

Subject - Sujet

OPERATION MORNINGLIGHT

CGSB 47

7690 - 21- 872 - 2205

ONGC 40-1

DIVISION: HQ
MUNICIPALITY: OTTAWA VRS

FILE NUMBER:	VOLUME:
HQ-485-35	1

CAPTION:
OPERATION MORNINGLIGHT

M-P-O-R

IF THIS FILE IS ROUTED TO
PERSON, SEND FILE TRAN-
RECORDS UNIT.

SI LE PRÉSENT DOSSIER
AUTRE BUREAU OU UN
FAIRE PARVENIR UNE
DÉTENTEUR" À VOTRE SE

DATE	CHARGED OUT OR TRANSFERRED TO EN COMMUNICATION OU TRANSMIS A	P.A. - A CLASSER		DATE	CHARGED OUT OR TRANSFERRED TO EN COMMUNICATION OU TRANSMIS A
		DATE	INIT. OR No. JMT: QU No		
8/05/16	P 8/11	8/05/16	P 8/11		
8/6/18	P 8/11				
14/02/30	P 8/12	14/02/25	P 8/12		
82-12-09	P 8-13	17-07-04	P 7/9		
82-12-09		82-12-09	P 8-13		
83-01-06	P 8/12	83-01-06	P 8/12		
83-01-10	P 8/12				

CROSS REFERENCE

RENVOIS

6" DIV - yellow knife

82-12-09

83-01-06

83-01-10

FILE USER REMINDER

PROMPTLY RETURN FILES WHEN NOT ACTIVELY USING THEM.

USE ONE OF THE B.F. SYSTEMS IF FILE IS NEEDED AT A LATER DATE.

WHEN PAING CORRESPONDENCE: LEGIBLY WRITE
P.A., INITIALS AND/OR P.A. No. IN BLUE INK AND
CLIP CORRESPONDENCE TO INSIDE FRONT COVER.

USE FORM A-5 RATHER THAN ACTION REQUEST IF INFORMATION IS TO BE RECORDED.

DO NOT REMOVE CORRESPONDENCE FROM FILE.

RAPPEL AUX USAGERS DES DOSSIERS

RETOURNER LE DOSSIER AUSSITÔT QU'ON EN A TERMINÉ.
SE SERVIR D'UN DES SYSTÈMES DE RAPPEL SI ON A BESOIN DU
DOSSIER À UNE DATE ULTÉRIEURE.

POUR CLASSER LA CORR: INSCRIRE LISIBLEMENT À C., LES INIT.
ET (OU) LE N° DE AC. À L'ENCRE BLEUE ET ATTACHER LA CORR. À
L'INTÉRIEUR DE LA COUVERTURE DU DOSSIER.

SE SERVIR DE LA FORMULE A-5 PLUTÔT QUE DE LA "FICHE DE SERVICE" SI DES RENSEIGNEMENTS DOIVENT ÊTRE CONSIGNÉS.

NE PAS RETIRER LA CORRESPONDANCE DU DOSSIER.

HQ-465-35

FILE NO - N° DU DOSSIER

VOLUME NO - N° DU VOLUME

NAME - NOM

OPERATION MORNINGLIGHT

FROM - DE

TO - À

CHARGED OUT - EN COMMUNICATION

R.S.
Clerk
Commis
S.D.

CHARGED OUT - EN COMMUNICATION

R.S.
Clerk
Commis
S.D.

DATE

TO - À

DATE

TO - À

15-5-78

P 8/11

S.

28-6-78

P 9/11

CC

31-10-78

P 9/11

C

28-6-79

P 7/11

C

2-8-79

P 8/12

C

8-12-9

P 8/3

C

8-3-01-06

P 8/2

C

8-3-01-10

P 8/4

C

DEC - 1 1997

Josephine KNIGHT
TPOF Building
Room 1500 (TP)

HISTORICAL
MATERIAL
MATÉRIEL HISTORIQUE

J. Oazé

1997/12/05

Cpx T.O'Neill (CFO)

OPERATION MORNINGLIGHT
GREAT SLAVE LAKE, NORTHWEST TERRITORIES
1978/01/24

HQ - OTTAWA VRS
HQ-485-35
G - YELLOWKNIFE
78-G-000-2
G - YELLOWKNIFE DET
78-427

Information received through the Intelligence Advisory Committee of the federal government revealed COSMOS 954, a Soviet Radar Ocean Reconnaissance Satellite (RORSAT) with a small nuclear power source was out of ground control. On 1978/01/06, the satellite began tumbling towards earth. It was to re-enter the earth's atmosphere but at that time the location was unknown. On 1978/01/24, the satellite survived re-entry and crashed near Great Slave Lake, NWT. The RCMP's presence was requested for guarding some of the debris as well as performing any police duties which may have arisen. When the clean-up was completed, the Department of External Affairs requested the RCMP's input into the preparation of a claim against the USSR for compensation for damage incurred by Canada in the search and recovery of the radioactive parts of the satellite. The cost of the clean-up was over \$14,000,000.00 of which Canada requested just over \$6,000,000.00 compensation.

6947.AHS

SEQUENTIAL RECORD

Div: HQ Mun: OTTAWA Rec Off: VRS Prov: ONT
INITIAL: TDP Archives SCIS: Archives PIRS:
File Number: HQ-485-35 Breakdown:N (Y/N) OSR Code:
Related Files: Y (Y/N) Charge-Outs: N (Y/N)
Caption: OPERATION MORNINGLIGHT

Notes:

Correspondence

From: To:

Volumes: 2 Supplements: 1 Date of Entry: 1992/08/11
Microfilm: 0 BF Date:

Disposition: HISTORICAL Disposition Date: 1992/08/11
Storage Location: G-14
Accession Number: Label:
Special Status:

Related Files: G YELLOWKNIFE 78-G-000-2; G YELLOWKNIFE DET 78-427

Div: HQ Mun: OTTAWA Rec Off: VRS Prov: ONT
File Number: HQ-485-35

CHARGE-OUTS

USER IDENTITY	VOLUMES	OUT DATE	RETURN DATE
U1:	V1:	OD1:	RD1:
U2:	V2:	OD2:	RD2:

OF OVERDUE NOTICES SENT

NOTICES 1: 0

NOTICES 2: 0

PAST CHARGE-OUTS

CHARGE-OUT 1: JOSEPHINE KNIGHT - T RETURN DATE 1: 1997/12/03
CHARGE-OUT 2: JACKIE DAZE: HQ RECO RETURN DATE 2: 1997/12/05
CHARGE-OUT 3: CPL TIM ONEIL-CID-RM RETURN DATE 3: 1998/03/10

TRANSIT FICHE
SLIP DE SERVICE

Security Classification/Designation Classification/désignation sécuritaire	Our File - Notre dossier
UNCLASSIFIED	HQ-485-35 (VOL 1&2)
PIB - F.R.P. CMP GRC	Your File - Votre dossier

To - À MS. JACKIE DAZE	From - De CPL. O'NEIL	Date 97-12-04
	CID/SOB	
	RM H-200	
Subject - Sujet	Diary Date - Date d'agenda	Page
RE: OPERATION MORNINGLIGHT		1

Remarks - Remarques

I HAVE REVIEWED THE ATTACHED VOLUMES AND PROVIDE THE FOLLOWING GUIDANCE;

1. THERE IS NO INDICATION WITHIN THE FILE THAT IT IS CLASSIFIED AT "TOP SECRET" EXCEPT FOR A PASSAGE WHEREIN IT STATES THAT THE RCMP AND OTHER DEPARTMENTS HAVE UPGRADED THEIR FILE TO "TOP SECRET" FROM "SECRET",
2. THE BULK OF THE INFORMATION FOUND WITHIN THIS FILE WAS DERIVED FROM OTHER CANADIAN GOV'T DEPARTMENTS AND IN A FEW CASES, THE U.S. GOV'T, THEREFORE THIRD PARTY RULE APPLIES,
3. AS A MATTER OF RECORD, THERE IS NO RATIONAL TO CLASSIFY THIS FILE "TOP SECRET", FROM AN RCMP PERSPECTIVE.

I LEAVE THE FINAL DECISION UP TO YOU.

PLEASE CALL ME IF YOU NEED MORE INFORMATION.


T.A. O'NEIL

993-8359

*THREATS
PROVETTE
0-9736*

Continued on Suite à la	Page	P.A. A.C.	Date	Init./N°
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TRANSIT FICHE
SLIP DE SERVICE

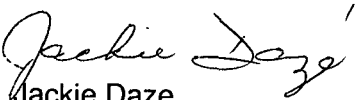
Security Classification/Designation Classification/désignation sécuritaire	Our File - Notre dossier
UNCLASSIFIED	
PIB - F.R.P. CMP GRC	Your File - Votre dossier

To - À Criminal Intelligence Directorate	From - De Jackie Daze HQ Records	Date 97-12-04
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Subject - Sujet	Diary Date - Date d'agenda	Page
DOWNGRADING OF SECURITY CLASSIFICATION		1
Remarks - Remarques		

Archives Management Section are requesting permission to downgrade file from "TOP SECRET" for easier handling. Your written permission is hereby requested.

Thank You for your co-operation.


Jackie Daze
Sequential File Supervisor
HQ Records

Continued on Suite à la	Page	P.A. A.C.	Date	Init./N°
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RCMP GRC

**TRANSIT
SLIP**

**FICHE
DE SERVICE**

BIN
BD

Classification

File No. - N° du dossier

GTS 1582-2

• HANDWRITE - ÉCRIRE À LA MAIN

TO - A <i>Vedic Records Supervisor</i>	FROM - DE <i>N Co 1/2 Emergency Preparedness Section</i>	Date <i>88-11-16</i>
<i>Terry Cameron Archives Unit</i>	<i>Pat Schiman Vedic Records</i>	<i>88-11-21</i>

<input type="checkbox"/> Comments Commentaires	<input type="checkbox"/> Action Donner suite	<input type="checkbox"/> Prepare Brief Préparer un exposé	<input type="checkbox"/> Return with Current File Retourner avec le dossier actuel
<input type="checkbox"/> Perusal and P.A. Lire et classer	<input type="checkbox"/> Prepare Reply Rédiger une réponse	<input type="checkbox"/> Make File(s) Ouvrir un dossier	<input type="checkbox"/> Check Records Vérifier les dossiers

SUBJECT - SUJET

Emergency Preparedness Files for Archives

REMARKS (Use same A-5 for Reply when space permits) - REMARQUES (Si l'espace le permet, répondre sur cette formule)

Sgt. G. F. Arnott and the undersigned examined contents of our directorate files in boxes 1 to 22. In all cases, the file material touches on policy matters or other topics which have long been declared obsolete or redundant. We have no further use for any of this dead material and recommend that you reduce it to archives storage.

H. J. [Signature]

Terry:

*This memo should cover all areas.
In my opinion these files are all historical.
Thank you for your help.
Enclosed 22 boxes. Secret, Top Secret & NATO.*

Pat.

Diary Date - Date d'agenda

Meeting Date - Date de réunion

P.A. - A.C.

Date

Init./N°

000616

CLOSED VOLUME VOLUME COMPLET

DATED FROM
À COMPTER DU

18-1-78

TO
JUSQU' AU

1-5-78

AFFIX TO TOP OF FILE — À METTRE SUR LE DOSSIER

DO NOT ADD ANY MORE PAPERS — NE PAS AJOUTER DE DOCUMENTS

FOR SUBSEQUENT CORRESPONDENCE SEE — POUR CORRESPONDANCE ULTÉRIEURE VOIR

FILE NO. — DOSSIER N°

VOLUME

OTTAWA KIA OP8

MAY 1 1978

The Honourable Don Jamieson, P.C., M.P.,
Secretary of State for External Affairs,
House of Commons,
Ottawa, Ontario.
KIA OA6

My dear *Don* Colleague:

This is in reply to your letter of March 21, 1978, requesting that a representative from this Ministry sit on an Interdepartmental Committee to prepare for presentation to the Soviet Union, a claim for damages caused by Cosmos 954.

I have been informed by the Commissioner of the Royal Canadian Mounted Police that Inspector D. Chiarot, Officer in Charge, Federal Policing Branch, is fully aware of the Force's role in the recovery operation, and will sit on the Committee. Inspector Chiarot may be contacted at 993-2211.

Yours sincerely,

Jean - Jacques Blais

Jean-Jacques Blais, P.C., M.P.

78HQ-102-15-4 - FOR RETURN TO RCMP HEADQUARTERS FOR RECORD PURPOSES

JHCARROLL/RDB/ln

*Inspector Chiarot
will refer enquiries
to me
J 31/5/78.*

[Signature]
6/4/78

*PA
2/5/78
PH*

1978

000618

MAY 1 1978

RECEIVED # 5	
MAY 3 1978	
PLACED ON FILE	
BY:	
DATE:	INITIAL
REC'D. BY:	

jean - jacques Blais

DEPARTMENT OF NATIONAL DEFENCE
INFORMATION SERVICES



MINISTÈRE DE LA DÉFENSE NATIONALE
SERVICES D'INFORMATION

FPB2

18HQ-102-15-4 (7-2-78)

1350-3350-2 (DIS)

5 May 78

FEDERAL POLICING
BRANCH

MAY 9 1978

SOUS-DIRECTION DE
L'APPLICATION DES LOIS
FÉDÉRALES

Distribution List

REVISED NEWS RELEASE POLICY
OPERATION MORNINGLIGHT

Ref: A. 1350-3350-2 (DIS) 26 Apr 78

1. The statement to be used by this office in response to news media inquiries and forwarded to you under reference A, has been amended on the advice of the office of the Judge Advocate General.
2. Please discard Annex A of ref A and replace with attached revision.

J. G. Boulet
Colonel

Director of Information Services

Attachments: 1

DISTRIBUTION LIST

Internal

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DAOT 4
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Attention: Dr. E.L. Leger
Mr. A.J. Cruikshank

Copy to "P" Directorate Liaison Br - 78/05/09

MAY 12 1978

000620

- 2 -

External

Atomic Energy Control Board

Dr. A.T. Prince
Mr. J.H. Jennekens
Dr. W.K. Gummer
Mr. K.L. Cameron

Indian Affairs and Northern Development

Dr. Loken
Mr. J. Fowler
Mr. L. Chateauneuf
Mr. A.E. Belcourt

Environment

Dr. H.C. Rothchild
Dr. C. Barraud

Health and Welfare

Dr. H. Taniguchi

External Affairs

Mr. D.G. Longmuir
Mr. D. Bickford

Solicitor General

Mr. P.R. Ansell
→ Inspector Chiarot

Energy Mines and Resources

Mr. H. Flynn
Dr. A.G. Darnley

Privy Council Office

B/Gen F.J. Richard
Mr. R.W. Todd

Emergency Planning Canada

Mr. B. Stannard
Mr. A.R. Stinton

REVISED ANNEX "A" TO

1350-3350-2 (DIS) / 26 apr. 78

5 MAY 78

THE CANADIAN FORCES HAVE CONDUCTED AERIAL SURVEILLANCE FLIGHTS OVER APPROX 50,000 SQUARE MILES INTO WHICH DEBRIS FROM THE RE-ENTRY OF THE SOVIET SATELLITE COSMOS 954 MAY HAVE FALLEN. AERIAL SURVEILLANCE FLIGHTS BY THE CANADIAN FORCES ALTHOUGH REDUCED ARE CONTINUING AS REQUIRED BY OTHER FEDERAL DEPARTMENTS AND AGENCIES IN THEIR RESPECTIVE MONITORING PROGRAMS THROUGHOUT THE SPRING AND SUMMER OF 1978. AS HAS BEEN THE PRACTICE THUS FAR IN THIS OPERATION THE DEPARTMENTS OF NATIONAL DEFENCE, NATIONAL HEALTH AND WELFARE, ENERGY MINES AND RESOURCES, FISHERIES AND ENVIRONMENT AND INDIAN AND NORTHERN AFFAIRS WILL CONTINUE TO SUPPORT THE ATOMIC ENERGY CONTROL BOARD OF CANADA WHICH, BY STATUTE, IS THE FEDERAL REGULATORY AUTHORITY RESPONSIBLE FOR PROTECTING THE HEALTH, SAFETY AND SECURITY OF CANADIANS WITH REGARD TO ALL ASPECTS OF NUCLEAR ENERGY.

SECRET

78HQ-102-15-4

1978 May 8

BY HAND

F.J. Richard
Brigadier-General
External Policy and Defence Secretariat
Privy Council Office
Langevin Block
Ottawa K1A 0A3

Dear Sir:

Re: The Re-entry of COSMOS 954
Review of Procedures

The draft of the report prepared for Mr. Pitfield has been reviewed and the following comments are offered for consideration:

Page 3 - January 20

RCMP informed of possible re-entry by the Acting Secretary of the Intelligence Advisory Committee.

Page 6 - Paragraph 2

To avoid any misunderstanding, all RCMP Divisional (not Regional) Commanders were briefed on January 23; however, due to the assigned security classification, were prevented from briefing others such as provincial authorities.

Yours truly,



T.C. Jenkin, Insp.,
Officer in Charge
Security Policy Section,
Security Systems Branch

cc: File 78HQ-102-15-4
Letterbook



THE SUN Vancouver B.C. March 17 1978

CBC allegedly refused to air fallout warning in Indian

By NEALE ADAMS

The Canadian Broadcasting Corp. refused to give native people in the Arctic a special, separate message about the danger of radioactive contamination from a Russian satellite that the Canadian Forces wanted broadcast, a U.S. magazine has reported.

According to Esquire magazine, the CBC insisted that what was told to about 200 Indians in a small community north of Yellowknife in the Chipewyan language be made available for English broadcast, also.

The account of the dispute between branches of the federal government was contained in a story on the fall of the Russian Cosmos 954 satellite in the March 14 edition of the magazine by Geoffrey Norman.

In a telephone interview with The Sun, Whit Fraser, northern news editor for the CBC at the time, said Capt. Caesar Jordan, information officer for the department of national defence's northern regional headquarters, asked the CBC to broadcast the message, in the native language only, to Snowdrift, which lies north of Fort Reliance. The request was made about a week after the satellite fell on Jan. 24.

The CBC had been broadcasting reports about the satellite in both English and several native languages. Since the Indians had no word for radioactivity, it was translated by the CBC as "poison air," Fraser said.

Concerned that this translation was alarming natives, the military wanted the CBC to translate and broadcast a scientist's simplified explanation to the Indians, Fraser said.

"They insisted it be broadcast only in the native language and not in English," said Fraser. The military felt that the simplified explanation, if broadcast in English, might be attacked by southern scientists as misleading, Fraser said.

Fraser said he refused to do what the military wanted. At the time, they were

giving out little information. He said he insisted that, if what the native people were told was of wide interest, it would be broadcast in English regionally or, if justified, across Canada.

The military then sent officers and their own interpreters to Indian communities to give the military's own version of radioactivity and events, Fraser said.

Fraser said the CBC has a policy in the north of broadcasting the same news in all languages.

"The native people have complained in the past that there has often been one story for whites and another story for natives. So we have become careful that what we broadcast in one language, we broadcast in the other," he said.

Canada's Defence Minister Barney Danson said last month that it appears clear Canada should return the fragments to the Soviet Union but he also wants the Russians to pay the \$3 million in search costs.

CHRONICLE-HERALD Halifax, N.S. March 17/78

Parrsboro flooding to be studied

The provincial government is preparing a request to have a study done in the Parrsboro area by the Maritime Resource Management Services on the effects of periodic flooding in that town and possible solutions to the problem.

Environment Minister Vince MacLean, responsible for the Emergency Measures Organization (EMO) divulged the information during debate of a motion from George Henley (PC-Cumberland west) requesting such a study be undertaken.

Mr. Henley said Parrsboro is the victim of floods from the Bay of Fundy "which occur with little or no warning and sometimes only three to four months apart."

He said the floods would not be so bad if they were a "a once in a lifetime thing," and the persons affected were remunerated for their personal loss.

But he said this is not the case.

Mr. MacLean said he realizes the plight of the town and "action is being taken to ease the problem." Last week, EMO approved \$8,000 in assistance for the town.

The minister said further federal assistance is being negotiated for financial aid to all provincial areas suffering flood damage on a 50-50 cost-sharing basis.

He said it is hoped some sort of provincial map can be developed designating areas where flooding is common in order to deter development in those areas.

Residents of communities in Colchester County also met with the minister the past week to discuss their problems with river flooding.

BUCLE & GAZETTE Woodstock, N.B. March 15/78

Transportation of hazardous goods under study

F 9-E

Oil and chemical spills and the transport of hazardous goods are the subjects of a series of 16 on-going seminars being offered around the province through the joint effort of several provincial and federal agencies.

W.G. Sargeson, chairman of the seminars and a coordinator with the New Brunswick Emergency Measures Organization, said last week they are providing firemen, policemen, transportation, natural resources and other resource agency personnel

with the latest information and techniques on improving their response capability to oil and chemical spills and accidents involving hazardous products.

AN AWARENESS

"In many cases a few well chosen directions can turn a potential danger into a contained and controlled minor spill," Mr. Sargeson said. He emphasizes, however, that while "the seminars are not miracle cures for ever-increasing problems in the field of transportation...they do create an awareness of the environmental concerns in hazardous materials' accidents."

Upwards of 350 officials, including many representing the province's 130 regular and volunteer fire departments, have attended the seven seminars already held.

Mr. Sargeson said he's pleased with the response shown to invitations, especially since the two and one half-hour seminars are scheduled after regular working hours and can mean as much as a 50-60 mile round-trip without expenses for those who attend.

In addition to lectures and a discussion period, each seminar includes the presentation of slides and two films.

The seminars are a combined effort of the federal and provincial departments of Environment, Emergency Planning Canada, the fire marshal's office and EMO.

They have already been held in Sussex, Boiestown, Newcastle, Oromocto, Perth-Andover, Edmundston and

Nackawic. The remainder will be held in Fredericton, St. Andrews, Saint John, Monc-

ton, Richibucto, Bathurst, Dalhousie, Tracadie and Kedgwick.

TRIBUNE Campbellton, N.B.
March 15, 1978

Letters of resignation were received from Cecil Aucoin as co-ordinator of EMO for the city and from Andre Ouellon as a member of the Restigouche District Planning Commission. Both resignations were accepted with regret.

GRAPHIC Campbellton, N.B. March 15, 1978

The Community Hospital in O'Leary had a chance to test its emergency plan on Monday, March 13, when a simulated school bus crash took place not far from the Hernewood Junior High School. The P.E.I. Emergency Measures Organization under the direction of L.G. Pantry masterminded the exercise which also involved doctors from the O'Leary Medical Clinic, the R.C.M.P., Ferguson, Rooney's, and Crozier ambulance services, Regional School Unit One, Hernewood staff and 33 students, and skilled casualty simulators from the EMO and CFB Summerside.

As an accredited hospital, the Community Hospital is required to have an emergency plan ready to deal with a local major disaster. Contrary to information published in both the Department of Health's green paper on Future Health Policy and in its earlier version called the "Fine" version, the O'Leary hospital has fully operational surgical facilities staffed by highly qualified surgeons and anesthetists. With 10 seriously injured and the remaining students in shock, the acute care facility, in co-operation with the entire "fan-out" network, proved itself ready, willing and eminently able to meet the demands of a major disaster in the area.

Dr. T.R. Verma and nurses at O'Leary Community Hospital treat "bus crash" victim with chest puncture. The hospital processed all 33 students, 10 with serious injuries, in just over an hour.

By Elaine Zimbel
Photo by George Zimbel

000625

• HANDWRITE - ÉCRIRE À LA MAIN

Classification		File No. - N° du dossier	
1	TO - À	FROM - DE	DATE
2	<i>Terry</i>	<i>Good</i>	
3			
4			
SUBJECT - SUJET			

- | | | |
|--|---|--|
| <input type="checkbox"/> Comments
Commentaires | <input type="checkbox"/> Prepare Reply
Réponse à rédiger | <input type="checkbox"/> Make File(s)
Dossier(s) à ouvrir |
| <input type="checkbox"/> Perusal - No action required
Pour information - aucune suite requise | <input type="checkbox"/> Prepare Brief
Exposé à préparer | <input type="checkbox"/> Return with Current File
Retourner avec le dossier courant |
| <input type="checkbox"/> Examination and Action
Pour examen et suite | <input type="checkbox"/> See Sender
Voir l'expéditeur | <input type="checkbox"/> Check Records
Vérifier les archives |

REMARKS - COMMENTAIRES

REPLY - RÉPONSE

*I reviewed on 4th May and found it O.K.
from R.C.M.P. point of view.
It deals with the re-entry, how Canada
was advised etc better reference to after the
fact - - only on bottom Pg. 6 & 18p pg. 7
R.C.M.P. mentioned on Pg. 3 re (Jan 20)
Short note that draft O.K.*

A-5 (4/77) 7530-21-029-4767



ROYAL CANADIAN
MOUNTED POLICE

GENDARMERIE ROYALE
DU CANADA

TRANSIT
SLIP

FICHE
DE SERVICE

PA

Initial - Initiales

Date

000626

LES SERVICES DE COURRIER

ROAD RUNNER

COURIER SERVICES

OPERATIONS: 818 BOYD AVENUE

OTTAWA ONT K2A 2C7

ACCTS. 430 GLADSTONE AVE.

OTTAWA ONT. K2P 0Z1

722-8335Document disclosed under the Access to Information Act -
Document divulgué en vertu de la Loi sur l'accès à l'information**R****18871**

SHIPPER/EXPEDITEUR <i>G.C.O.</i>	
ADDRESS/ADRESSE <i>Langeron 105</i>	
CITY/VILLE PROV. <i>OTTAWA</i>	TEL NO. <i>5-64-93</i>

CONSIGNEE/DESTINATAIRE <i>M. Fink</i>	
ADDRESS/ADRESSE <i>720 Belford</i>	
CITY/VILLE PROV. <i>OTTAWA</i>	TEL NO.

SHIPPER EXPÉDITEUR	SIGNATURE <i>[Signature]</i>	DATE <i>3/17/80</i>	TIME/HEURE <i>10:40</i>	COURIER/COURRIER <i>18-10</i>
RECEIVER CONSIGNATAIRE	<i>[Signature]</i>	<i>1:35</i>		

PREPAID



PORT PAYE

COLLECT



PORT DU

REG



REG

RUSH



PRIORITE

TRUCK NO



CAMION NO

HOURLY



A/L HEUR

HOURS



HEURES

CUSTOMER NO. DU CLIENT

35035-8-5004

WEIGHT/POIDS

CONTENTS/CONTENU

1

SPECIAL INSTRUCTIONS SPECIALES

DECLARED VALUE

VALEUR DECLARE
SPECIAL/SPECIALE

TIME CHG/TEMPS COMP

CHARGES/FRAIS

DELIVERY/LIVRAISON
OTHER/AUTRE

TOTAL

\$ 000627SEE TERMS AND CONDITIONS ON REVERSE SIDE
VOIR TERMES ET CONDITIONS AU VERSO**DELIVERY**

RE CLEANPRINT PATENTED 1963 1966

SPEEDILY

17381

TERMS AND CONDITIONS

Received, subject to the tariffs in effect on the date of the issue hereof, the goods herein described, in apparent good order, except as noted conspicuously on the bill of lading, unknown, marked, consigned and delivered as the carrier, which the carrier agrees to carry and deliver to the consignee at the place of destination. Freight charges are prepaid unless otherwise indicated.

Reçu, sujet aux taux en vigueur à la date de l'émission du présent connaissement, les marchandises ci-après décrites, en bon état apparent, excepté tel qu'indiqué, (le contenu des colis et leur condition étant inconnus), marqués, consignés et destinés tel que ci-après mentionné, que le voiturier consent à transporter et à délivrer au consignataire au point de destination. Les charges pour fret sont payées d'avance, à moins d'indication contraire.

APPLICABLE LAW

Every service to be performed hereunder shall be subject to the laws relating to the terms and conditions to be contained in bills of lading (which are hereby incorporated by reference) applicable at the place where the goods originate which in Quebec, Form R.T.-200 approved by the Quebec Transportation Board on August 5, 1960; Ontario, The Public Commercial Vehicles Act and regulations thereto;

LOIS EN VIGUEUR

L'exécution de la présente commande est soumise aux lois relatives aux termes et conditions devant être insérés dans les connaissements (lesquels termes et conditions sont par les présentes incorporés au présent connaissement par référence), qui sont applicables au point d'origine des marchandises; dans la province de Québec, voir la formule R.T.-200 approuvée le 5 août, 1960 par la Régie des Transports du Québec dans la province d'Ontario, voir The Public Commercial Act et les règlements.

DAMAGE OR LOSS

Any damage must be noted on Pro Bill at time of delivery, otherwise consignee's signature will constitute a clear receipt. Any notice of concealed damage must be given to the carrier within 24 hours after delivery. The carrier will not be liable for such damage or any loss unless written notice thereof is given to it within 10 days after the shipment was received by it for carriage.

PERTE OU DOMMAGE

Tout dommage doit être inscrit sur la copie de livraison du connaissement lors de la livraison sinon la signature du consignataire constituera une réception sans contestation. Tout avis de dommage non apparent doit être donné au voiturier dans les vingt-quatre (24) heures après livraison. Le voiturier ne sera responsable d'aucun tel dommage ou d'aucune perte à moins qu'un avis écrit ne lui soit donné dans les dix (10) jours après que l'envoi a été accepté par le voiturier.

DELAY & LIMITATION OF VALUE

Unless specifically agreed to in writing the carrier will not: (1) be liable for any special, consequential or other damages for any reason whatever including delay in delivery, (2) transport any goods declared to have a value in excess of \$250.

DELAI ET LIMITATION DE LA VALEUR

A moins d'entente spécifique par écrit, le voiturier (1) ne sera pas responsable de tout dommage spécial ou indirect ou de tout autre dommage quelconque, quel qu'en soit la cause, incluant un retard de livraison, (2) ne transportera aucune marchandise dont la valeur déclarée excède \$250.

000628



Privy Council Office Bureau du Conseil privé

SECRET
(with attachments)

May 2, 1978

Distribution List

The Re-entry of COSMOS 954
Review of Procedures

1. Attached is a draft of the report requested by Mr. Pitfield.
2. I would appreciate your comments by noon on May 12, 1978.

F.J. Richard
Brigadier-General
External Policy and
Defence Secretariat

Attach.

Distribution list

NATIONAL DEFENCE

Capt. H.R. Tilley

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INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

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ATOMIC ENERGY CONTROL BOARD

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ENERGY, MINES AND RESOURCES

Mr. Henry Flynn

EMERGENCY PLANNING CANADA

Mr. Burke Stannard

PCO

Mr. D. White

Mr. J.S. Roy

~~2-6426~~
~~28-155~~
55445

D R A F T

S E C R E T

May 1, 1978.

The Re-entry of COSMOS 954

Review of Procedures

Object

The aim of this paper is to review the events leading to the impact of the Russian satellite in the Great Slave Lake area and evaluate government procedures.

Background

As directed by Mr. Pitfield on February 28, 1978, an Interdepartmental Committee headed by PCO was set up and included representatives from the following Departments and Agencies:

Atomic Energy Control Board
Emergency Planning Canada
Energy, Mines and Resources
External Affairs
Fisheries and Environment
Indian Affairs and Northern Development
National Defence
Solicitor General

Events

COSMOS 954 was launched into orbit on September 18, 1977 and identified by the US as a Radar Ocean Surveillance Satellite. It operated normally until October 29 when radar telemetry transmission ceased and control of the satellite appeared to have been lost. Re-entry was predicted in April 1978.

- 2 -

It was known by the US (and Canada) this satellite had a nuclear power supply. Under normal circumstances, the reactor package would have been boosted to a much higher orbit at the end of its useful life while the remaining pieces would be allowed to re-enter the atmosphere, where they should burn up.

Because the nuclear power supply had not jettisoned there were two distinct possibilities:

- the satellite would burn up completely on re-entry with the nuclear material being widely dispersed and unlikely to create a health hazard.
- the satellite would survive re-entry and although there would be no danger of a nuclear explosion there could be a health hazard if the radioactive material were dispersed by impact over a small area.

On November 30, the Intelligence Advisory Committee published a report indicating COSMOS 954 was on a decaying orbit and that re-entry would occur in April 1978. The nature of the satellite was also described.

On January 11, DND learned through NORAD that the satellite had begun to tumble and that it would re-enter the atmosphere earlier than predicted. The Chief of the Defence Staff was briefed and information passed to IAC for publication. Predicted re-entry date: January 23.

On January 19, EA is informed by the U.S. Embassy of the re-entry and offered assistance should satellite debris impact in Canada. On the same day, NORAD informed DND of the possibility of re-entry over Canada.

- 3 -

On January 20, re-entry is predicted for January 24,
and actions take place as follows:

- CDS and MND briefed of possible re-entry
- Emergency Planning Canada instructed by
PCO to brief Regional Directors so that they
would be in a position to brief provincial
Ministers or officials as and when necessary.
- Mr. Pitfield briefed and a note was sent to the
P.M.
- R.C.M.P.

January 23

NORAD reports possible re-entry over Baker Lake
on January 24, at 0830hrs, plus or minus 5 hours.

- MND briefed
- Mr. Pitfield briefed early morning
- PCO holds a meeting at 1430 hrs with
representatives from DND, EA, AECS, RCMP and
NH&W

Meeting. Events were summarized and it was
estimated that there was one chance in eight of re-entry over
Canada and a 98% chance of burn up. Notwithstanding this
evaluation, it was decided that should the re-entry occur
over Canada, DND would be the lead department in consultation
with AECS. This approach was adopted to maintain the high
level of classification over this matter including our
knowledge of a nuclear reactor in this satellite.

- President of AECS briefed at 1730 hrs.
- Mr. Pitfield briefed at 1915 hrs.
- As the day progresses, each NORAD prediction
indicates a different point of re-entry
varying from the Southern to the Northern
hemisphere.

- 4 -

January 24

- 0644 hrs. NORAD predicts re-entry at
0649 hrs + or - 40 mins, 600 miles North of
Honolulu.
- 0653 hrs. Re-entry of satellite in the
area of the Great Slave Lake.
- 0710 hrs. President Carter phones the P.M.
Brzezinski phones Ivan Head.
P.M. phones Ivan Head.
Head phones MDN.
Head phones Soviet Embassy.
- 0735 hrs. NORAD reports re-entry in the
area of the Great Slave Lake at 0653 hrs.
- 1000 hrs. DND receives call from Washington
offering assistance for the search and recovery
of debris. Offer formally accepted at 1327 hrs.
- Coordination between departments to get
search underway.
- 1900 hrs. US assistance team arrives in Edmonton.

January 26

First interdepartmental meeting held at NDHQ
to coordinate all activities related to the search and recovery
of debris. This committee will meet on a regular
basis throughout February and March.

U.S. Activities

It has been possible to reconstruct events in the
U.S.A. and Annex A gives the details. It is pertinent to note:

- The first interagency meeting to deal with
the re-entry took place on December 10, 1977.
- Discussions between Brzezinski and Russian
Ambassador Dobrynin started on January 12.

- 5 -

- On January 18, USA missions in capitals of NATO countries, and in Canberra, Wellington, Tokyo were tasked to inform respective governments of projected re-entry and provide them with information about the satellite.

(Since technical assistance was offered to Canada by the US Embassy on January 19, it is likely the same offer was made to all countries alerted of the re-entry).

SECURITY CLASSIFICATION

From the time this satellite was launched, the US intelligence agencies had a continuing interest in it for numerous reasons and information pertaining to the COSMOS was highly classified. This is normal as the US would not want their intelligence capabilities to be known to the USSR.

When it became certain the satellite would re-enter the atmosphere conflicting objectives may have been present:

- the need to protect the means by which detailed information was obtained on the satellite
- the need to react to a health hazard in the U.S.A. or in friendly country
- the need to prevent alarm or panic at least in the U.S.A.
- the opportunity to examine a Russian satellite should it survive re-entry.

- 6 -

In any event, the U.S. decided to maintain tight security on the impending re-entry of the satellite and only a few countries were made aware of the potential danger.

The Committee attempted to determine if the level of security imposed had hampered the Canadian contingency planning. The only definite area was that Provinces could not be informed and an anomaly developed where RCMP Regional Commanders and EPC Regional Directors were briefed but Provincial Ministers responsible for emergency measures were not.

Within the federal area of jurisdiction EMR was not informed of the impending re-entry as it was assumed AECB was the focus. It was not appreciated however that resources which might be required belonged to EMR.

Although it was known on January 11, that the re-entry would occur around January 23, it is only on January 23 when the first and only interdepartmental meeting took place.

On balance it is the lateness rather than the tight security which prevented a proper assessment of Canadian capabilities available to deal with the incident.

US Technical Assistance

The Committee reviewed the US technical assistance provided which consisted of:

- aircraft for high altitude search and infrared search
- a Nuclear Emergency Search Team (NEST) from the US Department of Energy (approximately 125 people)

- 7 -

The US presence in the search area was described as overwhelming and led to the media perception this was an American operation with Canadian assistance. The Committee established that although Canada in many cases has superior equipment, U.S. assistance was required, at least for the high altitude search. In order to look after our own (nuclear) problems or at least to be more selective in accepting assistance, Canadian capability needs to be expanded.

Provision of Space Information

The Committee reviewed the agreement concerning the provision of information by NORAD to Canada. At the request of the Committee, DND produced a paper on this subject which is included as Annex B.

The Committee was satisfied that Canada has received timely information from NORAD. The only discrepancy appears in the last entry of Appendix 1 to Annex B i.e. "0735 NORAD reports that impact took place at 0653 hrs". The reason is that NORAD monitors all objects in space in order to discriminate between passive and aggressive systems. However it is not equipped to monitor the re-entry of space objects.

When COSMOS 954 re-entered the atmosphere, it was detected by a satellite early warning system that does not belong to NORAD but to the Aerospace Defence Command which is the US national portion of NORAD. This is why the information was passed on the National Security Agency net directly to the President.

- 8 -

Lead Department Concept

The "Lead Department" concept was seen by all representatives as a workable compromise but many felt the Chairman of the Interdepartmental Committee was either self appointed or did not have delegated authority.

It would appear that in future circumstances where a lead department is made responsible for the conduct of an operation, a Chairman or a Coordinator should be formally appointed and his terms of reference should be spelled out.

SUMMARY

Sufficient information was available prior to the re-entry of COSMOS 954 to generate contingency planning. However the high degree of probability that the satellite would burn up on re-entry coupled to the low degree of probability that it would re-enter over Canada accounts for the late start in planning for this eventuality.

When the re-entry became known, Departments were quick to react and launch the search and recovery of the debris.

Conclusions

1. The high degree of classification imposed by the U.S. prevented contingency planning at provincial level.
2. Planning at federal level started too late to permit canadian resources being identified.
3. When launched the operation progressed smoothly because of rapid departmental reaction specifically within DND.

- 9 -

4. NORAD provided timely information throughout the existence of COSMOS 954.

5. The "head Department" approach functions well but there is a requirement to formally appoint the Coordinator of a Task Force and provide him with terms of reference.

Annex A

S E C R E T CDN EYES ONLY LTD DISTR

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TO EXTOTT DFR DELIVER BY 051200

DISTR PSI

---SOVIET SATELLITE-COSMOS-USA PREPARATORY ACTIVITIES

IN RESPONSE TO YOUR ENQUIRY WE CALLED APP4 ON DR PIKUS AT STATE

AND ASKED HIM FOR A CHRONOLOGICAL RESUME OF USA PREPARATORY

ACTIVITIES. FROM FIRST INDICATION USA AGENCIES HAD THAT COSMOS

WOULD REENTER ATMOSPHERE AND ITS ACTUAL REENTRY ON JAN24. WE

TOLD DR PIKUS THAT INFO WAS FOR PURPOSE OF COMPLETING OUR

RECORDS AND THAT IT WOULD BE CLOSELY HELD. ON THAT BASIS HE

GAVE US FOLLOWING CHRONOLOGICAL RESUME:

(1) NOV28/77- INTELLIGENCE AGENCIES INFORMED STATE THAT COSMOS

WAS COMING DOWN AND THAT IT HAD NUCLEAR REACTOR ABOARD;

(2) THERE WERE DISCUSSIONS IN STATE DURING FIRST WEEK DEC BUT

NO/NO DECISIONS TAKEN;

(3) DEC12- INTERAGENCY GROUP MET TO DEAL WITH REENTRY OF COSMOS.

MTG DETERMINED KIND OF SECURITY WHICH WOULD BE NEEDED, WHO WOULD

DEAL WITH INFO AND HOW IT SHOULD BE ROUTED. MTG ALSO DETERMINED

IMPORTANCE OF SUBJ AND TOOK DECISION TO INFORM NATL SECURITY

COUNCIL (NSC);

(4) DEC12- STATE SENT MEMO TO NSC STATING SUBJ IMPORTANT ENOUGH

TO WARRANT ACTION BY NSC AS REP OF USA ADMIN;

(5) NSC AGREED WITH ABOVE RECOMMENDATION FROM STATE AND DIRECTED

THAT WORKING GROUP BE SET UP AND THAT IT BE CHAIRED BY NSC;

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(6) A LITTLE LATER NSC DIRECTED THAT STATE DEPT WOULD BE RESPONSIBLE AGENCY IN EVENT THAT SATELLITE LANDED OUTSIDE NATL TERRITORY. IF IT LANDED IN USA THEN NSC ITSELF WOULD BE RESPONSIBLE AGENCY;

(7) DEC 19 - WORKING GROUP CHAIRED BY NSC AND COMPOSED OF REPS FROM STATE, DOD, CIA, DOE, NASA, FEDERAL PREPAREDNESS AGENCY (FPA) AND NATL SCIENCE AND TECHNOLOGY DIRECTORATE AT WHITE HOUSE (DR FRANK PRESS), HELD ITS FIRST MTG;

(8) IT WAS DECIDED TO SET UP INFORMAL GROUP TO COORDINATE MATTERS WITHIN STATE ITSELF, MADE UP OF REPS FROM SOVIET UNION DESK, INR, OCEANS, INTL ENVIRONMENTAL AND SCIENTIFIC AFFAIRS (OES), POL/MIL BUREAU, AND LEGAL BUREAU, POLICY PLANNING, OFFICE OF ASST/SECY SECURITY ASSISTANCE, SCIENCE AND TECHNOLOGY, OFFICE OF DEP SECY OF STATE, AND SOMEWHAT LATER A REP FROM ACDA/OES BUREAU WAS DESIGNATED AS ACTION BUREAU;

(9) JAN 10 - WORKING GROUP ISSUED PAPER EXAMINING IMPLICATIONS OF REENTRY OF SATELLITE, WHICH DEVELOPED OPTIONS IN TERMS OF WHETHER SATELLITE WOULD LAND INTACT, WHETHER IT WOULD BURN UP AND WHERE IT WOULD LAND. PAPER WAS SUBMITTED TO NSC.

