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capturing jaw permitting the missile to fall back into the container.

4. Cause of the incident was maladjustment of the hydraulic locking mechanism linkage.

5. A functional test of the loader crane immediately prior to a loading operation has been recommended.

Incident #35: (S) DASA Code 511E12

Date - 26 January 1962

1. Due to slight misalignment in elevation between the ASROC Loader Crane Rail and the guide rail of one cell of an ASROC Launcher, the aft end of the rocket motor of the Mx 17 Mod 1 Rocket Thrown Depth Charge became misaligned downward approximately one-inch causing the edge of the thrust neutralizer to snap out of rammer detent. This permitted the angled face of the rammer to override the edge of the thrust neutralizer before the rammer could be stopped.

2. This resulted in an apparent separation of the after end of the airframe clamshells of approximately 1/4-inch.

3. Cause of this incident is attributed to misalignment of the loader crane rails and the #8 cell launcher guide rails during installation.

Incident #36: (S) DASA Code 513C71

Date - 24 May 1961; 19 June 1961; 8 August 1961

1. On the above dates, separate lightning discharges in the immediate vicinity of Atlas missile installations resulted in damage to various items of non-warhead equipment but resulted in no damage to the [redacted] Warheads involved.

2. The Launch Operations building and one missile box were subjected to direct lightning hits and some items of direct support equipment were damaged.

Incident #37: (S) DASA Code 511C71

Date - 20 July 1961

1. A C-124 Aircraft with [redacted] War Reserve Warheads in shipping configuration aboard, was struck by lightning.

2. Personnel in the cargo compartment were unaffected by the lightning discharge; however, an airman guard stationed near the aircraft ground cable was knocked to the ground.

3. Visual inspection of the warheads indicated no damage.

4. A prestorage inspection was performed on all of the warheads and no unusual conditions were noted.

5. The warheads were returned to operational status.

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Incident #38: (~~S~~) DASA Code 515B12

Date - 30 January 1962

1. A pin socket of a Mk 54 Mod 0 War Reserve Warhead electrical receptical was pulled out when the warhead was electrically disassembled from a GAR 11 Missile.
2. The cause of this incident is attributed to design deficiency, i.e., the connector was not designed to withstand the frequent mating and demating operations required in the GAR 11 application.
3. A review of this incident to determine the cause and the remedial action necessary to eliminate this condition has been requested by the using agency.

Incident #39: (~~S~~) DASA Code 501CK1

Date - 1 December 1961

1. Personnel at a Jupiter Missile site observed a lightning discharge which appeared to strike a missile directly or in the immediate vicinity of the missile. The discharge was followed minutes later by a second discharge which appeared to strike between the missile previously involved and a missile on an adjacent launch pad.
2. Inspection revealed that adaption kit channels one and two were open on both missiles and that the batteries of both adaption kits were defective.
3. Monitoring of the Mk 49 Y2 Mod 3 War Reserve Warheads indicated no tritium leakage.
4. The warheads were subjected to a post-mortem examination which disclosed that the isolation diodes in the warhead parallel firelines were burned out.

STATISTICAL SUMMARY OF ACCIDENTS AND INCIDENTS  
BY FUNCTIONAL ACTIVITY

1 December 1961 through 28 February 1962

HANDLING	STORAGE		TRANSPORTATION		OPERATION		
Material Handling Equipment (Mobile)	10	NSS	0	Logistical Air	1	Test	7
				Other Air	6		
Hoist, Cranes, Elevators (Fixed)	1	OSS	1	Rail	1	Maintenance & Inspection	5
Manual	3	SSF	0	Truck	2	Storage Inspection	2
<b>TOTAL</b>	<b>14</b>		<b>1</b>		<b>10</b>		<b>14</b>

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Accidents and Incidents During the Period 1 March 1962 through 31 May 1962

Incident #1: (~~SECRET~~) DASA Code 50LA32

Date - 6 March 1962

1. A Mk 7 Mod 5E War Reserve Weapon, mounted on an H-65 Trailer, was being maneuvered manually into a storage igloo. The weapon contacted the wall of the igloo and sustained a 2-inch split in the radome assembly.

2. Cause of this incident is attributed to personnel error.

Incident #2: (~~SECRET~~) DASA Code 505A32

Date - 6 March 1962

1. During downloading of a Mk 7 Mod 7 War Reserve Bomb from a Canberra Aircraft it was observed that insufficient clearance was available between the bomb bay doors to accurately align the bomb on the H-65 Trailer. A crew member proceeded to hand pump the bomb bay doors to what he thought was the OPEN position. However, the bomb bay door selector switch was in the CLOSE position and the doors began to close instead of open. Before the closing of the doors could be stopped, enough force was exerted by the doors to shear six rivets on the left spin tab.

2. Cause of the incident was attributed to personnel error.

Incident #3: (~~SECRET~~) DASA Code 51532

Date - Unknown

1. Upon receipt of shipment of four Mk 7 Mod 7 War Reserve Bombs, inspection revealed the following defects and irregularities.

a. Bomb serial number 867959:

- (1) CF-1665 Cable was crushed.
- (2) A screwdriver was found loose in the MC-263.
- (3) The inner insulation ring on the MC-132 was broken in four places.

b. Bomb serial number 877557:

- (1) One detonator cable was not firmly secured to the detonator.
- (2) Insulation was broken on the load coil.

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c. Bomb serial number 838578:

(1) An Allen Wrench was found lying loose in the MC-263.

d. Bomb serial number 771859:

(1) Cables CF-1201 and CF-1665 were crushed.

2. Cause of the damage is attributed to personnel error.

Incident #4: (~~SECRET~~) DASA Code 509D32

Date - 20 March 1962

1. After a Mk 7 Mod 7 War Reserve Bomb was downloaded from an alert aircraft, it was returned to the maintenance and inspection building for inspection and a final assembly test.

2. During removal of the tail for Piggyback storage, connector P-20 of the fin control cable became lodged in the tail quick disconnect mechanism. When the quick disconnect lever was moved, the locking ring chipped the connector.

3. Cause of the incident was operator procedural error. Paragraph 9-2.1.4.1.1.2 of E7-1 requires that the tail be moved about 10-inches away from the bomb prior to disconnecting P-20 of the fin control cable from the J-20 receptacle.

Incident #5: (~~SECRET~~) DASA Code 513K42

Date - 24 April 1962

1. During retrofit of a Mk 15 Mod 0 Bomb, it was observed that the shear pins, AEC part number 153635-00, were not installed in the right or left pullout valve assembly, AEC part number 5136387-02 and 136390-02.

2. It has been determined that the pins were not inserted during Alt 206.

3. Cause of the incident is attributed to human error, i. e., failure to follow Technical Order LLN-B-15-514 which requires installation of the shear pins.

Incident #6: (~~SECRET~~) DASA Code 505D42

Date - 11 April 1962

1. During reservoir and valve change on a Mk 15 Mod 2 War Reserve Weapon, it was observed that the battery pack cover plate was bent. The upper right corner of the cover plate had been pulled back approximately 1/2-inch breaking the sealant and opening the cover very slightly.

2. Cause of this incident is attributed to misalignment of the afterbody during the previous assembly operation.

Incident #7: (~~SECRET~~) DASA code 516D32

Date - 29 March 1962

1. Two Mk 28 Y3 Bombs mated to an MHU-14/C Clip-in Subassembly were loaded aboard a B-47 Aircraft. After loading, it was found that the Arm/Safe Plug of the MC-714B Interconnecting box on the weapons would not lock in the ARMED position nor could it be turned

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to the SAFE position.

2. The rack containing the weapons was removed from the aircraft and a T-304B Continuity Test indicated lack of continuity in one weapon. The other weapon tested satisfactorily.

3. The fuze was removed from the defective weapon pending disposition instructions.

4. The cause was due to a defective Arm/Safe Plug.

Incident #8: (~~SECRET~~) DASA Code not assigned

Date - 27 April 1962

1. A C-124 Aircraft with Mk 28 and Matador Warheads aboard was struck by lightning. The aircraft was flying at an altitude of 900-feet above the ocean and with radar assist was maneuvering to avoid clouds. The aircraft was in the clear between two cloud areas when struck. The lightning struck the nose section above the radome causing a loud report. The accompanying ball of fire remained outside the aircraft and disappeared off the left wing.

2. Inspection after landing revealed no damage to the aircraft or its cargo.

Incident #9: (~~SECRET~~) DASA Code 502042

Date - 3 April 1962

1. After a strip alert a GAM-77, Hounddog Missile, was returned to the maintenance facility.

2. Technicians who were standing near the Mk 28 Mod 1 War Reserve Warhead heard intermittent noises, apparently coming from the warhead, which was not being worked upon at the time.

3. Close observation indicated that the source of the noise was the interior of the warhead at a location near the tritium reservoir. The noise was intermittent over a period of approximately 30 seconds and then subsided.

4. T-304, T-290, and ANPDR 27 Tests revealed no unusual conditions.

5. The pressurized section of the warhead case was sampled, using a T-269 instrument, with negative results.

6. Since some question of reliability may be involved, the warhead will undergo a post mortem type examination.

Incident #10: (~~SECRET~~) DASA Code 518032

Date - Unknown

1. Upon return of a Mk 28 Y2 Mod 1 War Reserve Weapon from alert status, inspection revealed that the parachute case had sustained a three sided fracture measuring approximately 1/2-inch on each of the three edges at the six o'clock position about half way from the tip of the cone.

2. Precise cause of the damage has not been determined. Personnel error in handling is suspected.

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Incident #11: (~~SECRET~~) DASA Code 501A32

Date - 4 March 1962

1. This incident involved a Mk 28 Mod 1 War Reserve Bomb aboard an F100-D Aircraft. An MA2 Power Unit was being used as a source of DC power. After the aircraft engine was started, the crew chief disconnected the DC Power Cable and the air start hose.
2. When the air start hose was released, the hose connector struck the MC-928, rear bomb subassembly, causing a dent 1/8-inch deep in the weapon skin.
3. Cause of the incident was personnel error, i. e., release of the pressurized air start hose.

Incident #12: (~~SECRET~~) DASA Code 502D42

Date - 1 April 1962

1. The S-1 Switch and pulse plug were extracted from a Mk 28 Y3 Mod 1 Internal War Reserve Bomb during downloading from an F-105 Aircraft. The wiring harness of the MN-1 Dispenser caught on the bracket assembly of the pullout plug control and extracted the pullout plug and S-1 Switch after the weapon had been lowered approximately 8-inches.
2. The incident is attributed to improper stowage of the MN-1 Wiring Harness.

Incident #13: (~~SECRET~~) DASA Code 508A32

Date - 13 March 1962

1. A loading crew failed to disconnect the pullout retainer from the S-1 Switch prior to lowering a Mk 28 Y3 Mod 1 External Bomb from an F100-D Aircraft. The S-1 Switch was actuated.
2. Cause of the incident was personnel error.

Incident #14: (~~SECRET~~) DASA Code 511B42

Date - 20 April 1962

1. During preflight of a B-52G Aircraft with a GAM-77, Hounddog aboard, the power off check was being made in the navigators compartment. The Number 1 Armament Warning Light indicated ON during the press to test operation.
2. A check of the 28V Battery assembly indicated that the battery had been activated.
3. Post incident investigation revealed that all cockpit switches and release handles were in normal position and no stray voltages were observed in the missile.

Incident #15: (~~SECRET~~) DASA Code 512F52

Date - 9 May 1962

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(b)(3)
1. [REDACTED] Warheads in H-534 Warhead Containers were being transferred on a flatbed trailer from one storage igloo to another. The warheads were tied down on the trailer in pairs.
  2. When the tie down chain securing one pair of warheads was released, one warhead rolled off the flatbed and fell a distance of approximately four feet to the ground.

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3. Damage was confined to the top cover of the H-534 Container.

4. Cause of the incident was failure to comply with instructions contained in TP 45-51 for tie down of the H-534 Container. The container should have been placed upon blocks of sufficient height to keep the casters of the container from touching the trailer bed.

Incident #16: (~~SECRET~~) DASA Code 512B32

Date - 25 March 1962

1. The right front swivel caster of an H-423 Bolster carrying a Mk 36 Mod 2 War Reserve Bomb was damaged during removal of the weapon from a storage structure.

2. The unit was being towed by a 4000-pound electric tug when it encountered a 1½-inch difference in elevation between the door threshold and the structure pad. The impact caused shearing of the bolt which secures the wheel to the plate of the caster assembly.

3. No further damage was sustained by the bolster or the bomb.

4. This incident was caused by impact of the bolster wheel with the concrete pad.

Incident #17: (~~SECRET~~) DASA Code 510K32

Date - 22 March 1962

1. During performance of Alt 208 on a Mk 39 Y1 Mod 2 War Reserve Bomb, the maintenance crew discovered that lead foil tape was covering the MC-832 Differential Pressure Switch.

2. Cause of the incident was personnel error, i. e., failure of the maintenance crew to remove the tape in a previous reassembly of the weapon.

Incident #18: (~~SECRET~~) DASA Code 506D42

Date - 12 April 1962

1. The rear afterbody, MC-1110, of a Mk 39 Mod 2 War Reserve Bomb was removed from the warhead using a manually operated hoist and the H-692 Adapter. After removal of the MC-1110, inspection revealed that the upper right corner of the MC-641 Thermal Battery Pack was bent and the seal broken.

2. Cause of the damage is attributed to personnel error in allowing contact between the flange on the inner surface of the MC-1110 and the MC-641 during removal of the afterbody.

3. An H-12 Dolly with sheet rubber padding on the tracks will be used in the future by the reporting activity to stabilize the MC-1110 during the removal operation.

Incident #19: (~~SECRET~~) DASA Code 507A32

Date - 9 March 1962

1. After downloading from a B-47E Aircraft, fin damage was discovered on a Mk 39 Y1 Mod 2 War Reserve Bomb. The lower left fin had sustained a dent approximately 1½-inches in length in the center of the top plate of the fin approximately 1-inch from the trailing edge and the edges of the fin adjacent to the dent area had been spread.

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2. The dent was apparently caused by forcing the fin protector forward. The precise cause of the damage has not been determined.

Incident #20: ~~(S)~~ DASA Code 504K52

Date - 10 May 1962

1. A Mk 39 Mod 2 War Reserve Bomb was being downloaded onto a bolster from a B-47E Aircraft. After the pre-downloading procedures had been accomplished, the MHU-7/M was raised momentarily and then lowered. At this time the far side of the MHU-7/M Trailer dropped approximately six inches. The thrust pin was jarred from its seat and the weapon rotated approximately three inches in a counterclockwise direction on the bolster.

2. The trailer lifting arms and bolster were then leveled and the downloading was accomplished without further mishap. No damage was sustained by the weapon.

3. The cause of this incident is believed to be misalignment of the MHU-7/M which caused it to hang momentarily when lowered.

Incident #21: ~~(S)~~ DASA Code 507F42

Date - 14 April 1962

1. During a 30-day inspection of a Jupiter Missile (W49 Y2 Mod 3 Alt 202 War Reserve Warhead) the nose cone mounting bolts were sheared by firing of the primacord.

2. Activation of the primacord is attributed to stray voltage from an unknown source.

3. The re-entry vehicle was resecured by use of approximately 40 steel bolts. The missile was de-erected and the nose cone demated from the missile.

Incident #22: ~~(S)~~ DASA Code not assigned

Date - 23 March 1962

1. An XM22E1 (Mk 31 Y1) Warhead Section was being loaded by a forklift into a box car when it fell a distance of approximately 30-inches from the forklift tines to the ground.

2. Damage was apparently confined to the rear and forward body section of the XM22E1. The warhead will be returned to a modification facility for a complete post-mortem examination.

3. Cause of the incident is attributed to personnel error.

Incident #23: ~~(S)~~ DASA Code 510A52

Date - 7 May 1962

1. A Little John Rocket with an inert W45 Warhead was dropped from an XM34 Launcher rail during a night operation when the prime mover was inadvertently moved. The driver of the prime mover observed what he thought was a flashlight signal indicating that he move forward. Investigation revealed that the source of the signal was merely a man with a flashlight walking in front of the prime mover.

2. Damage to the warhead section consisted of shallow dents in the section surface.

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3. Cause of the incident is attributed to human error.

Incident #24: (~~SECRET~~) DASA Code 509A52

Date - 7 May 1962

1. A Little John Trainer with a dummy XW-45 Warhead mounted on an XM-449 Cart was being towed by a 3/4-ton truck when the XM-449 Drawbar failed permitting the XM-449 to roll free into a ditch damaging the warhead section.

2. Damage to the warhead section consisted of a dent approximately 1/2-inch deep at Station 31, 90 degrees clockwise from the top of the warhead.

3. The cause of the incident is attributed to the inherent weakness of the aluminum drawbar and lack of safety chains bypassing the drawbar.

Incident #25: (~~SECRET~~) DASA Code 509D42

Date - 17 April 1962

1. During a warhead mating exercise involving a Mk 7 Mod 2 Training Warhead and a Corporal Missile an assembly crew member connected missile cable P-805 incorrectly. The plug was improperly oriented and was forced into its receptacle shorting out the contacts.

2. The damage was restricted to the plug and contacts.

3. Cause of the incident was human error.

4. It has been recommended that the P-805 Connectors on the training warheads be modified to provide the same type of connectors currently being used on XM34 Warhead Sections.

