Source:

This report was part of another report entitled "Cleanup of Johnston Atoll Missile Launch Facility:"

http://www.dod.mil/pubs/foi/reading_room/221.pdf

SOPR 25 September 1980

MEMORANDUM TO DDOA

SUBJECT: Initial Summary - TITAN Missile Incident

1. This paper was prepared by gathering data through observation and conversations with those individuals who had personal, first hand knowledge of what transpired at their respective locations. It is not a "fully coordinated" paper, but has been read by those who contributed, and it has been agreed that the paper is accurate as we presently know and understand the facts. There are literally a thousand unanswered questions in the paper. Some of these will unfold after review of actual duty logs and a more complete set of reports being prepared at DoE, SAC, FCDNA, DNA, FEMA and HQAF.

In short, it is a quick-look attempt to document, largely from memory, the events of the incident and our general impression of the effectiveness of the response.

2. Command: Due to the time between first indication of a potential accident situation and its actual occurrence, HQ SAC was able to establish a pre-designated disaster response force command. Gen Light was briefed on the current status of the missile prior to the explosion. During the period between the fuel leak 18/1830L and the subsequent fire/explosion 19/0300L (approximately 8 1/2 hrs), SAC notified Arkansas State Emergency Officials (18/1850L) of a possible fire in silo 47. Some disparity exists regarding who suggested evacuation, but at approximately 18/2000L AF officials notified state emergency services suggesting a 2000' evacuation of residents. The VanBuren county sheriff also was involved, and suggested a 1 mile radius evacuation. Reports to the NMCC from SAC HQ (at 0340) indicated a 4 mile evacuation had occurred. Who made these decisions, how far the radius extended and the reasons for the decisions are all unclear. It does not appear, from what we know now, that other than local (AF or county) officials were involved in the decision.

Details of command at the site, prior to the explosion, are sparse. At that point, it was a SAC problem, and there is both evidence and an assumption that HQ SAC played in the command process to determine the course of action regarding the fuel leak problem. Following the explosion, there is ample evidence that not only HQ SAC, but the HQ USAF, JCS and SECDEF exercised command authority. The transition was rather clear to those present. Once the NMCC was notified of the fuel explosion, they and the JCS activated their notifications.

Activity centered in the NMCC, under the CJCS personal direction (getting facts, assessing situation) of the assessment phase. The SECDEF and ATSD(AE) arrived and were briefed by the CJCS and LGEN Leavitt (SAC VC). SECDEF made specific decisions on the spot and directed that the HQ USAF (CSAF) assume command responsibility at approximately 19/0730L. This action was carried out by CJCS in the NMCC. It effectively removed the JCS and NMCC from their prior role as the center of command authority, and placed CSAF and the AFEOC in the command role.

Initially, the AFEOC had been monitoring activity with a forming staff element. This is, as people arrived, they took up responsibility for gathering and assessment of data. Activity at the AFEOC became, for a brief period after 19/0730L, intense but without common direction. It was not until approximately 19/0900L, that the entire AFEOC staff was briefed on the accident status. Once this was done, and the team chief issued his guidance, activity took a more deliberate pattern. Prior to this, no one had all the available facts; afterward, everyone did.

One point of clarity, or perhaps confusion; when SECDEF came to the NMCC, it was evident that he was then in command of the incident. SECDEF told HQ SAC that he (SECDEF) was now backing out of that role and asking CJCS to have CSAF assume command responsibility. It's not clear that HQ SAC was ever aware they had lost responsibility. SAC was certainly better prepared than HQ USAF to reassume it once SECDEF relinquished it.

To the credit of USAF HQ, they did not immediately start issuing instructions to HQ SAC or the OSC. Some deliberate policy (not operational) discussions were held with SECAF, CSAF, JCSAF and others to determine policy guidance. Some of these policy decisions were later questioned, but that should not detract from the fact that they were made early. Operationally, HQ SAC retained the reins. AFEOC worked their actions through SAC/MAC to the DoD/DoE JNACC, as is appropriate, and did not unilaterally task or direct activity in support of the incident. The AFEOC was surprisingly "aware" of the role of JNACC, and the importance of coordinating all actions through JNACC channels. The airlift representative in particular kept this on track during the earlier periods when facts were few and the "Big Picture" had not been unveiled to the entire staff.

2. Coordination: Previously, we indicated that the coordination of actions between the AFEOC and DoD/DoE JNACC was very good. There is some evidence that coordination was slightly less between the State and Federal Response Forces.

First, the state apparently requested DoE assistance to obtain the services of Oak Ridge radiation monitor capability. Soon after, the DoE JNACC was aware of the request, and it was DoE JNACC that informed DoD JNACC of the availability

of airlift to move from Oak Ridge to Little Rock. It's known that DoE ALOO determines who on the Federal side would be alerted. HQ/DoE held the approval authority for any actual movement of DoE assets to LRAFB. We do know that DoE ALOO made most of the decisions regarding the support that would be required to the DoD and Oak Ridge was a potential element of the response. Related was a decision to alert the EG&G Airborne Radiation Detection and Photographic Capability. A lot of activity occurred regarding pick-up of equipment from Las Vegas and AF held capability at LRAFB. We determined that the single event that initiated the activity was ALOO action. Another complex action is a bit clearer. The SAC OSC, Gen Light, initially requested that DoE be asked to provide assistance on-scene. He specifically requested National Laboratory Representatives, and specified LLNL, LANSL and Sandia. We assume his reason for specificity related to a desire to get all the help we could get as soon as possible (a basic tenet of thought on NWA response.) What followed was insistance by a HQ SAC duty officer that DoE dispatch a LLNL representative. The issue was later sorted out when DoE JNACC and HQ SAC resolved the issue. Gen Light was told of the issue and readily agreed that LLNL was not needed. DoE ALOO had notified the LLNL HOT SPOT TEAM to standby for possible deployment earlier in the day, however, and was ready if needed.

Coordination on site was reported by DoE ALOO to be excellent. They felt the DoD OSC was well informed about what he was doing, and why DoE was there and their mission. There was excellent cooperation and meshing of the DoD/DoE personnel. DoE/ALOO felt the major problem on-site involved DoD dealings with state and local officials and the press. The confirm nor deny policy caused credibility problems and left the state officials frustrated and angry. Another related problem was with the press attempts to get information. There were several overflights by civil fixed wing and helo aircraft observed with cameras on board. This activity was a violation of FAA Regs over restricted airspace and was reported to FAA. The press also was active in the area attempting to get photos by use of a 50' "Cherry Picker" with a camera on top. DoD/DoE was forced to use vehicles, tents and whatever they could find to shield their activity. This was both an irritant and an imposition to the DoD/DoE Teams' work. DoE expressed strong displeasure with the confirm nor deny policy enforced during this particular incident.

3. Communications: From what can be determined now, it appears that the initial notification of the occurrence of the (19/0300L) missile fuel explosion was good. Cursory review of comm logs and conversations with those involved in this process in the Washington area exposed no problems. The DoE/DoD JNACC notification sequence was as follows (Albuquerque, NM time): 0225 - FCDNA (NCOD) received initial communication of the accident from the SAC Command Post (?); immediately notified FCDNA (SDO) who in turn notified both DoD and DoE/JNACCs. Both DoD and DoE JNACCs were in their respective operation centers prior to 0310. Throughout the course of events the JNACC activities were well coordinated in the view of the DoD JNACC. The DoE JNACC personnel concurred with the assessment, and added that the events that occurred 3 days

before had been a big help in making this incident run more smoothly. Specific comments regarding coordination of FEMA activities is in a separate part of this paper. There was evidence at the NMCC and the AF EOC that FEMA was working the problem. There were several calls between these centers in the first 5-7 hours of observation. FEMA had a representative at the state EOC, but there is no knowledge at this point that he had any contact with the DoD or DoE on site.

4. Public Affairs (time in this paragraph is EDT)

When word of the explosion was received at the NMCC, the ASD(PA) duty officer was notified. He in turn notified the ASD(PA), Mr. Tom Ross, and went to the Pentagon to man the telephones at ASD(PA). Other senior officers came to the News Branch desk to assist in responding to media queries and assist SAC PAO as needed.

Mr. Ross called from his home the VC SAC and provided PA guidance. He evidently specifically stated that the "confirm nor deny" position was in effect. HQ SAC PAO was designated media focal point and early morning, about 0600 EDT, a short statement was issued by SAC. A copy was furnished to ASD(PA). Media queries to ASD(PA) were referred to SAC PAO.

At 0730 the Air Force desk at ASD(PA) was designated action officer for media queries. He coordinated with SAC PAO on a continuous basis for the remainder of the day.

A detailed statement was developed late morning by ASD(PA) based upon suggestions from SAC and approved by SECDEF and Mr. Ross. This news release was made by SAC and ASD(PA).

DNA PAO was notified at 0530 and arrived at NMCC by 0615. After consulting with the DDOA it became clear that the best place for DNA PAO was at the News Branch office. At ASD(PA) from 0700 until 1000, DNA (PAO) remained at News Branch and provided advice and assistance. Suggestions made and accepted were need to contact FEMA and DoE PAO's.

Lessons learned:

- Initial statements and PA guidance will be coordinated and issued from the highest level, i.e. personally by the ASD(PA).

- PA responsibility will be held at DoD until situation is under control.

- Services/Command will be designated PA executive agent as soon as possible.

- Direct communication between on-scene PAO and ASD(PA) will be required, at least initially.

- DNA PAO can best be utilized at ASD(PA).

It is considered appropriate for SAC, specifically OSC, to address the impact of the "neither confirm nor deny" policy on media and state relations. It appears that this policy had significant adverse impact which should be weighed against the national security considerations that dictate this long standing policy.

5. Federal Emergency Management Agency Activities: The FEMA Watch Center received the fuel explosion accident notification message at approximately 0430 EDT 19 Sept. The FEMA Watch Center notified FEMA staff members at their homes. The Watch Center also notified the FEMA Region VI watch officer in Dallas. (The FEMA Region VI office had originally been notified of the situation by the state on the previous evening when the fuel leak first occurred.) Upon receiving notification of the explosion, FEMA National called DNA Headquarters to receive more details of the situation. (Time in the remainder of this paragraph is EDT.)

At approximately 0830, FEMA called the NMCC and the AF EOC to obtain more information on the situation. Arrangements were made at this time to provide FEMA liaison to the AF EOC.

Beginning at approximately 0830, the FEMA Operations Center contacted the FEMA Regional Office to obtain information on the situation and to recommend that a FEMA regional staff member be dispatched to the Arkansas State EOC in Conway. At this time, FEMA National Office first learned that an evacuation had been ordered. Few other details were available at that time.

The FEMA liaison reported for duty at the AF EOC at approximately 1200. Processing of security clearances resulted in a two hour delay in getting a FEMA staff member into the AF EOC.

