</u>	<u>Item</u>	<u>Source</u>	<u>Sub-total</u>	<u>C O S T</u>	<u>Total</u>
<u>JOINT REQUIREMENTS</u>					
1.	Piped water and sewage system	New	\$ 300,000.00	\$ 300,000.00	
2.	Workshop 128' x 96'	New	88,000.00		
3.	Married Quarters - (9)	New	54,000.00		
4.	Garage - 50 Vehicles	New	35,000.00		
5.	Barracks - 100 men	New	40,000.00		217,000.00
6.	Married Quarters (2)	2 Labour Huts	6,000.00		
7.	Enlarge Officers Mess) Bake shop	Hospital Group	10,000.00		
8.	Single Officers Accommodation	Unfinished Wing Hospital Group	2,000.00		
9.	School (50)				18,000.00
<u>USA REQUIREMENTS</u>					
10.	QM Office and Warehouse	2 Labour Huts	6,000.00		
11.	QM Isolation Barracks and Mess	2 Labour Huts	6,000.00		
12.	QM Isolation Single Officers	2 Labour Huts	6,000.00		
13.	Officers - 2000 sq.ft.	2 Labour Huts	6,000.00		

- 2 -

USA REQUIREMENTS (Cont'd)

<u>Serial</u>	<u>Item</u>	<u>Source</u>	<u>C O S T</u>	
			<u>Sub-Total</u>	<u>Total</u>
14.	Warehouse and Laboratory	2 Labour Huts	\$ 6,000.00	
15.	Warehousing	4 Labour Huts	12,000.00	
16.	Force Hq	Wing of Hospital	---	
17.	Overflow from Hospital	3 Labour Huts	9,000.00	
18.	Radio teletype	1 Labour Hut	3,000.00	
19.	Small Laboratory	Stout House		
20.	Magazines (6)	TDM Type	<u>600.00</u>	\$ 54,600.00
<u>OTHER REQUIREMENTS</u>				
21	Laboratory - DGDR	New	<u>75,000.00</u>	75,000.00
22.	Cannon stop butt - RCAF	New	<u>24,000.00</u>	24,000.00
<u>SERVICES</u>				
23.	Serials 2 - 5		43,400.00	
24.	Serials 6 - 8		3,600.00	
25.	Serials 10 - 20		<u>10,900.00</u>	<u>57,900.00</u>
ESTIMATED TOTAL				\$746,500.00

NOTES

1. Additional married quarters will be provided if resources permit.
2. Materials for other than new construction coming from old construction camp.
3. Temporary school - seating capacity for 50 - to be a minor commitment.
4. If Labour Huts cannot be moved, add for new construction - \$40,000.00.
5. Military Labour - probably \$70,000.00 saving - contingency.

RESTRICTED

Appendix F

21 Apr 47

SECURITY PLAN

FORT CHURCHILL

OBJECT

1. To provide Security safeguards for the permanent joint service training and testing station at CHURCHILL.

GENERAL ORGANIZATION

2. The Camp Commandant is responsible for the overall security of the Camp.
3. He will be assisted by an officer on his staff designated as the Security Officer. The Director of Military Intelligence will endeavour to provide a trained Security Officer, on attachment for at least a month, to assist and advise the Commandant. In the event that the Director of Military Intelligence is unable to provide an officer the Commandant is to send the officer he has selected to the Director of Military Intelligence for a short period of instruction. This officer will be responsible for preparing the Camp Security Standing Orders.
4. Each service will designate an officer on its establishment to be Security Officer for security coordination, implementation of Security Orders and Security Instruction.
5. The Royal Canadian Mounted Police advise that their Detachment at CHURCHILL will give whatever assistance is within their power, including an interest in civilians arriving in the CHURCHILL area.

PROHIBITED PLACE

6. The Camp and testing areas, including ranges to be designated, a "Prohibited Place", under authority of the "Official Secrets Act", 1939. The Commandant, FORT CHURCHILL will define the boundaries of the "Prohibited Place" and the Director of Military Intelligence will prepare the necessary submission to the Governor in Council.

-2-

7. Upon the declaration of the "Prohibited Place" by the Governor in Council, suitable signs will be erected around the perimeter under the supervision of the Security Officer.

