



governmentattic.org

"Rummaging in the government's attic"

Description of document: National Nuclear Security Administration (NNSA) Report of Broken Arrow Minuteman Accident Involving A MK 11 Re-Entry Vehicle December 5, 1964

Requested date: 27-November-2020

Release date: 08-December-2020

Posted date: 31-May-2021

Source of document: FOIA/PA Officer
NNSA/Office of the General Counsel
P.O. Box 5400
Albuquerque, NM 87185-5400
Fax: (505) 284-7512
Email: FOIOfficer@nnsa.doe.gov

The governmentattic.org web site ("the site") is a First Amendment free speech web site and is noncommercial and free to the public. The site and materials made available on the site, such as this file, are for reference only. The governmentattic.org web site and its principals have made every effort to make this information as complete and as accurate as possible, however, there may be mistakes and omissions, both typographical and in content. The governmentattic.org web site and its principals shall have neither liability nor responsibility to any person or entity with respect to any loss or damage caused, or alleged to have been caused, directly or indirectly, by the information provided on the governmentattic.org web site or in this file. The public records published on the site were obtained from government agencies using proper legal channels. Each document is identified as to the source. Any concerns about the contents of the site should be directed to the agency originating the document in question. GovernmentAttic.org is not responsible for the contents of documents published on the website.



Department of Energy
National Nuclear Security Administration
Office of the General Counsel
P. O. Box 5400
Albuquerque, NM 87185



December 8, 2020

SENT VIA EMAIL

This letter is the final response to your November 27, 2020, Freedom of Information Act (FOIA) request.

Your request stated the following:

“A copy of the records processed and released under a previous FOIA request NNSA FOIA 14-00107-K. I also request a copy of the letter correspondence (to and from the requester) in the file for that request”.

The National Nuclear Security Administration (NNSA) Office of General Counsel (NA-GC-10) is providing you with a copy of responsive records previously processed, closed and archived under FOIA 14-00107-K. Enclosed you will find documents 1-5, totaling 34 pages.

The following responsive records were located:

Document 1: FOIA 14-00107-K, Acknowledgement Letter, February 27, 2014.

Document 2: FOIA 14-00107-K, Final Response Letter, March 17, 2015.

Document 3: Speaking Truth to Power (STTP) Appeal of Expedited Denial, November 25, 2014.

Document 4: Joint Chief of Staff Flash Message Pinnacle Broken Arrow, September 30, 2014.

Document 5: SCL-DR-65-5, Development Report, September 30, 2014.

You may contact the NNSA FOIA Public Liaison at 1-866-747-5994, or by mail at Department of Energy, National Nuclear Security Administration, Office of the General Counsel, PO Box 5400, Albuquerque, NM 87185, for further assistance and to discuss any aspect of your request. Additionally, you may contact the Office of Government Information Services (OGIS) at the National Archives and Records Administration to inquire about the FOIA mediation services they offer. The contact information for OGIS is as follows: Office of Government Information Services, National Archives and Records Administration, 8601 Adelphi Road-OGIS, College Park, Maryland 20740-6001, e-mail at ogis@nara.gov; telephone at (202) 741-5770; toll free at 1-877-684-6448; or facsimile at (202) 741-5769.

There are no fees chargeable to you for processing this request. If you have questions please contact Mr. Roberto Marquez by e-mail at Roberto.Marquez@nnsa.doe.gov, or write to the address above. Please reference Control Number FOIA 21-00046-R.

Sincerely,

Christina H.
Hamblen
Christina H. Hamblen
FOIA Officer

Digitally signed by
Christina H. Hamblen
Date: 2020.12.08
08:22:20 -07'00'

Enclosure



Department of Energy
National Nuclear Security Administration
Office of the General Counsel
P. O. Box 5400
Albuquerque, NM 87185



February 27, 2014

RECEIPT OF FREEDOM OF INFORMATION ACT REQUEST

This letter acknowledges the receipt of your February 17, 2014, Freedom of Information Act (FOIA) request for records regarding Pinnacle-NUCFLASH incidents occurring before February 2014. More specifically, you requested:

- a. Causes and immediate responses to the Pinnacle-NUCFLASH incidents, who made the immediate decisions, and who acted out the immediate actions.
- b. What the launch status of the nuclear armaments was when each Pinnacle-NUCFLASH incident occurred.
- c. Any degradation of the safeguards against accidental launch during the Pinnacle-NUCFLASH incidents, if applicable.
- d. Any post-incident inspections of armament systems or transportation systems and protocols which were aimed at preventing similar occurrences.
- e. Any physical and administrative measures taken to prevent similar occurrences.
- f. Any relevant protocols and rules which were in place at the time of the incident and which were violated.

Your request was received in our office on February 27, 2014. You asked for expedited processing of your request. According to the FOIA, 5 USC § 552(a)(6)(E), as implemented by the Department of Energy (DOE) in 10 CFR 1004, in order for you to qualify for expedited processing, you must demonstrate a "compelling need" for the information. "Compelling need" means that the failure to obtain the records on an expedited basis could reasonably be expected to pose an imminent threat to the life or physical safety of an

individual, or that the information is urgently needed by an individual primarily engaged in disseminating information in order to inform the public concerning actual or alleged Federal Government activity.

Information that is urgently needed is generally defined as having “a particular value that will be lost if it is not disseminated quickly.” Ordinarily, the requested information should be a breaking news story of general public interest. We have determined that the subject matter of your request is not “breaking news.” Accordingly, your request for expedited processing does not meet the requirements for compelling need under the FOIA, and therefore placing your request ahead of all the other pending requests currently being processed within this Department is not appropriate.

It is the practice of the National Nuclear Security Administration, in accordance with Departmental policy, to process FOIA requests in the approximate order of the date received by this office. Your request is out for a search for responsive records. A number of requests received prior to yours are pending, and your request will be processed in turn. We will make every effort to respond to your request as quickly as possible. Although we are committed to responding to your request in a timely manner, we estimate that we will not be able to respond to your request in 20 working days as mandated by law. We need more time to complete the search of facilities geographically separated from this office, review the record(s) for release, and prepare the response to you, as some requests, depending upon the volume of records, the complexity of the search, and/or the sensitivity of the subject matter, require additional time to complete.

With respect to your request for a waiver of fees, pursuant to 10 CFR § 1004.9(a)(6), fees are not charged where they would amount to \$15.00 or less. Your request falls under the category of news media. As such, you are entitled to the first 100 pages of paper copies or reasonable equivalent free. After that, actual direct costs for copying are charged. We have not determined, at this time, the costs of processing your request; however, your request for a waiver will be considered if it is later determined that costs would exceed the standard \$15.00 allowance.

If you have questions concerning the processing of this request, please email Karen.Laney@nnsa.doe.gov, or write to the address above and reference Control Number FOIA 14-00107-K in your communication.

Sincerely,



Karen Laney
Information Programs Specialist

November 25, 2014

Attn: Karen Laney
Department of Energy
National Nuclear Security Administration
Office of General Counsel
P.O. Box 5400
Albuquerque, NM 87185

Freedom of Information Act Appeal
Control Number: FOIA 14-00107-K

Ms. Laney,

This Appeal letter represents Speaking Truth to Power's (STTP) official Freedom of Information Act Appeal regarding case number 14-00107-K.

The merits of this appeal are as follows. The requirement for expedited treatment of this FOIA Request is whether there is a "compelling need" for this information. "Compelling Need" is defined as information that has a particular value that will be lost if not disseminated quickly as a breaking news story of general public interest. The reason given in denial of expedited treatment of this Request is that "we have determined that the subject matter of your request is not 'breaking news'." Where information of this type exists and is not "breaking news," it is only because the news *has not yet broken*—possibly as a result of a governmental agency attempting to withhold information from FOIA-based inquiries. The information sought in this request is, arguably, the *most* compelling possible. In addition, a compelling need is not limited to breaking news stories but it is used as a merely illustrative example of types of information which qualify for expedited processing. A compelling need is defined in the statute as

“For purposes of this subparagraph, the term “compelling need” means—
(I) that a failure to obtain requested records on an expedited basis under this paragraph could reasonably be expected to pose an imminent threat to the life or physical safety of an individual; or (II) with respect to a request made by a person primarily engaged in disseminating information, urgency to inform the public concerning actual or alleged Federal Government activity.” 5 U.S.C. § 552(a)(6)(E)(v)(I)-(II).

