

S-8980-A37

DEPARTMENT OF NATIONAL DEFENCE

ABC NON-MATERIAL STANDARDIZATION
OPERATION & INTELLIGENCE PROCEDURES
NUCLEAR STRIKE WARNING - FIELD
PROCEDURES

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	INSPECTED
<i>SMT</i>	PER REQUEST GR	MAY 8 - 1961							
<i>DEP 3</i>	<i>Request</i>			<i>12 May 61</i>	<i>15 May 61</i>			MAY 16 1961	<i>21</i>
<i>D. Dwy</i>	PER REQUEST GR	JUL 13 1961		<i>19 Jul 61</i>				JUL 20 1961	<i>23</i>
<i>D. M. J.</i>	PER REQUEST GR	AUG 30 1961		<i>10 Aug 61</i>					
<i>D. Arty</i>	<i>Passed.</i>			<i>18 Jul 61</i>	<i>27 Aug 61</i>			FEB - 8 1962	<i>24</i>
<i>SMT</i>	PER REQUEST GR	FEB 20 1962		<i>BV 20 Feb 62</i>				FEB 21 1962	<i>29</i>

CLOSED

"B.F." — DO NOT HOLD — THIS FILE WHEN
LAPSE IN ACTION MAY EXCEED 48 HOURS.

8980-A37

SECRET FILE No. S-

SECRET

HQ 2041-1 (MT SA)
HQS 3240-1
HQS 8980-437

PP →
ARMY HEADQUARTERS
Ont, 12 Jul 61

Headquarters
Canadian Army Staff
2150 Massachusetts Ave NW
WASHINGTON 8, DC
USA

Nuclear Strike Warning - Field Procedure
Interim Policy - Canadian Army

1. Attached are five copies of the Army Headquarters paper, Nuclear Strike Warning - Field Procedure, as per request.

S.
(R. Dore)
Colonel
Director of Military Training

PA 8980-1737

S E C R E T

DEPARTMENT OF NATIONAL DEFENCE
ARMY

HQS 8921-2 (DEP 2e)

In reply to: CAS(W) 8921-2 (Trg)
Dated : 21 Feb 61

ARMY HEADQUARTERS
OTTAWA, Ont., 29 Mar 61

Canadian Army Staff,
2450 Massachusetts Ave., NW,
WASHINGTON 8, D.C.

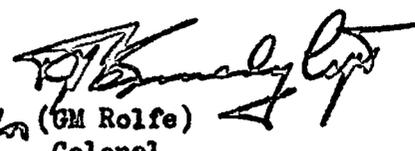
Attn: NMC Member

Standardization Studies - Atomic Warfare

1. The Canadian Army comments and informal position on each of the studios listed in Inclosure 1 to Department of the Army letter OPS CD DC 3 dated 17 Feb 61 are contained in ANNEXES 'A' to 'H' attached.

2. It is recommended that these studies be released to NATO as a "package", or, in "packages" which contain related, cross-referenced studies, eg, A37 should be accompanied by A34 and D18.

3. On the assumption that these studios will be redrafted before submission to NATO, it is suggested that references to US publications (FMs and DA Pamphlets) be replaced where possible by references to NATO publications, because US reference publications will not be available to other NATO countries. In addition, the studies should also be coordinated with existing NATO studios and draft STANAGs before submission.


for (GM Rolfe)
Colonel
Director of Equipment Policy

ATT

S E C R E T

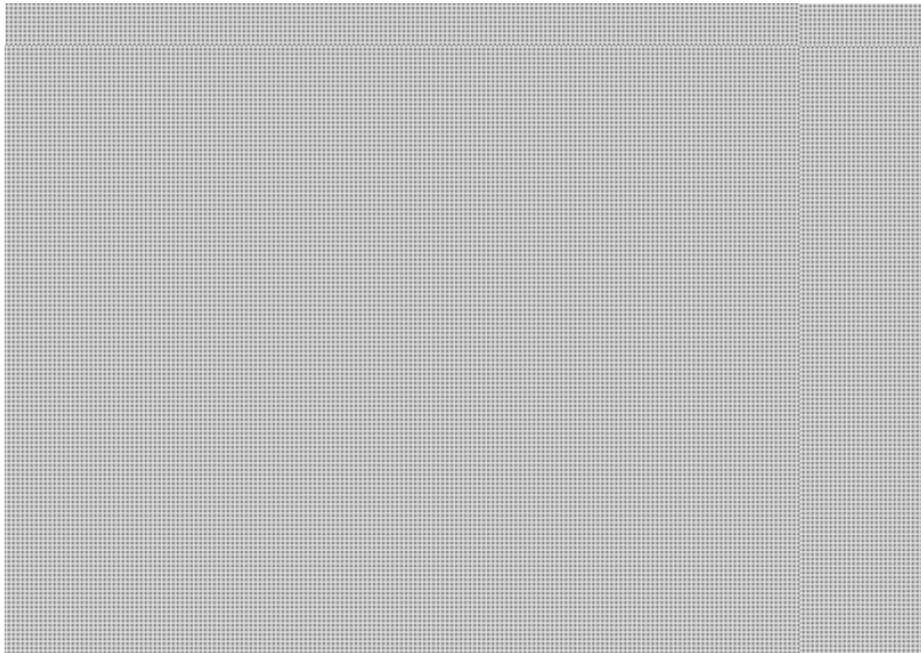
S E C R E T

ANNEX 'D' to
HQS 8921-2 (DEP 2c)
Dated: 29 Mar 61

SOLOG Study A37 - Personnel Warning System

1. The Canadian Army concurs with SOLOG Study A37 and the draft SOLOG Agreement with the following comments:

a. SOLOG Study A37



File 8980-A37
BDF

S E C R E T

MEMORANDUM

HQS 8980-A37 (MT 5)

14 Mar 61

DEP

0

SOLOG A-37 - Personnel Warning System

1. Reference your memo hereunder dated 7 Mar 61 and DCD memo, first folio hereunder dated 9 Mar 61.

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

②
del
D Sig
no comment
no comments
9.1/22M
61

- 1. Please see DUT memo of 2 Mar 61 hereunder
- 2. Any comments?
- 3. AHD comments see due 24 Nov 61. Please handle on an urgent basis

J. P. Francis Major

EF3
20 MAR 1961
06537

Wilson

(MR Dare)
Colonel
Director of Military Training

HQS 8980-A37 (DCD)

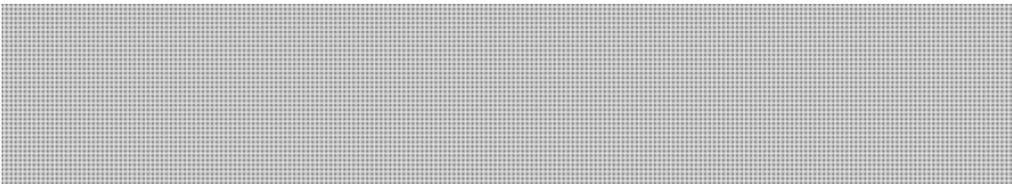
M E M O R A N D U M

9 Mar 61.

DMT

SOLOG A-37
Personnel Warning System

1. DCD has no objection to SOLOG A-37 in its present form and do agree with paragraph 4 e. and 4 f. It is interpreted that this SOLOG is to be in effect for the present time frame.