SECURITY OF MATERIAL

8. Security precautions to be taken in regard to classified equipment in transit, either by road or rail, and addressee notified prior to arrival.
9. Each service will allocate buildings for the safe-keeping of classified equipment. Equipment unable to be stored in this manner will be kept in a wired enclosure and covered. Where such precautions are not possible, all suitable security safeguards will be taken.
10. Lists of equipment sent to the Camp to have a column showing the classification of each item; copies to be held by the Camp Security Officer.

SECURITY OF INFORMATION

11. Classified documents to be kept in safes or locked cabinets. Keys to desks, cabinets, and boxes to be kept in safes when not in use.
12. Waste paper, carbons, stencils and note books used in compiling classified matter to be destroyed under arrangements made by Security Officers.
13. Any photography other than that connected with trials will be prohibited within the prohibited place.
14. The "Prohibited Place" to be included in Civilian Air regulations as a "Danger Area".

SECURITY OF PERSONNEL

15. All personnel will be screened; that is, their names and identifying particulars checked against available indices.
16. In addition, all personnel having access to Secret and Top Secret equipment, documents and the results of tests will be vetted; that is, thoroughly investigated.

-3-

17. The Army to be responsible for the screening and vetting of its own and Director General of Defence Research personnel. The Navy and Air Force to be responsible for their own screening and vetting. The U.S. and British Forces to be responsible for their own screening, vetting and clearing of their personnel with the Canadian Director of Intelligence of the RCN, Army or RCAF as the case may be.
18. Local civilians employed within the Camp to be investigated by the local Royal Canadian Mounted Police Detachment upon request of the Camp Security Officer.

CONTROL OF IDENTITY

19. Service identity cards to be carried at all times.
20. Civilians on duty or employed within the Camp, not in possession of service identity cards, to be issued with special identity cards by the Security Officer.

CONTROL OF VISITORS

21. All visitors sponsored by the Army, other than Press, Diplomatic representatives and Churchill townspeople, to be cleared and granted permission by the Director of Weapons Development in the form of a pass, which is to be presented to the Security officer on arrival. All visitors sponsored by Navy, Air Force, and DGBR to be cleared and granted permission by the Director of Intelligence of their respective services. All visitors sponsored by the U.S. and British Forces, after being cleared by the Director of Intelligence of their respective service, will then be cleared through the Canadian Director of Intelligence of the RCN, Army or RCAF as the case may be.
22. Representatives of the Press will be permitted admission after having been cleared by the Director of Public Relations of the Service concerned and accredited by the Director of Weapons Development or Director of Intelligence as applicable; and then shown Camp by a conducted tour.

23. Diplomatic representatives to be treated in accordance with the Canadian policy under the "Release of Information to Foreign Powers".
24. The Camp Commandant to be notified, in advance, of the arrival of visitors.
25. CHURCHILL townspeople admitted for entertainment purposes, to be allowed in under arrangements made by the Security Officer.
26. Signs to be erected on the CHURCHILL road, directing all visitors to report to the Security Officer at Camp Headquarters. The route to Camp Headquarters to be indicated by signs.
27. All copy and photographs to be cleared by the Director of Public Relations of the Service concerned prior to publication or by the Camp Commandant and/or OC, RCAF establishment, as applicable if written for release direct from the Camp.

SIGNALS SECURITY

28. Wireless circuits are available between the following points:-
 - (a) Fort Churchill and Ottawa
 - (b) Fort Churchill and Winnipeg
 - (c) Fort Churchill and testing parties
 - (d) Between testing parties.

Both classified and unclassified messages may be transmitted over circuits (a) and (b) above as cipher facilities are available at Ottawa, Fort Churchill and Winnipeg. However only unclassified messages (including RT conversations) may be handled over circuits (c) and (d). All ranks therefore will be made fully acquainted with Camp Security Standing Orders (Signals Security Section) since all transmissions, particularly in the Churchill area, are subject to interception ANYWHERE in the world. Conversations on circuits (a) and (b) will be limited to key conversations because of the high power used on these circuits. Key conversations limit the probability of breaches of security.

RESTRICTED
APPENDIX "G"

21 Apr 47

DISCIPLINE WITH RESPECT TO THE CANADIAN SERVICES

F O R T C H U R C H I L L

1. Two directives have been issued to FORT CHURCHILL on discipline as it affects the Services.

- (a) "The development of FORT CHURCHILL has raised the question of how discipline is to be administered between the Navy, Army and Air Force.

In this connection, and by inter-service agreement, each Service will be responsible for the discipline of its own personnel when forming part of a Composite Service Force

Should the necessity arise for any case to be placed before higher authority, it will be referred to the area commander of the Service concerned".