You agreed that STTP and this request falls under the category of news media. STTP disseminates information to the public regarding the failures of the nuclear arsenal, specifically Pinnacle-NUCFLASH incidents, are of great importance which meets the urgency requirement

for a compelling need. It is important to inform the public in a timely matter about accidental and/or unauthorized nuclear incidents that are classified as Pinnacle-NUCFLASH. Disclosing this information to the public sheds light on and informs the public about Federal Government activity. The information requested regarding these events can lead to changes which will prevent future failures from happening. As such, the request falls squarely under 5 U.S.C. § 552(a)(6)(E)(v)(II) and the denial of expedited processing was improper and it should now be granted.

Plaintiff STTP has the right and is prepared to initiate suit if the government again denies expedited treatment.

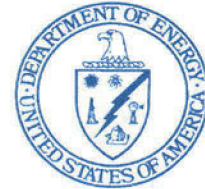
Thank You.

By: _____

Attorney for Plaintiff



Department of Energy
National Nuclear Security Administration
Office of the General Counsel
P. O. Box 5400
Albuquerque, NM 87185



MAR 17 2015

SENT VIA CERTIFIED MAIL

This letter is the final response to your February 17, 2014, Freedom of Information Act (FOIA) request for records regarding Pinnacle-NUCFLASH incidents occurring before February 2014. More specifically, you requested:

- a. Causes and immediate responses to the Pinnacle-NUCFLASH incidents, who made the immediate decisions, and who acted out the immediate actions.
- b. What the launch status of the nuclear armaments was when each Pinnacle-NUCFLASH incident occurred.
- c. Any degradation of the safeguards against accidental launch during the Pinnacle-NUCFLASH incidents, if applicable.
- d. Any post-incident inspections of armament systems or transportation systems and protocols which were aimed at preventing similar occurrences.
- e. Any physical and administrative measures taken to prevent similar occurrences.
- f. Any relevant protocols and rules which were in place at the time of the incident and which were violated.

We contacted the Sandia Field Office (SFO), oversight for Sandia National Laboratories (SNL) about your request. SFO searched but did not locate any responsive records. SFO asked SNL to search for responsive records. SNL searched and located two responsive records, which are provided on the enclosed CD.

MAR 17 2015

The following documents are provided with deletions pursuant to 5 USC § 552(b)(3) (Exemption 3 of the FOIA). See justifications below.

1. Joint Chiefs of Staff Flash Message Pinnacle Broken Arrow
2. SCL-DR-65-5, Development Report

5 USC § 552(b)(3) exempts from disclosure information “specifically exempted from disclosure by statute (other than section 552(b) of this title), provided that such statute (A) requires that the matters be withheld from the public in such a manner as to leave no discretion on the issue, or (B) establishes particular criteria for withholding or refers to particular types of matters to be withheld....” The Atomic Energy Act (AEA) of 1954, as amended, 42 USC § 2011 et seq., is an Exemption 3 statute. Sections 141-146 of this Act (42 USC §§ 2161-2166) prohibit the disclosure of information concerning atomic energy defense programs that is classified as either Restricted Data (RD) or Formerly Restricted Data (FRD) pursuant to the AEA, as amended. The portions deleted from the subject document pursuant to Exemption 3 contain information about weapon design classified as RD. Disclosure of the exempt data could jeopardize the common defense and the security of the nation.

To the extent permitted by law, the DOE pursuant to 10 CFR § 1004.1, will make available records it is authorized to withhold under the FOIA whenever it determines that such disclosure is in the public interest. With respect to the information withheld from disclosure pursuant to Exemption 3, the DOE has no further discretion under the FOIA or DOE regulations to release information currently and properly pursuant to the AEA, as amended.

Pursuant to 10 CFR § 1004.6(d), Dr. Andrew P. Weston-Dawkes, Director, Office of Classification, DOE Office of Health, Safety and Security, is the official responsible for the denial of the DOE classified information.

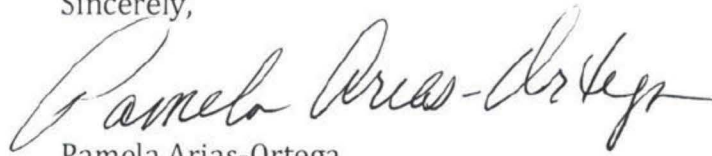
You may appeal the withholding of Exemption 3 information pursuant to 10 CFR § 1004.8. Such an appeal must be made in writing within 30 calendar days after receipt of this letter, addressed to the Director, Office of Hearings and Appeals, HG-1, U.S. Department of Energy, 1000 Independence Avenue SW, L’Enfant Building, Washington, DC 20585. Your appeal must contain a concise statement of the grounds for the appeal and a description of the relief sought. Please submit a copy of this letter with the appeal. Please clearly mark both the envelope and the letter “Freedom of Information Appeal.” Thereafter, judicial review will be available to you in the District of Columbia or in the district where (1) you reside; (2) you have your principal place of business; or (3) the Department’s records are situated.

There are no fees chargeable to you for processing this request.

MAR 17 2015

If you have questions concerning the processing of this request, please email karen.laney@nnsa.doe.gov, or write to the address above and reference Control Number FOIA 14-00107-K in your communication.

Sincerely,

A handwritten signature in black ink that reads "Pamela Arias-Ortega". The signature is written in a cursive style with a large initial "P".

Pamela Arias-Ortega
Authorizing Official

Enclosures

FLASH

~~RESTRICTED DATA~~
~~SECRET~~
~~ATOMIC ENERGY ACT~~

PT 00316
ZATSZYUN RUEKAAA0001 1532024-SSSS--RUMMHAC.
ZNY SSSSS
Z 022005Z JUN 75
FM JCS WASH DC
INFO RUEBDA/DNA WASH DC
RUEFHQA/CSAF WASH CC
RUMMHAC/JI-ACC KIRKLAND AFB NM
RHEGTH/ALC GERMANTOWN MD (AIKT GEN MANAGER FOR MTL APPLICATION)

2 JUN 75 182
CONFIRMED TO BE UNCLASSIFIED
DOE OFFICE OF CLASSIFICATION

DC Hix, AU-63 DATE 9/30/2014



DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW	
1 st Review Date: 07/14/2014	DETERMINATION/CYCLE NUMBER(S)
Authority: <input checked="" type="checkbox"/> DC <input type="checkbox"/> DD	1. CLASSIFICATION RETAINED
Name: David Hamrin DRL4 AU-63	2. CLASSIFICATION CHANGED TO: NSI
2 nd Review Date: 7/15/14	3. CONTAINS NO DECLASSIFIED INFO
Authority: DC	4. COORDINATE WITH: DoD
Name: R.L. Shankle	5. CLASSIFICATIONS RECEIVED
	6. CLASSIFIED INFO BRACKETED
	7. OTHER (SPECIFY):

ECOP	FCDC
	FCSM
	FCTA
	FCIG
	FCSM

ZEN/DEPSECDEF WASH DC
ZEN/ATSU:AE WASH DC
ZEN/ASD:ISA WASH DC
ZEN/ASD:PA WASH DC
Z 021845Z JUN 75
FM WPNSTA YORKTOWN VA
TO RUEKJCS/NMCC WASHINGTON DC
INFO RUCBSAA/CINCLANTFLT NORFOLK VA
RUCBSAA/CINCLANT NORFOLK VA
RULTSHH/COMFIVL NORFOLK VA
RULSSAA/NAVSEASYS COM HQ WASHINGTON DC
RUEHAAA/CNO WASHINGTON DC
BT

~~SECRET RESTRICTED DATA~~/N00109//WPNSTA YKTN/OPREP-3 PINNACLE
/BROKEN ARROW/002

- A. 021530Z JUN 75
- B. 3715N07634W BLDG 722
- C. ONE UNIT OF W45 INVOLVED. MC1188A GAS BOTTLE SERIAL 240566
- D. PERSONNEL INVOLVED AWAITING ARRIVAL OF HEALTH PHYSICIST AND URINALYSIS PROCEDURES TO BE PERFORMED.
- E. UNKNOWN
- F. UNKNOWN
- G. MC 1188A ON WORK BENCH SINCE REMOVAL 30 MAY. PERSONNEL NOT WORKING WITHIN FIVE FEET. ICI2 PABM ALARM SOUNDED AT 021530Z JUN. PERSONNEL CD

CODE	B
ADR OFF	E2.2
B	F2.3
C	F3.0
D	F3.3
E	F3.4
F	F3.5
NR CYS PP	RE

PAGE TWO RUEBNUA1832 ~~SECRET RESTRICTED DATA~~
EVACUATED AREA. REENTERED WITH SEPARATE INSTRUMENT TO VERIFY ALARM. NEG READINGS OBTAINED BY REENTRY TEAM. EOD ARR ON SCENE, MADE ENTRY, RECEIVED READING OF 750 ON TEN TO MINUS THREE SCALE. EOD EVACUATED AND RETURNED TO SCENE WITH TWO INSTRUMENTS TO VERIFY INITIAL ALARMS, WITH NEG RESULTS. NEG READINGS ALSO OBTAINED WITH RADIAC AN/PDP-27. EOD VERIFIED BOTTLE NOT ACTUATED.