H. Bull Capt
(NG Wilson-Smith)
Colonel
Director of Combat Development

APB/6-6719/bjs

62



DCD Circulation Slip

Diro

G1o

G2o

G3o

AQo

000010

SECRET

M E M O R A N D U M

①

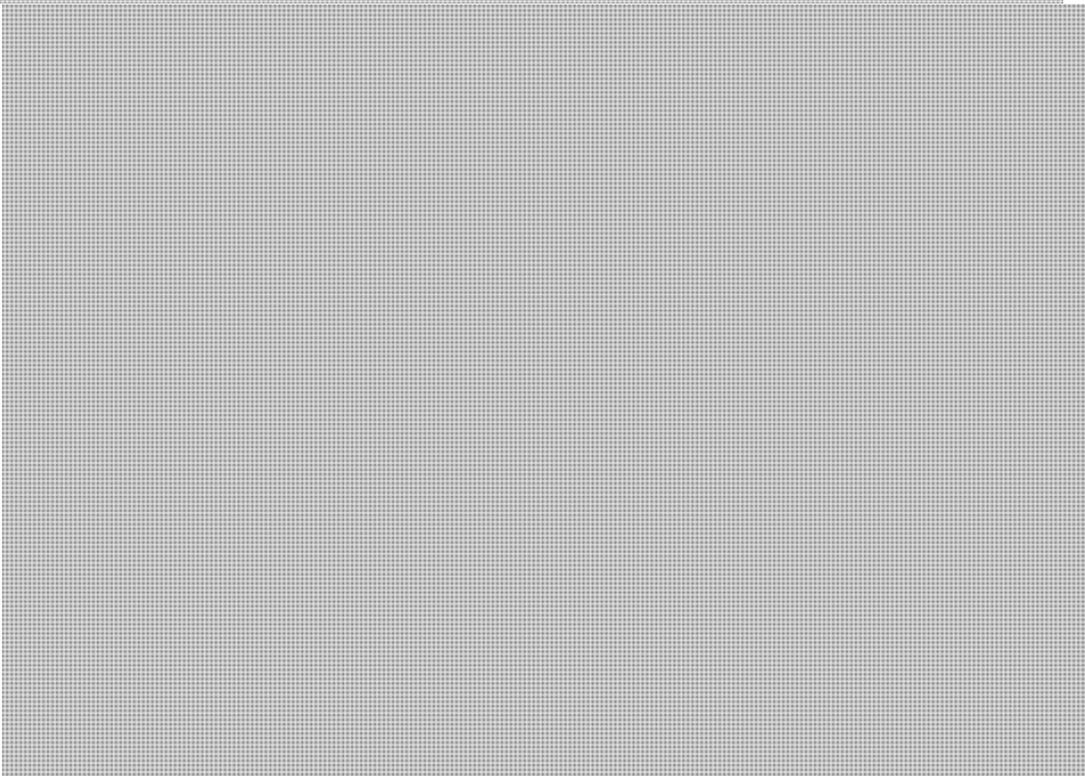
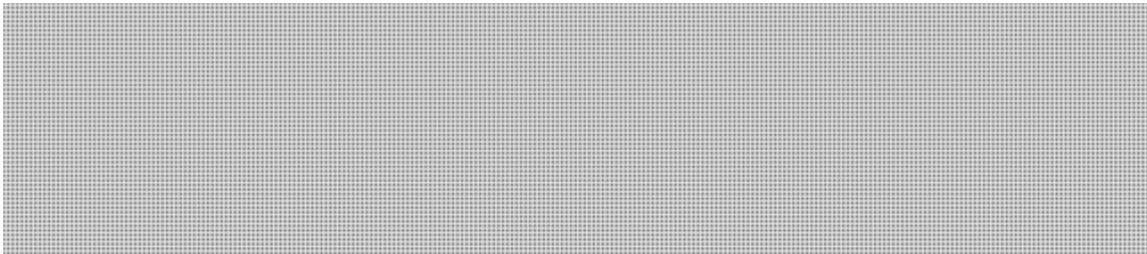
HQS 8980-A37 (DEP 3)

7 Mar 61

DMT

SOLOG A-37
Personnel Warning System

1. It is considered that the draft SOLOG A-37 is generally acceptable to the Canadian Army subject to certain suggested changes which are stated hereunder. It is felt that DCD should also have the opportunity to comment on this draft SOLOG.



②
EED
May we have your comments
on SOLOG A-37 not later
than 17 March, please.
From H. L. Rolfe
of DMT
17 March 61

(Signature)
Colonel

Director of Equipment Policy

JCB/6-8550/ms

S E C R E T

M E M O R A N D U M

HQS 8980-A37 (MT 5)

2 Mar 61

DEP

SOLOG A-37 - Personnel Warning System

1. Reference SOLOG A-37 first folio hereunder.
2. DMT recommends agreement with conclusions and recommendations contained in draft SOLOG A-37, Personnel Warning System.
3. It should also be noted that there is very little likelihood of the Canadian Army undertaking the development of an independent personnel warning system.



(MR Dare)
Colonel

Director of Military Training

S E C R E T

000012

Form A-31 - Personnel Training System

1985

- 1. Reference Form A-31 First Joint Reference.
- 2. The document is consistent with conclusions and recommendations contained in Staff Form A-31, Personnel Training System.
- 3. It should also be noted that there is very little likelihood of the Canadian Army undertaking the development of an independent personnel training system.

1985

1985

1985

MADE IN CANADA

Mr. [Name] (Title)

Director of Military Personnel



**Pages 14 to / à 25
are withheld pursuant to sections
sont retenues en vertu des articles**

13(1)(a), 15(1)

**of the Access to Information Act
de la Loi sur l'accès à l'information**

DEPARTMENT OF NATIONAL DEFENCE

MINUTE SHEET

Referred to

REMARKS

To be signed in full showing Appointment, Telephone Number & Date

DNT

IN NTS

①

1. Please refer to your dir & at this!
2. All records of the 1960 concentration relative to the remaining system test now available?

66537

J. P. Francis Major
 OCT 3 - 1960

①
 30186 Report of 72 under Section 1
 with copy to CDRG
 Gen time report - and yet
 received.
 to Sullivan Capt
 NTSB

②
 DEP (3)
 No - one Western
 Communist report has been
 rec'd.
 J.P.
 of DNT.
 605600.