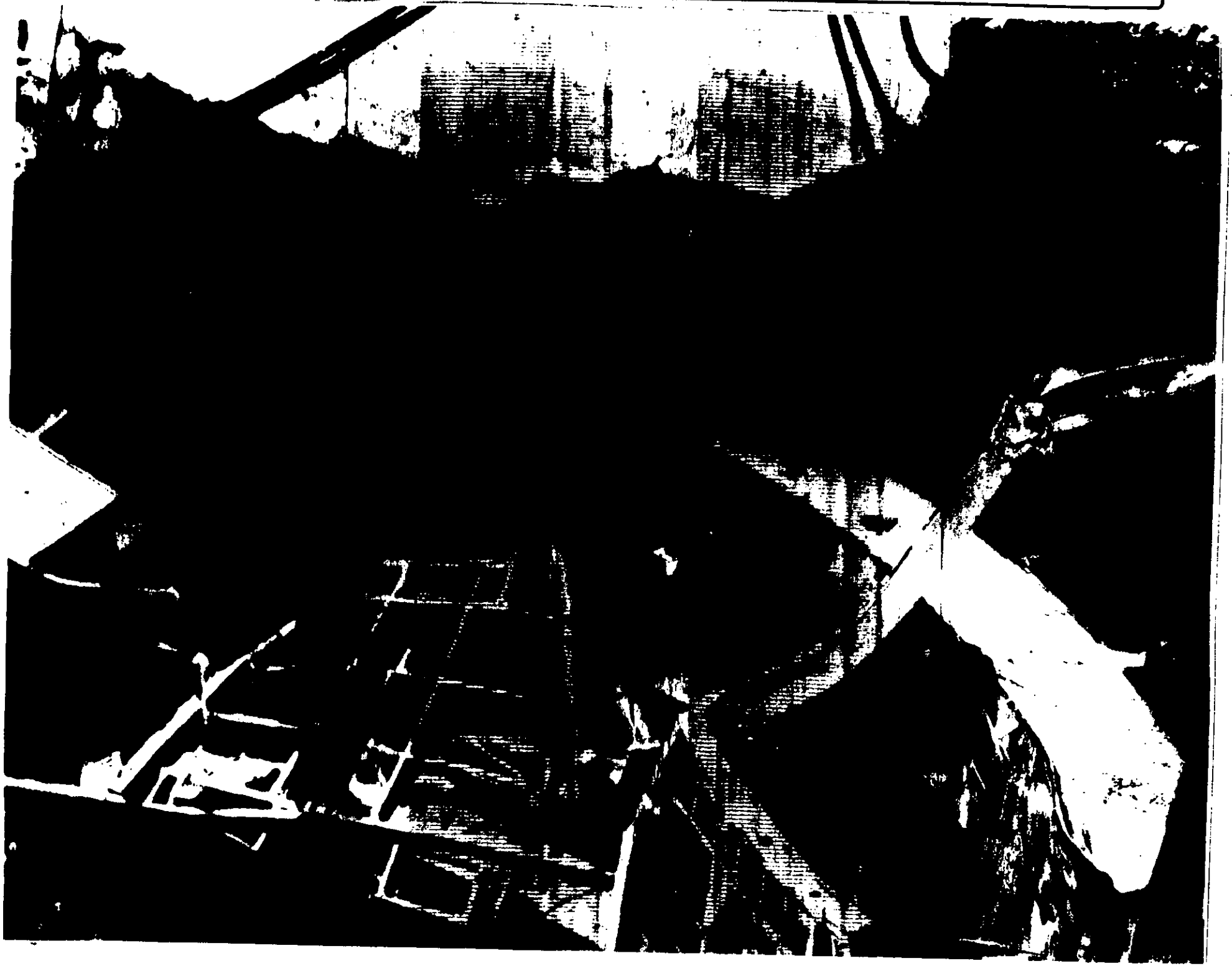
The FEMA Operations Center was notified at approximately 1100 by the Office of ATSD(AE) that a major missing missile component had been located and was intact. This was the first information of any kind received from DoD regarding the seriousness of the situation or the potential for off site consequences. Until this time, FEMA had assumed that all major missile components had remained in the immediate vicinity of the missile silo.

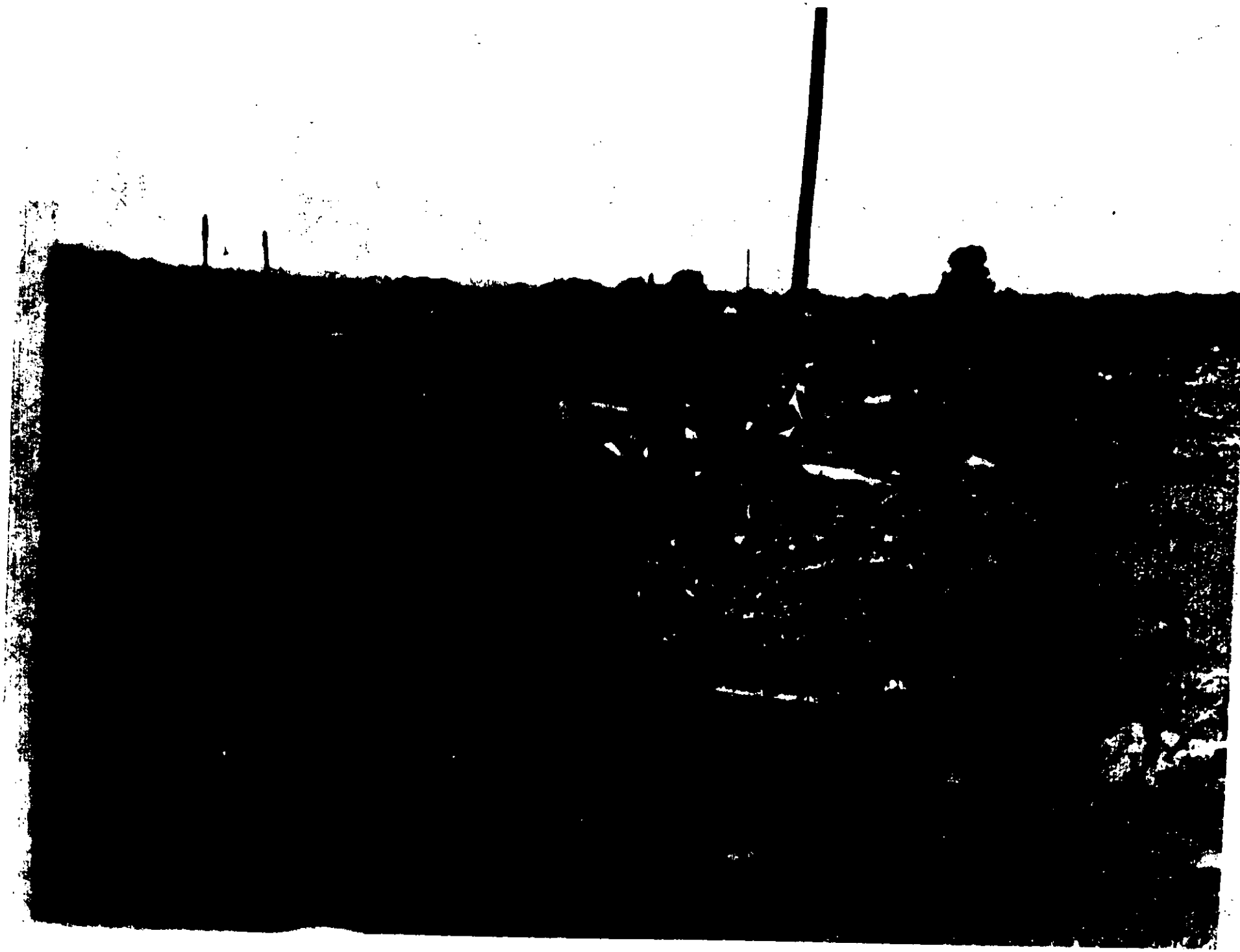
Reports were received from the state EOC, via the FEMA Regional Office that no radiation had been detected by State Health officials. (One report of low levels of Alpha readings were reported at one time, but these readings were later determined to be incorrect.) The FEMA Regional Office reported at 1500 that the evacuated area was being reduced in size and some residents were being permitted to return to their homes.

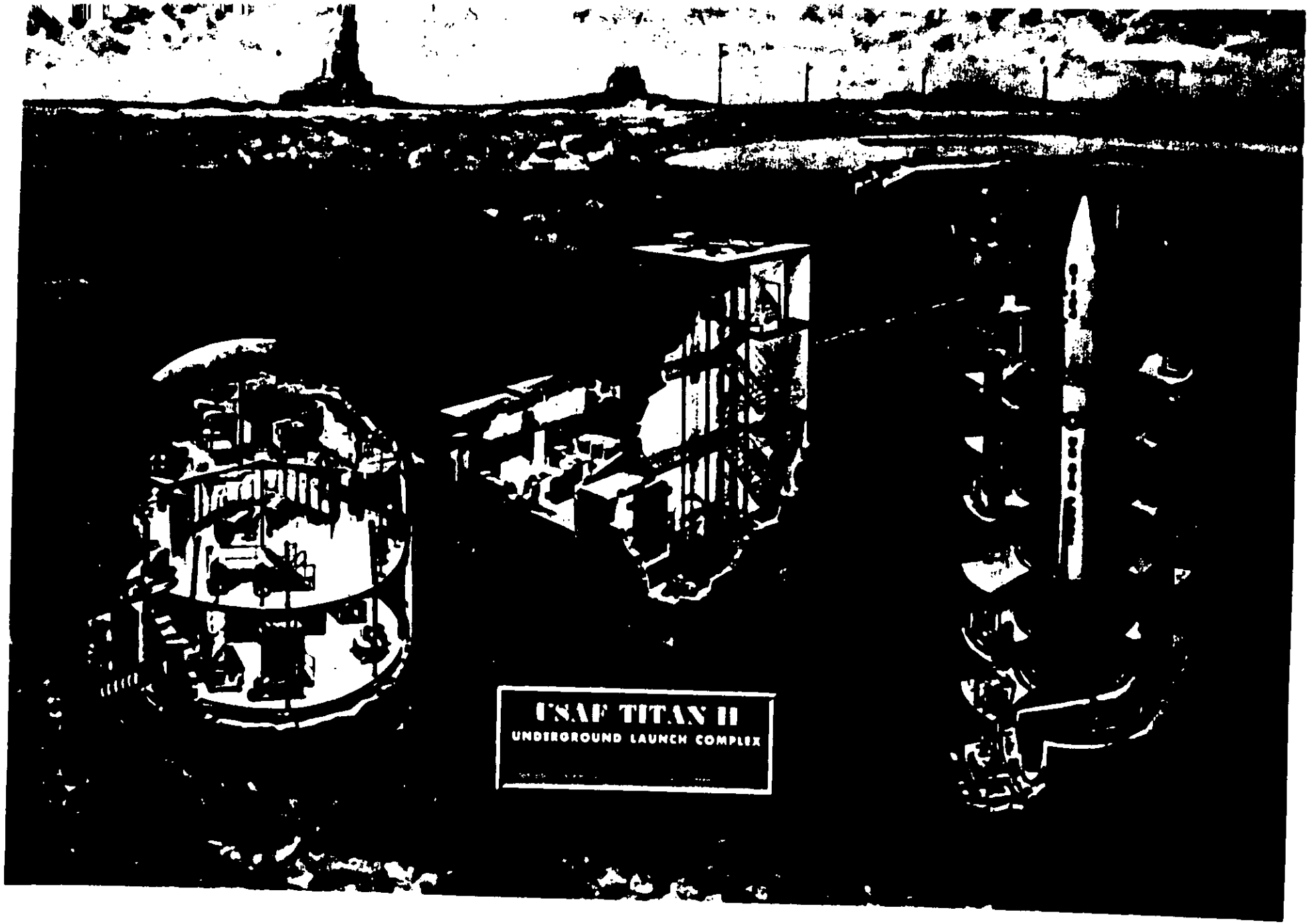
6. Other Federal Agency Involvement: During the morning of September 19, FEMA received calls from HHS and USDA requesting information and guidance regarding their possible response to the situation. At the time of their inquiry, FEMA was not able to provide any useful guidance due to a lack of firm information. As the situation developed, these agencies were notified that there were apparently no off site consequences and that no response would be required of them.

7. The above information will be expanded or augmented as additional information is developed by the agencies involved.

for [signature] LTC, USA
LEE A. SNOWBERGER
Lt Col, USAF
Chief, Plans & Requirements