- H. EOD DECLARED AREA SAFE 021657Z JUN. NO DETECTABLE RAD LEVELS AT SCENE. NO DETECTABLE CONTAM.
- I. INTACT
- J. ITEM ISOLATED AWAITING REPACKAGING. ALL PERSONNEL ASSOC WITH THIS EVENT AWAITING DEBRIEFING.
- K. NONE CONTEMPLATED AT THIS TIME.
- L. UNKNOWN
- M. TO FOLLOW IN COMMANDING OFFICER'S WRITTEN REPORT.

34

FCDNA LR CODE 16W65

- N. REMARKS
- O. LAST OPREP-3 PINNACLE REPORT THIS INCIDENT
- P. NO OPREP-3 PINNACLE FOR MONTH OF MAY
- Q. WPNSTA YKTN 021630Z JUN 75

FREE SYM 8208 / 3874
This document consists of 2 Pages
No. 3 of - Copies, Series FCB

FC 06750056

FLASH

~~SECRET~~

8345 JUN 13 1975
~~RESTRICTED DATA~~

FLASH

PT 00316

* ~~SECRET~~ *

~~RESTRICTED DATA~~
~~ATOMIC ENERGY ACT 1954~~

Z4. REQUEST SPECIAL DISPOSITION INSTRUCTIONS FOR MC11884.

XGDS-2

BT

#6001

NNNN#

34

FC 06750056

~~RESTRICTED DATA~~
~~ATOMIC ENERGY ACT 1954~~

~~SECRET~~

~~D00033196~~
D00033904

~~RESTRICTED COPY~~
~~CALL FOR INFORMATION~~

3428-1

DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW	
1 st Review Date: 07/17/2014	DETERMINATION (CIRCLE NUMBER(S))
Authority: <input checked="" type="checkbox"/> DC <input type="checkbox"/> DD	<input checked="" type="checkbox"/> 1 CLASSIFICATION RETAINED
Name: David Hamrin DRL4 AU-63	<input type="checkbox"/> 2 CLASSIFICATION CHANGED TO:
2 nd Review Date: 7/15/2014	<input type="checkbox"/> 3 CONTAINS NO DOE CLASSIFIED INFO
Authority: DD	<input type="checkbox"/> 4 COORDINATE WITH: DOD
Name: R.L. Shankle	<input type="checkbox"/> 5 CLASSIFICATION CANCELED
	<input type="checkbox"/> 6 CLASSIFIED INFO BRACKETED
	7. OTHER (SPECIFY):

REC 150
FEB 1965
CLASSIFIED

DEVELOPMENT

REPORT

CENTRAL TECHNICAL FILE
SPD-DR-65-5
R-15

~~RESTRICTED DATA~~ This document contains restricted data as defined in the Atomic Energy Act of 1954. Its transmittal or the disclosure of its contents in any manner to an unauthorized person is prohibited.
~~SANDIA CORPORATION~~
~~LIVERMORE CALIF.~~ ~~ALBUQUERQUE • N. MEX.~~

SPECIALLY HANDLED ONLY

~~SECRET~~

2014007759

DC 1002-1 (7-01)
DRA

CONFIRMED TO BE UNCLASSIFIED
DOE OFFICE OF CLASSIFICATION
DC Hix, AU-63 DATE 9/30/2014

~~SECRET~~
~~RESTRICTED DATA~~

SCL-DR-65-5

REPORT OF MINUTEMAN ACCIDENT
INVOLVING A MK 11 RE-ENTRY VEHICLE
AT SITE LIMA II, DECEMBER 5, 1964 ~~(CFRD)~~

R. K. Petersen, 8141-2
Sandia Corporation, Livermore Laboratory

~~AEC ATOMIC WEAPON DATA SIGMA 1~~

RS 8232-2/6599

January 1965

INVENTORIED

SEP 14 1965

3233

~~ABSTRACT (CFRD)~~

At 3:00 PM (MST), December 5, 1964, a retrorocket fired on a MINUTEMAN missile at Site Lima II, Ellsworth AFB, South Dakota. This missile, under the command of the 44 Strategic Missile Wing, was on strategic alert and was fitted with a Mk 11 Re-entry Vehicle containing a Mk 56 Mod 1 warhead. The re-entry vehicle was dislodged and fell approximately 75 feet to the floor of the silo. This report covers the investigation conducted by AEC representatives at the accident site.

~~RESTRICTED DATA~~

~~This document contains restricted data as defined in the Atomic Energy Act of 1954. Its transmittal or the disclosure of its contents in any manner to an unauthorized person is prohibited.~~

GROUP 1 - EXCLUDED FROM AUTOMATIC
DOWNGRADING AND DECLASSIFICATION

This documents consists of 22 pages.
No. 37 of 44 copies, Series A.

SPECIFIED INFORMATION ONLY

This report was prepared for distribution within Sandia Corporation and the external distribution shown. No further external distribution of this report or dissemination of the information contained in the report shall be made without the approval of the issuing organization.

TD
RR4

T.P.O. R. 35

~~SECRET~~
~~RESTRICTED DATA~~

CONTENTS

	<u>Page</u>
Introduction	3
Investigating Parties	3
Condition of Weapon	14
Recovery Operation	17
Security and Public Relations	21
Preliminary Post-Mortem Results	21
Summary and Conclusions	21

ILLUSTRATIONS

<u>Figure</u>		<u>Page</u>
1	Re-entry Vehicle Attitude-Control Rockets	5
2	Abrasions on the First and Second-Stage Rocket Motors	6
3	Arming, Firing, and Attitude Control Assembly (Top View)	7
4	Arming, Firing, and Attitude Control Assembly (Bottom View)	8
5	Arming, Firing, and Attitude Control Assembly (Side View)	9
6	Re-entry Vehicle on Silo Floor	10
7	Evidence of Fired Retrorocket	12
8	Aft End of Re-entry Vehicle	13
9	Forward End of Re-entry Vehicle	15
10	Step Joint in Flare Section	16
11	Re-entry Vehicle Clearing Silo	18
12	Re-entry Vehicle During Transfer to Van	19
13	Re-entry Vehicle in Van	20

~~SECRET~~
~~RESTRICTED DATA~~

REPORT OF MINUTEMAN ACCIDENT INVOLVING
A MK 11 RE-ENTRY VEHICLE AT SITE LIMA II, DECEMBER 5, 1964

Introduction

At 3:00 PM (MST), December 5, 1964, a retrorocket fired on a MINUTEMAN missile at Site Lima II, Ellsworth AFB, South Dakota. This missile, under the command of the 44 Strategic Missile Wing, was on strategic alert and was fitted with a Mk 11 Re-entry Vehicle (RV) containing a Mk 56 Mod 1 warhead. The RV was dislodged and fell approximately 75 feet to the floor of the silo. The missile, warhead, and Arming, Firing, and Attitude Control components (AF/AC), were in the safe condition at the time of the accident.

Investigating Parties

Around 8:00 PM (MST), December 5, Mr. D. P. Dickason, ALO, was notified by the Director of Nuclear Safety at Kirtland AFB that some squibs had fired on a MINUTEMAN missile and that a potential Broken Arrow had been declared. Mr. Dickason subsequently notified Lawrence Radiation Laboratory (LRL) and Sandia Corporation (SC) of the situation.