③
 DNT
 New?
 J.P. Francis Major
 7 Dec 1960

J.P.
 7 Dec 60

1968



EP

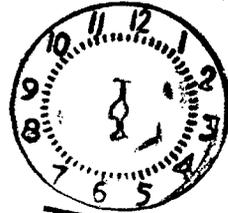


EP

OCT 7



JAN 6



EP

PA → HQS 3240-1 (MT 5B)
HQS 8980-A37

Reference Your Message A353
Dated 9 May 60

ARMY HEADQUARTERS
OTTAWA Ont, 12 May 60

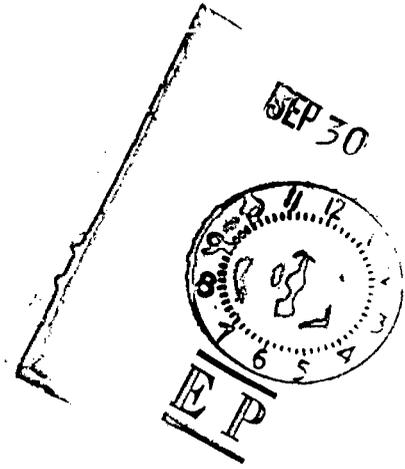
5 Signal Squadron
BARRIEFIELD, Ontario

Nuclear Strike Warning - Field Procedure
Interim Policy - Canadian Army

1. Enclosed one copy of Nuclear Strike Warning System - Interim Procedure - Canadian Army dated 10 Feb 60, as requested.


(MR Dare)
Colonel
Director of Military Training

/pb



0 9 4 4 6

MAY 10 10 50 AM

NNNNEAA323KP078

MAY 9 21 39 '60

MM RAEHC

DE RAEPKC 68/09

M 091655Z

FM 5 SIGNAL SQUADRON BARRIEFIELD

TO CANARMY

BT

U N C L A S S I F I E D A353 FOR MT5B. NOT IN RECEIPT OF HQS
3240-1 (MT 5) DATED 10 FEB 60 BUT HAVE RECEIVED LETTER
OF 12 APR 60. MAY LETTER DATED 10 FEB 60 BE SENT

BT

~~CFN A353 MT5B HQS 3240-1 (MT 5) 10 60 12 60 10 60~~

09/1859Z MAY RAEPKC

MAY 9 21 41



DIRECTORATE OF MILITARY TRAINING
OTTAWA

DMT

RESTRICTED

ARMY HEADQUARTERS

HQS 3240-1 (MT 5B)
HQS 8980-A37

OTTAWA Ont, 12 Apr 60

Nuclear Strike Warning - Field Procedure
Interim Policy - Canadian Army

1. Our letter HQS 3240-1 (MT 5) dated 10 Feb 60 "Nuclear Attack Warning System" set out the nuclear attack warning procedure for all field formations and units of the Canadian Army Regular.
2. The original title "Nuclear Attack Warning System" can be easily confused with the "National Survival Attack Warning System".
3. Our above mentioned letter will, therefore, be amended to read "Nuclear Strike Warning - Field Procedure". Further correspondence, documents and pamphlets on this subject will adopt this new title accordingly.

③ DEP
To note and
return please
L Macdonald's
to DM, 9 May 60

J. Keane
(RM Keane)
Colonel

Director General of Military Training

Distribution:

- HQ Comds
- HQ Areas
- HQ NWHS
- HQ Fort Churchill
- CJATC
- JABCS
- Major Army Stas
- HQ Fms (Reg)
- Reg Army Units
- Corps Schools
- Liaison Staffs
- CASC
- CNS
- CAS
- CGS
- SA/CGS
- Heads of Branches
- Vice Heads of Branches
- Deputy Heads of Branches
- ACS
- CAORE
- Directorate AHQ

11 DSOd
1. Reference your memo Flag A -
2. Note action taken Qui Polio.
3. Return to DM, please.
L Macdonald's
to DM
14 Apr.

J. Keane
14 Apr
Head

RESTRICTED



DEPARTMENT OF NATIONAL DEFENCE

MINUTE SHEET

Referred to

REMARKS

To be signed in full showing Appointment, Telephone Number & Date

DSD

1. You are referred to letter from DSO d 17
Flug B and subsequent action by
DMT and de P (is it 2-0 plus down)
2. Please advise your agreement or objection
to amendment of terminology.
3. Do you publish amendment and
adoption of official terminology or
do you want DMT to take action.

L Macdonald
for DMT.

DMT

②
Can see no objection to the use of
your proposed title "Nuclear Strike
Warning - Field Procedures". This should be published by
DMT and circulated to all concerned. ~~It should~~
~~also be included in the~~

J. G. ...
for DSD

000033

8 Apr 60

DEPARTMENT OF NATIONAL DEFENCE

MINUTE SHEET

Referred to

3

REMARKS

To be signed in full showing Appointment, Telephone Number & Date

DEP
L/Cut Bond

1. you are referred to letter one folio down.
2. may we have your views and in particular whether you agree in adoption of new terminology as proposed.

L Macdonald Insp.
7 APR 60

4

DMT(5).

i. Definitely agree that the existing title of the DMT instruction can cause confusion, and recommend your proposed title "Nuclear Strike Warning - Field Procedures" be taken into use as soon as possible. In so far as the SEHCO is concerned we can commit on the title when we make final comments on the content of the SEHCO

J. B. ...
Lt. Col.
for DEP.

G-8550
7 Apr 60.

APP-7



Department of Justice
Ottawa, Ontario



M E M O R A N D U M

HQS 8980-A37 (MT 5B)
BDF 5-1-1

5 Apr 60

①

DMT

Terminology

Nuclear Attack Warning System Interim Procedure -
Canadian Army

1. Note observation by DSO&P regarding the marginally noted one folio down. This is in reference to our policy letter (FLAG A).
2. Due to the nation-wide publicity and acceptance of the survival title by both civilian and military authorities it is felt that this request has some justification.
3. At the present time there is agreement between Canada-UK-US that a SOLAG is required to standardize on the system for warning of a nuclear strike on the battlefield. There is no SOLAG as such, as the three countries have not, as yet, finalized their own views on this subject. Correspondence with the US of an exploratory nature has been carried on under the general heading "Personnel Warning Systems in Nuclear Warfare". This title has the same inherent implications as our present one.
4. It is suggested that a clear and self-explanatory heading could be "Nuclear Strike Warning - Field Procedure". This would meet both our requirement and at the same time eradicate any possibility of confusion with the National Survival terminology.
5. It is therefore recommended that we adopt a new title as mentioned in para 4 above and advise all concerned accordingly.

② MT 5
Agree but first it should be
checked as to terminology with
D.E.A., Lt. Col Bend and D.S.D.

