

HEADQUARTERS OGDEN AIR MATERIEL AREA UNITED STATES AIR FORCE Hill Air Force Base, Utah

23 June 1960

OOAMA AIRMUNITIONS LETTER

NO. 136-11-56A

SUBJECT: Advance Explosive Ordnance Disposal Technical Information

TO: SEE DISTRIBUTION

AUTHORITY: This AML is published under the authority of and in

compliance with AFR 136-6.

SUMMARY OF NUCLEAR WEAPONS INCIDENTS (AF FORM 1058) AND RELATED PROBLEMS

CALENDAR YEAR 1958

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AIRMUNITIONS LTR 136-11-56A Page 2 of 65

- 1. The purpose of this Airmunitions Letter is to present a periodic summary of incidents wherein nuclear weapons were involved, and to provide a resume of the methods and procedures used by the EOD per-
- 2. This summary includes the incidents reported during the calendar year (CY) 1958 and will refer to them as NWI-58-(Number of Incident).

NWI-58-1

1. Location.

On base.

2. Date.

February 1958

Type of Incident

Aircraft crash with Mk 7 Training Weapon.

4. Brief.

Aircraft wreckage was intermingled with weapon parts over an area of approximately 250 feet wide by 1/4 mile long. Impact of aircraft was relatively flat, therefore weapon did not penetrate, but tore apart with the aircraft. Largest part of weapon recovered was one piece of tail section. It was difficult to separate the weapon skin and components from aircraft structures. Several parts were partially covered by drifting sands. (See Figures 1 and 2.)

Unusual Problems.

None other than differentiating between aircraft and weapon parts.

Contamination.

None.

NWI-58-2

l. Location.

Off base (near Tybee Island, Georgia).

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AIRMUNITIONS LTR 136-11-56A Page 3 of 65

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24 AIRMUNITIONS LTR 136-11-56L Page 4 of 5 FIGURE 1.

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AIRMUNITIONS LTR 136-11-56A Page 5 of 65

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AIRMUNITIONS LTR 136-11-56A Page 6 of 65







AIRMUNITIONS LTR 136-11-56A Page 7 of 65

2. Date.

February 1958

3. Type Incident.

Jettison of Weapon by B-47 Aircraft off coast of Georgia.

4. Brief.

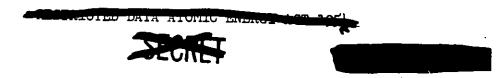
A B-47 Aircraft jettisoned a Weapon off the coast of Georgia and fixed an approximate position of impact for subsequent recovery. Being an underwater recovery the U.S. Navy had priority for the recovery operation with the USAF EOD acting as liaison at the scene. EOD personnel coordinated in the search efforts to include land search of the beach area adjacent to the computed impact area, underwater visual search and underwater hand-held sonar gear. Helicopter reconnaissance was also employed with negative results. The Navy employed a Submarine Rescue Ship, Mine Sweeper (with SONAR gear), a U.S. Coast Guard Cutter, two 15 foot boats with outboard motors, a second Mine Sweeper with sweeping gear, a High speed troop transport, a 1000 ton barge, a Catamaran, an ICVP and an ICP in the search efforts. Final report was submitted on this incident in April 1958 with negative results. All effort had been expended that was considered feasible with no actual positive contact made with the weapon or any of its components throughout the search. Item was assumed to have been completely buried under many feet of mud bottom or to have disintegrated upon impact. In either situation search was abandoned and case was closed. (There were no photos.)

5. Unusual Problems.

The weapon was not recovered. Pinpoint impact was not provided. Expert Photo-Radar Interpretation of the "scope pictures" immediately preceding, during, and following the actual drop was not accomplished. A recommendation was made that a dye-marker be incorporated into the after-body of nuclear weapons for the purpose of possible recovery in a situation of this type.

6. Contamination.

None registered.





AIRMUNITIONS LTR 136-11-56A Page 8 of 65

NWI-58-3

1. Location.

Florence, South Carolina

2. Date.

March 1958

3. Type of Incident.

Inadvertent release of a flying at approximately 35,000 to 40,000 feet. High-order detonation Weapon by a B-47 Aircraft 4. Brief.

Weapon detonation was at a point approximately 75 yards from a civilians home. Detonation of the H.E. caused a crater of approximately 55 feet in diameter and 18 feet in depth. Six civilians were injured, one of them was hospitalized. A PAC-26 and a AN/PDR 27 instruments were employed with negative results. Soil samples were obtained at various distances from point of detonation for further study. An estimate of 25 pounds of weapon remains were recovered as a result of an intensive search of the search area with a 3,000 foot radius from the crater. The pattern of fragment dispersal was eliptical in shape and downwind from point of detonation. Civilian property damage included demolished house, garage and workshop, and extensive damage to one automobile. (See Figures 3 and 4.) 5. Unusual Problems.