By midnight it was still unclear if any action by the laboratories was needed. At 6:00 AM (PST), December 6, 1964, Mr. D. M. Olson, Sandia Corporation, Sandia Laboratory (SCSL), and Mr. Dickason called Mr. R. K. Petersen, Sandia Corporation, Livermore Laboratory (SCLL), and stated that the RV had fallen 75 feet to the silo floor. They informed him that the Director of Nuclear Safety at Kirtland AFB was sending a team of observers to Ellsworth AFB and that AEC/DMA wanted an ALO representative to accompany them. It was decided that an SCLL representative should meet the team in Denver and proceed to Ellsworth AFB.

It was also decided at this time that an LRL representative probably was not required. Mr. M. D. Martin, LRL, who had been previously informed of the situation, was contacted and concurred. He asked to be notified of the conditions at the silo and stated that he would then send someone if the situation warranted it.

The group of observers consisted of Mr. D. P. Dickason, AEC/ALO; Lt. Col. J. O. Mitchell, USAF/DNS; Maj. H. B. Lacy, USAF/DNS; Capt. D. J. Loosley, USAF/AFWL; and Mr. R. K. Petersen, SCLL. The group arrived at Ellsworth AFB, South Dakota, at 3:45 PM (MST), December 6, 1964, and went immediately to the office of Lt. Col. J. W. Eskridge, Director of Safety, 44 Strategic Missile Wing. There the group was briefed, as follows:

At 2:00 PM (MST) December 5, 1964, two airmen entered Lima II to investigate an IZ (inner zone) security alarm. They opened the personnel access door and descended to the equipment room to conduct a routine check of the IZ and

~~SECRET~~
~~RESTRICTED DATA~~

~~SECRET~~
~~RESTRICTED DATA~~

OZ (outer zone) security circuitry. The check consisted, in part, of removing a fuse and observing the operation of a relay to determine continuity. When the fuse had been removed and reinserted the third time there was a violent explosion. This explosion occurred at approximately 3:00 PM (MST). About one hour later the two airmen returned in the company of a third airman and after a cursory inspection through openings in the launch tube reported that the RV was missing.

The group of observers then reported to the Command Post and Col. V. M. Cloyd, Commander, 44 Strategic Missile Wing. Here they were able to monitor, via remote hookup, the progress of the explosive ordnance (EOD) team as it entered the silo at 5:00 PM (MST). The EOD team was to:

1. Safe the ignitors on the missile;
2. Disconnect the ignitor batteries at the J-Box;
3. Safe and remove the RV attitude-control rockets (which were still lying on top of the missile) (Figure 1); and
4. Inspect the RV at the bottom of the silo. (This was the first close look at the RV.)

After completion of items 1, 2, and 3 Capt. M. M. Costa, 2701 EOD, Ellsworth AFB, and Capt. E. S. Tschirhart, OOAMA, Hill AFB, descended to the bottom of the silo. They reported:

1. Some abrasions were present on the first and second stage rockets (Figure 2);
2. Debris from the exit nose cone was present at the missile support ring Number 1;
3. The "firing set" was lying on the floor 6 feet from the RV (this was later identified as the AF/AC) (Figures 3, 4, and 5);
4. No contamination was indicated by monitoring equipment; and
5. The RV was damaged and lying partially under one of the base legs of the missile support ring. (Figure 6)

After completion of this operation the silo was secured and the observers adjourned for the day.

At 8:00 AM December 7, the observers met with Col. J. V. Farley, 341 SMW, Malmstrom AFB, and offered their services. Col. Farley was President of the 15th Air Force Accident Investigation Board that had been formed to investigate this accident. He invited the group to attend the briefing the EOD was about to present.

The EOD team leader, Capt. Tschirhart, presented his group's observations with the aid of color slides taken during the inspection the previous night.