(10) JAN 12 - NSC ADVISER BRZEZINSKI HELD FIRST MTG WITH RUSSIAN AMBASSADOR DOBRYNIN AND POSED NUMBER OF QUESTIONS TO HIM WHICH EMERGED FROM TEXT OF WORKING GROUP PAPER;

...3

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(11)JAN13-INTELLIGENCE AGENCIES MADE WHAT TURNED OUT TO BE PRETTY ACCURATE PREDICTION THAT COSMOS WOULD COME DOWN ON JAN23 PLUS OR MINUS A DAY OR TWO.ON SAME DAY AMBASSADOR DOBRYNIN RESPONDED TO QUESTONS PUT TO HIM ON JAN12;

(12)FURTHER MTG HELD OF WORKING GROUP WHICH CHANGED ITS TITLE TO INTERAGENCY TASK FORCE.THIS MTG DEALT WITH LOGISTICS OF HOW TO PROVIDE ASSISTANCE IF SATELLITE CAME DOWN WITHIN USA;

(13)JAN15-TASK FORCE MTG HELD TO DISCUSS SITUATION IN LIGHT OF RESPONSE PROVIDED BY DOBRYNIN;

(14)JAN17-NSC DIRECTED THAT IF SATELLITE CAME DOWN IN USA THEN DOE WOULD BE ASSIGNED PRIME RESPONSIBILITY.STATE DEPT WOULD BE ASSIGNED PRIME RESPONSIBILITY IF SATELLITE LANDED OUTSIDE USA. EMERGENCY PROCEDURES WERE DEVELOPED FOR DEALING WITH SITUATION;

(15)JAN18-MSGS WERE SENT TO CAPITALS OF NATO COUNTRIES,AND TO CNBRA,WLGTN AND TOKYO,ASKING USA MISSIONS TO INFORM RESPECTIVE GOVTS OF PROJECTED REENTRY OF SATELLITE AND PROVIDING THEM WITH INFO ABOUT IT;

(16)JAN19-AMBASSADOR DOBRYNIN CALLED IN BY PRZEZINSKI AND WAS ASKED MORE QUESTIONS ABOUT SATELLITE;

(17)JAN23-INTELIGENCE AGENCIES TRACKING SATELLITE ESTIMATED IT WOULD REENTER ATMOSPHERE OVER CENTRAL AMERICA;

(18)JAN24-IN EARLY HOURS TRACKERS PREDICTED SPLASH DOWN OFF EAST COAST OF AFRICA,THEN OFF COAST OF WEST AFRICA,THEN OVER

...4

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NORTHERN CDA, THEN IN NORTH PACIFIC, THEN NEAR HAWAII;

(19) BY 0600 HOURS SATELLITE WAS THOUGHT TO BE COMING DOWN NEAR
QUEEN CHARLOTTE ISLANDS, BUT BY 0653 TRACKERS KNEW IT HAD COME
DOWN IN NORTHERN CDA AND NSC WAS INFORMED;

(20) PRES CARTER WAS INFORMED IMMEDIATELY AND WITHIN A FEW MINUTES
HE HAD PHONED PRIME MINISTER TRUDEAU THAT REENTRY HAD OCCURRED,
HAD OFFERED ASSISTANCE AND HAD INDICATED THAT THERE WOULD BE SOME
RADIOACTIVE DEBRIS; AND

(21) JAN24-NSC ADVISER BRZEZINSKI HELD PRESS CONF GIVING DETAILS
OF SATELLITE REENTRY (TEXT OF PRES CONF, WHICH YOU HAVE, PROVIDES
SOME OF ABOVE INFO).

CCC/025 051542Z 00850

Annex B

3350-165/M14 (DOC)

5 Apr 78

NORAD HQ - PROVISION OF SPACE
INFORMATION TO CANADA

1. As agreed at the Interdepartmental Meeting held in the Langevin Block on Wednesday 29 March, the following information concerning the Space Defence Center at Colorado Springs, and the information concerning Cosmos 954 provided to Canada is forwarded.

SPACE DEFENSE CENTER (SDC)

2. The SDC is the central reporting office of the Space Detection and Tracking System (SPADATS) which is an element of NORAD. The centre is located inside Cheyenne Mountain near Colorado Springs. The components at SPADATS are:

- a. the US Air Force Aerospace Defense Command's Spacetrack System which has radars and cameras in various parts of the world;
- b. the US Naval Space Surveillance System consisting of a line of radio transmitters and receivers across the US; and
- c. two Canadian Operated Baker Nunn Cameras and a Canadian Special Optical device for object identification on both near earth and deep space objects.

3. SPADATS makes about 20,000 observations per day. These are correlated by the SDC which maintains a computerized catalog of orbiting space objects. The SDC plots future orbital paths and computes the time and location of re-entry into the earth's atmosphere. The catalog, dating back to 1957, contains records of more than 10,700 objects of which nearly 4,600 are still in space.

.../2

- 2 -

4. The system cannot keep track of all objects in space. In addition to the space probes which go beyond the range of the sensors, there are orbiting objects which are too small to permit accurate tracking and position information. The SDC closely monitors every space object large enough to survive re-entry and impact on the earth.

NORAD PROCEDURES FOR SATELLITE RE-ENTRY

5. Each week, the SDC ascertains which payloads or rocket bodies are within 20 days of decay. Objects so identified are placed on the TIP (Target Impact Prediction) and initial messages sent to all NORAD sensors; tracking on these objects is increased. The satellite is monitored and a series of messages issued at intervals of four days, then two days, one day, twelve hour, six hour, and three hour from predicted time of impact. The final decay message will advise Space Sensors and intelligence agencies of the approximate time, latitude and longitude of the predicted impact point.

6. The SDC also disseminates classified messages on special space events such as satellite break-ups, join ups and de-orbits of US and foreign payloads. In any one week the space defence centre plots approximately 4 re-entry events.

INFORMATION AVAILABLE TO CANADA

7. All of the information collected by the system is available to Canada. The information is forwarded periodically, as circumstances indicate, or as requested.

8. A summary of the space catalog is sent to Canada monthly and shows:

- a. current status of items still in space;
- b. historical catalog status; and
- c. the objects whose orbits decayed during the previous month.

SELECTION AND TRANSMISSION OF INFORMATION

9. Most missile and overflight information is forwarded to Canada by direct line to the NDOC Pilot Project Computer. The content of these automatic messages has been previously agreed between Canada and the United States. There is also a regularly tested back-up voice circuit. Some of the routine information sent by message is based on pre selected criteria, such as expected time to re-entry. Although NORAD HQ is manned by both Canadians and Americans the SDC itself is manned only by USAF personnel. As noted above, the information gathered by the SDC is available to Canada, and under most

- 3 -

circumstances this means it is made available on a "real time" basis to Canadians on the staff of NORAD HQ. One exception to this rule is an event which, in the judgment of the SDC commander, has the potential of creating public panic in the United States. In such an event a "no Foreign" caveat is placed on the information pending decision of higher authority to release it.

RE-ENTRY PREDICTION - COSMOS 954

9. Predicting the actual point of re-entry and possible impact of a decaying satellite is a difficult problem. The factors which have a bearing are drag ratio of the object, its shape and angle of attack and orbit shape. The actual re-entry can be considered analogous to a stone skipping along the surface of a pond before it finally slows down and sinks into the water. Each skip of a satellite can be in the order of a quarter revolution.

10. If it is assumed that Cosmos 954 was a heavy symmetrical object with small surface area and large mass, one could expect at best, an optimum prediction of approximately 10 nm across track and approximately 750 nm along track. This type of accuracy prediction would be available only hours before actual re-entry. Predicted time of re-entry is progressively narrowed down from days to hours and then to orbits.

COMMUNICATIONS THROUGH INTELLIGENCE CHANNELS

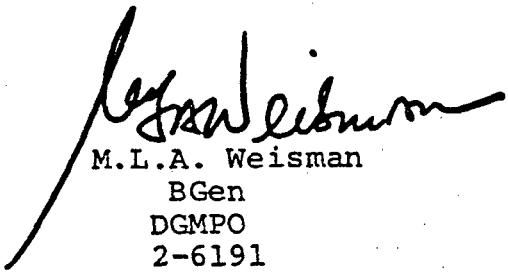
11. International. Canada has bilateral agreements with the US and UK for conveying intelligence information. In the case of Cosmos 954 these channels functioned properly and a fairly constant flow of intelligence was received at NDHQ from the launch to the re-entry of Cosmos 954. This flow, combined with the analytical expertise of the staff of the Director General Intelligence and Security (DGIS), resulted in a complete intelligence "picture" being maintained by the National Defence Intelligence Centre (NDIC). Annex A shows the timing and nature of reports received in the NDIC of information on Cosmos 954.

12. Interdepartmental. Formal passage of intelligence among applicable Federal departments is implemented through

.../4

- 4 -

the Intelligence Advisory Committee (IAC). Normal procedures were followed in the case of Cosmos 954 in that DGIS provided military input to the IAC Weekly Intelligence Review (WIR) and kept the IAC Duty Officer informed of the satellite's status during the few days preceding re-entry.



M.L.A. Weisman
BGen
DGMPO
2-6191

Attachment:

Annex A -Information Concerning Cosmos 954 Received
in the National Defence Intelligence Centre.

Appendix 1 to
Annex B

INFORMATION CONCERNING
COSMOS 954 RECEIVED IN THE
NATIONAL DEFENCE INTELLIGENCE
CENTRE

<u>DATE/TIME</u> <u>(LOCAL)</u>	<u>SOURCE</u>	<u>RESUME OF REPORT</u>
19 Sep 77	DEFSMAC (See note)	Cosmos 954 confirmed as Radar Ocean Surveillance Satellite (RORSAT)
7 Nov 77	DEFSMAC	Power supply of Cosmos 954 not jettisoned as normally expected. Anticipated re-entry April 78.
30 Nov 77	Various	Cosmos 954 possibly out of control
11 Jan 78	DEFSMAC	Predicted decay date 23 Jan 78
20 Jan 78	NORAD	Re-entry 53N 69W at 240806Z (200M NNW of Sept Iles, Qué)
23 Jan 78	DEFSMAC	Re-entry Baker Lake 241330Z ± 5 hours
23 Jan 78 0800	NORAD	Re-entry 64N 93W 241330Z ± 5 hours (90M ESE of Baker Lake)
1200	NORAD	Re-entry 44S 00 241301Z ± 5 hours (1200M SW of Cape Town)
2000	NORAD	Re-entry 30N 00 241315Z ± 3½ hours (300M S of ORAN, Algeria)
2400	NORAD	Re-entry 31S 90E 241234Z ± 3 hours (1400M W of Perth, Australia)
Jan 78 0400	NORAD	Re-entry 60N 122W 241157Z ± 50 mins (90M N of Fort Nelson, BC)
0508	NORAD	Re-entry 33N 20E 241149Z ± 50 mins (30M N of Banghazi, Libya)
0550	NORAD	Re-entry 33N 20E (30M N of Banghazi, Lybia) OR 33N 155W (600 miles N of Honolulu) 241149Z ± 40 mins

- 2 -

24 Jan 78
0644

NORAD

Re-Entry 33N 155W 241149Z \pm 40 mins
(600 miles N of Honolulu)

0735

NORAD

Down 62.9N 112.8W 241153Z (70M SE of
Yellowknife (NE TIP of Blanchet Island))

NOTE: DEFSMAC - Defense Space and Missile Activity Center,
an agency of USAF Aerospace Defense Command

MEMO TO FILE

OPERATION MORNINGLIGHT

In conjunction with the mix-up on the city recording radiation detectors, I called the OIC C.I.B. Supt. Barker at 3:30 p.m. this date. I noted the variance which ACEL in our Force had in relation to the policy and he stated that it was only through a slip-up in their Sub-Division that they became involved in this issue. Basically, the C.O. did not want any involvement in this issue. Further, the Sub-Division O.C., not realizing the C.O.'s feelings, had agreed to take this equipment provided it could be loaned out.


ok I informed Supt. Barker that Dr. Gummer of AECEB noted that he did not want the equipment loaned out to surveillance. It was too valuable and could possibly cause panic if a positive reading was made. Supt. Barker stated that they would accept 3 or 4 pieces of this equipment provided it was of the Geiger counter type. (The dosimeters are no good.) He would distribute these to key detachments concerned and they would be instructed to check out any possible radiation points reported. He again emphasized that they must be adequate devices.

Supt. Barker is to advise by telex the exact quantities he requires and I stated that I would contact Dr. Gummer to have this matter straightened out.

I also contacted Leo Cloutier of the Solicitor General's Department who stated that the agreement made on this equipment was that it should not be loaned out. Consequently, I don't know where this matter got off the tracks.

At 4:00 p.m. I talked with Dr. Gummer. I informed him of the feelings of Supt. Barker and stated that I would get in touch with him soon when Supt. Barker tells me how many pieces of equipment he actually requires. There appears to be some discrepancy here in that Dr. Gummer feels that the dosimeter type of instruction is satisfactory for our purposes whereas Barker does not. This will have to be sorted out.

28 Apr 78


T.C. Jenkin, Insp.
OIC Security Policy Section



Government
of Canada

Document disclosed under the Access to Information Act -
Document divulgué en vertu de la Loi sur l'accès à l'information

Government
du Canada

ACTION
REQUEST

FICHE DE
SERVICE

TO - A

P. D. R.
Insp. Jenkin

FILE NO. - DOSSIER N°

DATE

3/5/78

FROM - DE

A/OIC FPB

☐ PLEASE CALL
PRIÈRE D'APPELER

TEL. NO. - N° DE TEL.

EXT. - POSTE

☐ WANTS TO SEE YOU
DÉSIRE VOUS VOIR

DATE

TIME - HEURE

☐ WILL CALL AGAIN
DOIT RAPPELER

CALL RECEIVED BY
MESSAGE REÇU PAR ►

☐ ACTION
DONNER SUITE

☐ APPROVAL
APPROBATION

☐ NOTE & RETURN
NOTER ET RETOURNER

☐ COMMENTS
COMMENTAIRES

☐ DRAFT REPLY
PROJET DE RÉPONSE

☐ NOTE & FORWARD
NOTER ET FAIRE SUIVRE

☐ MAKE
FAIRE COPIES

☐ SIGNATURE

☒ NOTE & FILE
NOTER ET CLASSER

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DEPARTMENT OF NATIONAL DEFENCE
INFORMATION SERVICES



MINISTÈRE DE LA DÉFENSE NATIONALE
SERVICES D'INFORMATION (7-2-78)

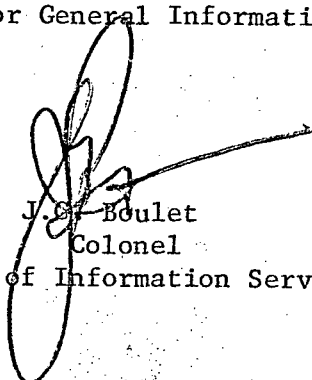
1350-3350-2 (DIS)

26 April 1978

Distribution List

NEWS RELEASE POLICY
OPERATION MORNINGLIGHT

1. With the reduction of the search phase of Op. Morninglight DND intends to follow a policy of passive public information.
2. Attached, as Annex A, is the statement that will be used in response to news media inquiries. The Op. Morninglight Inquiry Centre, established to ensure a coordinated federal government response to all inquiries from the general public concerning OP. Morninglight, will continue to operate under DND Director General Information.


J. G. Boulet
Colonel

Director of Information Services

Attachments: 1

DISTRIBUTION LIST

Internal

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DGIS Attention: Dr. E.L. Leger
Mr. A.J. Cruikshank
DG Info

.../2

- 2 -

External

Atomic Energy Control Board

Dr. A.T. Prince
Mr. J.H. Jennekens
Dr. W.K. Gummer
Mr. K.L. Cameron

Indian Affairs and Northern Development

Dr. Loken
Mr. J Fowler
Mr. L. Chateauneuf
Mr. A.E. Belcourt

Environment

Dr. H.C. Rothchild
Dr. C. Barraud

Health and Welfare

Dr. H. Taniguchi

External Affairs

Mr. D.G. Longmuir
Mr. D. Bickford

Solicitor General

Mr. P.R. Ansell
→ Inspector Chiarot

Energy Mines and Resources

Mr. H. Flynn
Dr. A.G. Darnley

Privy Council Office

B/Gen F.J. Richard
Mr. R.W. Todd

Emergency Planning Canada

Mr. B. Stannard
Mr. A.R. Stinton

ANNEX "A" TO

1350-3350-2 (DIS)

26 APR 78

THE CANADIAN FORCES HAVE CONDUCTED AERIAL SURVEILLANCE FLIGHTS OVER APPROX 50,000 SQUARE MILES INTO WHICH DEBRIS FROM THE RE-ENTRY OF THE SOVIET SATELLITE COSMOS 954 MAY HAVE FALLEN. BASED ON THE RESULTS OF THESE FLIGHTS AND THE SCIENTIFIC ANALYSIS FOLLOWING THE LOCATIONS OF DEBRIS IT HAS BEEN CONCLUDED THAT FURTHER NEW DISCOVERIES OF DEBRIS ARE UNLIKELY. THEREFORE AERIAL SURVEILLANCE FLIGHTS BY THE CANADIAN FORCES HAVE BEEN REDUCED TO A LEVEL REQUIRED BY OTHER FEDERAL DEPARTMENTS AND AGENCIES THAT WILL CONTINUE ON-GOING MONITORING PROGRAMS THROUGHOUT THE SPRING AND SUMMER OF 1978. AS HAS BEEN THE PRACTICE THUS FAR IN THIS OPERATION THE DEPARTMENTS OF NATIONAL DEFENCE, NATIONAL HEALTH AND WELFARE, ENERGY MINES AND RESOURCES, FISHERIES AND ENVIRONMENT AND INDIAN AND NORTHERN AFFAIRS WILL CONTINUE TO SUPPORT THE ATOMIC ENERGY CONTROL BOARD OF CANADA WHICH, BY STATUTE, IS THE FEDERAL REGULATORY AUTHORITY RESPONSIBLE FOR PROTECTING THE HEALTH, SAFETY AND SECURITY OF CANADIANS WITH REGARD TO ALL ASPECTS OF NUCLEAR ENERGY.

OUTGOING MESSAGES



MESSAGES SORTANTS

INSTRUCTIONS ON REVERSE

• DIRECTIVES AU VERSO

Time of Receipt — <i>Heure de réception</i>	File No. — <i>N° de dossier</i> 78HQ102-15-4	Drafter's Name — <i>Nom du rédacteur</i> G.T. BREWER, S/S/M	Time of Dispatch — <i>Heure d'envoi</i>
	Br. or Section — <i>Sous-direction ou section</i> Protective Policing	Phone No. — <i>N° de téléphone</i> 995-9512	
Precedence for Action Addresses <i>Priorité pour suite à donner</i> ROUTINE	Precedence for Infor. Addresses <i>Priorité pour renseignements</i>	Date 3 MAY 78	Security, CLASSIFICATION <i>sécuritaire</i> UNCLASSIFIED
FROM <i>DE</i> COMMISSIONER, OTTAWA			
TO <i>A</i> C.O. "G" DIVISION - YELLOWKNIFE			
INFO. <i>POUR RENSEIGNEMENTS</i>			

ORIGINATORS MESSAGE NO. **P8/15/29** *N° DU MESSAGE*
ORIGINAL

REUR GCIB220/1. CONTACTED DR. GUMMER, A.E.C.B. REGARDING YOUR SUGGESTION THAT TWO MORE LB-1200 DEVICES PLUS TWO MORE EBERLINE SOURCE BOXES BE PROVIDED. DR. GUMMER DID NOT CONSIDER THIS EQUIPMENT TO BE NECESSARY AND STATED IN HIS OPINION THE ALARM DOSIMETERS ARE SUFFICIENT. AFTER FURTHER DISCUSSION HE STATED HE WOULD REFER THE ENTIRE MATTER OVER TO THEIR HEALTH PHYSICIST FOR A FIRM RECOMMENDATION AS TO WHAT TYPE OF EQUIPMENT WOULD BEST SERVE THE REQUIRED PURPOSE. YOU WILL BE FURTHER ADVISED.

GTB/aw

Signature of Person Releasing message <i>Signature du rédacteur</i>  T.C. JENKIN, INSP., OIC SECURITY POLICY SECTION.	Time Released (time of signature) <i>Heure d'expédition (heure de la signature)</i>
---	--

000655



INSTRUCTIONS

FILE NUMBER, BRANCH OR SECTION, DRAFTER'S NAME, ETC.: —
Originator **MUST** complete all boxes to facilitate prompt handling
of a reply or query.

PRECEDENCE: — Enter for

A) All action addresses, i.e. DEFERRED, ROUTINE, PRIORITY,
OPERATIONAL IMMEDIATE OR EMERGENCY.

B) All information addresses usually deferred.

SECURITY CLASSIFICATION: — Enter in all cases including unclas-
sified.

TO: Enter all action addresses.

INFO: Enter all information addresses.

ORIGINATOR'S MESSAGE NUMBER: —

- A) Enter originator's message number (it will be transmitted as
first word of text of message.)
- B) When replying to a message quote original message number,
e.g. KCIB 62 your NPSIC 1284/13.
- C) When sending follow-up message, quote original message
number, Date and Subject Caption, e.g. KCIB 62 further to
KCIB 59 of 12-2-72 re FPS 100001 John Smith fraud.

DIRECTIVES

**N° DU DOSSIER, SOUS-DIRECTION OU SECTION, NOM DU RÉDAC-
TEUR, ETC.:** L'auteur **DOIT** remplir toutes ces cases afin de faciliter
l'acheminement rapide d'une réponse ou d'une demande.

PRIORITÉ: À indiquer dans tous les cas

A) où il faut donner suite à une affaire: **DIFFÉRÉ, ORDINAIRE,
PRIORITAIRE, OPÉRATION IMMÉDIATE OU EXTRÊME URGENCE.**

B) à titre de renseignements: ordinaire habituellement

CLASSIFICATION SÉCURITAIRE: À indiquer dans tous les cas, y
compris non classifié.

À: Inscrire l'adresse de toutes les personnes qui doivent donner
suite à l'affaire.

POUR RENSEIGNEMENTS: Inscrire l'adresse de tous ceux qui doi-
vent recevoir le message à titre de ren-
seignements.

N° DU MESSAGE ORIGINAL:

- A) inscrire le n° du message original (il sera transmis comme
premier mot du texte)
- B) lorsque vous répondez à un message, citez le numéro de ce
message, p.ex. KCIB 62 votre n° NPSIC 1284/13.
- C) lorsque vous donnez suite à un message, citez le numéro
de ce message, la date et le sujet en rubrique, p.ex. KCIB 59
du 12-2-72; objet: FPS 100001, John Smith, escroquerie. . .

Jerry

I phoned Mr. Summer on 2/5/78
9³⁰ AM and advised him of contents of "G" also
told him their request for LB 1200 device etc.

He said that put them back to square one
as they had no intention of purchasing there and
considered the "perils" O.K. but in view of "G" his
request they would refer the entire matter over
to their health physicist for a firm
recommendation of what type of equipment would
serve the required purpose. Mr. Summer
said he would get back to us.

Good,

MAY 1 8 50 AM '78
TELECOMMUNICATIONS

VEDIC RCMP

4 RLY OTT MAY 1

32 ROUTINE YK APR28 UNCLAS

COMM OTT

GCIB220/1 ATTN 'P' DIRECTORATE SECURITY POLICY SECTION
RE TELCON INSP JENKINS/SUPT BARKER CONCERNING RESPONSE TO
RADIATION CHECK REQUESTS WE WERE PROVIDED INITIALLY WITH A FEW
ALARM DOSIMETERS FOR THE EXPRESS PURPOSE OF LOANING OUT TO PERSONS
TRAVELLING OUT IN BUSH WHO MIGHT ENCOUNTER RADIATION THE UNDER-
STANDING WAS THAT CONTROL WAS NOT OUR RESPONSIBILITY AND THAT IF
SOME WERE LOST NO PARTICULAR FUSS WOULD BE MADE THESE DOSIMETERS
ARE SIMPLY DEVICES TO REGISTER ACCUMULATION OR TO BEEP WHEN HIGH
LEVEL RADIATION IS ENCOUNTERED AND NOT TO BE USED LIKE A GEIGER
COUNTER ON 10 APR 78 DR V ELAGUEPILLAI AND MR MF JAMES A E C B
OTTAWA ARRIVED WITH SIX ADDITIONAL DOSIMETERS FOR DISTRIBUTION TO
DETACHMENTS THEY CONFIRMED PREVIOUS ARRANGEMENTS OF LOANING OUT
TO PERSONS AND NO PARTICULAR CONCERN OVER CONTROL AND RESPONSIBILITY
THEY ALSO BROUGHT A BERTHOLD LB-1200 DETECTION DEVICE WHICH IS MORE
THE STYLE OF A GEIGER COUNTER WE ASKED TO HAVE ANOTHER TWO OF THESE
SO THAT WE COULD CENTRALLY LOCATE THEM BETWEEN LIKELY DETACHMENTS WH
WHO MAY GET CALLS FOR RESPONSE. WE ARE PREPARED TO RESPOND TO COM-
PLAINTS OF SUSPECTED SATELLITE DEBRIS PROVIDED WE HAVE TWO MORE
LB-1200 DEVICES PLUS TWO MORE EBELINE SOURCE BOXES TO TEST THEM
WITH. IF SENT TO YELLOWKNIFE WE WILL DISTRIBUTE THEM TO APPROPRIATE
DETS.

G DIV

SECOND LAST LINE SHUD TWO MORE EBERLINE SOURCE BOXES

VEDIC RCMP

CC WA DETACHMENTS WHO MAY ETC

*Attempts made to contact
Mr. Sumner on May 1st
negative. Sumner 55909*

MAY 1 8 53 AM '78
TELECOMMUNICATIONS

VEDIC RC4P

4 RLY OTT MAY 1

32 ROUTINE YK APR28 UNCLAS

COMM OTT

GCIB220/1 ATTN 'P' DIRECTORATE SECURITY POLICY SECTION
RE TELCON INSP JENKINS/SUPT BARKER CONCERNING RESPONSE TO
RADIATION CHECK REQUESTS WE WERE PROVIDED INITIALLY WITH A FEW
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SO THAT WE COULD CENTRALLY LOCATE THEM BETWEEN LIKELY DETACHMENTS WHO
WHO MAY GET CALLS FOR RESPONSE. WE ARE PREPARED TO RESPOND TO COM-
PLAINTS OF SUSPECTED SATELLITE DEBRIS PROVIDED WE HAVE TWO MORE
LB-1200 DEVICES PLUS TWO MORE EBELINE SOURCE BOXES TO TEST THE
WITH. IF SEEN IN YELLOWKNIFE WE WILL DISTRIBUTE THEM TO APPROPRIATE
DETS.

C DIV

NOTE: LAST LINE SHUD TWO MORE EBELINE SOURCE BOXES

VEDIC RC4P

NOTE: DETACHMENTS WHO MAY ETC

*Attempts made to contact
Mr. Gemma on May 1st
negative. Bruce.*

MEMO TO FILE

OPERATION MORNINGLIGHT

In conjunction with the mix-up on the city recording radiation detectors, I called the OIC C.I.B. Supt. Barker at 3:30 p.m. this date. I noted the variance which ACEL in our Force had in relation to the policy and he stated that it was only through a slip-up in their Sub-Division that they became involved in this issue. Basically, the C.O. did not want any involvement in this issue. Further, the Sub-Division O.C., not realizing the C.O.'s feelings, had agreed to take this equipment provided it could be loaned out.

of sub I informed Supt. Barker that Dr. Gummer of AECB noted that he did not want the equipment loaned out to surveillance. It was too valuable and could possibly cause panic if a positive reading was made. Supt. Barker stated that they would accept 3 or 4 pieces of this equipment provided it was of the Geiger counter type. (The dosimeters are no good.) He would distribute these to key detachments concerned and they would be instructed to check out any possible radiation points reported. He again emphasized that they must be adequate devices.

Supt. Barker is to advise by telex the exact quantities he requires and I stated that I would contact Dr. Gummer to have this matter straightened out.

I also contacted Leo Cloutier of the Solicitor General's Department who stated that the agreement made on this equipment was that it should not be loaned out. Consequently, I don't know where this matter got off the tracks.

At 4:00 p.m. I talked with Dr. Gummer. I informed him of the feelings of Supt. Barker and stated that I would get in touch with him soon when Supt. Barker tells me how many pieces of equipment he actually requires. There appears to be some discrepancy here in that Dr. Gummer feels that the dosimeter type of instruction is satisfactory for our purposes whereas Barker does not. This will have to be sorted out.

28 Apr 78

T.C. Jenkin, Insp.
OIC Security Policy Section

78HQ 102-15-4

TASK FORCE "OPERATION MORNINGLIGHT"

Meeting: 21 Apr 78 - 2:00-3:30 p.m. D.N.D.

Attendance: Chaired by Capt. Tilley, D.N.D.
- representatives from all involved
government departments.

Purpose of meeting was to hand this operation over to AECSB from DND. Cabinet had approved this move but stipulated that on the public information aspect, the government would adopt a passive role.

D.N.D. TOTAL COSTS - \$9,043,426
- incremental costs - \$2.7 million

On the subject of billing the Russians, the chairman noted that a committee had been formed under the chairman of External Affairs. While most task force felt the Russians should be billed for the total cost, a D.N.D. lawyer felt it would be the incremental cost only.

A great deal of pressure has been placed on the Fisheries Minister and at this time, it appears he will have to respond with a public statement to satisfy the concerns of fishermen (sport and commercial).

Fisheries and AECSB will continue their field inspection of the spring break-up. They don't expect to find anything.

D.N.D. has produced a 14-minute movie on this operation and will supply copies to interested departments.

Dr. Gummer, AECSB, noted that the RCMP had agreed to receive forty-some radiation detectors but had only been given a few to date. He was concerned they would be given to civilians to use. He said this was wrong and insisted that the RCMP and/or the Solicitor General's representative had agreed with this position. I responded that I couldn't speak for the past other than the file did indicate that it was the Force's intention to allow civilians to borrow the equipment. I agreed to follow this up and reply to Dr. Gummer on Monday. Some thirty pieces of this equipment are currently being held in Alta. awaiting clarification of this issue.



78HQ 102-15-4

TASK FORCE "OPERATION MORNINGLIGHT"

Meeting: 14 Apr 78 - 3:00-5:30 p.m. P.C.O.

Attendance: Chairman - B/Gen. F. Richard, and
representatives of all government
departments including Leo Cloutier (Sol./Gen.)
Insp. Jenkin (RCMP)

The basis discussion pertained to what happened, when, and why, with a view to identifying points that could be better addressed if such an occurrence happened in future.

The principal area of contention appears to be in the initial approach to this occurrence. No individual department had over-all control or leadership nor did anyone realize who had input, expertise, etc. As a consequence, AECB and EMR were only brought in after the fact. In the meantime, the C.F. took control as they were somewhat prepared and had the equipment.

A further point was that some departments, including the RCMP, upgraded the security classification from SECRET to TOP SECRET and invoked the third party rule. No one could determine why this had been done. It's not worded in our file and Insp. Chiarot could not say. This prevented different areas discussing this matter to come up with the proper planning. The U.S., the source of the information on Soviet COSMOS 954, placed heavy security restrictions on this event for the initial few days.

The chairman is preparing a paper for Mr. Pitfield. He will emphasize the need for the "head department" concept. He obviously favoured the C.F., whereas Mr. Cloutier disagreed.

Meeting adjourned at 5:30 p.m.





Government of Canada
Gouvernement du Canada

MEMORANDUM

NOTE DE SERVICE

TO
A

C.O. "G" DIVISION

FROM
DE

A/O i/c FEDERAL POLICING BRANCH

SUBJECT
OBJET

U.S.S.R. COSMOS SATELLITE MALFUNCTION

SECURITY - CLASSIFICATION - DE SÉCURITÉ
OUR FILE - N/RÉFÉRENCE 78HQ-102-15-4
YOUR FILE - V/RÉFÉRENCE
DATE 11 April 1978

Attached hereto please find copy of latest available fact sheet on this matter as prepared by D.N.D. on the recovery operation.

The receipt and distribution of dosimeters, and/or other radiation detection devices have been subject of considerable discussion here, and in keeping with your wishes the following points have been brought to the attention of A.E.C.B., who have accepted same:

- (a) The equipment will be located in areas designated by the R.C.M.P. at Yellowknife;
- (b) Proper written instructions for the use of the equipment be available for issue with it;
- (c) Training or some form of familiarization be afforded R.C.M.P. personnel who will have the equipment on hand;
- (d) The R.C.M.P. will not be held responsible for the equipment once it leaves their hands, nor will they be held responsible for any action necessary to recover any equipment not returned by persons taking the dosimeters on loan.

Repair and upkeep of the equipment will be the responsibility of A.E.C.B. and our function will be merely that of using it, where local residents require reassurance that a particular object is radioactively safe; or loaning the equipment to responsible parties who request same. The minimum recording necessary to identify receipt and issue of the equipment will be carried out, but as pointed out above, we will not be responsible for non-returns.


D. Chiarot, Insp.
A/Officer in Charge
Federal Policing Branch

DC:lm
Att:

000663

OTTAWA KIA OP8

The Honourable Don Jamieson, P.C., M.P.,
Secretary of State for External Affairs,
House of Commons,
Ottawa, Ontario.
KIA OA6

My dear Colleague:

This is in reply to your letter of March 21, 1978, requesting that a representative from this Ministry sit on an Interdepartmental Committee to prepare for presentation to the Soviet Union, a claim for damages caused by Cosmos 954.

I have been informed by the Commissioner of the Royal Canadian Mounted Police that Inspector D. Chiarot, Officer in Charge, Federal Policing Branch, is fully aware of the Force's role in the recovery operation, and will sit on the Committee. Inspector Chiarot may be contacted at 993-2211.

Yours sincerely,

Jean-Jacques Blais, P.C., M.P.

78HQ-102-15-4 - FOR RETURN TO RCMP HEADQUARTERS FOR RECORD PURPOSES

JHCARROLL/RDB/ln

R
A/pel(P)
6-4-78



ROYAL CANADIAN
MOUNTED POLICE

GENDARMERIE ROYALE
DU CANADA

MINISTERIAL CORRESPONDENCE
ACTION REQUEST

CORRESPONDANCE MINISTÉRIELLE
FICHE DE SERVICE

TO - À <i>OCQ</i>	FROM - DU EXECUTIVE OFFICER OFFICE OF THE COMMISSIONER DIRECTEUR ADMINISTRATIF BUREAU DU COMMISSAIRE	NO. - No <i>229-D2163</i> DATE <i>4/4/78</i>
REPLY — RÉPONSE <input checked="" type="checkbox"/> For Minister's signature <i>Pour la signature du Ministre</i> <input type="checkbox"/> For Commissioner's signature <i>Pour la signature du Commissaire</i> <input type="checkbox"/> Other <i>Autre</i>		DIARY DATE DATE D'AGENDA <i>6/4/78</i>

If no reply is indicated please return this form to the Commissioner's office for record purposes.

If a reply cannot be made by the indicated diary date please advise accordingly by telephoning 3-0400 so this date can be extended.

Veuillez retourner cette formule au bureau du Commissaire pour fins de dossiers, si le genre de réponse n'est pas indiqué.

S'il n'est pas possible de répondre pour la date d'agenda indiquée, veuillez nous en informer (3-0400) et nous en changerons la date.

SOL. GEN. CANADA

R.C. _____

The Secretary of State for External Affairs



Canada

Secrétaire d'État pour les Affaires étrangères

cc { ~~SOUS-MINISTRE~~
~~CHIEF DE CABINET~~

RCHP

OTTAWA, Ontario

KLA OG2

March 21, 1978

D 2163

Dear Jean-Jacques,

I am writing to seek the cooperation of your department in the preparation of a claim against the Soviet Union for compensation for damage including costs incurred by Canada in the search and recovery of radioactive parts of the Soviet Cosmos 954 satellite discovered in the Northwest Territories. Canada has informed the Soviet Union that we intend to present a claim, which our legal advisers believe would be well-founded in international law and in particular under the 1972 Convention on International Liability for Damage Caused by Space Objects, to which both Canada and the Soviet Union are parties. Since search and recovery operations are continuing, the full amount of damages are yet known and no claim has as yet been submitted to the Soviet Union.

Various departments and agencies have been involved in the search and recovery operations and have incurred sizeable expenses attributable to this incident. There is a need to co-ordinate our efforts with a view to compiling a comprehensive statement of costs on the basis of uniform costing procedures and in a manner consistent with applicable principles of international law. At the present time, different costing or accounting procedures are applicable for internal purposes in different departments and agencies. We would have to be prepared to justify and substantiate in detail any amount claimed, during our discussions with the Soviet Union or ultimately before the three-member Claims Commission provided for under the 1972 Convention.

I would propose that we establish an interdepartmental committee with a broad mandate to prepare for presentation of a claim to the Soviet Union. The proposed committee would

- gather detailed information and substantiation of costs incurred by federal departments and agencies attributable to search and recovery operations,

The Honourable Jean-Jacques Blais,
Solicitor General of Canada,
O T T A W A.

...2

- 2 -

- review and evaluate these costs from the viewpoint of their eligibility under international law, and
- make recommendations to ministers on the nature and amount of the claim to be presented.

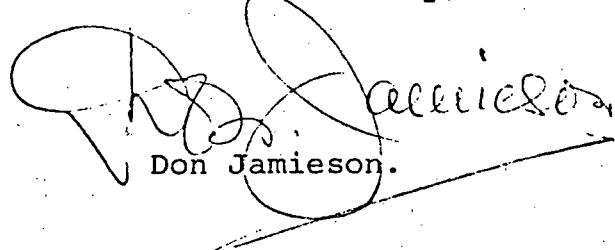
Any claims which arise as a result of damages, injuries or losses by individuals or private interests would also be included in the consideration of the committee. The committee would require the participation and advice of both costing experts and accountants, as well as legal experts.

Taking into account public and parliamentary views, as well as the requirements of international law, I believe it would be important for Canada to present at least an interim claim within the next few months. Because of the need for detailed scrutiny of various categories of costs, prior to presentation of a claim, preparations should proceed on a priority basis without delay. Further claims could be presented later as additional costs are known. It is expected that the search and recovery operation could continue through the summer months, although not necessarily at present levels of intensity.

Because of the importance of basing our claim on applicable principles of international law, I would suggest, if you agree, that the committee be chaired by the Under-Secretary of this department, Mr. Allan Gotlieb. Under the general direction of this committee, an interdepartmental working group could be established as appropriate. We could ask the committee to report to ministers by, say June 1, 1978, with detailed recommendations on the presentation of an interim claim.

I would be grateful if you would appoint a representative. I am also writing to our colleagues the Ministers of National Defence, Energy, Mines and Resources, Justice, Indian and Northern Affairs, Environment, and National Health and Welfare.

Yours sincerely,


Don Jamieson.

OPERATION MORNINGLIGHT

GENERAL INFORMATION FACT SHEET

CONTRIBUTING DEPARTMENTS AND AGENCIES

Department of National Defence

Department of Energy, Mines and Resources

- Atomic Energy Control Board
- Geological Survey of Canada

Department of External Affairs

Ministry of the Solicitor General

- RCMP

*Copy to J. with
memo 11/4/78.*

*noted.
JTS
8/1/78*

DNE INPUT FOR GENERAL INFORMATION FACT SHEET

REVISED 17 MAR 78

DEPARTMENT OF NATIONAL DEFENCE ACTIVITIES:- OPERATION MORNINGLIGHT

Note: All timings, where included, are given in the time zone where they occurred with Ottawa local time in brackets. e.g. 1900 MST (2100).

Responsibilities

OPERATION MORNINGLIGHT is under Canadian control with the U.S. providing welcome and valuable assistance. The on-scene commander is Canadian Forces Colonel David Garland who is responsible for overall operations including activities of both the U.S. and Canadian personnel. Lieutenant Colonel Stu McGowan has been appointed commander at Wardens Grove.

24 Jan 78

Soviet Cosmos 954 entered the earth's atmosphere at 0353 PST (0653) north of the Queen Charlotte Islands on Canada's Pacific coast. Following approximately a three minute burn period during re-entry, pieces of the satellite impacted in the Northwest Territories between Great Slave Lake (62°30'N 114°W) and Baker Lake (64°30'N 96°W).

At 0910 EST (0910) the U.S. Department of Energy contacted the Canadian Department of National Defence to ask what assistance Canada might require from the U.S. Following discussions it was determined that USAF transport aircraft (C141s) would deliver U.S. gamma radiation detection equipment to Edmonton for installation in Canadian CCL30 Hercules aircraft. During the morning U.S. aircraft, on request, also conducted high altitude air sampling flights for gamma radiation.

The gamma radiation detection equipment arrived by USAF C141s at 1738 MST (1938). Four Canadian CCL30 Hercules aircraft were standing by for installation of the equipment. Meanwhile, the radiation monitoring section of the Edmonton nuclear accident support team arrived in Yellowknife, NWT.

25 Jan 78

By early morning the radiation monitoring equipment was installed in the Hercules and three aircraft started searching along the satellite track between Fort Reliance, near the northeast end of Great Slave Lake, and Baker Lake, some 500 miles to the northeast. At 1000 EST (1000), U.S. aircraft commenced a second air sampling mission over Michigan and Northern Ontario. Results of these tests also showed no abnormal radiation levels.

- 2 -

During the day the radiation monitoring section conducted ground radiation monitoring in both Yellowknife and Fort Reliance. Results of monitoring also showed no abnormal radiation levels.

26 and 27 Jan 78

The search continued during both days with no conclusive detection of satellite debris. On 26 Jan the radiation monitoring section was flown to Baker Lake where ground monitoring showed no increase in normal radiation levels. Also on 26 Jan, the Canadian radiation monitoring kit from the Department of Energy, Mines and Resources arrived in Edmonton and was installed in a Hercules aircraft. Up to 12 aircraft (11 Canadian) were involved in the search during the two days: three CC130 Hercules, three CC138 Twin Otters, three CC135 Twin Huey helicopters, one CH147 Chinook heavy lift helicopter and one U.S. Department of Energy Convair with infra red equipment. On 27 Jan the first radiation hot spot was detected using the Canadian radiation monitoring kit in the McLeod Bay area north of Fort Reliance in the northeast end of Great Slave Lake.