- (b) Annexure 1 - RCN Order
 2 - Army Order
 3 - RCAF Order

RESTRICTED

ANNEXURE 1

To the Officer, Chief Petty Officer
or Petty Officer in Charge, Fort Churchill,
CHURCHILL, Manitoba.

Powers of Command

It is anticipated that in the normal course of operations and business at FORT CHURCHILL, Canadian Naval personnel will, of necessity, be called upon from time to time to obey orders and instructions given to them both verbally and otherwise by superior officers of the Canadian Army or the Royal Canadian Air Force. In order to establish clearly the position of Canadian Naval personnel in relation to superior officers of the other services and to ensure that all Naval personnel under your command are fully aware of their duty to carry out such orders and instructions, and their liability to punishment for disobedience or non-compliance therewith, you will issue the following Order:-

ORDER

"Members of the Canadian Naval Force serving at FORT CHURCHILL are hereby notified that they will obey the orders and instructions of officers, non-commissioned officers of the Canadian Army and the Royal Canadian Air Force, superior to them in relative rank or rating. All such orders and instructions as are not contrary to Canadian Naval law shall have the same force and effect as if they had been issued by a superior officer of the Naval Forces of Canada and will be obeyed accordingly. It will therefore be clearly understood that when personnel of the Canadian Naval Forces are serving at FORT CHURCHILL in conjunction with the Canadian Army or the Royal Canadian Air Force, the members of the other services will be treated and will have over such personnel of the Canadian Naval Forces, as individuals only, powers of command, (but not discipline and/or punishment) as if they were members of the Canadian Naval Force of relative rank or rating. Similarly, pursuant to orders issued by the officers commanding the detachments of such services serving at FORT CHURCHILL, personnel of the Canadian Naval Forces will be treated and will have over individual members of the Canadian Army and the Royal Canadian Air Force the same powers of command as if they were members of those forces of relative rank. Failure to observe the terms of this Order will render the individual offender liable to disciplinary action under Canadian Naval Law".

~~RESTRICTED~~

ANNEXURE 2

HQ, Prairie Command,
Fort Osborne Barracks,
WINNIPEG, Man.

Powers of Command - FORT CHURCHILL

It is anticipated that in the normal course of military operations and business at FORT CHURCHILL, Canadian troops will, of necessity, be called upon from time to time to obey orders and instructions given to them both verbally and otherwise by superior officers of the RCN and RCAF. In order to establish clearly the position of Canadian Army personnel in relation to superior officers of these other services and to ensure that all troops under your command at FORT CHURCHILL are fully aware of their duty to carry out such orders and instructions, and their liability to punishment for disobedience or non compliance therewith, you will please ensure that the Commander FORT CHURCHILL issues the following order. -

ORDER

"Members of the Canadian Army serving with FORT CHURCHILL are hereby notified that they will obey the orders and instructions of officers, WO's, Petty Officers and NCO's of the RCN and RCAF, superior to them in relative rank. All such orders and instructions as are not contrary to Canadian Military Law shall have the same force and effect as if they had been issued by a superior officer, WO or NCO of the Canadian Army, and will be obeyed accordingly. It will therefore be clearly understood that when Canadian Army personnel are serving at FORT CHURCHILL in conjunction with the RCN and RCAF, the members of such Services will be treated and will have over such Canadian Army personnel, as individuals only, powers of command (but not discipline and/or punishment), as if they were members of the Canadian Army of relative rank. Similarly, pursuant to orders issued by the officers commanding the detachments of such Services serving at FORT CHURCHILL, Canadian Army personnel will be treated and will have over individual members of the RCN and RCAF the same powers of command as if they were members of those forces of relative rank. Failure to observe the terms of this Order will render the individual offender liable to disciplinary action under Canadian Military Law".

2. Orders precisely similar in effect to the foregoing have been issued by the R.C.N. and R.C.A.F. The original order issued by the Chief of Naval Staff R.C.N., is attached hereto with copies.

- 2 -

Copies of the order issued by the Chief of Air Staff, R.C.A.F., are also attached. This latter order has already been forwarded to the AOC Western Air Command, with instructions that such order will be promulgated simultaneously with similar orders of the other services.

2. You will therefore instruct the Commander FORT CHURCHILL to take the proper action to have all three orders promulgated simultaneously.