Lack of reading on radioactivity was unexplained. Wooded area and semi-swamp terrain made search for debris difficult. 6. Contamination.

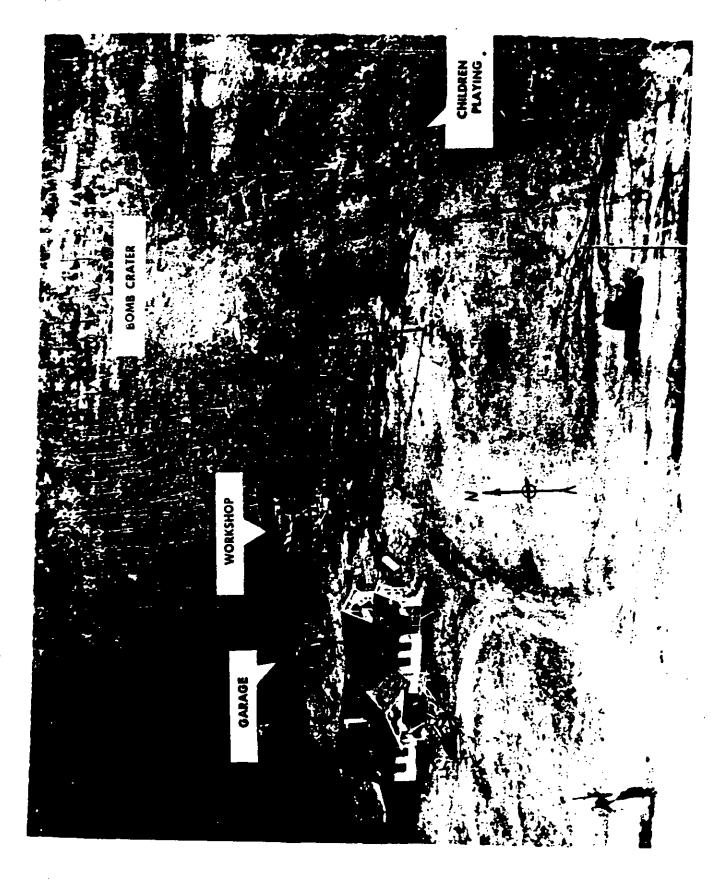
None.

NWI-58-4

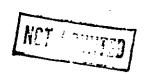
1. Location.

Physical location of higher classification.





AIRMUNITIONS LTR 136-11-56A Page 10 of 65





AIRMUNITIONS LTR 136-11-56A Page 12 of 65



AIRMUNITIONS LTR 136-11-56A Page 13 of 65

2. Date.

January 1958

3. Type of Incident.

Taxi accident involving a B-47 aircraft with a weapon on board.



4. Brief.

A B-47 type aircraft was taxiing on the runway with a weapon loaded in the bomb-bay. The AIFI had installed. As the aircraft taxied down the runway, the rear tandem tire blew out. Resultant action literally broke the aircraft in two and fire resulted. The fire spread to the weapon and the aircraft and weapon burned for approximately two and one half hours. Monitoring equipment was employed during the burning period from approximately two miles downwind and gradually moved up toward the site. An Alpha Detector (356) was used with no appreciable readings obtained. The monitoring was continued as far as was considered feasible without approaching too close to the burning aircraft. The base was evacuted through possibility of a nuclear yield. When fire had subsided and residue had cooled further monitoring was conducted using the 356 Alpha Detector and the residue was searched for the capsule with negative results. Arrival of EOD support unit disclosed the remains of the weapon to have been isolated and the aircraft remains had been buried next to the runway in place. The runway had been repaired.

The fire had created a slab of slag material weighing approximately eight thousand pounds, approximately six to eight feet wide and twelve to fifteen feet in length with a thickness of ten to twelve inches. Weapon components along with miscellaneous aircraft components were intermingled within the slab. The particularly "hot" pieces were broken out and segregated and packaged into sealed cans.

The repaired sections of the runway was monitored, as was the purial site of the aircraft residue. Dust generated from the areas adjacent to the runway was monitored by use of the Staplex Sampler. Results indicated readings from 45 disintegrations at 50 foot to 25 disintegrations per cubic meter at 350 feet. After recovery of as much of the weapon remains as feasible, all contaminated residue was buried. (See Figures 5 to 12.)