USAF TITAN II
UNDERGROUND LAUNCH COMPLEX

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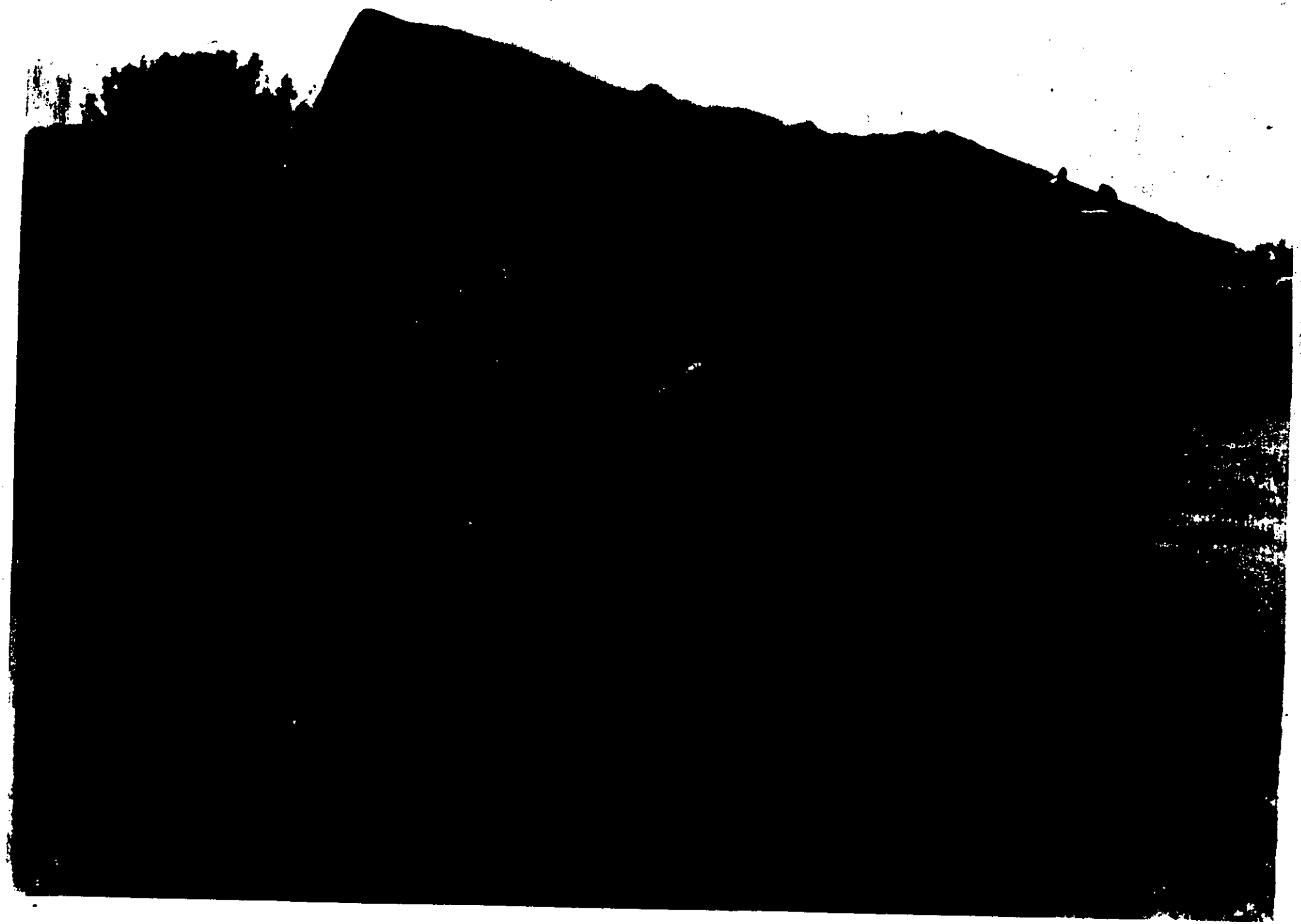

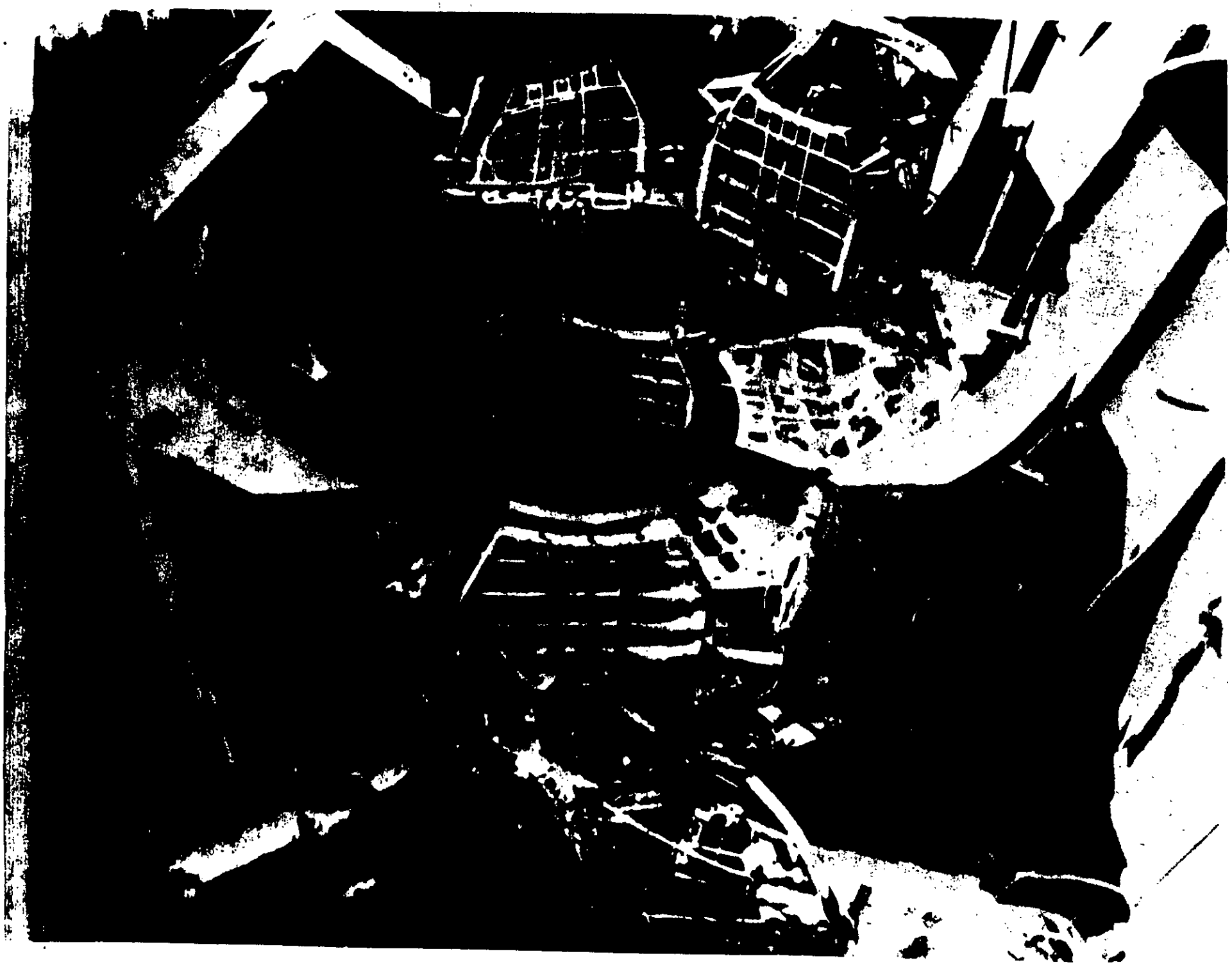

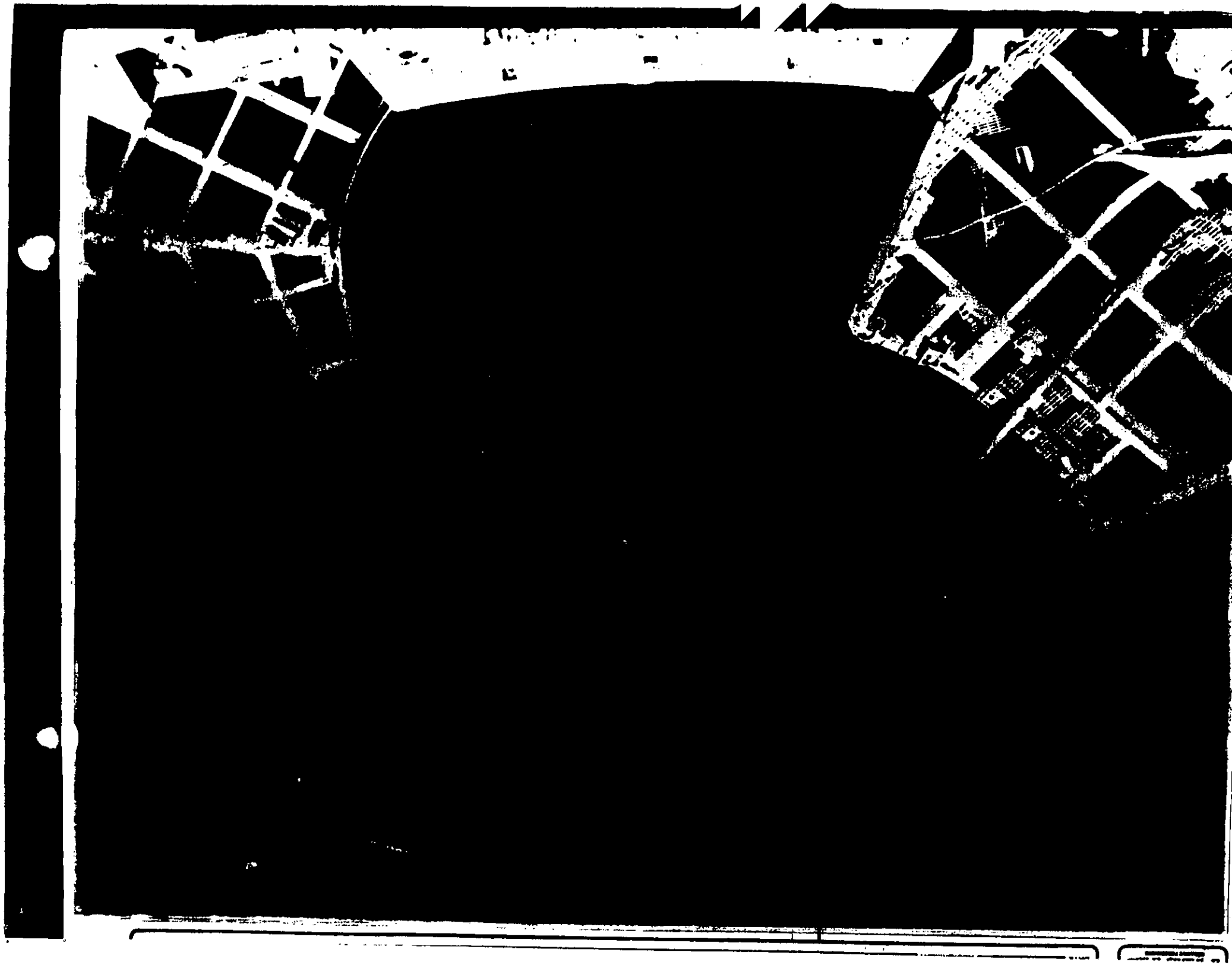

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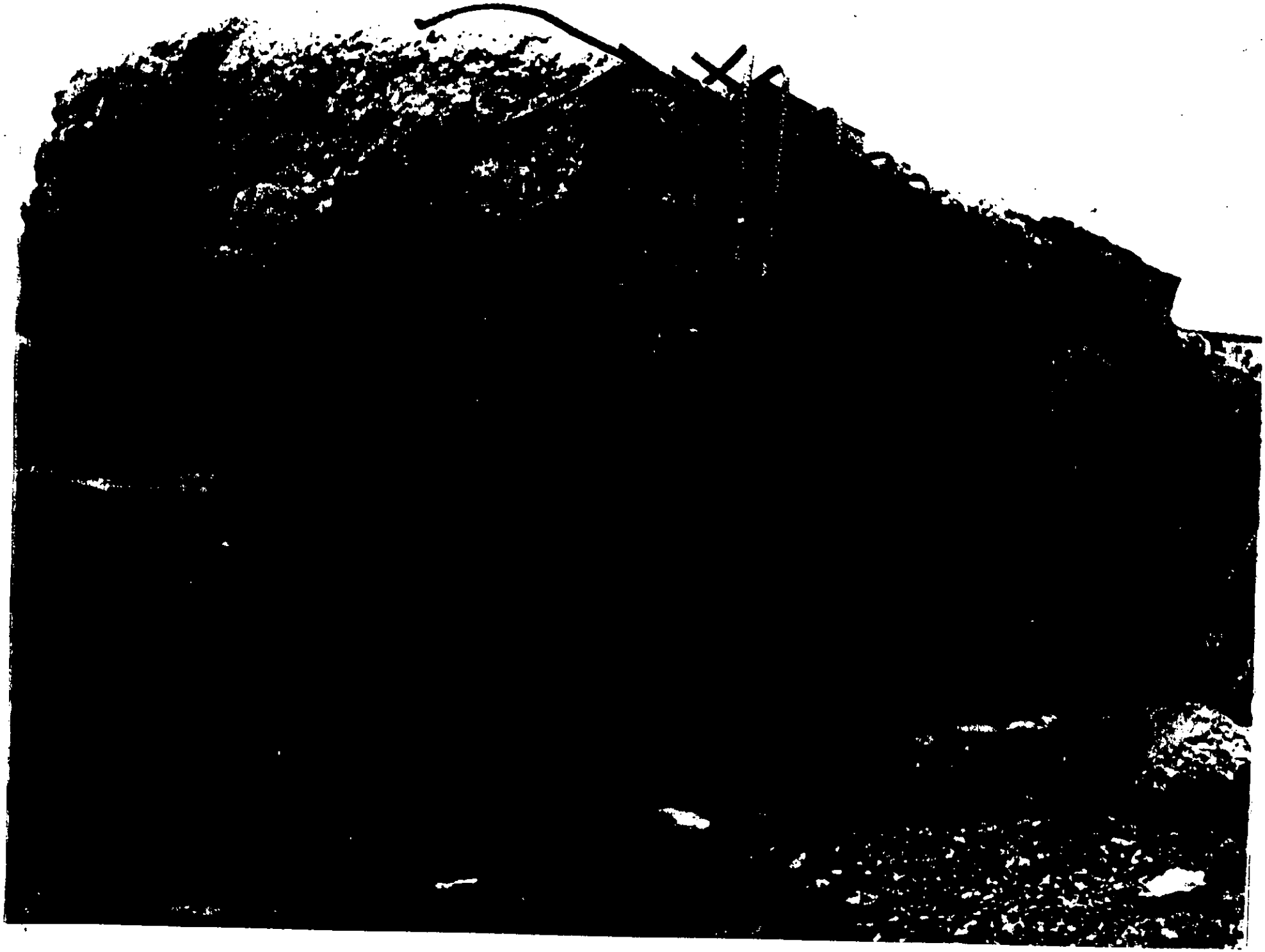