Incident #26: (~~SECRET~~) DASA Code 503A42

Date - Unknown

1. During an annual inspection of an X160 Atomic Demolition Munition, it was observed that the LE23 Dummy Detonator bridgewires had been fired.

2. Investigation of the circumstances under which the detonators were fired is not complete.

Incident #27: (~~SECRET~~) DASA Code 503H52

Date - Unknown

1. An M423, 8-inch Training Projectile was being transported over rough terrain on an M109 Van when the webbing and wood support which holds the training projectile in a vertical position failed. The container sustained a hole approximately 1/2-inch in diameter approximately 10-inches from the top of the container.

2. Cause of the incident is attributed to equipment failure.

Incident #28: (~~SECRET~~) DASA Code 503B32

Date - 9 March 1962

1. Due to unexplained activation of a bank of sprinkler heads in a shipboard atomic

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weapons storage compartment, approximately 30-gallons of salt water and oil were discharged onto Mk 28 and Boar Weapons.

2. The weapons involved were given complete inspection and no damage was observed.

Incident #29: (~~SECRET~~) DASA Code 511D52

Date - 24 April 1962

1. A Mk 102 Training shape was dropped approximately 24-inches when the Mk 8 Hoist Cable parted during unloading of an S2F-1 Aircraft.

2. The trainer sustained a gouge in the skin about 1/4-inches X 1/2-inches X 1/32-inches deep.

3. The cause of the incident was attributed to a kink or cuts in the cable caused by a nick on the edge of the hoist roller.

Accident #30: (~~SECRET~~) DASA Code 502B52

Date - 8 May 1962

1. A Mk 102 Shape was jettisoned into deep water from an S2F-1 Aircraft after inadvertent release during a training mission.

2. The mission involved air crew training in approved check list procedures for special test purposes.

3. Following in-flight removal and reinsertion of the manual safety pin and the lock and relatch pin, the bomb rack released when the Douglas Safety Pin and the combination lock and relatch pin were again removed permitting the Mk 102 Shape to land on the torpedo bay doors. The shape was jettisoned by opening the torpedo bay doors.

4. Cause of the incident is attributed to inadvertent tripping of the manual release cable when the Douglas Safety Pin and/or latch pin was removed or reinserted. The safing pins were inserted in the outboard side of the rack. Visual access is not possible during flight and the operation was performed by feel.

STATISTICAL SUMMARY OF ACCIDENTS AND INCIDENTS  
BY FUNCTIONAL ACTIVITY

HANDLING	1 March 1962 through 31 May 1962					
	STORAGE		TRANSPORTATION		OPERATION	
Material Handling Equipment (Mobile)	3	NSS 0	Logistical Air 1 Other Air 4	1 4	Test	5
Hoist, Cranes, Elevators (Fixed)	4	OSS 0	Rail	0	Maintenance & Inspection	6
Manual	1	SSF 1	Truck	4	Storage Inspection	1
<b>TOTAL</b>	<b>8</b>	<b>1</b>		<b>9</b>		<b>12</b>

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Accidents and Incidents During the Period 1 June 1962 through 31 August 1962

Incident #1: ~~(SND)~~ DASA Code 520-72

Date - 30 July 1962

1. A Mk 7 Mod 5 Training Weapon was loaded onto a Type VIII Pylon on an F100-D Aircraft. In the course of the cockpit power checks it was noted that the IFI OUT light was not lighted.

2. Upon removal of the weapon tail and IFI Cover Plate it was discovered that the IFI mechanism was jammed in the OUT position. The mechanism was unjammed by using the hand crank. When electrically exercised to the OUT position the mechanism jammed again.

3. The cause of this incident was attributed to material failure.

Incident #2: ~~(SND)~~ DASA Code 505-82

Date - 9 August 1962

1. During a storage inspection of a Mk 7 Mod 2 Training Warhead, Cable CC-601 was cut, exposing the conductors.

2. The damage resulted from misalignment of the "B" Skin during installation.

3. The cause was attributed to human error.

Incident #3: ~~(SND)~~ DASA Code 521-52

Date - 3 May 1962

1. A Mk 99 Training Weapon was being loaded on a P2V-7S Aircraft. As the aft suspension lug of the Mk 99 was being engaged in the aft suspension hook of the Mk 51 rack assembly, the carriage assembly in station #7 released and dropped from the bomb bay. It was observed that the safety locking handle was open and the spring and cotter key which held the handle in the locked position were not present. This caused sufficient stress upon the carriage assembly to shear the carriage plunger permitting the assembly to move sideways. The training shape dropped approximately two inches to the AERO 33B hydraulic back up truck.

2. The Mk 99 Shape sustained no damage.

3. The cause of release of the carriage assembly is not known.

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Incident #4: ~~(S)~~ DASA Code 507-62

Date - 12 June 1962

1. A Mk 15 Mod 2 War Reserve Bomb on an H-343 Bolster was being moved into a storage structure by a tug when the draw bar broke at the weld approximately six-inches from the bolster end of the bar.
2. The cause of the incident was defective welding of the steel draw bar.

Incident #5: ~~(S)~~ DASA Code 501-72

Date - 9 July 1962

1. A Mk 15 Mod 2 War Reserve Bomb on an H-343 Bolster was being positioned in an MHE-7/M Trailer using an electric tug. Due to a suspected malfunction of the electric tug, the driver decided to replace it with a gasoline powered tug.
2. During the replacement operation, which required approximately six minutes, the H-343 Bolster wheels sank approximately 1 1/2-inches into the asphalt paving.
3. Attempts to pull the bolster out of the asphalt resulted in breaking of the bolster tongue at the weld where the clevis mates to the bolster.
4. The cause of the incident was attributed to a defective weld in the clevis.

Incident #6: ~~(S)~~ DASA Code 501-82

Date - 1 August 1962

1. A Mk 27 Mod 1 Bomb sustained superficial damage during a ship-to-ship transfer at sea. The ships were pitching heavily due to rough seas causing the bomb to swing into the preventer.
2. Damage consisted of a bent upper right fin assembly and a four-inch bend in the rear case flange.
3. The cause of the incident was attributed to pitching of the ships in rough water.

Incident #7: ~~(S)~~ DASA Code 507-72

Date - 31 July 1962

1. Inspection of a Mk 28 Y2 Mod 1 War Reserve Bomb with a Mod 2 Fuze revealed cracked rivets at the base of the Ready/Safe Switch access door.
2. The cause of this incident was attributed to material failure and individual error. The access doors should not be permitted to fall free when unlatched to check the Ready/Safe Switch.

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Incident #8: (S/D)      DASA Code 502-62

Date - 1 June 1962

1. During a routine inspection of a clip of Mk 28 Y1 Mod 1 Internal War Reserve Weapons, a 3/16-inch deep by 5/8-inch long dent and a 1/8-inch tear were discovered on a fin spin tab. The damage resulted in rejection of the fin assembly.
2. The cause of the damage is unknown.

Incident #9: (S/D)      DASA Code 502-82

Date - 2 August 1962

Similar to incident #8 involving a Mk 28 War Reserve Weapon.

Incident #10: (S/D)      DASA Code 517-82

Date - 27 August 1962

Similar to incident #8 involving a Mk 28 War Reserve Weapon.

Incident #11: (S/D)      DASA Code 527-82

Date - 30 August 1962

Similar to incident #8 involving a Mk 28 War Reserve Weapon.

Incident #12: (S/D)      DASA Code 516-72

Date - 28 July 1962

1. An unlocked indication was received from a GAM-77. Houndog Missile mated to a B-52R Aircraft. The missile contained a Mk 28 War Reserve Warhead. After the aircraft landed, the indicator moved to an intermediate indication after shutdown power was reapplied.
2. The warhead was not damaged.
3. The cause of the incident was found to be a faulty microswitch or wiring.

Incident #13: (S/D)      DASA Code 515-82

Date - 17 August 1962

1. During preparation for loading a Mk 28 Mod 1 External War Reserve Weapon on an F-100 Aircraft, excessive play was noted in the J-1 Plug. Investigation revealed a broken break pin.
2. The cause of the incident was believed to be inadvertent application of a side load to the J-1 Plug.

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Incident #14: ~~(S)~~ DASA Code 524-82

Date - 30-31 August 1962 (Exact time unknown)

1. A B-47E Aircraft in cocked configuration with a Mk 28 Y2 Retarded Internal War Reserve Bomb aboard was struck by lightning during a severe thunderstorm. Evidence of the lightning strike consisted of a broken HF Radio antenna and a hole in the canopy.
2. The bomb was not damaged.

Incident #15: ~~(S)~~ DASA Code 527-82

Date - 30 August 1962

1. After a Mk 25 Y3 Mod 1 War Reserve Bomb had been installed on an H-532B Bomb Truck, it was noted that two chocks (index number 31, figure 65, TP B28-4) were not properly tightened, tiedown straps were not secured, and bolts securing the unit to lifting adapters were not properly tightened.
2. Although it was improperly installed on the bomb truck, the weapon was not damaged.
3. Cause of the incident is not known.

Incident #16: ~~(S)~~ DASA Code 529-82

Date - Unknown

1. Inspection of a Mk 28 Y2 Mod 1 Retarded Internal War Reserve Bomb revealed minor damage consisting of dents in the RISC.
2. The dents were located in a longitudinal area extending from 14 to 27 inches to the rear of the rear coupling ring approximately 140 degrees from the top center line of the case section. Dents did not exceed a depth of 1/16-inch.
3. The cause and time of the incident are unknown.

Incident #17: ~~(S)~~ DASA Code 516-52

Date - 28 May 1962

1. During a post-load check of a Mk 28 Y3 Retarded External War Reserve Bomb aboard an F-100D Aircraft, the Arm/Safe Plug was extracted when it was returned from the Arm to Safe position.
2. The cause of the incident was failure of the Arm/Safe Plug retaining ring.

Incident #18: ~~(S)~~ DASA Code 516-82

Date - 23 August 1962

Incident was identical to incident #17 but involved a Mk 28 Internal War Reserve Weapon

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aboard a B-52D Aircraft.

Incident #19: ~~(U)~~      DASA Code 509-82

Date - 7 August 1962

1. A Mk 28 Training Bomb, less tail assembly, was being downloaded from an FJ-4B Aircraft using an AERO 23 Bomb Truck and AERO 6A Cradle. Prior to releasing the bomb from the rack, the forward restraining strap on the AERO 6A was passed around the bomb forward of the forward carrying lug. The rear strap on the AERO 6A was not used. As the bomb was lowered from the release rack, it began to slide backward until it had completely cleared the bomb truck and came to rest on the concrete pad.

2. Damage to the bomb consisted of burring of the tail attaching threads, scratches on the bottom of the bomb and a damaged forward pullout plug.

3. The cause of the incident was failure to use both restraining straps of the AERO 6A and excessive tilting of the AERO 6A.

Incident #20: ~~(SECRET)~~      DASA Code 515-72

Date - 25 July 1962

1. Two Mk 28 Mod O War Reserve Weapons mated to a MHU-14C Clip-in Subassembly were loaded into a B-47E Aircraft. Eight days later, the aircraft was uncocked for maintenance. During the post maintenance (cocking) checks, procedures requiring the Arm/Safe Plug of the MC-714B interconnecting box to be moved from the Safe to the Arm position could not be accomplished on one weapon. Aircraft wiring system was satisfactory.

2. Probable cause was malfunction of the MC-714B interconnecting box.

Incident #21: ~~(U)~~      DASA Code 514-72

Date - 19 July 1962

1. A Mk 28 Y2 Retarded External Bomb sustained superficial, locally repairable damage when the speed brake of an F100-D Aircraft extended.

2. The cause of the incident has not been fully determined, but is suspected to be a faulty speed brake control valve.

Incident #22: ~~(SECRET)~~      DASA Code 513-72

Date - 18 July 1962

1. During loading of a Mk 28 Y4 Mod I War Reserve Weapon on an F-105 Aircraft, the lug assembly of the receptacle housing assembly did not properly engage the retainer assembly resulting in damage to the J-103 Plug.

2. Investigation of the cause of the incident indicated personnel error.

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Incident #23: ~~(S)~~ DASA Code 502-72

Date - 8 July 1962

1. After a Mk 28 Y4 Mod O External War Reserve Bomb was downloaded from an F-100D Aircraft, the unloading crew pulled the bomb into the speed brake disconnect rod of the Type VIIA Pylon damaging the J-104 Plug. The plug was bent to such a degree that it was rendered unserviceable.
2. The cause of the incident was human error.

Incident #24: ~~(S)~~ DASA Code 515-52

Date - 29 May 1962

1. During checkout of a Mk 28 Y3 Retarded External War Reserve Bomb aboard an F-101C Aircraft, the Arm Safe Plug could not be seated properly in the Safe position with the T-249 Power Switch turned to the "OFF" position. The plug was free to rotate to the Arm position with the T-249 power "OFF".
2. The cause of the incident has not been determined.

Incident #25: ~~(S)~~ DASA Code 518-52

Date - 29 May 1962

1. A Mk 38 War Reserve Warhead in an H-770 Container was picked up by a straddle carrier preparatory to movement to a maintenance building. The unit was raised too high by the straddle carrier arms, causing the H-770 Container to strike the straddle carrier cushion blocks.
2. Damage was confined to dents in the top of the H-770 Container.
3. This incident was attributed to personnel error.

Incident #26: ~~(S)~~ DASA Code 506-72

Date - 2 July 1962

1. During a FAT Test on a Mk 38 Mod O Warhead, the fault light came on in the recycle (P-2 Inspection) indicating an unauthorized ground. Tests indicated that nuclear safety was not degraded.
2. The cause of the incident is unknown.

Incident #27: ~~(S)~~ DASA Code 515-62

Date - 22 June 1962

1. During off-loading of two Mk 38 War Reserve Warheads in H-770 Containers from a C-124 Aircraft, the unloading crew noted that one H-770 had a criss-cross line of ripples and gouges from corner to corner. The other H-770 had a series of ripples and gouges across the center. Dents extended to a maximum depth of 1 1/2-inches.

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2. Damage was confined to the H-770 Containers.
3. The incident was attributed to improper tiedown of the containers in the aircraft.

Incident #28: ~~(S)~~ DASA Code 508-82

Date - 15 August 1962

1. During maintenance operations on a Mk 39 Y1 Mod 2 War Reserve Weapon, lead foil and streamers were discovered on the ports of the MC-832 Differential Pressure Switch Valves.
2. The cause of the incident was individual error, i. e., failure to comply with checklist procedures to TO IIN-B-1003.

Incident #29: ~~(S)~~ DASA Code 512-72

Date - 19 July 1962

1. During a general inspection of a Mk 39 Y1 Mod 2 War Reserve Bomb mated to an MHU-21/C it was observed that the cable assembly CF-1550 was damaged. Several wires of the CF-1550 were cut as a result of being crushed against the mounting bracket of the cable support assembly. Some strands of wire of several individual conductors were severed, but none of the conductors were completely severed.
2. The cause of the incident was personnel error.

Incident #30: ~~(S)~~ DASA Code 511-72

Date - 18 July 1962

1. During removal of the MC-1110, TR Bomb Subassembly, from a Mk 39 Mod 2 Warhead, it was observed that a wire in one of the 6 strands of the arming wire assembly was nicked and broken.
2. The cause of this incident is unknown.

Incident #31: ~~(S)~~ DASA Code 526-82

Date - 30 August 1962

1. Receipt inspection of a Mk 39 Mod 2 War Reserve Bomb revealed that both CF-1437 Coaxial Cables associated with the MC-1121 Assembly of the frangible nose section were crushed.
2. The damage was apparently caused by improper mating of the MC-1121 to the weapon. The damaged cables were squeezed between the mounting flange of the warhead subassembly and the machined portion of the MC-1121.
3. It is apparent that the nose section was attached to the weapon and torqued without regard for position of the CF-1437 Cables.
4. The cause of the incident is attributed to personnel error.

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Incident #32: (U) ~~(S)~~      DASA Code 528-82

Date - 8 July 1962

1. Damage to the lower right fin of a Mk 39 Mod 2 War Reserve Bomb was observed after the bomb had been downloaded from an aircraft. The damage consisted of a torn trim tab.
2. The cause of the incident has not been determined.

Incident #33: (U) ~~(S)~~      DASA Code 517-52

Date - 29 May 1962

1. Inspection of a Mk 39 Mod 2 War Reserve Bomb revealed that the shear pin in the left pullout valve had been sheared.
2. The cause has been attributed to material failure.

Incident #34: (U) ~~(S)~~      DASA Code 508-62

Date - 11 June 1962

1. While performing a change of the retardation device in a Mk 39 Mod 2 War Reserve Weapon, the maintenance team discovered masking tape covering both ports on the pullout valve assemblies, MC-832.
2. Presumably the incident was caused by failure to remove the tape over the ports when the weapon was converted to Mod 2.

Incident #35: (U) ~~(S)~~      DASA Code 504-62

Date - 7 June 1962

1. A Clark Gasoline Tug was being used to move a Mk 39 Y1 Mod 2 War Reserve Bomb on an H-508 Container into a maintenance structure.
2. After the bomb had been moved approximately 12-feet, the bottom half of the tug pintle hook twisted permitting the H-508 Tow Bar to become disengaged.
3. Immediate placement of chocks under the wheels stopped movement of the H-508.
4. The cause of the incident was failure of the tug pintle hook.