(M. R. JARE)
COLONEL
EMT

L. Macdonald
(GO Taschereau)
Lt Col
MT 5

APR 6 1960

000036

MAR 1 1960/AM

M E M O R A N D U M



DIRECTORATE OF MILITARY TRAINING
OTTAWA
DMT

HQS 3240-1 (DSO&P 1a)

31 Mar 60

Nuclear Attack Warning System
Interim Procedure - Canadian Army

1. Please refer to your HQS 3240-1 (MT 5) dated 10 Feb 60.
2. It is suggested that the title "Nuclear Attack Warning System" could be easily confused with the National Survival Attack Warning System. As the latter has been in use for some time it is requested that the title of your procedure be changed.


(LE Kenyon)
Colonel
DSO&P

MEMORANDUM

HQC 3201-42/338 TD 0088A (MT 5B)
HQS 3240-1
DDP 5-1-1

in/ Apr 60

DDI

Review and Analysis
US Troop Test Programs - 1959

1. Note HQ USCOMARCOM publication regarding the marginally noted one folio down.
2. Your attention is directed to the summarized report on "Atomic Flash Warning Systems", page 51. It is suggested that we obtain the full report through CAS(W). We can then compare their findings with the reports which are submitted by commands on our interim procedure which are due after the 1960 concentrations.
3. It is proposed to circulate this document to DEP, D Armd, D Arty, D Inf, D L/AM, D Sigs and DMI.

WT
(OO Taschereau)
Lt Col
MT 5

ALH/gur

TRANSMITTAL SLIP

DATE

TO: JWD (2c)

FROM: JMT.

NA 60

Note and File

Note and Return

Please Speak

Please Answer

For Your Approval

Prepare Reply For My Signature

BF

Take Appropriate Action

As Requested

For Information

For Your Comments

For Signature

COMMENTS:

1. Further your letter to CAS(w)
folio 3

2. Note Policy now in effect
top folio,

CAFA 1327
6-56 (9068)
HQ 4554-A1327

000039

RESTRICTED

ARMY HEADQUARTERS

*W/ distribution completed
15 Feb 60
M. P. [unclear]*

HQS 3240-1 (MT 5)
HQ S 8980-A37
OTTAWA Ont, 10 Feb 60

Strike
Nuclear ~~Attack~~ Warning System — FIELD PROCEDURE
Interim Procedure - Canadian Army

GENERAL

1. This instruction outlines a nuclear attack warning system which is to be taken into use on a trial basis, effective immediately, for training in Canada by all field formations and units of the Canadian Army Regular.

RESPONSIBILITY

2. The commander vested with the authority to order the firing of a nuclear strike is responsible for initiating the warning of impending nuclear attack and for ensuring that adequate provision has been made to afford timely warning to all friendly ground and air forces within the effect area of the nuclear strike.

3. The commander initiating the warning is responsible for the warning on a need to know basis of all formations/units under command or in support and for the transmission of the warning to higher formation and to adjacent or flanking formations/units.

4. Commanders, at all levels, on receipt of the warning of impending nuclear attack will ensure the immediate transmission of warning on a need to know basis to all friendly troops located within their respective areas of responsibility. These will include not only troops under command and in support but also troops passing through or troops on detached duty within their areas. This may result in some duplication of warning but this duplication is acceptable as an insurance measure.

5. These provisions will apply also on an intercept of the enemy's intention to launch a nuclear attack.

NUCLEAR ATTACK DATA

6. The timing of the nuclear strike must take into account the deployment of friendly forces in relation to the strike area, the yield and height of burst, predicted ground zero and damage radii, minimum safety distances and the time necessary to ensure the warning of all forces, both ground and air, within the intended radius of effect. In this connection, sufficient time must be allowed from the receipt of warning by the most exposed troops to permit the taking of protective measures, where necessary, prior to nuclear strike time.

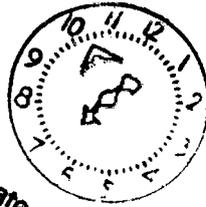
7. The transmission of the warning will be greatly simplified where target lists, including yield and type of burst, have been prepared and distributed in advance. In this case transmission need be by code word only followed where necessary by datum time and other special instructions. (See Annex A). Care must be taken to avoid compromise of target lists and these lists should not be distributed below battalion and squadron/battery support level as a general rule.

8. Where advance notification has not been given, information below brigade group level of the warning of nuclear strike will include only:

...../2

RESTRICTED

FEB 19



Directorate of Weapons
and Explosives

RESTRICTED

- 2 -

- a. Desired ground zero (DGZ).
- b. Time of burst.
- c. Special precautionary measures, when applicable.

MEANS OF COMMUNICATION

9. Warning will be through normal command channels using the quickest means of communication appropriate to the required degree of security.

10. Except when wireless silence is in effect the normal procedure within the brigade group will be:

- a. From the brigade group headquarters to units under command and in support by the brigade group command wireless net and, where applicable, to higher formation and to flanking formations/units by the brigade group rear link and lateral wireless nets.
- b. From battalion group/equivalent to company groups and supporting arms by battalion command wireless net.
- c. From company group/equivalent to platoons and supporting sections/detachments by company net.
- d. From platoon/equivalent to sections by runner except where telephone or wireless has been provided.
- e. From sections/equivalent to individuals by section commander.

11. Army aircraft will be warned by means of the unit or formation command net on which they are substations and by means of their own flight nets. It is the responsibility of the headquarters issuing the nuclear warning to pass this warning to the nearest ground-to-air communications centre to be relayed to friendly Air Force aircraft.

12. Within headquarters, at all levels, drills will be established to enable the rapid transmission of the warning to the different components by runner and the immediate notification to all individuals by the officer or NCO in charge.

13. Troops operating within the area of responsibility of a commander, not under command or in support, and not on the command wireless net will be warned by means of despatch rider, air or ground transported.

14. Use will be made of the armour and artillery wireless nets, where practicable, to supplement the brigade command net.

15. Where wireless silence is in effect the transmission of warning will be by telephone or special despatch service (SDS), either air or ground transported. The warning sequence will be as detailed in paragraph 9. Unless advance warning can be given a time delay sufficient to pass the warning to all friendly troops affected will have to be accepted.

PATROLS AND OBSERVATION SCREENS

16. Patrols and observation screens must not be allowed to mask friendly nuclear fire and special consideration must be given to the means for their warning and where necessary their withdrawal out of the area of effect. The means to be employed must be governed by local circumstances. Their warning may be achieved through the provision of wireless sets in sufficient numbers

.... /3

RESTRICTED

RESTRICTED

- 3 -

from unit reserve holdings, telephone communications, ground signal flares or aircraft signals to take cover or withdraw out of the area according to pre-arranged plan.

17. There is always a risk in the use of visual signs that the enemy may be alerted. At times, it will be preferable to brief patrols and observation parties on intended nuclear action prior to their going out. In this case, through change of circumstances, it may be necessary to accept time delays in the use of nuclear weapons to coincide with the pre-arranged movements of these patrols/observation screens. Alternately, it may be necessary to break wireless silence where this is in effect. This may be done, however, only on the authority of the commander imposing the silence.