28 Jan 78

During the morning three radiation hot spots were detected by search aircraft on McLeod Bay. Two of the spots were later confirmed as satellite debris. By late afternoon, it was reported that two men of six in the Wardens Grove area, some 200 miles northeast of Fort Reliance, had discovered and touched an object on the nearby Thelon River ice. All six men from the Wardens Grove area were evacuated for radiation testing at Yellowknife and Edmonton. Tests indicated that none had picked up any radiation.

29 and 30 Jan 78

Two CP 107 Argus aircraft, one equipped for aerial photography, were added to the search. RCMP personnel were guarding the debris on McLeod Bay and Canadian Forces personnel were guarding the debris near Wardens Grove.

31 Jan 78

The search was now concentrated in the McLeod Bay and Fort Reliance areas with a total of 15 aircraft (14 Canadian) involved. The radiation monitoring kits, three from the U.S. and one from the Canadian Department of Energy, Mines and Resources, were all in use in the Argus and Hercules aircraft. The debris from McLeod Bay was taken to Yellowknife for analysis while scrapings from the debris on the Thelon River were taken to Edmonton in special containers for analysis by the Atomic Energy Control Board. Two RCMP constables joined the four Canadian Forces personnel at Wardens Grove.

000670

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1 Feb 78

By 1 Feb a number of radiation hot spots had been detected by air and then isolated by ground parties in the McLeod Bay area. Operations continued in removing the debris to Yellowknife and cleaning up each impact area to a radiation level of less than 100 micro rads/hour.

2 and 3 Feb 78

By 2 Feb it seemed apparent that most of the satellite debris had impacted in the McLeod Bay and Wardens Grove areas with a few impacts between the two and between Wardens Grove and Baker Lake. Only one piece of debris contained enough radioactivity to require very special handling techniques. For this piece a lead container was constructed by the University of Alberta and flown to the site.

Air searching continued along the debris track, with impact areas being marked by ground parties.

4 and 5 Feb 78

Over the weekend preparations were made to establish a base camp at Wardens Grove and air search activity increased. New impact areas were isolated in both the McLeod Bay and Wardens Grove areas. The highly radioactive piece of debris on the McLeod Bay ice was removed to Edmonton in the special lead container. Clean up activity of other impact areas continued.

By the end of the weekend, some 250 Canadian Forces personnel and about 115 U.S. personnel were directly involved in the operation. Aircraft had flown over 700 hours in the search to this point.

6 Feb 78

No searching or localizing activity was carried out but preparations continued with establishing a base camp near Wardens Grove so that recovery and clean-up activity could commence in that area. A Hercules positioned a bulldozer and other supplies in the area using the low altitude parachute extraction system. The bulldozer is being used to construct a landing strip.

7 Feb 78

By 7 Feb 78, 24 personnel were at the base camp (now referred to as Cosmos Lake) near Wardens Grove preparing the camp and airstrip. The U.S. Convair aircraft had returned to the U.S.A. and the Argus aircraft were also released from the search operation.

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Activity will be concentrated in the Fort Reliance-McLeod Bay area to search for and recover any remaining debris with aircraft and personnel working out of Yellowknife. Following this stage, activity will be concentrated in the Wardens Grove area using the new Cosmos Lake camp as a base of operations.

8 and 9 Feb 78

Activity continued on both days in preparing the Cosmos Lake landing strip and establishing a main campsite, Camp Garland, a few hundred meters to the south of Cosmos Lake. Hercules aircraft positioned more fuel, supplies, and another bulldozer, again using the low altitude parachute extraction system.

A Hercules aircraft also located six new radiation hot spots in the area northeast of Fort Reliance.

10, 11, 12 Feb 78

On 10 Feb and during the weekend slightly less than 100 hours were flown, bringing the total aircraft flying hours to over 1100. Twelve aircraft, all Canadian, are still involved in the operation. At Cosmos Lake the landing strip is 3000 feet long and will soon be suitable for landings by Hercules aircraft. All accumulated radioactive material recovered to date is to be moved from Edmonton for further analysis at the Whiteshell Nuclear Research Establishment operated by Atomic Energy of Canada Limited (AECL) at Pinawa, Manitoba.

13, 14, 15, 16 Feb 78

During the week of 13 Feb search, location and recovery of satellite debris continued in the area around the northeast end of Great Slave Lake. On 14 Feb in Snowdrift, a small community on Great Slave Lake west of Fort Reliance, an AECB team, accompanied by the Snowdrift tribal band secretary, conducted a radiological survey which indicated no contamination of any people or buildings.

On 14 Feb the first fixed wing aircraft, a Twin Otter, landed on the 4900 foot ice strip at Cosmos Lake. A Buffalo aircraft made the second landing on 15 Feb. During the day (15 Feb) the 21 person joint Canadian - U.S. search and survey team was moved into Cosmos Lake by Chinook and Twin Huey helicopters and by Buffalo. A Hercules aircraft positioned an inflatable aircraft shelter, tents and snowmobiles onto Cosmos Lake again using the low altitude parachute extraction system.

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The first Hercules aircraft, carrying 20,000 pounds of supplies, landed successfully on the Cosmos Lake landing strip on 16 Feb.

17, 18, 19, and 20 Feb 78

Twin Huey helicopter operations continued in the Snowdrift and Fort Reliance areas in an effort to clean up the dozens of minute particles.

By 20 Feb the personnel at Cosmos Lake totalled 54 (38 Canadian Forces, 1 Canadian civilian and 15 U.S. civilians). Fourteen aircraft are presently committed to the operation and the Canadian military flying time totalled approximately 1560 hours.

21, 22 Feb 78

On 21 Feb activity was concentrated in three areas: Snowdrift, Fort Reliance, and Cosmos Lake. Twin Huey helicopters, equipped with radiation detectors, flew missions south and east of Snowdrift to determine the extent of the small radioactive particles dispersed south of the satellite trajectory. These particles range from buckshot to pepper grain in size. Similar missions were flown on 22 Feb to the north and east of Fort Smith.

The debris found on the Thelon River ice by the men from Wardens Grove on 28 Jan was recovered and removed on 22 Feb by the team at Cosmos Lake.

23, 24 Feb 78

On 23 Feb the two Twin Huey helicopters were able to further define the area of low level contamination caused by the small particle dispersion at the western end of the search area. Approximate boundaries were established on the north, east, and south sides. The northern boundary follows the track of the satellite trajectory; the eastern boundary runs from Fort Reliance to a point approximately 30 miles north of Fort Smith; the southern boundary is an east-west line to an as yet undefined western boundary. The helicopters were attempting to establish the western boundary on 24 Feb.

No radioactive contamination has been found in Fort Smith. On 24 Feb the radiation monitoring section was conducting a survey in the area of Fort Resolution and nearby hunting camps. As of early 24 Feb Canadian military flying time totalled approximately 1830 hours.

28 Feb - 3 Mar 78

Atomic Energy Control Board (AECB), Health and Welfare Canada and Environment Canada authorities have reported their opinion that people living in the area where the satellite debris fell should not be concerned about changing their lifestyle or recreation activities.

Canadian Forces and AECB personnel were actively involved in the recovery of small, detectable particles in the townsites of Snowdrift, Pine Point and Fort Resolution. Because of their small size, these particles lost momentum quickly and under the influence of a northerly wind drifted over a wide area in a random fashion. They have been found as far west as near Hay River and as far south as Buffalo Lake. Measurements have shown the particles will not have added significantly to the natural background radiation. Nevertheless, to avoid possible health risks from close contamination and ingestion of particles in water melted from snow, it was agreed that clean-up activities would be conducted in the townsites.

Uranium and thorium-bearing rocks are found in this part of Canada, and the natural background radiation may locally be much higher than the figures given. However, in general, the natural radiation background on land in the area may be about 7 to 10 microR/hour, and the search instruments are sensitive enough to detect an increase of about 2 microR/hour at this level. The background over lakes is about half that on land.

Particles have not been distributed in a dense pattern but are scattered randomly and quite far apart. For example, in Snowdrift six particles were found roughly 200 feet apart. Thus clean-up in towns or wherever crowds of people are expected to congregate is perfectly feasible.

7 Mar 78

The search for particles continued in the areas of Lac La Prise and Artillery Lake, while the survey of Hay River was commenced. A new communications link between Edmonton and Cosmos Lake was established.

8 Mar 78

Clean-up in the area of Lac La Prise and Artillery Lake has been completed, and most of Hay River has been surveyed with all detected particles removed. A Hercules aircraft and two Twin Huey helicopters continued the search in the area between Yellowknife and Lac La Prise, while an Argus aircraft from Summerside completed coverage of approximately 750 miles around Cosmos Lake to provide pictures on a scale of 1:20,000 for the production of mosaics.

9, 10, 11, 12, and 13 Mar 78

Twin Huey helicopter search operations continued in the Hanbury Lake area and were commenced in the area east of Yellowknife. Coverage of the area east of Cosmos Lake is now complete.

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On 10 Mar 1600 MST (1800) the RCMP at Cape Dorset notified Edmonton that a 25 year old Inuit had discovered a hole in the ice of an unnamed lake 25 miles north west of Cape Dorset. The RCMP have also advised local residents to avoid the area.

On 11 Mar a combined team of Canadian Forces, AECB and U.S. personnel were flown by Hercules to Frobisher Bay. An RCMP Twin Otter flew them to Cape Dorset and they then were taken out to the lake by skidoo. On arrival they discovered a crater approximately 18 feet in diameter. Chunks of ice had been thrown as far as 75 feet from the hole, with the largest chunk being 18' X 10' X 2'. The ice thickness is approximately 5 feet and the lake is estimated to be 15 feet ~~thick~~ ^{deep}. No radiation was detected.

On 13 Mar a Twin Huey was disassembled for shipment to Frobisher Bay by Hercules. The Twin Huey is to be placed on standby at Cape Dorset for use by the scientific staff.

Maritime Command has been tasked to provide an underwater camera and operators for use at Cape Dorset. They will be despatched as soon as they can be employed.

14 Mar 78

Aerial survey of the Hanbury Lake area has been completed, and both aerial survey and recovery operations are continuing in the area south of Yellowknife. In an attempt to determine particle distribution in cleared areas around Great Slave Lake, ten sites have been selected in which 20 samples will be taken from each site. The samples will then be analysed to determine the particle distribution.

A check of the water reservoirs and intake filters has been completed at Pine Point and no contamination was found.

15 Mar 78

The Twin Huey helicopter arrived in Cape Dorset and a short reconnaissance flight was conducted over the crater site.

16 Mar 78

The underwater TV camera and a three man crew arrived in Cape Dorset. They plan to establish a tented camp at the crater site and after determining the physical characteristics of the ice they will prepare the surface for the introduction of underwater detection equipment. As of early 16 Mar the Canadian military flying time totalled approximately 3,402 hours.

AECB INPUT FOR GENERAL INFORMATION FACT SHEET

17 Feb 78

ATOMIC ENERGY CONTROL BOARD ACTIVITIES - OPERATION MORNINGLIGHT

Background Information

The Atomic Energy Control Board (AECB) is the federal regulatory authority responsible for protecting the health, safety and security of Canadians with regard to all aspects of nuclear energy. As such, in the Cosmos 954 nuclear-powered satellite incident, the AECB is the prime technical consultant concerned with the safe recovery of any radioactive debris, and its custody, transportation and laboratory analysis. The Board is also technical consultant to the External Affairs Department with respect to its negotiations on this matter with the Soviet Union at the United Nations.

Working in close cooperation with the Department of National Defence, the Geological Survey of Canada, and technical experts volunteered by the United States government, small teams of AECB scientists are involved in the identification and physical recovery of pieces of the satellite discovered on the ground through aerial surveys.

All samples recovered are being sent to the Whiteshell Nuclear Research Establishment (WNRE) at Pinawa, Man., a laboratory operated by Atomic Energy of Canada Limited. WNRE is particularly well suited to conduct the types of tests needed on the samples, and also operates waste management and storage facilities in which material from the satellite can be held pending a decision on its ultimate disposition.

Where packaging is available which meets air transport regulations concerning hazardous cargoes, certain shipments of small samples have been made by commercial air carrier. The remainder are shipped on regularly-scheduled Canadian Armed Forces flights.

At Whiteshell, the samples undergo metallurgical, chemical, radiological and other tests, with the results forwarded to the AECB in Ottawa for further interpretation and transmittal to other agencies as required.

Feedback from the laboratory tests will assist field operations in further detection work. In this regard, one of the purposes of the testing program is to attempt to identify the likely origin of each piece in the original satellite. Of particular importance would be the discovery of anything which might have been near or formed part of the satellite's highly

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radioactive power plant. The recovery location of such a sample would be a valuable clue to the possible whereabouts of the most hazardous portion of the spacecraft - its reactor core containing fuel elements and fission products - if indeed the core survived the burn-up of re-entry through the earth's atmosphere.

Based on assumptions as to the probable type of nuclear fuel used in the Cosmos 954 satellite, there is a strong likelihood that all or most of the fuel would have burned up, while high melting point alloys used in other components would not.

Following receipt of reports from WNRE, the AECB will be in a position to determine the need for and extent of any further remedial or clean-up action required to protect public health and minimize environmental impact.

FOR FURTHER INFORMATION:

Hugh J. M. Spence
Chief, Office of Public Information
(613) 992-9206

EMR INPUT FOR GENERAL INFORMATION FACT SHEET

15 Mar 78

ENERGY, MINES AND RESOURCES ACTIVITIES - OPERATION MORNINGLIGHT

Geological Survey of Canada's Contribution

The Geological Survey of Canada (GSC), an agency of the Department of Energy, Mines and Resources, was informed about the re-entry of the Soviet satellite Cosmos 954 by the Atomic Energy Control Board at 10 a.m. on 24 January 1978. The GSC is the main centre in Canada for research and development into airborne radioactivity measuring equipment and, as such, it both operates its own aircraft with equipment, and maintains an on-going contract with Canadian service companies. A scientist was despatched to Edmonton immediately and arrived at the same time as the American team. Arrangements were set in motion for the movement of the Geological Survey's airborne gamma-ray spectrometer to Edmonton where it was installed in a Canadian Forces Hercules C-130 aircraft and became operational 24 hours after the U.S. systems. This Canadian spectrometer was only completed in September 1977, possesses greater sensitivity than the U.S. systems being employed in the search, and is self-contained with respect to the ability to analyse the radiation spectrum. The U.S. systems are dependent on post-flight computer processing of the data. On its second flight in the early hours of January 27, the Canadian equipment provided the first certain evidence of radioactive debris. The system has been in continuous operation since that time, and in terms of sensitivity, versatility, and reliability, has demonstrated its superiority over the U.S. equipment. It is now in the process of being interfaced with the Microwave Ranging system (MRS) airborne navigational equipment obtained by DND. Three research scientists and six technicians from the Geological Survey have participated in the operation of this equipment. One scientist and three technicians must be retained on a continuing basis for as long as it is used in the search. This excludes extra scientific and technical assistance required to interface with navigation systems on the military aircraft.

GSC is now making arrangements to obtain through Canadian contractors the use of additional airborne gamma-ray spectrometer systems for use in Canadian Forces helicopters, to replace the U.S. equipment presently being used for the detailed search and recovery of radioactive debris.

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GSC provided a scientist and a technician with neutron borehole logging equipment to go in with the advance party to inspect the Wardens Grove Site. This was in the event that part of the reactor core was present under the ice in the Thelon River. In fact, the specialized equipment was not required, but general assistance was given by the GSC personnel who have considerable experience in scientific work under Arctic conditions.

On March 1, 1978, the Geological Survey of Canada gamma-ray spectrometer system, interfaced with DND MRS navigational equipment commenced surveying west of Snowdrift. On the first flight, one area of increased radioactivity was recorded and recovery teams located and picked up 2 beryllium rods. The GSC system has continued in operation since March 1, with 2 days down time (1 day for unserviceable aircraft, 1 day due to loss of MRS antenna). On March 14 surveys of the area south and west of Snowdrift and Christie Bay were completed and several additional areas of high radioactivity were located. After spectrometer maintenance on March 15, work will begin on March 16 in the area between McLeod Bay and Artillery Lake, where the MRS coverage is to be extended approximately 5 kilometres to the north and south of existing coverage. The U.S. MRS system completed surveying in the area east of Artillery Lake on March 14, and the MRS search operation is now a totally Canadian operation.

A GSC computer system has been set up at CFB Edmonton for postflight processing of spectrometer data tapes for detection of radiation anomalies and flight path recovery.

GSC staffing for the MRS search operation includes 1 supervising scientist, 3 airborne spectrometer operators, and 2 data analysis technicians.

Two of the three spectrometer equipped helicopters are now carrying Canadian instrumentation and operators. Present staffing for the helicopter operation includes 1 GSC scientist and 3 contractor technicians.

The first McPhar spectrometer system was picked up by DND at Toronto on March 3, for transport to Edmonton and installation in CH135. The system was test flown in Edmonton on March 6 and departed for Cosmos Lake on March 7. The second McPhar system was transported to Yellowknife on March 12 to begin operation in a CH135 out of Yellowknife on March 15. The third helicopter spectrometer system is scheduled for delivery from Scintrex on March 19. Data processing capability for the helicopter spectrometer tapes has been set up at the University of Alberta.

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DEA INPUT FOR GENERAL INFORMATION FACT SHEET

16 Feb 78

DEPARTMENT OF EXTERNAL AFFAIRS ACTIVITIES - OPERATION MORNINGLIGHT

Canada/USSR Contacts - Soviet Cosmos 954

The Canadian Government has been in close contact with the Soviet authorities on this matter since January 24. The Soviets have provided some information on the technical characteristics of the satellite which could assist us in the ongoing search for radioactive debris. We have requested further information. The USSR has also offered the assistance of specialists in the recovery of remnants of the satellite, but this has not yet been required.

In accordance with our obligations under Article 5 of the 1968 Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, Canada officially notified the Secretary-General of the UN and the Government of the Soviet Union on February 8, 1978, of the discovery on Canadian territory of component parts of a space object, believed to be Cosmos 954. In a statement at the UN on February 14, a Soviet representative acknowledged that the Canadian description of the facts surrounding the re-entry of the satellite was correct, and that the USSR would fulfil its obligations under international law to reimburse Canada for any damage. Since the search and recovery operations are still under way, no claim has yet been submitted by Canada.

Follow-up Action in the United Nations

On February 13, Canada raised the question of the international implications of the Cosmos incident in the Science and Technology Subcommittee of the UN Committee on the Peaceful Uses of Outer Space. In his statement, the Canadian Ambassador to the UN described as the overall objective the development of a régime for the use of nuclear energy sources in outer space which would ensure the highest standards of safety for mankind and protection for the environment. In this aim, Canada is supported by a large number of member nations of the UN.

SOLICITOR GENERAL INPUT FOR GENERAL INFORMATION FACT SHEET

17 Feb 78

ACTIVITIES OF THE MINISTRY OF THE SOLICITOR GENERAL - OPERATION MORNINGLIGHT

Responsibilities

The search for radioactive debris from the Soviet Cosmos 954 satellite which impacted between Great Slave and Baker lakes, Northwest Territories, is under the overall control of the Department of National Defence. The responsibilities of the Ministry of the Solicitor General to date have been:

- a) to safeguard the press and public from radioactive contamination by providing an RCMP presence at each accessible impact site, and
- b) area patrols to inform isolated personnel to stay clear of affected areas.

Constant liaison is maintained with Canadian Forces personnel so that RCMP may attend when new finds are made.

General Comment

On-scene RCMP report there has been very little public reaction over the satellite incident in the general area affected except for some initial concern at Snowdrift, a settlement near the Fort Reliance debris site. These concerns were allayed by a special visit by military officials and radiation experts who advised there was no danger. RCMP present at debris sites have not as yet encountered unauthorized persons during their tours of duty.

Future Involvements

It is anticipated that an RCMP presence will continue to be required at each site discovered until cleanup operations are completed. Projections of resources expenditures are not possible at this time as resources required will depend on such factors as number of sites discovered and accessibility to the public.

It is also expected that native peoples and other residents in the area affected will turn to the RCMP for reassurance whenever they discover isolated bits of metal or other debris or even suspect fish or animals. The Atomic Energy Control Board has offered to provide the necessary detection equipment for RCMP Detachments at Baker's Lake and Snowdrift.

O P É R A T I O N M O R N I N G L I G H T

FICHE DE RENSEIGNEMENTS GÉNÉRAUX

CONTRIBUTION DES MINISTÈRES ET AGENCES SUIVANTS

Ministère de la défense nationale

Ministère de l'énergie, mines et ressources

- Commission de contrôle de l'énergie atomique

- Commission géologique du Canada

Ministère des affaires extérieures

Ministère du solliciteur général

- GRC

*English copy
to "P" Dir.
and DCI
and copy to
29/3/78*

DONNÉES DU MDN - FICHE DE RENSEIGNEMENTS GÉNÉRAUX

RÉVISÉ LE 24 FÉVRIER 1978

ACTIVITÉS DU MINISTÈRE DE LA DÉFENSE NATIONALE - OPÉRATION MORNINGLIGHT

Nota: Toutes les heures indiquées correspondent aux fuseaux horaires des régions où les événements se sont produits. L'heure d'Ottawa est fournie entre parenthèses: par exemple, 19 h, heure normale des Montagnes (21 h).

Responsabilités

Le gouvernement canadien dirige l'OPÉRATION MORNING LIGHT, à laquelle les États-Unis apportent une contribution précieuse. La conduite de toutes les opérations, y compris les activités auxquelles participent les forces américaines et canadiennes, incombe au colonel David Garland des Forces canadiennes. Le lieutenant-colonel Stu McGowan a été nommé commandant des opérations, à Wardens Grove.

Le 24 janvier 1978

Le satellite soviétique Cosmos 954 fait sa rentrée dans l'atmosphère à 03 h 53, heure normale du Pacifique (06 h 53), au nord de la région des Isles de la Reine Charlotte sur la côte canadienne du Pacifique. Après une période de combustion d'environ trois minutes pendant la rentrée, des débris du satellite s'écrasent dans les Territoires du Nord-Ouest entre le Grand Lac des Esclaves (62°30'N 114°0) et Baker Lake (64°30'N 96°0).

À 09 h 10, heure normale de l'Est (09 h 10), les autorités américaines du Department of Energy s'informent auprès du ministère canadien de la Défense nationale pour savoir quelle assistance elles pourraient fournir au Canada. Après discussions, on convient que des avions de transport C141 de l'Aviation américaine (USAF) seraient chargés de livrer à Edmonton des appareils de détection de rayons gamma, et que ceux-ci seraient ensuite installés à bord d'avions canadiens Hercules CCL30. À la demande du gouvernement canadien, des aéronefs américains ont effectué, le matin, des vols à haute altitude pour dépister des sources possibles de rayons gamma au-dessus de l'Alberta et de la Saskatchewan. Aucune radiation de cette nature n'a été détectée.

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A 17 h 38, heure normale des Montagnes (19 h 38), l'équipement de détection de rayons gamma arrive à destination à bord d'avions C141 de l'Aviation américaine. Quatre avions canadiens Hercules CC130 se trouvent alors sur les lieux afin d'y recevoir l'équipement. Dans l'intervalle, la section de dépistage de la radioactivité de l'équipe de soutien des accidents nucléaires, à Edmonton, arrive à Yellowknife (T.N.-O.).

Le 25 janvier

En début de journée, l'équipement de dépistage de la radioactivité est installé à bord des Hercules et trois aéronefs entreprennent des missions de dépistage le long de la trajectoire suivie par le satellite, entre Fort Reliance, tout près de l'extrémité nord-est du Grand Lac des Esclaves, et Baker Lake, à quelque 500 milles au nord-est. À 10 h, heure normale de l'Est, des aéronefs de l'Aviation américaine entreprennent une deuxième mission de dépistage au-dessus du Michigan et du nord de l'Ontario. Les résultats ne révèlent aucune augmentation anormale de radioactivité.

Au cours de la journée, la section de dépistage de la radioactivité effectue des missions de recherche au sol dans les régions de Yellowknife et de Fort Reliance. Les résultats obtenus n'indiquent aucun niveau de rayonnement anormal.

Les 26 et 27 janvier

Au cours de ces deux jours, les missions de dépistage se poursuivent sans que l'on récupère de débris. Le 26 janvier, la section de dépistage de la radioactivité se rend par avion dans la région de Baker Lake pour y effectuer des missions de recherche au sol. On ne relève aucune augmentation anormale du niveau de rayonnement. Au cours de la même journée, l'équipement canadien de détection de radiations fourni par le ministère de l'Énergie, des Mines et des Ressources arrive à Edmonton et est installé à bord d'un avion Hercules. Les missions aériennes de dépistage qui se sont déroulées pendant les deux jours ont nécessité la participation de 12 aéronefs dont 11 de l'Aviation canadienne: trois Hercules CC130, trois

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Twin Otter CCL38, trois hélicoptères Twin Huey CCL35, un hélicoptère de transport lourd Chinook CH147 et un appareil Convair, muni d'équipement infrarouge et fourni par le U.S. Department of Energy. Le 27 janvier, le premier point chaud de radiation est repéré par l'équipement canadien de détection de radiations dans la région de la baie McLeod, au nord de Fort Reliance, à l'extrémité nord-est du Grand Lac des Esclaves.

Le 28 janvier

Au cours de la matinée, les avions de recherche détectent trois points chauds de radiation dans la région de la baie McLeod, dont deux sont plus tard confirmés comme étant des débris du satellite. En fin d'après-midi, on apprend que deux hommes, appartenant à une équipe de six membres et se trouvant dans la région de Wardens Grove, à quelque 200 milles au nord-est de Fort Reliance, ont trouvé et touché un objet reposant sur la glace de la rivière Thelon. Les six hommes sont ensuite évacués de la région de Wardens Grove et amenés à Yellowknife et Edmonton pour y subir des tests de radiation. Les résultats ont révélé qu'aucun d'entre eux n'avait été atteint par la radioactivité.

Les 29 et 30 janvier 1978

On affecte deux Argus CP 107, dont l'un muni d'un équipement de photographie aérienne, aux opérations de recherche. Des membres de la G.R.C. gardent les débris de la baie McLeod et les Forces canadiennes gardent ceux trouvés près de Wardens Grove.

Le 31 janvier 1978

Les recherches se concentrent maintenant sur les régions de la baie McLeod et de Fort Reliance; 15 avions y participent, dont 14 appareils canadiens. A bord des Argus et des Hercules, on utilise quatre appareils de détection de radiations, soit trois américains et un du ministère canadien de l'Energie, des Mines et des Ressources. On transporte les débris de la baie McLeod à Yellowknife, aux fins d'analyse. Des échantillons des débris trouvés dans la rivière Thelon sont envoyés à Edmonton, dans des contenants spéciaux, afin que la Commission de contrôle de l'énergie atomique les analyse. Deux membres de la G.R.C. se joignent aux quatre militaires des Forces canadiennes détachés à Warden Grove.

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Le 1^{er} février

Au 1^{er} février, les avions ont détecté de nombreux points chauds de radiation dans la région de la baie McLeod, points que les équipes au sol ont isolés. On continue à expédier les débris à Yellowknife et à nettoyer les points d'impact exposés à un niveau de rayonnement inférieur à 100 micro rads/heure.

Les 2 et 3 février

Le 2 février, il est évident que la majorité des débris du satellite sont tombés dans les régions de la baie McLeod et de Wardens Grove, que certains ont fait impact entre ces deux régions, et que d'autres enfin se sont écrasés entre Wardens Grove et Baker Lake. Un seul morceau des débris est suffisamment radioactif pour nécessiter l'utilisation de techniques spéciales. L'Université de l'Alberta construit un contenant en plomb, pour y mettre le débris, et l'envoie sur place par avion.

On continue les recherches aériennes en suivant la trajectoire d'écrasement des débris, et les équipes au sol marquent les points d'impact.

Les 4 et 5 février

Au cours de la fin de semaine, on aménage un camp central à Wardens Grove, et les recherches aériennes s'intensifient. On isole les nouveaux points d'impact dans les régions de la baie McLeod et de Wardens Grove. On expédie à Edmonton dans le contenant spécial en plomb construit à cet effet, le morceau très radioactif trouvé dans la glace de McLeod May. On poursuit les opérations de nettoyage des autres endroits où il y a eu des impacts.

Jusqu'ici, quelque 250 membres des Forces canadiennes et environ 115 militaires américains ont directement participé à cette opération. Les avions ont déjà effectué plus de 700 heures de vol.

Le 6 février

On suspend les recherches. On continue toutefois d'aménager le camp central à Wardens Grove de façon à pouvoir commencer les opérations de récupération et de nettoyage dans cette zone. Un Hercules parachute à basse altitude d'un bulldozer ainsi que d'autre équipement. Ce bulldozer sert à l'aménagement d'une piste d'atterrissage.

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Le 7 février

Le 7 février 1978, 24 personnes se trouvent au camp central de Wardens Grove (maintenant appelé Cosmos Lake) pour y aménager le camp et la piste d'atterrissage. Le Convair américain retourne aux Etats-Unis et les Argus ne participent plus aux recherches.

On intensifie les recherches pour trouver d'autres débris dans les régions de Fort Reliance et de la baie McLeod, à l'aide de l'équipement et du personnel de Yellowknife. Dès que cette étape sera terminée, on poursuivra les recherches dans la région de Wardens Grove en se servant du camp central de Cosmos Lake comme base d'opérations.

Les 8 et 9 février

Au cours de ces deux journées, on poursuit l'aménagement de la piste d'atterrissage de Cosmos Lake et du camp central de Garland, situé à quelque cent mètres au sud de Cosmos Lake. Des Hercules apportent du carburant, du ravitaillement et parachutent un autre bulldozer à basse altitude.

Un Hercule détecte également six nouveaux points chauds de radiation au nord de Fort Reliance.

Les 10, 11 et 12 février

Le 10 février et au cours de la fin de semaine, les avions effectuent presque 100 heures de vol, ce qui porte à un total de 1100 heures de vol. Douze avions canadiens poursuivent les recherches. La piste d'atterrissage de Cosmos Lake mesure 3 000 pieds et les Hercules peuvent maintenant y atterrir. On rassemble tous les débris radioactifs trouvés et on les transporte d'Edmonton, aux fins d'analyses plus poussées, au Centre de recherches nucléaires de Whiteshell, qui relève de l'Energie atomique du Canada Limitée à Pinawa, Manitoba.

Les 13, 14, 15 et 16 février 1978

Au cours de la semaine du 13 février, on continue les opérations de recherche, de localisation et de récupération des débris du satellite dans la région située au nord-est du Grand lac des Esclaves. Le 14 février, une équipe de la CCEA, accompagnée du chef de la tribu de Snowdrift, petite

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communauté située sur les rives du Grand lac des Esclaves à l'ouest de Fort Reliance, établit un levé radiologique qui n'indique aucune contamination tant chez la population que dans les immeubles.

Le 14 février, le premier avion à voilure fixe, un Twin Otter, atterrit sur la piste d'atterrissage de 4 900 pieds aménagée sur Cosmos Lake. Le 15 février, un avion de type Buffalo effectue le deuxième atterrissage. Au cours de la même journée, on transporte à Cosmos Lake l'équipe de recherche et de levé canado-américaine, constituée de 21 personnes, à bord d'hélicoptères Chinook et Twin Otter et d'avions Buffalo. Un avion de type Hercules parachute à basse altitude un abris pneumatique pour avions, des tentes et des motoneiges en utilisant une fois de plus le système d'extraction.

Le 16 février, le premier Hercules chargé de 20 000 livres d'approvisionnement atterrit avec succès sur la piste d'atterrissage de Cosmos Lake.

les 17, 18, 19 et 20 février 1978

On poursuit les opérations à bord d'hélicoptères Twin Huey dans les régions de Snowdrift et de Fort Reliance enfin de récupérer les douzaines de particules.

Au 20 février, le personnel affecté à Cosmos Lake comprend 54 personnes dont 38 membres des Forces canadiennes, un civil canadien et 15 civils américains. Quatorze avions participent alors aux opérations. Les avions militaires canadiens ont effectué environ 1 560 heures de vol.

les 21 et 22 février

Le 21 février, on concentre les activités dans trois régions: Snowdrift, Fort Reliance et Cosmos Lake. Des hélicoptères Twin Huey dotés d'appareils de détection effectuent des vols au sud et à l'est de Snowdrift afin de déterminer l'étendue des particules radioactives dispersées au sud de la trajectoire du satellite. La taille de ces particules varie de celle du poids à celle du grain de sel. Le 22 février, on effectue le même genre de vol au nord et à l'est de Fort Smith.

Le 22 février, l'équipe affectée à Cosmos Lake retrouve et retire le débris que des résidents de Wardens Grove avaient trouvé dans la glace de la rivière Thelon le 28 janvier.

les 23 et 24 février 1978

Le 23 février, les deux hélicoptères Twin Huey réussissent à délimiter de façon plus précise la zone de faible contamination résultant de la

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dispersion des particules dans la partie ouest de la zone de recherches. On établit les limites approximatives au nord, à l'est et au sud. La limite nord suit la trajectoire du satellite, la limite est va de Fort Reliance jusqu'à environ 30 milles au nord de Fort Smith et la limite sud trace une ligne qui va de l'est jusqu'à un point indéterminé de la limite ouest. Le 24 février, les hélicoptères tentent d'établir la limite ouest.

On ne découvre aucune contamination radioactive à Fort Smith. Le 24 février, la section de détection de la radiation entreprend le levé de la région de Fort Resolution et des camps de chasse environnants. Au 24 février, en début de journée, les avions militaires des Forces canadiennes ont effectué environ 1 830 heures de vol.

du 28 février au 3 mars 1978

Les autorités compétentes de la Commission de contrôle de l'énergie atomique (CCEA), de Santé et Bien-être Canada et d'Environnement Canada font part de leurs opinions voulant que les personnes qui vivent dans la région où les débris du satellite se sont écrasés ne doivent pas se préoccuper de changer leurs habitudes ou leurs loisirs.

Le personnel des Forces canadiennes et de la CCEA participe de façon active aux opérations de récupération de petites particules détectables dans les environs de Snowdrift, Pine Point et Fort Resolution. Très petites, ces particules ont rapidement perdu de leur vitesse et, sous l'influence du vent qui soufflait vers le nord, elles ont été dispersées çà et là au-dessus d'une très grande région. On en a trouvées très loin à l'ouest, près de Hay River et au sud, près du lac Buffalo. On a constaté que ces particules n'avaient guère augmenté le rayonnement radioactif naturel. On décide toutefois de nettoyer les environs de ces villes afin d'éviter toute contamination ou ingestion provenant de l'eau à la fonte des neiges, qui pourraient être dangereuses pour la santé.

On trouve, dans cette partie du Canada, des roches contenant de l'uranium et du thorium. C'est la raison pour laquelle le rayonnement radioactif naturel peut, à certains endroits, être plus élevé que les chiffres établis. Le rayonnement radioactif naturel sur la terre dans cette région est en général d'environ 7 à 10 microR/heure. A ce niveau, les instruments de recherche sont assez sensibles pour détecter une augmentation de l'ordre de 2 microR/heure. La radiation au-dessus des lacs est environ la moitié de celle sur terre.

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Les particules ne se sont pas écrasées les unes près des autres; elles ont été éparpillées çà et là, souvent très éloignées les unes des autres. A Snowdrift, par exemple, on en a retrouvées six éloignées d'environ 200 pieds les unes des autres. On peut donc facilement nettoyer les villes ou les endroits où l'on s'attend à ce que les gens se rassemblent.

le 7 mars 1978

On poursuit les recherches afin de retrouver des particules dans les régions du lac La Prise et du lac de l'Artillerie et l'on entreprend l'établissement du levé de Hay River. On met en place un nouveau système de communication entre Edmonton et Cosmos Lake.

le 8 mars 1978

On termine les opérations de nettoyage dans les régions du lac La Prise et du lac de l'artillerie. On a presque fini d'établir le levé de Hay River et l'on a récupéré toutes les particules détectées. Un avion de type Hercules et deux hélicoptères de type Twin Huey poursuivent les recherches dans la région entre Yellowknife et le lac La Prise. Pendant ce temps, un avion de type Argus, de Sommerside, finit de survoler environ 750 milles dans les environs de Cosmos Lake et de prendre des photographies sur une échelle de 1:20 000 devant servir à l'établissement de mosaïques.

les 9, 10, 11, 12 et 13 mars 1978

L'hélicoptère Twin Huey poursuit les recherches dans la région du lac Hanbury et en commence d'autres dans la région à l'est de Yellowknife. On a maintenant terminé de survoler la région à l'est de Cosmos Lake.

Le 10 mars à 16 h (18 h) heure des Montagnes, la Gendarmerie Royale du Canada de Cape Dorset avise Edmonton qu'un Inuit de 25 ans a découvert un trou dans un lac sans nom situé au nord-ouest de Cape Dorset. La Gendarmerie Royale avise également les résidents de ne pas aller dans cette région.

Le 11 mars, une équipe composée de membres des Forces canadiennes, de la CCEA et d'Américains arrive à la baie Frobisher à bord d'un Hercules. Un Twin Otter de la GRC les amène à Cape Dorset d'où ils prennent des motoneiges pour se rendre au lac. A l'arrivée, ils découvrent que le cratère mesure environ 18 pieds de diamètre. Des morceaux de glace avaient été projetés à plus de 75 pieds du trou. Le plus gros morceau mesurait 18' X 10' X 2'. La glace avait environ 5 pieds d'épaisseur et le lac, environ 15 pieds de profondeur. On ne détecte aucune source de radiation.

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Le 13 mars, on démonte un Twin Huey et on l'expédie à la baie Frobisher a bord d'un Hercules. Le Twin Huey est mis à la disposition du personnel scientifique, à Cape Dorset. On charge le Commandement maritime de fournir des caméras sous-marines ainsi que des opérateurs à Cape Dorset. On les envoie aussitôt qu'on les a embauchés.

le 14 mars 1978

On a terminé le levé aérien de la région du lac Hanbury et l'on poursuit le levé aérien et les opérations de recherche dans la région située au sud de Yellowknife. Afin de déterminer la répartition des particules dans les régions déboisées autour du grand lac des Esclaves, on choisit dix endroits précis et l'on prélève vingt échantillons de chacun. On analyse ensuite les échantillons afin de déterminer la répartition des particules.

On termine la vérification des réservoirs à eau et des filtres de prise d'eau de Pine Point. On ne découvre aucune contamination.

le 15 mars 1978

Le Twin Huey arrive à Cape Dorset et effectue un court vol de reconnaissance au-dessus du cratère.

le 16 mars 1978

La caméra de télévision sous-marine et trois membres d'équipage arrivent à Cape Dorset. Ils établissent un campement près du cratère et, après avoir déterminé les caractéristiques physiques de la glace, ils préparent la surface avant d'introduire les appareils sous-marins de détection. Au 16 mars, en début de journée, les Forces canadiennes avaient effectué environ 3 402 heures de vol au total.

RÉDIGÉ PAR CAPT S. B. BURTON, 995-5996

DONNÉES DU CCEA - FICHE DE RENSEIGNEMENTS GÉNÉRAUX

17 Février 1978

ACTIVITIES DU CCEA - OPERATION MORNINGLIGHT

Renseignements de base

La Commission de contrôle de l'énergie atomique (CCEA) représente le pouvoir réglementaire fédéral établi dans le but d'assurer la protection des Canadiens dans les domaines de la santé, de la sûreté et de la sécurité en ce qui se rattache à tous les aspects de l'énergie nucléaire. A ce titre, la Commission joue un rôle de conseiller technique principal chargé de récupérer, de garder, de transporter et d'analyser en laboratoire tout débris radioactif provenant du satellite nucléaire Cosmos 954.

La Commission agit également à titre de conseiller technique au ministère des Affaires extérieures en ce qui touche les négociations relatives à cette affaire en cours présentement avec l'Union soviétique aux Nations-Unis.

Travaillant en étroite collaboration avec le ministère de la Défense nationale, la Commission géologique du Canada et un groupe d'experts techniques américains, diverses équipes de spécialistes de la CCEA se sont engagés à identifier et récupérer les morceaux du satellite découverts au moyen de recherches aériennes.

Les échantillons récupérés sont par la suite envoyés à l'établissement de recherche nucléaire de Whiteshell (ERNW) situé à Pinawa au Manitoba. Ce laboratoire, administré par l'Energie atomique du Canada Limitée, possède tous les appareils requis pour analyser les échantillons trouvés et les installations nécessaires à la gestion et à l'emmagasinement des déchets jusqu'à ce qu'une décision finale soit prise concernant leur destination ultime.

Dans les cas où il était possible d'emballer les échantillons de façon à respecter les règlements régissant le transport aérien de marchandises dangereuses, l'expédition des déchets s'est effectuée par l'entremise de lignes aériennes commerciales; dans les autres cas, les échantillons étaient expédiés régulièrement à bord d'avions des forces armées canadiennes.

A Whiteshell, les échantillons subissaient des analyses métallurgique, chimique, radiologique et autres et les résultats étaient communiqués à la Commission pour y être examinés avant d'être retransmis aux organismes appropriés.

Les résultats de ces analyses aideront ensuite les chercheurs dans leurs travaux de détection. Ainsi, l'un des buts de ces analyses est de tenter de déterminer l'origine de chaque morceau en rapport avec l'engin original. La découverte de tout objet ayant fait partie ou s'étant trouvé près de la source d'énergie extrêmement radioactive du satellite revêt d'ailleurs une importance particulière. En effet, l'endroit de la découverte d'un tel objet représenterait un indice précieux pouvant aider les chercheurs à localiser la portion la plus dangereuse du satellite, c'est-à-dire le noyau de son réacteur où se trouvent le combustible et les produits de fission; cette possibilité présupposerait que le réacteur ne se serait pas consumé entièrement lors de son entrée en atmosphère terrestre.

Quant aux suppositions relatives au type de combustible probable utilisé dans le satellite Cosmos 954, il est fortement possible que ce combustible se soit entièrement ou en grande partie consumé, sans toutefois que les alliages utilisés dans les autres parties de l'engin n'aient brûlés complètement, en raison de leur point de fusion élevé.

Lorsque la Commission aura reçu les rapports de l'établissement de Whiteshell, elle sera en mesure de déterminer le besoin et l'étendue des mesures correctives ou des travaux de décontamination supplémentaires effectués dans le but de protéger à la fois la santé du public en général et l'environnement.