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AIRMUNITIONS LTR 136-11-56A Page 14 of 65



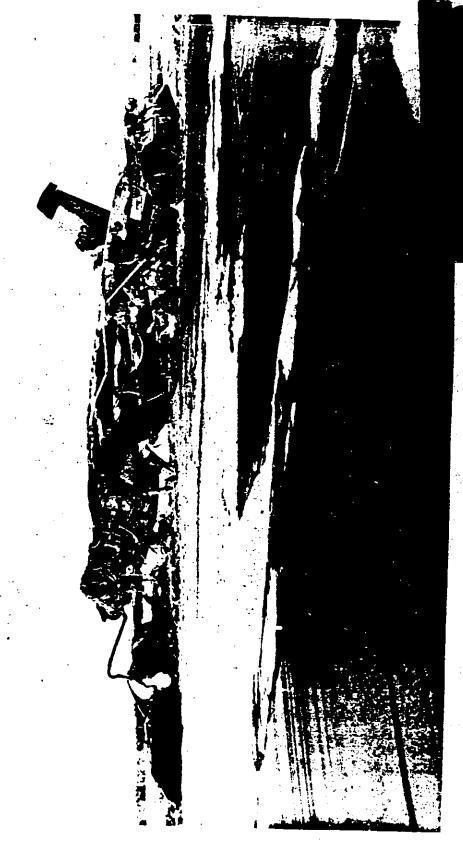


AIRMUNITIONS LTR 136-11-56A Page 15 of 65



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AIRMUNITIONS LTR 136-11-56A Page 16 of 65





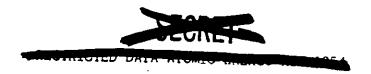
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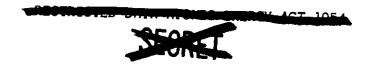
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Figure A. Colored A. C



AIRMUNITIONS LTR 136-11-56A Page 13 of 65





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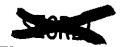
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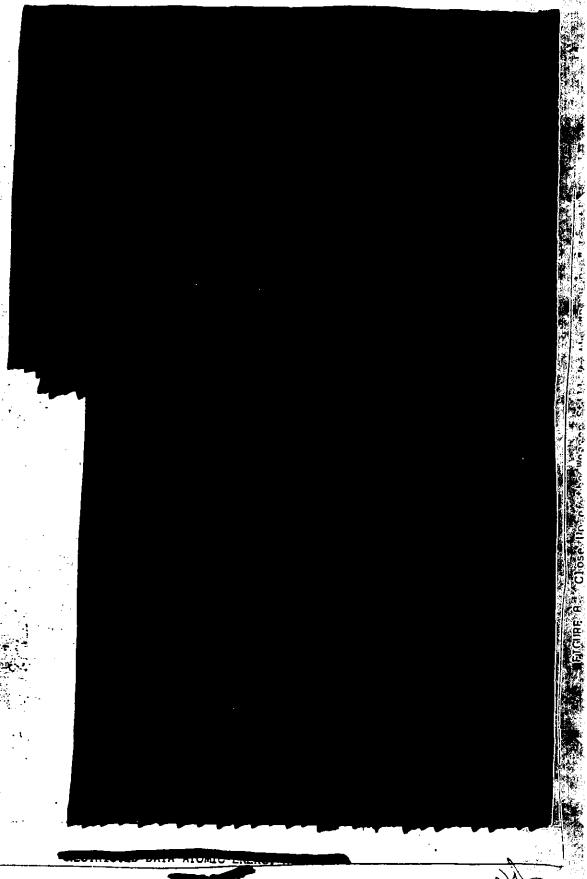


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AIRMUNITIONS LTR 136-11-56A Page 22 of 65



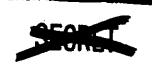
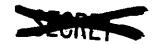






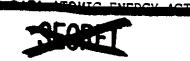


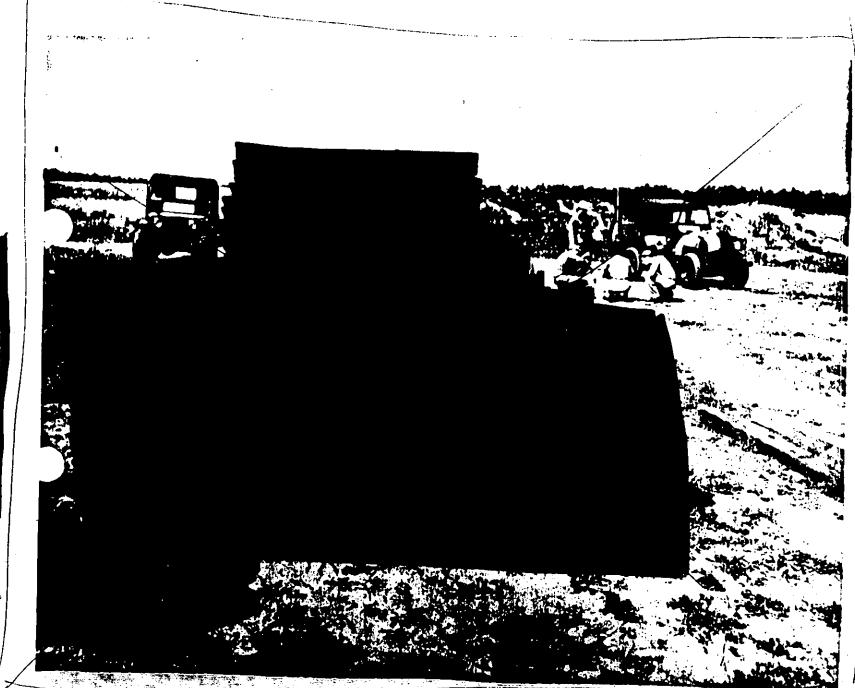
FIGURE 9. Remains of the Weapon on "Blocks" in Background with Slab of Contaminated "Slag" Seen in the Foreground on "Blocks"