Incident #36: (U) ~~(S)~~      DASA Code 504-82

Date - 7 August 1962

1. A Mk 39 Y1 Mod 2 War Reserve Bomb was exposed to a B-47E Aircraft engine fire but sustained no damage. The number four engine caught fire during an attempt to start it and dripping fuel caused a fire under the engine. The fire was promptly extinguished by the crew chief and the fire department.

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2. The bomb bay doors were closed at the time and damage did not extend to the bomb bay interior.

Incident #37: (U) ~~(S)~~ DASA Code 503-62

Date - 6 June 1962

1. During inspection of a Mk 39 Y1 Mod 2 War Reserve Bomb, it was noted that the parachute cover protruded 1 8-inch in excess of the allowable distance.

2. The cause of this defect has not been determined.

Incident #38: (U) ~~(S)~~ DASA Code 510-82

Date - 8 August 1962.

1. An inert Mk 43 Training Weapon mounted on an AERO 33C Bomb Truck was being removed from a bomb elevator aboard an aircraft carrier when an unexpected roll of the ship pivoted the bomb truck, causing the tail of the weapon to strike a parked bomb truck.

2. The lower right tail fin of the bomb was crushed and broken.

3. The cause of the incident was lack of brakes on the rear wheels of the AERO 33C Bomb Truck and inability of the handling crew to restrain the weapon.

Incident #39: (U) ~~(S)~~ DASA Code 514-52

Date - 27 May 1962

1. The speed brakes of an F-100D Aircraft dropped during a daily aircraft runup, causing paint damage to the skin of a Mk 43 Mod O War Reserve Weapon. Efforts of the crew to stop the brakes by actuating the control switch to the UP position failed.

2. Cause of the brake failure was attributed to a faulty speed brake actuator valve.

Incident #40: (U) ~~(S)~~ DASA Code 511-62

Date - 15 June 1962

1. A Polaris A2P Missile with a Mk 47 Mod 1 War Reserve Warhead installed was dropped a distance of about 1-inch as the missile was raised from the missile launcher tube support ring.

2. The incident was caused by failure of a cable in the Mk 1 Mod O Missile hoisting unit.

3. The warhead was not damaged.

Incident #41: (S) ~~(U)~~ DASA Code 510-72

Date - 19 July 1962

1. During an electrical storm an SM-78, Jupiter Missile nose cone containing a Mk 49 Mod 3

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Warhead, was damaged by a lightning strike.

2. Exterior damage to the nose cone consisted of removal of ablative material in a section 2 1/4-inches by 1 1/4-inches by 3/4-inches deep.

3. The AK-1 and AK-2 Lights in the electrical equipment trailer were observed to be red indicating that channel 1 and 2 fire lines were open.

4. Air monitoring (T-290) indicated the presence of tritium gas and activation of [REDACTED] of the reservoir valve was observed in post-mortem test at an AEC facility.

Incident #42: (S/D) [REDACTED] DASA Code 512-82

Date - 17 August 1962

1. An SM-75, Thor Missile (Mk 49 Y2 Mod 3 War Reserve Warhead) was undergoing an OFSS Check during which the pre-arm indication light on the reentry vehicle simulator failed to light.

2. During recheck of the missile, two retro-rockets and three [REDACTED] fired. After evacuating the pad, the launch pad personnel returned and found that the latch safety pins were holding the reentry vehicle in place.

3. The warhead was not damaged.

4. The cause of the incident was failure to follow prescribed safety rules for the Thor Missile.

Incident #43: (S/D) [REDACTED] DASA Code 512-62

Date - 18 June 1962

1. After the warhead wiring harness was disconnected from a Mk 54 Mod O War Reserve Warhead (GAR-11) it was observed that Pins A and L of P-2051 were pushed back into the base of the warhead wiring harness.

2. The cause was suspected to be an obstruction in the warhead connector plug.

Incident #44: (S/D) [REDACTED] DASA Code 525-82

Date - 23 August 1962

1. A transponder control group air leakage test was being conducted on a Nike Hercules Missile containing a Mk 31 Y4 Mod O Warhead. During the test procedures when the pressure on the transponder control group reached 16 psig, the cover blew off hitting the transponder control group cable and the forming ring on the warhead skin at station 87.5.

2. Damage consisted of cut insulation on the transponder group cable and dents in the forward face of the cartridge assembly near J-3 and J-4 Plugs.



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1. During disassembly of an XM391, 279 mm Atomic Training Projectile, the H-4179 Sling broke immediately above the locking pin where the weld is located.
2. No damage occurred as the projectile was supported by the other side of the H-4179 Sling.
3. The cause of the incident is attributed to lack of instructions for load-testing of the H-4179 Sling.

Incident #50: (U) ~~(S)~~ DASA Code 505-62

Date - 7 June 1962

1. The driver of an M-109 Van fell asleep, causing the vehicle, containing an inert Mk 19 M369 Projectile, to leave the road and overturn in a ditch.
2. The damage to the projectile assembly was limited to minor dents and scratches.
3. The cause of the incident was personnel error.

Incident #51: (U) ~~(S)~~ DASA Code 523-82

Date - 24 August 1962

1. A Nike Hercules (Mk 31 Y1 Mod O War Reserve Warhead) had been disconnected from the magazine test station and was being moved above ground to permit another missile to be moved into position for refueling. All test power had been disconnected.
2. While the missile was on the elevator, smoke was observed coming from the warhead section.
3. The left access door was opened and smoke was detected in the area of the W6F Cable. Disarming procedures were employed and a fire extinguisher was used at the source of the smoke.
4. Examination of the missile revealed that the number 1. BB 401 Battery had discharged to ground through the W6F Cable, charring the cable.
5. It was observed that shield wires number 1 and 2 on the terminal board were burned, and there was evidence that this could have been caused by contact with 120 Volt power in wire C333 MB 16.
6. Pin d of J-145 showed evidence of pitting which could have been caused by an external short or an internal short in the junction box.
7. The warhead was not damaged.

Incident #52: (U) ~~(S)~~ DASA Code 506-62

Date - 7 June 1962

1. During a joining operation, a training Nike Hercules Missile containing an inert Mk 31 Warhead was raised 45 degrees and then lowered. After the T-Hook assembly and the seating of the

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missile in the thrust structure had been checked, the launcher was elevated to maximum position. At this time, the booster fin fitting assembly broke and the missile and booster slid down the launching rail and rested on the ground in a vertical position.

2. The warhead was not damaged.
3. The cause of the incident is being investigated.

STATISTICAL SUMMARY OF ACCIDENTS AND INCIDENTS  
BY FUNCTIONAL ACTIVITY

1 June 1962 through 31 August 1962

HANDLING		STORAGE		TRANSPORTATION		OPERATION	
Material Handling Equipment (Mobile)	1	NSS	0	Logistical Air Other Air	0 5	Test	14
Hoist, Cranes, Elevators (Fixed)	2	OSS	0	Rail	0	Maintenance & Inspection	13
Manual	4	SSF	1	Truck	7	Storage Inspection	5
<b>TOTAL</b>	<b>7</b>		<b>1</b>		<b>12</b>		<b>32</b>

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Accidents and Incidents During the Period 1 September 1962 through 30 November 1962.

Incident #1: ~~(S)~~ DASA Code 501K92

Date - 3 September 1962

1. After downloading of a Mk 7 Mod 5 War Reserve Bomb from an F-84F Aircraft, one of the safing wires was found to be extracted from the weapon.
2. The wire was reinstalled and the weapon was returned to storage.
3. The cause of the incident was human error.

Incident #2: ~~(S)~~ DASA Code A 508-112

Date - 7 November 1962

1. During unloading of an XM35 (Mk 7) Training Warhead from a cradle, the end of the P805 Plug caught on the lower edge of the cradle rear cross member causing the pins of the P805 to bind and become loose in their socket and a small segment of the P805 connector lip was broken off.
2. The cause of the incident was attributed to a recent modification of the P805 Plug which extended the plug 1/32-inch beyond the flange.

Incident #3: ~~(S)~~ DASA Code 508E102

Date - 13 October 1962

1. A Boar weapon (Mk 1 Mod 0 30.5-Inch Rocket) mounted on an AERO 33C Bomb Truck was being raised by a shipboard elevator when the bomb truck shifted causing the rear end of the weapon to be caught between the deck and the elevator platform. The weapon tail failed to clear the deck by approximately 1/4 inch.
2. The rear end of the booster was displaced downward approximately 3 inches causing the rear of the midsection assembly to be torn loose at the top and crushed at the bottom. The transverse structural casting at the forward end of the midsection assembly was sprung and cracked at the top where the bolts holding the booster mounting bracket had pulled through. Dents were sustained in the bottom of the midsection assembly where the assembly rested on the AERO 33C Bomb Truck.
3. The cause of the incident was attributed to personnel error in that improper tie down of the bomb truck on the elevator resulted in shifting of the weapon when the elevator moved.

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Incident #4: ~~(S)~~ DASA Code 513D102

Date - 17 November 1962

1. A Boar Weapon with a Mk 7 War Reserve Warhead was slightly damaged in a shipboard elevator accident. The elevator with the Boar on an AERO 33C Bomb Truck dropped approximately 6-7/8 inches when the elevator jamming rollers engaged causing the elevator to halt abruptly. The abrupt stop caused dents in the weapon chocking area.

2. The weapon was withdrawn from use pending necessary repair and inspection.

Incident #5 and #6: ~~(S)~~ DASA Code 511D102 and 512D102

Date - 23 October 1962 and 24 October 1962

1. On two separate occasions S-1 Pullout Switches of Mk 28 War Reserve Bombs were extracted or damaged as a result of failure to disconnect the pin and clevis connecting the pullout switches to F100-D Aircraft prior to weapon downloading.

2. The cause is attributed to personnel errors.

Incident #7 and #8: ~~(S)~~ DASA Code 501F112 and 502F112

Date - 2 and 4 November 1962

1. On two different occasions two airborne B-52 Aircraft with Mk 39 Mod 2 and Mk 28 Y1 Weapons aboard were struck by lightning. Subsequent tests indicated that no damage was sustained by any of the weapons involved.

Incident #9: ~~(S)~~ DASA Code 502D92

Date - 4 September 1962

1. Superficial damage to two Mk 28 Y2 Retarded Internal Mod 1 War Reserve Bombs was observed after the bombs were downloaded from separate B-47E Aircraft.

2. The damage consisted of 3 dents approximately 1/32-inch deep by 1 inch in diameter in the MC-1113 TR tail and a minor crease between two of these dents in both weapons.

3. The cause of the incident was attributed to failure of the loading crew to follow instructions on page 6 and 7 of T.O. 1B-47B-CL-14-1 which require that the dovetail support posts of the MHU-19/E be raised and secured in the highest position on the cradle and be positioned as indicated in steps 16 or 17 for the applicable bomb.

Incident #10: ~~(S)~~ DASA Code 505C92

Date - 13 September 1962

1. A Mk 28 Internal War Reserve Bomb in the upper left position on an MHU-20/C Clip in subassembly was being disarmed when the bail latch of the arm/safe plug broke.

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2. The cause was attributed to material failure.

Incident #11: (S) DASA Code 504C92

Date - 6 September 1962

1. In preparation for mating of a Mk 28 Warhead with an MC-1477 Case Section, an attempt was being made to sever the textile tape which secures the cables of the MC-1367 Interconnecting Box. A pocket knife used to perform the operation slipped and cut through the covering of the conductors in one of the cables.

2. The cause of the incident was attributed to personnel error.

Incident #12: (S) DASA Code 515E102

Date - 11 October 1962

1. During a periodic check of a Nike Hercules Missile (Mk 31 Warhead), on a launcher rail the P72 Cable was observed to be smoking. The P72 Cable head and the J72 Receptacle of the test station adjacent to the launcher were burned.

2. The cause of the incident was attributed to the presence of moisture in the P72A.

3. The Mk 31 Warhead was not damaged.

Incident #13: (S) DASA Code 516F102

Date - 15 October 1962

1. A Nike Hercules Missile with a Mk 31 War Reserve Warhead was undergoing a weekly acquire and command check when the odor of burning insulation was noted. Inspection indicated that the W6F Cable was partially burned.

2. The cause of the incident was determined to be a short in the battery charge circuit.

Incident #14: (S) DASA Code A 504-112

Date - 11 November 1962

1. During a storage inspection of a Nike Hercules Missile (Mk 31 Warhead) a short occurred in the heater blanket. Isolation procedures were performed and upon removal of the battery box, it was observed that the blanket was charred.

2. Emergency disarm procedures were performed immediately and required checks indicated that the weapon was in a safe condition.

3. Tests are being conducted on the BB 401/4 batteries and the heater blanket to determine the cause of the incident.

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Incident #15: (S) ~~(S)~~      DASA Code 506K102

Date - 8 October 1962

1. A Mk 105 Training Weapon was being off loaded from an A4D Aircraft. During the lowering operation the pull out bail snagged on the retention bracket of the AERO 7A Rack and was extracted from the weapon.
2. The weapon was not damaged.
3. The cause of the incident was failure of personnel to insure that the pull out bail was free from any protrusions on the AERO 7A prior to lowering the weapon.

Incident #16: (S) ~~(S)~~      DASA Code 503F102

Date - 19 October 1962

1. The collapse of the LOX Tank of an Atlas Missile caused the re-entry vehicle containing a W-38 War Reserve Warhead to tilt against the work platform resting at an angle of approximately 40 degrees to the platform.
2. A temporary sling made of two compression rings and the lower half of the re-entry vehicle cradle were used to remove the re-entry vehicle.
3. The re-entry vehicle sustained only superficial damage consisting of slight scratches in the ablative material. The warhead was not damaged.

Incident #17: (S) ~~(S)~~      DASA Code 505D112

Date - 17 November 1962

1. During a functional check-out of a Mk 39 Y1 Mod 1 War Reserve Weapon, in a BLU/2 Pod, a malfunction was indicated when the arming and fuzing monitor test switch was pressed.
2. Power was turned off and a complete check of all warhead and arming container connections and components was made. The check revealed that plug J-371-1 appeared to be binding. The plug was properly installed and the check out was resumed at the step where the malfunction was observed.
3. This time, in addition to the malfunction indication, a distinct odor was detected. Power was immediately disconnected and inspection disclosed that the low voltage battery pack had been activated.
4. Inspection by EOD personnel indicated that all safing and arming devices were in the safe position. Tritium monitoring was performed with negative results.
5. Subsequent investigation revealed a piece of wire in the input plug to the low voltage thermal battery which shorted the monitoring line to the squib line. Since the firing baro was closed, the output of the low voltage thermal battery was impressed upon the warhead trigger circuit.

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STATISTICAL SUMMARY OF ACCIDENTS AND INCIDENTS  
BY FUNCTIONAL ACTIVITY

1 September 1962 through 30 November 1962

HANDLING		STORAGE		TRANSPORTATION		OPERATION	
Material Handling Equipment (Mobile)	2	NSS	0	Logistical Air Other Air	0 6	Test	4
Hoist, Crane, Elevators (Fixed)	2	OSS	0	Rail	0	Maintenance & Inspection	4
Manual	0	SSF	0	Truck	0	Storage Inspection	0
<b>TOTAL</b>	<b>4</b>		<b>0</b>		<b>6</b>		<b>8</b>

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6. The wire in the input plug is considered to be the cause of the incident. The investigation is continuing.

Incident #18: ~~(S)~~ DASA Code 509F102

Date - 8 October 1962

1. In preparation for a weapon assembly operation involving the postmating T-4077 test of an XM13 Warhead Section (W40Y1 Warhead), fault readings were obtained.
2. Power was turned off immediately, personnel were evacuated and the assembly area was monitored for tritium with negative results.
3. Visual inspection of the warhead revealed that Pin C of the J-2 Connector of the warhead was bent 90 degrees between Pins B and P.
4. Analysis indicated that Pin C of the J-2 Connector was bent during mating of P-13 of the W4J Cable to the J-2 Warhead Connector.
5. The warhead was rejected.

Incident #19: ~~(S)~~ DASA Code 505D102

Date - 8 October 1962

1. Post-load checks were being performed on a Mk 43 Y3 Mod 0 War Reserve Bomb aboard an F-101A Aircraft. When the DCU-9/A control selector switch was turned from the OFF to the SAFE position, the warning light illuminated dimly and shortly thereafter the DCU-9/A circuit breaker opened.
2. The aircraft wiring system was checked and no irregularities were observed. An electrical continuity test indicated suitable continuity in the warhead.
3. Post-mortem of the bomb revealed that the malfunction was caused by a bent pin in J-3 of the MC-988, breakaway pulse connector, which resulted in 28 volt aircraft power passing through the DCU-9/A monitoring circuit.
4. The cause of this incident was attributed to the bent pin in J-3 which shorted in the plug. Evidence indicates that bending of the pin was a one time incident.