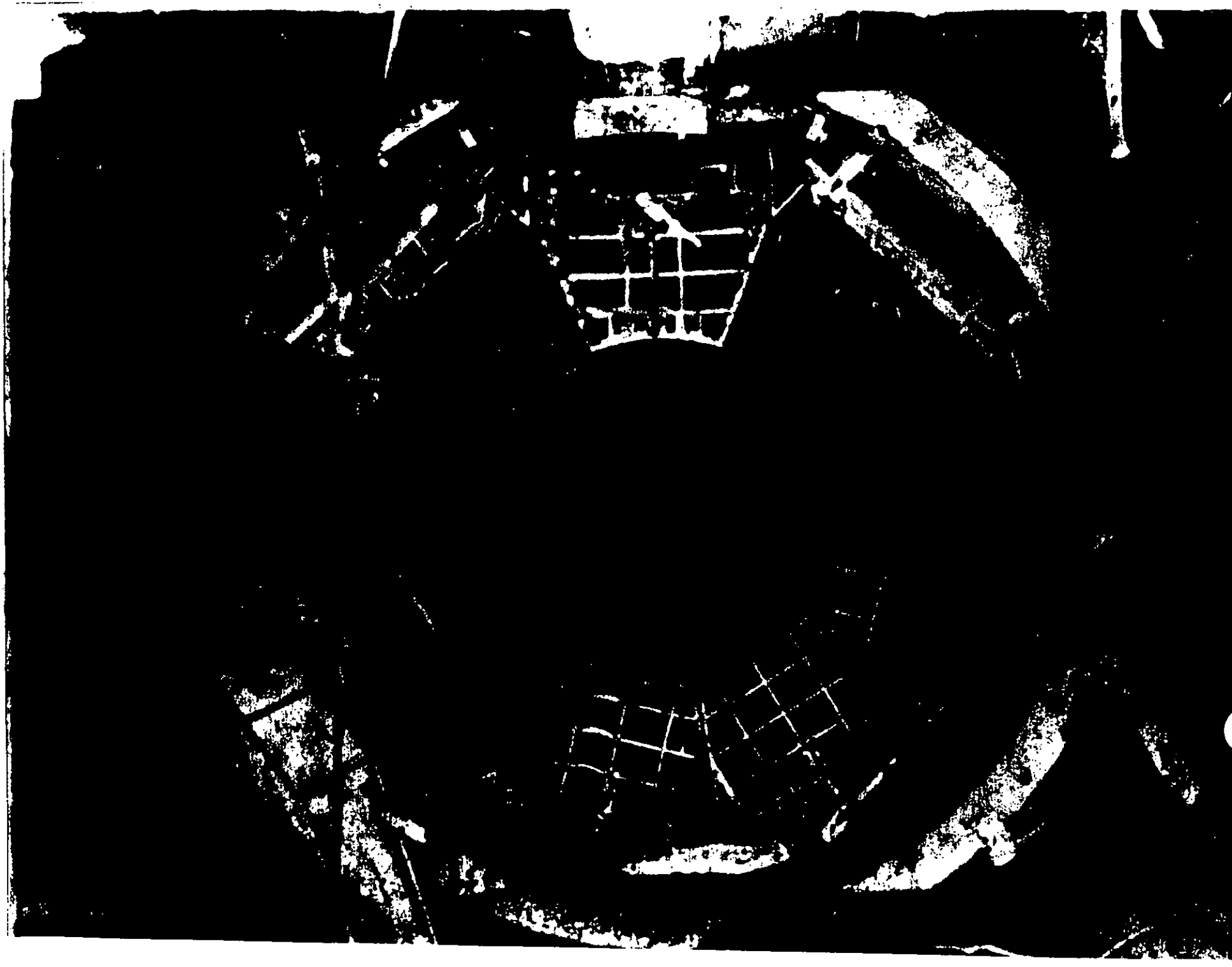

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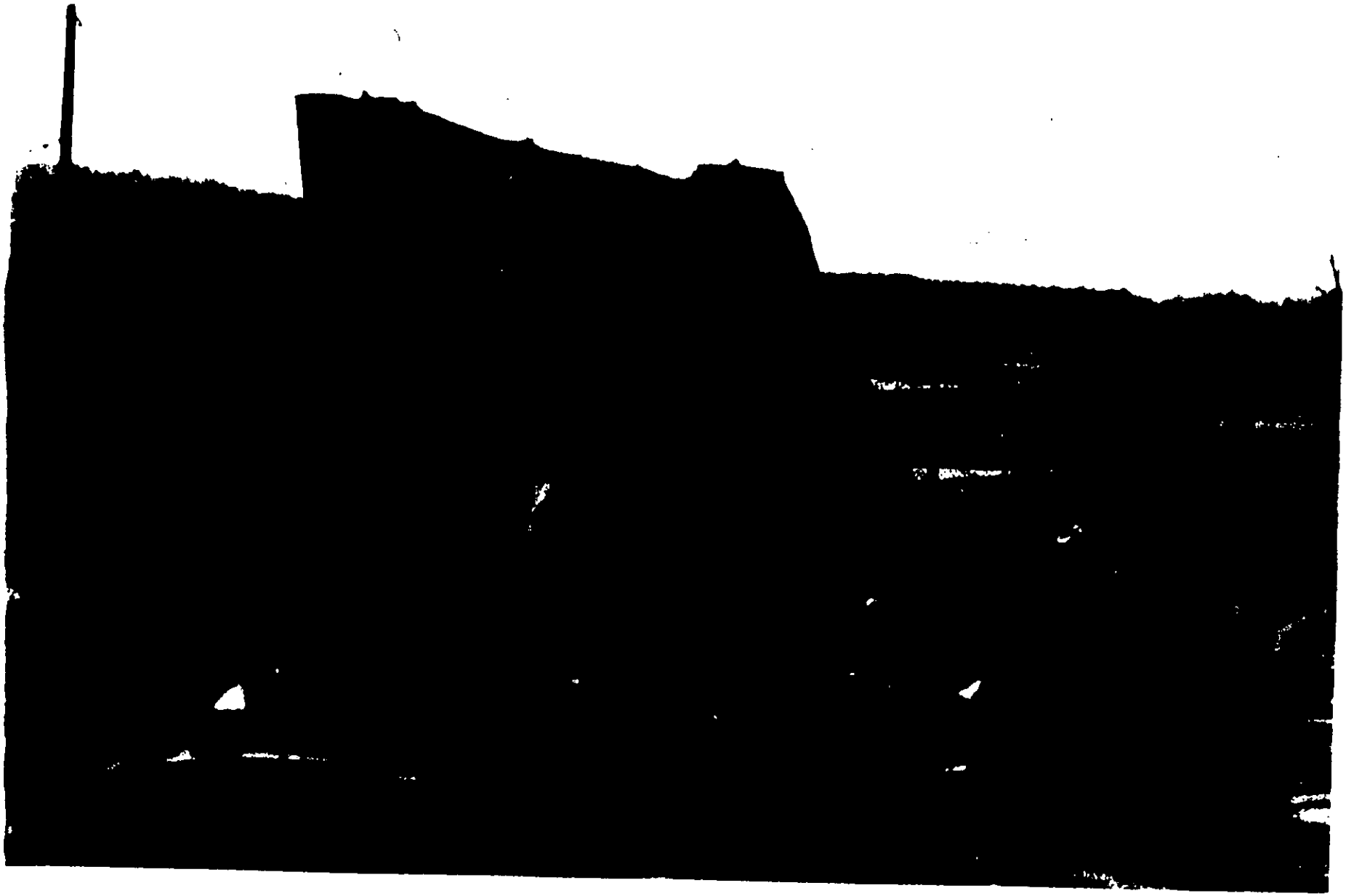