AIRMUNITIONS LTR 136-11-56A Page 24 of 65







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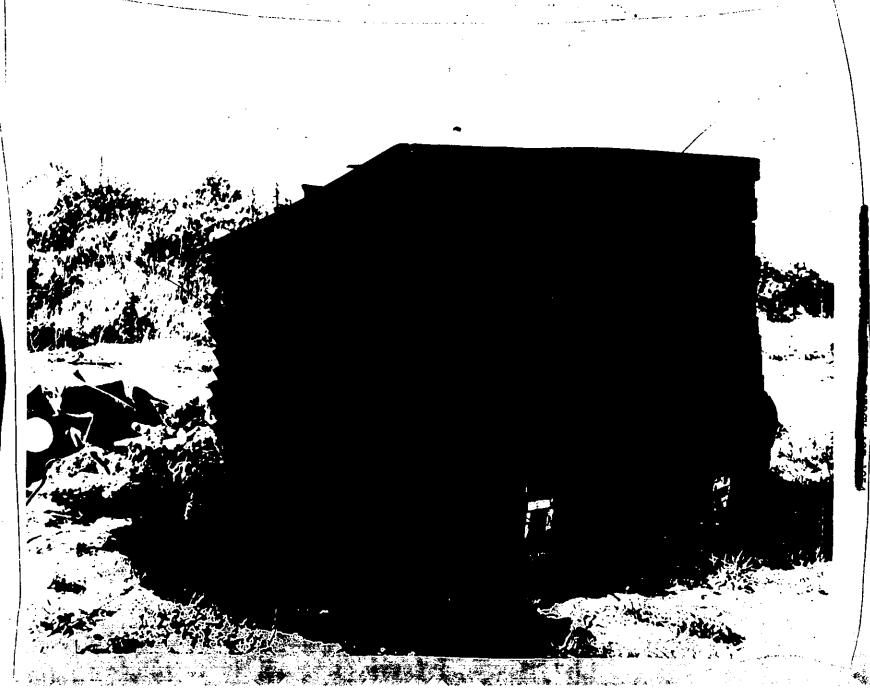
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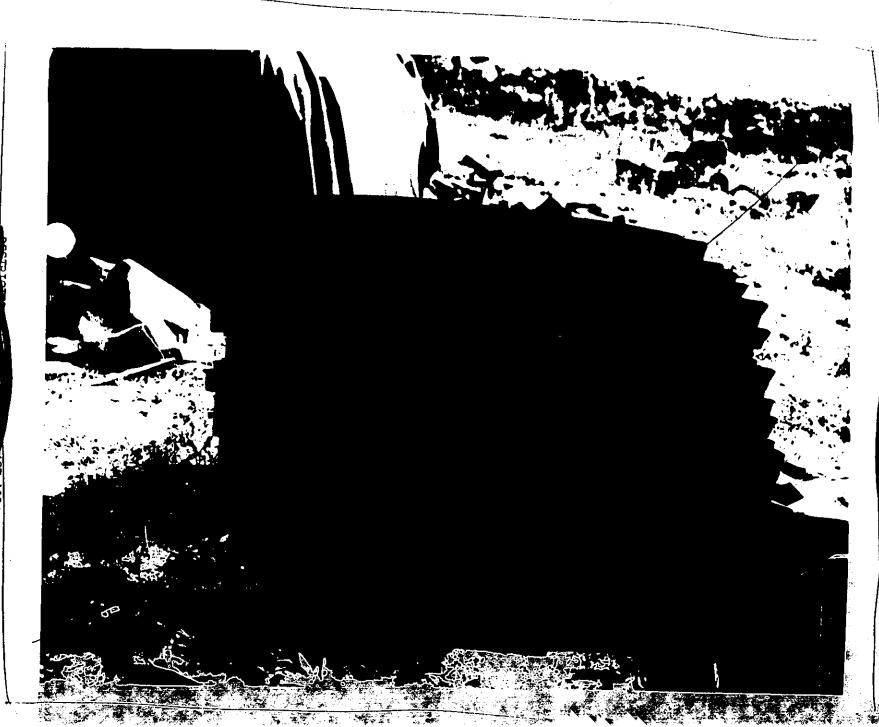




AIRMUNITIONS LTR 136-11-56A Page 28 of 65

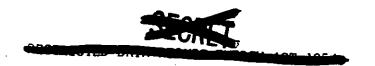






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AIRMUNITIONS LTR 136-11-56A Page 30 of 65







AIRMUNITIONS LTR 136-11-56A Page 31 of 65

5. Unusual Problems.

Effective instrumentation was not readily available to provide a realistic evaluation of contamination. Items were difficult to recover, a "jack-hammer" had to be used to break up the slag into small enough pieces to handle.