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ACCIDENT - INCIDENT SUMMARY

1 January 1960 through 31 December 1962

TYPE	NUMBER	PERSONNEL ERROR	EQUIPMENT MALFUNCTION	OTHER (Natural Causes etc.)	PERCENT PERSONNEL ERROR
Handling	57	41	15	1	72%
Logistical Movement	39	22	11	6	56%
Aircraft Loading	46	27	18	1	59%
Aircraft Down Loading	36	28	8	-	78%
Missile	33	3	18	12	9%
Launching System	24	5	16	3	21%
Aircraft	47	16	25	6	34%
Maintenance	151	88	59	4	58%
Other	17	8	3	6	47%
<b>TOTAL</b>	<b>450</b>	<b>238</b>	<b>173</b>	<b>39*</b>	<b>53%</b>

\*25 lightning.

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Accidents and Incidents During the Period 1 December 1962 through 28 February 1963

Incident #1: ~~(S)~~ DASA Code 509-112

Date - 21 November 1962

1. A BOAR weapon (30.5-inch Rocket) with a training warhead was positioned on an aircraft. During Step 9 (m) of the postload test, the fin circuit breaker functioned. A loading crew member pushed the circuit breaker twice, at which time smoke was observed to be coming from the weapon.

2. Inspection indicated that insulation on the CF-3001 Cable was burned along its entire length. The cause of the apparent short circuit is unknown.

3. The cause of the incident was personnel error. The reason for opening of the circuit breaker should have been determined prior to reclosing the breaker.

Incident #2: ~~(S)~~ DASA Code 510-13

Date - 27 January 1963

1. During an aircraft postload test, the Arm/Safe Switch and the IFI of a Mk 7 training weapon were activated, i. e., the Arm/Safe Switch stepped to the ARM position and the IFI operated to the IN position.

2. The incident was attributed to personnel error, i. e., inadvertent, momentary rotation of the T-208A, Aircraft Monitor and Control Box, selector switch.

3. The weapon was safed by actuation of the IFI to the OUT position and by manually returning the weapon Arm/Safe Switch to the SAFE position.

4. A future modification of the T-208A to the T-208B will greatly reduce the possibility of inadvertent arming.

Incident #3: ~~(S)~~ DASA Code 506-112

Date - 16 November 1962

1. A BOAR weapon (Mk 4 Mod 0) with an inert training warhead was loaded on an AD6 Aircraft during a readiness exercise. At Step 9(d) of the postload test of NAVWEPS 01-40 ALF-17 BOAR AD/7, the DS302 and DS303 lamps lit when the aircraft power switch was placed in the ON position.

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2. Power was removed, the weapon was removed from the aircraft, and a final assembly test was performed. The Mk 186 fuze was found defective, i. e., the DS302 and DS303 lamps on the junction box and the TO reset light on the T-3003 all lit and the timer motor ran when power was applied.

3. Evaluation of the incident revealed that the probable cause was release or removal of the safing pin after the weapon had been assembled to CAS and subsequent functioning of the pullout switches.

Incident #4: ~~(S)~~ DASA Code 510-112

Date - 25 November 1962

1. Unexplained activation of the sprinkler system for a short period of time in the weapons storage compartment of an aircraft carrier resulted in wetting of the security covers of Mk 7, Mk 27, and Mk 28 weapons. The weapons were not affected by the salt water. Salt deposits were removed from the security covers by fresh water washdown.

2. The cause of the incident was a faulty sprinkler valve.

Incident #5: ~~(U)~~ DASA Code 509-23

Date - 8 February 1963

A Mk 7 Mod 5E inert training Bomb was jettisoned from an A4C Aircraft into deep water. The aircraft settled after being catapulted, making it necessary to jettison the bomb and fuel tanks to maintain altitude.

Incident #6: ~~(U)~~ DASA Code 505-122

Date - 8 December 1962

1. When the P106 and P206 Cables of an M35 Training Warhead Section were connected to the battery box, it was observed that the phenolic inserts of the battery box were damaged.

2. The cause of the damage was attributed to fair wear and tear, i. e., repeated connections and disconnections of the cables.

Incident #7: ~~(S)~~ DASA Code 502-13

Date - 15 December 1962

<sup>DATA</sup>  
<sub>(b)(3)</sub> 1. Inspection of a Mk 7 Mod 2 Training Warhead used with a training M60 Atomic Demolition Munition revealed a crack in the head of the  1E23 Detonator.

2. Possible cause of the damage was extreme environmental conditions. The detonators have been returned to a laboratory for analysis and determination of the cause.

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Incident #8: (S) ~~(S)~~      DASA Code 502-23

Date - 24 January 1963

1. After a Mk 15 Mod 2 War Reserve Bomb on an H-343 Trainer had been lowered from a C-124 Aircraft, personnel proceeded to push the unit clear of the aircraft. Due to a gentle slope of the unloading pad, the weapon gathered momentum in the direction of travel. Personnel placed a wooden chock in the path of one of the casters and the sudden impact sheared the right rear caster from the trailer.

2. The bomb sustained no damage.

3. The cause of the incident was personnel error, i. e., insufficient personnel to control the weapon dolly.

Incident #9: (S) ~~(S)~~      DASA Code 504-122

Date - 15 December 1962

1. An F-106 Aircraft with an MB-1 Rocket (Mk 25 War Reserve Warhead) aboard was on alert status. To maintain the temperature of the weapon above the prescribed minimum level, an MC-1, Herman Nelson Heater was connected to the missile bay of the aircraft.

2. After the MB-1 had been downloaded, inspection revealed that the potting material of the fuze connector had melted and that the timers did not check out within the allowable limits.

3. Investigation indicated that the duct to the MC-1 Heater had been connected to the unregulated heater outlet instead of to the outlet regulated to operate at 75° F. This resulted in the missile being subjected to a temperature in excess of 150° F.

4. Further inspection revealed that the high explosive component of the warhead had melted and exuded from the detonator holes.

5. The warhead was returned to an AEC facility for post-mortem evaluation.

6. The cause of the incident was attributed to personnel error.

Incident #10: (S) ~~(S)~~      DASA Code 511-13

Date - 29 January 1963

1. A Mk 27 Mod 1 Training Weapon was being loaded on an A3D Aircraft positioned on the flight deck of an aircraft carrier. The forward lug of the weapon had been connected to the Aero 67A Bomb Rack Hook. As the forward lug was being brought up to the hook-in, an electrical arc was observed between the weapon lug and the hook.

2. The weapon was given a general inspection and test with satisfactory results, however, the aircraft failed the Hi-Pot section of the wire check.

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3. The cause of the arcing was attributed to RF radiation from an antenna at a distance of 16 feet from the weapon. Transmission frequency was [REDACTED]

4. During the initial arcing between the bomb lug and the rack hook, the CF-1409 pullout cable was connected from the aircraft to the weapon and the aircraft was grounded.

5. During future aircraft loadings, transmission on [REDACTED] will be interrupted.

Incident #11: (S) (3) DASA Code 509-122

Date - 29 December 1962

1. A Mk 28 Mod 2 War Reserve Warhead installed on an H-532 Bomb Hand Truck was being unloaded from a flatbed trailer with an H-563 Beam Type Sling and a fork lift. When the H-532 was about four inches above the concrete apron, a bolt in the H-563 became disengaged allowing the H-532 to drop.

2. Damage consisted of a broken right rear caster on the H-532 and two superficial dents in the rear dust cover.

3. The cause of the incident was material failure.

Incident #12: (S) (3) DASA Code 510-23

Date - 8 February 1963

1. A Mk 28 Y3 External Bomb on a Bomb Truck was positioned on an aircraft carrier elevator in preparation for delivering to the flight deck.

2. A large wave over the elevator drenched the weapon with salt water and damaged a nearby aircraft causing JP-5 fuel to spray over the weapon exterior.

3. The weapon sustained no damage and after cleaning and testing was returned to operational use.

4. The incident was caused by the sea water striking the elevator.

Incident #13: (S) (3) DASA Code 507-122

Date - 19 December 1962

1. The warhead reinforcing ring, Part Number 173737-01 of a Mk 28 Y2 Mod 2 War Reserve Weapon was observed to be broken in the vicinity of the MHU-20/C Sway Brace.

2. Close examination of the reinforcing ring indicated an apparent internal flaw in the metal at the point of breakage.

3. The cause of the incident was considered to be material failure.

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incident #14: ~~(C/S)~~ DASA Code 502-122

Date - 5 December 1963

1. A general inspection and test of a Mk 28 Y3 Mod 1 War Reserve Bomb revealed excessive moisture in the Mk 28 Mod 1 Fuze. Approximately 1/2 pint of water was removed from the fuze. The fuze passed a T-304 test and warhead pressure was satisfactory.

2. The cause of the incident is unknown.

Incident #15: ~~(C/S)~~ DASA Code 508-23

Date - 18 January 1963

1. Incidents #15 through #19, involving Mk 28 Bombs and Warheads follow the same pattern. After the weapons had been airborne in aircraft and returned, unit pressure checks indicated negative pressure or serious loss of pressure to a positive level.

2. The cause of these incidents is attributed to material failure, i. e., defective pressure seals or valves.

Incident #16: ~~(C/S)~~ DASA Code 505-13

Date - 11 January 1963

Refer to Incident #15.

Incident #17: ~~(C/S)~~ DASA Code 508-13

Date - 24 January 1963

Refer to Incident #15.

Incident #18 and #19: ~~(C/S)~~ DASA Code 503-122

Date - 12 December 1962

Refer to Incident #15.

Incident #20: ~~(C/S)~~ DASA Code 508-122

Date - 20 December 1962

1. An XM48, Honest John Warhead Section was being placed in a storage bunker. As the M405 handling unit was being disconnected from the M78A1 heading and tiedown, the M405 handling unit was pulled forward too far causing the landing jack to become unbalanced. The M405 eased forward to the ground. The front shoe assembly on which the warhead portion of the warhead section was located caused a dent approximately 1/4-inch deep and 5-inches long near station 100.

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2. Electrical checks indicated that the warhead was not damaged.
3. The cause of the incident is attributed to personnel error.

Incident #21: ( ) ~~SECRET~~      DASA Code 511-112

Date - 20 November 1962

1. A daily check of a Nike Hercules Missile (Mk 31 War Reserve Warhead) revealed that the lamp in the Number 2 BB/401 battery charging circuit was out. The bulb was replaced twice but burned out on each occasion.
2. After removal of the batteries, investigation revealed that the W6F Cable had shorted and burned.
3. It was determined that a short between pins 23 and 13 of connector P1X was caused by 180 degree rotation of the P1X cable which caused a strain on the cable approximately nine inches from the connector.

Incident #22: ( ) ~~SECRET~~      DASA Code 506-122

Date - 14 December 1962

1. During the prefire lamp test of an XM47 Warhead Section (Mk 31 War Reserve Warhead), the No-Go lamp lighted. After disarming procedures had been performed, the warhead and the adaption kit were tested separately and found to be acceptable. The warhead section was reassembled and a retest indicated that both were acceptable.
2. The cause of the incident is not known.

Incident #23: ( ) ~~SECRET~~      DASA Code 503-23

Date - 10 January 1963

1. After completion of maintenance and repairs to a Nike Hercules launcher power cylinder, personnel tested the launcher by erecting it. During the Up cycle, the launcher stopped and then restarted and continued to the locked position.
2. After the erection cycle had been completed with the launcher and Nike Hercules Missile (Mk 31 War Reserve Warhead) in the raised position, it was noted that the missile had become disengaged from the launcher rail. The launcher was lowered and the following was noted:
  - a. The warhead section "T" track assembly was disengaged from the yoke assembly of the launching rail and was resting on top of the yoke assembly clevis.
  - b. The umbilical cable assembly was sheared.
  - c. The yoke assembly shear bolt was bent.

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- d. The break-away assembly mount was bent.
- e. The booster slipper bar had slipped approximately 3/8 inch off the launchers.

3. The cause of the incident was tentatively attributed to mechanical malfunction. Investigation is continuing.

Incident #24: (P) DASA Code 513-23

Date - 31 January 1963

1. An assembly crew was completing maintenance operations on an XM47, Honest John, Warhead Section (Mk 31 Warhead). A No-Go indication was received in the prefire test.
2. The warhead section was disassembled and subsequent isolation procedures determined the fault to be in the center aft ballistic case section. The XM86 adaption kit was rejected and replaced.
3. No damage was sustained by the warhead.

Incident #25: (P) DASA Code 518-23

Date - 15 February 1963

1. During the loading of a Mk 102 practice weapon (inert Mk 34 Warhead), it was observed that the weapon and cradle tilted forward. Attempts to level the cradle, using the bomb trailer tilting mechanism, failed.
2. After removal of the weapon, the trailer was inspected and the cause of the incident was determined to be failure of the roll pin in the tilting mechanism. This released the actuating arm allowing the cradle to tilt freely.
3. The cause of the incident was mechanical failure.

Incident #26: (U) DASA Code 506-23

Date - 6 January 1963

1. A Mk 101 Mod 2 War Reserve Bomb was dropped from a semitrailer during movement from a storage magazine to a maintenance building.
2. The bomb was positioned on the semitrailer with the H-3129 chocks extended. The H-563 sling was detached and the electric boom lift was being backed off when one of the hooks of the H-563 sling caught on the H-3129 skid toppling the weapon from the bed of the semitrailer through a distance of 58-1/2 inches to the asphalt apron.
3. Damage to the bomb was limited to slight scratching of paint. The AEC and design agencies have concluded that the warhead is operational after evaluation of the incident.

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4. The cause of the incident was personnel error, i. e., failure to insure that hooks of the H-563 sling were clear of the weapon before backing the electric boom lift.

Incident #27: ~~(S)~~ DASA Code 507-3

Date - 14 January 1963

1. During maintenance and inspection of a Mk 107 Mod 0 Training Weapon, the weapon Rear Case was removed from the Forward Case prior to depressurizing the weapon hull assembly.
2. When the segmented clamp bands which attach the Rear Case to the Forward Case were pried loose with a screw driver, the Rear Case assembly was propelled violently upward from the Forward Case assembly.
3. The Rear Case became detached from the H-3090 hoisting sling and fell to the floor.
4. The weapon sustained extensive mechanical damage.
5. The cause of the incident is attributed to personnel error, i. e., failure to follow pre-scribed procedures.

Incident #28: ~~(S)~~ DASA Code 509-13

Date - 30 January 1963

1. During a recycling operation of a Mk 4 Re-Entry Vehicle (Mk 38 Mod 0 War Reserve Warhead), indications of a ground isolation fault were observed on the re-entry test set.
2. A check of the P1 connector of CF-1572 Cable revealed a short from Pin A to Pin B of the connector. A short was traced to the connection between P3 of CF-1587 and the MC-1190 Inertial Switch connector. Pin A of the MC-1190 connector was bent and made contact with Pins A and H of P3 of CF-1587. Pin A of the MC-1190 is in the continuity loop of the warhead and is connected to Pin A of CF-1572 through the CF-1587, MC-1405, and MC-1173; Pin H of P3 of CF-1587 is connected to Pin B of CF-1572.
3. The bent pin would not have affected weapon operation or reliability.

Incident #29: ~~(S)~~ DASA Code 501-33

Date - 7 March 1963

1. Incidents #29 through #39 involved separation of the Mk 38 Mod 0 Warhead ablative material from the warhead cylinder. The separation was observed during demating operations. Moisture was generally visable between the ablative material and the outer warhead cylinder.
2. The separations were ~~observed~~ over an area up to 100 percent of the cylinder circumference.

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Incident #39: (S) DASA Code 526-23

Date - 21 February 1963

Refer to Incident #29.

Incident #40: (S) DASA Code 505D112

Date - 17 November 1962

1. During a functional check out of a Mk 39 Mod 1 Y1 War Reserve Weapon, in a BLU/2 Pod, a malfunction was indicated when the arming and fuzing monitor test switch was pressed.
2. Power was turned off and a complete check of all warhead and arming container connections and components was made. The check revealed that plug J-371-1 appeared to be binding. The plug was properly installed and the check out was resumed at the step where the malfunction was observed.
3. This time, in addition to the malfunction indication, a distinct odor was detected. Power was immediately disconnected and inspection disclosed that the low voltage battery pack had been activated.
4. Inspection by EOD personnel indicated that all safing and arming devices were in the SAFE position. Tritium monitoring was performed with negative results.
5. Investigation revealed a piece of wire in the input plug to the low voltage thermal battery which shorted the monitoring line to the squib line. The output of the low voltage thermo batteries was impressed upon the warhead trigger circuit since there was an operational setting on the fire baro which was in the closed position.

Incident #41: (S) DASA Code 503-13

Date - 17 January 1963

1. Inspection of a Mk 43 Mod 0 War Reserve Bomb revealed extensive damage to the electrical connector of the MC-1040 explosive bolt. Pin A of the P1 connector did not mate properly and had punctured the rubber molding adjacent to the receptacle.
2. The cause of the incident is attributed to personnel error, i.e., improper mating of the connector parts during initial assembly.

Incident #42: (S) DASA Code 514-23

Date - 13 February 1963

1. Inspection during a demating operation involving a Mk 49 Mod 4 War Reserve Warhead revealed a crack in the ablation material. Ablation ring number 2 had a crack eight-inches long completely across the ring ranging in width from 0.050 to 0.075 inch and approximately [redacted] in depth. A hairline crack appeared near the large crack.

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3. Monitoring indicated no tritium contamination.
4. Analysis of the incident conditions indicated that the damage occurred prior to DOD receipt of the reservoir.