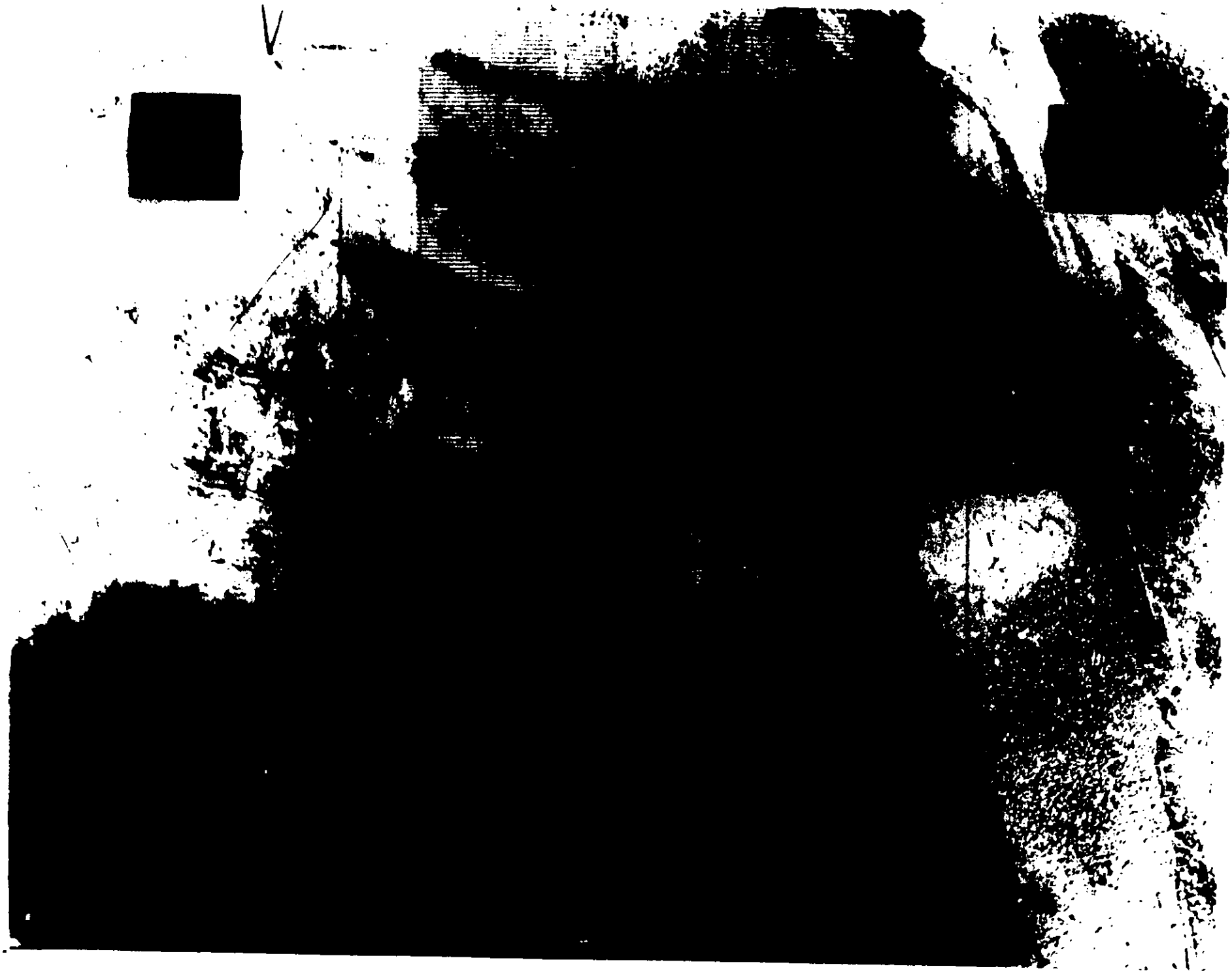

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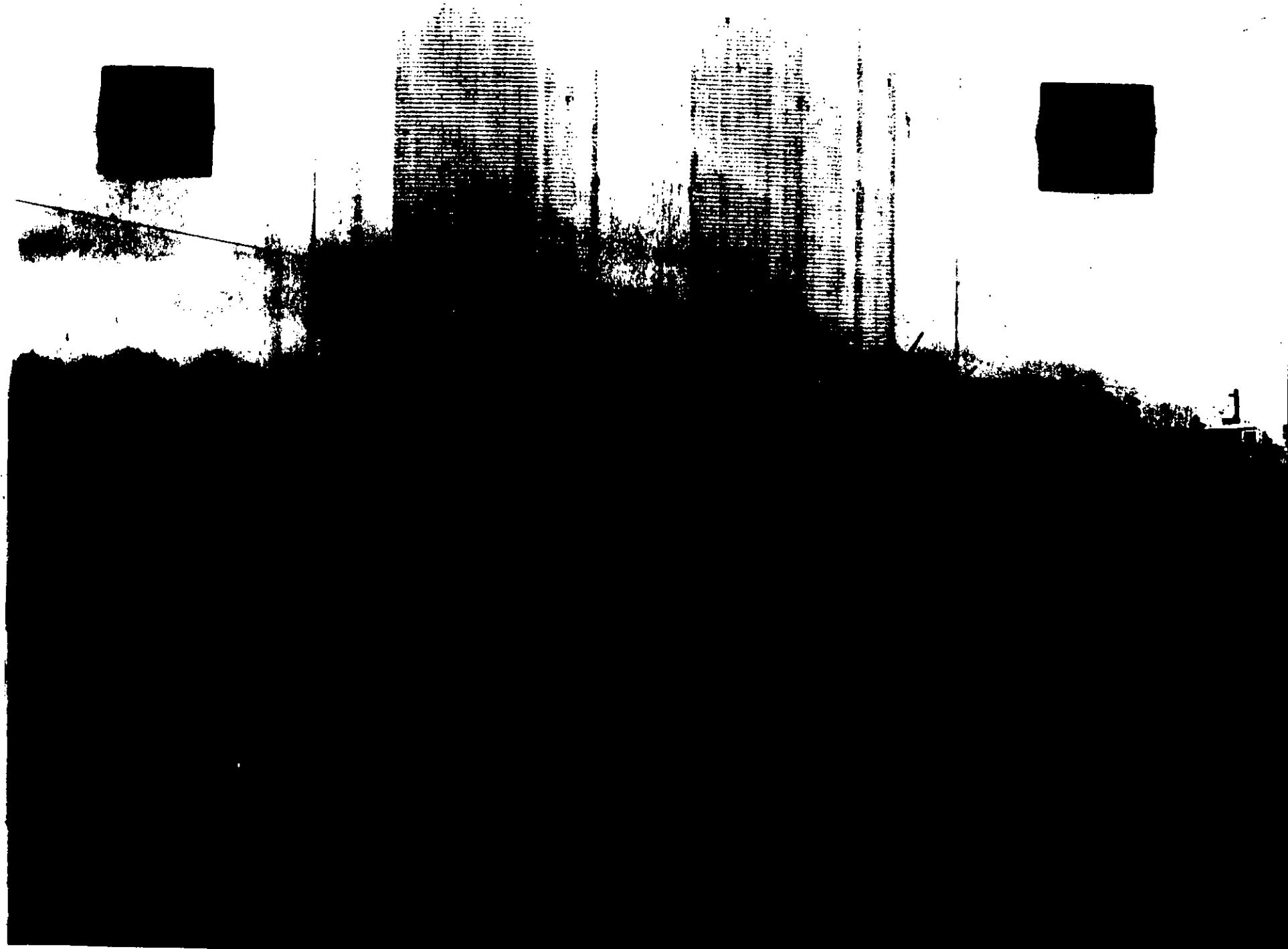

THE DAMASCUS MISSILE MISHAP

(1) INTRODUCTION, MR O'BRIEN, LADIES AND GENTLEMEN. I AM LT COL LARS V. VEDVICK, THE HQ SAC SECURITY POLICE OPERATIONS DIVISION CHIEF AND MEMBER OF THE HQ SAC DISASTER RESPONSE FORCE.

(2) I WILL BE BRIEFING THE SECURITY ASPECTS OF THE TITAN MISSILE MISHAP THAT OCCURRED AT DAMASCUS ARK ON 19 SEP 80.

FIRST I WILL REVIEW THE SEQUENCE OF EVENTS FROM THE ACCIDENT THROUGH THE CURRENT POSTURE, CONCENTRATING ON SECURITY POLICE INVOLVEMENT. THEN I'LL PRESENT THE LESSONS THAT WE HAVE LEARNED.

(3) TO PINPOINT THE LOCATION, THE SITE, COLORED ORANGE, IS LOCATED 66 MILES NORTH OF LITTLE ROCK, ARK. AT THE TIME OF THE MISHAP, THE MISSILE FIELD SECURITY FORCE POSTURE WAS NORMAL. FIVE TWO-MAN SECURITY TEAMS WERE DEPLOYED IN THE FIELD, ONE TEAM

(4) FOR EACH OF THE FIVE SECTORS SHOWN HERE. THE SITE COMPLEXES, COLORED YELLOW, IDENTIFY THE SECURITY TEAMS HOME SITE IN THAT SECTOR. THE TEAM SUPPORTING THE MISHAP SITE WAS LOCATED HERE (374-6) HOME SITE. THREE 4-MAN ALERT FIRE TEAMS WERE ON DUTY AT THE BASE TO PROVIDE SECURITY RESPONSE TO THE WEAPONS STORAGE AREA AND THE MISSILE FIELD. ONE MISSILE FIELD SECURITY SUPERVISOR TO OVERSEE THE RESPONSE FORCES AND AN OFFICER SHIFT COMMANDER WERE ALSO ON DUTY.

AT 1830 THE CREW AT THE COMPLEX RECEIVED PROPELLANT LEAK HAZARD INDICATIONS AND IMPLEMENTED APPROPRIATE CHECKLISTS. THE BASE COMMAND POST IN TURN NOTIFIED THE ARKANSAS OFFICE OF EMERGENCY SERVICES AT 1900 HOURS, WHICH THEN NOTIFIED THE STATE POLICE

Encl 4

AND COUNTY SHERIFF. SECURITY CONTROL AT THE BASE WAS NOTI-
1905 FIED AT APPROXIMATELY 1905 OF A LEAK. THE RESPONSIBLE 2-MAN
SECURITY ALARM RESPONSE TEAM WAS DISPATCHED FOR POSTING AT
THE ENTRANCE TO THE COMPLEX ACCESS ROAD TO CONTROL ENTRY.
THE MISSILE FIELD SECURITY SUPERVISOR WAS IN SECTOR 2, AND
DIRECTED THE RESPONSE OF THE TEAM FROM SECTOR 3. NOW THERE
WERE 5 SECURITY FORCE PERSONNEL ENROUTE TO THE SCENE. AT
1922 1922 CIVILIAN POLICE ARRIVED AT THE COMPLEX. WHEN THE FIRST
1937 SECURITY RESPONSE TEAM ARRIVED AT 1937, THEY ENCOUNTERED
ABOUT TEN CIVIL POLICE GATHERED TO ASSIST. IN THIS DRAWING
(5) OF AREA AROUND THE MISHAP SITE:

SITE - SQUARE

ECP - INTERSECTION W/, STATE 65

SCALE - 1 1/2 MILE SEGMENT

HOMES - BLACK SQUARES

THE VANBUREN COUNTY SHERIFF HAD JUST DIRECTED THE NOTIFICATION
OF RESIDENTS IN THE IMMEDIATE AREA THAT THERE WAS A HAZARD.
1951 THE SECOND SECURITY RESPONSE TEAM ARRIVED AT 1951. THE
2005 MISSILE FIELD SUPERVISOR ARRIVED AT 2005, ASSESSED PROBLEM,
(6) AND DIRECTED AN 1800 FT CORDON SHOWN IN RED CIRCLE. IN HIS
DISCUSSIONS W/SENIOR CIVIL OFFICIAL, HE DISCOVERED THE COUNTY
SHERIFF HAD ALREADY DIRECTED HIS FORCES TO EVACUATE PERSONNEL
OUT TO A DISTANCE OF APPROXIMATELY ONE-HALF MILE. AS THE
SEVERITY OF THE PROBLEM ON SITE INCREASED, AN ON BASE SECURITY
RECALL WAS INITIATED, AND THE SHIFT COMMANDER AND TWO FOUR-MAN
FIRE TEAMS WERE DISPATCHED TO THE SCENE TO ASSIST THE EVACUA-
2150 TION EFFORT AND POSTING OF THE CORDON. AT 2150, THE FOUR TEAMS
(7) AT THE SCENE WERE POSTED IN FOUR LOCATIONS, (IDENTIFIED IN THIS
DRAWING BY THE 2), IN A TRAPEZOIDAL AREA AROUND THE COMPLEX.

ALL HOMES IN THIS AREA WERE EVACUATED. THE 4 SECURITY TEAMS WERE EVENTUALLY RELIEVED BY RECALLED SECURITY PERSONNEL AT 2230 SO THEY COULD RETURN TO THEIR AREAS OF SECURITY RESPONSIBILITY IN THE MISSILE FIELD. ALSO BY THIS TIME, APPROXIMATELY 200 AREA RESIDENTS HAD BEEN EVACUATED.

2230

EXCEPT FOR THE OBVIOUS DARKNESS DURING THE EARLY MORNING HOURS, THE COMPLEX LOOKED LIKE THIS. (9)

0300

AT APPROXIMATELY 0300, AN EXPLOSION OCCURRED.

THE COMPLEX NOW LOOKED LIKE THIS. (9)

IN TRYING TO ACCOUNT FOR ALL WHO WERE TOPSIDE AT THE TIME OF THE EXPLOSION, IT WAS DISCOVERED THAT TWO PERSONNEL COULD NOT BE LOCATED. THEY WERE SUBSEQUENTLY FOUND AND ALL PERSONNEL WERE NOW ACCOUNTED FOR. (PAUSE)

WE NOW NEEDED TO ASSIST THE CIVIL POLICE TO INSURE CIVILIANS HAD BEEN NOTIFIED TO EVACUATE. SECURITY TEAMS STARTED OUTWARD - IN ALL DIRECTIONS FROM THE SITE - TO MAKE NOTIFICATIONS. IN MOST AREAS, CIVIL POLICE HAD ALREADY EXERCISED THEIR PREROGATIVE TO EVACUATE PERSONNEL AND THERE WERE REPORTS OF EVACUATION NOTIFICATIONS IN EXCESS OF 10 MILES FROM THE COMPLEX. SECURITY PERSONNEL WERE REPOSITIONED APPROXIMATELY 2 1/2 MILES OUT FROM THE SITE, AND, TOGETHER WITH THE STATE POLICE, ESTABLISHED ROAD BLOCKS AND CORDON CONTROL FOR THE AREA INSIDE THE LARGE CIRCLE ON THIS MAP, SPECIFIC POSTS ARE IDENTIFIED BY 3 IN RED. (10)

- OTHER THAN REMOVAL OF THE INJURED, THE PRIMARY AREA OF CONCERN WAS DETERMINING THE LOCATION OF THE NUCLEAR WEAPON AND PROTECTING IT. THE WEAPON WAS LOCATED IN THE DITCH (11) ALONGSIDE THE ACCESS ROAD. ~~UNSU~~ OF RADIATION LEVELS AND THE LOCATION OF HIGH EXPLOSIVES IN THE AREA, SECURITY POLICE WERE NOT POSTED AT THE WEAPON. MAINTENANCE PERSONNEL WERE POSITIONED AT THE INTERSECTION OF THE COMPLEX ACCESS ROAD AND HWY 65, [redacted] THE AREA HAD BEEN EVACUATED, AND SECURITY FORCES WERE POSTED ON THE CORDON; THE SCENE WAS SECURE. ADDITIONAL SECURITY FIRE TEAMS HAD BEEN DISPATCHED TO PROVIDE THE REQUIRED NUCLEAR SECURITY ARMED RESPONSE. SECURITY PERSONNEL WERE SUBSEQUENTLY POSTED PRIOR TO DAYBREAK AT AN ENTRY CONTROL POINT ON THE ACCESS ROAD (AT BOTTOM OF SCREEN) WHERE THEY COULD OBSERVE THE NUCLEAR WEAPON. ~~THEY WERE~~ POSTED CLOSE-IN AROUND THE NUCLEAR WEAPON LATER THAT MORNING WHEN THE AREA WAS DECLARED SAFE. RADIOLOGICAL AND TOXIC VAPOR READINGS TAKEN IN THE VICINITY OF THE NUCLEAR WEAPON AND IN THE DISASTER AREA WERE NEGATIVE EXCEPT VAPOR ON SITE. UPON THIS DETERMINATION, EVACUEES WERE ALLOWED TO RETURN TO THEIR (12) HOMES THAT AFTERNOON. THE 1800 FOOT CORDON WAS REESTABLISHED. CONTROL OF ENTRY TO THE SITE WAS INITIALLY AWKWARD AND DIDN'T GET COMPLETELY SMOOTHED OUT UNTIL MIDDAY ON 20 SEPTEMBER WHEN A SPECIAL INNER AND OUTER ZONE BADGE SYSTEM WAS IMPLEMENTED. UNTIL THAT TIME, PERSONAL RECOGNITION AND AF RESTRICTED AREA BADGES WERE USED WITH VOUCHING AND ESCORT PROCEDURES.