Pour de plus amples renseignements prière de communiquer avec

Hugh J.M. Spence
Chef,
Bureau d'information publique
(613) 992-9206

DONNEES D'EMR POUR L'EXPOSÉ GÉNÉRAL

le 15 mars 1978

ACTIVITES D'ENERGIE, MINES ET RESSOURCES - OPERATION MORNINGLIGHT

La participation de la Commission géologique du Canada

A 10 h, le 24 janvier 1978, la Commission de contrôle de l'énergie atomique prévenait la Commission géologique du Canada (CGC) de la rentrée dans l'atmosphère du satellite soviétique Cosmos 954 au-dessus du territoire canadien. La CGC constitue le plus grand centre de recherches et de mise au point de dispositifs aéroportés de mesure de la radioactivité. A ce titre, elle dispose de ses propres avions dotés de tout l'équipement essentiel tout en exécutant des contrats que lui accordent des compagnies de services canadiennes. On a immédiatement détaché un scientifique à Edmonton. Son arrivée coïncide avec celle de l'équipe américaine. On a pris des dispositions afin que le spectromètre à rayons gamma aéroporté de la Commission géologique soit envoyé à Edmonton. On l'installa à bord d'un Hercules C-130 des Forces canadiennes et il est mis en marche 24 heures après les systèmes américains. Le spectromètre canadien, qui a été mis au point en septembre 1977, est plus sensible que les systèmes américains utilisés lors des recherches et il est autonome en ce qui a trait à son aptitude à analyser les spectres de radiation. Les systèmes américains dépendent du traitement informatique des données après le vol. Au cours du deuxième vol, tôt le 27 janvier, l'équipement canadien a fourni les premières preuves irréfutables de l'existence de débris radioactifs. Le système est en marche depuis lors et il s'est avéré supérieur aux systèmes américains pour ce qui est de la sensibilité, de la polyvalence et de la fiabilité. On est actuellement à le rendre compatible avec le système de télédétection à hyperfréquence qui fait partie de l'équipement aéroporté de navigation dont le MDN a fait l'acquisition. Trois scientifiques spécialisés en recherches et six techniciens de la Commission géologique ont participé à la mise en marche de cet équipement. On a dû retenir les services d'un homme de science et de trois techniciens tant que ce dispositif est utilisé dans le cadre des opérations de recherches. Il a également fallu demander de l'aide scientifique et technique supplémentaire afin de rendre le système compatible avec les systèmes de navigation à bord de l'avion militaire.

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La CGC prend actuellement les dispositions nécessaires afin d'obtenir, par le biais des entrepreneurs canadiens, des spectromètres à rayons gamma aéroportés supplémentaires destinés à être placés à bord des hélicoptères des Forces canadiennes. Ces appareils supplémentaires remplaceront l'équipement américain dont on se sert actuellement pour la recherche et la récupération plus poussées de débris radioactifs.

La CGC a chargé un homme de sciences et un technicien munis d'appareils de diagraphie à neutrons de se joindre à l'équipe de reconnaissance afin d'inspecter la région de Wardens Grove. En effet, on craignait que des morceaux du centre du réacteur ne soient pris sous la glace de la rivière Thelon. On n'a pas eu recours à l'équipement spécialisé. Par contre, le personnel de la CGC, qui possède une bonne expérience du travail scientifique effectué dans les conditions qui prévalent dans l'Arctique, a prêté main forte lors des opérations.

Le 1^{er} mars 1978, on a entrepris le levé de la région à l'ouest de Snowdrift au moyen du spectromètre à rayons gamma de la Commission géologique du Canada ainsi que du système de télédétection à hyperfréquence de l'équipement de navigation du MDN. Lors du premier vol, on enregistra un secteur de haute radioactivité. On y détacha des équipes de récupération qui trouvèrent deux tiges de béryllium. Le système de la CGC fonctionne sans cesse depuis le 1^{er} mars, à l'exception de deux jours (un jour en raison d'un avion inutilisable et un autre parce que l'on avait perdu l'antenne du système de télédétection à hyperfréquence). Le 14 mars, on a terminé les levés des régions situées au sud et à l'ouest de Snowdrift et de la Baie Christie et l'on a détecté plusieurs autres secteurs de haute radioactivité. Le 15 mars, on fait l'entretien du spectromètre. On entreprend des travaux dans la région située entre la Baie McLeod et le lac de l'Artillerie le 16 mars. La région visée par les systèmes de télédétection à hyperfréquence sur place est agrandie d'environ 5 kilomètres vers le nord et vers le sud. Le 14 mars, le système de télédétection à hyperfréquence américain termine le levé de la région à l'est du lac de l'Artillerie. Les recherches effectuées à l'aide de systèmes de télédétection à hyperfréquence relèvent, par la suite, uniquement du gouvernement canadien.

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La CGC a mis sur pied un système informatique à la BFC Edmonton afin de traiter, après les vols, les bandes de données recueillies par le spectromètre et de déterminer les points à taux élevé de radiation et les trajectoires de vol de récupération.

L'équipe de la CGC qui participait aux opérations de recherches à l'aide du système de télédétection à hyperfréquence comprenait un scientifique chargé de la supervision, trois opérateurs de spectromètre aéroporté et deux techniciens d'analyse des données.

Deux des trois hélicoptères munis de spectromètres ont maintenant à bord des instruments et des opérateurs canadiens. L'équipe affectée aux opérations à bord des hélicoptères comprend actuellement un homme de sciences de la CGC et trois techniciens-entrepreneurs.

Le 3 mars, le MDN prend en charge le premier spectromètre McPhar à Toronto et le transporte à Edmonton afin qu'il soit installé à bord d'un CH135. Le 6 mars, on procède à un vol d'essai à Edmonton et on l'expédie à Cosmos Lake le 7 mars. Le 12 mars, on transporte le deuxième système McPhar à Yellowknife, qui sera placé à bord d'un CH135 et mis en marche le 15 mars. Le troisième spectromètre pour hélicoptère devrait être livré par Scintrex le 19 mars. L'Université de l'Alberta a mis sur pied les opérations de traitement des bandes de données recueillies par les spectromètres à bord des hélicoptères.

DONNÉES DU MAE - FICHE DE RENSEIGNEMENTS GÉNÉRAUX

16 Février 1978

ACTIVITIÉS DU MINISTÈRE DES AFFAIRES EXTÉRIEURES

Les contacts entre le Canada et l'URSS à ce sujet

Le Gouvernement du Canada entretient des relations étroites avec les autorités soviétiques à cet égard depuis le 24 janvier. L'URSS a fourni sur les caractéristiques techniques du satellite certaines données qui pourraient nous aider dans notre recherche de débris radio-actifs. Nous avons demandé d'autres renseignements. L'URSS a également proposé d'envoyer des techniciens qui participeraient à la recherche des débris de l'engin spatial; pour le moment, il n'a pas encore été nécessaire de faire appel à leurs services.

Conformément à ses obligations en vertu de l'article 5 de l'Accord de 1968 sur le sauvetage des astronautes, le retour des astronautes et la restitution des objets lancés dans l'espace extra-atmosphérique, le Canada a officiellement avisé le secrétaire général des Nations Unies et le Gouvernement de l'Union soviétique le 8 février 1978 de la découverte sur le territoire du Canada de pièces d'un engin spatial, sans doute le Cosmos 954. Dans sa déclaration du 14 février aux Nations Unies, un représentant soviétique a reconnu que les Canadiens avaient correctement décrit la rentrée du satellite et annoncé que l'URSS rembourserait le Canada de tout dommage subi, conformément à ses obligations en vertu du droit international. Comme les opérations de recherche et de récupération se poursuivent, le Canada n'a pas encore présenté de réclamation.

La réaction aux Nations Unies

Le 13 février, le Canada a soulevé au sous-comité scientifique et technique du Comité spécial des Nations Unies de l'utilisation pacifique de l'espace extra-atmosphérique la question des répercussions internationales de l'incident concernant le Cosmos. Dans sa déclaration, l'ambassadeur du Canada aux Nations Unies a déclaré que l'objectif général est la mise au point d'un régime visant l'utilisation de sources d'énergie nucléaire dans l'espace extra-atmosphérique qui assurera la plus grande sécurité possible pour l'homme et la meilleure protection possible du milieu. Un grand nombre de pays membres des Nations Unies appuient le Canada dans la poursuite de cet objectif.

ACTIVITÉS DU MINISTÈRE DU SOLLICITEUR GÉNÉRAL

OPÉRATION AURORE (MORNING LIGHT)

RESPONSABILITÉS

1. Le ministère de la Défense nationale assure la coordination générale des recherches entreprises en vue de retrouver les débris radioactifs du satellite soviétique Cosmos 954 qui s'est abattu dans la région située entre le Grand lac des Esclaves et le Lac Baker dans les Territoires du Nord-Ouest. Les responsabilités du ministère du Solliciteur général dans le cadre de cette opération sont les suivantes:

- a. veiller à ce que les représentants de la presse et le public en général ne soient pas exposés à la contamination par des débris radioactifs en assurant la présence de la GRC à chacun des points de chute d'accès facile.
- b. organiser des patrouilles qui demanderont aux personnes habitant dans des endroits isolés de se tenir à l'écart des zones touchées.

La GRC et le personnel militaire se tiennent en liaison constante afin d'assurer la présence de membres de la Gendarmerie chaque fois qu'un nouveau point de chute est découvert.

OBSERVATIONS GÉNÉRALES

2. Les rapports qui proviennent des détachements de la GRC en poste dans cette région indiquent que le public a fait peu de cas de l'incident sauf à Snowdrift, localité située près du point de chute de Fort Reliance, où l'on s'est montré quelque peu alarmé au début. Cependant, une visite spéciale effectuée à cet endroit par des représentants des forces armées et des spécialistes en radioprotection a permis de calmer les craintes manifestées. Les membres de la GRC en poste à chacun des sites où l'on a découvert des débris n'ont rencontré aucune personne non autorisée au cours de leurs inspections.

PARTICIPATION FUTURE

3. On prévoit qu'il sera nécessaire d'assurer la présence de la GRC à chacun des points de chute jusqu'à ce que l'opération de récupération des débris soit terminée. Il n'est donc pas possible de prévoir, pour le moment, l'importance des ressources qui seront nécessaires puisque cela dépendra de facteurs comme le nombre de points de chute découverts et leur éloignement.

4. On croit également que les autochtones et autres résidents de la région chercheront à être rassurés par la GRC chaque fois qu'ils découvriront des fragments de métal, des débris divers ou même des poissons ou autres animaux qu'ils croiront contaminés. La Commission de contrôle de l'Énergie atomique du Canada a offert de mettre à la disposition des détachements de Baker Lake et de Snowdrift le matériel de détection nécessaire.



Indian and
Northern Affairs

Affaires indiennes
et du Nord

Ottawa, Ontario

K1A 0H4

March 22, 1978

BY HAND

CARDING DATE

Your file Votre référence

Our file Notre référence

NO RECORD

MAR 28

OPS. FILE

Inspector D. Chiarot
RCMP Headquarters
1200 Alta Vista Drive
Ottawa

CARDED - 1

Dear Inspector Chiarot:

Use of Alarm Dosimeters North of 60°

This note is simply to confirm our telephone conversation of yesterday, and clear up any misunderstanding regarding the distribution of radioactivity detection instruments North of 60°.

We feel that under no circumstances should alarm dosimeters be made available to civilians - to do so would only serve to create unwarranted alarm and misinformation, both in the North and elsewhere.

We strongly support the placing of instrumentation in RCMP detachments, with training on its use, which could serve to carry out a first examination of any unusual items or occurrence that might be reported.

We have outlined this position with AECSB, and I enclose for your ready reference copy of a letter from W.K. Gummer confirming this.

We are anxious to assist the RCMP in any way possible in this matter and are grateful for your continuing help - one of the ways in which the examination capability which will exist in your detachments can be made known might be through the descriptive brochure we are preparing (copy of record memo attached).

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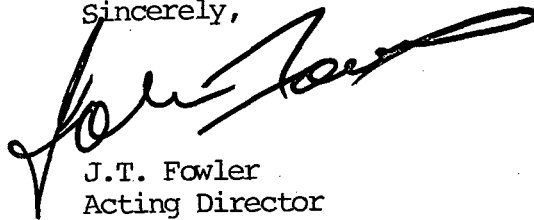
*Copy made
to Mr. Gummer
201
by hand
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- 2 -

I should also request that, to avoid any possible future misunderstanding, any decisions regarding the use of alarm dosimeters North of 60 should be approved through the office of my Director, Mr. A.E. Belcourt, Department of Indian and Northern Affairs, Ottawa K1A 0H4.

Thank you again for your help.

Sincerely,



J.T. Fowler
Acting Director
Public Communications and
Parliamentary Relations Branch

JTF:aad

lc
Encs:

cc: W.K. Gummer, AECSB
E. Kriegler, DINA
K. Kelly



Atomic Energy
Control Board

Commission de contrôle
de l'énergie atomique

PLANNING AND ADMINISTRATION
BRANCH

Your file Votre référence

Our file Notre référence

15-200-24-0-0

March 20, 1978

J. Fowler
Policy, Research & Evaluation Branch
Public Communications & Parliamentary
Relations Division
Department of Indian & Northern Affairs
Centennial Tower
400 Laurier Avenue West
Ottawa, Ontario
K1A 0H4

Dear Dr. Fowler:

This is just to confirm our telephone conversation of the other day concerning the use of dosimeters by RCMP and others.

You stated that in your opinion alarm dosimeters should not be placed in civilian hands. You agreed that RCMP detachments should be equipped and given some training in order to be able to carry out a first examination of any unusual items or occurrences that might be reported.

As you no doubt know by now, a similar proposal has been made by the Solicitor General.

Yours truly,

W.K. Gummer, Manager
Planning and Coordination
Division

WKG/mh

P.O. Box 1046
Ottawa, Canada
K1P 5S9

C.P. 1046
Ottawa, Canada
K1P 5S9



March 16, 1978.

Mr. A.E. Belcourt
Director,
Public Communications and
Parliamentary Relations Branch.

Your file Votre référence

Our file Notre référence

RE: PUBLIC INFORMATION NORTH OF 60, COSMOS

As agreed, we are developing a basic printed document to serve as the centrepiece of our public information program North of 60. This memo is to record the estimated time of completion, and various sources of input and approvals necessary.

Input will be required from:


AECB (Received)-	W.R. Bush
DFE	- Dr. H. Rothschild
DINA	- J. Fowler, E. Watt
H & W	- Dr. E. Letourneau (will provide during first week in April)

Erik Watt is investigating the possible use of the Yellowknife Raven for cover art. I expect we will be able to find suitable photographs. Hopefully, Art Sorenson of GNWT will be able to assist us with translations and community visits.

I have indicated to Dr. Gummer of AECB that we feel the best continuing solution toward investigating suspicious items is to have some measuring capability in RCMP detachments, and not to distribute warning instruments to civilians.

Both AECB and H & W have indicated willingness to help with community visits when the time comes - at this point that would appear to be not before late April, because of the difficulty in establishing definitive information for the information program.

c.c. W.R. Bush, AECB
Dr. H. Rothschild, DFE
Dr. E. Letourneau, H & W
K. Kelly, DINA
A. Sorenson, GNWT, Yellowknife
H. Spence, AECB
Col. J. Boulet, DND
E. Watt, DINA, Yellowknife
Dr. R. Morrison, DINA;
Inspector D. Charot


John T. Fowler
Chief, Audio-visual & Displays,
Public Communications and
Parliamentary Relations Branch

NOTE TO FILE:

John FOWLER of Northern Development called to state he did not feel our issuing of dosimeters to people noted in the Bourne's letter of 15 March 1978 was intent of Sub-Committee decision but that we would only have one available should people come in to be checked and at most we would allow officials to have them. He was going to talk to Gummer and get back to me. Did not call up to 23/3 and I advised Ansel.

Yellowknife called. Dore S/Sgt. advised in general terms of above and he will tell Supt. Derek Barker at 873-3488 who may call.

Cape Dorsett - what's happening?

Nothing til July.

Dosimeters - keep out of media - total to Yellowknife

Ansel says there is no publicity planned for dosimeters. Will go through Yellowknife.



Atomic Energy
Control Board

Commission de contrôle
de l'énergie atomique

PLANNING AND ADMINISTRATION
BRANCH

78 HQ-102-15-4.

Your file Votre référence

Our file Notre référence

15-200-24-0-0

March 17, 1978

Mr. Robin Bourne
Assistant Deputy Minister
Ministry of the Solicitor General
Sir Wilfrid Laurier Building
340 Laurier Street West
Ottawa, Ontario

Dear Mr. Bourne:

This is just to acknowledge receipt of your letter of 15 March, 1978 with its clear instructions on the issue of Alarm Dosimeters to RCMP detachments in the Operation Morning Light search area. We will proceed as outlined.

Yours truly,

W.K. Gummer, Manager
Planning and Coordination
Division

WKG/mh

cc: Commissioner ✓
R.C.M.P.
1200 Alta Vista Drive
Ottawa, Ontario

Attention:
Inspector Chiarot
Federal Policing Branch
'C' Directorate

20/3/78

P.O. Box 1046
Ottawa, Canada
K1P 5S9

C.P. 1046
Ottawa, Canada
K1P 5S9

40485

OPERATION MORNINGLIGHT

GENERAL INFORMATION FACT SHEET

CONTRIBUTING DEPARTMENTS AND AGENCIES

Department of National Defence

Department of Energy, Mines and Resources

- Atomic Energy Control Board

- Geological Survey of Canada

Department of External Affairs

Ministry of the Solicitor General

- RCMP

*O/C Security Systems Br.
Jew info
M. S. J. B.*

*O/C SPS
For your info.
J 4/4/78
Jst/4/78. RCMP limited
movement*

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*PP
11/18-05-16
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DND INPUT FOR GENERAL INFORMATION. FACT SHEET

REVISED 17 MAR 78

DEPARTMENT OF NATIONAL DEFENCE ACTIVITIES - OPERATION MORNINGLIGHT

Note: All timings, where included, are given in the time zone where they occurred with Ottawa local time in brackets. e.g. 1900 MST (2100).

Responsibilities

OPERATION MORNINGLIGHT is under Canadian control with the U.S. providing welcome and valuable assistance. The on-scene commander is Canadian Forces Colonel David Garland who is responsible for overall operations including activities of both the U.S. and Canadian personnel. Lieutenant Colonel Stu McGowan has been appointed commander at Wardens Grove.

24 Jan 78

Soviet Cosmos 954 entered the earth's atmosphere at 0353 PST (0653) north of the Queen Charlotte Islands on Canada's Pacific coast. Following approximately a three minute burn period during re-entry, pieces of the satellite impacted in the Northwest Territories between Great Slave Lake (62°30'N 114°W) and Baker Lake (64°30'N 96°W).

At 0910 EST (0910) the U.S. Department of Energy contacted the Canadian Department of National Defence to ask what assistance Canada might require from the U.S. Following discussions it was determined that USAF transport aircraft (C141s) would deliver U.S. gamma radiation detection equipment to Edmonton for installation in Canadian CC130 Hercules aircraft. During the morning U.S. aircraft, on request, also conducted high altitude air sampling flights for gamma radiation.

The gamma radiation detection equipment arrived by USAF C141s at 1738 MST (1938). Four Canadian CC130 Hercules aircraft were standing by for installation of the equipment. Meanwhile, the radiation monitoring section of the Edmonton nuclear accident support team arrived in Yellowknife, NWT.

25 Jan 78

By early morning the radiation monitoring equipment was installed in the Hercules and three aircraft started searching along the satellite track between Fort Reliance, near the northeast end of Great Slave Lake, and Baker Lake, some 500 miles to the northeast. At 1000 EST (1000), U.S. aircraft commenced a second air sampling mission over Michigan and Northern Ontario. Results of these tests also showed no abnormal radiation levels.

- 2 -

During the day the radiation monitoring section conducted ground radiation monitoring in both Yellowknife and Fort Reliance. Results of monitoring also showed no abnormal radiation levels.

26 and 27 Jan 78

The search continued during both days with no conclusive detection of satellite debris. On 26 Jan the radiation monitoring section was flown to Baker Lake where ground monitoring showed no increase in normal radiation levels. Also on 26 Jan, the Canadian radiation monitoring kit from the Department of Energy, Mines and Resources arrived in Edmonton and was installed in a Hercules aircraft. Up to 12 aircraft (11 Canadian) were involved in the search during the two days: three CC130 Hercules, three CC138 Twin Otters, three CC135 Twin Huey helicopters, one CH147 Chinook heavy lift helicopter and one U.S. Department of Energy Convair with infra red equipment. On 27 Jan the first radiation hot spot was detected using the Canadian radiation monitoring kit in the McLeod Bay area north of Fort Reliance in the northeast end of Great Slave Lake.

28 Jan 78

During the morning three radiation hot spots were detected by search aircraft on McLeod Bay. Two of the spots were later confirmed as satellite debris. By late afternoon, it was reported that two men of six in the Wardens Grove area, some 200 miles northeast of Fort Reliance, had discovered and touched an object on the nearby Thelon River ice. All six men from the Wardens Grove area were evacuated for radiation testing at Yellowknife and Edmonton. Tests indicated that none had picked up any radiation.

29 and 30 Jan 78

Two CP 107 Argus aircraft, one equipped for aerial photography, were added to the search. RCMP personnel were guarding the debris on McLeod Bay and Canadian Forces personnel were guarding the debris near Wardens Grove.

31 Jan 78

The search was now concentrated in the McLeod Bay and Fort Reliance areas with a total of 15 aircraft (14 Canadian) involved. The radiation monitoring kits, three from the U.S. and one from the Canadian Department of Energy, Mines and Resources, were all in use in the Argus and Hercules aircraft. The debris from McLeod Bay was taken to Yellowknife for analysis while scrapings from the debris on the Thelon River were taken to Edmonton in special containers for analysis by the Atomic Energy Control Board. Two RCMP constables joined the four Canadian Forces personnel at Wardens Grove.

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- 3 -

1 Feb 78

By 1 Feb a number of radiation hot spots had been detected by air and then isolated by ground parties in the McLeod Bay area. Operations continued in removing the debris to Yellowknife and cleaning up each impact area to a radiation level of less than 100 micro rads/hour.

2 and 3 Feb 78

By 2 Feb it seemed apparent that most of the satellite debris had impacted in the McLeod Bay and Wardens Grove areas with a few impacts between the two and between Wardens Grove and Baker Lake. Only one piece of debris contained enough radioactivity to require very special handling techniques. For this piece a lead container was constructed by the University of Alberta and flown to the site.

Air searching continued along the debris track, with impact areas being marked by ground parties.

4 and 5 Feb 78

Over the weekend preparations were made to establish a base camp at Wardens Grove and air search activity increased. New impact areas were isolated in both the McLeod Bay and Wardens Grove areas. The highly radioactive piece of debris on the McLeod Bay ice was removed to Edmonton in the special lead container. Clean up activity of other impact areas continued.

By the end of the weekend, some 250 Canadian Forces personnel and about 115 U.S. personnel were directly involved in the operation. Aircraft had flown over 700 hours in the search to this point.

6 Feb 78

No searching or localizing activity was carried out but preparations continued with establishing a base camp near Wardens Grove so that recovery and clean-up activity could commence in that area. A Hercules positioned a bulldozer and other supplies in the area using the low altitude parachute extraction system. The bulldozer is being used to construct a landing strip.

7 Feb 78

By 7 Feb 78, 24 personnel were at the base camp (now referred to as Cosmos Lake) near Wardens Grove preparing the camp and airstrip. The U.S. Convair aircraft had returned to the U.S.A. and the Argus aircraft were also released from the search operation.

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- 4 -

Activity will be concentrated in the Fort Reliance-McLeod Bay area to search for and recover any remaining debris with aircraft and personnel working out of Yellowknife. Following this stage, activity will be concentrated in the Wardens Grove area using the new Cosmos Lake camp as a base of operations.

8 and 9 Feb 78

Activity continued on both days in preparing the Cosmos Lake landing strip and establishing a main campsite, Camp Garland, a few hundred meters to the south of Cosmos Lake. Hercules aircraft positioned more fuel, supplies, and another bulldozer, again using the low altitude parachute extraction system.

A Hercules aircraft also located six new radiation hot spots in the area northeast of Fort Reliance.

10, 11, 12 Feb 78

On 10 Feb and during the weekend slightly less than 100 hours were flown, bringing the total aircraft flying hours to over 1100. Twelve aircraft, all Canadian, are still involved in the operation. At Cosmos Lake the landing strip is 3000 feet long and will soon be suitable for landings by Hercules aircraft. All accumulated radioactive material recovered to date is to be moved from Edmonton for further analysis at the Whiteshell Nuclear Research Establishment operated by Atomic Energy of Canada Limited (AECL) at Pinawa, Manitoba.

13, 14, 15, 16 Feb 78

During the week of 13 Feb search, location and recovery of satellite debris continued in the area around the northeast end of Great Slave Lake. On 14 Feb in Snowdrift, a small community on Great Slave Lake west of Fort Reliance, an AECB team, accompanied by the Snowdrift tribal band secretary, conducted a radiological survey which indicated no contamination of any people or buildings.

On 14 Feb the first fixed wing aircraft, a Twin Otter, landed on the 4900 foot ice strip at Cosmos Lake. A Buffalo aircraft made the second landing on 15 Feb. During the day (15 Feb) the 21 person joint Canadian - U.S. search and survey team was moved into Cosmos Lake by Chinook and Twin Huey helicopters and by Buffalo. A Hercules aircraft positioned an inflatable aircraft shelter, tents and snowmobiles onto Cosmos Lake again using the low altitude parachute extraction system.

- 5 -

The first Hercules aircraft, carrying 20,000 pounds of supplies, landed successfully on the Cosmos Lake landing strip on 16 Feb.

17, 18, 19, and 20 Feb 78

Twin Huey helicopter operations continued in the Snowdrift and Fort Reliance areas in an effort to clean up the dozens of minute particles.

By 20 Feb the personnel at Cosmos Lake totalled 54 (38 Canadian Forces, 1 Canadian civilian and 15 U.S. civilians). Fourteen aircraft are presently committed to the operation and the Canadian military flying time totalled approximately 1560 hours.

21, 22 Feb 78

On 21 Feb activity was concentrated in three areas: Snowdrift, Fort Reliance, and Cosmos Lake. Twin Huey helicopters, equipped with radiation detectors, flew missions south and east of Snowdrift to determine the extent of the small radioactive particles dispersed south of the satellite trajectory. These particles range from buckshot to pepper grain in size. Similar missions were flown on 22 Feb to the north and east of Fort Smith.

The debris found on the Thelon River ice by the men from Wardens Grove on 28 Jan was recovered and removed on 22 Feb by the team at Cosmos Lake.

23, 24 Feb 78

On 23 Feb the two Twin Huey helicopters were able to further define the area of low level contamination caused by the small particle dispersion at the western end of the search area. Approximate boundaries were established on the north, east, and south sides. The northern boundary follows the track of the satellite trajectory; the eastern boundary runs from Fort Reliance to a point approximately 30 miles north of Fort Smith; the southern boundary is an east-west line to an as yet undefined western boundary. The helicopters were attempting to establish the western boundary on 24 Feb.

No radioactive contamination has been found in Fort Smith. On 24 Feb the radiation monitoring section was conducting a survey in the area of Fort Resolution and nearby hunting camps. As of early 24 Feb Canadian military flying time totalled approximately 1830 hours.

28 Feb - 3 Mar 78

Atomic Energy Control Board (AECB), Health and Welfare Canada and Environment Canada authorities have reported their opinion that people living in the area where the satellite debris fell should not be concerned about changing their lifestyle or recreation activities.

- 6 -

Canadian Forces and AECB personnel were actively involved in the recovery of small, detectable particles in the townsites of Snowdrift, Pine Point and Fort Resolution. Because of their small size, these particles lost momentum quickly and under the influence of a northerly wind drifted over a wide area in a random fashion. They have been found as far west as near Hay River and as far south as Buffalo Lake. Measurements have shown the particles will not have added significantly to the natural background radiation. Nevertheless, to avoid possible health risks from close contamination and ingestion of particles in water melted from snow, it was agreed that clean-up activities would be conducted in the townsites.

Uranium and thorium-bearing rocks are found in this part of Canada, and the natural background radiation may locally be much higher than the figures given. However, in general, the natural radiation background on land in the area may be about 7 to 10 microR/hour, and the search instruments are sensitive enough to detect an increase of about 2 microR/hour at this level. The background over lakes is about half that on land.

Particles have not been distributed in a dense pattern but are scattered randomly and quite far apart. For example, in Snowdrift six particles were found roughly 200 feet apart. Thus clean-up in towns or wherever crowds of people are expected to congregate is perfectly feasible.

7 Mar 78

The search for particles continued in the areas of Lac La Prise and Artillery Lake, while the survey of Hay River was commenced. A new communications link between Edmonton and Cosmos Lake was established.

8 Mar 78

Clean-up in the area of Lac La Prise and Artillery Lake has been completed, and most of Hay River has been surveyed with all detected particles removed. A Hercules aircraft and two Twin Huey helicopters continued the search in the area between Yellowknife and Lac La Prise, while an Argus aircraft from Summerside completed coverage of approximately 750 miles around Cosmos Lake to provide pictures on a scale of 1:20,000 for the production of mosaics.

9, 10, 11, 12, and 13 Mar 78

Twin Huey helicopter search operations continued in the Hanbury Lake area and were commenced in the area east of Yellowknife. Coverage of the area east of Cosmos Lake is now complete.

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- 7 -

On 10 Mar 1600 MST (1800) the RCMP at Cape Dorset notified Edmonton that a 25 year old Inuit had discovered a hole in the ice of an unnamed lake 25 miles north west of Cape Dorset. The RCMP have also advised local residents to avoid the area.

On 11 Mar a combined team of Canadian Forces, AECB and U.S. personnel were flown by Hercules to Frobisher Bay. An RCMP Twin Otter flew them to Cape Dorset and they then were taken out to the lake by skidoo. On arrival they discovered a crater approximately 18 feet in diameter. Chunks of ice had been thrown as far as 75 feet from the hole, with the largest chunk being 18' X 10' X 2'. The ice thickness is approximately 5 feet and the lake is estimated to be 15 feet ~~thick~~^{deep}. No radiation was detected.

On 13 Mar a Twin Huey was dissassembled for shipment to Frobisher Bay by Hercules. The Twin Huey is to be placed on standby at Cape Dorset for use by the scientific staff.

Maritime Command has been tasked to provide an underwater camera and operators for use at Cape Dorset. They will be despatched as soon as they can be employed.

14 Mar 78

Aerial survey of the Hanbury Lake area has been completed, and both aerial survey and recovery operations are continuing in the area south of Yellowknife. In an attempt to determine particle distribution in cleared areas around Great Slave Lake, ten sites have been selected in which 20 samples will be taken from each site. The samples will then be analysed to determine the particle distribution.

A check of the water reservoirs and intake filters has been completed at Pine Point and no contamination was found.

15 Mar 78

The Twin Huey helicopter arrived in Cape Dorset and a short reconnaissance flight was conducted over the crater site.

16 Mar 78

The underwater TV camera and a three man crew arrived in Cape Dorset. They plan to establish a tented camp at the crater site and after determining the physical characteristics of the ice they will prepare the surface for the introduction of underwater detection equipment. As of early 16 Mar the Canadian military flying time totalled approximately 3,402 hours.

AECB INPUT FOR GENERAL INFORMATION FACT SHEET

17 Feb 78

ATOMIC ENERGY CONTROL BOARD ACTIVITIES - OPERATION MORNINGLIGHT

Background Information

The Atomic Energy Control Board (AECB) is the federal regulatory authority responsible for protecting the health, safety and security of Canadians with regard to all aspects of nuclear energy. As such, in the Cosmos 954 nuclear-powered satellite incident, the AECB is the prime technical consultant concerned with the safe recovery of any radioactive debris, and its custody, transportation and laboratory analysis. The Board is also technical consultant to the External Affairs Department with respect to its negotiations on this matter with the Soviet Union at the United Nations.

Working in close cooperation with the Department of National Defence, the Geological Survey of Canada, and technical experts volunteered by the United States government, small teams of AECB scientists are involved in the identification and physical recovery of pieces of the satellite discovered on the ground through aerial surveys.

All samples recovered are being sent to the Whiteshell Nuclear Research Establishment (WNRE) at Pinawa, Man., a laboratory operated by Atomic Energy of Canada Limited. WNRE is particularly well suited to conduct the types of tests needed on the samples, and also operates waste management and storage facilities in which material from the satellite can be held pending a decision on its ultimate disposition.

Where packaging is available which meets air transport regulations concerning hazardous cargoes, certain shipments of small samples have been made by commercial air carrier. The remainder are shipped on regularly-scheduled Canadian Armed Forces flights.

At Whiteshell, the samples undergo metallurgical, chemical, radiological and other tests, with the results forwarded to the AECB in Ottawa for further interpretation and transmittal to other agencies as required.

Feedback from the laboratory tests will assist field operations in further detection work. In this regard, one of the purposes of the testing program is to attempt to identify the likely origin of each piece in the original satellite. Of particular importance would be the discovery of anything which might have been near or formed part of the satellite's highly

- 2 -

radioactive power plant. The recovery location of such a sample would be a valuable clue to the possible whereabouts of the most hazardous portion of the spacecraft - its reactor core containing fuel elements and fission products - if indeed the core survived the burn-up of re-entry through the earth's atmosphere.

Based on assumptions as to the probable type of nuclear fuel used in the Cosmos 954 satellite, there is a strong likelihood that all or most of the fuel would have burned up, while high melting point alloys used in other components would not.

Following receipt of reports from WNRE, the AECB will be in a position to determine the need for and extent of any further remedial or clean-up action required to protect public health and minimize environmental impact.

FOR FURTHER INFORMATION:

Hugh J. M. Spence
Chief, Office of Public Information
(613) 992-9206

EMR INPUT FOR GENERAL INFORMATION FACT SHEET

15 Mar 78

ENERGY, MINES AND RESOURCES ACTIVITIES - OPERATION MORNINGLIGHT

Geological Survey of Canada's Contribution

The Geological Survey of Canada (GSC), an agency of the Department of Energy, Mines and Resources, was informed about the re-entry of the Soviet satellite Cosmos 954 by the Atomic Energy Control Board at 10 a.m. on 24 January 1978. The GSC is the main centre in Canada for research and development into airborne radioactivity measuring equipment and, as such, it both operates its own aircraft with equipment, and maintains an on-going contract with Canadian service companies. A scientist was despatched to Edmonton immediately and arrived at the same time as the American team. Arrangements were set in motion for the movement of the Geological Survey's airborne gamma-ray spectrometer to Edmonton where it was installed in a Canadian Forces Hercules C-130 aircraft and became operational 24 hours after the U.S. systems. This Canadian spectrometer was only completed in September 1977, possesses greater sensitivity than the U.S. systems being employed in the search, and is self-contained with respect to the ability to analyse the radiation spectrum. The U.S. systems are dependent on post-flight computer processing of the data. On its second flight in the early hours of January 27, the Canadian equipment provided the first certain evidence of radioactive debris. The system has been in continuous operation since that time, and in terms of sensitivity, versatility, and reliability, has demonstrated its superiority over the U.S. equipment. It is now in the process of being interfaced with the Microwave Ranging system (MRS) airborne navigational equipment obtained by DND. Three research scientists and six technicians from the Geological Survey have participated in the operation of this equipment. One scientist and three technicians must be retained on a continuing basis for as long as it is used in the search. This excludes extra scientific and technical assistance required to interface with navigation systems on the military aircraft.

GSC is now making arrangements to obtain through Canadian contractors the use of additional airborne gamma-ray spectrometer systems for use in Canadian Forces helicopters, to replace the U.S. equipment presently being used for the detailed search and recovery of radioactive debris.

- 2 -

GSC provided a scientist and a technician with neutron borehole logging equipment to go in with the advance party to inspect the Wardens Grove Site. This was in the event that part of the reactor core was present under the ice in the Thelon River. In fact, the specialized equipment was not required, but general assistance was given by the GSC personnel who have considerable experience in scientific work under Arctic conditions.

On March 1, 1978, the Geological Survey of Canada gamma-ray spectrometer system, interfaced with DND MRS navigational equipment commenced surveying west of Snowdrift. On the first flight, one area of increased radioactivity was recorded and recovery teams located and picked up 2 beryllium rods. The GSC system has continued in operation since March 1, with 2 days down time (1 day for unserviceable aircraft, 1 day due to loss of MRS antenna). On March 14 surveys of the area south and west of Snowdrift and Christie Bay were completed and several additional areas of high radioactivity were located. After spectrometer maintenance on March 15, work will begin on March 16 in the area between McLeod Bay and Artillery Lake, where the MRS coverage is to be extended approximately 5 kilometres to the north and south of existing coverage. The U.S. MRS system completed surveying in the area east of Artillery Lake on March 14, and the MRS search operation is now a totally Canadian operation.

A GSC computer system has been set up at CFB Edmonton for postflight processing of spectrometer data tapes for detection of radiation anomalies and flight path recovery.

GSC staffing for the MRS search operation includes 1 supervising scientist, 3 airborne spectrometer operators, and 2 data analysis technicians.

Two of the three spectrometer equipped helicopters are now carrying Canadian instrumentation and operators. Present staffing for the helicopter operation includes 1 GSC scientist and 3 contractor technicians.

The first McPhar spectrometer system was picked up by DND at Toronto on March 3, for transport to Edmonton and installation in CH135. The system was test flown in Edmonton on March 6 and departed for Cosmos Lake on March 7. The second McPhar system was transported to Yellowknife on March 12 to begin operation in a CH135 out of Yellowknife on March 15. The third helicopter spectrometer system is scheduled for delivery from Scintrex on March 19. Data processing capability for the helicopter spectrometer tapes has been set up at the University of Alberta.

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DEA INPUT FOR GENERAL INFORMATION FACT SHEET

16 Feb 78

DEPARTMENT OF EXTERNAL AFFAIRS ACTIVITIES - OPERATION MORNINGLIGHT

Canada/USSR Contacts - Soviet Cosmos 954

The Canadian Government has been in close contact with the Soviet authorities on this matter since January 24. The Soviets have provided some information on the technical characteristics of the satellite which could assist us in the ongoing search for radioactive debris. We have requested further information. The USSR has also offered the assistance of specialists in the recovery of remnants of the satellite, but this has not yet been required.

In accordance with our obligations under Article 5 of the 1968 Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, Canada officially notified the Secretary-General of the UN and the Government of the Soviet Union on February 8, 1978, of the discovery on Canadian territory of component parts of a space object, believed to be Cosmos 954. In a statement at the UN on February 14, a Soviet representative acknowledged that the Canadian description of the facts surrounding the re-entry of the satellite was correct, and that the USSR would fulfil its obligations under international law to reimburse Canada for any damage. Since the search and recovery operations are still under way, no claim has yet been submitted by Canada.

Follow-up Action in the United Nations

On February 13, Canada raised the question of the international implications of the Cosmos incident in the Science and Technology Subcommittee of the UN Committee on the Peaceful Uses of Outer Space. In his statement, the Canadian Ambassador to the UN described as the overall objective the development of a régime for the use of nuclear energy sources in outer space which would ensure the highest standards of safety for mankind and protection for the environment. In this aim, Canada is supported by a large number of member nations of the UN.

SOLICITOR GENERAL INPUT FOR GENERAL INFORMATION FACT SHEET

17 Feb 78

ACTIVITIES OF THE MINISTRY OF THE SOLICITOR GENERAL - OPERATION MORNINGLIGHT

Responsibilities

The search for radioactive debris from the Soviet Cosmos 954 satellite which impacted between Great Slave and Baker lakes, Northwest Territories, is under the overall control of the Department of National Defence. The responsibilities of the Ministry of the Solicitor General to date have been:

- a) to safeguard the press and public from radioactive contamination by providing an RCMP presence at each accessible impact site, and
- b) area patrols to inform isolated personnel to stay clear of affected areas.

Constant liaison is maintained with Canadian Forces personnel so that RCMP may attend when new finds are made.

General Comment

On-scene RCMP report there has been very little public reaction over the satellite incident in the general area affected except for some initial concern at Snowdrift, a settlement near the Fort Reliance debris site. These concerns were allayed by a special visit by military officials and radiation experts who advised there was no danger. RCMP present at debris sites have not as yet encountered unauthorized persons during their tours of duty.

Future Involvements

It is anticipated that an RCMP presence will continue to be required at each site discovered until cleanup operations are completed. Projections of resources expenditures are not possible at this time as resources required will depend on such factors as number of sites discovered and accessibility to the public.

It is also expected that native peoples and other residents in the area affected will turn to the RCMP for reassurance whenever they discover isolated bits of metal or other debris or even suspect fish or animals. The Atomic Energy Control Board has offered to provide the necessary detection equipment for RCMP Detachments at Baker's Lake and Snowdrift.

DEPARTMENT OF THE
SOLICITOR GENERAL



MINISTÈRE DU
SOLICITEUR GÉNÉRAL

POLICE AND SECURITY PLANNING
AND ANALYSIS GROUP

CENTRE DE PLANIFICATION ET
D'ANALYSE DE LA POLICE ET DE LA SÉCURITÉ

Ottawa, K1A 0P8
March 15, 1978

FEDERAL POLICING
BRANCH

MAR 16 1978

SOUS-DIRECTION DE
L'APPLICATION DES LOIS
FÉDÉRALES

Dr. W.K. Gummer
Chief, Coordination and Planning
Atomic Energy Control Board
Martel Building
270 Albert Street
P.O. Box 1046
Ottawa, Ontario
K1P 5S9

Dear Dr. Gummer:

With reference to the matter raised at the Operation Morning Light meeting on March 14, 1978, concerning the issue of alarm dosimeters to R.C.M.P. detachments in the search area, discussions have taken place between officers of the Federal Policing Branch of the R.C.M.P. Headquarters and senior personnel at the R.C.M.P. office in Yellowknife, N.W.T. There is now general agreement that the location of this equipment in R.C.M.P. detachments for use by the members and by other officials, trappers, prospectors, etc., would be acceptable.

The officers in the N.W.T. consider it important that proper written instructions for the use of the dosimeters be issued at the same time as the equipment. Furthermore, it is also considered important that training, or at the least, some form of familiarization be afforded to R.C.M.P. personnel at the various detachments.