6. Contamination.

High Alpha.

NWI-58-5

1. Location.

Off base, Homestead Air Force Base, Florida.

2. Date.

October 1957

Type of Incident.

Take-off accident involving B-47 type aircraft with a weapon on board.

4. Brief.

A B-47 type aircraft crashed on take-off approximately one-half mile off base. The aircraft had a weapon on board and a capsule contained within a "bird-cage" separated from the weapon. The bird-cage was retrieved prior to fire engulfing the aircraft with the weapon in the wreckage. Two explosions were heard and defined as possible low-order explosions. The aircraft was almost totally destroyed by fire.

was accomplished without major problems. (See Figures 13 and 14.)

5. Unusual Problems.

None.

6. Contamination.

Apparently none. (Report did not indicate hazard.)

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AIRMUNITIONS LTR 136-11-56A Page 32 of 65











AIRMUNITIONS LTR 136-11-56A Page 34 of 65





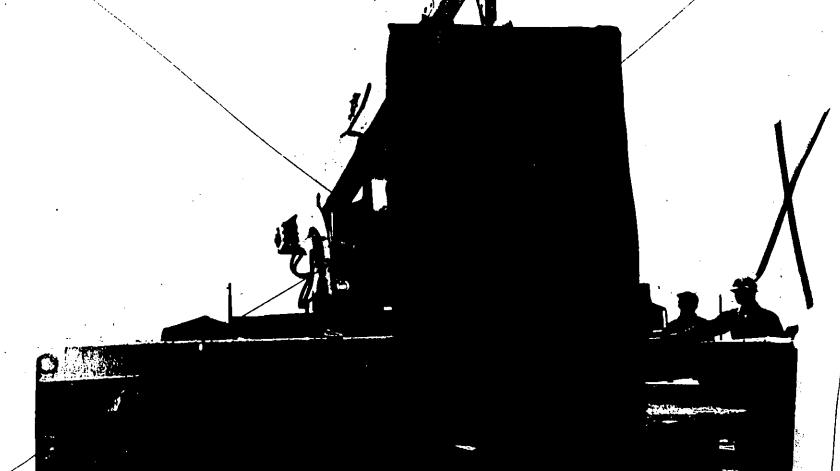


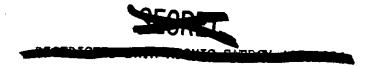
FIGURE 10



AIRMUNITIONS LTR 136-11-56A Page 36 of 65







AIRMUNITIONS LTR 136-11-56A Page 37 of 65

NWI-58-6

1. Location.

Off-base Dyess Air Force Base, Texas

2. Date.

November 1958

3, Type of Incident

Take-off accident involving a B-47 type aircraft with a weapon on board.

4. Brief.

A B-47 aircraft crashed shortly after take-off. Impact resulted in fire The crater yielded many small fragments or bomb case, nowever, no residue of explosive was uncovered. It was assumed that all H.E. was consumed either in the one-point detonation or during the resultant fire.

debris Monitoring of the scene disclosed light Alpha contamination in spots. These spots were below tolerance. Gamma contamination was not found. Monitoring was accomplished with AN/PDR 27C and PAC 2G instruments. (See Figures 15 through 17.)

5. Unusual Problems.

Difficulty was experienced in obtaining airlift for EOD support.

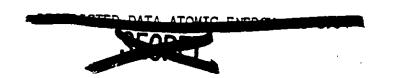
6. Contamination.

No Gamma contamination was evident. Slight Alpha was encountered.

NWI-58-7

1. Location.

Off Base, near Hamilton Air Force Base, California.