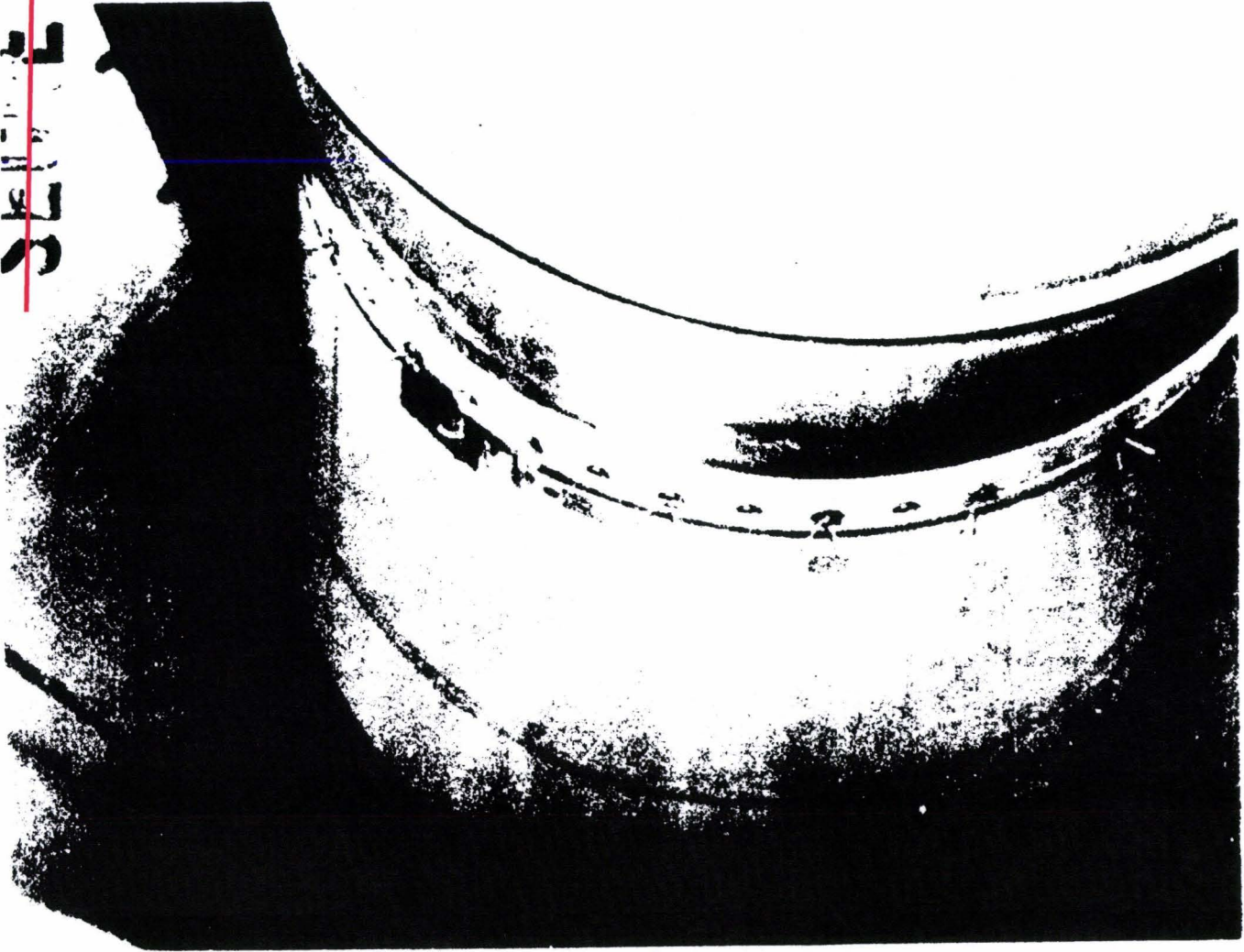
~~SECRET~~
~~RESTRICTED DATA~~

~~SECRET~~
~~RESTRICTED DATA~~



~~SECRET~~
~~RESTRICTED DATA~~

Figure 1. Re-entry Vehicle Attitude-Control Rockets



~~SECRET~~

~~SECRET~~
~~RESTRICTED DATA~~

~~SECRET~~
~~RESTRICTED DATA~~

Figure 2. Abrasions on the First and Second-Stage Rocket Motors

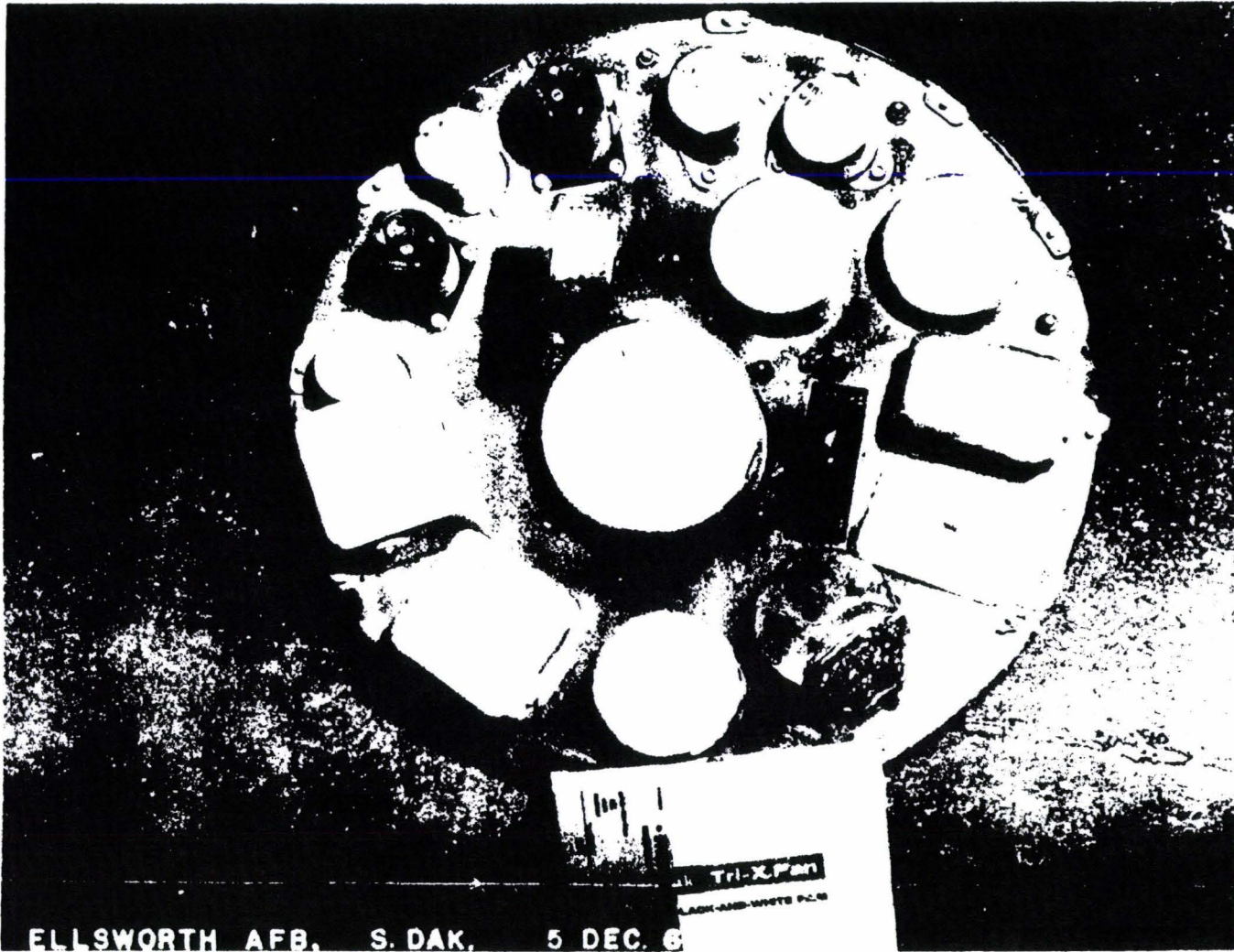
~~SECRET~~
~~RESTRICTED DATA~~



~~SECRET~~
~~RESTRICTED DATA~~

Figure 3. Arming, Firing, and Attitude Control Assembly (Top View)

~~SECRET~~
RESTRICTED DATA



~~SECRET~~
RESTRICTED DATA

Figure 4. Aiming, Firing, and Attitude Control Assembly (Bottom View)



~~SECRET~~
~~RESTRICTED DATA~~

~~SECRET~~
~~RESTRICTED DATA~~

Figure 5. Arming, Firing, and Attitude Control Assembly (Side View)

Missile Support
R.1.1. Log

~~SECRET~~



ELM WORTH AFB

AFHQ

~~SECRET~~

~~SECRET~~
~~RESTRICTED DATA~~

~~SECRET~~
~~RESTRICTED DATA~~

Figure 9. Re-entry Vehicle on Runway

Capt. Tschirhart reported that one retrorocket had fired (Figure 7) and stated that this had caused the RV to separate and fall to the bottom of the silo. He reported that the "firing set" had broken loose and that the tritium bottle was exposed to view but seemed intact. Further, Capt. Tschirhart was certain that the warhead high explosive (HE) had broken up.

Deleted

DOE
b(3)

(During this presentation, a faulty slide projector prevented the color slides from showing a clear picture of the situation.) Capt. Tschirhart recommended removing the RV with modified RV handling equipment and then disassembling and disposing of it somewhere at Ellsworth AFB.

After the briefing, Mr. Martin and Mr. N. D. Benedict of LRL were contacted. By using an EOD manual at each end of the telephone conversation, the following information was relayed:

1. The "firing set" had separated from the RV and was lying about 6 feet away;
2. Some water containing a yellow substance (perhaps sodium dichromate from the cooling system) was on the floor of the silo;
3. All monitoring equipment registered low readings (i. e. , background only);
4. Avcoating and ablative material were shattered;
5. Deleted
6. The reservoir was intact;
7. Deleted
8. The sides of the case were not ruptured;
9. The nose of the RV was off and the forward end of RV was caved in and split;
10. Impact crystals were visible and some had peeled away;
11. The warhead was visible through the RV shell;
12. There was no apparent damage to the HE nuclear outer structure; however, the HE had probably fractured, and
13. The missile showed abrasive marks but no punctures.

DOE
b(3)

DOE
b(3)

It was apparent that items 1, 5, 6, and 7 did not correlate. It was also apparent to Mr. Martin and Mr. Benedict that item 12 might not be a good estimation of the situation. Mr. Benedict did not think that the HE had fractured but he felt other damage might have been done. They asked if a better look at the slides could be obtained.



~~SECRET~~

~~SECRET~~
~~RESTRICTED DATA~~

~~SECRET~~
~~RESTRICTED DATA~~

~~ELLSWORTH AFB, S. DAK~~

Figure 7. Evidence of Fired Retrorocket

~~SECRET~~



WALLSWORTH AFB, S.D. K. 5 DEC. 64

Figure 6. An End of Re-entry Vehicle.

~~SECRET~~
~~RESTRICTED DATA~~

~~SECRET~~
~~RESTRICTED DATA~~

Another slide projector was located and the slides reviewed.

Deleted

DOE
b(3)

Mr.

Martin subsequently requested that the RV not be moved until Mr. Benedict arrived to assay the situation. The request was relayed and the Air Force agreed to wait.

Mr. Benedict arrived at 8:00 PM (MST) December 7, 1964. He was briefed and was shown the slides of the RV. The group of observers received permission to enter Lima II the next morning to conduct a first-hand investigation.

Condition of Weapon

On Tuesday, December 8, 1964 the observers went down the silo at Lima II. The following observations were made:

1. The missile had some minor abrasions on the side of the second and first stages;
2. The gas reservoir was intact but leaning to one side;
3. Deleted
4. The electrical component deck had moved forward 1 to 2 inches and was dented;
5. Deleted
6. The outer portions of the firing set had been blackened; and
7. The flare was flattened (with a major diameter of approximately 30 inches and a minor diameter of approximately 26 inches).

DOE
b(3)

DOE
b(3)

Mr. Benedict decided that the only way to bring the unit up would be nose down in a cargo net with the net strapped to the unit.

Deleted

Any render-safe procedures would be done at a magazine, thereby minimizing personnel hazards.