RESTRICTED

ANNEXURE 3

Air Officer Commanding,
2 Air Command,
WINNIPEG, Manitoba.

Powers of Command - FORT CHURCHILL

1. In view of delays expected in securing participation of the United States Army in the scheme of command outlined in the above referenced letter, it has been decided that each of the Canadian services should issue an appropriate order to its own personnel with all reference to United States Army personnel deleted. The following is a redraft of the order which was set out in our referenced letter:-

"Members of the RCAF serving at FORT CHURCHILL are hereby notified that they will obey the orders and instructions of officers, WOs, petty officers and NCOs of the RCN and Canadian Army superior to them in relative rank. All such orders and instructions as are not contrary to Air Force Law shall have the same force and effect as if they had been issued by a superior officer, WO or NCO of the RCAF and will be obeyed accordingly. It will, therefore, be clearly understood that when RCAF personnel are serving at FORT CHURCHILL in conjunction with the RCN or Canadian Army, the members of such services will be treated and will have over such RCAF personnel, as individuals only, powers of command, (but not discipline and/or punishment), as if they were members of the RCAF of relative rank. Similarly, pursuant to orders issued by the Officers commanding the detachments of such services serving at FORT CHURCHILL, RCAF personnel will be treated and will have over individual members of the RCN and Canadian Army the same powers of command as if they were members of those services of relative rank. Failure to observe the terms of this order will render the individual offender liable to disciplinary action under Air Force Law".

2. May the Commanding Officer at FORT CHURCHILL please be instructed to issue the above order to RCAF personnel under his command. This action should be taken by him in conjunction with similar orders to be issued by the Canadian Army and the RCN.

RESTRICTED

APPX "H"

21 Apr 47

ADMINISTRATION - FORT CHURCHILL

V I S I T S

1. As accommodation for visitors at FORT CHURCHILL is very limited the control of visits must be exercised by higher commands.
2. It is recommended that authorization of visits be limited to the following:

Army Headquarters)	Within the limits
RCAF Headquarters)	of the respective
DCDR)	personnel quotas.
War Department)	

Prairie Command)	Personnel from the
NWAC)	respective
	Headquarters.

RESTRICTED

Appx "J"

21 Apr 47

ADMINISTRATION - FORT CHURCHILL

TOUR OF DUTY

1. The limited number of married quarters creates a hardship to married personnel if they are retained on the permanent establishment for too long a period.
2. On the other hand, unless key personnel remain more than one year there is an insufficient carry over of experienced personnel.
3. The following tours of duty for personnel on the permanent establishment at FORT CHURCHILL are recommended:

(a) Two Years

Married personnel provided with married quarters.

Single officers, technicians, and specialists.

(b) Two Years with three months special leave each summer

Married personnel not provided with married quarters.

(c) Not longer than nine months

Personnel employed in general or routine duties not provided with married quarters.

RESTRICTED

Appx "K"

21 Apr 47

ADMINISTRATION - FORT CHURCHILL

LEAVE

1. Owing to the isolation and the cost of travel to and from FORT CHURCHILL it is recommended that the following leave concessions be incorporated if Northern Allowances are NOT granted. (See Appx "M").
 - (a) Six weeks annual leave, excluding travelling time, for personnel on a tour of duty of one year or over. (Three months for married personnel not provided with married quarters - See Appx "J").
 - (b) Leave cumulative and not confined to any one fiscal year.
 - (c) One plane, operated by the RCAF, make flights between FORT CHURCHILL and WINNIPEG on a schedule to meet the requirements of the station.
2. Railway fares between FORT CHURCHILL and WINNIPEG are as follows:-

First class fare return	\$ 70.40
Lower berth, one way	10.05
Upper berth, one way	8.05

Therefore consideration should be given to providing, in whole or in part, free leave transportation between FORT CHURCHILL and WINNIPEG for personnel and their dependents.

RESTRICTED

Appx "L"

21 Apr 47

ADMINISTRATION - FORT CHURCHILL

MARRIED QUARTERS

1. The estimated number of married quarters available for 1947-48 will be:-

Emergency type now available	33
Construction programme for summer 1947-48 -not less than	<u>14</u>
	47
Less those occupied by Department of Transport	<u>3</u>
TOTAL	44

2. The assignment of married quarters between Canada and the USA is to be in direct proportion to the relative strength of the respective permanent establishments.

3. The number of married quarters required in the long term programme is to be based on 40% of the strength of the combined permanent establishments.

