

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 | IN-SPECTED |
| DMT | PER REQUEST GR MAY 8 - 1961 | | | | | | | | |
| DEP 3 | Request | | | | | | | | |
| Dm | PER REQUEST GR JUL 13 1961 | | | | | | | | |
| Dm | PER REQUEST GR AUG 30 1961 | | | | | | | | |
| Dm | Passed. | | | | | | | | |
| DMT | PER REQUEST GR FEB 20 1962 | | | | | | | | |

CLOSED

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

HQ 2041-1 (MT 5A)
HQS 3240-1
HQS 8980-A37

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.

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

PA . 88980-1737
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

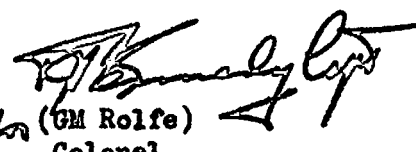
ARMY HEADQUARTERS
OTTAWA, Ont., 29 Mar 61

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 studies listed in Inclosure 1 to Department of the Army letter OPS CD DC 3 dated 17 Feb 61 are contained in ANNEXES 'A' to 'E' 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 studies 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 studies and draft STANAGs before submission.


(GM Rolfe)
Colonel
Director of Equipment Policy

ATT

S E C R E T

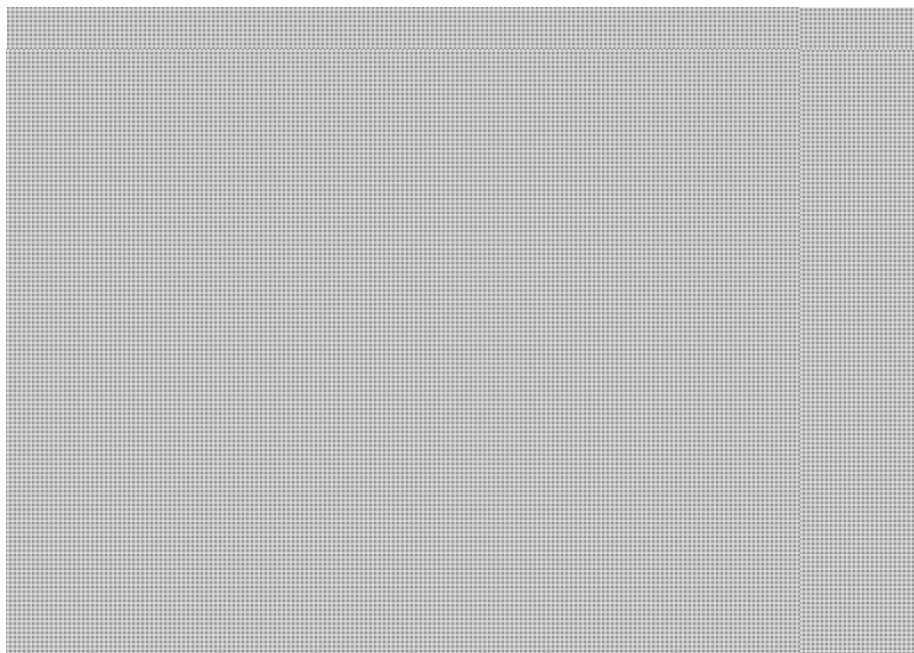
S E C R E T

ANNEX 'D' to
HQS 8921-2 (DEP 2o)
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

①

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]

J. P. Francis Major

EL 3
20 MAR 1961
06537

Wilson

(MR Dare)
Colonel

Director of Military Training

②
I delg no comment
DSigs no comments
9/22/61

1. Please see DUT memo
of 24 Mar 61 hereunder

2. Any comments?

3. All comments are due
24 Mar 61. Please
handle on an
urgent basis

HQS 8980-A37 (DCD)


M E M O R A N D U M

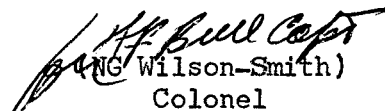
9 Mar 61.

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.