(13) - A MULTITUDE OF ASSISTANCE WAS MADE AVAILABLE. THE HQ SAC DISASTER RESPONSE FORCE ARRIVED EARLY ON THE MORNING OF 19 SEPTEMBER. THEY WERE FOLLOWED BY DEPT OF ENERGY FROM

ALBUQUERQUE, EOD TEAM FROM BARKSDALE, BIOENVIRONMENTAL TEAM FROM BROOKS, AIR TRANSPORTABLE RADIOLOGICAL PACKAGE FROM KELLY, NUCLEAR SURETY (AFISC) AND SP REPRESENTATIVES FROM KIRTLAND, PUBLIC AFFAIRS FROM BARKSDALE AND PHOTO FROM CHARLESTON. AN ENTRY AUTHORITY LIST HAD TO BE PREPARED TO RESOLVE THE COMPLICATIONS ARISING FROM HAVING REPRESENTATIVES FROM THIS MANY ORGANIZATIONS.

- CONTROLLING THE NEWS MEDIA AROUND THE SITE WAS A MAJOR PROBLEM. ALL LOCAL, NATIONAL, AND SOME CABLE CREWS WITH ELABORATE VANS, WERE SET UP AT THE COMPLEX ROAD ACCESS POINT. LIGHT PLANES AND HELICOPTERS OCCUPIED BY NEWS PERSONNEL OVERFLEW THE SCENE IN VIOLATION OF THE FAA ESTABLISHED SAFETY AREA ABOVE THE SITE. WHILE THE AF ASSISTANCE TEAMS PHOTOGRAPHED, THOROUGHLY EXAMINED, AND ENCASED THE NUCLEAR WEAPON IN A CONTAINER FOR MOVEMENT, NEWS CREWS TRIED TO TAKE PICTURES OF OUR ACTIONS. WE HAD TO DEVELOP OBSCURATION DEVICES TO PROTECT AGAINST THIS ACTIVITY.

TO PREPARE FOR THE CONVOY, THE STATE POLICE WERE CONTACTED THE NIGHT BEFORE, AS IS NORMALLY REQUIRED. AT 0730 THE CONVOY LEFT THE SITE - ONE STATE POLICE VEHICLE IN FRONT AND AN EXTRA ONE IN THE REAR, ALONG WITH A 21-MAN AF SECURITY COMPLEMENT. AS THE CONVOY PROCEEDED DOWN THE TWO-LANE HIGHWAY, NEWS VEHICLES - TWO AND THREE VEHICLES ABREAST OFTEN TRIED TO PASS THE STATE POLICE CAR.

A REQUEST FOR ADDITIONAL STATE POLICE ASSISTANCE WAS RADIOED IN. IT ARRIVED SHORTLY AND ASSISTED FROM THE REAR. AS THE CONVOY ENTERED THE INTERSTATE, THE DECISION WAS MADE NOT TO ALLOW TRAFFIC TO PASS, MAINLY DUE TO THE ERRATIC WAY THE NEWS MEDIA WAS DRIVING.

CIVIL POLICE COORDINATION WAS EXCELLENT UNDER THE CIRCUMSTANCES GIVEN THE FACT THERE WERE NO WRITTEN AGREEMENTS OR PROCEDURES ESTABLISHED BETWEEN THE AIR FORCE AND LAW ENFORCEMENT AGENCIES AT THAT TIME. OUR INABILITY TO DISCUSS THE EXACT NATURE OF THE SITUATION, SPECIFICALLY THE LOCATION OF THE NUCLEAR WEAPON, FOSTERED AN AIR OF MISTRUST. IN SPITE OF THIS DEFICIT, THEY ACTED IN EXCESS OF REQUIREMENTS AND WITHOUT REQUEST; THE EVACUATION, SITE SECURITY, AND CONVOY SUPPORT WERE OUTSTANDING.

(15) - AFTER THE NUCLEAR WEAPON WAS REMOVED AND SECURITY RESPONSE FORCE (15 AND 5) REQUIREMENTS WERE DELETED FOR THE COMPLEX, IT WAS PROTECTED BY 6 PERSONNEL, ONE FOR EACH CORNER OF THE COMPLEX, A SUPERVISOR AND ENTRY CONTROLLER. CIVIL POLICE ALSO WITHDREW THE MAJORITY OF THEIR FORCES AT THIS TIME. THE SECURITY FORCE WAS THEN REDUCED TO THE PRESENT REQUIREMENT OF TWO PERSONNEL.

(11) - THIS MISHAP HAS TAUGHT US SEVERAL LESSONS. FIRST WE WOULD RECOMMEND WHENEVER THERE IS AN ACCIDENT IN WHICH A NUCLEAR WEAPON IS INVOLVED AND THERE IS WIDESPREAD PUBLIC SPECULATION THAT A NUCLEAR WEAPON IS PRESENT, THE PRESENCE OF THE WEAPON AND ITS CONDITION SHOULD BE DISCLOSED. THIS SHOULD BE DONE AS SOON AS PRACTICAL AFTER THE WEAPON'S CONDITION HAS BEEN VERIFIED BY QUALIFIED PERSONNEL.

THIS LIMITED DISCLOSURE WOULD SIGNIFICANTLY IMPROVE ESSENTIAL COORDINATION AND WORKING RELATIONS WITH STATE AND LOCAL OFFICIALS AND HELP MINIMIZE ADVERSE PUBLICITY.

- SECONDLY, WE HAVE PREPARED WRITTEN AGREEMENTS BETWEEN OUR TITAN BASES AND THE RESPONSIBLE CIVILIAN OFFICIALS, TO IDENTIFY A SINGLE POINT OF CONTACT TO RECEIVE, CONFIRM, AND PASS OUR

REQUESTS TO EVACUATE CIVILIANS FROM HAZARDOUS AREAS. THE WRITTEN AGREEMENTS ALSO IDENTIFY AN ON-SCENE CIVIL OFFICIAL WHO WILL COORDINATE THE CIVIL ASSISTANCE TO THE MILITARY AND INVOLVEMENT OF OTHER CIVIL AGENCIES THAT RESPOND TO THE INCIDENT.

--THIRD, SECURE COMMUNICATIONS MUST BE ESTABLISHED AS SOON AS POSSIBLE.

SINCE THE MISSILE SECURITY RADIO NET WAS INITIALLY THE ONLY FUNCTIONAL MEANS OF COMMUNICATIONS AVAILABLE TO CONDUCT DISASTER RECOVERY OPERATIONS, THE MONITORING VULNERABILITY WAS EXPLOITED BY THE MEDIA AND OTHERS USING COMMERCIAL SCANNERS. WE HAVE PROPOSED A $1.2 MILLION RADIO PACKAGE WHICH WILL INCLUDE 2 CHANNEL PRIVACY CAPABILITY TO OVERCOME THIS VULNERABILITY.

--FOURTH, SINCE MANY ACCIDENT SITE PHOTOGRAPHS ARE NECESSARY DURING THE FIRST FEW DAYS, IT IS APPROPRIATE TO PROVIDE FOR DAILY CLASSIFICATION MANAGEMENT.

--FIFTH, THE PUBLIC AND ESPECIALLY THE NEWS MEDIA, CONTINUALLY ATTEMPTED TO ENCROACH UPON THE ACCIDENT SCENE MAKING IT NECESSARY TO IMPROVISE METHODS TO DENY VISUAL OBSERVATION OF CLASSIFIED COMPONENTS AND PROCEDURES. WE HAVE ADVISED OUR UNITS TO EQUIP THEIR DISASTER RESPONSE FORCE WITH OBSCURATION DEVICES AND/OR TECHNIQUES TO BE USED UNDER SIMILAR CIRCUMSTANCES. POSSIBLY ADOPTION OF THE PUBLIC DISCLOSURE RECOMMENDATION WOULD ALSO REDUCE THE MEDIA'S ATTEMPT TO OBTAIN INFORMATION.

--LAST UPDATED MAPS OF EACH SAC TITAN MISSILE COMPLEX HAVE BEEN PREPARED FOR EMERGENCY RESPONSE PURPOSES.

(PAUSE)

SIR, THAT CONCLUDES MY BRIEFING. ARE THERE ANY QUESTIONS?

CLASS A MISSILE MISHAP

WHEN 0300 CDT 19 SEP 80

WHERE 308 SMW LITTLE ROCK AFB, COMPLEX 374-7

SITUATION REPRESSURIZATION OF STAGE II OXIDIZER TANK DUE TO PRESSURES BELOW ALLOWABLE LIMITS.

MISHAP STAGE I FUEL LEAK DUE TO A DROPPED SOCKET --- A SUBSEQUENT EXPLOSION OCCURRED.

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COST

1 LIFE----INTANGIBLE PRICE

1 MISSILE AND
1 MISSILE COMPLEX----$225,332,670 IN PRESENT COSTS

CIVILIAN CLAIMS----UNKNOWN?

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PERSONNEL ON SITE

INSTRUCTOR CREW

MCCC CAPT, 31 UPGRADE DMCCC 2LT, 26
DMCCC 1LT, 27
BMAT SSGT, 24
MFT SSGT, 27

PTS TEAM A		LOCATION
CHIEF	SRA, 24	C/C LEV 2
	SRA, 21	BLASTLOCK BACKUP
	A1C, 19	TOPSIDE SERVICING ECU'S
	AMN, 19	L/D LEV 2, WITNESSED SOCKET FALLING
	A1C, 21	TOPSIDE IN CAT 1
	A1C, 26	BLASTLOCK BACKUP
	SRA, 22	L/D LEV 2, DROPPED SOCKET
	A1C, 20	TOPSIDE IN CAT 1

ALL OF THE ABOVE EVACUATED THRU THE ESCAPE HATCH AND THE BREAK-AWAY PORTION OF THE FENCE

PTS TEAM B- PENETRATION TEAM AFTER EVACUATION, PRIOR TO THE EXPLOSION

SRA, 22	PTS MEMBER (DIED 19 SEP 80 OF SEVERE PULMONARY EDEMA)
SRA, 21	PTS MEMBER
SRA, 21	PTS MEMBER
A1C, 25	QC&E PTS TECH
SGT, 32	QC&E PTS TECH
SGT, 35	PNEUDRAULICS TECH
SRA, 27	INSTRUCTOR MISSILE MECHANIC

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SEQUENCE OF EVENTS

TIME	EVENT
2-14 SEP	REPLACEMENT OF STG II OXI MANHOLE COVER GASKET
16 SEP	STG II OXI TANK REQ REPRESSURIZATION
2325 17 SEP	SORTIE "NOT READY", STG II OXI BELOW PRESSURE LIMITS (T.O.-1-2)
1015 18 SEP	PTS TEAM ARRIVES AT 4-7
1030	PNEUDRAULICS TEAM ON COMPLEX
1150	PNEUDRAULICS TEAM UNABLE TO COMPLETE INITIAL REPAIR OF HS-2, ADDITIONAL PARTS REQ FROM BASE
164?	HS-2 OPERATIONAL, PTS BEGINS T/S ON STG II OXI LOW PRESSURE
1710	MISSILE LEAK CHECK ACCOMPLISHED
1745	MCC AND PTS PREPARE FOR STG II OXI TANK PRESSURIZATION
1827	ECU'S ACTIVATED. PTS ENTERS L/D LEV 2
1835	SOCKET SEPARATES FROM RATCHET, FELL TO LEV 2 PLATFORM, BOUNCED ON RUBBER BOOT, FELL 66', HIT THRUST MOUNT RING, BOUNCED UPWARD AND PUNTURED STG I MISSILE FUEL TANK
1836	PTS TEAM IN L/D REPORTS FUEL LEAK