4. No eviction of families is to be made to put the assignment into effect as a result of a change in the relative strength of the Canadian and USA permanent establishments. Adjustments are to be made as vacancies occur due to normal postings.

5. Any additional assignment of married quarters to the Department of Transport, over and above the 3 at present occupied, will be charged against the Canadian quota.

- 2 -

6. No payment of rental is to be made for buildings occupied or used by the United States Forces. (See Appx "D").

7. By Deputy Minister ruling no rental is at present charged for quarters occupied by employees of the Department of Transport.

8. No agreement has been reached on the rentals to be paid by DGDR personnel occupying quarters.

9. It is recommended that:-

- (a) The allotment of the Canadian quota of married quarters be made by Headquarters, Prairie Command, on a proportionate basis, dependent on the strength of the permanent establishment of each detachment.
- (b) The Policy regarding the payment of rentals for married quarters occupied by personnel from DGDR and the Department of Transport be formulated.

RESTRICTED

Appx "M"

21 Apr 47

ADMINISTRATION - FORT CHURCHILL

NORTHERN ALLOWANCES

1. Canadian personnel on the Northwest - Highway System and the NWT & Y Radio System draw Northern Allowances.
2. Personnel of the United States Forces at FORT CHURCHILL receive foreign service pay.
3. It is therefore recommended that, in view of the isolated conditions and lack of amenities that exist at FORT CHURCHILL, Northern Allowances be paid to Canadian personnel stationed there.

NOTES ON MEETING HELD AT 0930 HOURS
12 MAR 47 TO DISCUSS FUTURE ARCTIC
RESEARCH ACTIVITIES.

PRESENT:-

Col. W.W. Goforth
Mr. F.T. Davies
Lt-Col A.M. Fordyce
Lt-Col W.J. MacCallum
→ Lt-Col P.D. Baird
Lt-Col G.W. Rowley

1. The meeting had been called to discuss the proposed Arctic research projects as set out in memo H.Q.S. 9-952 of 7 Mar 47, and to see how far these were practical within the bounds of the current financial and manpower restrictions.

Financial aspects

2. Col Fordyce explained that the \$75,000.00 set aside for Churchill was intended to cover all Churchill costs and not simply the building programme. He felt sure however that by adjustment of funds it would be possible to make all necessary financial provision for the programme as detailed.

Manpower aspects

Col MacCallum stated that the Arctic Research Group establishment of 8 scientific officers and 10 technicians included the soil testing personnel of Capt Bekker's programme (though not Capt Bekker himself), Dr. Woodcock, Mr. Jones and Lt-Cols Baird and Rowley. Major McNamara was carried on the General Services Establishment. Col Goforth stated that Mr. Jones should be transferred to the DIRD(ICEDG) establishment within six months, thereby clearing a vacancy in the Arctic Research Group. It was agreed that Lt-Col Baird should discuss with Professor Legget the possibility of transferring Capt Bekker's soil testing personnel to N.R.C. Col MacCallum also stated that there were many vacancies on the CARDE establishment which might be used temporarily for additional personnel if necessary.

3. It was also agreed after discussion that

- (a) The officer required for fuel research would probably be provided by NRC as has been the case this winter.
- (b) The physiologist might possibly be held on the Biological Research Group establishment.
- (c) The DGDR Insect Research commitment would be limited to 1 scientist and 1 technician during the summer, in addition to Mr. Jones. Expenses, though not salary, of any coopted Department of Agricultural personnel would be a DGDR commitment.
- (d) The Meteorology Research should be discussed further with DOT and is in any event of low priority.
- (e) The research in batteries was a subject for university research (possibly by extra-mural contract) and would not therefore commit personnel on DGDR establishment.
- (f) The proposed administration officer at Churchill was not at present necessary.

4. In view of the above it was agreed that the proposed programme was practical from the manpower standpoint and the 000214

- 2 -

Col MacCallum would produce an analysis of the requirement against the establishment (including sub-staff).

Building Programme

The DGDR Building Programme at Churchill for 1947 as outlined was accepted and priority assigned as follows:

1. Three married quarters (could be used for the single personnel if the full programme was not completed).
2. Laboratory - library - office building.
3. Twelve single quarters.

Geophysical Research

Mr. Davies had reported that several geophysical installations were planned for Churchill and that the possibility of these being located within the camp area was being examined. It was agreed that in this case it would be advantageous if they were coordinated under DGDR control. It was further agreed that Mr. Davies and Lt-Col Baird would investigate the position more fully and that the additional building commitment, with any available details, should be raised at the next meeting of the Winter Warfare Committee.