(NG Wilson-Smith)
Colonel
Director of Combat Development

APB/6-6719/bjs

62

DCD Circulation Slip

Diro

G1o

G2o

G3o

AQo

000010

SECRETM E M O R A N D U M

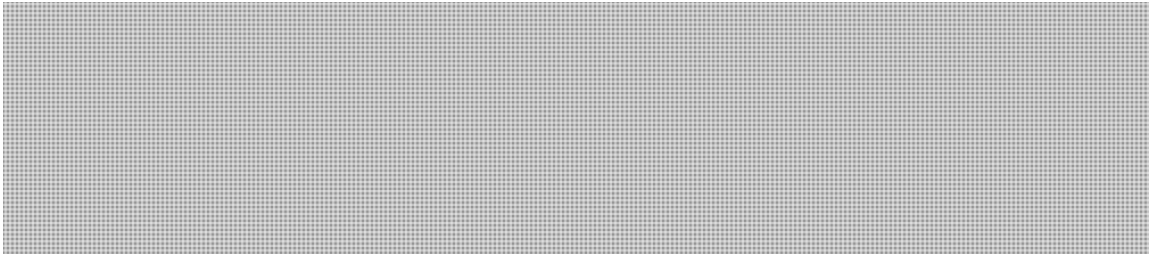

①

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

DCD
May we have your comments
on SOLOG A-37 not later
than 17 Mar 61, please.
From H. Rolfe
JDMT
8 Mar 61

JCB/6-8550/ms


(GM Rolfe)
Colonel
Director of Equipment Policy

SECRET

S E C R E T

M E M O R A N D U M

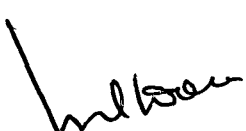
HQS 8980-A37 (MT 5)

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

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Form 1-31 - Personnel Training System

1.1

1. Personnel training system.
2. The training system is designed to develop an individual's potential and to provide him with the knowledge and skills necessary for the performance of his job.
3. The training system is designed to provide the individual with the opportunity to learn by doing.
4. The training system is designed to provide the individual with the opportunity to learn from his own experience.
5. The training system is designed to provide the individual with the opportunity to learn from the experience of others.
6. The training system is designed to provide the individual with the opportunity to learn from the experience of the organization.
7. The training system is designed to provide the individual with the opportunity to learn from the experience of the industry.
8. The training system is designed to provide the individual with the opportunity to learn from the experience of the world.
9. The training system is designed to provide the individual with the opportunity to learn from the experience of the future.
10. The training system is designed to provide the individual with the opportunity to learn from the experience of the past.

Form 1-31 - Personnel Training System

1-31-31 (1-31)

1-31-31

Form 1-31 - Personnel Training System

MADE IN CANADA

1-31-31 (1-31)



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

(1)

77 NTS

1. Please refer to your dir 4 at
this 1
2. Are results of the 1960 concentration
relative to the existing system
test now available?

66537

J. P. Francis Major
OCT 3 - 1960

(4)

30186 Report of 77 under
with copy to 1st Secy.
Gen time report and yet
received. 1st Secy. 6/1
NTSB

(2)

DEP (3)
No - only Western
Communi report has been
rec'd. 1st Secy.
6/10/60

(3)

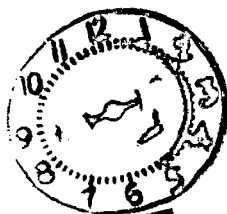
DNT
New?

J. P. Francis Major
EFS

7 DEC 1960

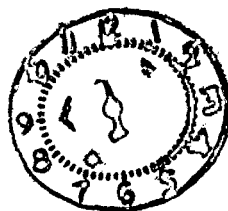
DF
7 Dec 60

OCT 8



EP

OCT 7

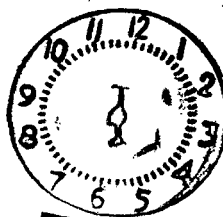


EP

OCT 7



JAN 6



EP

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

PA →

Reference Your Message A353
Dated 9 May 60

ARMY HEADQUARTERS
OTTAWA Ont, 12 May 60

5 Signal Squadron
BARRIEFIELD, Ontario

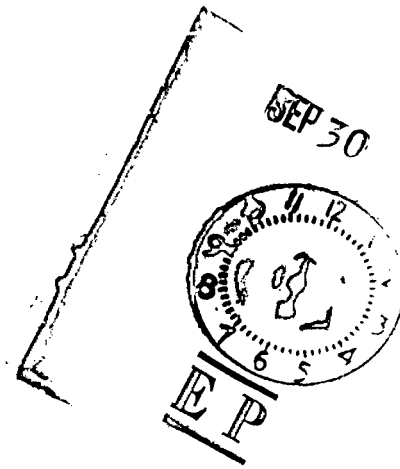
Nuclear Strike Warning - Field Procedure
Interim Policy - Canadian Army