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ACCIDENT - INCIDENT SUMMARY

1 DECEMBER 1962 through 28 FEBRUARY 1963

TYPE OF ACTIVITY	CAUSE								TOTAL	TYPE OF DAMAGE TO BOMB OR WARHEAD							
	Personnel Error	Mechanical Malfunction	Electrical Malfunction	Design Deficiency	Fire and Lightning	Environmental	Inadequate Procedures	Unknown		Materiel Failure	Mechanical	Electrical	Fuzing or Firing Component Activation	Total Loss	Explosive Components	None	
TRANSPORTATION																	
Tactical Air		1						5	6				1		5		
Logistical Air									0								
Rail									0								
Ship									0								
Motor Vehicle									0								
HANDLING																	
Mechanical Equipment		2				1		1	4	3					1		
Manual		1		1					2						2		
OPERATIONS																	
Aircraft Loading and Downloading			1			1			2						2		
Aircraft Postload Check		3							3		1	2					
Warhead Mating									0								
Missile Operations		1							1		1						
ADM									0								
Test and Maintenance		1	3	3			1		8	2	1	1			4		
Inspection		1	12	1		2		1	17	14	1			1	1		
Training									0								
Storage			1						1						1		
Aircraft Alert		1							1					1			
TOTAL		10	18	4	1	0	4	0	1	7	45	19	4	3	1	2	16

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Accidents and Incidents During the Period 1 March 1963 through 31 May 1963

Incident #1: ~~(S)~~ DASA Code 501-33

Date - 8 March 1963

1. Incident involved a Mk 4 Mod 3 War Reserve Re-Entry Vehicle, Mk 38 Mod 0 Warhead, [REDACTED] mated to a SM65F Missile.
2. Ablative material separated from warhead cylinder. Separation measures approximately .011 inches in width and over approximately 20 percent of circumference.
3. There was considerable erosion in re-entry vehicle nose section. However, no moisture was present in ablative material separation.
4. During disassembly, approximately one cup of water was found present in bottom of warhead cylinder.
5. There was considerable corrosion visible in the re-entry vehicle nose section in form of rust on cable mounting brackets, mold on the impact detonator cables part number 305481-1, peeling and blistering of zinc chromate in nose section, rusting of safety wire securing impact detonator cable to impact detonators, and rusting of impact detonator mounting screws. The warhead nose section had a white chalky ring visible at the junction of the warhead case and the cylinder.
6. Probable cause of incident was design deficiency.

Incident #2: ~~(S)~~ DASA Code 502-33

Date - 13 March 1963

1. During logistic movement of one Rocket Thrown Depth Charge (RTDC) Mk 2 Mod 0 [REDACTED] Mk 44 Mod 0 Warhead [REDACTED] was damaged. Damage included marring of paint approximately 30-inches long and one-inch wide with several slight depressions in case.
2. The incident probably occurred during assembly.
3. The cause of the incident is unknown.

Incident #3: ~~(S)~~ DASA Code 503-33

Date - 14 March 1963

1. Incident involved one BOAR Trainer, [REDACTED].

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~~TCM ENERGY SET 1964~~

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2. The pilot could not retract fins, therefore, the trainer was jettisoned along side break-water.
3. Probable cause of the incident is unknown.

Incident #4: (C)      DASA Code 504-33

Date - 15 March 1963

1. When a Mk 2 Mod 0 Operational Suitability Test (OST) Weapon, [REDACTED] was being unloaded from launcher cell, the Mk 10 cable retractor pin failed to clear lower snubber. Contact with the snubber resulted in fracture of Ignition and Separation Assembly (ISA) receptacle housing.
2. The cause of the incident is personnel error as the incident occurred as a result of error in visually estimating clearance between snubber and pin.
3. It has been recommended that Mk 10 cable retractor pin be redesigned to permit greater clearance between pin and snubber.

Incident #5: (C)      DASA Code 505-33

Date - 12 March 1963

1. While performing 120-day inspection of a Mk 25 Mod 0 War Reserve Warhead, [REDACTED] a dent .058 inch deep, 2.125 inches long, and 2.0 inches wide was discovered on the MC-672.
2. Preliminary investigation revealed damage may have occurred prior to January 1962 due to MF-9 Trailer malfunction which allowed the warhead to descend too rapidly on pallet horizontal bar.
3. Warhead has been rejected in accordance with paragraph 9-6.2.2.1, TP W25-1.
4. Probable cause of incident was malfunction of MF-9 Trailer.

Incident #6: (C)      DASA Code 507-33

Date - 16 March 1963

1. Incident involved a Mk 3 Mod 0, [REDACTED], ASROC Missile.
2. Missile was being retracted from launcher in accordance with Ordnance Publication (OP) 2983. As ignition separation assembly receptacle passed after snubber, forward plug of Mk 10 cable hit after snubber.
3. Forward wall of ignition separation assembly was fractured along both vertical seams and receptacle was loose. Retracting slide of cable was deformed. No other damage was found.
4. Retracting slide of cable assembly Mk 10 apparently hit after snubber while missile was being retracted, using air drive, possibly caused by sagging of plug in receptacle.

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5. Missile was being unloaded in accordance with OP 2983, snubbers fully retracted prior to unloading as visually observed by loading officer, safety officer, crew chief, and pickup man.

Incident #7: ~~(S)~~ DASA Code 508-33

Date - 20 March 1963

1. A Mk 105 Operational Suitability Test (OST) Weapon was aboard an A4C Aircraft that crashed.
2. Salvage operations reported the weapon appeared to be intact.
3. Weapon was disassembled in order to facilitate removal.

Incident #8: ~~(S)~~ DASA Code 509-33

Date - 6 March 1963

1. During storage monitoring of a XM47 Warhead Section, [REDACTED], a red No-Go indication was received during the storage prefire test.
2. Warhead section was disassembled and tested. Continuity test revealed no deficiencies. Test of the radar fuze revealed no deficiencies.
3. The rest of the adaption kit had not been tested.
4. Cause of the incident has not been determined.

Incident #9: ~~(SECRET)~~ DASA Code 510-33

Date - 12 March 1963

1. A nose cylinder flare assembly check of a Mk 4 Mod 3 Re-entry Vehicle (Mk 38 War Reserve Warhead) using a TTU-123/E Re-entry Vehicle Test Set indicated a ground isolation fault.
2. The test set is being modified to reduce sensitivity.
3. The warhead has been returned to a repair facility for ground leakage test and post mortem evaluation.

Incident #10: ~~(S)~~ DASA Code 511-33

Date - 13 February 1963

1. During loading of a Mk 43 Mod 1 Training Weapon onto an A-1H Aircraft, using an AERO 33C Bomb Truck, Plug P-3 of CF-1707 was jammed between the weapon connector protective cover and the ball loop retention rod. The P-3 Plug sustained slight mechanical damage.
2. The cause of the damage was attributed to personnel error.

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Incident #11: [REDACTED] DASA Code 512-33

Date - 15 March 1963

1. Acceptance inspection of a Mk 53 War Reserve Warhead revealed gouges along the B surface at the 6 o'clock position. Two gouges were more than 1/2-inch long extending the length of the flange at station 9, B surface and another gouge was approximately 1/2-inch wide.
2. The probable cause of the damage was improper loading into the handling cradle by the vendor.

Incident #12: [REDACTED] DASA Code 513-33

Date - 7 March 1963

1. Incident occurred while transferring a M97 Warhead Section, [REDACTED], from launcher rail to missile body truck using fork lift boom attached.
2. Upon lifting the missile, an unbalanced condition occurred causing the missile to descend slowly, in turn causing the main fin to rest on the lower rail of the missile body truck and the nose on the ground.
3. Damage occurred to main fin number 3 and forward fin number 4 and forward nose section.
4. Probable cause of incident is personnel error.

Incident #13: [REDACTED] DASA Code 514-33

Date - 27 March 1963

1. A lightning strike occurred between the inner and outer security fence of a missile complex.
2. No impact point on missile systems. Warheads were not damaged.

Incident #14: [REDACTED] DASA Code 501-43

Date - 20 March 1963

1. During the postload check of a Mk 7 Mod 5E War Reserve Bomb, [REDACTED], load crew member in the cockpit of an A4C Aircraft advanced the T208A operation control switch beyond "Post To" position, to either "Pre-Drop" position or near "Pre-Drop" position.
2. The arm light of the T208A came on causing the tail fins to move toward the extend position and then to the retract position.
3. Probable cause of the incident was inadvertent over rotation of operation control switch of T208A control box beyond "Post To" position, energizing the fins extension, in-flight insertion and electrical arm circuits of the Mk 7 Bomb.

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4. Cause of incident resulted from pressure in hangar due to leaky backup valves in 3000 pound air start line.

5. Inspected and declared operational. No moisture or salt water corrosion evidenced.

Incident #20: [redacted] DASA Code 507-43

Date - 10 April 1963

1. Incident involved separation of ablative material from warhead cylinders and nose sections of three war reserve Mk 4 Mod 3 Re-entry Vehicle, Mk 28 Mod 0, Warheads [redacted]

2. Probable cause of incidents are aging and curing of ablative material and temperature changes.

Incident #21: [redacted] DASA Code 508-43

Date - 12 April 1963

1. A Mk 4 Mod 3 War Reserve Re-entry Vehicle, W28 [redacted] Alt 221, Alt 225, was damaged due to separation of warhead as well as separation of ablative material from cylindrical section of nose section and chip in conical portion of nose section.

2. Ablative material appeared separated around entire periphery of warhead cylinder.

3. Probable cause of incident was design deficiency.

Incident #22: [redacted] DASA Code 509-43

Date - 25 March 1963

1. During periodic storage inspection of a Mk 54 Mod 0 War Reserve Warhead, [redacted] one of three guide locking pins on Jack number 1 warhead connector was found to be broken loose from its setting.

2. Cause of incident is material failure of setting holding the pin into Jack number 1 suspected.

Incident #23: [redacted] DASA Code 510-43

Date - 4 April 1963

1. A severe pressure leak around rear lift lug of a Mk 28 Y1 War Reserve Warhead, Alt 202, 216, [redacted] was found during conversion from Retarded Internal to Warhead.

2. A pressure reading of 0.5 psi was indicated. The warhead was repressurized to 15.0 psi and checked for pressure leaks. A severe leak was discovered around rear lift lug weld.

3. Cause of incident is unknown. A post mortem of warhead was requested.

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Incident #24: [REDACTED] DASA Code 511-43

Date - 8 April 1963

1. While moisture sealing nose section of a Mk 4 Mod 3 War Reserve Re-entry Vehicle, Mk 28 Mod 0 Warhead, Alts 221, 225, [REDACTED] ablative material was discovered separated from warhead cylinder.
2. Water has damaged ablative material and softened material around entire periphery of warhead.
3. There was evidence of water inside nose section or warhead cylinder. The ablative material was raised above nose section from .025 inch to .042 inch.
4. Probable cause of the incident was design deficiency.

Incident #25: (S/D) [REDACTED] DASA Code 514-43

Date - 25 April 1963

1. During disassembly of a Mk 28 Y1 Mod 1 War Reserve Warhead, [REDACTED] in preparation to perform W28-510 modification, detonator cable number 35 was found crushed between container cover and the groove which contains the preformed packing.
2. Probable cause of incident was too much slack allowed in detonator cable during previous assembly of weapon which was performed by contractor.
3. Cause of incident was personnel error.

Incident #26: [REDACTED] DASA Code 501-53

Date - 2 May 1963

1. While hoisting a Mk 105 Trainer, serial number 22, with a bridge crane on an AERO 33B Bomb Truck, insufficient clearance at the after end of the bomb caused the monitoring plug assembly to bear against a chock resulting in bending of connector pins, shearing of the inner collar and damage to thread of the outer collar.
2. Cause of incident was personnel error due to lack of adequate supervision.

Incident #27: [REDACTED] DASA Code 502-53

Date - 13 May 1963

1. During removal of a Rocket Thrown Depth Charge (RTDC) Mk 2 Mod 0, [REDACTED] Mk 44 Mod 0, [REDACTED] from an ASROC launcher cell to inspect the Mk 10 Mod 0 cable, the Mk 10 cable missile connector caught in the lower rear snubber which was fully retracted.
2. At this point, operations were stopped. On further inspection, missile cable housing receptacle J-1 was found to be broken allowing missile jack plug receptacle freedom of movement.

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3. Belock cable installed also indicate cracked insulation near missile connector. Consider housing cracked or broken prior to off loading to allow cable missile connector to sag sufficiently to catch on snubber.

Incident #28: ~~(S)~~ DASA Code 503-53

Date - 10 May 1963

1. While shifting a Mk 2 Mod 0 ASROC Missile [redacted] from cell 5 to cell 6 aboard a destroyer, the launcher cable receptacle housing of ASROC Mk 2 Missile split when the Mk 10 cable plug extractor caught on after bottom snubber.
2. The snubber was not fully retracted by approximately 1/16 inch although the snubber retracted lamp on the 3A2 panel was lighted and retraction confirmed visually.
3. Missile Electrical System Test (MEST) checks satisfactory. Snubbers operated normal.
4. Cause of incident was malfunction of snubber due to either binding or air in hydraulic system.

Incident #29: ~~(S)~~ DASA Code 504-53

Date - 7 May 1963

1. A high pressure reading obtained on Mk 40 Y1 Mod 0 War Reserve Warhead, [redacted]
2. A T-290 test was performed. While performing test, battery access cover was removed and a 1-1/4 inch split in [redacted] detonator cable insulation 1/4 inch from P7 connector was noted.
3. Probable cause of incident: Clamp, part number 810513-00 applicable to training, appeared to be holding excessive tension on P7 connector end of cable and detonator cable insulation appeared to be brittle.
4. The high pressure reading of approximately 1.5 psi is not believed significant and T-290 readings were negative.

Incident #30: ~~(S)~~ DASA Code 506-53

Date - 20 May 1963

1. During the unloading of a Mk 107 Bomb from an A1 Aircraft, the center station fuel plug was inadvertently pulled out of the aircraft.
2. Pulling the fuel plug out allowed gas to drain into the Mk 31 parachute pack and weapon.
3. Cause of the incident was personnel error during off loading procedures.

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Incident #31: ██████████ DASA Code 507-53

Date - 19 May 1963

1. Lightning struck a commercial power transformer located outside and adjacent to a missile complex security fence.
2. Damage was limited to a blown fuze on the transformer and loss of communications between complex and alternate command post due to a blown fuze in the communications system.
3. Warhead of a SM65F was not damaged.

Incident #32: ██████████ DASA Code 508-53

Date - 10 May 1963

1. A lightning strike occurred outside the security fence of a missile complex where Mk 49 Y2 Mod 0 War Reserve Warhead mated to a SM65D was in standby alert configuration.
2. The following indications were noted on the standby status panel: Launcher 2705 circuits red, flight control bar out, equipment status panel automatic pilot ground control unit went out.
3. A visual inspection and postmate checkout was performed with no damage indicated.

Incident #33: ██████████ DASA Code 509-53

Date - 16 May 1963

1. A lightning strike occurred between the security fence and spray pond of a missile complex.
2. A Mk 38 Mod 0 War Reserve Warhead mated to a SM65E was in the near vicinity of strike, however, there was no damage to the launch equipment or the missile system.

Incident #34: ██████████ DASA Code 510-53

Date - 13 May 1963

1. During the postflight safe-monitor test of a Mk 99 Mod 0 Training Weapon, it was determined that the capsule was inserted in the warhead contrary to nuclear safety instructions.
2. Cause of incident was simulation of items when employing it for the conduct of training flight.

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ACCIDENT - INCIDENT SUMMARY

1 MARCH 1963 through 31 MAY 1963

TYPE OF ACTIVITY	CAUSE							TOTAL	TYPE OF DAMAGE TO BOMB OR WARHEAD	Fuzing or Firing Component					
	Personnel Error	Mechanical Malfunction	Electrical Malfunction	Design Deficiency	Fire and Lighting	Environmental	Inadequate Procedures			Unknown	Materiel Failure	Mechanical	Electrical	Activation	Total Loss
<b>TRANSPORTATION</b>															
Tactical Air							2	2						2	
Logistical Air							1	1		1					
Rail															
Ship															
Motor Vehicle															
<b>HANDLING</b>															
Mechanical Equipment		1						1		1					
Manual															
<b>OPERATIONS</b>															
Aircraft Loading and Down Loading	3							3		1					2
Aircraft Postload Check	1							1							1
Warhead Mating															
Missile Operations	3	2	1	3	4		2	15		3					12
ADM															
Test and Maintenance	2					2	1	5		2					3
Inspection	1	1					1	3		3					
Training						1		1					1		
Storage						1		1							1
Aircraft Alert															
<b>TOTAL</b>	<b>11</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>7</b>	<b>4</b>	<b>33</b>	<b>11</b>				<b>3</b>	<b>19</b>	

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Accidents and Incidents During the Period 1 June 1963 through 31 August 1963

Incident #1: [REDACTED] DASA Code 501-63

Date - 6 June 1963

1. During a recycle operation in conjunction with performing Alt 225 on a Mk 38 Mod 0 War Reserve Warhead, Mk 4 Re-entry Vehicle, pin "G" of the arming and fuzing package cable CF-1573 connector J-3 was found to be slightly bent. The bent pin led to discovery of damaged CF-1573 rubber insulation.
2. A hole was found in the insulation next to receptacle "G" of CF-1573 connector P-3. Connectors were subsequently mated and pins entered proper receptacle each time.
3. Probable cause of the incident was personnel error due to improper cable connection.