Directorate General of Defence Research,
"C" Building, Room 2311.

RPL 10-3

10th March, 1947.

Mr. A. Thomson,
Controller Meteorological Division,
Department of Transport,
315 Bloor St. W.,
Toronto, Ontario.

Dear Mr. Thomson,

1. The decisions of Thursday last of the Geophysics Committee included the setting up of the following sections:-

- (1) Meteorology (Thomson)
- (2) Geodesy and Gravity
- (3) Seismology (Hodgson)
- (4) Tectonics (Shaw)
- (5) Atmospheric Ionization
- (6) Terrestrial Electromagnetism

The last may not be described exactly but that is my recollection of the decision. Dr. Keys' Magnetic Committee and Dr. Gilchrist's Electromagnetic Committee are combined under (6). They have all been asked to convene and elect Chairmen, Secretaries, and recommend membership. My subcommittee becomes the section on Atmospheric Ionization. I have been asked to convene this section and would like to do so at the same time and place as the Meteorological Section.

It was suggested at the meeting that Dr. Currie, Mr. Madill, Mr. Ross and myself should attend the Meteorological Section. As three of us are already members of my section, it would be much better to convene Met. and Atmos. Ionization Sections at the same time.

Would you please let me know the time and place? It would appear to me to be of advantage if this could be done at Toronto, where Professor Wilson could also attend the meeting. Dr. Gilchrist and yourself are members of the Section on Atmospheric Ionization and Toronto would be convenient for both. The other present members are Dr. D.C. Rose, Dr. B.W. Currie, Mr. R.G. Madill, Dr. P.M. Millman and myself.

2. The main committee adopted a resolution supporting the principle of coordination of geophysical investigations by all Canadian government agencies and recommending Churchill as a centre for development of Geophysical Research.

It was requested of members that they canvas interested agencies and have a specific plan for coordination by next meeting. This would then be recommended by the Committee and National Research Council.

- 2 -

It is my suggestion that coordination at Churchill be provided by Defence Research, which has established a Scientific Experimental Station there. I believe Dr. Solandt would agree to Defence Research providing all services needed such as housing, laboratory space, messing, power and fuel, photographic dark room, local transport and communications.

The advantage in economy of centralized services and planning of the whole is obvious. The costs would probably be apportioned. It is important that the separate agencies agree to some such plan in principle before it is put up in detail. If coordination is to be a fact, one authority must provide it and Defence Research appears to be a logical choice. I have discussed this with the Arctic Research Group D.G.D.R. under Lt. Col. Baird. He considers this the best solution. If this is agreed upon D.G.D.R. would provide a competent resident scientist to effect the coordination between separate geophysical measurements.

The separate agencies concerned with scientific measurements at Churchill are:-

Defence Research, Arctic Research Group (Lt. Col. Baird)
R.C.N. - Signals Division (Capt. Worth R.C.N.)
*D.O.T. - Radio Division (Mr. Browne)
D.O.T. - Meteorological Service (Mr. Thomson)
Dominion Observatory (Dr. Beals)

It is important that the facilities established be sufficient to accommodate visiting scientists for short periods. These facilities should include provision for technical assistants. This has been recognized by Dr. Beals and yourself and is fully appreciated by D.G.D.R.

What are your views about this matter?

Yours sincerely,

Frank T. Davies

FTD:ES

(Frank T. Davies)

* NOTE:

There would probably be no change in D.O.T. W/T station but Mr. Wilbert Smith is planning signal strength recording on broadcast frequencies to be begun this summer at Churchill. This is more of a research nature and might be included with the integrated scientific work.



FILE NO. CSC 2-2-13

CONFIDENTIAL

CHIEFS OF STAFF COMMITTEE

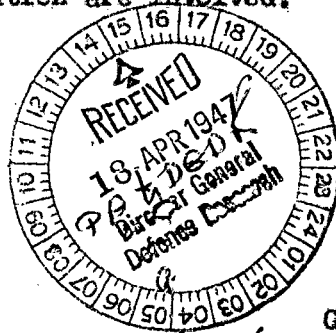
OFFICE OF THE SECRETARY,
CABINET SECRETARIAT OFFICES,
EAST BLOCK, OTTAWA

18th April, 1947.