RA Keane 6/1
AK

(RA Keane)

Colonel

Director General of Military Training

Distribution:

- HQ Comds
- HQ Areas
- HQ NWHS
- HQ Fort Churchill
- CJATC
- JABCS
- Major Army Stas
- HQ Fmns (Reg)
- Reg Army Units
- Corps Schools
- Liaison Staffs
- CASC
- CNS
- CAS
- CGS
- SA/CGS
- Heads of Branches
- Vice Heads of Branches
- Deputy Heads of Branches
- ACS
- CAORE
- Directorates AHQ

RESTRICTED

RESTRICTED

ANNEX A
TO HQS 3240-1 (MT 5)
DATED 10 FEB 60

Warning of Nuclear Attacks - Datum Time Method

In order to ensure that broadcast warning orders of nuclear attacks are secure, datum times will be used for all warnings. Datum time is defined as a pre-arranged reference time to which is added a plus or minus time to arrive at the actual strike time.

Daily, the "G" Staff of the formation concerned will issue a list of datum times, chosen at random and identified by nicknames, to all units within their command. This will be issued as a SECRET document as in the following sample:

<u>Time</u>	<u>Nickname</u>
0002	PLUM
0248	PEACH
0610	DAMSON
0917	POLO
1157	SHEEP
1422	PIKE
1601	TROUT
1932	APE
2205	TEAL
2341	COFFEE

Time Zone - T

Example - A message is to be broadcast warning troops of a nuclear strike at 1020 hours. This would be expressed as:

POLO plus 63

or as

SHEEP minus 97

Once datum times and nicknames have been used, they will be considered compromised and cancelled.

RESTRICTED

RESTRICTED

ARMY HEADQUARTERS

BF for
May 1960
25 June 60
HQS 3240-1 (MT 5)
OTTAWA Ont, 26 Jun 59

1. The letter in at
sent out to dists.
2. Bill de revision and sent
out Jan 60
DMT.

Nuclear Attack Warning System
Interim Procedure - Canadian Army

GENERAL

1. This instruction lays down a nuclear attack warning system which is to be taken into use on a trial basis, effective immediately, for training in Canada by all field formations and units of the Canadian Army Regular.
2. On completion of the ^{and a special summer} summer concentration period 19~~59~~⁶⁰, each infantry brigade group in Canada will submit, through its respective command headquarters, comments and recommendations on this trial warning system. These reports are to reach Army Headquarters, attention DMT, by 15 Sep ~~59~~⁶⁰.
3. The headquarters of an infantry brigade group, to be designated at that time, will be given as a winter study project the task to determine the most satisfactory form of nuclear attack warning system, and the equipment to put it into effect, to ensure the safety of our own troops when nuclear weapons are used against the enemy and, conversely, when enemy nuclear attacks are expected against our own forces.

RESPONSIBILITY

4. The commander vested with the authority to order the firing of a nuclear strike is responsible for initiating the warning of impending nuclear attack and for ensuring that adequate provision has been made to afford timely warning to all friendly ground and air forces within the effect area of the nuclear strike.
5. The commander initiating the warning is responsible for the warning on a need to know basis of all formations/units under command or in support and for the transmission of the warning to higher formation and to adjacent or flanking formations/units.
6. Commanders, at all levels, on receipt of the warning of impending nuclear attack will ensure the immediate transmission of warning on a need to know basis to all friendly troops located within their respective areas of responsibility. These will include not only troops under command and in support but also troops passing through or troops on detached duty within their areas. This may result in some duplication of warning but this duplication is acceptable as an insurance measure.
7. These provisions will apply also on an intercept of the enemy's intention to launch a nuclear attack.

NUCLEAR ATTACK DATA

8. The timing of the nuclear strike must take into account the deployment of friendly forces in relation to the strike area, the yield and height of burst, predicted ground zero and damage radii, minimum safety distances and the time necessary to ensure the warning of all forces, both ground and air, within the intended radius of effect. In this connection, sufficient time must be allowed from the receipt of warning by the most exposed troops to permit the taking of protective measures, where necessary, prior to nuclear strike time.

.../2

RESTRICTED

RESTRICTED

- 2 -

9. The transmission of the warning will be greatly simplified where target lists, including yield and type of burst, have been prepared and distributed in advance. In this case transmission need be by code word only followed where necessary by datum time^{*} and other special instructions. Care must be taken to avoid compromise of target lists and these lists should not be distributed below battalion and squadron/battery support level as a general rule.

^{*}Datum time is defined for this purpose as a pre-arranged reference time to which is added a plus or minus time to arrive at the actual strike time; - Annex 1 hereto.

10. Where advance notification has not been given, information below brigade group level of the warning of nuclear strike will include only:

- a. Desired ground zero (DGZ).
- b. Time of burst.
- c. Special precautionary measures, when applicable.

MEANS OF COMMUNICATION

11. Warning will be through normal command channels using the quickest means of communication appropriate to the required degree of security.

12. Except when wireless silence is in effect the normal procedure within the brigade group will be:

- a. From the brigade group headquarters to units under command and in support by the brigade group command wireless net and, where applicable, to higher formation and to flanking formations/units by the brigade group rear link and lateral wireless nets.
- b. From battalion group/equivalent to company groups and supporting arms by battalion command wireless net.
- c. From company group/equivalent to platoons and supporting sections/detachments by company net.
- d. From platoon/equivalent to sections by runner except where telephone or wireless has been provided.
- e. From sections/equivalent to individuals by section commander.

13. Army aircraft will be warned by means of the unit or formation command net on which they are substations and by means of their own flight nets. It is the responsibility of the headquarters issuing the nuclear warning to pass this warning to the nearest ground-to-air communications centre to be relayed to friendly Air Force aircraft.

14. Within headquarters, at all levels, drills will be established to enable the rapid transmission of the warning to the different components by runner and the immediate notification to all individuals by the officer or NCO in charge.

15. Troops operating within the area of responsibility of a commander, not under command or in support, and not on the command wireless net will be warned by means of despatch rider, air or ground transported.

16. Use will be made of the armour and artillery wireless nets, where practicable, to supplement the brigade command net.

RESTRICTED

RESTRICTED

- 3 -

17. Where wireless silence is in effect the transmission of warning will be by telephone or special despatch service (SDS), either air or ground transported. The warning sequence will be as detailed in paragraph 11. Unless advance warning can be given a time delay sufficient to pass the warning to all friendly troops affected will have to be accepted.