DOE
b(3)

The Accident Investigation Board met at 8:30 PM. Mr. Benedict briefed them as follows regarding his opinion of the condition of the warhead:

1. The step joint in the flare section had opened 30 to 50 mils, either because of sheared rivets, elongated holes, or both (Figure 10);

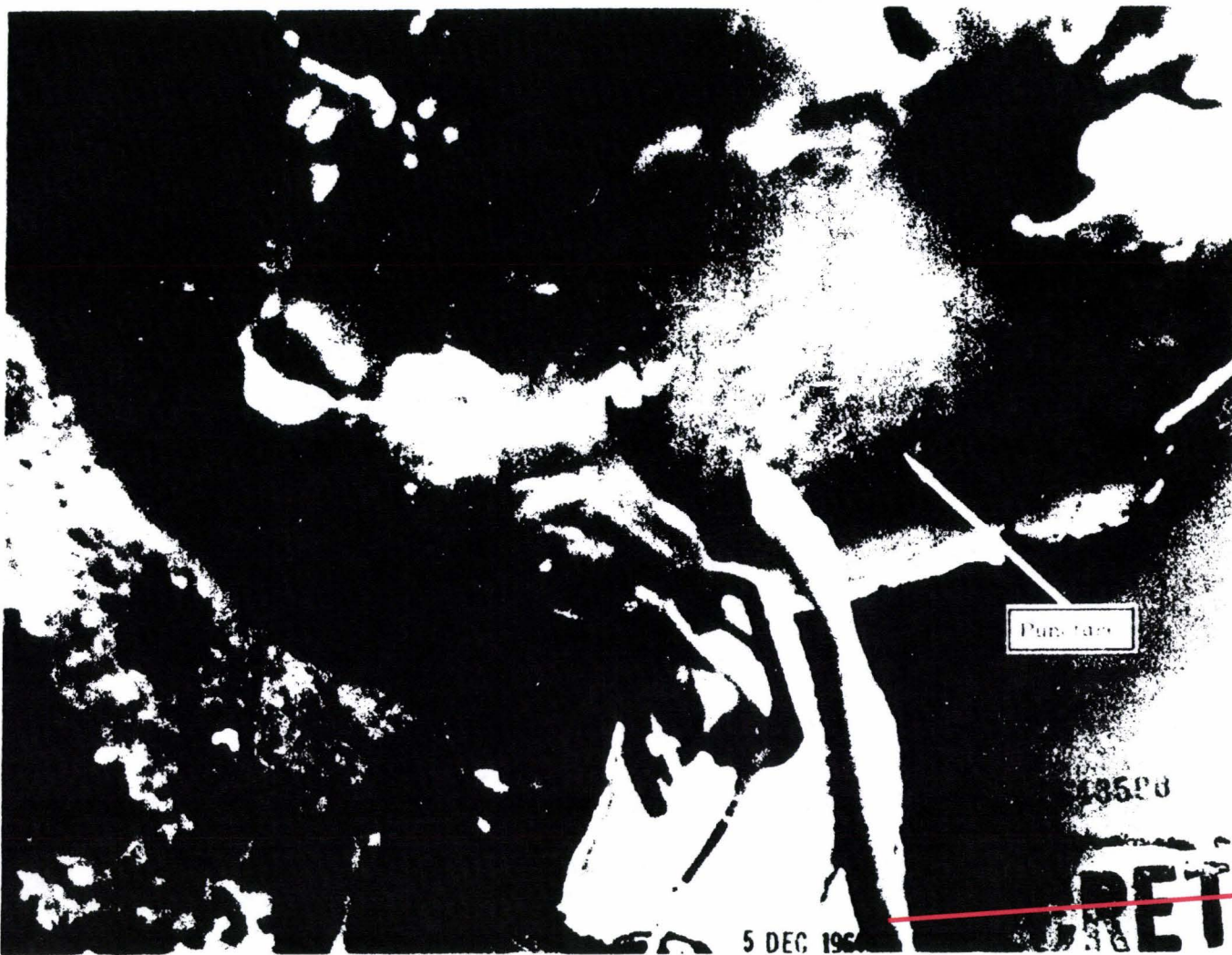
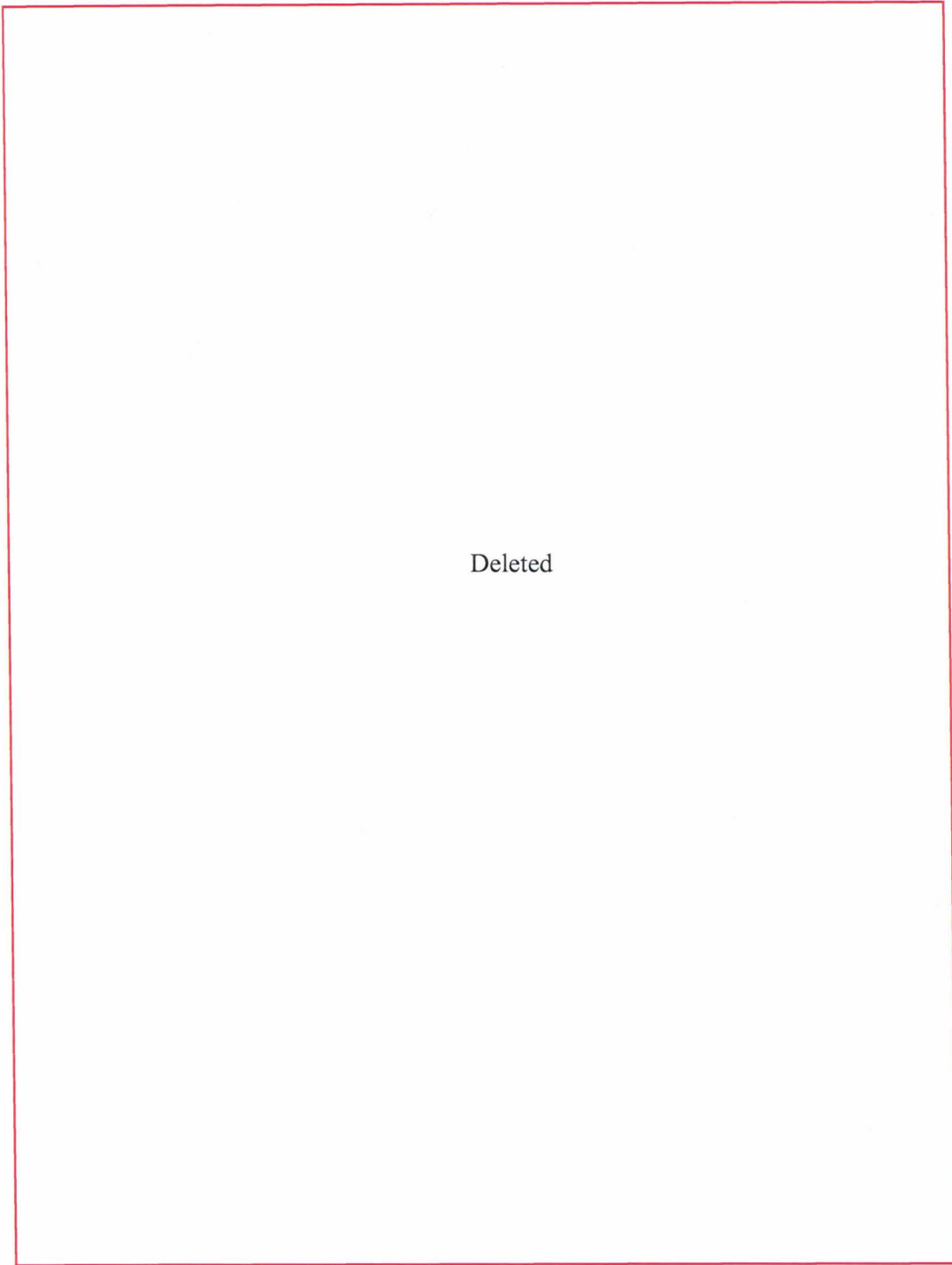


Figure 2. Forward End of Re-entry Vehicle

~~SECRET~~
~~RESTRICTED DATA~~

~~SECRET~~
~~RESTRICTED DATA~~

~~SECRET~~
~~RESTRICTED DATA~~



Deleted

DOE
b(3)
Illegible

~~SECRET~~
~~RESTRICTED DATA~~

2. The warhead pit seal had probably not opened (no alpha);
3. The reservoir was intact; and
4. Deleted DOE
b(3)

The Board was also informed that the warhead was electrically inert since the power supplies had been torn away and there was no reason to suspect that any residual electrical charges were present.

Recovery Operation

Mr. Benedict presented his plans for RV recovery to the Accident Investigation Board. In conjunction with Mr. Benedict's plan, outlined previously, Mr. Petersen had recommended that the warhead should come up isolated electrically from the hoisting crane and other ground points since circulating ground currents in the area were undetermined. The rocket engineers now became alarmed at the possibility of static discharge, due to the cold, dry climate and the nylon cargo net. Mr. Petersen then recommended a high-resistance grounding circuit and confirmed its adequacy with Mr. J. S. Anderson, SCLL. The EOD built the device for attachment to the RV and the Board approved its use.