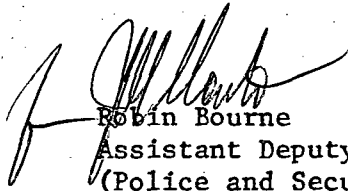
The latest estimate from Yellowknife sets the required quantity of dosimeters at six each for six detachments, plus a further six to be held in reserve at Yellowknife, for a total of forty-two. This estimate was made without regard to possible developments in the Cape Dorset area.

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It is stressed that, while the R.C.M.P. will take all reasonable steps to safeguard the equipment in their care, they cannot be held responsible for it while in the possession of others. Neither can they be held responsible for actions necessary to recover any equipment not returned by persons taking the dosimeters on loan.

Yours sincerely,



Robin Bourne
Assistant Deputy Minister
(Police and Security)

✓ c.c. Commissioner, R.C.M.P.
1200 Alta Vista Drive
Ottawa, Ontario

Attention:
Inspector Chiarot
Federal Policing Branch
'C' Directorate

ROYAL CANADIAN MOUNTED POLICE
TRANSMITTAL & DIARY DATE REQUEST

GENDARMERIE ROYALE DU CANADA
FORMULE D'ENVOI ET DEMANDE DE LA DATE D'AGENDA

HANDWRITE
ÉCRIRE À LA MAIN

TO AU	Outside P.D. — Autres S.P.	Commr. Com.	C.O. C.D.	O.C. Sub — C.S. - D.	I/C Det. — Resp. Dét.	Copies to — Copies au
FROM DU		✓				Date

H.Q. File — Dossier de la D.G.	DIV. File — Dossier de la div.	S/DIV. File — Dossier de la s.-div.	DET. File — Dossier du dét.
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ATTACHMENTS — PIÈCES JOINTES

<input type="checkbox"/> Correspondence Correspondance	<input type="checkbox"/> Warrant Mandat	<input type="checkbox"/> Summons (es) Assignment(s)	<input type="checkbox"/>	Dated — Daté du
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FOR YOUR — POUR

<input type="checkbox"/> Information Votre gouverne	<input type="checkbox"/> Action Donner suite	<input type="checkbox"/> Execution Exécution	<input type="checkbox"/>
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REMARKS (if reply - arrow to return address) — REMARQUES (dans le cas d'une réponse, indiquer par une flèche l'adresse de retour)

<input type="checkbox"/> SERVED - Original & Affidavit returned — Signifié - original et affidavit retournés	Date fine & Costs paid Amende et frais payés le
<input type="checkbox"/> NOT SERVED for reasons indicated — Non signifié pour les raisons indiquées	

DIARY DATE EXTENTION
PROLONGATION DE LA DATE D'AGENDA

<input type="checkbox"/> Disposition of exhibits Disposition des pièces à conviction	<input type="checkbox"/> Awaiting payment of fine & costs Dans l'attente du paiement de l'amende et de frais	EXTEND TO — PROLONGÉE JUSQU'À
<input type="checkbox"/> Further enquiries negative Autres recherches nulles	<input type="checkbox"/> Report overdue Rapport en retard	
<input type="checkbox"/> Awaiting instructions Dans l'attente de directives	<input type="checkbox"/> Unable to execute Warrant (Summons) Impossibilité d'exécuter le mandat (assignments)	
	<input type="checkbox"/> Trial date not set Date du procès non fixée	

Adjourned to
Renvoyée au

000720

14/3/78

Call from Pat Ansel 11:45 Solicitor General's office concerning radiation equipment for Detachments in and around Great Slave Lake.

S/Sgt. Lambert called and he advised Canadian Forces have equipment right now and are providing same to anyone needing it. They would be agreeable to having a supply made available at detachments - Yellowknife, Fort Smith, Resolution Pine Point, Baker Lake at about 6 to each. The pen type would appear most suitable - we will pass them out but responsibility for loss costs rest with A.E.C.B.

Ansel advised 2:00 p.m.

15/3/78 Check Cape Dorsett





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Document divulgué en vertu de la Loi sur l'accès à l'information

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ACTION
REQUEST

FICHE DE
SERVICE

TO - À

FILE NO. — DOSSIER N°

DATE

FROM - DE

☐ PLEASE CALL
PRIÈRE D'APPELER

TEL. NO. - N° DE TEL.

EXT. - POSTE

☐ WANTS TO SEE YOU
DÉSIRE VOUS VOIR

DATE

TIME - HEURE

☐ WILL CALL AGAIN
DOIT RAPPELER

CALL RECEIVED BY
MESSAGE REÇU PAR ▶

☐ ACTION
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000722

CONFIDENTIAL

MAR 10 11 48 PM '78

COMMUNICATIONS

PRIORITY

All replies or references to it MUST bear
the security classification stamped hereon,
unless downgraded by proper authority.
YOUR TELEPHONE IS NOT SECURE
The content or any portion of this message
irrespective of classification is NOT to be
discussed over the telephone.

47 PRIORITY YK MARIO C O N F I D E N T I A L

COMMR OTT

CARDING DATE 10-3-78

GCIBI42/2 ATTN INSP CHAIROT WE HAVE RECD A REPORT FROM
FROBISHER BAY THAT ON 9 MAR 78 AN ESKIMO HUNTER IDENTIFIED AS
NUNA PARR ACCOMPANIED BY ANOTHER HUNTER NOWDLA OSHOWEETOK
DISCOVERED A HOLE APPROX 15 FEET DIAMETER THROUGH FIVE FEET OF
ICE ON UNNAMED LAKE 20 TO 25 MILES NW OF CAPE DORSET NWT.
ICE PIECES AROUND HOLE AS LARGE AS OFFICE DESK. HOLE FROZEN
OVER AND NEW ICE HAS YELLOW COLORATION. DISCOVERY MADE BETWEEN
NOON AND 2PM 9 MAR 78. HOLE WAS NOT THERE EARLIER IN WINTER.
NEW ICE NOT TESTED BUT BELIEVED ONE FOOT THICK. IT IS THE OPINION
OF THE ESKIMOS THAT SOMETHING OF GREAT FORCE FROM THE SKY CAUSED
HOLE. CO-ORDINATES ARE 6430 NORTH AND 7715 WEST. AND HAVE
DISCOURAGED PEOPLE FROM GOING NEAR AREA. THIS IS BEING
REPORTED IN VIEW OF RECENT SATELLITE INCIDENT. WE HAVE NOTIFIED
MAJOR ELRICH CANADIAN FORCES YELLOWKNIFE 403-873-4011. CBC
IN FROBISHER BAY HAVE LEARNED OF THIS BUT WE DO NOT INTEND TO

RELEASE ANY Y INFO TO MEDIA. WE HAVE NOT CONTACTED NRC IN THIS
REGARD. WE EXPECT ADDITIONAL DETAILS AND WILL KEEP YOU INFORMED.
ARMED FORCES IN FROBISHER BAY ARE ALSO WORKING ON MATTER AND
LIAISON BEING MAINTAINED WHH D N D YELLOWKNIFE.
FOR YOUR INFORMATION WE ALSO HAVE A REPORTED SIGHTING OF WHAT IS
BEING ASSUMED AS HAVING BEEN A FLARE BY BRADLY AIR SERVICES
TWIN OTTER AT 6PM 8 MAR 78. FLARE GREENISH WHITE IN COLOUR.
APPROXIMATE LOCATION GIVEN AS 6401 NORTH AND 7159 WEST
INVESTIGATION BEING CONDUCTED BY FROBISHER BAY DET ON THIS
INCIDENT AND D N D HAVE ALSO BEEN ADVISED

G DIV

PLS CORRECT LINE 11 TO READ 64 DEGREES 30 MINTS SHLD BE MINUTES
ALSO LINE 23 TO READ 64 DEGREES 01 MINUTES NORTH AND 71 DEGREES
59 MINUTES WEST
ALSO IN LINE 11 77 DEGREES 15 .8,753 SHLD BE 15 MINUTES

HOW DOES THAT READ TO U SORRY FOR MESS

OTTI ACKS TNX LOOKS GOOD BIB

CARDED - 1

Met
20-3-78
J. L.

cl Laperle
C. L. L. L. L.
NCC
Held Monday AM
10-11-55
000723
as

Government
of CanadaGouvernement
du CanadaACTION REQUEST
FIGE DE
SERVICE

TO - A

FILE NO. - DOSSIER N°

O/C F.P.B.
Imp Chiarat

DATE

2-3-78

FROM - DE

D.E.I.

☐ PLEASE CALL
PRIÈRE D'APPELER

TEL. NO. - N° DE TEL

EXT. - POSTE

☐ WANTS TO SEE YOU
DÉSIRE VOUS VOIR
☐ WILL CALL AGAIN
DOIT RAPPELER

DATE

TIME - HEURE

CALL RECEIVED BY
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APPROBATION
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☐ SIGNATURE☐ NOTE & RETURN
NOTER ET RETOURNER
☐ NOTE & FORWARD
NOTER ET FAIRE SUIVRE
☐ NOTE & FILE
NOTER ET CLASSERFEDERAL
SOUS-DIRECTION DE
L'APPLICATION DES LOIS
FEDERALE

Please consult with
liaison officers to ensure
any requests to RCMP are
appropriately handled.
I would like to see one
of their info fact sheets please

9808

000724



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Gouvernement
du Canada

ACTION **ACCÈS** **À L'INFORMATION**
REQUEST **SERVICE**

TO - À

E.C.I.

FILE NO. — DOSSIER N°

DATE

1/3/78

FROM - DE

R/OIC FPB.

☐ PLEASE CALL
PRIÈRE D'APPELER

TEL. NO. - N° DE TEL.

EXT. - POSTE

☐ WANTS TO SEE YOU
DÉSIRE VOUS VOIR

DATE

TIME - HEURE

☐ WILL CALL AGAIN
DOIT RAPPELER

CALL RECEIVED BY
MESSAGE REÇU PAR ►

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APPROBATION

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NOTER ET RETOURNER

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☐ DRAFT REPLY
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☐ SIGNATURE

☐ NOTE & FILE
NOTER ET CLASSER

*for your info + comment
return please*

000725

DEPARTMENT OF NATIONAL DEFENCE
RECTORATE INFORMATION SERVICES



005678

MINISTÈRE DE LA DÉFENSE NATIONALE
DIRECTION DES SERVICES D'INFORMATION

1350-3350 (DG INFO)

National Defence Headquarters
101 Colonel By Drive
Ottawa, Ontario
K1A 0K2

7 February, 1978

Distribution List

OPERATION MORNINGLIGHT
MINISTERIAL INQUIRIES

CARDED - 1

CARDING DATE
15 FEB 1978

Not S.S.

1. The purpose of this letter is to advise that an OPERATION MORNINGLIGHT Ministerial Inquiry Co-ordination Centre is now in operation and located in the Department of National Defence.
2. All addressees will be aware of OPERATION MORNINGLIGHT, the search for and recovery of debris resulting from the 24 January 1978 re-entry of the Soviet Cosmos 954 satellite over the Northwest Territories. Because of the extensive media interest in and coverage of this operation, a considerable number of inquiries are being directed to ministers and heads of agencies from members of the public.
3. In at least one recent instance, an identical inquiry has been addressed to several ministers without indication that there was more than one addressee. Instances like this could, of course, lead to uncoordinated responses going out to members of the public over a number of ministerial signatures. This situation must be avoided and, instead, the federal government must be permitted both to present a one-voice, cohesive approach and to demonstrate that federal government departments are working together in the interests of the Canadian people.
4. To implement this approach, a public inquiries response co-ordination centre has been set up to co-ordinate ministerial responses to inquiries from the general public on OPERATION MORNINGLIGHT. With the concurrence of the Privy Council Office, the response centre has been located in the National Defence Headquarters building and is responsible to the DND Director General Information (DND/DG Info).
5. The mechanics of this co-ordination effort are being kept as simple as possible. The response centre will handle only ministerial inquiries from members of the public (not the media) regarding OPERATION MORNINGLIGHT, and will not encroach on the prerogatives of any individual minister. Departments and agencies receiving inquiries which they assess as requiring a ministerial response are requested to forward them to DND/ DG Info, with a proposed draft response addressing those portions of the inquiry which pertain to their area of responsibility and indicating

the response can be forwarded on behalf of the Minister of National Defence or whether the recipient agency will wish to respond. After co-ordination in the response centre, a revised (if necessary) response will be forwarded to the inquirer directly from DND or returned to the department or agency as requested for sign-out to the inquirer.

6. A general information fact sheet concerning OPERATION MORNINGLIGHT will be included with the response in cases where it appears that the questions are of a more general nature. This general information fact sheet is being co-ordinated by DND/DG Info with inputs from those departments and agencies currently involved in the operation, ie, National Defence, External Affairs, Energy, Mines and Resources/Atomic Energy Control Board, Fisheries and Environment, Solicitor General/RCMP, Privy Council Office, Indian and Northern Affairs, etc. The information sheet will contain a brief resumé of the basic facts and a situation report concerning OPERATION MORNINGLIGHT. For example, the DND input will include the types and numbers of aircraft involved, the hours flown in the search, the location of the base camp, the ground search parties and so forth. These inputs should be forwarded to DND/DG Info in both French and English and are to include the name and telephone number of the individual responsible for providing the background information in the event that the recipient wishes to ask further questions.

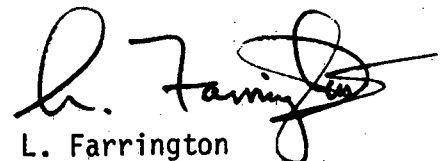
7. It is understood that media inquiries other than those of a ministerial nature will be handled in the normal manner by your public affairs organization.

8. Action addressees are requested to forward as soon as possible:

- a. the name and telephone number of individuals designated as their point of contact in their ministerial inquiries organization; and,
- b. Any inputs they may wish to include in the general information fact sheet, in accordance with paragraph 6, now being prepared on OPERATION MORNINGLIGHT.

This information should be forwarded to the OPERATION MORNINGLIGHT Ministerial Inquiry Centre, Director General Information, Department of National Defence, 101 Colonel By Drive, Ottawa, K1A 0K2.

9. For further information, please call the OPERATION MORNINGLIGHT Ministerial Inquiry Centre in DND (Lieutenant-Colonel J. Webster, 995-5977, 995-5996 or 995-5999).



L. Farrington
Brigadier-General
Director General Information

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- 3 -

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Director General Information
Department of Communications

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Ministry of Consumer and Corporate Affairs

Director General Information
Department of Employment and Immigration

Director General Information
Department of Energy, Mines and Resources

Director General Information
Ministry of State (Environment)

Director General Information
Department of Fisheries and the Environment

Director General Information
Secretary of State of External Affairs

Director General Information
Department of Finance

Director General Information
Department of Indian Affairs and
Northern Development

Director General Information
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INFORMATION

All Ministers of
Departments

- 4 -

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Ministry of State (Multiculturalism)

Director General Information
Privy Council of Canada

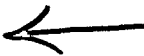
Director General Information
Treasury Board

Director General Information
Atomic Energy of Canada Limited

Director General Information
Atomic Energy Control Board

- 5 -

Director General Information
Royal Canadian Mounted Police



Clerk of the Privy Council and
Secretary to the Cabinet

Office of the Prime Minister

INTERNAL

INFORMATION

Director General Military Plans and Operations

NOTE TO FILE:

22/2/78

Gordon Longmuir E.A. - 25457 called to advise committee was examining sending invitation to U.S.S.R. to have two scientists examine our activities in relation to Morning Light at Edmonton. Letter to arrive here today for our examination and comments to be with Longmuir prior to p.m. tomorrow 23/2/78.

No objection S.S. - the U.S.S.R. will be processed as usual - via clearance and visitors panel clearance before acceptance of person selected. D.C.I. sees no bar to suggested action.

Longmuir advised 12:25 p.m. 23/2/78.

3 March 1978 - call from a Mr. Geoffrey Knight, A.E.C.B. concerning supplying detachments with beeper boxes which could be used by trappers if they wished to travel the area. How long would they be out and what would they need in numbers.

Called Rechner. He had call from Knight and is okay.

A handwritten signature, possibly reading 'L. Knight', is written in dark ink. It consists of a large, stylized capital 'L' followed by a smaller capital 'K' and a trailing flourish.



Government
of Canada

Gouvernement
du Canada

ACTION
REQUEST

FICHE DE
SERVICE

TO - A

FILE NO. -- DOSSIER N°

Rec. P/Insp. Chiarot

DATE

22/2/78

FROM - DE

SA/SFR/D. G. Longmair

☐ PLEASE CALL
PRIÈRE D'APPELER

TEL. NO. - N° DE TEL.

2-5457

EXT. - POSTE

☐ WANTS TO SEE YOU
DÉSIRE VOUS VOIR

DATE

☐ WILL CALL AGAIN
DOIT RAPPELER

**FEDERAL POLICING
BRANCH**

TIME - HEURE

3:00 PM

CALL RECEIVED BY
MESSAGE REÇU PAR ►

FEB 22 1978

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PROJET DE RÉPONSE

☐ SIGNATURE

SOUS-DIRECTOR

APPLICATION

SENDER

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NOTER ET RETOURNER

☐ NOTE & FORWARD
NOTER ET FAIRE SUIVRE

☐ NOTE & FILE
NOTER ET CLASSER

*Grateful your views on
this by telephone by 1600 hours.
Thurs Feb 23, if possible. The
legal advisers meet Am Fri*

824
CBSB STANDARD FORM 12d

000732

CM

FORMULE NORMALISÉE

EXTERNAL AFFAIRS



AFFAIRES EXTÉRIEURES

TO
A

General M.L.A. Weisman

SECURITY
Sécurité

CONFIDENTIAL

FROM
De

Erik B. Wang

DATE

February 21, 1978

REFERENCE
Référence

NUMBER
Numéro

SUBJECT
Sujet

Cosmos 954: Possible Soviet Participation
in Search and Recovery Operation

FILE	DOSSIER
OTTAWA	
MISSION	

ENCLOSURES
Annexes

DISTRIBUTION

see page 3

In their Note of February 20 the Soviet Embassy expressed regret that the search and recovery operation has been carried out "without participation of Soviet specialists". This question of Soviet participation or assistance has been considered earlier and it was concluded that such assistance was not needed, at least at the present stage. We have, however, reiterated to the Soviets our request for assistance in the form of information on the technical characteristics of the reactor core, and we have indicated that we may call upon their assistance at a later stage in order to dispose of radioactive debris outside of Canada.

2. An interdepartmental group of legal advisers in External, DND, Justice and AECB has been convened to prepare for the presentation of a claim for damages against the Soviet Union, including costs for search and recovery of hazardous radioactive materials. It has been suggested in this group that it might be useful in preparing the record for a future claim for Canada to offer to receive an observer from the Soviet Union who could, subject to appropriate ground rules and restrictions, participate in the search and recovery operation. This suggestion would have to be carefully considered from a variety of viewpoints, including the intelligence implications. Members of the interdepartmental legal group are, however, of the view that such an arrangement could have some legal value and could assist in strengthening the Canadian claim.

3. The participation of a Soviet observer could be relevant to any discussion between Canada and the Soviet Union (or before the Claims Commission as envisaged under the 1972 Outer Space Liability Convention) on the question of the amount of damages. The Soviets may choose to deny liability on other grounds but one possible line of defence which they may wish to invoke could relate to the question of whether our search and recovery costs were necessary and reasonable in the circumstances. In informal exchanges, in

- 2 -

CONFIDENTIAL

their statement at the UN on February 14 and again in their Note of February 20, the Soviets have stressed their offer of assistance. It may be that they are preparing a record for an eventual denial of liability on grounds that since Canada did not take up the offer the Soviet Union cannot be expected to bear the cost of search and recovery operations.

4. Denial of liability on these grounds would, in our view, be unfounded. While the liability provisions of the 1972 Convention are couched in very general terms there are good grounds in customary international law and in general rules of justice and equity as applied by the courts of many countries for the assertion of a claim for search and recovery of potentially hazardous materials. The Soviets could, however, argue that our costs were excessive or that some elements of our costs were unnecessary. The participation of a Soviet representative at search headquarters in Edmonton could have the advantage of drawing the Soviets into a discussion of costs at an early stage. Even if we did not agree with the observer's comments or proposals such a discussion could be to the Canadian advantage at a later stage in our effort to establish that our costs were "reasonable" under the circumstances and that we were prepared to discuss their reasonableness in the course of an ongoing operation.

5. Another suggestion to emerge from the inter-departmental legal group was the suggestion that Canada keep the USSR more closely informed on the nature and intensity of ongoing search and recovery operations. If acceptable from other viewpoints, this idea could be combined with the proposal for an observer or could have merit on its own. In sharing information of this kind we would of course have to be prepared to entertain comments, suggestions or further questions from the Soviets. The value of such exchanges, from a legal viewpoint, would, as in the case of the observer proposal, be to establish our credibility as a "reasonable" government taking necessary measures to prevent further damages and to prevent future injuries to persons or contamination of the environment.

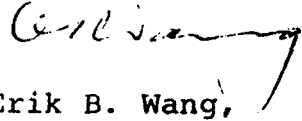
6. An analogy under domestic law would be the situation where the coast guard invites the participation of an official from the oil company in the wake of a major oil spill. In effect the coast guard is spending the oil company's money on containment and clean-up operations and/is therefore reasonable /it to invite a representative of the company to observe how that money is being spent.

...3

- 3 -

CONFIDENTIAL

7. We would be grateful for your views and those of other members of your interdepartmental group on these suggestions. Subject to your comments we could then develop more detailed proposals for submission to ministers.


Erik B. Wang,
Director,
Legal Operations Division.

DISTRIBUTION:

Cosmos Legal Group:

JAG/Gen. Wolfe
Justice/Verdon/Kelen
AECB/MacIsaac
FLA/Sheppy
FLO/McRae

JST

FLP

PSI

DFR

GEA

EBS

NOTE TO FILE:

17/2/78


Copy of "G" Division telex of last night given to Leo Cloutier for inclusion in report for D.N.D. and Minister.

21/2/78

Leo Cloutier called and advised that Belcourt of Indian Affairs held meeting with D.N.D. types, S/Sgt. Henry and other to prepare information package for Inuits/Indians/Hunters/Trappers of area and it reads like a doomsday package. They intend to spread the word across the whole of North as soon as D.N.D. gives word it is okay.

S/Sgt. Ron Henry of Liaison attended Belcourt meeting but did not have any input. There was a suggestion that teams(s) would travel with info package and one member would be from R.C.M.P.

Cloutier advised - don't see need for R.C.M.P. on team - package if any should be provided to R.C.M.P. and presence/no presence decided at local level.



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du CanadaACTION
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SERVICE

TO - À

FILE NO. - DOSSIER N°

O/C F.P.B.

DATE

21-3-78

FROM - DE

D.C.I.

<input type="checkbox"/> PLEASE CALL PRIÈRE D'APPELER	TEL. NO. - N° DE TEL	EXT. - POSTE
<input type="checkbox"/> WANTS TO SEE YOU DÉSIRE VOUS VOIR	FEDERAL POLICING BRANCH	TIME - HEURE
<input type="checkbox"/> WILL CALL AGAIN DOIT RAPPELER	MAR 21 1978	
CALL RECEIVED BY MESSAGE REÇU PAR	SOUS-DIRECTION DE L'APPLICATION DES LOIS	
<input type="checkbox"/> ACTION DONNER SUITE	<input type="checkbox"/> APPROVAL APPROBATION	<input type="checkbox"/> NOTE & RETURN NOTER ET RETOURNER
<input type="checkbox"/> COMMENTS COMMENTAIRES	<input type="checkbox"/> DRAFT PROJET DE RÉPONSE	<input type="checkbox"/> NOTE & FORWARD NOTER ET FAIRE SUIVRE
<input type="checkbox"/> MAKE FAIRE	<input type="checkbox"/> SIGNATURE	<input type="checkbox"/> NOTE & FILE NOTER ET CLASSER
COPIES		

I note in the very last 2 lines
AECL will provide the
necessary detection equipment
On propos au dernier tableau
this, I presume AT NO
CHARGE TO RCMP.

000737



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of Canada

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Gouvernement
du Canada

ACTION
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TO - A

FILE NO. — DOSSIER N°

ICI

DATE

10/8/75

FROM - DE

M/OIC FPB

☐ PLEASE CALL
PRIÈRE D'APPELER

TEL. NO. - N° DE TEL.

EXT. - POSTE

☐ WANTS TO SEE YOU
DÉSIRE VOUS VOIR

DATE

TIME - HEURE

☐ WILL CALL AGAIN
DOIT RAPPELER

CALL RECEIVED BY
MESSAGE REÇU PAR ►

☐ ACTION
DONNER SUITE

☐ APPROVAL
APPROBATION

☒ NOTE & RETURN
NOTER ET RETOURNER

☐ COMMENTS
COMMENTAIRES

☐ DRAFT REPLY
PROJET DE RÉPONSE

☐ NOTE & FORWARD
NOTER ET FAIRE SUIVRE

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FAIRE COPIES

☐ SIGNATURE

☐ NOTE & FILE
NOTER ET CLASSER

As per your
request. *Luoto*

000738

OPERATION MORNINGLIGHT

GENERAL INFORMATION FACT SHEET

CONTRIBUTING DEPARTMENTS AND AGENCIES

Department of National Defence

Department of Energy, Mines and Resources

- Atomic Energy Control Board

- Geological Survey of Canada

Department of External Affairs

Ministry of the Solicitor General

- RCMP

REVISED 24 Feb 78

DEPARTMENT OF NATIONAL DEFENCE ACTIVITIES - OPERATION MORNINGLIGHT

Note: All timings, where included, are given in the time zone where they occurred with Ottawa local time in brackets. e.g. 1900 MST (2100).

Responsibilities

OPERATION MORNINGLIGHT is under Canadian control with the U.S. providing welcome and valuable assistance. The on-scene commander is Canadian Forces Colonel David Garland who is responsible for overall operations including activities of both the U.S. and Canadian personnel. Lieutenant Colonel Stu McGowan has been appointed commander at Wardens Grove.

24 Jan 78

Soviet Cosmos 954 entered the earth's atmosphere at 0353 PST (0653) north of the Queen Charlotte Islands on Canada's Pacific coast. Following approximately a three minute burn period during re-entry, pieces of the satellite impacted in the Northwest Territories between Great Slave Lake (62°30'N 114°W) and Baker Lake (64°30'N 96°W).

At 0910 EST (0910) the U.S. Department of Energy contacted the Canadian Department of National Defence to ask what assistance Canada might require from the U.S. Following discussions it was determined that USAF transport aircraft (C141s) would deliver U.S. gamma radiation detection equipment to Edmonton for installation in Canadian CC130 Hercules aircraft. During the morning U.S. aircraft, on request, also conducted high altitude air sampling flights for gamma radiation.

The gamma radiation detection equipment arrived by USAF C141s at 1738 MST (1938). Four Canadian CC130 Hercules aircraft were standing by for installation of the equipment. Meanwhile, the radiation monitoring section of the Edmonton nuclear accident support team arrived in Yellowknife, NWT.

25 Jan 78

By early morning the radiation monitoring equipment was installed in the Hercules and three aircraft started searching along the satellite track between Fort Reliance, near the northeast end of Great Slave Lake, and Baker Lake, some 500 miles to the northeast. At 1000 EST (1000), U.S. aircraft commenced a second air sampling mission over Michigan and Northern Ontario. Results of these tests also showed no abnormal radiation levels.

- 2 -

During the day the radiation monitoring section conducted ground radiation monitoring in both Yellowknife and Fort Reliance. Results of monitoring also showed no abnormal radiation levels.

26 and 27 Jan 78

The search continued during both days with no conclusive detection of satellite debris. On 26 Jan the radiation monitoring section was flown to Baker Lake where ground monitoring showed no increase in normal radiation levels. Also on 26 Jan, the Canadian radiation monitoring kit from the Department of Energy, Mines and Resources arrived in Edmonton and was installed in a Hercules aircraft. Up to 12 aircraft (11 Canadian) were involved in the search during the two days: three CC130 Hercules, three CC138 Twin Otters, three CC135 Twin Huey helicopters, one CH147 Chinook heavy lift helicopter and one U.S. Department of Energy Convair with infra red equipment. On 27 Jan the first radiation hot spot was detected using the Canadian radiation monitoring kit in the McLeod Bay area north of Fort Reliance in the northeast end of Great Slave Lake.

28 Jan 78

During the morning three radiation hot spots were detected by search aircraft on McLeod Bay. Two of the spots were later confirmed as satellite debris. By late afternoon, it was reported that two men of six in the Wardens Grove area, some 200 miles northeast of Fort Reliance, had discovered and touched an object on the nearby Thelon River ice. All six men from the Wardens Grove area were evacuated for radiation testing at Yellowknife and Edmonton. Tests indicated that none had picked up any radiation.

29 and 30 Jan 78

Two CP 107 Argus aircraft, one equipped for aerial photography, were added to the search. RCMP personnel were guarding the debris on McLeod Bay and Canadian Forces personnel were guarding the debris near Wardens Grove.

31 Jan 78

The search was now concentrated in the McLeod Bay and Fort Reliance areas with a total of 15 aircraft (14 Canadian) involved. The radiation monitoring kits, three from the U.S. and one from the Canadian Department of Energy, Mines and Resources, were all in use in the Argus and Hercules aircraft. The debris from McLeod Bay was taken to Yellowknife for analysis while scrapings from the debris on the Thelon River were taken to Edmonton in special containers for analysis by the Atomic Energy Control Board. Two RCMP constables joined the four Canadian Forces personnel at Wardens Grove.

1 Feb 78

By 1 Feb a number of radiation hot spots had been detected by air and then isolated by ground parties in the McLeod Bay area. Operations continued in removing the debris to Yellowknife and cleaning up each impact area to a radiation level of less than 100 micro rads/hour.

2 and 3 Feb 78

By 2 Feb it seemed apparent that most of the satellite debris had impacted in the McLeod Bay and Wardens Grove areas with a few impacts between the two and between Wardens Grove and Baker Lake. Only one piece of debris contained enough radioactivity to require very special handling techniques. For this piece a lead container was constructed by the University of Alberta and flown to the site.

Air searching continued along the debris track, with impact areas being marked by ground parties.

4 and 5 Feb 78

Over the weekend preparations were made to establish a base camp at Wardens Grove and air search activity increased. New impact areas were isolated in both the McLeod Bay and Wardens Grove areas. The highly radioactive piece of debris on the McLeod Bay ice was removed to Edmonton in the special lead container. Clean up activity of other impact areas continued.

By the end of the weekend, some 250 Canadian Forces personnel and about 115 U.S. personnel were directly involved in the operation. Aircraft had flown over 700 hours in the search to this point.

6 Feb 78

No searching or localizing activity was carried out but preparations continued with establishing a base camp near Wardens Grove so that recovery and clean-up activity could commence in that area. A Hercules positioned a bulldozer and other supplies in the area using the low altitude parachute extraction system. The bulldozer is being used to construct a landing strip.

7 Feb 78

By 7 Feb 78, 24 personnel were at the base camp (now referred to as Cosmos Lake) near Wardens Grove preparing the camp and airstrip. The U.S. Convair aircraft had returned to the U.S.A. and the Argus aircraft were also released from the search operation.

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Activity will be concentrated in the Fort Reliance-McLeod Bay area to search for and recover any remaining debris with aircraft and personnel working out of Yellowknife. Following this stage, activity will be concentrated in the Wardens Grove area using the new Cosmos Lake camp as a base of operations.

8 and 9 Feb 78

Activity continued on both days in preparing the Cosmos Lake landing strip and establishing a main campsite, Camp Garland, a few hundred meters to the south of Cosmos Lake. Hercules aircraft positioned more fuel, supplies, and another bulldozer, again using the low altitude parachute extraction system.

A Hercules aircraft also located six new radiation hot spots in the area northeast of Fort Reliance.

10, 11, 12 Feb 78

On 10 Feb and during the weekend slightly less than 100 hours were flown, bringing the total aircraft flying hours to over 1100. Twelve aircraft, all Canadian, are still involved in the operation. At Cosmos Lake the landing strip is 3000 feet long and will soon be suitable for landings by Hercules aircraft. All accumulated radioactive material recovered to date is to be moved from Edmonton for further analysis at the Whiteshell Nuclear Research Establishment operated by Atomic Energy of Canada Limited (AECL) at Pinawa, Manitoba.

13, 14, 15, 16 Feb 78

During the week of 13 Feb search, location and recovery of satellite debris continued in the area around the northeast end of Great Slave Lake. On 14 Feb in Snowdrift, a small community on Great Slave Lake west of Fort Reliance, an AECB team, accompanied by the Snowdrift tribal band secretary, conducted a radiological survey which indicated no contamination of any people or buildings.

On 14 Feb the first fixed wing aircraft, a Twin Otter, landed on the 4900 foot ice strip at Cosmos Lake. A Buffalo aircraft made the second landing on 15 Feb. During the day (15 Feb) the 21 person joint Canadian - U.S. search and survey team was moved into Cosmos Lake by Chinook and Twin Huey helicopters and by Buffalo. A Hercules aircraft positioned an inflatable aircraft shelter, tents and snowmobiles onto Cosmos Lake again using the low altitude parachute extraction system.

The first Hercules aircraft, carrying 20,000 pounds of supplies, landed successfully on the Cosmos Lake landing strip on 16 Feb.

17, 18, 19, and 20 Feb 78

Twin Huey helicopter operations continued in the Snowdrift and Fort Reliance areas in an effort to clean up the dozens of minute particles.

By 20 Feb the personnel at Cosmos Lake totalled 54 (38 Canadian Forces, 1 Canadian civilian, and 15 U.S. civilians). Fourteen aircraft are presently committed to the operation and the Canadian military flying time totalled approximately 1560 hours.

21, 22 Feb 78

On 21 Feb activity was concentrated in three areas: Snowdrift, Fort Reliance, and Cosmos Lake. Twin Huey helicopters, equipped with radiation detectors, flew missions south and east of Snowdrift to determine the extent of the small radioactive particles dispersed south of the satellite trajectory. These particles range from buckshot to pepper grain in size. Similar missions were flown on 22 Feb to the north and east of Fort Smith.

The debris found on the Thelon River ice by the men from Wardens Grove on 28 Jan was recovered and removed on 22 Feb by the team at Cosmos Lake.

23, 24 Feb 78

On 23 Feb the two Twin Huey helicopters were able to further define the area of low level contamination caused by the small particle dispersion at the western end of the search area. Approximate boundaries were established on the north, east, and south sides. The northern boundary follows the track of the satellite trajectory; the eastern boundary runs from Fort Reliance to a point approximately 30 miles north of Fort Smith; the southern boundary is an east-west line to an as yet undefined western boundary. The helicopters were attempting to establish the western boundary on 24 Feb.

No radioactive contamination has been found in Fort Smith. On 24 Feb the radiation monitoring section was conducting a survey in the area of Fort Resolution and nearby hunting camps. As of early 24 Feb Canadian military flying time totalled approximately 1830 hours.

PREPARED BY: LIEUTENANT COLONEL J. F. WEBSTER, 995-5996

3 March 1978

Atomic Energy Control Board (AECB), Health and Welfare Canada and Environment Canada authorities today reported their opinion that people living in the area where the satellite debris fell should not be concerned about changing their lifestyle or recreation activities.

Recently there has been extensive media coverage of the Operation Morninglight search and recovery operations and in particular the discovery near the village of Snowdrift of an ill-defined distribution of small radioactive particles from the satellite said to be in the "pepper to buckshot" size range. Because of their small size, these particles lost momentum quickly and under the influence of a northerly wind drifted over a wide area in a random fashion. They have been found as far west as near Hay River and as far south as Buffalo Lake.

The particles thus far recovered have been found to have a relatively high specific activity and would be of concern if picked up on clothing or taken internally. They were detected by very sensitive equipment in helicopters flying at low speed at 50 feet.

Canadian Forces and AECB personnel are actively involved in the recovery of detectable particles in the townsites of Snowdrift, Pine Point and Fort Resolution, and based on measurements made in preliminary surveys, the tiny particles will not have added significantly to the natural background radiation. Nevertheless, to avoid possible health risks from close contamination and ingestion of particles in water melted from snow, it was agreed that clean-up activities would be conducted in the townsites.

With respect to hazards presented to participants in the coming Winter Games, the report stated that it should be realized that the towns involved--Pine Point and Hay River--are being thoroughly scoured and anything detectable with sensitive instruments is being removed. In general, the natural radiation background on land in the area may be about 7 to 10 microR/hour, and the search instruments are sensitive enough to detect an increase of about 2 microR/hour at this level. The background over lakes is about half that on land.

Uranium and thorium-bearing rocks are found in this part of Canada, and the natural background radiation may locally be much higher than the figures given.

Particles have not been distributed in a dense pattern but are scattered randomly and quite far apart. For example, in Snowdrift six particles were found roughly 200 feet apart. Thus clean-up in towns or wherever crowds of people are expected to congregate is perfectly feasible.

With respect to ingestion hazards, survey teams have examined and given a clean bill of health to areas from which snow is obtained for melting to water. Where water is taken from a lake, there is currently no problem because the ice has prevented entry of particles to the water. Obviously, as well, any sediment found in melt water should be discarded as an added precaution--the substances in the particles will not dissolve during melting and the water will be safe.

For recreation or other activities in the region now or later in the year, if specific areas are identified by authorities as requiring very thorough checking--for instance the courses of ski or dog-sled races--survey teams can investigate them and remove any material that may pose a significant radiological risk. Should any particles on ice not be recovered, on break-up they will sink and being insoluble, will become part of the natural lake-bottom sediment. The Geological Survey of Canada noted that these lake bottoms may contain uranium and related elements from erosion of the surrounding rocks. The total impact of such an addition on water quality would be so dilute as to be questionably detectable.

The scientific authorities consider the small particles undesirable nuisances, which must be removed from all readily accessible sites by the time-consuming and costly clean-up operation now under way. Their hazard to health should not be exaggerated, and the ability of Operation Morninglight personnel under AECB supervision to accomplish the clean-up of designated areas must be recognized, it was stated.

Following their removal, the particles are being subjected to detailed analytical study by AECL staff at the Whiteshell Nuclear Research Establishment at Pinawa, Man. AECB also has involved Environment Canada and AECB's prime health adviser, Health and Welfare Canada. The latter's Radiation Protection Bureau will be receiving samples of contaminated snow for study, and is extending its regular dosimetry services to all Canadian participants in the

search and recovery operations. All U.S. personnel are using their own dosimeter services and are supplying relevant data to Canadian authorities.

Dosimetry checks on clean-up teams have shown no sign of internal contamination due to ingestion or inhalation. It is the considered opinion of these agencies that there is no justification for any change in life-style or recreation in the region.

17 Feb 78

ATOMIC ENERGY CONTROL BOARD ACTIVITIES - OPERATION MORNINGLIGHT

Background Information

The Atomic Energy Control Board (AECB) is the federal regulatory authority responsible for protecting the health, safety and security of Canadians with regard to all aspects of nuclear energy. As such, in the Cosmos 954 nuclear-powered satellite incident, the AECB is the prime technical consultant concerned with the safe recovery of any radioactive debris, and its custody, transportation and laboratory analysis. The Board is also technical consultant to the External Affairs Department with respect to its negotiations on this matter with the Soviet Union at the United Nations.

Working in close cooperation with the Department of National Defence, the Geological Survey of Canada, and technical experts volunteered by the United States government, small teams of AECB scientists are involved in the identification and physical recovery of pieces of the satellite discovered on the ground through aerial surveys.

All samples recovered are being sent to the Whiteshell Nuclear Research Establishment (WNRE) at Pinawa, Man., a laboratory operated by Atomic Energy of Canada Limited. WNRE is particularly well suited to conduct the types of tests needed on the samples, and also operates waste management and storage facilities in which material from the satellite can be held pending a decision on its ultimate disposition.

Where packaging is available which meets air transport regulations concerning hazardous cargoes, certain shipments of small samples have been made by commercial air carrier. The remainder are shipped on regularly-scheduled Canadian Armed Forces flights.

At Whiteshell, the samples undergo metallurgical, chemical, radiological and other tests, with the results forwarded to the AECB in Ottawa for further interpretation and transmittal to other agencies as required.

Feedback from the laboratory tests will assist field operations in further detection work. In this regard, one of the purposes of the testing program is to attempt to identify the likely origin of each piece in the original satellite. Of particular importance would be the discovery of anything which might have been near, or formed part of the satellite's highly

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radioactive power plant. The recovery location of such a sample would be a valuable clue to the possible whereabouts of the most hazardous portion of the spacecraft - its reactor core containing fuel elements and fission products - if indeed the core survived the burn-up of re-entry through the earth's atmosphere.

Based on assumptions as to the probable type of nuclear fuel used in the Cosmos 954 satellite, there is a strong likelihood that all or most of the fuel would have burned up, while high melting point alloys used in other components would not.

Following receipt of reports from WNRE, the AECB will be in a position to determine the need for and extent of any further remedial or clean-up action required to protect public health and minimize environmental impact.

FOR FURTHER INFORMATION:

Hugh J. M. Spence
Chief, Office of Public Information
(613) 992-9206

20 Feb 78

ENERGY, MINES AND RESOURCES ACTIVITIES - OPERATION MORNINGLIGHT

Geological Survey of Canada's Contribution

The Geological Survey of Canada (GSC), an agency of the Department of Energy, Mines and Resources, was informed about the re-entry of the Soviet satellite Cosmos 954 by the Atomic Energy Control Board at 10 a.m. on 24 January 1978. The GSC is the main centre in Canada for research and development into airborne radioactivity measuring equipment and, as such, it both operates its own aircraft with equipment, and maintains an on-going contract with Canadian service companies. A scientist was despatched to Edmonton immediately and arrived at the same time as the American team. Arrangements were set in motion for the movement of the Geological Survey's airborne gamma-ray spectrometer to Edmonton where it was installed in a Canadian Forces Hercules C-130 aircraft and became operational 24 hours after the U.S. systems. This Canadian spectrometer was only completed in September 1977, possesses greater sensitivity than the U.S. systems being employed in the search, and is self-contained with respect to the ability to analyse the radiation spectrum. The U.S. systems are dependent on post-flight computer processing of the data. On its second flight in the early hours of January 27, the Canadian equipment provided the first certain evidence of radioactive debris. The system has been in continuous operation since that time, and in terms of sensitivity, versatility, and reliability, has demonstrated its superiority over the U.S. equipment. It is now in the process of being interfaced with the Microwave Ranging system (MRS) airborne navigational equipment obtained by DND. Three research scientists and six technicians from the Geological Survey have participated in the operation of this equipment. One scientist and three technicians must be retained on a continuing basis for as long as it is used in the search. This excludes extra scientific and technical assistance required to interface with navigation systems on the military aircraft.