Incident #2: [REDACTED] DASA Code 502-63

Date - 7 June 1963

1. Eight Mk 28 Mod 1 War Reserve Warheads mated to TM-76A Missiles were subjected to a lightning storm.
2. Lightning struck the ground outside of the perimeter fence, traveling 350 feet along the fence causing an electrical charge which [REDACTED] in Nose Temperature Control Unit (NTCU) ducts of missiles on pads 57, 58, and 60.
3. A 100 amp, 500 volt fuze in the diesel generator house blew causing complete power loss at the site. Also destroyed were three diodes and one resistor in each Power Distribution Control Unit.
4. All warheads were continuity tested and found serviceable.
5. T-290 Test was negative.

Incident #3: [REDACTED] DASA Code 503-63

Date - 11 June 1963

1. Incident involved a Mk 38 Mod 0 War Reserve Warhead, Mk 4 Re-entry Vehicle.
2. During preparation for modification and disassembly of flare from cylinder, a hole was found in the face of the rubber insulation next to receptacle "F" of P-5, cable CF-1573.

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3. Pin "F" of J-5, Cable P/N 305746-6 of flare section was found to be slightly bent and offset in the connector base.

4. Probable cause of the incident was personnel error due to improper cable connection.

Incident #4: (S) DASA Code 504-63

Date - 9 June 1963

1. Incident involved a Mk 28 Y1 Mod 1 War Reserve Bomb.

2. During pressure check after downloading, no pressure reading was obtained with a 5.0 to 100 psi tire gauge. Using a T-283, an estimated minus 5.0 psi was obtained.

3. Probable cause is loss of pressurization during high altitude flight.

Incident #5: (S) DASA Code 501-73

Date - 2 July 1963

1. A Mk 28 Y2 Mod 2 War Reserve Warhead was undergoing TP W28-510 modification when a damaged P-3 Receptacle of the MC-880 Interconnecting Box was discovered.

2. The pin gauge, P/N 166379-00, would not bottom against the glass insert of the receptacle.

3. In addition, the P-3 Receptacle was slightly flattened on one side.

4. Probable cause of the incident was personnel error. There was evidence of unknown personnel applying unauthorized tools to correct a reject condition.

Incident #6: (S) DASA Code 502-73

Date - 5 July 1963

1. During loading of a Mk 43 Y3 Mod 1 War Reserve Bomb, aboard an RF-101C Aircraft, the DCU-9A warning light came on when the DCU-9A control was rotated from OFF to SAFE.

2. When the DCU-9A control was rotated to OFF, the warning light remained on until the DCU-9A power was turned off.

3. The weapon was downloaded and a GWM-4 test was performed on the aircraft satisfactorily. The aircraft was reloaded using a substitute CF-1506 Cable and the same indications were noted.

4. The weapon was downloaded and a satisfactory loading accomplished using a BDU-6/E.

5. Weapon rejected.

6. Post mortem revealed warhead material deficiency.

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Incident #7:  DASA Code 504-73

Date - 11 July 1963

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1. Incident involved a Mk 7 Mod 5 Bomb.
  2. An indentation approximately 3/16-inch long with a depth of 0.015-inch at one end tapering to zero at the other end was found in the pellet protector disc of  detonator well.
  3. The indentation was between the wall and center of the detonator well. Positive determination of perforation could not be accomplished without sphere disassembly.
  4. Weapon was rejected in accordance with paragraph 5-5.8.3, TP B7-1.
  5. Cause of the incident was unknown.

Incident #8: ~~(S)~~ DASA Code 507-73

Date - 7 July 1963

1. A Mk 28 Y1 Mod 1 War Reserve Warhead failed pressure check after downloading from a high altitude flight.
2. The needle of the T-283 went from zero counterclockwise and stopped approximately 1/2 inch from 20 psi.
3. A T-290 Test was performed with negative results.
4. A T-304C Test was also normal.
5. The last pressure test of warhead pressure was 5.0 psi, 17 April 1963. Warhead was repressurized to 15.0 psi and had been flown three times from 17 April 1963 to date of incident.
6. Warhead was rejected.
7. Probable cause of the incident was material failure.

Incident #9: ~~(S)~~ DASA Code 508-73

Date - 18 July 1963

1. During modification of a Mk 28 Y2 Mod 1 War Reserve Warhead to a Mod 2, retaining screws of warhead pressure cover were difficult to remove.
2. Examination revealed damage to screw P/N 852642-00. The screw was stripped at 8 o'clock position of cover. The helicoil insert, in which the screw was installed was also damaged. The helicoil threads were damaged and the helicoil unthreaded one to two turns out of position.

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3. The silicone jacket of lower CF-1439 Cable was split open at the P-1 Connector. The split extended longitudinally 1/2 inch from P-1 Connector.
4. Preformed packing P/N 837930-00 was missing from P-1 of CF-1595.
5. The warhead was rejected.
6. Probable cause of the incident was personnel error.

Incident #10: (S)       DASA Code 509-73

Date - 10 July 1963

1. Incident involved a Mk 28 Y1 War Reserve Warhead.
2. Warhead had been mated to a GAM-77 aboard a B-52G Aircraft. The warhead failed pressure check after download from a 24-hour B-52G Flight.
3. The T-283 pressure gauge needle deflected backward indicating a negative pressure.
4. All seals had been replaced at a previous date due to pressure leakage. This was the first flight since seal replacement. Warhead was rejected.
5. Cause of the incident was material failure.

Incident #11:       DASA Code 501-83

Date - 24 July 1963

1. Incident involved one training weapon, Mk 2 Mod 0 Rocket Thrown Depth Charge (RTDC).
2. During a loading maneuver, the following conditions were discovered:
  - a. Thrust neutralizer was found to be frozen. The entire motor insert turned easily when pressure was first applied to the thrust neutralizer. Inspection revealed retaining pin to be sheared.
  - b. External receptacle on Ignition and Separation Assembly (ISA) was found to be loose on initial insertion of Mk 10 cable. Inspection revealed two internal retaining bolts loose.
3. Probable causes of the incident are:
  - a. Failure of retaining pins.
  - b. Personnel error in assembly of external receptacle on ISA.

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Incident #12: (S) [redacted] DASA Code 503-83

Date - 2 August 1963

1. Incident involved a Mk 28 Y1 Mod 1 War Reserve Warhead. A 20.0 psi reading was obtained after a high altitude flight.
2. Last pressure test performed on 4 June 1963 gave a reading of 5.25 psi. Warhead was flown twice on 30 June and 1 August 1963.
3. Warhead was rejected.
4. Probable cause of incident was material failure.

Incident #13: [redacted] DASA Code 504-83

Date - 22 July 1963

1. Incident involved a Mk 57 Mod 0 Operational Suitability Test Weapon (OST).
2. The weapon was on an AERO 12B Bomb Skid during an unloading exercise.
3. When the weapon was lowered on the AERO 12B Bomb Skid with a Mk 8 hoist, the hoisting band was positioned on the weapon chocks of the AERO 12B. The pre-flight selector window was inadvertently placed on one of the weapon chocks of the AERO 12B. The Mk 57 nose was lifted to facilitate removal of the AERO 61A Hoisting Band which placed additional pressure on the pre-flight selector window causing it to break.
4. The cause of the incident was personnel error in positioning the weapon on the AERO 12B Bomb Skid with the pre-flight selector window on one of the AERO 12B chocks during off-loading.

Incident #14: [redacted] DASA Code 505-83

Date - 27 July 1963

1. Incident involved a Mk 28 Mod 1 War Reserve Warhead. Approximately 6 psi was discovered during pressure check following warhead removal from a GAM-77.
2. Records indicate pressure readings were all above 10.0 psi since initial pressure record entry in February 1962.
3. Probable cause of the incident was material deficiency.

Incident #15: [redacted] DASA Code 509-83

Date - 15 August 1963

1. Incident involved a Mk 28 Mod 3 War Reserve Bomb.

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2. During retrofit in accordance with TP W28-512, the P-3 Connector was pinched between the container cover, P/N 179067-00 and section "C", P/N 137969-00.

3. The MC-1736 X-Unit was returned to San Antonio Air Materiel Area for repair and inspection.

4. Cause of the incident was personnel error.

Incident #16: (37)      DASA Code 512-83

Date - 19 August 1963

1. During a storage inspection, an F7 Fuze was positioned on an H-12 Adjustable Hand Truck and transported to the Electrical Bay. As the H-12 was being adjusted in front of the Cartridge Assembly Test station, the fuze rolled to the rear and off the H-12 and on to the floor. The MC-134 X-Unit was dented approximately 1/4-inch deep along an arc of approximately 20 degrees.

2. Fire set was rejected.

3. Cause of incident was personnel error.



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Accidents and Incidents During the Period 1 September 1963 through 30 November 1963

Incident #1: (S) DASA Code 508-103

Date - Unknown

1. A cannon plug connector to the MC-251 Motor Generator of a Mk 1 Mod 2 Fire Set was discovered broken during an acceptance inspection.
2. Investigation revealed that the damage was done either during previous maintenance or at the time of manufacture.
3. The fire set was red lined awaiting disposition instructions.
4. Probable cause of the incident was personnel error.

Incident #2: (S) DASA Code 505-93

Date - 21 September 1963

1. During a receipt inspection of a Mk 2 Mod 0 Rocket Thrown Depth Charge (RTDC) Training Weapon, the securing pin of the nozzle plate restraining spring was found to be sheared.
2. While attempting to remove the thrust neutralizer nozzle plate, it turned freely, verifying that the pin had been sheared prior to receipt.
3. Probable cause of the incident was personnel error.

Incident #3 (S) DASA Code 502-83

Date - 31 July 1963

1. While performing modification on a Mk 25 Mod 0 Warhead as outlined in TP W25-502, the X-unit was found bolted to the pressure cover 30° counterclockwise to the prescribed position, causing a strain to be placed on the cable connecting J-49 to the fire set. There was evidence of previous damage to the pressure cover. An area of approximately 3 square inches appeared to have been dented and repaired. The T-304 Electrical Monitor Tests before and after modification were normal. There was no visual evidence of damage to the fire set. The unit was returned for post-mortem.
2. Examination of the warhead disclosed: (1) The MC-1274 Fire Set bolts were not properly lockwired - the lockwire tension was in a loosening direction; (2) the SA-317 Connector Number 23 was slightly dented; (3) there was discoloration inside the pressure cover between detonator cables [redacted] over an area approximately 1-1/2 x 3 inches; (4) the pressure cover was thoroughly inspected and no evidence of damage could be found. Since the X-unit had been

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incorrectly assembled, with the original warhead connecting cable subject to possible damage from strain. The MC-1274 Fire Set will be functionally reaccepted in a manner similar to new production. The SA-317 Connector Number 23 will be replaced. After rebuild, the warhead will be returned to the stockpile.

3. Cause of the incident was personnel error.

Incident #4

DASA Code 506-83

Date - 11 October 1963

1. While performing modification on a Mk 25 Mod 0 Warhead as outlined in TP W25-502, it was noted that the fire set was bolted to the pressure cover in a position 60° clockwise to the prescribed position. All of the detonator cables were connected to the fire set 60° off the prescribed position, resulting in improper connection of all detonator cables numerically.

2. T-304 electrical monitor tests before and after modification were normal. There was no visual evidence of damage to the fire set.

3. There was evidence of previous damage to the pressure cover as an area of approximately 5 square inches appeared to have been dented and repaired. The unit was returned for post-mortem.

4. Examination of the warhead failed to disclose any damage to the pressure cover or to the fire set. Since the X-unit had been incorrectly assembled, with the original warhead connecting cable subject to possible damage from strain, the MC-1274 Fire Set will be functionally reaccepted in a manner similar to new production.

5. Cause of incident was personnel error.

Incident #5

DASA Code 506-103

Date - 14 October 1963

1. A Mk 25 Mod 1 Warhead was in the process of modification as outlined in TP W25-502, when the X-unit failed the test as specified in paragraph 3-3. 8. 9. The ARM lamp failed to light. Procedures in paragraph 3-3. 8. 14 to paragraph 3-3. 6. 14. 13 were performed and the ARM lamp again failed to light. Warhead was rejected.

2. Probable cause of incident was due to material failure of the MC-1274 Fire Set.

Incident #6

DASA Code 503-113

Date - 5 November 1963

1. While performing modification on a Mk 25 Mod 0 Warhead as outlined in TP W25-502, the X-unit was found bolted to the pressure cover 60° clockwise of the prescribed position.

2. All detonator cables were connected 60° from the proper position.

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Incident #10 ~~(S)~~

DASA Code 503-103

Date - 9 September 1963

1. A Mk 28 Bomb was undergoing a change in accordance with TP B28-1A when it was noted that the vinyl covering of Cable P-5 of the MC-1729 Interconnecting Box was cut and crushed, exposing the wires of the Cable P-5.

2. Cable P-5 apparently was caught between the J-1 receptacle and the container cover when the cover was replaced following Prescribed Action Link (PAL) modification.

3. Probable cause of the incident was due to cable routing and excessive length of the Cable P-5.

Incident #11 ~~(S)~~

DASA Code 504-93

Date - 23 September 1963

1. While arming a Mk 28 Y1 Mod 2 Full Fuzing Internal Bomb in an MHU-20/C QUAD Pack for B-52 Aircraft alert, the DCU-9/A Inflight Control Box was placed on SAFE and SWK-2/A24 T-1 placed on lower right. The DCU 9/A warning light came on, power was turned off and the weapons unloaded.

2. After the weapon was unloaded, a T-304 electrical monitor test was performed. The DS-1 light of the T-304 did not light. The weapon was then disassembled and a satisfactory T-304 test was obtained on the Mk 28 Mod 3 Full Fuzing Internal Shape Component (FISC) fuze. However, the warhead DS-1 light would not light. The warhead had been modified to Mod 2 two days prior to the incident and at that time no abnormal indications were noted.

3. Results of a post-mortem revealed that the MC-888 Arming-Safing Switch Assembly was off the SAFE position. When power was applied directly to the SAFE or ARM lines, each channel of the MC-888 switch functioned properly; that is, it stopped in the SAFE or ARM positions correctly. Further testing with a Production Tester PT-552 detected an intermittent short in Channel 1 of the switch, which would permit DCU 9/A safing power to run the MC-888 from the SAFE to an intermediate position. This channel may have run through the ARM position depending on the length of time the DCU 9/A selector switch was in the SAFE position and the conductivity of the short circuit.

4. Probable cause of the incident was material failure.

Incident #12 ~~(S)~~

DASA Code 502-103

Date - 1 October 1963

1. During an inspection following shipment ~~██████████~~ Mk 28 Mod 1 Warheads, the safety wire and lead seal on the cable connectors CF-1595 and CF-1596 were found missing. The lead seals were not pressed to the safety wire on the CF-1595 and CF-1596 cable connectors ~~██████████~~

2. Probable cause of incident was personnel error.

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Incident #13 [REDACTED]

DASA Code 505-103

Date - 16 October 1963

1. While preparing a Mk 28 Y1 Mod 2 Warhead for conversion, it was noted that the forward bomb suspension lug could not be removed due to the lug insert rotating with the suspension lug.
2. Probable cause of incident was personnel error due to either an excessive amount of loctite sealant applied to the lug, threads being coated with paint, or possible damage to the threads.

Incident #14 [REDACTED]

DASA Code 501 and 502-113

Date - 23 October 1963

1. During an inspection following shipment from an AEC production agency, the MC-1531 blue plastic cover on two F28-3 War Reserve Fuzes were found loose. The blue plastic cover of one F28-3 War Reserve Fuze was found lying at the base of the container.
2. Cause of the incident was either due to vendor packing or damage during shipment.

Incident #15 [REDACTED]

DASA Code 511-103

Date - 24 October 1963

1. [REDACTED] Mk 28 Y1 Mod 2 Warheads were involved in an incident during the process of removing GAM-77A warhead hardware in preparation for stockpile storage configuration.
2. When attaching the H-418A sling to the bomb suspension lugs, it was necessary to reposition the bomb suspension lugs. When pressure was applied to loosen the lugs, the lug inserts turned 1/4 inch in a loosening direction before the suspension lugs loosened.
3. Probable cause of the incident was due to the shear strength of 1000 psi of the Grade A loctite sealant applied to the threads of the bomb suspension lugs.

Incident #16 [REDACTED]

DASA Code 507-103

Date - 9 October 1963

1. A Mk 28 Y1 Warhead was mated to a TM 76B MACE Missile when a fire broke out in the missile.
2. An inspection of the warhead which included a visual inspection, T-304 electrical monitor test and a T-283 pressure check revealed no damage or discrepancies. There was no evidence of any component of the warhead section being subjected to high temperatures. Warhead cables leading to the warhead section were not charred or burned in any way. The warhead was rejected and returned to an AEC production facility for evaluation.
3. Cause of incident was, torque exciter bearings had frozen causing short circuit and fire.