PATROLS AND OBSERVATION SCREENS

18. Patrols and observation screens must not be allowed to mask friendly nuclear fire and special consideration must be given to the means for their warning and where necessary their withdrawal out of the area of effect. The means to be employed must be governed by local circumstances. Their warning may be achieved through the provision of wireless sets in sufficient numbers from unit reserve holdings, telephone communications, ground signal flares or aircraft signals to take cover or withdraw out of the area according to pre-arranged plan.

19. There is always a risk in the use of visual signs that the enemy may be alerted. At times, it will be preferable to brief patrols and observation parties on intended nuclear action prior to their going out. In this case, through change of circumstances, it may be necessary to accept time delays in the use of nuclear weapons to coincide with the pre-arranged movements of these patrols/observation screens. Alternately, it may be necessary to break wireless silence where this is in effect. This may be done, however, only on the authority of the commander imposing the silence.



(RM Bishop)
Brigadier

Director General of Military Training

Distribution:

HQ Comds
HQ Areas
HQ NWHS
HQ Fort Churchill
CJATC
JABCS
Major Army Stas
HQ Fms (Reg)
Reg Army Units
Corps Schools
CASC
CNS
CAS
CGS
SA/CGS
Heads of Branches
Vice Heads of Branches
Deputy Heads of Branches
ACS
CAORE
Directorates AHQ

Kearne

RESTRICTED

RESTRICTED

ANNEX 1 TO
HQS 3240-1 (MT 5)
DATED JUN 59

Warning of Nuclear Attacks - Datum Time Method

In order to ensure that broadcast warning orders of nuclear attacks are secure, datum times will be used for all warnings.

Daily, the "G" Staff of the formation concerned will issue a list of datum times, chosen at random and identified by nicknames, to all units within their command. This will be issued as a SECRET document as follows:

<u>Time</u>	<u>Nickname</u>
0002	PLUM
0248	PEACH
0610	DAMSON
0917	POLO
1157	SHEEP
1422	PIKE
1601	TROUT
1932	APE
2205	TEAL
2341	COFFEE

Time Zone - T

Example - A message is to be broadcast warning troops of a nuclear strike at 1020 hours. This would be expressed as:

POLO plus 63

or as

SHEEP minus 97

Once a datum time and nickname has been used, it will be considered compromised and cancelled.

RESTRICTED

stat RESTRICTED *to*

ARMY HEADQUARTERS

Faulty with changes

HQS 3240-1 (MT 5)

OTTAWA Ont, ~~Jun 59~~
Feb 60

Nuclear Attack Warning System
Interim Procedure - Canadian Army

GENERAL

1. This instruction lays down a nuclear attack warning system which is to be taken into use on a trial basis, effective immediately, for training in Canada by all field formations and units of the Canadian Army Regular.
2. On completion of the summer concentration period 1959, each infantry brigade group in Canada will submit, through its respective command headquarters, comments and recommendations on this trial warning system. These reports are to reach Army Headquarters, attention DMT, by 15 Sep 59.
3. The headquarters of an infantry brigade group, to be designated at that time, will be given as a winter study project the task to determine the most satisfactory form of nuclear attack warning system, and the equipment to put it into effect, to ensure the safety of our own troops when nuclear weapons are used against the enemy and, conversely, when enemy nuclear attacks are expected against our own forces.

RESPONSIBILITY

4. The commander vested with the authority to order the firing of a nuclear strike is responsible for initiating the warning of impending nuclear attack and for ensuring that adequate provision has been made to afford timely warning to all friendly ground and air forces within the effect area of the nuclear strike.
5. The commander initiating the warning is responsible for the warning on a need to know basis of all formations/units under command or in support and for the transmission of the warning to higher formation and to adjacent or flanking formations/units.
6. Commanders, at all levels, on receipt of the warning of impending nuclear attack will ensure the immediate transmission of warning on a need to know basis to all friendly troops located within their respective areas of responsibility. These will include not only troops under command and in support but also troops passing through or troops on detached duty within their areas. This may result in some duplication of warning but this duplication is acceptable as an insurance measure.
7. These provisions will apply also on an intercept of the enemy's intention to launch a nuclear attack.

NUCLEAR ATTACK DATA

8. The timing of the nuclear strike must take into account the deployment of friendly forces in relation to the strike area, the yield and height of burst, predicted ground zero and damage radii, minimum safety distances and the time necessary to ensure the warning of all forces, both ground and air, within the intended radius of effect. In this connection, sufficient time must be allowed from the receipt of warning by the most exposed troops to permit the taking of protective measures, where necessary, prior to nuclear strike time.

.../2

RESTRICTED

000049

RESTRICTED

- 2 -

9. The transmission of the warning will be greatly simplified where target lists, including yield and type of burst, have been prepared and distributed in advance. In this case transmission need be by code word only followed where necessary by datum time and other special instructions. Care must be taken to avoid compromise of target lists and these lists should not be distributed below battalion and squadron/battery support level as a general rule. *(See Annex A)*

*Datum time is defined for this purpose as a pre-arranged reference time to which is added a plus or minus time to arrive at the actual strike time; - Annex 1 hereto.

10. Where advance notification has not been given, information below brigade group level of the warning of nuclear strike will include only:

- a. Desired ground zero (DGZ).
- b. Time of burst.
- c. Special precautionary measures, when applicable.

MEANS OF COMMUNICATION

11. Warning will be through normal command channels using the quickest means of communication appropriate to the required degree of security.

12. Except when wireless silence is in effect the normal procedure within the brigade group will be:

- a. From the brigade group headquarters to units under command and in support by the brigade group command wireless net and, where applicable, to higher formation and to flanking formations/units by the brigade group rear link and lateral wireless nets.
- b. From battalion group/equivalent to company groups and supporting arms by battalion command wireless net.
- c. From company group/equivalent to platoons and supporting sections/detachments by company net.
- d. From platoon/equivalent to sections by runner except where telephone or wireless has been provided.
- e. From sections/equivalent to individuals by section commander.

13. Army aircraft will be warned by means of the unit or formation command net on which they are substations and by means of their own flight nets. It is the responsibility of the headquarters issuing the nuclear warning to pass this warning to the nearest ground-to-air communications centre to be relayed to friendly Air Force aircraft.

14. Within headquarters, at all levels, drills will be established to enable the rapid transmission of the warning to the different components by runner and the immediate notification to all individuals by the officer or NCO in charge.

15. Troops operating within the area of responsibility of a commander, not under command or in support, and not on the command wireless net will be warned by means of despatch rider, air or ground transported.

16. Use will be made of the armour and artillery wireless nets, where practicable, to supplement the brigade command net.

RESTRICTED

000050

RESTRICTED

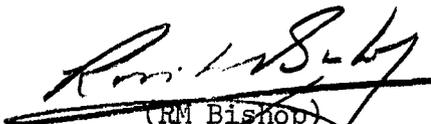
- 3 -

17. Where wireless silence is in effect the transmission of warning will be by telephone or special despatch service (SDS), either air or ground transported. The warning sequence will be as detailed in paragraph 11. Unless advance warning can be given a time delay sufficient to pass the warning to all friendly troops affected will have to be accepted.