GSC is now making arrangements to obtain through Canadian contractors the use of additional airborne gamma-ray spectrometer systems for use in Canadian Forces helicopters, to replace the U.S. equipment presently being used for the detailed search and recovery of radioactive debris.

.../2

GSC provided a scientist and a technician with neutron borehole logging equipment to go in with the advance party to inspect the Wardens Grove Site. This was in the event that part of the reactor core was present under the ice in the Thelon River. In fact, the specialized equipment was not required, but general assistance was given by the GSC personnel who have considerable experience in scientific work under Arctic conditions.

16 Feb 78

DEPARTMENT OF EXTERNAL AFFAIRS ACTIVITIES - OPERATION MORNINGLIGHT

Canada/USSR Contacts - Soviet Cosmos 954

The Canadian Government has been in close contact with the Soviet authorities on this matter since January 24. The Soviets have provided some information on the technical characteristics of the satellite which could assist us in the ongoing search for radioactive debris. We have requested further information. The USSR has also offered the assistance of specialists in the recovery of remnants of the satellite, but this has not yet been required.

In accordance with our obligations under Article 5 of the 1968 Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, Canada officially notified the Secretary-General of the UN and the Government of the Soviet Union on February 8, 1978, of the discovery on Canadian territory of component parts of a space object, believed to be Cosmos 954. In a statement at the UN on February 14, a Soviet representative acknowledged that the Canadian description of the facts surrounding the re-entry of the satellite was correct, and that the USSR would fulfil its obligations under international law to reimburse Canada for any damage. Since the search and recovery operations are still under way, no claim has yet been submitted by Canada.

Follow-up Action in the United Nations

On February 13, Canada raised the question of the international implications of the Cosmos incident in the Science and Technology Subcommittee of the UN Committee on the Peaceful Uses of Outer Space. In his statement, the Canadian Ambassador to the UN described as the overall objective the development of a régime for the use of nuclear energy sources in outer space which would ensure the highest standards of safety for mankind and protection for the environment. In this aim, Canada is supported by a large number of member nations of the UN.

17 Feb 78

ACTIVITIES OF THE MINISTRY OF THE SOLICITOR GENERAL - OPERATION MORNINGLIGHT

Responsibilities

The search for radioactive debris from the Soviet Cosmos 954 satellite which impacted between Great Slave and Baker lakes, Northwest Territories, is under the overall control of the Department of National Defence. The responsibilities of the Ministry of the Solicitor General to date have been:

- a) to safeguard the press and public from radioactive contamination by providing an RCMP presence at each accessible impact site, and
- b) area patrols to inform isolated personnel to stay clear of affected areas.

Constant liaison is maintained with Canadian Forces personnel so that RCMP may attend when new finds are made.

General Comment

On-scene RCMP report there has been very little public reaction over the satellite incident in the general area affected except for some initial concern at Snowdrift, a settlement near the Fort Reliance debris site. These concerns were allayed by a special visit by military officials and radiation experts who advised there was no danger. RCMP present at debris sites have not as yet encountered unauthorized persons during their tours of duty.

Future Involvements

It is anticipated that an RCMP presence will continue to be required at each site discovered until cleanup operations are completed. Projections of resources expenditures are not possible at this time as resources required will depend on such factors as number of sites discovered and accessibility to the public.

It is also expected that native peoples and other residents in the area affected will turn to the RCMP for reassurance whenever they discover isolated bits of metal or other debris or even suspect fish or animals. The Atomic Energy Control Board has offered to provide the necessary detection equipment for RCMP Detachments at Baker's Lake and Snowdrift.

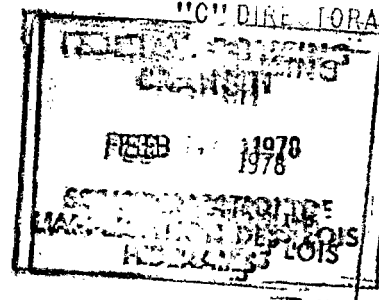
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PLS REFER TO PGE THREE LINE 6 AS THE FWLG SENTENCE WAS OMITTED BETWEEN
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'OUR PERSONNEL WITHDRAWN 13 FEB 73. THROUGHOUT OPERATION, MILITARY
SUPPLIED THIS FORCE WITH CAMPING EQUIPMENT FOR USE AT VARIOUS SITES.'

YELLOWKNIFE TELECOMS

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*correction given
to Sol. Gen.
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MONITORING & ANALYSIS BR.	<input type="checkbox"/>	S.-DIR, DU CONTRÔLE ET DE L'ANALYSE
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COMMERCIAL CRIME BR.	<input type="checkbox"/>	S.-DIR, DES INFRACTIONS COMM.
DRUG ENFORCEMENT BR.	<input type="checkbox"/>	S.-DIR, DES DROGUES
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SPECIAL "I" BR.	<input type="checkbox"/>	S.-DIR, SPÉCIALE "I"
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Gouvernement
du Canada

ACTION FICHE DE
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for your info &
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RESTRICTED

TELECOMMUNICATIONS

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T15 RLY OTT FEB 17 (161908)

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CO:MR OTT

GAP37 FOR THE PERSONAL ATTN OF INSP CHARIOT FEDERAL POLICING
BRANCH OPERATION MORNING LIGHT G DIV COSTS FOR SATELLITE
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A) MAN HOURS IN STRAIGHT TIME AND OVERTIME	5,500.63
B) TRAVELLING EXPENSES	452.60
C) POLICE AIRCRAFT	8,342.28
D) POLICE CAR MILEAGE	57.50
E) SKI DOO HOURS	10.00
F) RADIO BATTERIES	121.65

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PAGE TWO GCIB099/1

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PAGE THREE GCIB099/1

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PAGE THREE GCIB099/1

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NOT EXPRESSED ANY CONCERN TO US THEY HAVE SINCE RETURNED TO THEIR
CAPIN AT WARDENS GROVE WHICH IS TWELVE MILES FROM DEBRIS SITE WHERE
MILITARY ARE SETTING UP CAMP AND AN AIRSTRIP OUR MEMBERS WHO
GUARDED THE VARIOUS DEBRIS SITES NEVER ENCOUNTERED ANY UNAUTHORIZED
PERSONS DURING THEIR TOUR OF DUTY

G DIV

NOTE TO FILE:

14/2/78

S/Sgt. Lambert advised concerning equipment.

15/2/78

Leo Cloutier advised report required for Monday meeting (its at 2:00 p.m. now) Indian Affairs making up info package for distribution - be sure to have input.

S/Sgt. Lambert called - report required for Monday and there is no requirement for radiation detection devices according to discussions held with D.N.D. and A.E.C.B. on spot. The radiation level is very low and hand held devices would not be sufficiently sensitive to assist in location find. D.N.D. has equipment which would be available.

Corneya called 10:45 - 16/2 and he goes along with views. However, he will be in area next week. Will examine need and if any change. Will advise.

A handwritten signature, possibly of the name 'Lambert', is written in dark ink. It features a large, stylized initial 'L' with a loop at the bottom and a vertical stroke extending upwards.

NOTE TO FILE:

14/2/78 - 1:45

Mr. Corneya 3-5123 advised there are two pieces of equipment available for use as detectors.

(1) a cigarette sized counter which will identify amount of radiation taken in over period of time and will work on anyone. It has ~~b~~eeper which is slow on light ~~of~~ diffuse rads and picks up speed as you get nearer to source.

COST: \$240.00 from Radionics in Ottawa. (He is buying 18 or so for A.E.C.B. staff).

(2) Larger Machine which will pick up amount of radiation someone has picked up from any source. More sophisticated and sensitive. It is 3 lbs, is portable and can be taken to ~~site~~ ~~te~~.

COST: "in the \$600.00 range."

Yellowknife can talk to Tom Robertson who has knowledge of equipment and is A.E.C.B. man at Yellowknife.

Corneya does not believe D.N.D. equipment is best.





ROYAL CANADIAN
MOUNTED POLICE

GENDARMERIE ROYALE
DU CANADA

TRANSMITTAL SLIP - FICHE D'ENVOI

D/COMMR. (Cr. Ops.)	<input type="checkbox"/>	S.-COMM., SÛR.
D.C.I.	<input type="checkbox"/>	DIR, E.J.
CO-ORD. N.C.O.	<input type="checkbox"/>	S.-OFF. COORD.
MONITORING & ANALYSIS BR.	<input type="checkbox"/>	S.-DIR. DU CONTRÔLE ET DE L'ANALYSE
A/D.C.I. - Fed.	<input type="checkbox"/>	DIR, ADJ, E.J. (féd.)
NATIONAL CRIME INTEL. BR.	<input type="checkbox"/>	S.-DIR. DES RENS. SUR LA CRIMINALITÉ
COMMERCIAL CRIME BR.	<input type="checkbox"/>	S.-DIR. DES INFRACTIONS COMM.
DRUG ENFORCEMENT BR.	<input type="checkbox"/>	S.-DIR. DES DROGUES
CUSTOMS & EXCISE BR.	<input type="checkbox"/>	S.-DIR. DES DOUANES ET DE L'ACCISE
SPECIAL "I" BR.	<input type="checkbox"/>	S.-DIR. SPÉCIALE "I"
A/D.C.I. - Gen.	<input type="checkbox"/>	DIR, ADJ, E.J. Gén.
LEGAL BR.	<input type="checkbox"/>	S.-DIR. DU CONTENTIEUX
CONTRACT POLICING BR.	<input type="checkbox"/>	S.-DIR. DES SERVICES DE POLICE À CONTRAT
FEDERAL POLICING BR.	<input checked="" type="checkbox"/>	S.-DIR. DE L'APPLICATION DES LOIS FÉDÉRALES
NATIVE POLICING BR.	<input type="checkbox"/>	S.-DIR. DE LA POLICE DES AUTOCHTONES

☐ APPROVAL AND SIGNATURE
AUTORISATION ET SIGNATURE

☐ PERUSAL
LECTURE

FROM - DE

Moe (F) 15-2-78

A-538* (7/76)

000762

Government
of CanadaGouvernement
du Canada

ACTION

FICHE DE

REQUEST

SERVICE

TO - A

O/E Fed Pol Br

FILE NO. — DOSSIER N°

DATE

14-2-78

FROM - DE

D.E.I.

☐ PLEASE CALL
PRIÈRE D'APPELER

TEL. NO. - N° DE TEL.

EXT. - POSTE

☐ WANTS TO SEE YOU
DÉSIRE VOUS VOIR

DATE

TIME - HEURE

☐ WILL CALL AGAIN
DOIT RAPPELERCALL RECEIVED BY
MESSAGE REÇU PAR☐ ACTION
DONNER SUITE☐ APPROVAL
APPROBATION☐ NOTE & RETURN
NOTER ET RETOURNER☐ COMMENTS
COMMENTAIRES☐ DRAFT REPLY
PROJET DE RÉPONSE☐ NOTE & FORWARD
NOTER ET FAIRE SUIVRE☐ MAKE
FAIRE COPIES☐ SIGNATURE☐ NOTE & FILE
NOTER ET CLASSER

Note Rep concurrence
with our position
re RCAF present.

P.A.

000763

TRANSIT SLIP

DATE 13-2-78

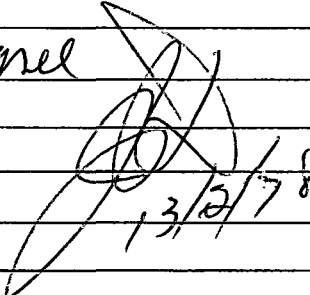
TO: Dep. Commr (Ops) FROM: D.C.I.
 TO: DCI FROM: D/C ops
 TO: FROM
 TO: FROM
 TO: FROM

☐ COMMENTS ☐ PREPARE BRIEF ☐ CHECK RECORDS
☐ PERUSAL - NO ACTION REQUIRED ☐ SEE SENDER ☐ INSTRUCTIONS
☐ EXAMINATION AND ACTION ☐ MAKE FILE(S)
☐ PREPARE REPLY ☐ RETURN WITH CURRENT FILE

REMARKS

For your info. I have been insisting that we (R.C.M.P.) stay involved to carry out any necessary peace officer duties around these sightings. "G" Div were at first reluctant to do so as they felt it was not very cost effective. In my view it is essential we be around & be seen & be around to preserve the concept of the military acting only under the direction & control of the local police.

REPLY

I agree

 13/2/78

TELECOMMUNICATIONS
FEB 13 7 43 AM '78
"C" DIRECTORATE

DCI
a copy passed
to Fed Pol Bu
13-2-78
Bd

013 RLY OTT FEB 13 (101753)

44 PRIORITY YK FEB03 UNCLAS

COMMR OTT
INFO YELLOWKNIFE SUB/DIV

PRIORITY

GCIB092/2 ATTN DCI AND INSP CHAIROT - FEDERAL POLICING BRANCH
RE COSMOS SATELLITE AT APPROX 12:30 PM MST TODAY, MILITARY
HELICOPTER PICKED UP SEVERAL RADIOACTIVE HOT SPOTS IN AREA ONE
FOUR MILES WEST OF SETTLEMENT OF SNOWDRIFT LOCATED SOUTH WEST
OF RELIANCE ON GREAT SLAVE LAKE, NWT IMMEDIATE ACTION UNDERTAKEN
TO CORDON OFF AREA AND ONE MEMBER WITH MILITARY ASSISTANCE
DISPATCHED TO SCENE LOCAL MILITARY ASSISTANCE DISPATCHED TO
SCENE LOCAL MILITARY, COL BUTCHART, INFORMED AT THIS TIME
NO PIECES HAVE BEEN DISCOVERED TO OUR KNOWLEDGE AND THESE ARE
READINGS ONLY

((SGT DREGER C DIR DNCO ADVISED...HCLD TILL MON AM)))...CS

A/Spec(F)
15-2-78

NOTE TO FILE:

Mr. Corneya from (3-5123) John Jenikens office called to ascertain what our requirements were at 4:00 p.m. of 10th. He put off finishing call to Monday.

Meeting 13/2/78

2 men went into Snowdrfit on Friday.

6 hits (not recovered)

Unconfirmed 46 (1x45 mi. area)

7 hits recovered (As of 12 Feb. 24:00)

Flying time to date 1,135.5 hours.

Rotational NASC - 2 week tours for personnel.

(10 miles N and West (then the 1x45 mi. strip) of Snowdrift)
Fairly high rads but small pieces. Nearest is about 1 miles from Snowdrift.

Baker Lake is still further west Eastern point.

Dr. Eaton - Front Page Challenge.

Edmonton doing 10:00 a.m. press conference.

Privy Council office - lessons learned and requirements of future similar activities. Mr. Pittfield will send letter to each department.

General feels its a little early and he wants initial report as first step, then examine what was lacking. Stay way from General - go specific concerning Crisis Management.

Middle of next week - Weisman will be making a report.

Record of events which affected us and concerned us for P.C. Office.

Friday at 11:00 next meeting. Okay.

Committee report - draft needed. Narrative required of activities to date.

Solicitor General, R.C.M.P. - what we do with the general population safety and security as peace officer of N.W.T.

A handwritten signature or set of initials, possibly 'J.B.', written in dark ink. It consists of a large, stylized letter 'J' or 'L' with a loop, followed by a smaller letter, possibly 'B' or 'P'.

A.E.C.B./SOL. GEN.

ARRANGEMENTS

JON JENNEKINS D-G OPS 996-9947

GEOFF KNIGHT MGR. COMPLIANCE DIVISION

NOTE TO FILE:

Advised by Pat Ansel - 9/2/78

At Meeting of 9 February 1978. Chairman suggested

(1) that group must decide on long term activity to be carried out once scientific teams are withdrawn (2 mos. time). Suggested supply of geiger counters to all R.C.M.P. detachments in area.

(2) Report of activity by each department to be made to supply complete picture to cabinet.

10/2/78

Ansel advises the A.E.C.B. wants to supply gieggers and train at least to Yellowknife and detachments. Mr. John Jennikens is A.E.C.B. man and he will talk to Leo Cloutier and I on Monday.

Insp. Rechner called on geigers. He suggested maximum needed 3 - 1 at Yellowknife, Bakers Lake and Snowdrift. However as sitingswould likely be at remote spots - the D.N.D. base could fly in with Twin Otter easier than we and they are (probably) equipped to handle removal.



TRANSIT SLIP

FICHE DE SERVICE

Date

7-2-78

TO
À

A/C.I.

FROM
DE

A/D C I (F)

11.45 AM.

A/D C I (FED)

D.C.I.

Comments ☐ Commentaires

Make File(s) ☐ Dossier(s) à ouvrir

Perusal - No Action Required ☐ Pour information - aucune suite requise

Return with Current File ☐ Retourner avec le dossier courant

Examination and Action ☐ Pour examen et suite

Check Records ☐ Vérifier les archives

Prepare Reply ☐ Réponse à rédiger

Instructions ☐ Directives

Prepare Brief ☐ Exposé à préparer

See Sender ☐ Voir l'expéditeur

REMARKS
COMMENTAIRES

C/Supt. Butler - C.O. "S" Die
phoned saying that the Armed
forces, R.C.M.P. and others had all
now moved out of the site at
Pt. Pelee as the search & recovery
was all finished there.

REPLY
RÉPONSE

Wardens Grove - The Armed forces
have 15 men in there and they
are doing a clean-up (sifting
snow for small particles etc.)

Most of the news media have left
and he will be taking over two
members out from the site due to
lack of activity to-day. He
will send us a telex on this.

Told him he was no doubt in
the best position to know if R.C.M.P.
presence was still required or
desirable and he felt that we
could no longer have any
purpose by leaving our members
there. What do you think?

O.K. I am satisfied with the above.
Did you see my notes on the letter from
Robin Bourne to Commr. It went to
F.P.B. yesterday re this subject.

A/D C I (F)

000770

Government
of CanadaGouvernement
du CanadaACTION
REQUESTFICHE DE
SERVICE

TO - À

A DCI (GEN)

FILE NO. — DOSSIER N°

DATE

FROM - DE

A/O 1/c FPB

☐ PLEASE CALL
PRIÈRE D'APPELER

TEL. NO. - N° DE TEL.

EXT. - POSTE

☐ WANTS TO SEE YOU
DÉSIRE VOUS VOIR

DATE

TIME - HEURE

☐ WILL CALL AGAIN
DOIT RAPPELERCALL RECEIVED BY
MESSAGE REÇU PAR ►☐ ACTION
DONNER SUITE☐ APPROVAL
APPROBATION☐ NOTE & RETURN
NOTER ET RETOURNER☐ COMMENTS
COMMENTAIRES☐ DRAFT REPLY
PROJET DE RÉPONSE☐ NOTE & FORWARD
NOTER ET FAIRE SUIVRE☐ MAKE
FAIRE COPIES☐ SIGNATURE☐ NOTE & FILE
NOTER ET CLASSER

FOR YOUR INFO

RT

000771

FPP 2.

FEB - 7 1978
g 30

TELECOMMUNICATIONS

FEB 7 2 15 PM '78

"C" DIRECTORATE

FEDERAL POLICING
BRANCH

FEB 7 1978

SOUS DIRECTION DE
L'APPLICATION DES LOIS
FEDERALES

TOP

CIB OTT

56 RLY OTT FEB 7

19 ROUTINE YK FEB7 UNCLAS

78 HA - 102 - 15 - 4

OMMR OTT

GCIB080/1 ATTN D C I RE: COSMOS SATELLITE POLICE PRESENCE
AT TWO DEBRIS SITES NO LONGER REQUIRED MEMBERS AT FORT RELIANCE
SITE WERE WITHDRAWN 6FEB78 AFTER ALL DEBRIS REMOVED FIFTEEN
DND MEMBERS AT WARDEN'S GROVE SITE HAVE REMAINING DEBRIS READY
FOR REMOVAL TODAY ARRANGEMENTS BEING MADE TO WITHDRAW OUR
MEMBERS TODAY IF POSSIBLE DND REMAINING AT WARDEN'S GROVE
FOR CLEAN UP THERE ARE NO OTHER DEBRIS SITES IDENTIFIED TO DATE
G DIV

*O.K.
R/dei(F)
A/1-2-78*



ROYAL CANADIAN
MOUNTED POLICE

GENDARMERIE ROYALE
DU CANADA

TRANSMITTAL SLIP - FICHE D'ENVOI

D/COMMR. (Cr. Ops.) ☐ S.-COMM., SÛR.

D.C.I. ☐ DIR. E.J.

CO-ORD. N.C. ☐ **PELLETIER & LOFF COBBERG**

MONITORING & ANALYSIS BR. ☐ **BRANCH DU CONTRÔLE ET DE L'ANALYSE**

A/D.C.I. - Fed. ☐ **FEB 8 1978** DIR. ADJ. E.J. (féd.)

NATIONAL CRIME INTEL. BR. ☐ **S.O.U.S. DIR. DES ENQUÊTES SUR LA CRIMINALITÉ DES LOIS**

COMMERCIAL CRIME BR. ☐ **S.-DIR. DES INFRACTIONS COMM.**

DRUG ENFORCEMENT BR. ☐ S.-DIR. DES DROGUES

CUSTOMS & EXCISE BR. ☐ S.-DIR. DES DOUANES ET DE L'ACCISE

SPECIAL "I" BR. ☐ S.-DIR. SPÉCIALE "I"

A/D.C.I. - Gen. ☐ DIR. ADJ. E.J. (gén.)

LEGAL BR. ☐ S.-DIR. DU CONTENTIEUX

CONTRACT POLICING BR. ☐ S.-DIR. DES SERVICES DE POLICE À CONTRAT

FEDERAL POLICING BR. ☒ S.-DIR. DE L'APPLICATION DES LOIS FÉDÉRALES

NATIVE POLICING BR. ☐ S.-DIR. DE LA POLICE DES AUTOCHTONES

NAME AND SIGNATURE

NOM ET SIGNATURE

☐ PERUSAL
LECTURE

(F)

7-2-78

000773



Government
of Canada

Document disclosed under the Access to Information Act -
Document divulgué en vertu de la Loi sur l'accès à l'information

Government
du Canada

ACTION
REQUEST

FIGURE
SERVICE

TO - A

A/DC (Gen)

FILE NO. — DOSSIER N°

DATE

6-2-78

FROM - DE

D.C.I.

☐ PLEASE CALL
PRIÈRE D'APPELER

TEL. NO. - N° DE TEL.

EXT. - POSTE

☐ WANTS TO SEE YOU
DÉSIRE VOUS VOIR

DATE

TIME - HEURE

☐ WILL CALL AGAIN
DOIT RAPPELER

CALL RECEIVED BY
MESSAGE REÇU PAR ►

☐ ACTION
DONNER SUITE

☐ APPROVAL
APPROBATION

☐ NOTE & RETURN
NOTER ET RETOURNER

☐ COMMENTS
COMMENTAIRES

☐ DRAFT REPLY
PROJET DE RÉPONSE

☐ NOTE & FORWARD
NOTER ET FAIRE SUIVRE

☐ MAKE
FAIRE COPIES

☐ SIGNATURE

☐ NOTE & FILE
NOTER ET CLASSER

Attn: Insp CHIAROT - F.P.B.

See my notes please &
P.A. if nothing has
changed. Please up-
date me as required

000774

DEPARTMENT OF THE
SOLICITOR GENERAL



MINISTÈRE DU
SOLICITEUR GÉNÉRAL

POLICE AND SECURITY PLANNING
AND ANALYSIS GROUP

CENTRE DE PLANIFICATION ET
D'ANALYSE DE LA POLICE ET DE LA SÉCURITÉ

MEMORANDUM

January 30, 1978

TO: DEPUTY SOLICITOR GENERAL

FROM: ASSISTANT DEPUTY MINISTER
(POLICE & SECURITY)

RE: DND ASSISTANCE IN GUARDING DEBRIS FROM USSR
SATELLITE IN NORTH WEST TERRITORIES

At 8:30 p.m., January 29, 1978 the DND Duty Officer, Lieutenant Colonel P. Cheevers requested my assistance in arranging for the protection of radio-active debris at Warrens Grove, N.W.T. and at Fort Reliance, N.W.T. There was concern that curious persons, particularly members of the news media might get too close to the radio-active debris and become contaminated.

The difficulty seemed to be that members of the news media might fly in to Warrens Grove air strip at first light January 30, 1978 which is unguarded, before it was possible for the RCMP to station a man there.

After discussion with both B/General Weisman and L/Col. Cheevers, it was agreed that, even though there was no law available for keeping curious persons away from Warrens Grove, the Government had a moral obligation to protect people from radio-active contamination. As a consequence, I requested DND to guard the site at Warrens Grove by dropping sufficient numbers of airborne soldiers onto the site before first light. DND agreed but requested, however, the presence of an RCMP member at the Warren's Grove site as soon as possible after first light.

It was also agreed that the RCMP at Yellowknife and DND Northern Command should plan now for similar arrangements to guard the radio-active debris found at Fort Reliance.

I telephone Commissioner Simmonds at about 9:15 p.m. to inform him of the arrangements which I had requested. Commissioner Simmonds said he would be in contact with the RCMP Commanding Officer in

DCI
Info
3/2/78
D/Comm (C)
Info

.../2

- 2 -

Yellowknife to ensure that the excellent police-military cooperative arrangements would continue.


Robin Bourne


c.c. → Commissioner R.H. Simmonds, RCMP
Mlle M. Fortier, Solicitor General's Office

I write to above:

Unable to reach P.O. 2. Div.
Spoke to Supt. Barker - P.I.B. Officer - arranged
that he ensure full co-operation with military
authorities in the N.W.T.

Letter from "G" Div dated same night confirmed
that satisfactory liaison had been established & all
matters were under control.

RM.

On 1 Feb 78 Supt Barker called me from Yellowknife reluctant
to get involved in the stationing of members at these sites. In my
view this is at the moment necessary and I directed that it be done
until the situation is fully assessed & we know the extent of media
interest and intervention as well as the logistics of clearing away the
debris. I think the principle of military acting under police
control is important in these circumstances and cannot be emphasized
if we don't even have a presence at the sites. Discussed further
with ~~and~~ Fed Pol Branch (Pol Centre) Chicago who is pursuing
this with "G" Div to ensure our continued participation. If this
becomes too demanding or unnecessary "G" Div is to advise 1000776
full details for further consideration.  6-2-78

C O N F I D E N T I A L

C O N F I D E N T I A L

NOTE TO FILE:

3 Feb. 1978.

Pat Ansel, Solicitor General's office attended today's meeting. He advised the only new business was the tacit agreement of all attending that D.N.D. form an information cell which would handle all letters received from the public (at Ministerial or political level to ensure conformity with all other replies, particularly in cases where one person (organization) writes to many departments.)

The Indian Affairs draft reply was tabled but was shot down after two sentences read and the "info cell" will draft reply. The draft indicated the entire matter was of real concern when, in fact, it is not as it is well in hand. The activity will begin to wind down as it is felt most if not all debris has been identified.

NOTE TO FILE: 78HQ-102-15-4

I attended 11:00 a.m. 2nd February 1978 meeting at N.D. H.Q. - NDOC which included members from AECEB, EMR, Environment, E.A. and others.

The DND gave resume of previous day's activities at site and provided a copy of briefing paper which was presented to their minister that a.m. The temperature in the area was -105°C (wind chill factor) and made it impossible for men to work on repairs to 4 unserviceable aircraft.

The Minister of Defence, Mr. Danson would be travelling to Yellowknife arriving there Saturday with aides and contingent of press.

There was a lot of discussion about press releases with the Environment man worried that a release was too categorical concerning probable little or no danger from radiation to man, beast or environment. AECEB stated it was based on all knowledge gleaned to date and upon my specific question - what does one tell an Inuit or hunter who wishes to go into the area? - The reply was "there is no danger, if you see a foreign object, don't touch, get away from it and stay away. "

The Indian Affairs man had a letter from the Brotherhood. ~~I~~ I presume Inuit-Indian which wanted all details and he was to table draft of reply on 3rd.

Supt. Barker "G" Division C.I.B. officer was called, given relevant details of above. They have no problems there, the Inuit and Indians have made queries but present no worry. They are advised by the official contacted on the same lines as my question was answered. He was concerned about our members being at the site. I repeated the need for an R.C.M.P. presence and as instructed by the D.C.I. suggested when the initial furor died down he reassess the need for our members being on site and if he felt they could be removed he should so advise the Comm'r., stipulating reasons and await okay. Because of

... 2

briefing sessions here I advised we did not require briefing reports from him but that we were prepared to assist if anything unusual came up.

Mr. Leo Clouthier of Solicitor General's office contacted. He will be away next week and his replacement will be PAT ANSEL at 6-5092.



D. Chiaret, Insp.
A/Officer in Charge
Federal Policing Branch

SEQUENCE OF OPERATIONAL ACTIVITIES - OP MORNINGLIGHT

LISTED BELOW BY DATES ARE SEQUENCE OF OPERATIONAL ACTIVITIES
RELATED TO THE DEORBIT OF THE SOVIET COSMOS 954. ALL TIMINGS, WHERE INCLUDED
ARE GIVEN IN THE TIME ZONE WHERE THEY OCCURED AND OTTAWA LOCAL IN BRACKETS -
ie. 1900 MST (2100).

24 JAN

COSMOS 954 ENTERED THE EARTH'S ATMOSPHERE AT 0353 PST (0653) NORTH OF
THE QUEEN CHARLOTTE ISLANDS. FOLLOWING APPROXIMATELY A THREE MINUTE BURN
PERIOD, PIECES OF THE SATELLITE IMPACTED IN THE NORTHWEST TERRITORIES
BETWEEN GREAT SLAVE LAKE AND BAKER LAKE.

AT 0735 EST (0735) NORAD INFORMED NDOC OF THIS EVENT. AT 0910 EST
(0910) THE US DOE CONTACTED NDOC QUERYING AS TO WHAT ASSISTANCE CANADA MIGHT
REQUIRE FROM THE USA. FOLLOWING DISCUSSIONS IT WAS DETERMINED THAT US C141s
WOULD BRING TO EDMONTON THE US DEPARTMENT OF ENERGY SANDS GAMMA DETECTION
PODS FOR INSTALLATION IN CANADIAN CC130 HERCULES AIRCRAFT. A US U-2 AND A
KC 135 CONDUCTED HIGH ALTITUDE AIR SAMPLING FOR GAMMA RADIATION OVER ALBERTA
AND SASKATCHEWAN. RESULTS PROVED NEGATIVE. AT 1327 EST (1327) US DOE ADVISED
NDOC THAT AUTHORITY FROM US DOD HAD BEEN GRANTED TO RELEASE THE C141s. C141s
TO ARRIVE IN EDMONTON BY 1700 MST (1900). C141s ACTUALLY ARRIVED IN EDMONTON
AT 1738 MST (1938). FOUR CC130 HERCULES WERE STANDING BY TO RECEIVE EQUIPMENT.
AT 1645 MST (1845) THE RADIATION MONITORING SECTION OF THE EDMONTON NUCLEAR
ACCIDENT SUPPORT TEAM ARRIVED IN YELLOWKNIFE.

BASED ON KNOWN DATA THE AREA BETWEEN FORT RELIANCE AND BAKER LAKE WAS
DIVIDED INTO EIGHT (8) SECTORS ALONG THE SATELLITE TRACK.

.../2

- 2 -

25 JAN

BY THE EARLY MORNING THE SANDS EQUIPMENT HAD BEEN TRANSFERRED TO THE THREE HERCULES. THE FIRST AIRCRAFT DID A TRACK CRAWL AT 1500 FEET FROM FORT RELIANCE TO BAKER LAKE ALONG THE SATELLITE TRACK. THE SECOND HERCULES ALSO CONDUCTED A TRACK CRAWL WHILE THE THIRD AIRCRAFT SEARCHED SECTOR ONE (1) AT 700 FEET. AT 1000 EST (1000) A US U-2 AND A KC135 COMMENCED SECOND HIGH ALTITUDE AIR SAMPLING MISSIONS OVER MICHIGAN AND NORTHERN ONTARIO. RESULTS OF THESE FLIGHTS ALSO SHOWED NO ABNORMAL RADIATION LEVELS.

YELLOWKNIFE BASED CC138 TWIN OTTERS (2) TASKED TO CONDUCT VISUAL SEARCH SOUTH EAST OF YELLOWKNIFE FOR NON RADIO ACTIVE DEBRIS. RESULTS OF SEARCH WERE NEGATIVE. AT 0814 MST (1014) EDMONTON WAS TASKED TO AIRLIFT THE RADIATION MONITORING SECTION OF THE NAS TEAM TO FORT RELIANCE TO CONDUCT GROUND RADIATION MONITORING THERE. RESULTS OF MONITORING IN YELLOWKNIFE AND FORT RELIANCE WERE NEGATIVE.

AT 1419 EST (1419) NORAD REPORTED AN INFRA RED HOT SPOT NORTH WEST OF FORT ST JOHN. INVESTIGATION DETERMINED THAT THIS WAS A NATURAL GAS COMPRESSOR STATION BLEEDING OFF EXCESS PRESSURE.

AT 2106 MST (2306) A HERCULES CONTACTED A HOT SPOT IN SECTOR FIVE (5). SUBSEQUENT SEARCHES OF SECTORS HAVE NOT DETECTED THIS HOT SPOT. IT REMAINS UNCONFIRMED.

26 JAN

SEARCH OF SECTOR 5 INCONCLUSIVE. THROUGHOUT THE DAY SEARCH CONTINUED IN SOUTH HALF OF SECTOR 1 AND 2, 5 AND 8. THE RADIATION MONITORING SECTION WAS FLOWN TO BAKER LAKE WHERE GROUND MONITORING SHOWED NO INCREASE IN NORMAL RADIATION LEVELS.

27 JAN

SEARCH CONTINUED IN SECTORS 1,2,3,5,6,7 AND 8. FOUR HUNTERS WERE LOCATED NORTH OF SECTOR 6. THEY INTEND ED TO WORK THEIR WAY SOUTH EAST TO

.../3

- 3 -

BAKER LAKE DURING THE NEXT TWO WEEKS. THREE(3) TRAPPERS LOCATED AT MUSKOK
RESERVE. SIX PERSONS WERE ALSO LOCATED AT WARDENS GROVE (SECTOR 4). THESE
MEN ARE IN CONTINUOUS CONTACT WITH FISH AND WILDLIFE OFFICIALS IN YELLOWKNIFE.
AIR RESOURCES ON 27 JAN WERE:

3 X CC130 HERCULES

3 X CC138 TWIN OTTERS

3 X CH135 TWIN HUEYS

1 X CH147 CHINOOK

1 X CONVAIR (US)

1 X CH147 CHINOOK ENROUTE FROM PETAWAWA

THREE NEW "NOT SPOTS" LOCATED. CONFIDENCE LEVEL IN ALL THREE CONSIDERED LOW.
(THEY ARE SUSPECTED TO BE NATURAL URANIUM OUTCROPS).

28 JAN

AT 1215 MST (1415) NDOC RECEIVED A VERBAL REPORT FROM AIRCOMD THAT
THREE HOT SPOTS HAD BEEN LOCATED ON MCLEOD BAY IN SECTOR ONE (1). ONE WAS
CONSIDERED TO BE GEOLOGICAL AND THE OTHER TWO ARE POTENTIALLY SATELLITE DEBRIS.
THIS WAS LATER CONFIRMED.

AT 1842 (2042) AIR COMMAND ADVISED NDOC THAT TWO OF THE MEN AT WARDENS
GROVE HAD DISCOVERED AND HANDLED AN OBJECT ON THE ICE OF THELON RIVER. THE
SIX MEN WERE EVACUATED BY TWIN OTTER TO YELLOWKNIFE HOSPITAL, AND THE TWO WHO
HAD HANDLED THE OBJECTS WERE THEN FLOWN TO THE W.W. CROSS CANCER INSTITUTE IN
EDMONTON. SUBSEQUENT TESTS INDICATED THAT THE MEN HAD NOT PICKED UP ANY
RADIATION.

SEARCH OF ALL EIGHT SECTORS WAS COMPLETED AND EFFORTS CONCENTRATING
ON SECTOR 1 AND 4 WHERE READINGS ARE STRONGEST.

29 JAN

AN ARGUS FROM SUMMERSIDE WAS FLOWN IN TO ASSIST IN THE SEARCH. FOUR
VOLUNTEERS FROM THE CANADIAN AIRBORNE CENTRE IN EDMONTON WERE TASKED FOR
GUARD DUTIES AT WARDENS GROVE.

.../4

9
30 JAN

- 4 -

RCMP HAVE TWO MEN IN SECTOR 1 GUARDING DEBRIS ON MCLEOD BAY. A SECOND ARGUS FROM SUMMERSIDE EQUIPPED FOR AERIAL PHOTOGRAPHY ARRIVED THIS DATE. THE FOUR MEN FROM CABC WERE PARA DROPPED INTO SECTOR 4.

--- PAUSE IN SEARCH WHILE SCIENTISTS EVALUATE DATA ---

31 JAN

AS A RESULT OF DATA ANALYSIS TWO MORE SECTORS ADDED TO SEARCH AREA. AIR TRANSPORT GROUP TASKED TO FLY ADDITIONAL EXTENDED RANGE FUEL TANKS FOR CHINOOKS TO EDMONTON.

DEBRIS FROM SECTOR 1 IS NOW IN YELLOWKNIFE AND SCRAPINGS FROM DEBRIS IN SECTOR 4 HAVE BEEN COLLECTED. THE SCRAPINGS WILL BE TAKEN TO EDMONTON IN SPECIAL CONTAINERS AND ANALYSED BY THE AECB. THE DEBRIS FROM SECTOR 1 WILL BE ANALYSED IN YELLOWKNIFE.

CURRENT SITUATION

AIR ASSETS

5 X CC130 HERCULES (EDMONTON)
2X CP107 ARGUS (EDMONTON)
3 X CC138 TWIN OTTER (YELLOWKNIFE)
2 X CH135 TWIN HUEYS (YELLOWKNIFE)
2 X CH147 CHINOOKS (2 YELLOWKNIFE, 1 IN BAKER LAKE)
1 X US DOE CONVAIR (EDMONTON)
1 X USAF C141 (EDMONTON)

RADIATION MONITORING EQUIPMENT

3 X SANDS RAD MON KITS
1 X EMR RAD MON KIT

ALL RAD MON KITS ARE USED IN HERCULES OR ARGUS AIRCRAFT AS REQUIRED.

RCMP - SECTOR 4

IN SECTOR FOUR THERE ARE CURRENTLY TWO RCMP CONSTABLES. ONE IS AT WARDENS GROVE AND THE OTHER IS AT THE SITE OF THE DEBRIS (12 MILES FROM WARDENS GROVE.)

000783

01 FEB

THREE HERCULES CONDUCTED A FORMATION SENSOR SWEEP FROM SECTOR 1 TO SECTOR 4. FLYING AT 1000 FT ALTITUDE WITH 750 FT BETWEEN AIRCRAFT, THE HERCULES COMPLETED TWO TRACKS, ONE MILE APART.

A FOURTH HERCULES CONDUCTED A SUPPLY RUN FROM EDMONTON TO BAKER LAKE TO YELLOWKNIFE AND RETURNED TO EDMONTON AT 1500 MST (1700)

TWO CC138 TWIN OTTERS LANDED A GROUND PARTY AT SITE ONE AND A CH135 TWIN HUEY ASSISTED IN THE AREA.

WARDEN GROVE

SAMPLES FROM WARDENS GROVE SITE NOW IN EDMONTON IN "PIGS" UNDER-GUARD OF NUCLEAR SAFETY OFFICER. IN SECTOR FOUR 1 RCMP AND 4 CABC AT AIRSTRIIP, 1 RCMP, 1 RS AT SITE.

SECTOR 1

A LARGE LIGHT OBJECT 75 cm x 40 cm (DIA) x 5 cm FOUND AT MOST WESTERN SITE IN SECTOR 1. OBJECT WAS CHARRED AND HAD OBVIOUSLY BEEN EXPOSED TO HIGH HEAT, HOWEVER IT WAS NOT RADIOACTIVE. TAKEN TO YELLOWKNIFE.

HIT 1-1

4 cm x 10 cm SILVER METALLIC OBJECT FOUND ON TOP OF ICE. OBJECT WAS RADIOACTIVE AND SHOVEL USED TO REMOVE IT ALSO CONTAMINATED. OBJECT AND SHOVEL NOW IN YELLOWKNIFE.

HIT 1-2

OBJECT IS 8-10 INCHES X 4 INCHES THICK, AND HAS SURFACE RADIATION OF 100 RAD/HR. SITE HAS BEEN CORDONED OFF AT THE 30 MR/HR AND 3 MR/HR CONTOUR LINES.

HIT 1-3 AND 1-4

HIT 1-3 HAS BEEN MARKED AND WILL BE ISOLATED ON 02 FEB. HIT 1-4 WILL BE LOCALIZED TODAY IF TIME PERMITS.

A CABIN HAS BEEN LOCATED 22 MILES NORTH OF HIT 1-2 ON GOODSPEED LAKE. CABIN APPARENTLY IN USE BUT EMPTY. NOTE LEFT FOR OCCUPANTS.

AIRCRAFT RESOURCES

2 X CC130 HERCULES UNSERVICEABLE AT EDMONTON.
2 X CH147 CHINOOKS UNSERVICEABLE AT BAKER LAKE.
1 X CH147 CHINOOK SERVICEABLE AT YELLOWKNIFE.
2 X CH138 TWIN OTTERS SERVICEABLE AT YELLOWKNIFE.
2 X CH135 TWIN HUEYS SERVICEABLE AT YELLOWKNIFE.