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Incident # 17 (~~SECRET~~)      DASA Code 508-113

Date - Unknown

1. After a Mk 28 Y2 Mod 1 Warhead was unloaded from a B47E Aircraft, weapon safing procedures were begun.
2. The weapon crew chief rotated the finger wheel of the MC-1229 Ready-Safe Switch from the ready position in a clockwise direction. The switch rotated from the ready position through the safe position until it reached the ready position all in one clockwise motion. The switch was rotated from the ready to the safe position without further incident. The aircraft clip-in cables had been removed.
3. The MC-1229 was cycled to the ready position by connecting the clip-in electrical connectors. Then, with power off, the MC-1229 was cycled to the safe position. Eight cycling operations by this manner failed to duplicate the original condition whereby the MC-1229 failed to lock in the safe position.
4. Probable cause of the incident was either due to the possibility that the crew chief rotated the Ready-Safe Switch too rapidly to permit lock engagement or material failure of the MC-1229.

Incident #18 (~~SECRET~~)      DASA Code 510-113

Date - 20 November 1963

1. After a high altitude flight, the pressure of a Mk 28 Y1 Mod 2 Warhead was found to be 4.75 psi.
2. The warhead was repressurized and a 24-hour pressure check performed. At the end of the 24-hour pressure check, the warhead pressure was 5 psi over the maximum allowable limits.
3. Maintenance was then performed in accordance with paragraph 3-6.2.2 of TP B28-3. Three leaks were found around the rear lift lug insert. The warhead was rejected.
4. Probable cause of the incident was due to material failure.

Incident #19 (~~SECRET~~)      DASA Code 511-113

Date - 20 November 1963

1. A pressure reading of 3 psi was obtained on a Mk 28 Mod 2 Warhead during a post flight pressure check.
2. Leaks were discovered around the rear suspension lug well. Replacement of gaskets was not attempted because a leak at the lug seal was evident. Warhead was rejected.
3. Probable cause of incident was material failure.

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Incident #20

~~(S)~~ DASA Code 509-113

Date - 19 November 1963

1. The pressure of a Mk 28 Mod 2 Warhead was down to zero after a high altitude flight.
2. Maintenance was performed in accordance with TP B28-1. The warhead failed the pressure test. Maintenance was then performed in accordance with TP B28-3. Again, the warhead failed the pressure test.
3. Cause of the incident was unknown.

Incident #21

~~(S)~~ DASA Code 501-123

Date - 26 November 1963

1. The pressure of a Mk 28 Y1 Mod 2 Warhead indicated zero psi following a B52 flight.
2. The weapon was then pressurized to 15 psi. A leak was detected around the rear suspension lug. The warhead was rejected.
3. Probable cause of the incident was material failure.

Incident #22

~~(S)~~ DASA Code 512-113

Date - 21 November 1963

1. Loading of an F-100D aircraft with a Mk 28 weapon was in progress when the J-2 ARM/SAFE plug solenoid pin did not retract when aircraft power was applied.
2. The J-2 ARM/SAFE plug could not be armed. The cable CF-1432 was changed with negative results. A Flight Circuit Test (FCT) of the aircraft was performed with an AN/GWM-4 Tester. Test revealed aircraft circuitry to be functional. A replacement weapon was loaded without difficulty.
3. Cause of the incident was unknown.

Incident #23

~~(S)~~ DASA Code 510-103

Date - 9 October 1963

1. Two cracks were discovered on the MC-865 X-unit during modification of a Mk 40 Y1 Mod 0 Warhead.
2. One crack was located on the P-4 side of the Lower MC-890 TR Neutron Generator and the other on the J-1 side of the MC-890 TR. The cracks began at the drilled mounting holes and continued to the top edge of the MC-865.

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3. The warhead was rejected.

4. Probable cause of incident is due to damage which occurred during manufacture when mounting holes were drilled.

Incident #24

DASA Code 505-113

Date - Unknown

1. A Mk 43 Shape Component was stored on an AERO 12B skid during preparation for maintenance when it was discovered that the CF-1462 connector P1 cable assembly insulation was split 1-inch exposing the cable wiring.

2. Probable cause of incident was personnel error due to improper handling with the AERO 12B skid which resulted in the CF-1462 being forced against some object causing the break in the cable insulation.

Incident #25

DASA Code 504-113

Date - 28 August 1963  
22 October 1963

(b) (3) 1. [REDACTED] Mk 47 Warheads were involved in an incident as a result of a pin hole leak in the breath valve diaphragm which allowed salt water spray into the upper section missile tube.

2. There was slight corrosion and salt deposits found around mating joint flare to equipment section [REDACTED]

3. One unit had evidence of black oxidation around joint 31-inches forward of warhead/flare joint.

4. There was no moisture within the flare assembly [REDACTED]

5. Cause of the incident was material failure due to malfunction of the tube pressurization valve diaphragms.

Incident #26

DASA Code 506-113

Date - 7 November 1963

1. A Mk 49 Y2 Mod 4 Warhead was rejected when it was discovered that the cables which attach to the MC-950A were damaged. The vinyl covers of two CF-1584 cable assemblies were damaged. The vinyl covers of two CF-1584 cable assemblies and one CF-1590 cable assembly were found split beyond repair.

2. Cause of the incident was unknown.

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Incident #27

DASA Code 501-93

Date - 23 August 1963

1. Upon preparation for an Operational Suitability Test Flight Maneuver with a Mk 90 Mod 0 Weapon and while performing step E. 2 of the Navy Weapons 01-75EDA-14 check list, the N-ARM Ready Lamp went off and the N-ARM Safe Lamp did not come on after 10 seconds.
2. Weapon disassembly revealed that the MC-44 gear train had frozen.
3. Probable cause of the incident was material failure.

Incident #28

DASA Code 507-113

Date - Unknown

1. A Mk 102 Mod 0 Weapon was being unloaded from an S-2D aircraft. During the unloading procedures, the AERO 6A pullout cable and pullout bail had been disconnected in accordance with applicable steps of NAVWEPS 01-85SAD-16 unloading check list. The pullout bail was also tucked into the afterbody.
2. The weapon had been lowered approximately half way to the bomb skid when the loading crew chief noticed the adapter plug had been pulled completely out and was resting on the top of the weapon.
3. Probable cause of the incident was due to the pullout bail working free allowing it to loop over the weapon pullout adapter plug bail bracket pin.

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ACCIDENT - INCIDENT SUMMARY

1 SEPTEMBER 1963 through 31 DECEMBER 1963

TYPE OF ACTIVITY	CAUSE							TOTAL	TYPE OF DAMAGE TO BOMB OR WARHEAD						
	Personnel Error	Mechanical Malfunction	Electrical Malfunction	Design Deficiency	Fire and Lightning	Environmental	Inadequate Procedures		Unknown	Materiel Failure	Other	Mechanical	Electrical	Fuzing or Firing Component Activation	Total Loss Explosives Components
TRANSPORTATION															
Tactical Air															
Logistical Air															
Rail															
Ship															
Motor Vehicle															
HANDLING															
Mechanical Equipment															
Manual															
OPERATIONS															
Aircraft Loading and Down Loading								1	1	1	3		3		
Aircraft Postload Check								1	4		5		4		1
Warhead Mating															
Missile Operations		1							1		2		1		1
ADM															
Test and Maintenance	7							1	2	3	13		9	1	3
Inspection	3									1	4		3		1
Training															
Storage															
Aircraft Alert									1		1		1		
TOTAL	10	1						3	9	5	28		20	2	6

Appendix I to Technical Letter 20-3

Accidents and Incidents During the Period 1 December 1963 through 29 February 1964

Incident #1: [REDACTED] DASA Code 502-123

Date - 4 December 1963

(b) (3) (1) 1. [REDACTED] Mk 2 Mod 0 Rocket Thrown Depth Charges (RTDC) with Mk 44 Mod 0 Warheads were stored in an ASROC magazine when the sprinkling system activated, resulting in partial flooding of the magazine.

2. The ASROC weapons were subjected to high velocity salt water spray for a period of approximately 5 minutes. The magazine had 4 to 6 inches of salt water which was removed by pumping and swabbing. The salt water was wiped from all the weapons. The weapons were transferred to determine the extent of damage and disposition as necessary.

3. Cause of the incident was due to slight seepage through the sprinkler system control valves and simultaneous plugging of the main control valve pressure relief drain.

Incident #2: [REDACTED] DASA Code 505-24

Date - 7 February 1964

1. During a training exercise and prior to applying torque to the thrust neutralizer on a Mk 2 Mod 0 Training Rocket Thrown Depth Charge (RTDC), the nozzle plates began turning freely while the thrust neutralizer was being hand tightened.

2. The nozzle plate restraining spring was suspected to be loose or sheared.

3. Probable cause of the incident was personnel error due to improper torquing.

Incident #3: [REDACTED] DASA Code 507-123

Date - 19 December 1963

1. During a postload check of an F-100D Aircraft with a Mk 28 Mod 3 War Reserve Weapon aboard, the J-2 ARM/SAFE Plug could not be extracted to enable movement to the ARM position.

2. This was the initial loading of the Mk 28 since it received Mod 3 rework.

3. The weapon was unloaded. The aircraft circuit was checked with an AN/GWM-4 Tester and another weapon loaded without difficulty.

4. Cause of the incident: Reference Incident Number 5.

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~~ATOMIC ENERGY ACT 1954~~

Appendix 1 to Technical Letter 20-3

Incident #4: ~~(S)~~ ~~(S)~~ DASA Code 508-123

Date - 23 December 1963

1. During a postload check of an F-100D Aircraft with a Mk 28 Mod 3 War Reserve Weapon aboard, the J-2 ARM/SAFE Plug solenoid pin did not retract permitting the J-2 Plug to be extracted and rotated to the ARM position.
2. The rejected weapon was given a complete electrical test in accordance with figure 6-13 of Technical Publication B28-1. The test showed the weapon to be functional.
3. This weapon had not been loaded since undergoing a Category A Prescribed Action Link retrofit.
4. Cause of the incident: Reference Incident Number 5.

Incident #5: ~~(S)~~ ~~(S)~~ DASA Code 506-123

Date - November-December 1964

1. The J-2 ARM/SAFE Plug could not be moved to the ARM position on three Mk 28 Y3 Mod 3 Retarded External (RE) War Reserve Weapons.
2. When the warhead container covers were removed, it was noted on two warheads that the P-1 female Connector from the MC-1729 Interconnecting Box, and the J-1 male Receptacle of the MC-796 Thermal Battery Pack, were burned around Pin F. In one case, Pin F had been burned off the J-1 Receptacle and was fused in the F hole of the P-1 Connector. In the other instance, Pin F of the J-1 Receptacle had disintegrated and the fragments remained in hole F of the P-1 Connector. When the warhead container cover of the third warhead was removed, J-1 Receptacle pins F and H had both disintegrated and the fragments were lodged in the corresponding P-1 Connector holes.
3. The P-4 Connector Cable between the MC-890 Neutron Generator and the MC-1729 Interconnecting Box, and the cable from J-4 on the MC-1729, were crushed where they cross the MC-1729 housing. The diameter of one of these cables is approximately 11/32 inch. The clearance between the MC-1729 and the warhead container cover where these cables cross is approximately 8/32 inch. The two cables, positioned one on top of the other, had been damaged when compressed during installation of the new warhead container cover to a combined thickness of 8/32 inch.
4. On one warhead, the external insulation of each cable had ruptured and a bare wire was visible through the torn insulation of one cable. Cables were left compressed together on the other two warheads and the container covers carefully replaced to preserve evidence of the type of damage.
5. Each of the three MC-796 Thermal Battery Packs were coated along sides and lower seams with sticky brown exudate.
6. A Prescribed Action Link modification had been accomplished on each of the three weapons. Failure of the ARM/SAFE Plug to move to the ARM position occurred in each instance during the first loading operation following performance of Technical Publication W28-512.

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7. The F-100D Aircraft on which the weapons had been loaded had been certified before and after each loading in which the ARM/SAFE Plug malfunction occurred.

8. Each of the three weapons was given a T-304C Electrical Monitor Test before and after the loading during which the malfunction occurred.

9. Suspected cause of the crushed cables, damaged connectors, and apparently fired thermal batteries, is a deficiency in Prescribed Action Link procedures.

Incident #6: (S) DASA Code 508-24

Date - 17 February 1964

1. A Mk 28 Y1 Mod 1 War Reserve Warhead was undergoing routine maintenance when it was noted that the forward lug insert turned approximately three quarters of a turn.

2. Probable cause of the incident was material failure.

Incident #7: (S) DASA Code 503-123

Date - 12 December 1963

1. While attempting to remove the bomb suspension lug of a Mk 28 Y1 Mod 1 War Reserve Warhead, the lug insert rotated in the warhead case.

2. The lug could not be removed from the lug insert. The warhead was rejected.

3. Cause of the incident was material failure.

Incident #8: (S) DASA Code 501-14

Date - 24 December 1963

1. A Mk 28 Y1 Mod 1 War Reserve Warhead was being modified to Mod 2 in accordance with Technical Publication W28-510 when the P-3 Connector was pinched between the MC-890A Neutron Generator and the container cover.

2. The P-3 Connector of the MC-708 Thyatron Controlled Pulse Circuit also was partially crushed and the lower MC-890A Neutron Generator dented.

3. Probable cause of the incident was personnel error.

Incident #9: (S) DASA Code 507-14

Date - 15 January 1964

1. The DS2 lamp on the T304C Electrical Monitor failed to light while performing a reacceptance inspection on a Mk 28 Y1 Mod 1 War Reserve Warhead after being unloaded from an alert aircraft.

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~~ATOMIC ENERGY ACT 1954~~

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2. The test was then performed with another T-304C and the DS2 Lamp again failed to light.
3. The GAM mounting equipment was removed and the warhead was monitored in accordance with figure 6-14 of Technical Publication B28-1. The DS2 Lamp again failed to light. The warhead was rejected.
4. A critical circuit check was performed on the aircraft with no discrepancies noted.
5. A Missile Junction Box (GAM-77A) checkout was performed on the missile in accordance with Technical Order 21-FAM 44-2-10. No discrepancies were noted.
6. Cause of the incident was unknown.

Incident #10: ~~(S)~~ DASA Code 510-14

Date - 22 January 1964

1. While disassembling a Mk 28 Y1 Mod 2 War Reserve Warhead to comply with Technical Publications B28-1A and W28-510, it was noted that the socket head cap screw, located at the 6 o'clock position on the cover of the MC-706 Warhead Ballistic Case, was 1/4 inch too long.
2. The other 11 cap screws seemed very tight and possibly over torqued. The helicoil inserts were inspected. Inserts at the 6, 8, and 12 o'clock positions showed possible damage. When the cover was being replaced, the cap screw at the 12 o'clock position would not go in without over torquing.
3. Probable cause of the incident was personnel error.

Incident #11: ~~(S)~~ DASA Code 504-24

Date - 13 February 1964

1. A negative pressure of approximately 6 psi was obtained on a Mk 28 Y1 Mod 0 War Reserve Weapon following a high altitude flight.
2. Probable cause of incident was material failure.

Incident #12: ~~(S)~~ DASA Code 501-34

Date - 26 February 1964

1. A pressure reading of 1.5 psi was obtained on a Mk 28 Mod 2 War Reserve Weapon following a high altitude flight.
2. The weapon was repressurized and a leak detected at the left suspension lug. The weapon was rejected.
3. Probable cause of the incident was material failure.

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Incident #13: (S) DASA Code 503-34

Date - 27 February 1964

1. A pressure reading of 0.25 psi was obtained on a Mk 28 Mod 1 War Reserve Warhead following a high altitude flight.
2. Pressure seals were previously replaced and the warhead passed the pressure check.
3. The valve assembly was found defective and replaced. The warhead failed the pressure check. The warhead was rejected.
4. Probable cause of the incident was material failure.

Incident #14: (S) DASA Code 507-24

Date - 14 February 1964

1. A recycle inspection was being performed on a Mk 4 Re-entry Vehicle with a Mk 38 Y1 Mod 0 War Reserve Warhead installed when approximately 1 tablespoon of dark viscous liquid was found inside the weapon case.
2. The liquid accumulated at the 6 o'clock position inside the cylinder case directly below the warhead cover. Small quantities of liquid also were found at the 7 to 8 o'clock position of the joint between the warhead case and rear cover. The liquid appeared to be oil used in the motor inside the warhead.
3. There was no loss or variance in warhead pressure. A T-290 test was negative.
4. Cause of the incident was unknown.

Incident #15: (S) DASA Code 502-34

Date - 27 February 1964

1. During a recycle inspection of a Mk 4 Re-entry Vehicle with a Mk 38 Mod 0 War Reserve Warhead installed, a gouge was found on the CF-1571 Cable.
2. The gouge was on the right side, 4 inches from the back-up structure. There was possible cutting into the wire that connects pin 6 on Plug P-2. The gouge was located on the edge surface of the flat cable approximately 15 inches from the connector.
3. Probable cause of the incident: Cable was pinched by inner surface of nose during engagement of the breech lock threads.

Incident #16: (S) DASA Code 511-24

Date - 25 February 1964

1. The loading crew noted the Ready-Safe Switch of a Mk 43 Y1 Mod 0 War Reserve Weapon was positioned halfway between the Ready and Safe positions.

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ATOM ENERGY CT 54

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2. The weapon was being unloaded from an F-101C Aircraft. The strike enabling plug was removed and the Ready-Safe Switch safed in accordance with Technical Publication B43A-1 procedures. The weapon was rejected.