PATROLS AND OBSERVATION SCREENS

18. Patrols and observation screens must not be allowed to mask friendly nuclear fire and special consideration must be given to the means for their warning and where necessary their withdrawal out of the area of effect. The means to be employed must be governed by local circumstances. Their warning may be achieved through the provision of wireless sets in sufficient numbers from unit reserve holdings, telephone communications, ground signal flares or aircraft signals to take cover or withdraw out of the area according to pre-arranged plan.

19. There is always a risk in the use of visual signs that the enemy may be alerted. At times, it will be preferable to brief patrols and observation parties on intended nuclear action prior to their going out. In this case, through change of circumstances, it may be necessary to accept time delays in the use of nuclear weapons to coincide with the pre-arranged movements of these patrols/observation screens. Alternately, it may be necessary to break wireless silence where this is in effect. This may be done, however, only on the authority of the commander imposing the silence.


(RM Bishop)
Brigadier

Col. Name
DGMT

Director General of Military Training

Distribution:

HQ Comds
HQ Areas
HQ NWHS
HQ Fort Churchill
CJATC
JABCS
Major Army Stas
HQ Fmns (Reg)
Reg Army Units
Corps Schools
CASC ——— Liaison Staffs
CNS
CAS
CGS
SA/CGS
Heads of Branches
Vice Heads of Branches
Deputy Heads of Branches
ACS
CAORE
Directorates AHQ

RESTRICTED

RESTRICTED

ANNEX A TO
HQS 3240-1 (MT 5)
DATED JUN 59
Tel-60

Warning of Nuclear Attacks - Datum Time Method

In order to ensure that broadcast warning orders of nuclear attacks are secure, datum times will be used for all warnings.

Daily, the "G" Staff of the formation concerned will issue a list of datum times, chosen at random and identified by nicknames, to all units within their command. This will be issued as a SECRET document as follows:

in the following sample:

<u>Time</u>	<u>Nickname</u>
0002	PLUM
0248	PEACH
0610	DAMSON
0917	POLO
1157	SHEEP
1422	PIKE
1601	TROUT
1932	APE
2205	TEAL
2341	COFFEE

Time Zone - T

Example - A message is to be broadcast warning troops of a nuclear strike at 1020 hours. This would be expressed as:

POLO plus 63

or as

SHEEP minus 97

Once a datum time and nickname has been used, it will be considered compromised and cancelled.

Datum time is defined as a pre-arranged reference time to which is added a plus or minus time to arrive at the actual strike time.

RESTRICTED

SECRET
SECRET

NSA 8980-A37 (S) (20)

PA

In reply to: CAS (P) 2100-1-10
Dated 22 Dec 59

ARMY HEADQUARTERS
OTTAWA, Ont. 19 Jan 1960

Canadian Army Staff,
2450 Massachusetts Ave., NW,
Washington 8, D.C.

SOLOG Study A37 - Personnel Warning Systems
in Nuclear Warfare

1. The Canadian Army is not yet in a position to comment on SOLOG Study A-37.
2. It was not possible to carry out the tests, referred to in HQ 3240-1 (M35) of 26 Jun 59, in 1959 and it was necessary that these tests be deferred until the 1960 Brigade concentrations.
3. The Canadian Army position on this subject will not be firm until the warning system is tested in 1960.

NSA/C-7446/65

K
J
(C. H. Rolfe)
Colonel

Director of Weapons and Development

SECRET

SECRET

3

ml

SECRET

Our file ref. CAS(W) 2100-1-10



CANADA

DEPARTMENT OF NATIONAL DEFENCE

CANADIAN JOINT STAFF

2450 Massachusetts Ave., N.W.
Washington 8 D.C.
U.S.A.

Army Headquarters
Department of National Defence
OTTAWA 4, Canada.

①

Attention: DWD

22 Dec 59

Referred to *DWD*

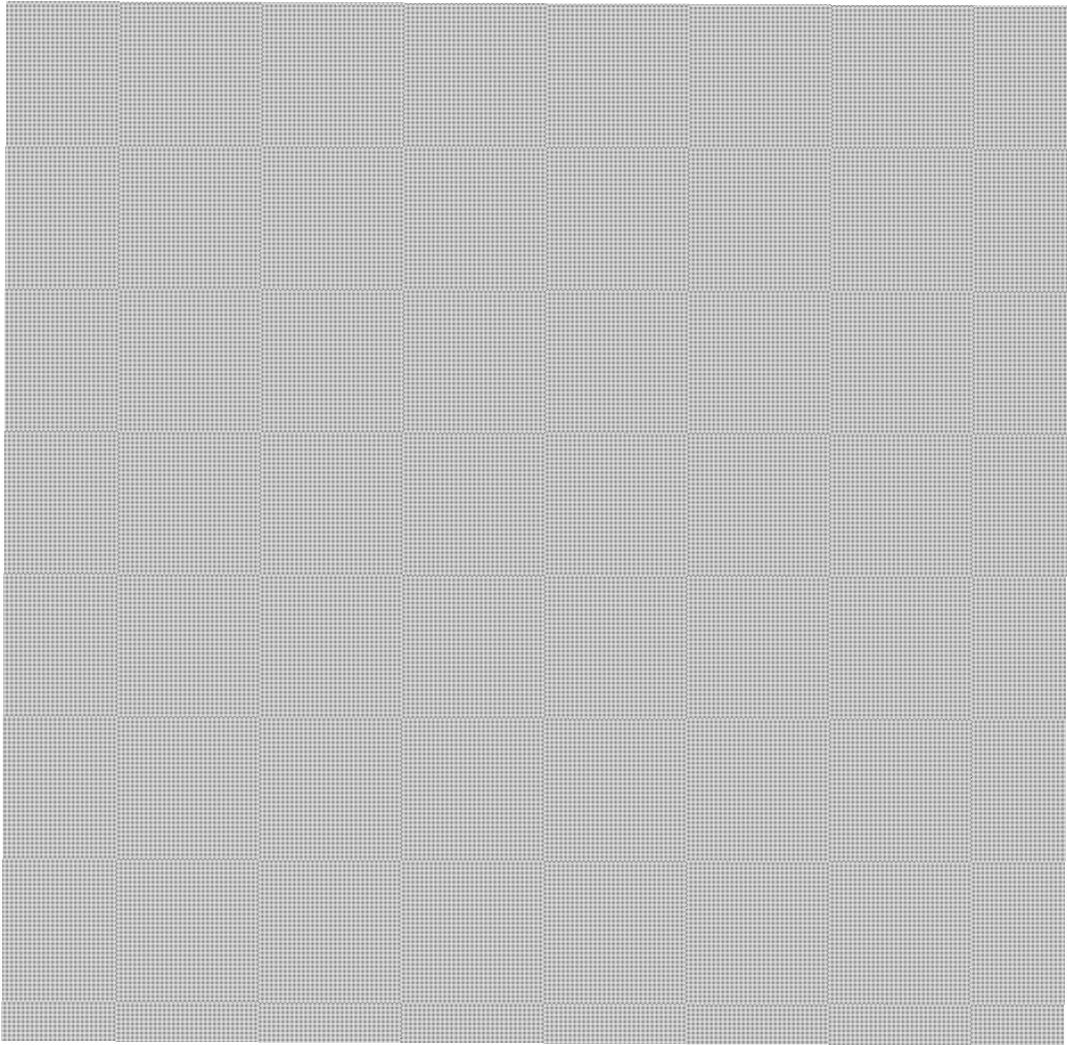
DEC 28 1959 8980-A37

File No. *8950-7*

Orgd to *... 29/12/59*

104

ABC Nonmaterial Standardization
Personnel Warning Systems in Nuclear Warfare (U)