- 6 -

1 X CONVAIR SERVICEABLE

1 X ARGUS UNSERVICEABLE IN EDMONTON.

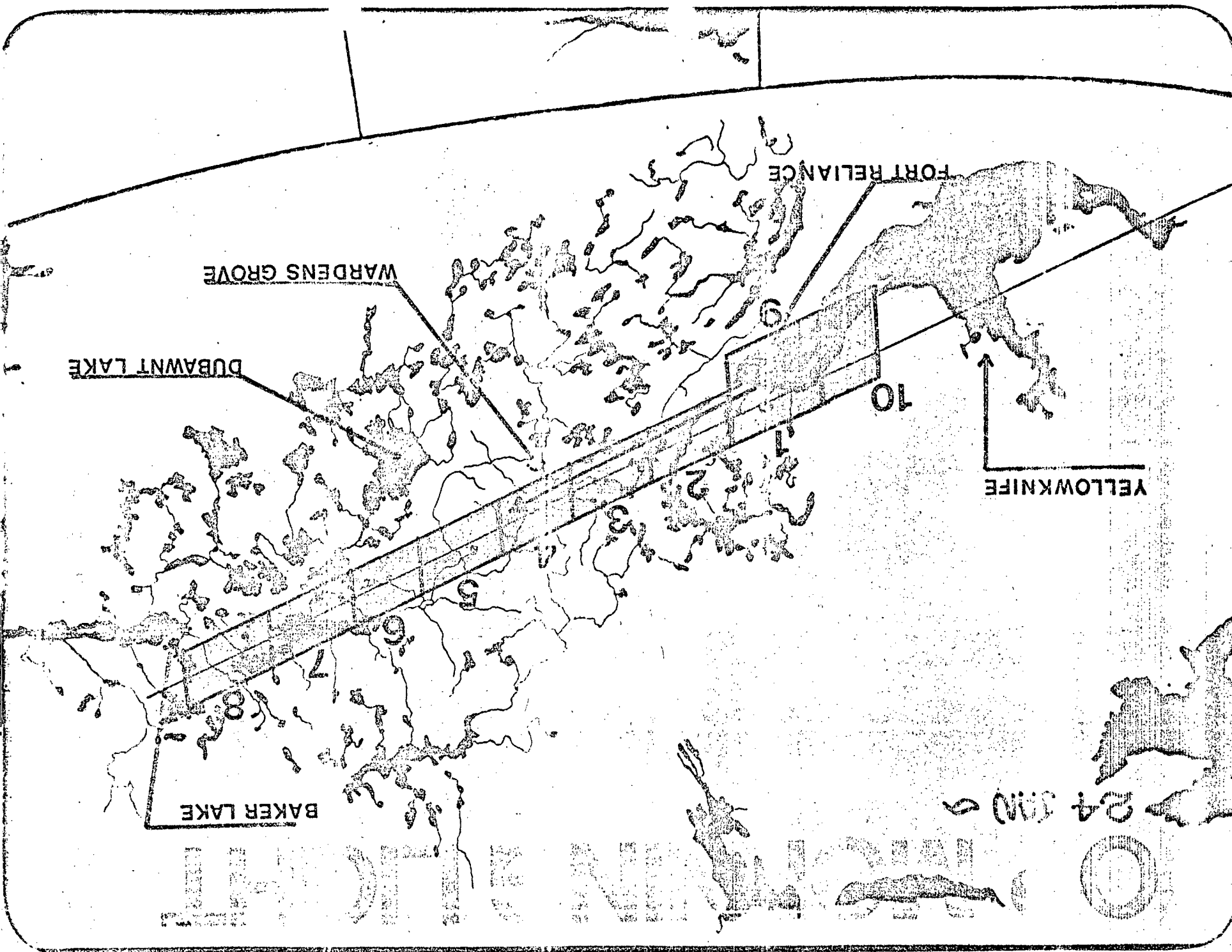
1 X ARGUS SERVICEABLE AND TASKED.

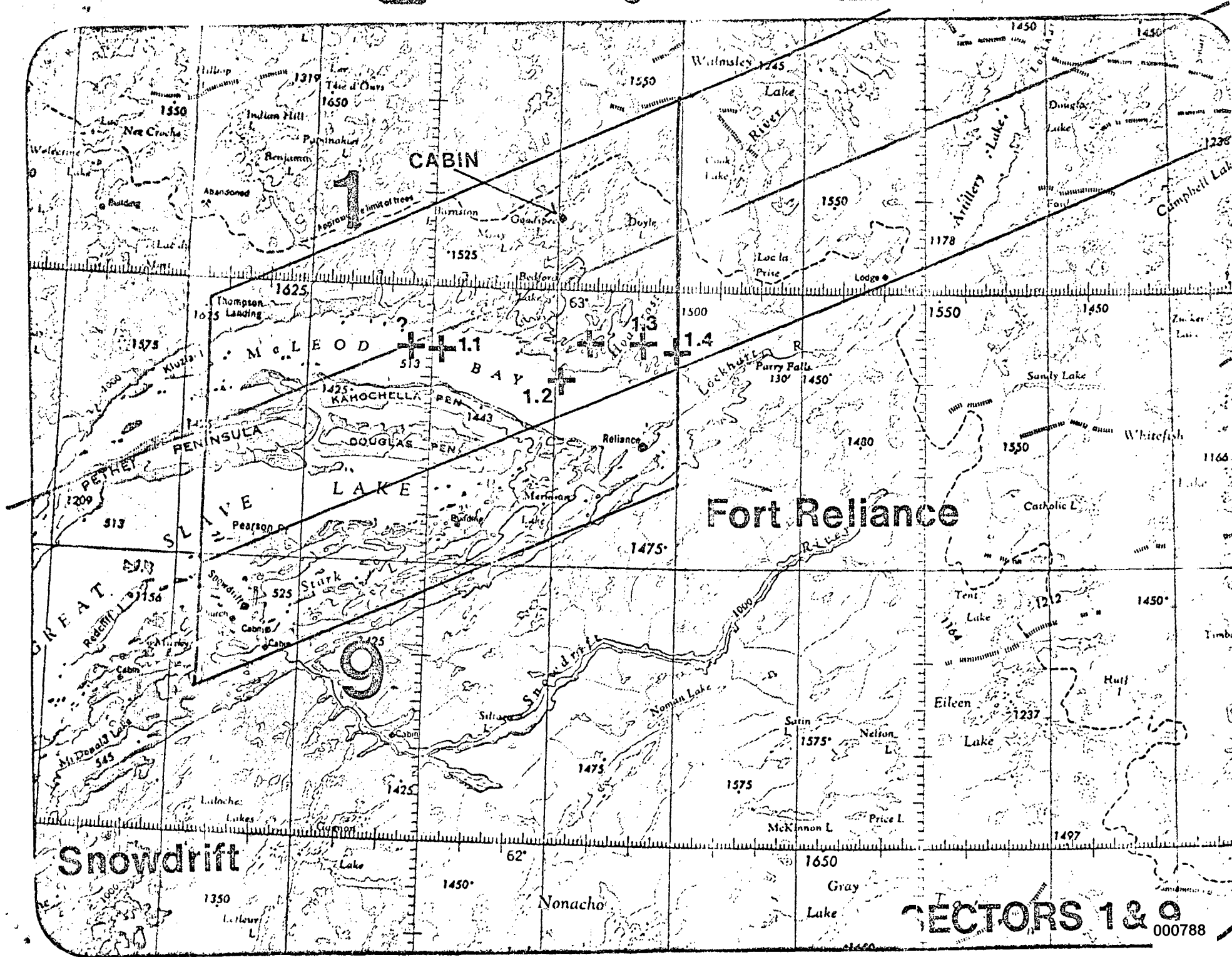
PLAN FOR 02 FEB.

A HERCULES HAS BEEN FITTED WITH A MICRO WAVE RANGE SYSTEM FOR PINPOINT ACCURACY IN NAVIGATION. THE EQUIPMENT IS TO BE TESTED IN EDMONTON.

TWO HERCULES WILL BE USED TO RE-SUPPLY BAKER LAKE, YELLOWKNIFE AND FORT RELIANCE. AIRCRAFT FUEL FOR THE CHINOOKS WILL BE DELIVERED TO WARDENS GROVE USING LOW ALTITUDE PARACHUTE EXTRACTION TECHNIQUES. A CONVAIR WILL CONDUCT A SEARCH IN SECTOR 4 AND AN ARGUS WILL PHOTOGRAPH THE SOUTH EAST CORNER OF SECTOR 1 AND THE IMPACT AREA OF SECTOR 4.







Leo Clouthier, Solicitor General's office advised he was attending daily 11:00 a.m. meetings at D.N.D. H.Q. (NDOC) concerning debris recovery and suggested RCMP attend.

Insp. Chiarot was designated for Thursday, February 2nd, 1978 meeting. Clouthier advised that Wednesday meeting noted a fuel cache was totally used up. - That a mini-camp under tent would be set up at Wardens Grove, staffed by D.N.D. & A.E.C.B. specialists. - That all costs should be recorded from man hours to vehicles etc. for use in the event Canada decides to recover same from U.S.S.R.

C/Supt. Buttler called and advised of above. He asked for views as to the need to maintain R.C.M.P. at various locations as directed by the Commissioner and D.C.I. I suggested we must ^{show} ~~show~~ our responsibility to the public and keeping the peace. As of 1-2-78 either Insp. Rechner of S/Sgt. Armstrong, i/c Yellowknife S/Div. and Detach. respectively will attend daily briefing sessions of D.N.D. & A.E.C.B. personnel and keep us informed.

Basically the mechanics of ensuring an R.C.M.P. presence was his decision to make but he should ensure R.C.M.P. input at all times.

D.C.I. advised verbally
2/2/78.

Chiarot.

Maximum dose

500 mg per yr.

5000 mg per yr for worker.

Minister of ~~Ind. Affairs~~ ^{Health} will probably visit
area on weekend - arr. Friday at Edmonton,
Yellowknife & spend Saturday viewing
site. Meeting Saturday Morning -
leave for Friday meeting. Public info.

The PR man DND Edmonton calls
in results of press briefing to DND H.Q.
What's happening. 45 people at Edmonton.
Sentinel will do story. Time has untub.

Dept of Indian Affairs Regional Office
Yellowknife handling Inuit questions.

Replies to worries by Inuits/Indians.
Indian Affairs will table their reply to
Brotherhood. Require 1 answer to everyone.

No residual radiation once piece ~~remains~~
removed. [initials]

How many S.C.M.P. directly involved.
Briefing - (could DND supply this man
to Minister at request).

MEMO TO FILE FROM 104P. D. CHIAROT

RE: LOCATION OF U.S.S.R. SATELLITE DEBRIS

A telephone call was received at approximately 7:30 p.m. Sunday 29 January 1978 from Lt. Col. Champagne was advised that six meteorologists engaged in research at Warden Grove had found a man-made unidentified metal object which could be parts of the satellite. These six persons were flown to Yellowknife for examination for possible contamination.

DND were going to fly in four military to secure the area from possible intrusion until equipment could be flown in. They would secure air strip at Warden Grove to keep sightseers away and required some kind of police powers/assistance from Edmonton (where military has their ops base) or elsewhere. It was ascertained that area was in NWT, closer to Yellowknife than Edmonton so it was suggested Yellowknife RCMP be contacted and they would provide police assistance.

At 8:30 p.m. a call was received from Robin Bourne who stated DND were going to parachute four military in and that they required peace officer status to secure area from visits from unauthorized civilians and perhaps Commr. should be contacted to give them appointments as temporary peace officers. I advised him of what I had discussed with Lt. Col. Champagne, and he stated he would get back to DND and advise. D.C.I. was informed of foregoing.

Called back around 9:00 p.m. and Bourne advised DND paras would drop in with flares, RCMP member coming in later and all was okay.

D.C.I. advised.

OP REV

6

Noted.
30-1-78
P.A. [Signature]



Government
of Canada

Document disclosed under the
Document divulgué en vertu de la
Government
du Canada

Information Act -
Loi sur l'accès à l'information
FICHE DE

REQUEST SERVICE

TO - À

FILE NO. — DOSSIER N°

DATE

FROM - DE

☐ PLEASE CALL
PRIÈRE D'APPELER

TEL. NO. - N° DE TEL.

EXT. - POSTE

☐ WANTS TO SEE YOU
DÉSIRE VOUS VOIR

DATE

TIME - HEURE

☐ WILL CALL AGAIN
DOIT RAPPELER

CALL RECEIVED BY
MESSAGE REÇU PAR ►

☐ ACTION
DONNER SUITE

☐ APPROVAL
APPROBATION

☐ NOTE & RETURN
NOTER ET RETOURNER

☐ COMMENTS
COMMENTAIRES

☐ DRAFT REPLY
PROJET DE RÉPONSE

☐ NOTE & FORWARD
NOTER ET FAIRE SUIVRE

☐ MAKE
FAIRE COPIES

☐ SIGNATURE

☐ NOTE & FILE
NOTER ET CLASSER

Has reference to our
telephone conversations
of PM. 29th. I take it Mr.
BOURNE must have seen fit
to telephone COMMER
000792

RESTRICTED

TELECOMMUNICATIONS

JAN 30 8 48 AM '78

"C" DIRECTORATE

M52 RELAY OTT JAN 30 (300332)

1 ROUTINE YK JAN 30 R E S T R I C T E D

COMMR OTT

GTCL/66/2. PERSONAL ATTENTION COMMISSIONER SIMMONDS. FURTHER TO TELEPHONE CONVERSATION WITH SUPT BARKER SUNDAY EVENING. MEETING HELD WITH GENERAL THORNEYCROFT, DND OFFICIALS AND MR. KNIGHT ATOMIC ENERGY CONTROL BOARD. LEARNED THAT THERE ARE TWO DEBRIS SITES LOCATED. MAIN SITE IS AT WARDENS GROVE ON THELON RIVER AND OTHER NORTHWEST OF FORT RELIANCE. DND OFFICIALS IMMEDIATELY ADVISED THAT THEIR SUPERIORS IN OTTAWA INDICATED THAT THE SOLICITOR GENERAL HAD WAIVED CIVIL RESPONSIBILITY FOR GUARDING THE MAIN SITE BUT THAT THE RCMP SHOULD BE INVITED TO GUARD THE SECONDARY SITE NEAR FORT RELIANCE. IT HAS BEEN ARRANGED FOR TWO RCMP MEMBERS PLUS TWO DND MEMBERS UTILIZING DND EQUIPMENT AND TRANSPORTATION TO GUARD FORT RELIANCE SITE AFTER SPECIAL DND TEAM DELINEATES SAFE DISTANCE FROM DEBRIS AND ERECTS PHYSICAL BARRIER. IN ORDER TO SATISFY MEDIA CURIOSITY DND IS ORGANISING SUPERVISED VISIT TO FORT RELIANCE SITE WITH DND AIRCRAFT SOMETIME IN AM MONDAY. MR KNIGHT OF ATOMIC ENERGY STATES THAT EMPHASIS WILL BE ON CLEAN UP AT EARLIEST POSSIBLE TIME AND GETTING DEBRIS AWAY FROM THE TWO AREAS. TECHNICAL PROBLEMS TO EXECUTE THIS NOT YET KNOWN. IT IS SUGGESTED IF GUARDING BECOMES PROLONGED THAT DND BE ASKED TO TAKE OVER COMPLETELY AS THEY HAVE RESOURCES. WE ARE ALSO CONCENTRATING ON HAVING OUR MEMBERS VISIT ALL PEOPLE IN FORT RELIANCE AREA TO PROPERLY INFORM OF SITUATION AND DANGERS. PERSONS EVACUATED FROM WARDENS GROVE WERE NOT ENVIRONMENT CANADA EMPLOYEES AS FIRST BELIEVED BUT ARE MEMBERS OF THE HORNBY EXPEDITION. TWO OF THESE MEMBERS BELIEVED HANDLED DEBRIS AND ARE CONTAMINATED AND PRESENTLY IN EDMONTON HOSPITAL CONDITION UNKNOWN. WILL ADVISE ANY FURTHER DEVELOPEMENTS OF NOTEM

G DIV

930 AM. 30-1-78

ON INSTRUCTIONS OF COMMUR, MR ROBIN BOURNE INFORMED OF CONTENTS OF THIS MESSAGE. HE INDICATED. MINISTER DID NOT WAIVE CIVIL RESPONSIBILITY FOR GUARDING MAIN SITE, RATHER GUARDING BY DND

RCMP 10 OTT

SUPT BARKER REQUESTS THAT THIS BE ON COMMR'S DESK IN MORNING IF YOU CAN ARRANGE IT

AGREED TO AS THEY COULD REACH SITE SOONER. IN ANY EVENT MATTER IS WELL IN HAND.

000793



ROYAL CANADIAN
MOUNTED POLICE

GENDARMERIE ROYALE
DU CANADA

TRANSMITTAL SLIP - FICHE D'ENVOI

D/COMMR. (Cr. Ops.) ☐ S.-COMM., SÛR.

D.C.I. ☐ DIR, E.J.

CO-ORD. N.C.O. ☐ S.-OFF. COORD.

MONITORING & ANALYSIS BR. ☐ S.-DIR, DU CONTRÔLE ET DE
L'ANALYSE

A/D.C.I. - Fed. ☐ DIR, ADJ, E.J. (féd.)

NATIONAL CRIME INTEL. BR. ☐ S.-DIR, DES RENS. SUR LA
CRIMINALITÉ

COMMERCIAL CRIME BR. ☐ S.-DIR, DES INFRACTIONS COMM.

DRUG ENFORCEMENT BR. ☐ S.-DIR, DES DROGUES

CUSTOMS & EXCISE BR. ☐ S.-DIR, DES DOUANES ET DE
L'ACCISE

SPECIAL "I" BR. ☐ S.-DIR, SPÉCIALE "I"

A/D.C.I. - Gen. ☐ DIR, ADJ, E.J. (gén.)

LEGAL BR. ☐ S.-DIR, DU CONTENTIEUX

CONTRACT POLICING BR. ☐ S.-DIR, DES SERVICES DE POLICE
À CONTRAT

FEDERAL POLICING BR. ☒ S.-DIR, DE L'APPLICATION DES
LOIS FÉDÉRALES

NATIVE POLICING BR. ☐ S.-DIR, DE LA POLICE
DES AUTOCHTONES

☐ APPROVAL AND SIGNATURE
AUTORISATION ET SIGNATURE

☒ PERUSAL
LECTURE

FROM - DE

Native Policing Branch

A-585 (7/76)

000794

• HANDWRITE - ÉCRIRE À LA MAIN

Classification		File No. - N° du dossier 78 HQ 102-154	
1	7A	FROM - DE 78 HQ 102-154	DATE 30 Jun 78
2			
3			
4			
SUBJECT - SUJET U.M.R. Satellite			

- | | | |
|--|---|--|
| <input type="checkbox"/> Comments
Commentaires | <input type="checkbox"/> Prepare Reply
Réponse à rédiger | <input type="checkbox"/> Make File(s)
Dossier(s) à ouvrir |
| <input type="checkbox"/> Perusal - No action required
Pour information - aucune suite requise | <input type="checkbox"/> Prepare Brief
Exposé à préparer | <input type="checkbox"/> Return with Current File
Retourner avec le dossier courant |
| <input type="checkbox"/> Examination and Action
Pour examen et suite | <input type="checkbox"/> See Sender
Voir l'expéditeur | <input type="checkbox"/> Check Records
Vérifier les archives |

REMARKS - COMMENTAIRES

Ref on conversation on 27 Jun 78. I contacted our 7th Div Co-ordinator 1st General who in turn talked with Mr. Willy Lamont. 7.1.2. As a result of their conversation, 7th Div sent a CPIC message to HQ on 27 Jun 78 and received their reply that same date. Messages attached and no further action required by this HQ.

78 HQ 102-154

31/1/78.

The core is not found. Aircraft required for end of Feb. Hercules running up time, because of date-long time. Another, hit in area 1 & very active believed. U.S. A. mobile container.

Continue to narrow in conference room on ex floor

REPLY - RÉPONSE

Reply done -
1. 1.1 - 4 DVD
" & " at debris
no activity.
Area 1 - ? - you radioactive
" 1.1 - radioactive
MacLeod, Ray, mostly
& I read back here
1.2 - very radio-active
these 3 on lake &
all recovered - remainder
on NE shore (Fort Reliance)
1.3 & 1.4 will mark &
isolate today perhaps
to morrow - 12 miles N. is
cabin but no rad is
used & cabin occupant not
note. - 105° E. 4 aircraft
unrecoverable 2 at St.
Cold.
10 day. Baker Lake. Reliance
& Yellowknife fuel supply
Snowdrift in area 9 (nearest
Yellowknife).

A-5 (4/77) 7530-21-029-4767



ROYAL CANADIAN
MOUNTED POLICE

GENDARMERIE ROYALE
DU CANADA

TRANSIT
SLIP

FICHE
DE SERVICE

PA	Initial - Initiales	Date
		000795

CIB OTT
39 RLY OTT JAN 27

JAN 27 1978

3 45
[Signature]

TELECOMMUNICATIONS
JAN 27 3 07 PM '78
"C" DIRECTORATE

222
HC SN10117
NT10035 ON10078 SN10125

TO: CO 'G' DIV.
INFO: COMMR OTT (ATTN NATIVE POLICING BR) PRINCE ALBERT SUB/DIV

CIB759 CONCERNS ARE BEING EXPRESSED BY INDIANS AT STONY RAPIDS AND FO
ND DU
LAC ABOUT THE SATELLITE THAT HAS LANDED IN THE BAKER LAKE/YELLOWKNIFE
DISTS.

AS THIS IS APPARENTLY ON THE NORTHERN FRINGE OF THEIR TRADITIONAL HUN
TING AREA.

PLEASE ADVISE IF THERE ARE ANY RESTRICTIONS ON AIR TRAVEL, ETC. IN TH
AT AREA
AS PEOPLE FROM THESE BANDS OFTEN CHARTER AIRCRAFT INTO THAT GENERAL A
REA
TO HUNT.

F DIV

INPUT 27JAN78/15:00/48
27JAN78/15:03/18

CIB OTT

27 Jan 78
[Signature]

CIB OTT

39 RLY OTT JAN 27

1000
JAN 27 2 07 PM '78
"0000" DATE

222

HC SN10117

VT10035 ON10078 SN10125

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REA

TO HUNT.

F DIV

INPUT 27JAN78/15:00/48

27JAN78/15:03/18

CIB OTT

PRIORITY

TELECOMMUNICATIONS

JAN 30 7 42 AM '78

"C" DIRECTORATE

15 RLY OTT JAN 30 (271713)

JAN 30 1978

20/22 PRIORITY JAN27 UNCLAS

78 HQ. 102-15-4

F DIV

INFO: COMMR OTT (ATTN NATIVE POLICING BRANCH) - NPB
PRINCE ALBERT S/DIV

GCIB 066/1 REUR CIB 759. THE DATELLITE OR DEBRIS OF IT APPEARS TO BE LOCATED IN THE THELON GAME SANCTUARY APPROXIMATELY 400 MILES DUE NORTH AND 100 MILES EAST OF STONY RAPIDS. NOTHING DEFINITE HAS BEEN CONFIRMED YET AS NO GROUND PARTY HAS YET MOVED IN. FOR YOUR INTEREST VERY LITTLE CONCERN GENERATED FROM NATIVE TRAPPERS ETC IN N W T SO FAR EVEN THOUGH SOME MAY BE RIGHT IN THE AREA. THE FWLG M O T NOTICE TO AIRMEN (NOTAM) IS IN EFFECT: "ALL NON ESSENTIAL TRAFFIC BELOW 18,000 FT TO AVOID AREA 62 DEGREES NORTH BY 96 DEGREES WEST -62 DEGREES NORTH BY 112 DEGREES WEST -66 DEGREES NORTH BY 96 DEGREES WEST -66 DEGREES NORTH BY 112 DEGREES WEST. CAUTION ADVISED ABOVE 18,000 FT UNTIL FEB 3". THIS NOTICE SHOULD INDICATE TO PIOLETS THAT THEY SHOULD STAY AWAY FROM THE AREA AND ESPECIALLY NOT TO LAND. THERE OF COURSE IS NO WAY OF ENFORCING THIS BUT AFTER NOTICE SELF PRESERVATION WILL BE MOTIVE ENOUGH.

G DIV

PLSE CORRECT LINE ONE TO READ THE SATELLITE

((C DIR DNCO SGT LOWE ADVISED TO HOLD TILL MON JG))

Mr
30 Jan 78

15 RLY OTT JAN 30 (271713)

20/22 PRIORITY JAN27 UNCLAS

F DIV

INFO: COMMR OTT (ATTN NATIVE POLICING BRANCH)
PRINCE ALBERT S/DIV

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G DIV

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((C DIR DNCO SGT LOWE ADVISED TO HOLD TILL MON JG))

M

TELECOMMUNICATIONS
JAN 30 7 56 AM '78
"C" DIRECTORATE

~~~~~FOLLOWING REFERS TO NBR 15

25 RELAY OTT JAN 30 (280439)

1 SVC YK JAN28 UNCLAS

F DIV

INFO COMM R OTT (ATTN NATIVE POLICING BRANCH)

PRINCE ALBERT S/DIV

RE OUR 20/22 GCIB066/1 PLS AMEND TO READ AND 100 MILES  
IN THE THIRD LINE OF THE TEXT

G DIV

M

~~~~~FOLLOWING REFERS TO NBR 15

25 RELAY OTT JAN 30 (280439)

1 SVC YK JAN28 UNCLAS

F DIV

INFO COMMR OTT (ATTN NATIVE POLICING BRANCH)

PRINCE ALBERT S/DIV

RE OUR 20/22 GCIB066/1 PLS AMEND TO READ AND 100 MILES
IN THE THIRD LINE OF THE TEXT

G DIV

7840-102-15-4

NPB 2

NOTE TO FILE:

RE: RETURN TO EARTH OF SOVIET SATELLITE

25 JAN 78

2:30 p.m. A call was received from Lt. Col. Champagne of D.N.D. Ops Centre requesting assistance in ascertaining if there was anything in an area 50 miles North of Fort St. John (at 56°55' N 121°57' W) which would result in intense infra-red activity. This would result from a high heat source such as burning gas or oil well.

Sgt. Warren 2 i/c Ft. St. John detachment was contacted. There was no burning oil/gas well to his knowledge but detachment had received reports beginning 5:18 a.m. of 24th concerning aircraft with tail on fire.

Sgt. Warren called at 3:30 advising that co-ordinates are close to mile 101 on Alaska highway. There is drilling activity here but no fire. At mile 91 a compressed station burnt off some 4-500 gals. oil on 24th and this could be source of infra-red rays. Mr. Chris LOK of West Coast Transmissions AC604-785-6111 could be contacted. The DND Air Sea Rescue unit at Victoria, Capt. Lavoie 732-4141 advised detachment in A.M. of 24th that radar tracked possible aircraft which went off their screen in area north of Ft. St. John. Detachment aircraft was used on 24th to search area for possible downed aircraft with negative results.

3:45 p.m. Lt. Col. Champagne provided with above info. He felt infra-red ident. was not the satellite and advised they would not monitor area for possible remains as yet.

Noted. ~~Feb~~ 27-1-78

P-A

JAN 30 1977



ROYAL CANADIAN MOUNTED POLICE GENDARMERIE ROYALE DU CANADA

Instructions on reverse
Dire l'usage au verso

CLASSIFIED OUTGOING MESSAGES

MESSAGES SORTANTS CLASSIFIÉS

| | | | |
|---|--|--|--|
| Time of Receipt — <i>Heure de réception</i> | File No. — <i>N° de dossier</i> | Drafter's Name — <i>Nom du rédacteur</i> | Time of Dispatch — <i>Heure d'envoi</i> |
| JAN 24 9 34 AM '78
DCI | Branch or Section — <i>Service ou section</i> | A/COMMR TS VENNER | 8-21 |
| | | Phone No. — <i>N° de téléphone</i> | |
| Precedence for Action Addresses
<i>Priorité pour sujets d'action</i> | Precedence for Infor. Addresses
<i>Priorité pour renseignements</i> | Date | Security Classification/ <i>Sécurité</i> |
| PRIORITY | COMMUNICATIONS | 24 JAN 78 | TOP SECRET |

FROM - DE

COMMR. OTTAWA

TO - A

[illegible]

"A", "B", "C", "D", "E"-D-1, "E"-D-2, "F", "G", "H", "J", "K", "L", "M" "O".

INFO. — *POUR RENSEIGNEMENTS*

Originators message no.
Nº du message original

DCI/1/5

FURTHER TO TELEX DCI/1/4 AND DCI/35/FPB WE ARE NOW ADVISED THAT PORTIONS OF THIS SATELLITE SURVIVED RE-ENTRY AND LANDED APPROXIMATELY 6:55 A.M. THIS DATE NEAR GREAT SLAVE LAKE, N.W.T. CANADIAN MILITARY AND AECL HAVE MATTERS IN HAND WITH ASSISTANCE BEING RENDERED IF NECESSARY BY C.O. "G" DIVISION. DETAILS ARE STILL TOP SECRET AND THIRD PARTY RULE STILL APPLIES. ANY MEDIA ENQUIRIES ARE TO BE REFERRED TO LT. COL. CHAMPAGNE AT 992-6160 OTTAWA.

Time released (time of signature)
Heure d'expédition (heure de la signature)

M

T.S. VANNER, A/COMMR D.C.I.

Signature of person releasing message
Signature de l'expéditeur

INSTRUCTIONS

FILE NUMBER, BRANCH OR SECTION, DRAFTER'S NAME, ETC.: — Originator **MUST** complete all boxes to facilitate prompt handling of a reply or query.

PRECEDENCE: — Enter for

A) All action addresses, i.e. **DEFERRED, ROUTINE, PRIORITY, OPERATIONAL IMMEDIATE OR EMERGENCY.**

B) All information addresses usually deferred.

SECURITY CLASSIFICATION: — Enter in all cases.

TO: Enter all action addresses.

INFO: Enter all information addresses.

ORIGINATOR'S MESSAGE NUMBER: —

- A) Enter originator's message number (it will be transmitted as first word of text of message.)
- B) When replying to a message quote original message number, e.g. KCIB 62 your NPSIC 1284/13.
- C) When sending follow-up message, quote original message number, Date and Subject Caption, e.g. KCIB 62 further to KCIB 59 of 12-2-72 re FPS 100001 John Smith fraud.

DIRECTIVES

N° DU DOSSIER, SERVICE OU SECTION, NOM DU RÉDACTEUR, ETC.:
*L'auteur **DOIT** remplir toutes ces cases afin de faciliter l'acheminement rapide d'une réponse ou d'une demande.*

PRIORITÉ: À indiquer dans tous les cas

A) où il faut donner suite à une affaire: **DIFFÉRÉ, ORDINAIRE, PRIORITAIRE, OPÉRATION IMMÉDIATE OU EXTRÊME URGENCE.**

B) à titre de renseignements: ordinaire habituellement.

CLASSIFICATION SÉCURITÉ: À indiquer dans tous les cas,

À: *Inscrire l'adresse de toutes les personnes qui doivent donner suite à l'affaire.*

POUR RENSEIGNEMENTS: *Inscrire l'adresse de tous ceux qui doivent recevoir le message à titre de renseignements.*

N° DU MESSAGE ORIGINAL:

- A) *inscrire le n° du message original (il sera transmis comme premier mot du texte)*
- B) *lorsque vous répondez à un message, citez le numéro de ce message, p.ex. KCIB 62 votre n° NPSIC 1284/13.*
- C) *lorsque vous donnez suite à un message, citez le numéro de ce message, la date et le sujet en rubrique, p.ex. KCIB 59 du 12-2-72, objet: FPS 100001, John Smith, escroquerie*

H
JAN 23 10 35 AM '78
COMMUNICATIONS

JAN 23 1978
Hill

PRIORITY

SECRET

5-10 PRIORITY OTT JAN 23/78 S E C R

B C H J L O DIVISIONS

WARNING

THIS IS A
CLASSIFIED
CRYPTER MESSAGE

All replies or references to it MUST bear
the security classification stamped hereon,
unless downgraded by proper authority.
YOUR TELEPHONE IS NOT SECURE
The content or any portion of this message
irrespective of classification is NOT to be
discussed over the telephone.

DCI1/4

FOLLOWING INFORMATION RECEIVED THROUGH THE INTELLIGENCE ADVISORY COMMITTEE OF THE FEDERAL BOVT. QUOTE. COSMOS 954, A SOVIET RADAR OCEAN RECONNAISSANCE SATELLITE (RORSAT) WITH A SMALL NUCLEAR POWER SOURCE, HAS APPARENTLY BEEN OUT OF GROUND CONTROL AND IN A DECAYING ORBIT SINCE 29 OCTOBER 1977 (WIR 44/77). ON 6 JANUARY 1978, THE SATELLITE BEGAN TUMBLING AND ITS RATE OF DECAY INCREASED. AS IT IS NOW ESTIMATED THAT THE SATELLITE WILL RE-ENTER THE EARTH'S ATMOSPHERE ABOUT 24 JANUARY 1978, BUT THE LOCATION OF RE-ENTRY CANNOT BE PREDICTED WITH ANY ACCURACY UNTIL ONE OR TWO DAYS BEFORE RE-ENTRY AND THEN WITHOUT ANY PRECISION. THERE HAS BEEN NO SOVIET ANNOUNCEMENT OF THIS MALFUNCTION. (AT THE END OF THEIR USEFUL LIFE, RORSAT'S ARE USUALLY BOOSTED INTO A HIGH ORBIT WHICH DELAYS RE-ENTRY INDEFINITELY). SOME PORTIONS OF THE SATELLITE, INCLUDING PARTS OF THE NUCLEAR POWER PACKAGE MAY SURVIVE RE-ENTRY AND IMPACT ON THE GROUND. THERE IS NO DANGER OF A NUCLEAR EXPLOSION BUT THERE MAY BE A MINOR LOCAL HEALTH HAZARD DUE TO DISPERSAL OF RADIOACTIVE MATERIAL BY IMPACT. THE CHANCE OF IMPACT IN A POPULATED AREA IS REMOTE BUT IF IT OCCURS OUTSIDE THE USSR IT COULD CAUSE THE SOVIET UNION CONSIDERABLE POLITICAL EMBARRASSMENT. UNQUOTE. I.A. C. HAVE TAKEN THE FOLLOWING ACTION QUOTE (A) AGREED THAT THE IMMEDIATE REACTION TO ANY IMPACT ON CANADIAN TERRITORY WOULD BE TO EVACUATE AND CORDON OFF THE AREA OF RISK FROM RADIATION; AND THAT THE OPERATION WOULD BE SIMILAR, THOUGH ON A MUCH SMALLER SCALE, TO THAT PLANNED TO HANDLE THE CRASH OF AN AIRCRAFT CARRYING NUCLEAR WEAPONS; (B) BRIEFED EMERGENCY PLANNING CANADA ON THE SITUATION, WITH A REQUEST THAT USING SECURE COMMUNICATIONS IT INFORMS ITS REGIONAL DIRECTOR IN EACH PROVINCE, SO THAT IF AND WHEN ANY THREAT OF IMPACT ON CANADIAN TERRITORY IS IDENTIFIED, HE WILL BE IN A POSITION TO BRIEF THE COMMANDING OFFICER OF THE PROVINCIAL POLICE AND, WHEN APPROPRIATE, PROVINCIAL OFFICIALS; (C) THE RCMP BE NOTIFIED WITH THE SUGGESTION THAT THE COMMANDING OFFICER IN EACH PROVINCE ALSO BE INFORMED; (D) ARRANGED FOR THE HEAD OF THE NUCLEAR SAFETY DIVISION IN THE DEPARTMENT OF HEALTH AND WELFARE TO BE NOTIFIED; (E) ARRANGED THAT IF AND WHEN A RISK TO ANY PART OF CANADIAN TERRITORY IS IDENTIFIED THE APPROPRIATE PROVINCIAL OFFICIALS WILL BE INFORMED IMMEDIATELY; (F) CONSULTED WITH THE CANADIAN FORCES IN ORDER TO COORDINATE THIS ACTION; (G) CAUTIONED ALL TO TREAT AS SENSITIVE INFORMATION. UNQUOTE. CARE MUST BE TAKEN TO PREVENT PUBLIC SCARE BY INDISCRIMINATE RELEASE OF THIS INFORMATION. EMERGENCY PLANNING CANADA OFFICIALS HAVE UNDERTAKEN TO ALERT OPP AND QPF AT THE APPROPRIATE TIME WHEN MORE ACCURATE INFORMATION IS AVAILABLE. YOU MAY EXPECT ADDITIONAL CONTACT DIRECT WITH REGIONAL E.P.C. AUTHORITIES. BEST ESTIMATE OF CO-ORDINATES TO DATE IS 52.8 DEGREES NORTH, 69 DEGREES WEST. ESTIMATED TIME OF IMPACT 11:30 A.M. 24 JAN 78.

COMMR OTT

ACK PSE ***

DE HFX UR MSG RECD
TKS

SECRET

TOP SECRET

JAN 24 1978

8-21 PRIORITY OTT JAN 24/78 T O P S E C R E T
A B C D E-D1 E-D2 F G H J K L M-O-DIVS

FURTHER TO TELEX DCI/1/4 AND DCI/35/FPB WE ARE NOW ADVISED THAT PORTIONS OF THIS SATELLITE SURVIVED RE-ENTRY AND LANDED APPROXIMATELY 6:55 A.M. THIS DATE NEAR GREAT SLAVE LAKE, N.W.T. CANADAIN MILITARY AND AECL HAVE MATTERS IN HAND WITH ASSISTANCE BEING RENDERED IF NECESSARY BY C.O. "G" DIVISION. DETAILS ARE STILL TOP SECRET AND THIRD PARTY RULE STILL APPLIES. ANY MEDIA ENQUIRIES ARE TO BE REFERRED TO LT. COL. CHAMPAGNE AT 992-6160 OTTAWA.

ACK PSE ...

DE OTT6 ACKS

000806



CLASSIFIED OUTGOING MESSAGES
MESSAGES SORTANTS CLASSIFIÉS

| | | | |
|--|--|--|--|
| Time of Receipt - <i>Heure de réception</i> | File No. - <i>N° de dossier</i> | Drafter's Name - <i>Nom du rédacteur</i> | Time of Dispatch - <i>Heure d'envoi</i> |
| | Branch or Section - <i>Service ou section</i> | Phone No. - <i>N° de téléphone</i> | |
| JAN 23 9 25 AM '78 DCI
Precedence for Action Addresses
<i>Priorité pour suite à donner</i>
PRIORITY COMMUNICATIONS | Precedence for Infor. Addresses
<i>Priorité pour renseignements</i> | A/COMMR. TS VENNER
3-9545 | 5-10
Security Classification / <i>Sécurité</i>
SECRET |

FROM - *DE* **COMMR. OTTAWA**

TO - *À* **C.O.'S "B", "C", "H", "J", "L", & "O" DIVISIONS**

INFO. - *POUR RENSEIGNEMENTS*

Originators message no.
N° du message original **DCI/1/4**

FOLLOWING INFORMATION RECEIVED THROUGH THE INTELLIGENCE ADVISORY COMMITTEE OF THE FEDERAL GOVT. QUOTE. COSMOS 954, A SOVIET RADAR OCEAN RECONNAISSANCE SATELLITE (RORSAT) WITH A SMALL NUCLEAR POWER SOURCE, HAS APPARENTLY BEEN OUT OF GROUND CONTROL AND IN A DECAYING ORBIT SINCE 29 OCTOBER 1977 (WIR.44/77). ON 6 JANUARY 1978, THE SATELLITE BEGAN TUMBLING AND ITS RATE OF DECAY INCREASED. AS IT IS NOW ESTIMATED THAT THE SATELLITE WILL RE-ENTER

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INSIDE THE USSR IT COULD CAUSE THE SOVIET UNION CONSIDERABLE POLITICAL EMBARRASSMENT. UNQUOTE. I.A.C. HAVE TAKEN THE FOLLOWING ACTION QUOTE (A) AGREED THAT THE IMMEDIATE REACTION TO ANY IMPACT ON CANADIAN TERRITORY WOULD BE TO EVACUATE AND CORDON OFF THE AREA OF RISK, FROM RADIATION; AND THAT THE OPERATION WOULD BE SIMILAR, THOUGH ON A MUCH SMALLER SCALE, TO THAT PLANNED TO HANDLE THE CRASH OF AN AIRCRAFT CARRYING NUCLEAR WEAPONS;

Time released (time of signature)
Heure d'expédition (heure de la signature)

M

T.S. VENNER A/COMMR. D.C.I.

Signature of person releasing message
Signature de l'expéditeur

INSTRUCTIONS

FILE NUMBER, BRANCH OR SECTION, DRAFTER'S NAME, ETC.: —
Originator **MUST** complete all boxes to facilitate prompt handling
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SECURITY CLASSIFICATION: — Enter in all cases.

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INFO: Enter all information addresses.

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A) Enter originator's message number (it will be transmitted
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C) When sending follow-up message, quote original message
number, Date and Subject Caption, e.g. KCIB 62 further to
KCIB 59 of 12-2-72 re FPS 100001 John Smith fraud.

DIRECTIVES

N^O DU DOSSIER, SERVICE OU SECTION, NOM DU RÉDACTEUR, ETC.:
*L'auteur **DOIT** remplir toutes ces cases afin de faciliter l'achemine-
ment rapide d'une réponse ou d'une demande.*

PRIORITÉ: À indiquer dans tous les cas

A) où il faut donner suite à une affaire: **DIFFÉRÉ, ORDINAIRE,
PRIORITAIRE, OPÉRATION IMMÉDIATE OU EXTRÊME URGENCE.**

B) à titre de renseignements: ordinaire habituellement.

CLASSIFICATION SÉCURITÉ: À indiquer dans tous les cas.

À: *Inscrire l'adresse de toutes les personnes qui doivent donner suite
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POUR RENSEIGNEMENTS: *Inscrire l'adresse de tous ceux qui doivent
recevoir le message à titre de renseigne-
ments.*

N^O DU MESSAGE ORIGINAL:

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premier mot du texte)*

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message, la date et le sujet en rubrique, p.ex. KCIB 59 du
12-2-72, objet: FPS 100001, John Smith, escroquerie*



ROYAL CANADIAN MOUNTED POLICE
GENDARMERIE ROYALE DU CANADA

Instructions on reverse
Dire l'avis au verso

CLASSIFIED OUTGOING MESSAGES
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| | | | |
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<i>Priorité pour suite à donner</i> | Precedence for Infor. Addresses
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FROM - *DE*

TO - *À*

PAGE 2.