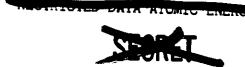


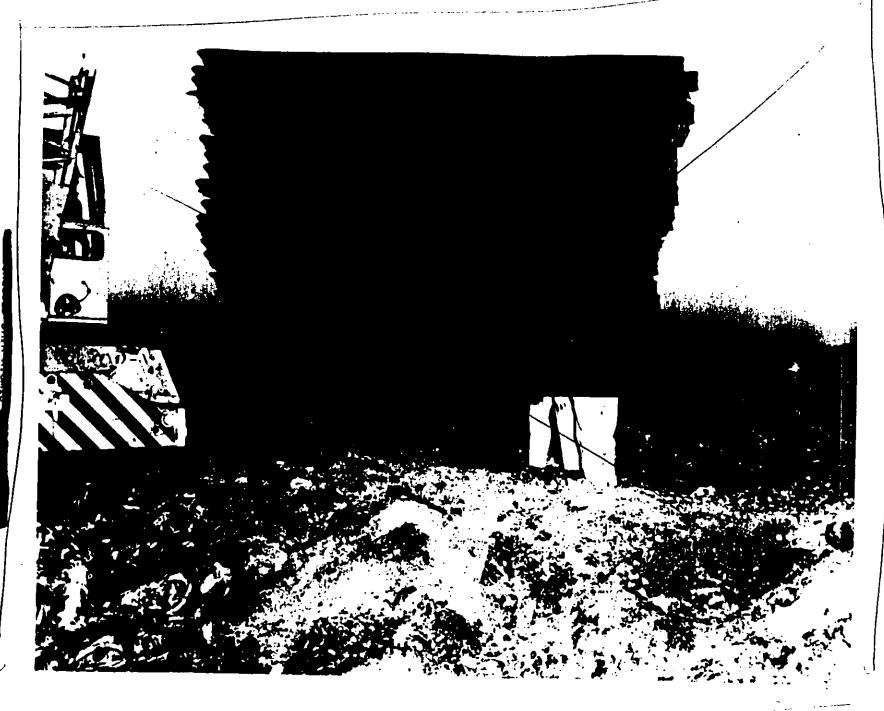
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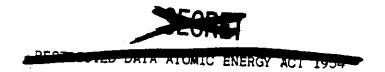
AIRMUNITIONS LTR 136-11-56A Page 38 of 65



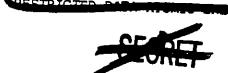




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AIRMUNITIONS LTR 136-11-56A Page 40 of 65

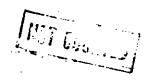




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AIRMUNITIONS LTR 136-11-56A Page 42 of 65

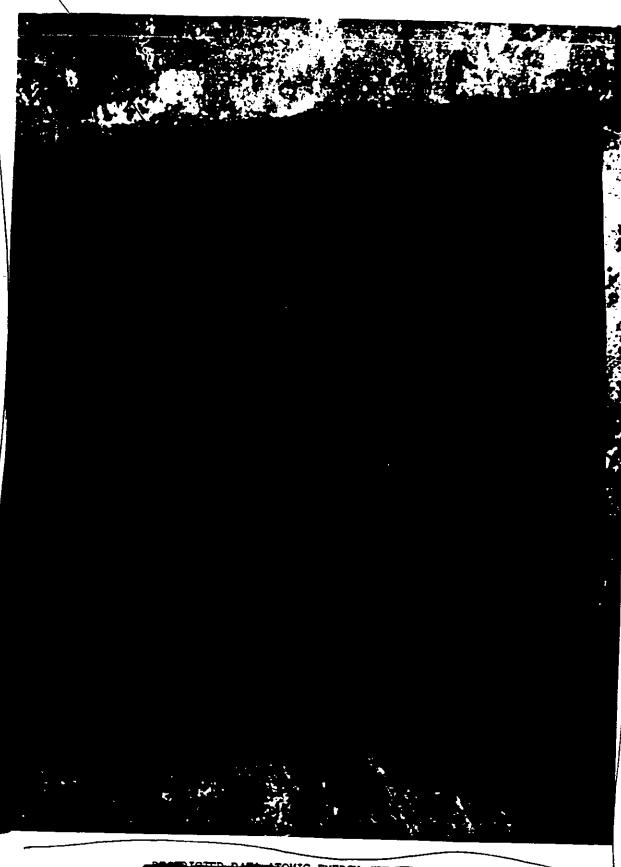




AIRMUNITIONS LIR 136-11-56A Page 43 of 65

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AIRMUNITIONS LTR 136-11-56A Page 44 of 65



AIRMUNITIONS LTR 136-11-56A Page 45 of 65

2. Date.

June 1958

3. Type of Incident

Jettison of two (2) MB-1 Rockets (Dummy) in bay adjacent to the Air Base.

4. Brief.

Preliminary reconnaissance was accomplished by EOD personnel and the crew of the aircraft that was flying "chase position" to the releasing aircraft. An attempt was made to pin-point the impact location with marker buoys. The second rocket released was marked and later located by probe. Exact impact of first rocket could not be established and an extensive search found nothing. The second rocket was recovered with the aid of a barge on which was mounted a "clam-shell." (See Figures 18 through 20.)

5. Unusual Problems.

Recovery was made in the bay area making absolute pin-point of weapons difficult. Special equipment was required: swamp gliders, barge with mechanical shovel, EOD No. 2 probes and hoist with 4000 pounds capacity.