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 60 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

DIRECTORATE OF MILITARY TRAINING
OTTAWA

0 MT

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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
J Macdonald
for DM
9 May 60

J. Keane
(R. Keane)
Colonel

Director General of Military Training

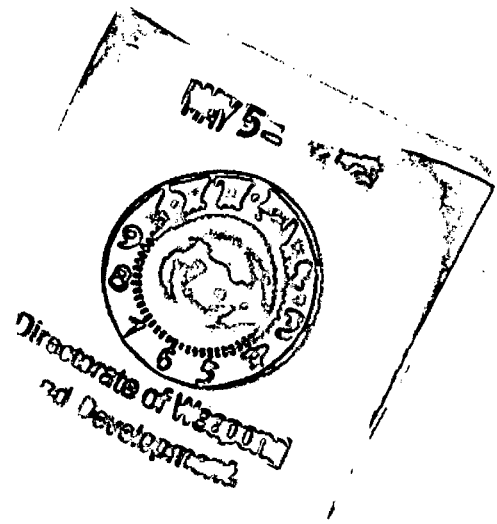
Distribution:

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
Directorate AHQ

11 DSO 12
1. Reference your memo Flag A -
2. Note action taken Qui Polio.
3. Return to DM, please.
J Macdonald
for DM
14 Apr.

J. Keane
14 Apr
J. Keane

RESTRICTED



DEPARTMENT OF NATIONAL DEFENCE

MINUTE SHEET

Referred to

REMARKS

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

DS

- ①
1. You are referring to letter from DSODP
Flag B and subsequent action by
DMT and DEP (is it 20 plus down)
2. Please advise your agreement or objections
to amendment of terminology.
3. Do you publish amendment and
adoption of official terminology or
do you want DMT to take action.

L Macdonald Ins.
for DMT.

DMT

②
Can see no objection to the use of S & P.
your proposed title "Nuclear Strike
Warning - Field Procedures". This should be published by
DMT and circulated to all concerned. ~~It should be~~
~~then be included in the~~ J. J. G. G. G. G. G.
for DS E000033
8 Apr 60

DEPARTMENT OF NATIONAL DEFENCE

MINUTE SHEET

Referred to

REMARKS

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

DEP
Lipton Bond

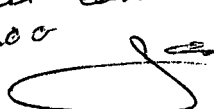
1. You are referred to letter one folio down.
2. May we have your views and in particular whether you agree in adoption of new terminology as proposed.

L Macdonald Insp.
7 Apr 60.
7 Apr.

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 first comments on the content of the SEHCO

G-8550
7 Apr 60.


H.C.P.
P. DEP.



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.P., Lt. Col Bend and D.S.D.

(M. R. JARE)
COLONEL
BMT

L Macdonald
(GO Taschereau)
Lt Col
MT 5

APR 6 1960

000036

MAR 1 1960

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 3210-1
DDP 5-1-1

in/ Apr 60

DDT

Review and Analysis
US Troop Test Programme - 1959

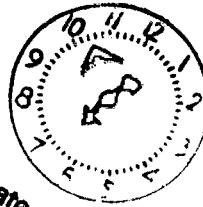
1. Note HQ USCOMHARCOM publication regarding the marginally noted one folio down.
2. Your attention is directed to the summarized report on "Atomic Flash Warning Systems", page 51. It is suggested that we obtain the full report through CAS(W). We can then compare their findings with the reports which 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 Tachereau)
Lt Col
MT 5

ALM/gwr

| TRANSMITTAL SLIP | DATE |
|--|------|
| TO: JWD (2c) 60 | |
| FROM: JMT. NCT | |
| <div><input type="checkbox"/> Note and File</div> <div><input type="checkbox"/> Note and Return</div> <div><input type="checkbox"/> Please Speak</div> <div><input type="checkbox"/> Please Answer</div> <div><input type="checkbox"/> For Your Approval</div> <div><input type="checkbox"/> Prepare Reply For My Signature</div> <div>BF</div> <div><input type="checkbox"/> Take Appropriate Action</div> <div><input type="checkbox"/> As Requested</div> <div><input type="checkbox"/> For Information</div> <div><input type="checkbox"/> For Your Comments</div> <div><input type="checkbox"/> For Signature</div> | |
| <p>COMMENTS:</p> <p>1. Further your letter to CAS(w) folio 3</p> <p>2. Note Policy now in effect Top folio,</p> <p>CAFA 1327 6-56 (9068) HQ 4554-A1327</p> <p>000039</p> | |

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

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- 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.

me Keane
(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

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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.