Major C.P. McNamara, Secretary,
Sub-Committee on Winter Warfare Research,
Room 4603, National Defence Building "C",
Ottawa, Ontario.

Geophysical Research - Fort Churchill

Attached is copy of memorandum received from the Director General of Defence Research recommending that facilities required by the government departments interested ~~for~~ geophysical research at Churchill be accommodated within the camp at Fort Churchill. Before referring this matter to the Chiefs of Staff Committee for decision, I should be grateful if your Committee would consider the question and forward its recommendations through the Inter-Service Committee on Winter Warfare. This procedure is considered desirable as the over-all administration and plans for the Joint Experimental Station are involved.



(W.W. Bean)
(W.W. Bean),
Group Captain, R.C.A.F.,
Secretary.

Enc.

c.c. *OMA 22/4* Director General of Defence Research

S/L D.J.W. Higgins, Secretary,
Inter-Service Committee on Winter Warfare,
Room 3065, National Defence Building "B",
Ottawa, Ontario.

MEMORANDUM

HQS 9-103-5
12 Apr 47

To: Chiefs of Staff Committee,
East Block,
Ottawa, Ontario..

GEOPHYSICAL RESEARCH AT FORT CHURCHILL

1. Several government departments are planning, or have already started, geophysical research at Churchill.

2. The departments concerned are:

Dept of Transport, Radio Division - Propose broadcast band signal strength measurements.

Dept of Transport, Meteorological Services - Engaged in surface weather and rawin sonde observations.

Dept of Mines & Resources, Dominion Observatory - Propose a magnetic and seismological station.

RCN - Engaged in ionosphere research and auroral observations and propose High Frequency signal strength measurement.

3. The co-ordination of this geophysical work, from the scientific as well as the domestic economy point of view, was suggested by the Canadian Radio Wave Propagation Committee at their meeting on 21 Mar 47.

4. Defence Research would be willing to undertake the scientific co-ordination and correlation of observations.

5. The work would be greatly facilitated, and costs reduced, if the research personnel and observatories could be located within the camp at Fort Churchill.

6. It is therefore recommended that the Chiefs of Staff Committee approve in principle the inclusion, in the plans for Fort Churchill, of accommodation and facilities for research personnel from other government departments.

7. Defence Research would undertake the co-ordination of the various departmental requirements. It is understood, of course, that each department will pay its own expenses.

Director General of Defence Research.

PA → 9-952-1

HQS. 9-3

Ad hoc Meeting Held 22 April to Discuss Tentative
Plans for Chemical Warfare Testing at Churchill

1947 - 1948

Attendance Roster:

GA/RB
Mr. E. H. Davies, Chairman
Lt. Col. Baird *Arctic Research Group*
Major Gay, Recorder
Major Dacey
Major Bond
Major Steidtmann

Col. Baird stated that the proposed building programme for this summer will permit accommodation for a total of 815 persons. The final decision on the allocation of personnel between the U.S. and Canada has not been made. Within the Canadian allotment, Defence Research will be authorized 15 men of which 12 will be for the Arctic Research Group. At the present time there is no personnel allotment for the Navy.

Mr. Davies suggested that in order to obtain maximum utilization of personnel, Dr. Woodcock should be asked to supervise trials on protective clothing in connection with tests on other types of Arctic clothing. Mr. Davies also inquired as to the number and availability of troops for group tests on clothing, respirators, etc.

Col. Baird replied that current plans included one Infantry platoon for Arctic training; however, increasing demands for additional personnel allotments may result in reducing this force or perhaps eliminating it.

Maj. Steidtmann stated that it would be desirable to integrate the U.S. - Canadian group tests so that the same personnel would be used for testing both kinds of equipment; that a recommendation would be sent to the War Department to authorize utilization of U.S. troops as joint test subjects.

Mr. Davies suggested that group tests on items of clothing and protective equipment could be accomplished by having all station personnel wear prescribed items in connection with normal duties.

Major Gay did not concur in this procedure for the coming winter because of the variety of experimental models that will be tested; that such a method will be more feasible in future years when current developments will be finalized.

Col. Baird recommended that at least 30 men should be available to accomplish representative group tests.

Major Gay stated that it was essential that final arrangements for procurement of test subjects, regardless of source, be accomplished at the earliest practicable date.

Mr. Davies announced that, D.W.D., the personnel coordinating body, should allot four (4) men for combined D.W.D. and D.C.D.R. Special Weapons work at Churchill; that two (2) installations should be furnished from the D.C.D.R. allotment and the other two (2) procured from the Army or Air Force.