6. Contamination.

None.

NWI-58-8

1. Location.

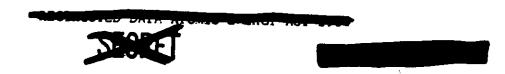
Physical location of higher classification.

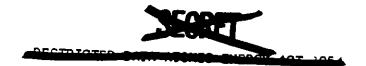
2. Date.

December 1958

3. Type of Incident.

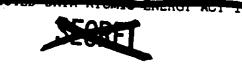
Missile (MB-IT) separation from pylon upon landing.



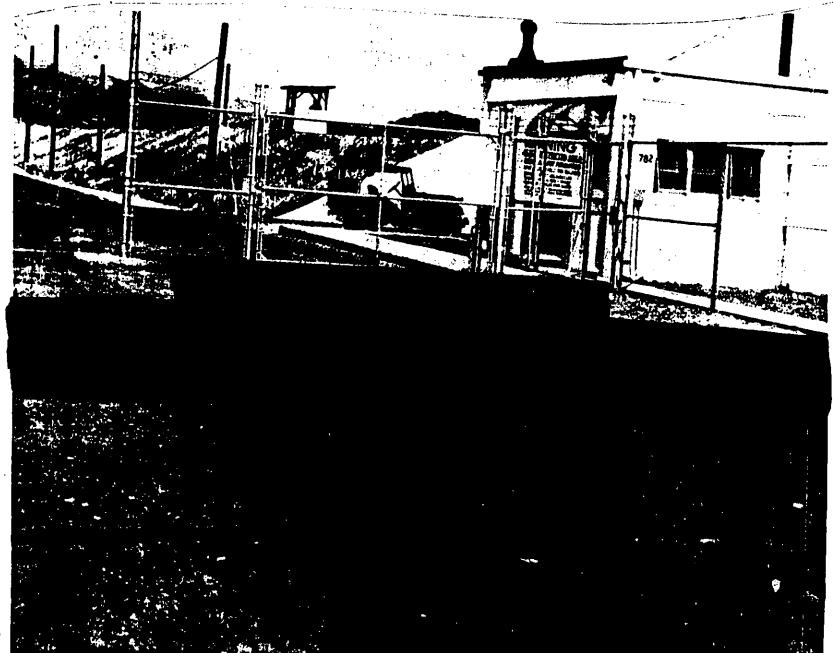


AIRMUNITIONS LTR 136-11-56A Page 46 of 65



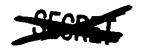










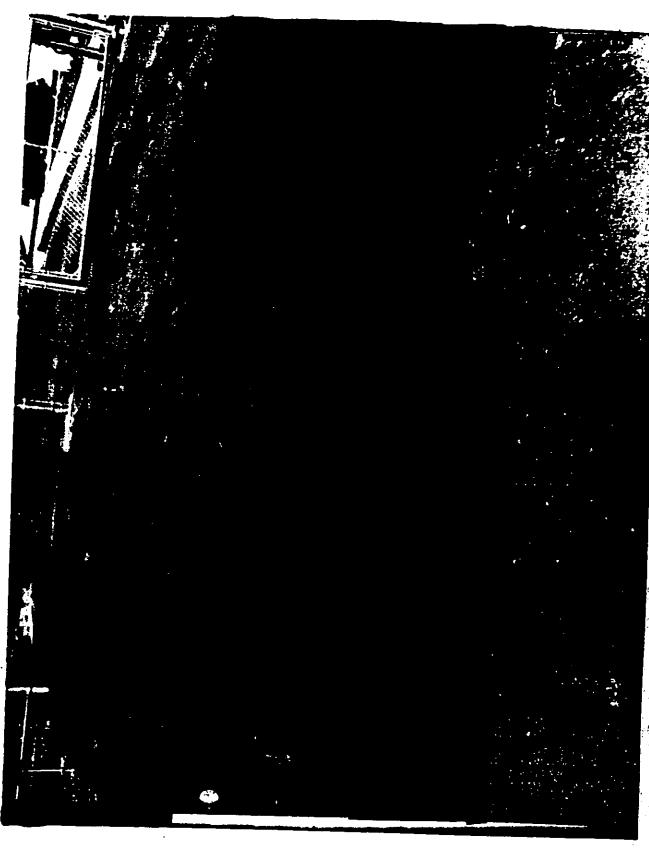


AIPMUNITIONS LTR 136-11-56A Page 48 of 65



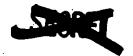






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AIRMUNITIONS LTR 136-11-56A Page 50 of 65





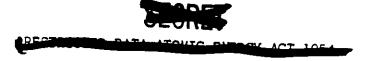
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AIRMUNITIONS LTR 136-11-56A Page 52 of 65







AIRMUNITIONS LTR 136-11-56A Page 53 of 65

4. Brief.

Aircraft had been on range operations and returned with one rocket which had failed to fire. Impact of landing (normal touch-down) caused rocket to separate from the pylon as braking action was applied to aircraft. Missile skidded 135 feet down runway. Safeing pin was inserted in igniter and primacord detonators were removed. (No photographs were provided.)