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ARMY HEADQUARTERS

HQS 3240-1 (MT 5)

OTTAWA Ont, 26 Jun 59

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 ^{first a special summer} summer concentration period 1959⁶⁰, 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 59⁶⁰.
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.

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- 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.

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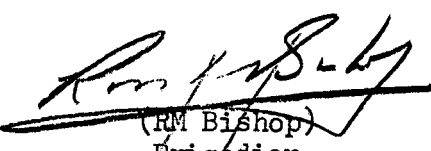
- 3 -

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 Fmns (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

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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.

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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.

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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. (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.

*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.

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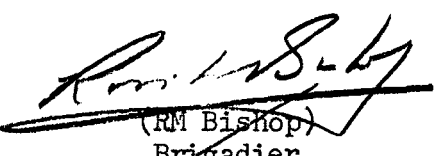
- 3 -

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(RM Bishop)
Brigadier
Director General of Military Training

Col. Kame
DGMT

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Heads of Branches
Vice Heads of Branches
Deputy Heads of Branches
ACS
CAORE
Directorates AHQ

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

Feb-60

Warning of Nuclear Attacks - Datum Time Method

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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.

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SECRET
SECRET

REF 8980-A37 (DND 20)

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

ARMY HEAD QUARTERS
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 (M25) 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.

REF/G-7446/83

J (G H Rolfe)
Colonel
Director of Weapons and Development

SECRET

SECRET

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**SECRET****DEPARTMENT OF NATIONAL DEFENCE****CANADIAN JOINT STAFF**