PTPMU READINGS

STG I F	STG I OXI	STG II F	STG II OXI
(NORMAL T.O.-1)			
9.5	9.5	33.2	36.2
TO	TO	TO	TO
15.5	13.5	40.9	43.9

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TIME	EVENT	PTPMU READINGS
1837	FUEL VAPOR LAUNCH DUCT LITED; PTS TEAM IN BLAST LOCK REPORTS 40 PPM FUEL SIDE (5-10,000 PPM ON LIRA IS OBSERVED BUT NOT REPORTED TO MCC)	
	FIRE IN ENGINE, FIRE LAUNCH DUCT, SPRAY ON, LAUNCH DUCT TEMP HI, LAUNCH DUCT AIR SHUTDOWN LITED; PTS CLOSES BLAST DAMPER #2	
1838	VAPOR SILO EQUIP AREA, VAPOR FUEL PUMP ROOM, OXI VAPOR LAUNCH DUCT LITED; LIRA READING DROPS TO 0 PPM DUE TO MSA WATER LOCKOUT; BLAST VALVE # 5 CLOSED	
1839	TOPSIDE PERSONNEL EVACUATE 2000'; ALL PTS PERSONNEL EVACUATE TO CONTROL CENTER; MCCC STAYS WITH FIRE AUTO CHECKLIST AND REFERS TO OTHERS AS TIME PERMITS	
1841	MCCC RECORDS PTPMU	9.7 13.8 36.1 33.4
1842	BLAST DAMPER #1 CLOSED	
1844	DEFLECTOR HIGH LEVEL LITED	
1848	MPHT FORMED	
1856	HALR PRESSED, OXI VAPOR LAUNCH DUCT NOT LITED	
1858	PERSONNEL TOPSIDE REPORT SMOKE COMING FROM SILO EXHAUST SHAFT	
1905	MCCC RECORDS PTPMU	5.5 18.6 37.7 36.8
1910	MCCC RECORDS PTPMU	4.9 18.8 37.8 36.9
1915	MCCC RECORDS PTPMU	4.1 19.0 37.9 37.0
1920	MCCC RECORDS PTPMU	3.6 18.9 37.9 37.0

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TIME	EVENT	PTPMU READINGS
1925	MCCC RECORDS PTPMU	3.1 18.8 38.0 37.0
1930	MCCC RECORDS PTPMU	2.6 18.8 38.0 37.0
1935	MCCC RECORDS PTPMU	2.2 18.8 38.1 37.0
1940	MCCC RECORDS PTPMU	1.7 18.8 38.1 37.0
1945	MCCC RECORDS PTPMU	1.3 18.8 38.2 37.0
1949	SPRAYS OFF, LACK OF WATER; MSA OUT OF WATER LOCK-OUT; P-1 WILL NOT PRESS OFF AT FPCB	
1950	MCCC RECORDS PTPMU	0.9 18.8 38.2 37.0
1955	MCCC RECORDS PTPMU	0.7 18.9 38.2 37.1
1956	CREW REMOVES POWER FROM MISSILE (T.O.-2-6) AT DIRECTION OF MPHT	
2000	MCCC RECORDS PTPMU	0.4 19.0 38.2 37.1
2004	LAUNCH DUCT TEMP HI HI LITES	
2005	MCCC RECORDS PTPMU	0.4 19.5 38.2 38.1
2010	MCCC RECORDS PTPMU	0.1 23.1 39.2 38.5
2012	MPHT DIRECTS MCC TO SET LDAC SWITCH OFF	
2015	MCCC RECORDS PTPMU	-0.1 23.3 39.2 38.8
2019	MPHT DIRECTS PTS TO SUIT UP TO VENT STG I FUEL TANK	
2020	PTS TEAM ATTEMPT TO RETRIEVE RFHCO AND ECU'S FROM BLAST LOCK, THEY ENCOUNTER SMOKE AND VAPORS	-0.5 23.4 39.3 39.1

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TIME	EVENT	PTPMU READINGS
2022	MPHT PTS REP ADVISES STG I FUEL TANK COLLAPSE POSSIBLE	
2026	VENTING TANK IS IMPOSSIBLE AT THIS TIME	-0.7 23.4 39.4 39.2
2027	MCC AND PTS TEAM DIRECTED TO EVACUATE LCC BY MPHT	
2030	MCC SETS TRANSFER SELECTOR SWITCH ON FPCB TO HAND	
2040	MCC AND PTS TEAM COME OUT OF ESCAPE HATCH TOPSIDE	
2043	MCC AND PTS TEAM ASSEMBLE WITH SECURITY POLICE AT END OF ACCESS ROAD	
2045	HELICOPTER REPORTS COLUMN OF WHITE SMOKE FROM SILO EXHAUST SHAFT	
2057	HELICOPTER LANDS WITH 308 SMW/CC REP AND PTS QC&E	
2102	MCCC, DMCCC AND TWO PTS PERSONNEL PROCEED TO SURFACE GATE TO OBSERVE AND REPORT CONDITIONS	
2125	PTS QC& E TECH MAKES UNAUTHORIZED ENTRY OF LCC THRU ESCAPE HATCH TO RECORD PTPMU READINGS	-2.0 29.4 41.0 41.4
2331	PTS RECOVERY TEAM ARRIVES ON-SITE	
0152 19 SEP	THREE-MAN PTS RECOVERY TEAM, 308 SMW/CC REP AND SENIOR PTS TEAM CHIEF PROCEED TO SURFACE GATE FOR INITIAL PENETRATION EFFORT	
0155	THREE-MAN PTS RECOVERY TEAM IN RFHCO ENTER COMPLEX AFTER BREAKING THRU FENCE. OTHERS REMAIN AT GATE	
0201	HEAVY VAPORS EMITTING FROM EXHAUST SHAFT	

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TIME	EVENT	PTPMU READINGS
0205	TWO PTS TEAM MEMBERS HEAD TOWARD ACCESS PORTAL; ONE PTS TEAM MEMBER PROCEEDS TO EXHAUST SHAFT WITH PVD	
0208	TWO PTS MEMBERS ARRIVE AT PORTAL. REMAINING MEMBER REPORTS 250 PPM AT EXHAUST SHAFT. PART OF SMOKE MAY BE STEAM. PERIODIC ERUPTIONS	
0211	TWO PTS MEMBERS INSIDE ENTRAPMENT AREA. 0 PPM ON PVD	
0212	PTS MEMBER AT EXHAUST SHAFT RETURNS TO SURFACE GATE. TWO PTS MEMBERS REPORT 10 PPM FUEL VAPOR OUTSIDE BLAST DOOR #6	
0215	TWO PTS MEMBERS ATTEMPT TO OPEN BLAST DOOR #6 WITH PORTABLE HYDRAULIC PUMP	
0228	PTS MEMBERS UNABLE TO OPEN BLAST DOOR #6; DIRECTED TO RETURN TO GATE DUE TO LOW AIR SUPPLY	
0242	SECOND PTS RECOVERY TEAM (TWO MEN IN RFHCO) ACTIVATE AIR AND ENTER COMPLEX	
0244	SECOND TEAM PROCEEDS TO ACCESS PORTAL	
0251	BLAST DOOR #6 REPORTED OPEN	
0253	PVD INDICATES 180 PPM IN BLAST LOCK AREA 202	
0254	SECOND TEAM REPORTS 180 PPM AT AIR HOLE IN BLAST DOOR #7	
0257	BLAST DOOR #7 OPENED VIA HS-3 SYSTEM. PERSONNEL TOP-SIDE REPORT SMOKE/VAPORS SETTLING CLOSE TO GROUND. PVD PEGS OUT AT 250 PPM IN BLAST LOCK AREA 201. SECOND TEAM EVACUATES. BLAST DOORS #6 AND #7 LEFT OPEN	

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TIME	EVENT	PTPMU READINGS
0259	TEAM REPORTS VISIBILITY BETWEEN BLAST DOORS #8 AND #9 WAS LIMITED. MSA PEGGED OUT AND ALL INDICATORS ON FUEL SIDE WERE LITED. TEAM TURNS EF105 SWITCH OUTSIDE ENTRAPMENT DOOR TO ON POSITION AND BOTH PTS TROOPS SIT DOWN ON CONCRETE NEAR ENTRY PORTAL	
0300	MPHT REPORTS TELEPHONE CONTACT WITH LCC BROKEN. VIOLENT EXPLOSION	

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LITTLE ROCK CLASS A MISSILE MISHAP

Prepared by: 1Lt Jon R. Burgess, Missile Safety Officer
390SMW/SE, Davis-Monthan AFB Arizona 85707

1. 390 SMW Safety

2. This is looking at the surface gate of Complex 374-7 from the access road.

3. This is another look, 250 feet east of the complex. You are looking at the silo door abutement rail bridge and jack.

4. The fuel hardstand on complex.

5. One of the few things left standing, the IRCS (Intra-base Radio Communication System) soft antenna. Most of the Stage I missile fragments located within 300 feet of the silo.

6. Another view of the IRCS antenna. Most of the Stage II missile fragments located out to 2300 feet from the silo.

7. View of Complex 374-7 at 1030L on 19 Sep 80. Explosion occured at 0300. Note the wet surface area and the arrow pointing to the PTS maintenance truck.

8. Ground view of silo. Note missing deflector vanes in the exhaust duct and the blast effect on the concrete siding.

9. Another ground view of the silo. Note the cooling tower pit in the upper left corner had moved 8 to 10 feet.

10. Silo Launch Duct Levels 1 and 2 with the work platforms.

11. Another view of silo launch duct levels 1 and 2.

12. Silo launch duct level 1 showing launch duct access door frame.

13. Silo launch duct level 2 access door. Note door is "blown" inward toward missile.

14. Overhead view of entire silo launch duct.

15. Silo launch duct level 2 work platforms. Note that the segment "g" platform grating mostly remains. Severe burning effects can be seen from level 3 downward.

16. Looking down at silo launch duct levels 4 to 7. Note thrust mount suspension set still intact; remaining acoustical tiles in upper center; severe burning effects; and stage 1 oxidizer feed line.

17. Looking at the Thrust Mount Ring, Stage 1 Oxidizer Feed Line and lower section of Stage 1 Fuel Tank.

18. Exhaust Duct Deflector showing equipment room to deflector wall blown outward. Note water remaining in the deflector.

19. Launch Control Center after portable generator was brought in for power to lighting. Note drinking glasses in foreground.

20. Another view of the Launch Control Center with drinking glasses intact.

21. Blast Lock Area 201. Blast Door 9 on left. Note corrosive effect of vapor and smoke.

22. This is the truck where the MB and the PTS members monitored the Launch Control Center penetration operation. When the explosion occured, the MB was thrown into the cab, where he grabbed onto the seat. One PTS member was sitting on the tailgate, while another was standing to the right of the truck. Note the tailgate and concrete pieces.

23. PTS Team "A" truck. Note the damage and location of the concrete slab.

24. PTS Team "B" truck. Note the concrete block.

25. HS-1 N_2 storage container. Originally located in Silo Equipment Area Level 1. 6,000 pounds and 465 feet from silo.

26. Broken Arrow.

27. This is where the device landed, about 75 feet from the surface gate. Note the broken N_2 accumulator bottles near where it landed.

28. Portion of silo door. 244,000 pounds and 290 feet from silo.

29. Part of the 740 ton silo door.

30. Best view of the 740 ton silo door which landed at an 80^0 angle, hit 625 feet from the silo and slid 75 feet.

31. This "piece" was about 2200 feet from the silo, two foot into the soft dirt.

32. Two large pieces of Flame Deflector Vane, each weighing 11 tons and 1700 feet and 1730 feet (respectively) from the silo.