5. Unusual Problems.

This weapon was unwieldy and awkward to pick up during recovery from ground level.

6. Contamination.

None.

NWI-58-9

1. Location.

Chennault Air Force Base, Louisiana.

2. Date ..

November 1958.

Type of Incident.

Jato ignition of parked aircraft with on board caused aircraft fire.

weapon

4. Brief.

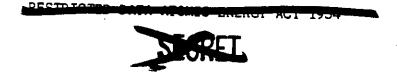
A B-47 type aircraft, with a weapon on board, was being given a pre-flight inspection. Undetermined ignition of one or more of the JATO units resulted in the aircraft being propelled off the runway. The aircraft collided with a towing vehicle and a fire resulted. The aircraft and weapon were consumed in the fire. PAC-2G and AN/PDR-27 instruments were employed to check for contamination. Negative reading were obtained with the exception of negligible readings taken from the weapon "slag" residue, and on the

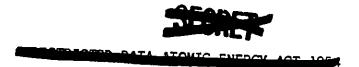




AIRMUNITIONS LTR 136-11-56A Page 54 of 65







AIRMUNITIONS LTR 136-11-56A Page 56 of 65



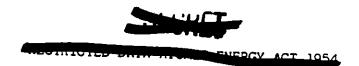


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AIRMUNITIONS LTR 136-11-56A Page 58 of 65





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AIRMUNITIONS LTR 136-11-56A Page 60 of 65

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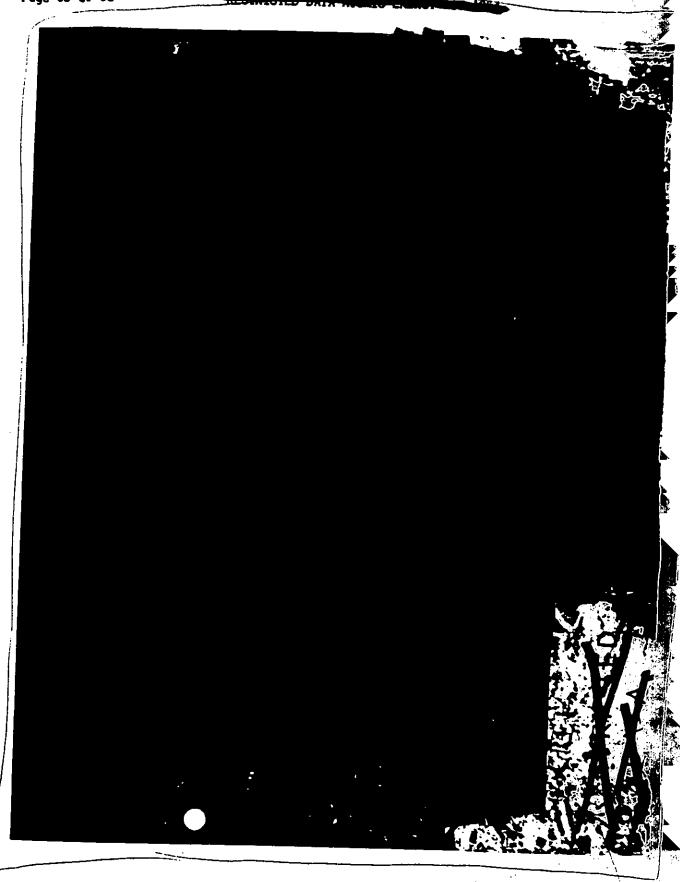


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AIRMUNITIONS LTR 136-11-56A Page 63 of 65

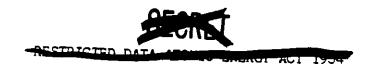




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AIRMUNITIONS LTR 136-11-56A Page 62 of 65

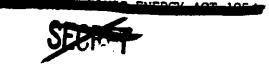






AIRMUNITIONS LTR 136-11-56A Page 64 of 65





AIRMUNITIONS LTR 136-11-56A Page 65 of 65

The Tritium bottle was recovered and Total recovered items included: Tritium bottle, Polar cap piece of case, parts of fins, three slabs of "slag" residue. (See Figures 21 through 25.)

Unusual Problems.

None.

Contamination.

None of any significance.

FOR THE COMMANDER

Colonel, USAF

Commander

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2705th Airmunitions Wing

DISTRIBUTION .

1 cy per organization authorized Explosive Ordnance Disposal Personnel possessing AFSC's 3254B, 461XO (EOD Qualified) 46171 or 46131