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

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*

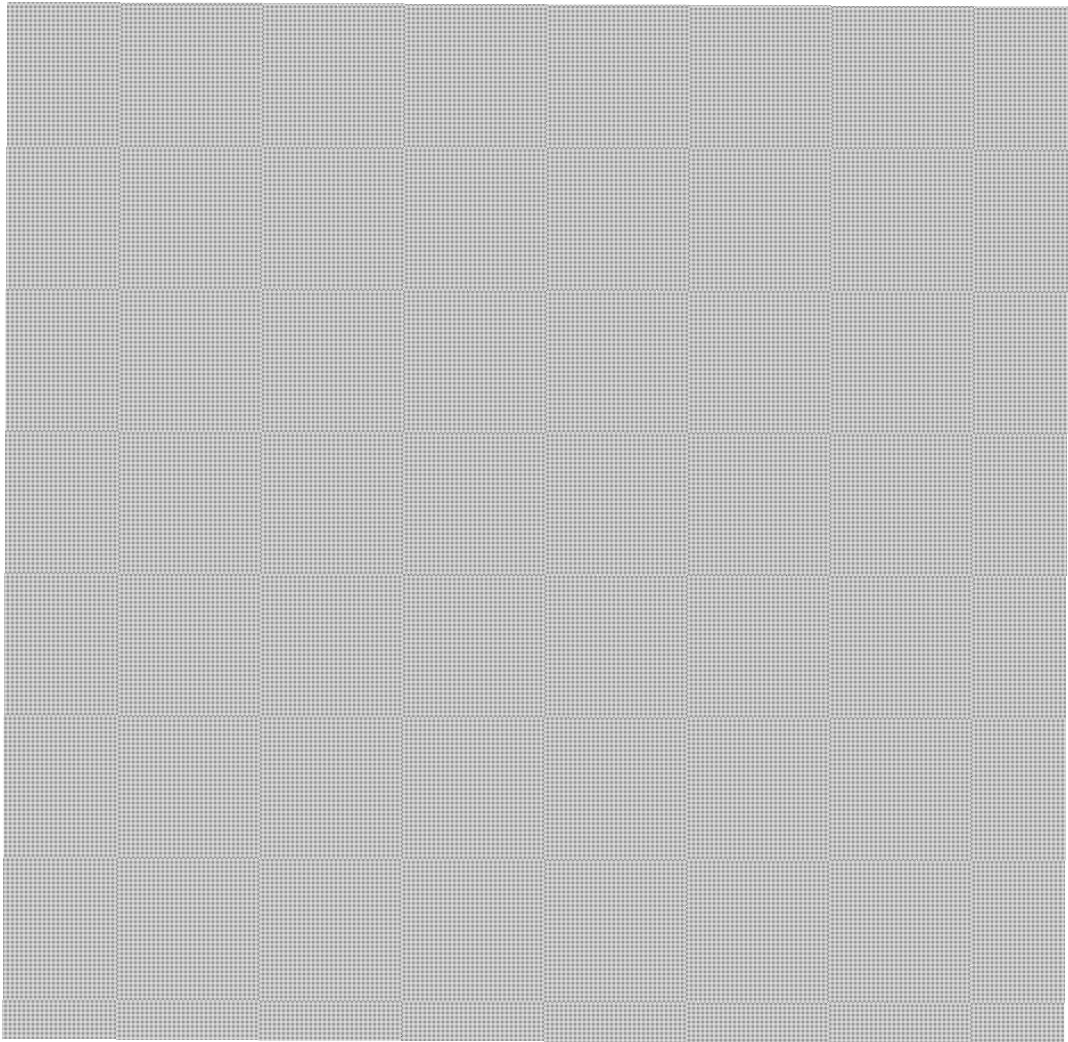
DEC 28 1959 8980-A37

File No. *8950-7*

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

1/4

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.

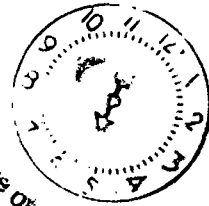
7. The CLO, USACGSC, advises that no comment will be made on this agreement unless you wish otherwise. He has requested,

DAIT

.../2

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DEC 30



Directorate of Weapons
and Development

SECRET

-2-

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

[Signature]
(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

[Signature]
DWD 2C

(3)

DMT.

1. Refers paras 6 & 7 at min 1.
2. Pls advise.

11 Jan 60 *[Signature]*
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 60 consultation.
2. May CAS(W) be so informed.
3. Please return to MRS

SECRET

for our further action.

[Signature] 13 Jan 60

for 13 Jan 60

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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 | mm | 20/4/60 | WMS | | | APR 21 1960 | mm |
| DMT | PER REQUISITION CR MAY 5 1960 | | PK | | | | | | |
| DEP | Note top folio | 5/5/60 | W | | | | | | |
| DMT | Per request | 6 May | 180 | | | | | | |
| DEP | min (3) top folio | 7 May | W | | | | | | |
| DMT | Noted | 10 May | T | 10/5/60 | fel | | | MAY 11 1960 | mm |
| DEP | PER BF CR OCT 1 1960 | | W | | | | | | |
| DMT | Unsub | 3 Oct | W | | | | | | |
| DEP (3) | min | 6 Oct | W | | RF | | | OCT 7 - 1960 | mm |
| DEP | PER REQUEST CR OCT 12 1960 | | W | 12 Oct | W | | | OCT 13 1960 | mm |
| DMT | PER REQUEST CR OCT 26 1960 | | W | 26 Oct | W | | | OCT 27 1960 | mm |
| DEP | Per Request | 17-11-60 | W | 17 Nov | X | | | NOV 18 1960 | mm |
| DEP | PER BF CR DEC 7 - 1960 | | W | | 1 | | | | |
| DMT | 28 | 7 Dec | X | | | | | | |
| DEP | min 4 | 8 Dec | W | 8 Dec | W | | | DEC 9 - 1960 | mm |
| DEP | PER BF CR JAN 9 1961 | | W | 9 Jan | X | | | FEB 1 - 1961 | mm |
| DEP | PER REQUEST CR FEB 27 1961 | | W | | | | | | |
| DMT | | 27 Feb | K | | | | | | |
| DEP | Top memo pls | 29 Mar | W | | | | | | |
| DMT | | 7 Mar | W | | | | | | |
| DEP | min pls. | 8 Mar | W | | | | | | |
| DMT | Memo P | 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.