SAC, 15th Air Force, BSD, and others approved the plan for removal of the RV on December 9. A mobile crane was positioned over the silo. The RV was manually moved to a hoisting position and then raised slightly with the crane and a strap. A heavy nylon cargo net was slipped under the RV and securely strapped to the unit. The grounding cable and a safety rope were attached. The RV was then hoisted out in a nose-down attitude and cleared the silo at approximately 4:50 PM (MST) December 9, 1964 (Figure 11).

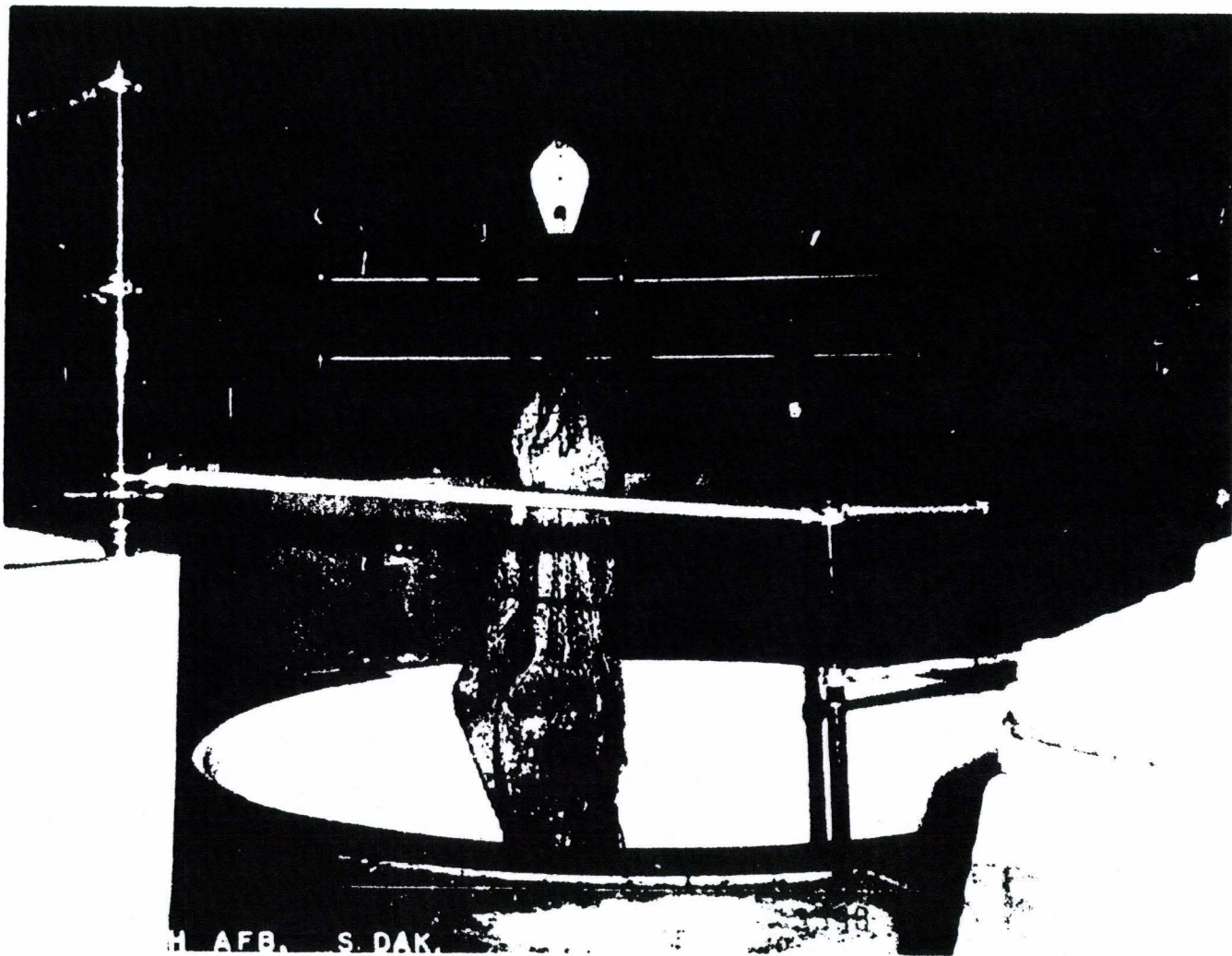
The RV was immediately transferred to an RV van, where it was suspended from an overhead, track-mounted hoist (Figure 12). The nose was rested on mattresses with the hoist used to maintain vertical alignment and cargo tie down straps used to prevent lateral motion (Figure 13). The RV was moved from Lima II to Ellsworth AFB on December 10.

Mr. Benedict had requested radiographers, a radiation safety specialist and their equipment, from LRL. Mr. W. T. Fritts and Mr. F. F. Sojka were the radiographers and Mr. G. E. Costella was the radiation safety specialist.

The RV arrived at Ellsworth AFB at 4:30 PM December 10 and was taken to a magazine for the render-safe procedures. At 9:00 PM the DT reservoir was removed and radiographs were taken to determine the condition of the internal parts. The radiographs were reviewed in the early hours of December 11 and indicated no cracked HE and no deformation of the pit. Deleted DOE
b(3)

It was concluded that with some further disassembly and proper packaging the unit was safe for shipment to Medina.