INFO. - *POUR RENSEIGNEMENTS*

Originators message no.
N° du message original

(B) BRIEFED EMERGENCY PLANNING CANADA ON THE SITUATION, WITH A REQUEST THAT USING SECURE COMMUNICATIONS IT INFORMS ITS REGIONAL DIRECTOR IN EACH PROVINCE, SO THAT IF AND WHEN ANY THREAT OF IMPACT ON CANADIAN TERRITORY IS IDENTIFIED, HE WILL BE IN A POSITION TO BRIEF THE COMMANDING OFFICER OF THE PROVINCIAL POLICE AND, WHEN APPROPRIATE, PROVINCIAL OFFICIALS; (C) THE RCMP BE NOTIFIED WITH THE SUGGESTION THAT THE COMMANDING OFFICER IN EACH PROVINCE : ALSO INFORMED: (D) ARRANGED FOR THE HEAD OF THE NUCLEAR SAFETY DIVISION IN THE DEPARTMENT OF HEALTH AND WELFARE TO BE NOTIFIED: (E) ARRANGED THAT IF AND WHEN A RISK TO ANY PART OF CANADIAN TERRITORY IS IDENTIFIED THE APPROPRIATE PROVINCIAL OFFICIALS WILL BE INFORMED IMMEDIATELY; (F) CONSULTED WITH THE CANADIAN FORCES IN ORDER TO COORDINATE THIS ACTION; (G) CAUTIONED ALL TO TREAT AS SENSITIVE INFORMATION. UNQUOTE. CARE MUST BE TAKEN TO PREVENT PUBLIC SCARE BY INDISCRIMINATE RELEASE OF THIS INFORMATION. EMERGENCY PLANNING CANADA OFFICIALS HAVE UNDERTAKEN TO ALERT OPP AND QPF AT THE APPROPRIATE TIME WHEN MORE ACCURATE INFORMATION IS AVAILABLE. YOU MAY EXPECT ADDITIONAL CONTACT DIRECT WITH REGIONAL E.P.C. AUTHORITIES. BEST ESTIMATE OF CO-ORDINATES TO DATE IS 52.8 DEGREES NORTH, 69 DEGREES WEST. ESTIMATED TIME OF IMPACT 11:30 A.M. 24 JAN 78.

Time released (time of signature)
Heure d'expédition (heure de la signature)

M

Signature of person releasing message
Signature de l'expéditeur

000809

INSTRUCTIONS

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KCIB 59 of 12-2-72 re FPS 100001 John Smith fraud.

DIRECTIVES

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*L'auteur **DOIT** remplir toutes ces cases afin de faciliter l'achemine-
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PRIORITÉ: À indiquer dans tous les cas

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PRIORITAIRE, OPÉRATION IMMÉDIATE OU EXTRÊME URGENCE.**

B) à titre de renseignements: ordinaire habituellement.

CLASSIFICATION SÉCURITÉ: À indiquer dans tous les cas,

À: *Inscrire l'adresse de toutes les personnes qui doivent donner suite
à l'affaire.*

POUR RENSEIGNEMENTS: *Inscrire l'adresse de tous ceux qui doivent
recevoir le message à titre de renseigne-
ments.*

N° DU MESSAGE ORIGINAL:

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C) *lorsque vous donnez suite à un message, citez le numéro de ce
message, la date et le sujet en rubrique, p.ex. KCIB 59 du
12-2-72, objet: FPS 100001, John Smith, escroquerie*

Mer Green

6.55

Satellite came down near Great Slave Lake
large portion survived reentry

62.9 North 112.8 West —

Can Planing Area

Can Forces over commander

See: Tonality re Only airport seizure

D.N.D. looking after matter.

A.E.C.L.

L/Col CHAMPAGNE 26160

TRANSIT SLIP



FICHE DE SERVICE

Date

24-1-78.

TO
À **FILE**

FROM
DE **D.C.I.**

Comments ☐ Commentaires
Perusal - No Action Required ☐ Pour information - aucune suite requise
Examination and Action ☐ Pour examen et suite
Prepare Reply ☐ Réponse à rédiger
Prepare Brief ☐ Exposé à préparer
See Sender ☐ Voir l'expéditeur

Make File(s) ☐ Dossier(s) à ouvrir
Return with Current File ☐ Retourner avec le dossier courant
Check Records ☐ Vérifier les archives
Instructions ☐ Directives

REMARKS
COMMENTAIRES

▷ **RE: SATELLITE ENTRY**

REPLY
RÉPONSE

At 8 AM. Mr. Green from Army Council Office called to advise that the satellite in question landed at about 6:55 A.M. this date near co-ordinates 62° North and 112.8 West (Vicinity of Great Slave Lake N.W.T.). In subsequent telephone conversations it has been determined that Can. Military have the matter in hand and are consulting with A.E.C.L. Apparently portions survived re-entry. D.N.D. and External Affairs are co-operating in preparation of a press release if and when this becomes necessary but at the moment it is all still TOP SECRET and strict third party rules apply from NORAD. It was agreed with Mr. Green

(A) Amer. C.O. "C" Division at Yellowknife would make contact with Can Forces. Area commander Gen. THORNDYCRAFT & render whatever assistance is required

(B) Any media queries would be referred to L/Col. CHAMPAGNE at 992-6160.

At 4:45 AM. Dep Ops, L.C. briefed and Capt. BUTLER advised of above by telephone. Telex being sent to all Divs cancelling the alert.

000812

CONFIDENTIAL
CYBER MESSAGE

CONFIDENTIAL

JAN 23 4 24 PM '78

COMMUNICATION

PRIORITY

All replies or references to it MUST bear
the security classification stamped hereon,
unless downgraded by proper authority.
YOUR TELEPHONE IS NOT SECURE
The content or any portion of this message
irrespective of classification is NOT to be
discussed over the telephone.

T59 PRIORITY YK JAN 23 C O N F I D E N T I A L

COMMR OTT

EPC

GCIB055/9 ATTN P DIR AT 11:30 AM 23 JAN 78 MR JM HOFFMAN REGIONAL
DIRECTOR, EMERGENCY PLANNING, EDMONTON, ALTA CONTACTED OUR
SECURITY SYSTEMS SECTION AND ADVISED THAT NORAD HAS PROJECTED
THAT A SOVIET SATELLITE, POWERED BY A RADIOACTIVE SOURCE, IS
PRESENTLY TUMBLING IN ORBIT OUT OF CONTROL AND IS PROJECTED TO
FALL ON 24 JAN 78 AT 6:00 AM GIVE OR TAKE FIVE HOURS, AT OR NEAR
BAKER LAKE NWT. MR HOFFMAN FURTHER ADVISED THAT EMERGENCY
PLANNING CANADA HAD DIRECTED HIM NOT TO CONTACT PROVINCIAL
OR TERRITORIAL GOVERNMENT AUTHOITIES. APPARENTLY A MEETING IS
BEING HELD IN OTTAWA THIS DATE TO DETERMINE THE ROLES OF THE
CANADIAN ARMED FORCES AND THE RCMP. MR HOFFMAN SUBSEQUENTLY
ADVISED C/SUPT AH BUTTLER CO G DIVISION THAT THERE IS NOW A
NEW PROJECTED FALLING SITE SOMEWHERE IN THE ATLANTIC OCEAN.
THIS MATTER IS BEING REPORTED FOR YOUR INFORMATION AND NO FURTHER
ACTION BEING TAKEN UNLESS OTHERWISE DIRECTED.

G DIV

PSE ACK THANKS

G

OTT ACKS

CONFIDENTIAL

JAN 23 8 51 PM '78
COMMUNICATIONS

SECRET

THIS IS A
CLASSIFIED
CYBER MESSAGE

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53-66 PRIORITY OTT1 JAN23/78 S E C R E T
A B C D E-1 E-2 F G H J K L M O DIVISIONS

DCI/35/FPB

FURTHER TO TELEX DCI/1/4. THIRD PARTY RULE IN FORCE WITH RESPECT
TO ALL INFORMATION REGARDING THIS MATTER THEREFORE REGIONAL
DIRECTORS EMERGENCY PLANNING CANADA CANNOT/NOT BRIEF PROVINCIAL
OFFICIALS AT THIS TIME. INFO ONLY FOR THOSE AUTHORITIES ALREADY
ADVISED. SHOULD YOU RECEIVE QUERIES REFER ALL TO DND H.Q. OTTAWA
(LT.COL. E.D. CHAMPAGNE). LATEST INFO ON SATELLITE INDICATES
THERE IS ONE IN EIGHT CHANCE IT WILL ENTER ATMOSPHERE OVER
CANADA AND 98 PERCENT PROBABILITY IT WILL TOTALLY BURN UP
BEFORE IMPACT. BEST ESTIMATE OF AREA ORBITTED DURING TIME OF
POSSIBLE ENTRY COVERS ARC TOUCHING VANCOUVER, WHITEHORSE,
EASTERN COAST OF LABRADOR AND NEWFOUNDLAND WITH TIME OF ENTRY
BETWEEN 0300 HRS AND 1300 HRS EST. 24 JAN 78.

COMMR OTT

PLSE ACK MSG
OTT6 ACK UR MSG TKS KKK

SECRET



ROYAL CANADIAN MOUNTED POLICE
GENDARMERIE ROYALE DU CANADA

Instructions on reverse
Dire: au verso

(Second)

CLASSIFIED OUTGOING MESSAGES
MESSAGES SORTANTS CLASSIFIÉS

| | | | |
|--|--|--|---|
| Time of Receipt — <i>Heure de réception</i> | File No. — <i>N° de dossier</i> | Drafter's Name — <i>Nom du rédacteur</i> | Time of Dispatch — <i>Heure d'envoi</i> |
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<i>Priorité pour suite à donner</i> | Precedence for Infor. Addresses
<i>Priorité pour renseignements</i> | Date | Security Classification / <i>Sécurité</i> |
| PRIORITY | FPB | 23 JAN 78 | SECRET |

FROM — *DE* COMM. OTTAWA

TO — *A* C.O.,s A,B,C,D,E,E-1, E-2, F,G,H,J,K,L,M,N,O.

INFO. — *POUR RENSEIGNEMENTS*

Originators message no. DCI/35/ FPB
N° du message original

FURTHER TO TELEX DCI/1/4 . THIRD PARTY RULE IN FORCE WITH RESPECT TO ALL INFORMATION REGARDING THIS MATTER THEREFORE REGIONAL DIRECTORS EMERGENCY PLANNING CANADA CANNOT/NOT BRIEF PROVINCIAL OFFICIALS AT THIS TIME. INFO ONLY FOR THOSE AUTHORITIES ALREADY ADVISED. SHOULD YOU RECEIVE QUERIES REFER ALL TO DND H.Q. OTTAWA (LT.COL. E.D. CHAMPAGNE). LATEST INFOR ON SATELLITE INDICATES THERE IS ~~XX~~ ONE IN EIGHT CHANCE IT WILL ENTER ATMOSPHERE OVER CANADA AND ~~XX~~ 98% PROBABILITY IT WILL TOTALLY BURN UP BEFORE IMPACT. BEST ESTIMATE OF AREA ORBITTED DURING ~~X~~ TIME OF POSSIBLE ENTRY COVERS ARC TOUCHING NEAR VANCOUVER, WHITEHORSE, EASTERN COAST OF LABRADOR AND NEWFOUNDLAND WITH TIME OF ENTRY BETWEEN ~~XXXX~~ 0300 HRS and 1300 HRS EST. **24 JAN 78.**

Time released (time of signature)
Heure d'expédition (heure de la signature)

M.

[Signature]

Signature of person releasing message
Signature de l'expéditeur

INSTRUCTIONS

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B) All information addresses usually deferred.

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TO: Enter all action addresses.

INFO: Enter all information addresses.

ORIGINATOR'S MESSAGE NUMBER: —

- A) Enter originator's message number (it will be transmitted as first word of text of message.)
- B) When replying to a message quote original message number, e.g. KCIB 62 your NPSIC 1284/13.
- C) When sending follow-up message, quote original message number, Date and Subject Caption, e.g. KCIB 62 further to KCIB 59 of 12-2-72 re FPS 100001 John Smith fraud.

DIRECTIVES

N° DU DOSSIER, SERVICE OU SECTION, NOM DU RÉDACTEUR, ETC.: —
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PRIORITÉ: À indiquer dans tous les cas

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B) à titre de renseignements: ordinaire habituellement.

CLASSIFICATION SÉCURITÉ: À indiquer dans tous les cas,

À: Inscrire l'adresse de toutes les personnes qui doivent donner suite à l'affaire.

POUR RENSEIGNEMENTS: Inscrire l'adresse de tous ceux qui doivent recevoir le message à titre de renseignements.

N° DU MESSAGE ORIGINAL: —

- A) inscrire le n° du message original (il sera transmis comme premier mot du texte)
- B) lorsque vous répondez à un message, citez le numéro de ce message, p.ex. KCIB 62 votre n° NPSIC 1284/13.
- C) lorsque vous donnez suite à un message, citez le numéro de ce message, la date et le sujet en rubrique, p. ex. KCIB 59 du 12-2-72, objet: FPS 100001, John Smith, escroquerie



ROYAL CANADIAN MOUNTED POLICE
GENDARMERIE ROYALE DU CANADA

Instructions on reverse
Dire: au verso

CLASSIFIED OUTGOING MESSAGES
MESSAGES SORTANTS CLASSIFIÉS

| | | | |
|--|--|--|---|
| Time of Receipt — <i>Heure de réception</i> | File No. — <i>N° de dossier</i> | Drafter's Name — <i>Nom du rédacteur</i> | Time of Dispatch — <i>Heure d'envoi</i> |
| | Branch or Section — <i>Service ou section</i> | Phone No. — <i>N° de téléphone</i> | |
| Precedence for Action Addresses
<i>Priorité pour suite à donner</i> | Precedence for Infor. Addresses
<i>Priorité pour renseignements</i> | Date | Security Classification / <i>Sécurité</i> |
| PRIORITY | FPB | 23 JAN 78 | S E C R E T |

FROM — *DE* **COMTR. OTTAWA**

TO — *À* **C.O.,s A,B,C,D,E,E-1, E-2, F,G,H,J,K,L,M,~~S~~,O.**

INFO. — *POUR RENSEIGNEMENTS*

Originators message no. **DCI/35/ FPB**
N° du message original

FURTHER TO TELEX DCI/1/4 . THIRD PARTY RULE IN FORCE WITH RESPECT TO ALL INFORMATION REGARDING THIS MATTER THEREFORE REGIONAL DIRECTORS EMERGENCY PLANNING CANADA CANNOT/NOT BRIEF PROVINCIAL OFFICIALS AT THIS TIME. INFO ONLY FOR THOSE AUTHORITIES ALREADY ADVISED. SHOULD YOU RECEIVE QUERIES REFER ALL TO DND H.Q. OTTAWA (LT.COL. E.D. CHAMPAGNE). LATEST INFOR ON SATELLITE INDICATES THERE IS ~~11~~ ONE IN EIGHT CHANCE IT WILL ENTER ATMOSPHERE OVER CANADA AND ~~98~~ 98% PROBABILITY IT WILL TOTALLY BURN UP BEFORE IMPACT. BEST ESTIMATE OF AREA ORBITTED DURING ~~E~~ TIME OF POSSIBLE ENTRY COVERS ARC TOUCHING NEAR VANCOUVER, WHITEHORSE, EASTERN COAST OF LABRADOR AND NEWFOUNDLAN WITH TIME OF ENTRY BETWEEN~~XXXX~~ 0300 HRS and 1300 HRS EST. **24 JAN 78**

Time released (time of signature)
Heure d'expédition (heure de la signature)

M.

Signature of person releasing message
Signature de l'expéditeur

INSTRUCTIONS

FILE NUMBER, BRANCH OR SECTION, DRAFTER'S NAME, ETC.: —
Originator **MUST** complete all boxes to facilitate prompt handling of a reply or query.

PRECEDENCE: — Enter for

A) All action addresses, i.e. **DEFERRED, ROUTINE, PRIORITY, OPERATIONAL IMMEDIATE OR EMERGENCY.**

B) All information addresses usually deferred.

SECURITY CLASSIFICATION: — Enter in all cases.

TO: Enter all action addresses.

INFO: Enter all information addresses.

ORIGINATOR'S MESSAGE NUMBER: —

A) Enter originator's message number (it will be transmitted as first word of text of message.)

B) When replying to a message quote original message number, e.g. KCIB 62 your NPSIC 1284/13.

C) When sending follow-up message, quote original message number, Date and Subject Caption, e.g. KCIB 62 further to KCIB 59 of 12-2-72 re FPS 100001 John Smith fraud.

DIRECTIVES

N° DU DOSSIER, SERVICE OU SECTION, NOM DU RÉDACTEUR, ETC.:
*L'auteur **DOIT** remplir toutes ces cases afin de faciliter l'acheminement rapide d'une réponse ou d'une demande.*

PRIORITÉ: À indiquer dans tous les cas

A) où il faut donner suite à une affaire: **DIFFÉRÉ, ORDINAIRE, PRIORITAIRE, OPÉRATION IMMÉDIATE OU EXTRÊME URGENCE.**

B) à titre de renseignements: ordinaire habituellement.

CLASSIFICATION SÉCURITÉ: À indiquer dans tous les cas,

À: *Inscrire l'adresse de toutes les personnes qui doivent donner suite à l'affaire.*

POUR RENSEIGNEMENTS: *Inscrire l'adresse de tous ceux qui doivent recevoir le message à titre de renseignements.*

N° DU MESSAGE ORIGINAL:

A) *inscrire le n° du message original (il sera transmis comme premier mot du texte)*

B) *lorsque vous répondez à un message, citez le numéro de ce message, p.ex. KCIB 62 votre n° NPSIC 1284/13.*

C) *lorsque vous donnez suite à un message, citez le numéro de ce message, la date et le sujet en rubrique, p.ex. KCIB 59 du 12-2-72, objet: FPS 100001, John Smith, escroquerie*



ROYAL CANADIAN MOUNTED POLICE GENDARMERIE ROYALE DU CANADA

Instructions on reverse
Dire : au verso

CLASSIFIED OUTGOING MESSAGES
MESSAGES SORTANTS CLASSIFIÉS

| | | | |
|--|--|--|---|
| Time of Receipt — <i>Heure de réception</i> | File No. — <i>N° de dossier</i> | Drafter's Name — <i>Nom du rédacteur</i> | Time of Dispatch — <i>Heure d'envoi</i> |
| | Branch or Section — <i>Service ou section</i> | Phone No. — <i>N° de téléphone</i> | |
| | FPBP | 422 32211 | |
| Precedence for Action Addresses
<i>Priorité pour suite à donner</i> | Precedence for Infor. Addresses
<i>Priorité pour renseignements</i> | Date | Security Classification / <i>Sécurité</i> |
| PRIORITY | | 23 JAN 78 | S E C R E T |

FROM — *DE* COMZ. OTTAWA

TO — *À* C.O., C A, B, C, D, E, E-1, E-2, F, G, H, J, K, L, M, S, C.

INFO. — *POUR RENSEIGNEMENTS*

Originators message no. **DCI/35/ FPB**
N° du message original

FURTHER TO TELEX DCI/1/4. THIRD PARTY RULE IN FORCE WITH RESPECT TO ALL INFORMATION REGARDING THIS MATTER THEREFORE REGIONAL DIRECTORS EMERGENCY PLANNING CANADA CANNOT/NOT BRIEF PROVINCIAL OFFICIALS AT THIS TIME. INFO ONLY FOR THOSE AUTHORITIES ALREADY ADVISED. SHOULD YOU RECEIVE QUERIES REFER ALL TO DND H.Q. OTTAWA (LT.COL. E.D. CHAMPAGNE). LATEST INFOR ON SATELLITE INDICATES THERE IS ~~LESS~~ ONE IN EIGHT CHANCE IT WILL ENTER ATMOSPHERE OVER CANADA AND (H 9853 PROBABILITY IT WILL TOTALLY BURN UP BEFORE IMPACT. BEST ESTIMATE OF AREA ORBITTED DURING E TIME OF POSSIBLE ENTRY COVERS ARC TOUCHING NEAR VANCOUVER, WHITEHORSE, EASTERN COAST OF LABRADOR AND NEWFOUNDLAND WITH TIME OF ENTRY BETWEEN ~~EX 01~~ 0300 HRS and 1300 HRS EST. 24 JAN 78

Time released (time of signature)
Heure d'expédition (heure de la signature)

M.

Signature of person releasing message
Signature de l'expéditeur

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A) All action addresses, i.e. **DEFERRED, ROUTINE, PRIORITY,
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C) When sending follow-up message, quote original message
number, Date and Subject Caption, e.g. KCIB 62 further to
KCIB 59 of 12-2-72 re FPS 100001 John Smith fraud. . . .

DIRECTIVES

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L'auteur **DOIT** remplir toutes ces cases afin de faciliter l'achemine-
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PRIORITÉ: À indiquer dans tous les cas

A) où il faut donner suite à une affaire: **DIFFÉRÉ, ORDINAIRE,
PRIORITAIRE, OPÉRATION IMMÉDIATE OU EXTRÊME URGENCE.**

B) à titre de renseignements: ordinaire habituellement.

CLASSIFICATION SÉCURITÉ: À indiquer dans tous les cas,

À: Inscrire l'adresse de toutes les personnes qui doivent donner suite
à l'affaire.

POUR RENSEIGNEMENTS: Inscrire l'adresse de tous ceux qui doivent
recevoir le message à titre de renseigne-
ments.

N^O DU MESSAGE ORIGINAL:

A) inscrire le n^o du message original (il sera transmis comme
premier mot du texte)

B) lorsque vous répondez à un message, citez le numéro de ce
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C) lorsque vous donnez suite à un message, citez le numéro de ce
message, la date et le sujet en rubrique, p.ex. KCIB 59 du
12-2-72, objet: FPS 100001, John Smith, escroquerie

WARNING

CLASSIFIED
CYRIL MESSAGE

All replies or references to it MUST bear
the security classification stamped hereon,
unless downgraded by proper authority.
YOUR TELEPHONE IS NOT SECURE
The content or any portion of this message
irrespective of classification is NOT to be
discussed over the telephone.

SECRET
JAN 23 6 51 PM '78
COMMUNICATIONS

44-52 PRIORITY OTT1 JAN 23/78 S E C R E T

A D E-1 E-2 F G K M DIVISIONS

DCI/1/4

FOLLOWING INFORMATION RECEIVED THROUGH THE INTELLIGENCE ADVISORY COMMITTEE OF THE FEDERAL GOVT. QUOTE. COSMOS 954, A SOVIET RADAR OCEAN RECONNAISSANCE SATELLITE (RORSAT) WITH A SMALL NUCLEAR POWER SOURCE, HAS APPARENTLY BEEN OUT OF GROUND CONTROL AND IN A DECAYING ORBIT SINCE 29 OCTOBER 1977 (WIR 44/77). ON 6 JANUARY 1978, THE SATELLITE BEGAN TUMBLING AND ITS RATE OF DECAY INCREASED. AS IT IS NOW ESTIMATED THAT THE SATELLITE WILL RE-ENTER THE EARTH'S ATMOSPHERE ABOUT 24 JANUARY 1978, BUT THE LOCATION OR RE-ENTRY CANNOT BE PREDICTED WITH ANY ACCURACY UNTIL ONE OR TWO DAYS BEFORE RE-ENTRY AND THEN WITHOUT ANY PRECISION. THERE HAS BEEN NO SOVIET ANNOUNCEMENT OF THIS MALFUNCTION. (AT THE END OF THEIR USEFUL LIFE, RORSAT'S ARE USUALLY BOOSTED INTO A HIGH ORBIT WHICH DELAYS RE-ENTRY INDEFINITELY). SOME PORTIONS OF THE SATELLITE, INCLUDING PARTS OF THE NUCLEAR POWER PACKAGE MAY SURVIVE RE-ENTRY AND IMPACT ON THE GROUND. THERE IS NO DANGER OF A NUCLEAR EXPLOSION BUT THERE MAY BE A MINOR LOCAL HEALTH HAZARD DUE TO DISPERSAL OF RADIOACTIVE MATERIAL BY IMPACT. THE CHANCE OF IMPACT IN A POPULATED AREA IS REMOTE BUT IF IT OCCURS OUTSIDE THE USSR IT COULD CAUSE THE SOVIET UNION CONSIDERABLE POLITICAL EMBARRASSMENT. UNQUOTE. I.A.C. HAVE TAKEN THE FOLLOWING ACTION QUOTE (A) AGREED THAT THE IMMEDIATE REACTION TO ANY IMPACT ON CANADIAN TERRITORY WOULD BE TO EVACUATE AND CORDON OFF THE AREA OF RISK FROM RADIATION; AND THAT THE OPERATION WOULD BE SIMILAR, THOUGH ON A MUCH SMALLER SCALE, TO THAT PLANNED TO HANDLE THE CRASH OF AN AIRCRAFT CARRYING NUCLEAR WEAPONS;

....2

SECRET
JAN 23 1978

SECRET

PAGE TWO DCI/1/4 OTT1 JAN23/78 S E C R E T
(B) BRIEFED EMERGENCY PLANNING CANADA ON THE SITUATION, WITH A REQUEST THAT USING SECURE COMMUNICATIONS IT INFORMS ITS REGIONAL DIRECTOR IN EACH PROVINCE, SO THAT IF AND WHEN ANY THREAT OF IMPACT ON CANADIAN TERRITORY IS IDENTIFIED, HE WILL BE IN A POSITION TO BRIEF THE COMMANDING OFFICER OF THE PROVINCIAL POLICE AND, WHEN APPROPRIATE, PROVINCIAL OFFICIALS;
(C) THE RCMP BE NOTIFIED WITH THE SUGGESTION THAT THE COMMANDING OFFICER IN EACH PROVINCE BE ALSO INFORMED;
(D) ARRANGED FOR THE HEAD OF THE NUCLEAR SAFETY DIVISION IN THE DEPARTMENT OF HEALTH AND WELFARE TO BE NOTIFIED;
(E) ARRANGED THAT IF AND WHEN A RISK TO ANY PART OF CANADIAN TERRITORY IS IDENTIFIED THE APPROPRIATE PROVINCIAL OFFICIALS WILL BE INFORMED IMMEDIATELY;
(F) CONSULTED WITH THE CANADIAN FORCES IN ORDER TO COORDINATE THIS ACTION;
(G) CAUTIONED ALL TO TREAT AS SENSITIVE INFORMATION. UNQUOTE CARE MUST BE TAKEN TO PREVENT PUBLIC SCARE BY INDISCRIMINATE RELEASZ OF THIS INFORMATION. EMERGENCY PLANNING CANADA OFFICIALS HAVE UNDERTAKEN TO ALERT OPP AND QPF AT THE APPROPRIATE TIME WHEN MORE ACCURATE INFORMATION IS AVAILABLE. YOU MAY EXPECT ADDITIONAL CONTACT DIRECT WITH REGIONAL E.P.C. AUTHORITIES. BEST ESTIMATE OF CO-ORDINATES TO DATE IS 52.8 DEGREES NORTH, 59 DEGREES WEST. ESTIMATED TIME OF IMPACT 11:30 A.M. 24 JAN 78.

COMMR OTT

PLSE ACK AND STANDBY

0001/31\$/ .835)- ?;\$"16(2/#"54':515

SAY AGN PLSE U GARBLED

OTT6 ACK UR MSG TKS KKK

SECRET



ROYAL CANADIAN MOUNTED POLICE
GENDARMERIE ROYALE DU CANADA

Instructions on reverse
Dir 95 au verso

CLASSIFIED OUTGOING MESSAGES

MESSAGES SORTANTS CLASSIFIÉS

COPY TO ALL DIVS

| | | | |
|---|---|---|--|
| Time of Receipt - Heure de réception | File No. - N° de dossier | Drafter's Name - Nom du rédacteur
A/COMMR. TS VENNER | Time of Dispatch - Heure d'envoi
AND NORTH & A. DPT |
| | Branch or Section - Service ou section
DCI | Phone No. - N° de téléphone
3-9545 | 44-52 |
| Precedence for Action Addresses
Priorité pour suite à donner
PRIORITY | Precedence for Infor. Addresses
Priorité pour renseignements | Date
23 JAN 78 | Security Classification/Sécurité
SECRET |

FROM - DE
COMMR. OTTAWA

TO - A C.O. "S", "B", "C", "H", "J", "L", & "O" DIVISIONS

A, B, E, E-1, E-2, F, G, K, M

INFO. - POUR RENSEIGNEMENTS

Originators message no.
N° du message original DCI/1/4

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Time released (time of signature)
Heure d'expédition (heure de la signature)

M

T.S. VENNER A/COMMR. D.C.I.

Signature of person releasing message
Signature de l'expéditeur

000823



ROYAL CANADIAN MOUNTED POLICE
GENDARMERIE ROYALE DU CANADA

Instructions on reverse
Dire s au verso

CLASSIFIED OUTGOING MESSAGES
MESSAGES SORTANTS CLASSIFIÉS

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| Precedence for Action Addresses
Priorité pour suite à donner | Precedence for Infor. Addresses
Priorité pour renseignements | Date | Security Classification / Sécurité |

FROM - DE

TO - A

PAGE 2.

INFO. - POUR RENSEIGNEMENTS

Originators message no.
N° du message original

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(C) THE RCMP BE NOTIFIED WITH THE SUGGESTION THAT THE COMMANDING OFFICER IN EACH PROVINCE ALSO INFORMED: (D) ARRANGED FOR THE HEAD OF THE NUCLEAR SAFETY DIVISION IN THE DEPARTMENT OF HEALTH AND WELFARE TO BE NOTIFIED: (E) ARRANGED THAT IF AND WHEN A RISK TO ANY PART OF CANADIAN TERRITORY IS IDENTIFIED THE APPROPRIATE PROVINCIAL OFFICIALS WILL BE INFORMED IMMEDIATELY; (F) CONSULTED WITH THE CANADIAN FORCES IN ORDER TO COORDINATE THIS ACTION; (G) CAUTIONED ALL TO TREAT AS SENSITIVE INFORMATION. UNQUOTE. CARE MUST BE TAKEN TO PREVENT PUBLIC SCARE BY INDISCRIMINATE RELEASE OF THIS INFORMATION. EMERGENCY PLANNING CANADA OFFICIALS HAVE UNDERTAKEN TO ALERT OPP AND QPF AT THE APPROPRIATE TIME WHEN MORE ACCURATE INFORMATION IS AVAILABLE. YOU MAY EXPECT ADDITIONAL CONTACT DIRECT WITH REGIONAL E.P.C. AUTHORITIES. BEST ESTIMATE OF CO-ORDINATES TO DATE IS 52.8 DEGREES NORTH, 69 DEGREES WEST. ESTIMATED TIME OF IMPACT 11:30 A.M. 24 JAN 78.

Time released (time of signature)
Heure d'expédition (heure de la signature)

M

Signature of person releasing message
Signature de l'expéditeur

000824

TRANSIT SLIP



FICHE DE SERVICE

Date

23/1/78

TO
À

DCI

FROM
DE

A O/C FPB.

Comments ☐ Commentaires

Make File(s) ☐ Dossier(s) à ouvrir

Perusal — No Action Required ☐ Pour information — aucune suite requise

Return with Current File ☐ Retourner avec le dossier courant

Examination and Action ☐ Pour examen et suite

Check Records ☐ Vérifier les archives

Prepare Reply ☐ Réponse à rédiger

Instructions ☐ Directives

Prepare Brief ☐ Exposé à préparer

See Sender ☐ Voir l'expéditeur

REMARKS
COMMENTAIRES

Yes: tel's concerning this are to be sent to you in morning from secure telephone. I advised operator that if he has any other tel's on this directed to DPP to hold for you (There was one in from K).

Charet

REPLY
RÉPONSE



Sgt. BANNER

000825

| NAME | ORGANIZATION |
|------------------------------------|---|
| K. GREEN | PCO |
| D. CHIAROT (off) is A/KOMAR VENNEN | PCO Phone 993.9545
521.2321 |
| B. F. MACKINNON | IAC Staff |
| H. TANIGUCHI | RADIATION PROTECTION BARBARA/DNHU |
| R. HAROLD | IAC Staff. |
| D. ROSE | 225-9614 EXTERNAL AFFAIRS (DFI2) |
| D. A. CHISTOFF | EXTERNAL AFFAIRS (GEA) |
| A. F. Wigglesworth | 992-4324(O) 820-6120(R) EPC |
| J. B. PELLETIER | 992-5112(O) 235-4728(R) EPC |
| A. J. CRUIKSHANK | DND / DGIS/DST / 5-6530
224-2527 |
| S. N. WHITE | PCO (SIEPS) |
| COL E. D. CHAMPAGNE | DND (D4MP6) |
| DAVID BORROWMAN | EXTAFF - ISLD |
| A. M. STURTON | EPC 29988 |
| K. L. CAMERON | A.E.C.B. Res. - 225-3153
Off. 995-9390 |

NOTE TO FILE:

Friday - Lab City

Sat - Marshalls

Sunday - Pacific

Monday - It is now anywhere in Canada within 24 hours

24: 13:01 ZULU and South of the Cape Tristhan le Cunha.

Within 5 hours

Right across North Whitehorse to St. John and south on W & E and
North country in centre

Advise all Divisions

Probably reactor not Radio Isotope

With the carbide engine it may reach earth 3/4 hour warning is
absolute maximum time for closest location of landing site.

Severe hazard at several hundred yards if all in one piece

Dr. Cruichshank - D.N.D. has capabilities to spot, but may
require U.S.A.F. aide for more sophisticated equipment.

3 a.m. to 1 p.m. of 24th - Norad will have final date.

EP Canada has been advised and they will contact locally with
R.C.M.P.

Physical risk minimum - near by very hot. Stay well away.

Remote area - immediate by D.N.D. Urban - all resources available.

A.E.C.B. would be lead department and call in aid from where they
are - and A.E.C.B. has first requirement - Environment has
capability.

A.E.C.B. will give any statement and nothing else.

Then D.N.D. be lead to advise problem to Provincial Ministries
through EP.

Control Board i/c and they will give.

Everyone will state: there is a satellite out of central advised
through Norad and its track is over Canada - 98% chance it will

.../2

burn up during orbit and if some piece hits ground please advise.
Suggest police be advised immediately.

Direct inquiries to D.N.D. - NORAD if nuclear is out then state A.E.C.B.
will be contacted.

To all Divisions and give them impact area as central N. B.C.,
N. Alberta, N.W.T.

Remote possibility pieces will hit ground. Orbit being tracked.
Strong probability it will burn up before entry.
Police notified immediately of location.

Soviet - any press inquiry to be directed to D.N.D. and E.P.D.
and verify and return all North.

DND/EDP/AECB

Exact location of impact unknown - 1 in 8 to hit Canada and 98% it
will burn. Impact 3 a.m. to 1 p.m. F.S.T. 24th.

UNCLASSIFIED

23 January 1978

Message for EPC Regional Directors

Further our message 20 Jan 78 you may advise province that NORAD has advised DND that a Soviet satellite might reenter the atmosphere over Canada. There is a very strong possibility that it will burn up upon reentry and a remote possibility that some debris might fall on Canadian soil. Because of scientific interests we would like to receive any sighting reports immediately but request debris be left undisturbed and police informed of its location. The satellite is expected to reenter between 0300 hrs. EST and 1300 EST Tuesday January 24, 1978. We hope to indicate the actual time of reentry more accurately soon.

whether any debris is likely to descend in your area.

Save can be contacted.

Not sent as U.S. State Dept. said NO. only their EMO has info (of course there is very little likelihood that it will hit U.S.A.)

Government
of CanadaGouvernement
du Canada

ACTION

REQUEST

FICHE DE

SERVICE

TO - A

FILE NO. — DOSSIER N°

DATE

FROM - DE

☐ PLEASE CALL
PRIÈRE D'APPELER

TEL. NO. - N° DE TEL.

EXT. - POSTE

☐ WANTS TO SEE YOU
DÉSIRE VOUS VOIR

DATE

TIME - HEURE

☐ WILL CALL AGAIN
DOIT RAPPELERCALL RECEIVED BY
MESSAGE REÇU PAR ►☐ ACTION
DONNER SUITE☐ APPROVAL
APPROBATION☐ NOTE & RETURN
NOTER ET RETOURNER☐ COMMENTS
COMMENTAIRES☐ DRAFT REPLY
PROJET DE RÉPONSE☐ NOTE & FORWARD
NOTER ET FAIRE SUIVRE☐ MAKE
FAIRE COPIES☐ SIGNATURE☐ NOTE & FILE
NOTER ET CLASSER

Mr. WHITE

- A.C.

Phone 67136

Primey Council Office

5th floor - 59 Sparks.

000830



Government
of Canada

Gouvernement
du Canada

MEMORANDUM

NOTE DE SERVICE

TO
À

D.C.I.

FROM
DE

O i/c Policy-Planning and
Co-ordination

SUBJECT
OBJET

Possible Danger from Soviet
Reconnaissance Satellite

SECURITY CLASSIFICATION - DE SÉCURITÉ

S E C R E T

OUR FILE - N/RÉFÉRENCE

YOUR FILE - V/RÉFÉRENCE

DATE

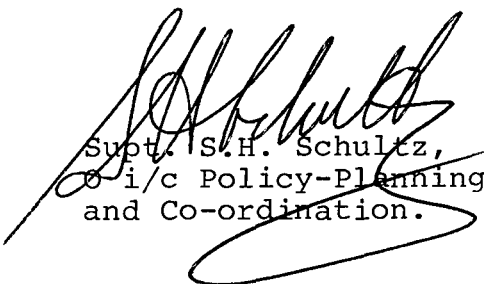
20 January 1978

Please find attached the following correspondence in
the above regard:

- (1) Memorandum dated 20 January 1978 from K.D. GREEN,
Acting Secretary, Intelligence Advisory Committee,
to myself.
- (2) Memorandum dated January 19, 1978 from S.N. WHITE
to Mr. PITFIELD.
- (3) Copy of item from the Weekly Intelligence Review
entitled "USSR: Satellite Malfunction - Possible
Radiation Hazard in Limited Area.

As noted in the attached material, the Malfunctioning Satellite
is anticipated to impact within an approximate circle of 1,000
mile radius centered on Labrador City. The best estimate of
co-ordinates to date is 52.8 degrees north, 69 degrees west.
Estimated time of impact is 11:30 a.m., 24 January 1978.

As suggested in the attached material, you may wish to
advise Divisional Commanding Officers of those divisions within
a 1,000 mile radius of Labrador City. It is quite probable
as further information is received, Emergency Planning Canada
will be in touch with RCMP Commanding Officers in the affected
areas.


Supt. S.H. Schultz,
O i/c Policy-Planning
and Co-ordination.

Encl.

000831



Privy Council Office Bureau du Conseil privé

SECRET

S&I 16

20 January 1978

Memorandum to Supt. S.H. Schultz

Re: Possible Danger from Soviet
Reconnaissance Satellite

1. At the invitation of Messrs. White and Blackwell of EPC, the Secretary IAC and IAC Staff Members were briefed on proposed preliminary measures to be taken in connection with an out-of-control Soviet reconnaissance satellite (see WIR 3/78, paras. 17 and 18, copy attached). The proposal at this stage is to alert the EPC, Military and RCMP regional commanders that the satellite could impact in their area and require action on their part. For obvious reasons great care must be taken not to let the general public get wind of the danger and it was partly for this reason that Mr. Blackwell suggested that informing the OPP and QPP might be left to the relevant EPC regional authorities -- to be done at the most appropriate time. If the crunch comes, the EPC will be responsible for briefing the RCMP commander in the Division concerned as to the area of impact, the date and the time.
2. Would you undertake whatever RCMP action is required in this regard, using as you so fit the WIR article for provision of background information.

K.D. Green
Acting Secretary
Intelligence Advisory Committee

KDG/lf

Att.

S E C R E T

January 19, 1978

MEMORANDUM FOR MR. PITFIELD

4

We have been notified through intelligence channels that a small Soviet reconnaissance satellite has gone out of control. It will soon enter the atmosphere and impact on the earth's surface. The satellite includes a small nuclear power pack and although there is no danger of nuclear explosion there is some risk of radioactive material being scattered in the immediate vicinity of the point of impact.

Unfortunately because the satellite is out of control and tumbling through space it is impossible at this stage to make any forecast as to when and where it will come to earth. The only information at present available is that this is not anticipated to take place before 24th January and that it is hoped to give a more accurate prediction some 48 hours prior to impact. This will come to us from NORAD Headquarters.

There appears to be little that we can do until a more definable risk has been identified, and only then if that risk is to Canadian territory. There is a security classification on the situation, but any premature release of information, apart from breaching security might also cause a public scare.

I have however taken the following action:

- (2) (a) agreed that the immediate reaction to any impact on Canadian territory would be to evacuate and cordon off the area of risk from radiation; and that the operation would be similar, though on a much smaller scale, to that planned to handle the crash of an aircraft carrying nuclear weapons;

. . . /2


S E C R E T

S E C R E T

- 2 -

- (b) briefed Emergency Planning Canada on the situation, with a request that using secure communications it inform its Regional Director in each province, so that if and when any threat of impact on Canadian territory is identified, he will be in a position to brief the commanding officer of the provincial police and, when appropriate, provincial officials;
- (c) the RCMP be notified with the suggestion that the commanding officer in each province be also informed;
- (d) arranged for the Head of the Nuclear Safety Division in the Department of Health and Welfare to be notified;
- (e) arranged that if and when a risk to any part of Canadian territory is identified the appropriate provincial officials will be informed immediately;
- (f) consulted with the Canadian Forces in order to coordinate this action;
- (g) cautioned all to treat as sensitive information.

④


S.N. White

Since drafting the above I have been informed that the current estimated time of impact is 11:30 a.m. eastern standard time on 24th January and that the point of impact will be within an approximate circle of 1000 miles radius centred on Labrador City. This estimate is to be reviewed every twelve hours and I will inform EPC of any revised and more accurate figures.

SECRET

WIR 3/78

Approved: 18 January 1978

UNLESS OTHERWISE
CLASSIFIED

AUST/NZ/US/UK/CANADIAN EYES ONLY

- 8 -

USSR: Satellite Malfuction - Possible Radiation Hazard
in Limited Area

11. COSMOS 954, a Soviet Radar Ocean Reconnaissance satellite (RORSAT) with a small nuclear power source, has apparently been out of ground control and in a decaying orbit since 29 October 1977 (WIR 44/77). On 6 January 1978, the satellite began tumbling and its rate of decay increased. As it is now estimated that the satellite will re-enter the earth's atmosphere about 24 January 1978, but the location of re-entry cannot be predicted with any accuracy until one or two days before re-entry and then without any precision. There has been no Soviet announcement of this malfunction. (At the end of their useful life, RORSAT'S are usually boosted into a high orbit which delays re-entry indefinitely).

(SECRET)

12. Some portions of the satellite, including parts of the nuclear power package may survive re-entry and impact on the ground. There is no danger of a nuclear explosion but there may be a minor local health hazard due to dispersal of radioactive material by impact. The chance of impact in a populated area is remote but if it occurs outside the USSR it could cause the Soviet Union considerable political embarrassment. (SECRET)

SECRET

AUST/NZ/US/UK/CANADIAN EYES ONLY

UNLESS OTHERWISE
CLASSIFIED



C-75A (REV. 4/71) (7530-21-029-4832)