33. Portion of Water Chillers from Silo Equipment Level 2.

34. Water Chiller Control Panel.

35. Fragments spread over the countryside.

36. More fragments. 98% of fragments were contained within 2,000 feet of silo.

37. Flame Deflector Vane contained within complex fence. Four feet into ground.

38. Silo Launch Duct steel liner. 20,700 pounds located 230 feet from silo.

39. Stage 1 missile fragments located in base warehouse for sorting and classification.

40. Stage II missile fragments in warehouse. Note the "banana-peel" effect.

41. RV ablative shield nose tip and pieces of RV. NO evidence of impact with silo closure door.

42. Lower portion of Stage I Oxi Tank. This may have been the area of rupture.

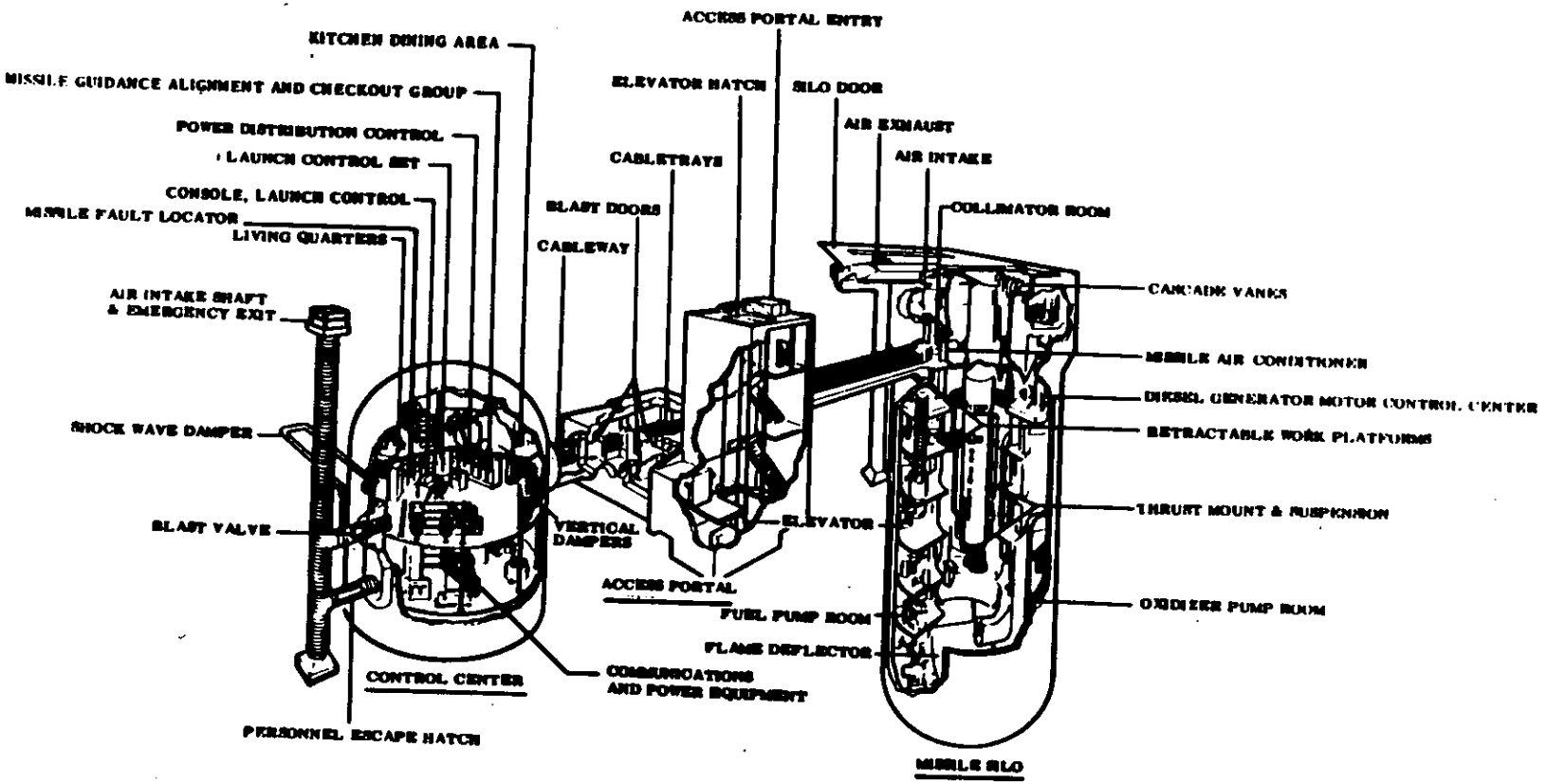
43. Missile internal batteries (APS & VHPS).

44. Parts of the Stage I missile engine components.

45. RFHCO helmet found topside. Worn by surviving PTS member.

46. RFHCO outfit worn by deceased member of PTS team.

47. This was the cause. If the socket retaining pin was properly placed into the engaging hole, this missile mishap might not have occured!

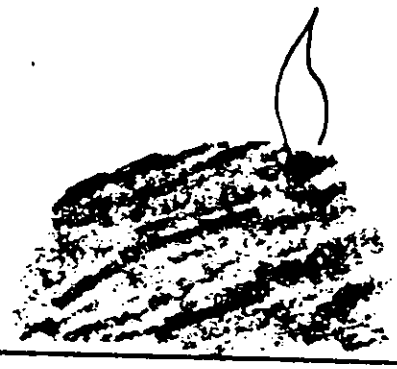


TITAN II LAUNCH COMPLEX

CAMERA GROUND LEVEL VIDEO TAPE SEQUENCE

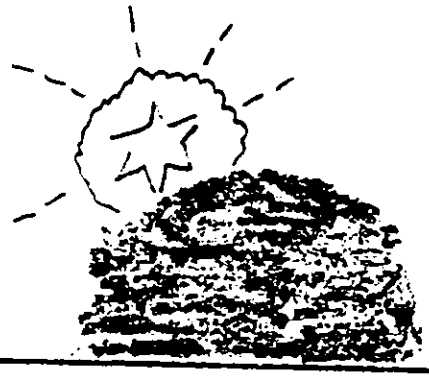
2000' EAST OF SILO
(OBSTRUCTION BY 30' TREE)

T+0 SEC
DIFFUSION FIRE

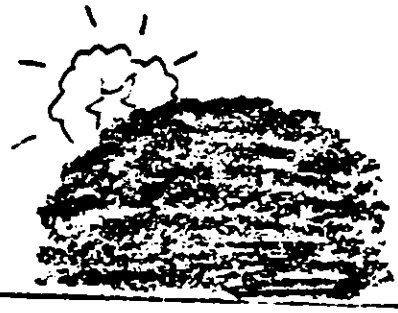


T+3 SEC
JETTING FIRE

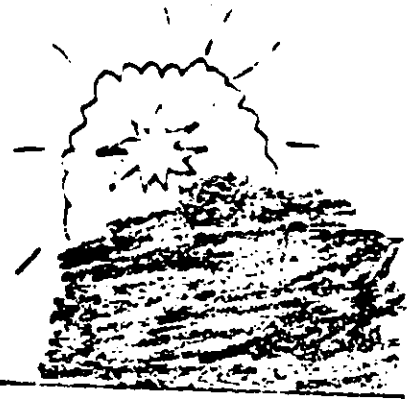
T+4 SEC
SMALL EXPLOSION



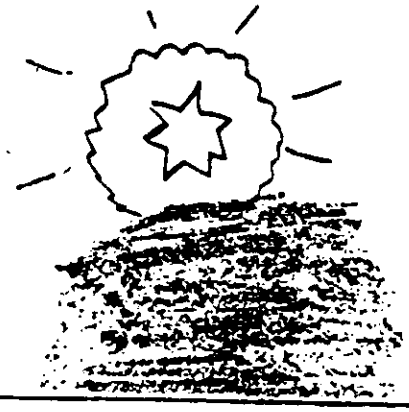
FADE OUT



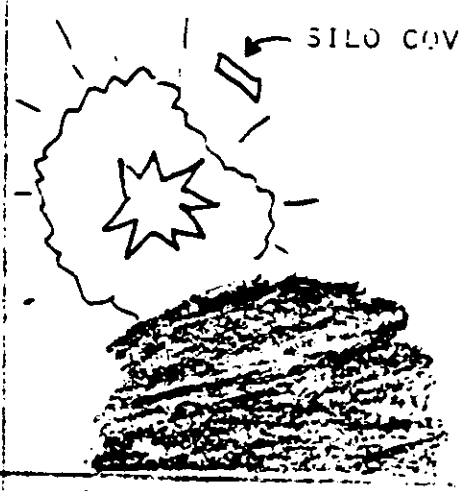
T+4.5 SEC
SECOND LARGE EXPLOSION



T+4.6 SEC FIREBALL



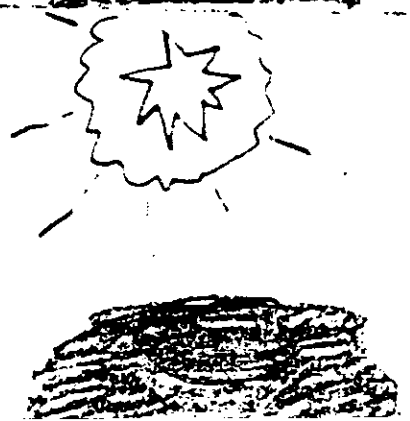
SILO COVER DOOR



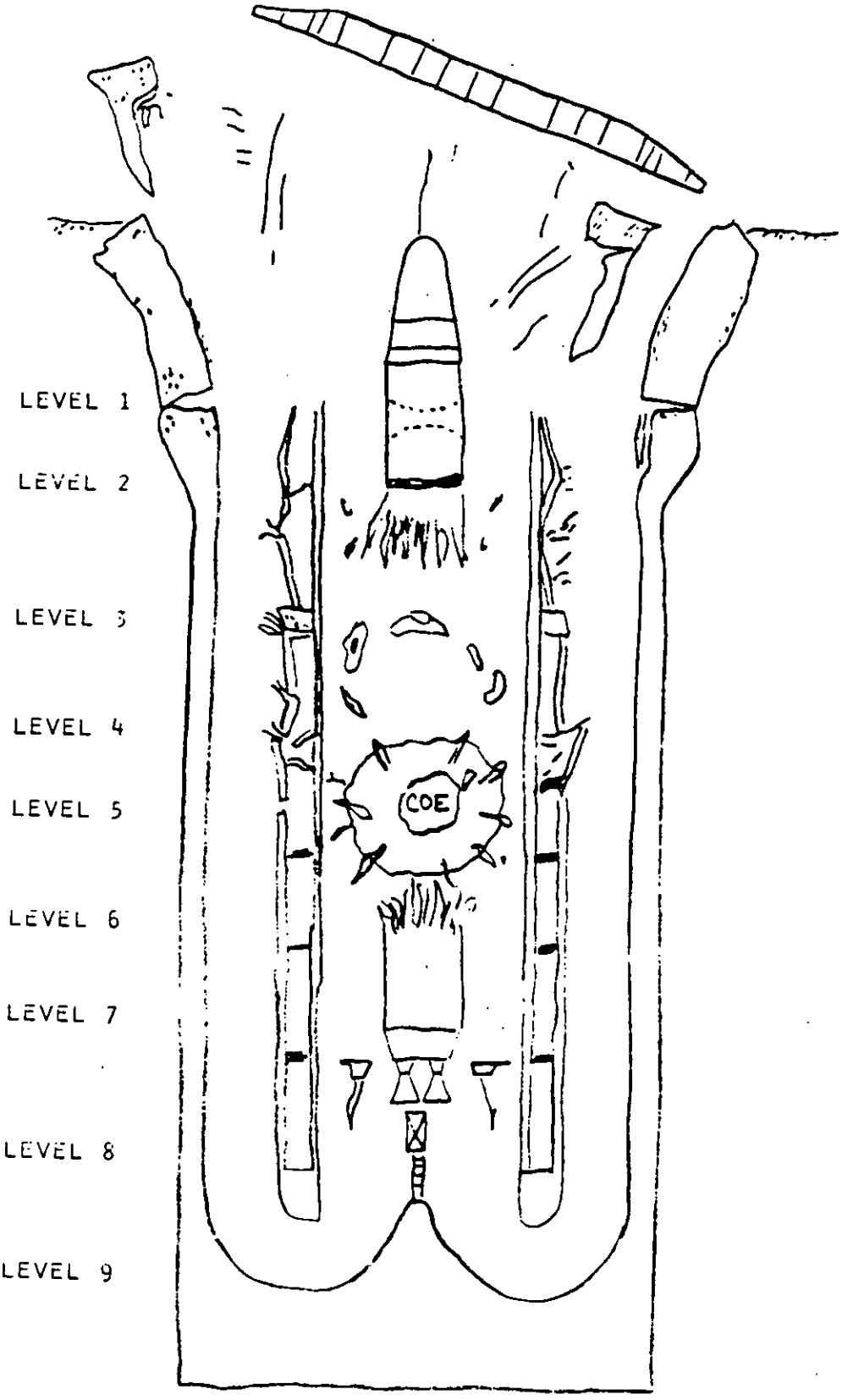
T+4.8 SEC

T+5.0 SEC

FLAME AND
THIRD
EXPLOSION
T+6.0 SEC



SILO DAMAGE AND CENTER OF EXPLOSION (COE)



RECOMMENDATION SINCE THE MISHAP

1. CHANGES TO TECH DATA

2. CHANGES TO PTS PROCEDURES

3. DEVELOPMENT OF NEW MCL'S

4. IMPROVEMENT OF EXISTING SAFETY EQUIPEMENT AND SYSTEMS

5. IMPROVEMENT OF SAFETY TRAINING PROGRAMS

6. IMPROVEMENT OF MPHT EFFECTIVENESS

7. IMPROVED INTRABASE COMMUNICATIONS