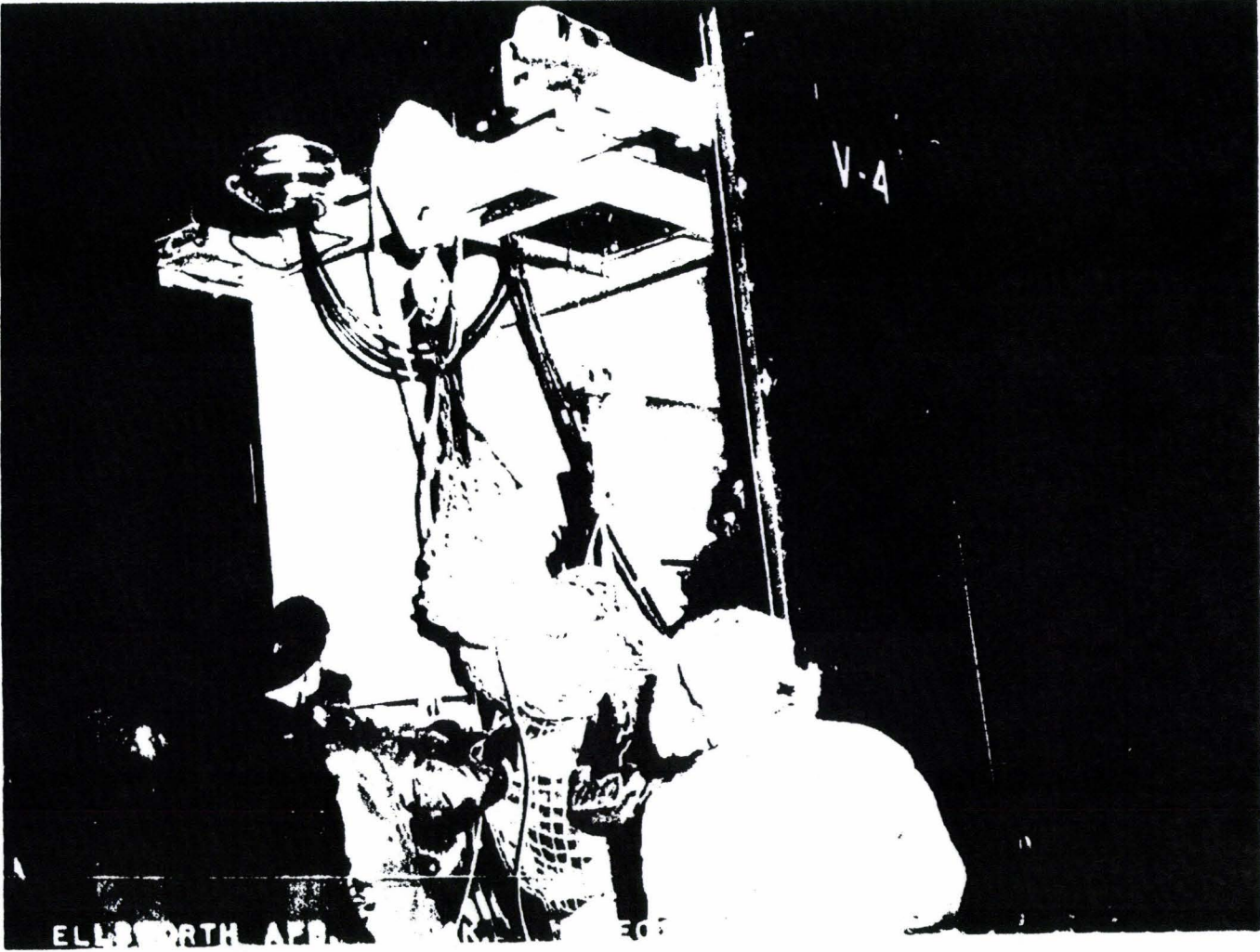
~~SECRET~~
RESTRICTED DATA



~~SECRET~~
RESTRICTED DATA

Figure 11. Rescuer's View to Cockpit

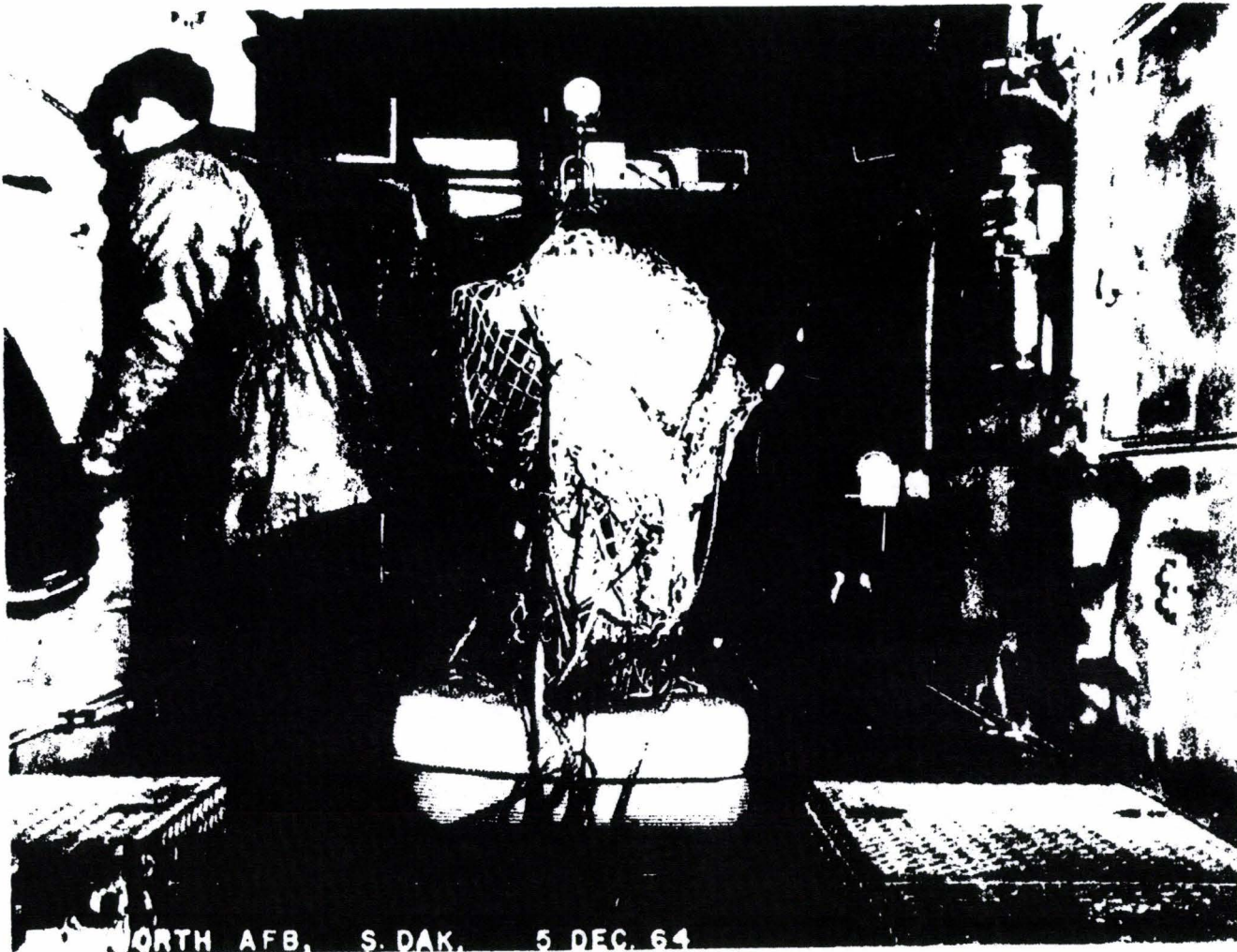
~~SECRET~~
RESTRICTED DATA



~~SECRET~~
RESTRICTED DATA

Figure 12. Rescuee Being Hoisted During Transfer to Van

~~SECRET~~
~~RESTRICTED DATA~~



WORTH AFB, S. DAK, 5 DEC. 64

~~SECRET~~
~~RESTRICTED DATA~~

Figure 13. Re-entry Vehicle in Van

~~SECRET~~
~~RESTRICTED DATA~~

Deleted

This was subsequently done by the

EOD at Ellsworth AFB.

DOE
b(3)

The group of observers, except for Mr. Benedict, left Ellsworth AFB at 2:45 PM (MST) on December 11. Mr. Benedict stayed to make arrangements for packing and shipping the unit to Medina.

Security and Public Relations

Security and public relations were handled by the 44 Strategic Missile Wing and Ellsworth AFB. No release concerning this incident was made to the press. The entire operation was handled in such a way that the nearby communities were not aware of and did not exhibit even a mild interest in the operation.

Preliminary Post-Mortem Results

At the time of this writing, a post-mortem had not been conducted. There is no reason to suspect that any of the warhead electrical components were actuated.

The warhead component deck will be shipped to SCLL from Medina for post-mortem of components by the design group responsible.

Summary and Conclusions

This accident shows, as do all others, that circumstances make each accident unique. The warhead had been designed to withstand and remain safe in all conceivable situations. Even so, after this accident the warhead was in such a condition that an improper recovery procedure could have had serious consequences. If not actually leading to a detonation, an improper procedure could perhaps have placed the nuclear system in a more critical state.

The Air Force never requested the assistance of the design agencies and was prepared to recover on its own. The fact that the agencies responded of their own accord, and were in fact utilized immediately, points out that they were needed.

A recommendation as to how to prevent this type of accident cannot be made here; but, a recommendation is made that the AEC laboratories respond, whether requested or not, at the first indication of trouble.

The EOD teams seem competent enough to handle most of the situations, but, in this instance, as in others, there are always those peculiar circumstances which should be viewed by persons intimately familiar with the weapon design.

~~SECRET~~
~~RESTRICTED DATA~~

~~SECRET~~
~~RESTRICTED DATA~~

DISTRIBUTION:

- 1-15/44A - D. P. Dickason, Storage Division, ALO
- 16/44A - N. D. Benedict, LRL
- 17/44A - M. D. Martin, LRL
- 18/44A - S. P. Schwartz, 1
- 19/44A - R. W. Henderson, 1000
- 20/44A - L. A. Hopkins, Jr., 1300
- 21/44A - J. H. Findlay, 1400
- 22/44A - W. A. Gardner, 1500
- 23/44A - E. H. Draper, 2000
- 24/44A - H. E. Lenander, 2500
- 25/44A - D. R. Cotter, 5500
- 26/44A - L. D. Smith, 5600
- 27/44A - L. E. Lamkin, 7300
- 28/44A - A. B. Machen, 7500
- 29/44A - B. S. Biggs, 8000
- 30/44A - L. Gutierrez, 8100
- 31/44A - D. E. Gregson, 8141
- 32/44A - C. R. Barncord, 8150
- 33/44A - L. E. Davies, 8160
- 34/44A - E. F. Ingledue, 8166
- 35/44A - Technical Library, 3421
- 36/44A - Central Technical File, 3428-1; Attn: Edna Baca (Bldg. 836)
- 37/44A - G. C. Newlin, 6011/Central Technical File, 3428-1
- 38-39/44A - Information Distribution, 3427-3
- 40/44A - E. Bodie, 8232-1
- 41-44/44A - Central Technical File, 8232-2

This report was prepared for distribution within Sandia Corporation and the external distribution shown. No further external distribution of this report or dissemination of the information contained in the report shall be made without the approval of the issuing organization.

~~SECRET~~
~~RESTRICTED DATA~~