PA → 9-952-1

HQS. 9-3

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Plans for Chemical Warfare Testing at Churchill

1947 - 1948

Attendance Roster:

L.A. RB
Mr. E. L. Davies, Chairman
Lt. Col. Baird - Arctic Research Group
Major Gay, Recorder
Major Dacey
Major Bond
Major Stoldtman

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- 2 -

Col. Baird stated that the Arctic Indoctrination Course last winter was of two weeks duration, but that consideration was being given to extending the course to three to four weeks for the coming winter. He recommended that scientific observers be required to take the course. The initial indoctrination course will start about November 15.

Mr. Davies asked Major Gay to initiate a request to the Arctic Research Group for a sub-allotment of two men for Special Weapons operations and also determine the availability of test teams for group tests.

Mr. Davies asked Major Steidtmann to obtain a copy of the U.S. Chemical Corps detail plan for Churchill tests; to obtain confirmation on the approval of laboratory construction as requested by the U.S. Chemical Corps; to determine the availability of U.S. troops for joint group testing.

Col. Baird stated that a formal request had been submitted for the allocation of laboratory space for Defence Research.

(Glen Gay) Major,
Recorder

30th January, 1947.

W/C K.C. Maclure,
Arctic Research Section,
Defence Research Board,
N.D.H.Q.,
Ottawa, Ontario.

Transportation

1. During the past six months at Fort Churchill problems have come to light which one would never expect in a camp which is theoretically maintained for arctic training and research.
2. The camp itself is run very efficiently and smoothly along the lines of a permanent garrison, nearly all its energy and resources being exerted in maintaining its own comfortable well being.
3. The manpower situation as well as transportation is something very drastic and almost pitiful to witness. This situation becomes more apparent as the weather gets more severe and winter sets in.
4. To obtain best results in D.R.B. tests and plans in the future, a few recommendations will be laid down for study.

- (i) Men chosen for work in the North must be resourceful, useful with their hands, and should have fairly extensive practical experience.
- (ii) Technicians are urgently needed in the field and as lab assistants.
- (iii) It is thought that D.R.B. should have their own transportation system, as the Army are inclined to give preference to their own vehicles. For this requirement a workshop garage would be necessary, also driver mechanic. D.R.B. jeep was laid up for three weeks for a simple valve adjustment requiring approximately 3 hours. No Army space or workmen were available to make the repairs.
- (iv) For D.R.B. winter travel a Bombardier was allotted by the Army. This vehicle was turned over to us after passing through R.C.E.M.E. We are informed no spare parts are available for these Bombardiers. This is apparently a lack of foresight or knowledge of a very fine vehicle which is used extensively with good results by many civilian companies in the North.

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Since obtaining Bombardier much personal time was spent preparing vehicle for travel. Defects found upon inspection before running are listed below.

1. 3 flat tires
2. Negative battery post broken.

- 2 -

3. No instruments working.
4. Short circuits in wiring.
5. Bendix gear in starter sticking.
6. Hand choke jammed.
7. Hand throttle jammed.
8. One ski out of line.
9. Track steering not adjusted.
10. Drive sprocket pad on left sprocket broken.
11. Screws are loose in superstructure.
12. Fan belts worn.
13. Generator out of order.
14. Defroster not working.
15. Hand primer not working.
16. Speedometer not working.

Vehicle was put in running order by D.R.B. personnel and some work was accomplished with it.

G590 and G645 Your DGDRS 7 Jan Wright

5. A driver mechanic was requested reference our signal No. G590 and G645 to maintain D.R.B. jeep and Bombardier. DGDR 5 7 Jan. signed Wright refused this request and referred the Army to terms of reference whereby the Army would supply all transportation.

6. This has caused considerable consternation in Army circles, as at this time the problem of transportation and manpower is at a low ebb.

7. The outcome of the whole issue caused by DGDR 5 7 Jan. is that the Army has called in all vehicles on issue to a central transport pool.

8. It now remains to be seen how effectively this new plan will work. On three consecutive days after new plan was put into effect, there were delays in the movement of D.R.B. personnel and equipment.

9. It is again recommended that for best results in the field, D.R.B. should purchase or procure one jeep, one weasel, one Bombardier, and erect small garage. To maintain and service these vehicles a technician mechanic should be employed permanently.

(J.P. Croal).