6. HQS 3240-1 (MT5) dated 26 Jun 59 outlined a warning system which was to be tested by brigades in Canada during the past summer. Results of these tests were to be submitted to AHQ by 15 Sep 59. It is, therefore, possible that the Canadian Army, by this time, has a system which might be referred to in the study.

7. The CLO, USACGSC, advises that no comment will be made on this agreement unless you wish otherwise. He has requested,

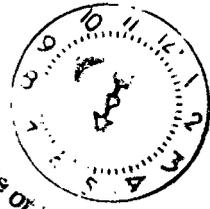
DAAT

.../2

SECRET

324

DEC 30



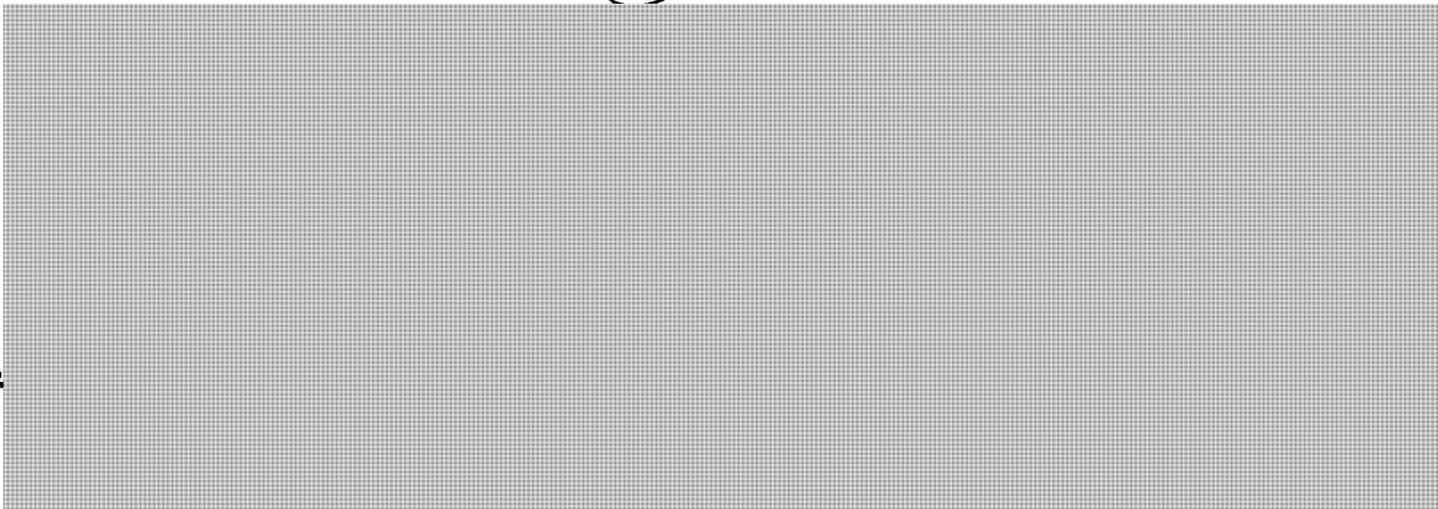
Directorate of Weapons
and Development

SECRET

if possible, advice on existing Canadian policy and whether he should take further action on the draft agreement and study.

T G Gibson
(T G Gibson)
Brigadier
Commander
Canadian Army Staff (W)

(2)



3. Your views on paras 6 and 7 above are requested please.

4 Jan 59
67016

D W D
DWD 2C

(3)

DMT.

- 1. Refers paras 6 & 7 at issue.
- 2. Pls advise.

11 Jan 60
Hollins
Mayer
for DWD.

(4) DWD

- 1. Our policy on this matter is not yet firm. We will be prepared to pass on this subject subsequent to GO consultation.
- 2. May CAS(W) be so informed.
- 3. Please return to MTS for our further action.

SECRET

2 March 1957
for 13 Jan 60

DEPARTMENT OF NATIONAL DEFENCE

**ABC NON-MATERIAL STANDARDIZATION
OPERATION & INTELLIGENCE PROCEDURES
NUCLEAR STRIKE WARNING - FIELD**

FOR CROSS REFERENCES SEE INSIDE COVER

PROCEDURES

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
DEP						4 Oct 60			
DMT	New Cover	20/4/60	WMS	20/4/60	WMS			APR 21 1960	WMS
DMT	PER REQUISITION CR MAY 5 1960		PS						
DEP	Note top folio	5/5/60	W						
DMT	Per request	6 May	BSL						
DEP	min (3) top folio	9 May	W						
DMT	Noted	10 May		10/5/60	W			MAY 11 1960	W
DEP	PER BF CR OCT 1 1960								
DMT	Ums	3 Oct	W						
DEP (3)	min	6 Oct	W		W			OCT 7 1960	W
DEP	PER REQUEST CR OCT 12 1960			12 Oct	W			OCT 13 1960	W
DMT	PER REQUEST CR OCT 26 1960			26 Oct	W			OCT 27 1960	W
DEP	Per Request	17-11-60	W	7 Nov	X			NOV 18 1960	W
DEP	PER BF CR DEC 7 - 1960								
DMT	W	7 Dec	X						
DEP	Min 4	8 Dec	W	9 Dec	W			DEC 9 1960	W
DEP	PER BF CR JAN 9 1961								
DEP	PER REQUEST CR FEB 27 1961							FEB 1 - 1961	W
DMT		27 Feb	W						
DEP	Top memo pls	29 Mar	W						
DMT		7 Mar	W						
DEP	min pls.	8 Mar	W						
DMT	Memo P3	10/3/61	W						
DEP	Memo Top folio pls	15/3/61	W						
DEP		20 Mar	X						
DMT		21 Mar	W						

"B.F." - DO NOT HOLD THIS FILE WHEN LAPSE IN ACTION MAY EXCEED 48 HOURS.