3. Cause of the incident was unknown.

Incident #17: [REDACTED] DASA Code 503-24

Date - 11 February 1964

1. An XM99 Training Atomic Warhead Section, Training Rocket Motor Assembly and an SM34 Rocket Launcher were damaged as the SM34 Launcher tilted and overturned as the tow vehicle attempted to pass a stopped vehicle.

2. There were dents and scratches from station 36 to station 80 at 180 degrees clockwise from the top of the warhead section to a maximum depth of 1/8 inch. There was a dent and break of skin 6 X 6 inches from station 42 to station 45 at 180 degrees from the top of the warhead section to a maximum depth of 1 inch. There was also undetermined damage to the captive locking ring at station 79.

3. The SM34 Rocket Launcher left jack was broken from the carriage.

4. The rocket motor assembly had one of four fins severed and bent.

5. Probable cause of the incident was excessive speed and following the civilian vehicle too closely.

Incident #18: [REDACTED] DASA Code 506-24

Date - 22 January 1964

1. During a Navy Technical Proficiency Inspection, and while loading a P-3A Aircraft with a Mk 102 (Shape for a Mk 101 Depth Bomb), the Mk 8 Hoist Cable apparently jammed when the Mk 102 shape was approximately 1/2 inch from locking into the MAU-38A Rack.

2. Examination of the rack, Mk 8 Hoist Cable, shape and rack adapter showed the swaged fitting on the Mk 8 Hoist Cable jammed on the bottom of the rack. All racks inspected showed abrasions on the inside edge of the racks, plus abrasions on the bottom of the racks.

3. Cause of the incident: The abrasions on the inside edge of the rack and the abrasions on the bottom of the rack were caused by the hoist swaged fitting jamming on the bottom due to insufficient clearance of the hoist cable.

Incident #19: [REDACTED] DASA Code 505-123

Date - 20 December 1963

1. A Mk 105 Mod 0 Bomb was being moved on a wooden skid into a magazine when the weapon rocked and fell approximately 4 inches with its nose and suspension lug striking the deck.

2. Small scratches were the only visible damage.

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- 3. The area was monitored with a T-290A with negative results.
- 4. Cause of the incident was personnel error due to using improper equipment.

Incident #20: (S) [redacted] DASA Code 506-24

Date - 17 September 1963

- 1. When a Mk 107 Weapon was being unloaded from an A1H Aircraft during a training exercise, the weapon rotated as it was released from the bomb rack, placing excessive strain on the CF-3019 Cable.
- 2. The rotation of the weapon resulted in the wiring inside the cable parting at a point half-way down the cable.
- 3. Probable cause of the incident was personnel error due to improper positioning of the bomb truck under the aircraft.

Accident #1: (S) [redacted] DASA Code 506-14

Date - 13 January 1964

7 (3)

- 1. A B-52D Aircraft with two [redacted] Weapons crashed while in a recovery configuration.
- 2. The aircraft encountered severe turbulence at an altitude of 29,000 feet.
- 3. Both of the weapons suffered major damage. The honeycomb sections of both weapons were stripped off the basic assemblies with the exception of one section approximately 1 X 3 feet on the one weapon which appeared to have been relatively undamaged. The rear cover plate was intact. The other weapon assembly case was cracked approximately 2/3 to 3/4 of the circumference near the middle of the weapon and the rear cover plate was broken off. Parachute containers and after-body sections of both weapons were missing.
- 4. There was no contamination involved.



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Accidents and Incidents During the Period 1 March 1964 through 31 May 1964

Incident #1: [REDACTED] DASA Code 505-54

Date - 12 May 1964

1. During an unloading exercise involving a Mk 2 Mod 0 Rocket Thrown Depth Charge (RTDC) Training Weapon, the metal surrounding the Ignition and Separation Assembly (ISA) receptacle was broken.
2. The damage occurred when the Mk 10 cable assembly was caught on the bottom snubber of the launcher cell when the missile was being moved.
3. The cause of the incident was unknown.

Incident #2: [REDACTED] DASA Code 510-34

Date - 17 February 1964

1. During an A4C Aircraft loading exercise involving a BDU 11/E Training Weapon, the inner connector shell P-1 of the TR CF-1645 Cable Assembly was chipped 3/4 inches around its circumference to the depth of the socket. The chipped area was adjacent to the guide slot.
2. The damage to the shell was caused by misalignment of the guide slot and subsequent forcing of the connector.
3. The BDU 11/E was not damaged.

Incident #3: [REDACTED] DASA Code 506-44

Date - 3 April 1964

1. A BDU 11/E Training Weapon was being loaded aboard an A1-series aircraft during a strike exercise when it dropped approximately 14 inches from the bomb rack onto the AERO 33C Bomb Truck.
2. The shape component was dented. However, the warhead section was undamaged.
3. The cause of the incident was failure of the AERO 3A Ejector Rack. The trainer had been secured on the rack, but the locking sear unlocked when the ejector foot was tightened. The locking sear was worn from use.

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ATOMIC ENERGY ACT 1954

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Incident #4: [redacted] DASA Code 515-54

Date - 23 May 1964

1. During a training operation with a Mk 17 Mod 1 Rocket Thrown Depth Charge (inert), the nozzle plate rotated when the thrust neutralizer was torqued for removal.
2. The cause of the incident was absence of the nozzle plate retaining key.

Incident #5: [redacted] DASA Code 505-34

Date - 4 March 1964

1. The MC-934 blue plastic cover of a Mk 28 Y2 Mod 1 War Reserve Weapon was damaged during a readiness exercise.
2. While loading the AERO 21A Skid, the left side of the fuze section scraped against the inside of the AERO 33D Bomb Truck causing a gouge in the MC-934. The Mk 28 Mod 1 fuze was rejected.
3. Cause of the incident was personnel error due to improper alignment of the AERO 21A Skid with the AERO 33D Bomb Truck.

Incident #6: [redacted] DASA Code 504-34

Date - March-May 1964

1. Eight incidents involving Mk 28 War Reserve Warheads were due to pressure failures.
2. The cause of the pressure failures has been determined to be defective sealant. A new sealant has been tested and proven to be effective in preventing leakage. The sealant and procedures for a field fix are being made available and procedures for use of the sealant will be contained in Technical Publications W28-1 and W28-3.

Incident #7: [redacted] DASA Code 511-34

Date - March-April 1964

1. Eight incidents involving Mk 28 War Reserve Warheads and weapons occurred when the suspension lug inserts rotated during attempts to remove the suspension lugs.
2. The cause of the incidents was use of an excessive amount of loctite sealant.
3. Retrofit Order W28-515, which prescribes proper use of the sealant, should eliminate further lug insert problems.

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Incident #8: ~~(S)~~ DASA Code 514-34

Date - 17 March 1964

1. While performing Technical Publication B28-1A procedures on a Mk 28 Y4 Mod 1 External Weapon, the MC-1100 X-Unit Cable was found crushed between the top front cover of the side mounted MC-890 Neutron Generator and the component shelf.
2. The MC-890 was removed to enable inspection of the cable. Both the vinyl sleeving and wire insulation were cut to the extent that the conductor could be seen, causing the cable to be rejected.
3. The Inspection Record Card (IRC) indicated the warhead pressure cover had not been removed since rework to Mod 1.
4. The probable cause of the incident was personnel error; i. e., improper assembly procedures.

Incident #9: ~~(S)~~ DASA Code 506-54

Date - 11 May 1964

- DNA  
(6) (3)
1. Detonator cable ~~██████████~~ of a Mk 28 Y1 Mod 1 War Reserve Warhead was discovered severed upon removal of the warhead container cover.
  2. The preformed packing ring was deformed, showing that the detonator cable had been pressed against it and had been severed during installation of the cover. The warhead was rejected.
  3. The probable cause of the incident was personnel error.

Incident #10: ~~(S)~~ DASA Code 514-54

Date - 20 May 1964

1. A postload check was being performed on a B-52G Aircraft when an intermittent light was observed on the PRESS-TO-TEST lamp of the DCU-9A Inflight Control Monitor.
2. A Mk 28 Y1 Mod 0 War Reserve Full Fuzing Internal Shape Component was in the lower left position of the MHU-20/C Clip-in Assembly during the test. All indications were normal during monitoring of the other weapons. When the CF-1651 Cable Assembly was moved near the receptacle at the weapon, the proper monitoring indication was received.
3. Trouble shooting of the aircraft system and MHU-20/C Clip-in Assembly revealed no deficiencies.
4. Cause of the incident was unknown. A post mortem is scheduled for the CF-1651 Cable Assembly.

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

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Incident #11: ~~SECRET~~ DASA Code 508-54

Date - 11 May 1964

1. An XM55 Atomic Demolition Charge with a Mk 30 Warhead installed was involved in an incident during logistic movement.
2. Upon removal of the protective cover from the XM113 Case during performance of a receipt inspection, it was discovered that the bottom padlock of the case cover assembly was missing from the hasp. The padlock was found lying immediately below the hasp with the shackle severed from the padlock. The shackle had been broken at its weakest point.
3. The probable cause of the incident was personnel error due to excessive pressure exerted on the protective cover by improper shoring, careless removal of the shoring material, or improper use of handling equipment during loading and unloading.

Incident #12: ~~SECRET~~ DASA Code 504-44

Date - 13 March 1964

1. One Mk 22 War Reserve Warhead Section with a Mk 45 Mod 0 War Reserve Warhead installed was undergoing maintenance inspection when the Warhead Section slipped off the J-Bar Adapter Assembly from which it was suspended and fell 18-24 inches onto the concrete deck.
2. The Warhead Section fell during the shift of the J-Bar Adapter Assembly from the vertical to the horizontal position for installation in the H-3323 Cradle Band. The after closer assembly of the Mk 9 structure was out of round and had several hair line fractures. Upon removal, the after closer assembly split into two pieces.
3. The Mk 45 Warhead was removed and tritium checks before and after removal of the reservoir access cover were negative. No damage other than that to the after closer assembly was observed.
4. Probable cause of the incident: It appeared that the J-Bar Adapter Chuck was installed and rotated out of position on the opposite side of the lock stock. Although the arrow was slightly displaced from the "SECURE" position, subsequent examination disclosed that the arrow can be moved outside the "SECURE" area on the proper side and still be locked.

Incident #13: ~~SECRET~~ DASA Code 512-44

Date - March-April 1964

1. Three incidents involved the MC-1199 Electrical System Safing Switch of the Mk 53 Mod 0 Basic Assembly. On all three weapons, the MC-1199 could be rotated manually from the SAFE to the FREE FALL position but could not be turned to RETARD except upon application of aircraft power.

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(6) DHP  
(3)

2. Checks of other Mk 53 Mod 0 Weapons indicated that the MC-1199 switches required greater than normal force to change options even with aircraft power applied.

3. The problem is being investigated by the appropriate design agency.

Incident #14: [redacted] DASA Code 508-44

Date - 8 April 1964

1. The DS2 lamp of the T-304C Multiple Purpose Continuity Test Set failed to light while procedures contained in paragraph 8-3.3.4 of Technical Order 11N-B53-1 were being performed on a Mk 53 Mod 0 Basic Assembly.

2. The test was repeated with another tester and cables with the same result. The basic assembly was rejected in accordance with paragraph 8-3.3.4 of Technical Order 11N-B53-1.

3. Visible areas of the POD and basic assembly were inspected with no indications of defective components, or of unauthorized tampering with the basic assembly.

4. Cause of the incident: Disassembly by an AEC contractor revealed that the pressure, temperature sensitive switch MC-1272 was defective.

Incident #15: [redacted] DASA Code 506-34

Date - 9 March 1964

1. A Mk 11 Re-entry Vehicle (R/V) was being assembled following installation of a Mk 56 Mod 1 War Reserve Warhead. Test 07 using a Re-entry Vehicle Test Set, Type A/E 24 T-43, indicated a safety monitor warhead fault.

2. Tests 04, 01, 02, 06, and 05 were satisfactory.

3. Emergency procedures in accordance with paragraph 4-9 of T. O. 11N-RV11-2 were performed.

4. EOD personnel inspected the warhead and determined that the system was not activated. A T-290 Test was negative.

5. The Re-entry Vehicle Test Set and cable was then used to run Test 07 on another R/V in a similar configuration with no malfunction indicated.

6. Cause of the incident was determined to be a loose cable connector.

Incident #16: [redacted] DASA Code 518-34

Date - 28 March 1964

(6) DHP  
(3)

1. [redacted] Mk 101 Depth Bombs with Mk 34 Mod 2 Warheads installed and [redacted] Mk 57 Mod 0 Weapons were involved in a flood.

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~~FROM NERGC 195~~

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DNA  
(b)(3)

2. All the weapons stored in multi-cubicle type magazines had been inundated with water for an undetermined period of time. Visual inspection indicated no damage and monitoring with a T-3024 indicated no malfunctions. Tests indicated loss of pressure in one weapon.

3. The Mk 57 Weapons were returned to an AEC facility for post-mortem examination.

4. The Mk 34 Warheads were sent to a Navy facility for a determination of the moisture content of the power supplies.

5. The cause of the incident was an act of nature.

Incident #17: ~~(S)~~ DASA Code 513-44

Date - April-May 1964

1. Four incidents occurred involving Mk 101 Mod 0 Depth Bombs. During inspection of the bombs, it was discovered that cables were pinched, insulation was broken and peeled, and stress had been placed on the cables.

2. The probable cause of the incidents was a combination of personnel error and material failure. Damage to the cables resulted from failure to keep the cables in proper position as required by the "CAUTION" after paragraph 7-2.7.15 of Navy SWOP B101-1. Other damage apparently was caused by deterioration of cable insulation.

Incident #18: ~~(S)~~ DASA Code 510-54

Date - 18 May 1964

1. During loading of a Mk 102 Practice Depth Bomb aboard a SP2H Aircraft, the Mk 8 shackle released at step 12 of the loading check list. The weapon fell approximately 1 inch until restrained by the cable of the Mk 8 bomb hoist.

2. The design of the safety lock which does not permit simple positive installation action is believed to have caused the incident.

Incident #19: ~~(S)~~ DASA Code 519-34

Date - 28 March 1964

DNA  
(b)(3)

1. Nike Hercules Missiles were damaged when the missiles shifted forward 6 inches on the launcher and dropped to the rail.

2. All weapons checked out satisfactorily. One weapon was returned for recertification. Based on the results of the tests performed on the weapon returned for recertification, all the other weapons were recertified.

3. The cause of the incident was ~~(S)~~

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Incident #20: ~~(S)~~ DASA Code 504-54

Date - May 1964

1. An H-237 was being transferred from ship to pier when the container was dropped approximately 2 feet to the pier.
2. Slings were reeved through the container handles for added stability during transfer. However, when handling slings were unhooked from around the load, a sling caught on one handle of the H-237, causing it to topple and fall. The handle was pulled from the container. No other damage was observed.
3. The probable cause of the incident was personnel error due to improper reeving procedure.

Incident #21: ~~(S)~~ DASA Code 516-54

Date - 22 May 1964

1. Inspection and test on a Mk 53 Mod 0 War Reserve Weapon following a high altitude flight indicated a malfunction; i. e., the DS1 lamp of the T-304 Multiple Purpose Continuity Test Set lighted and the DS2 lamp did not light.
2. The cause of the incident is being determined at an AEC facility.

Incident #22: ~~(S)~~ DASA Code 501-64

Date - 26 May 1964

1. During reservoir and neutron generator replacement on a Mk 28 Y3 Mod 3 War Reserve Warhead, the W-1 cable of the MC-1100 X-Unit was found damaged.
2. Inspection indicated that the W-1 cable had been crushed between the top front corner of the MC-1140, neutron generator, and the component shelf.
3. The X-Unit is being returned to an AEC facility for post-mortem.

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ACCIDENT - INCIDENT SUMMARY

1 MARCH 1964 through 31 MAY 1964

TYPE OF ACTIVITY	CAUSE										TOTAL	TYPE OF DAMAGE TO BOMB OR WARHEAD						
	Personnel Error	Mechanical Malfunction	Electrical Malfunction	Design Deficiency	Fire and Lightning	Environmental	Inadequate Procedures	Unknown	Material Failure	Other		Mechanical	Electrical	Fuzing or Firing Component Activation	Total Loss	Explosive Components	None	
TRANSPORTATION																		
Tactical Air																		
Logistical Air																		
Rail	1									1	1							
Ship																		
Motor Vehicle																		
HANDLING																		
Mechanical Equipment	3									3	2	1						
Manual																		
OPERATIONS																		
Aircraft Loading and Downloading	1	1							1	3	1	1			1			
Aircraft Postload Check			1							1		1						
Warhead Mating			1		1					2		1			1			
Missile Operations																		
ADM																		
Test and Maintenance	2	1	2				1	2		8	3	4			1			
Inspection	2									2		2						
Training	1									1	1							
Storage					1					1					1			
Aircraft Alert																		
TOTAL	10	2	4	0	0	2	0	1	3	0	22	0	8	10	0	4		

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Accidents and Incidents During the Period 1 June 1964 thru 31 August 1964

Incident #1:  DASA Code 501-74

Date - 2 July 1964

1. During a training exercise with a XM3 Coder Transmitter using external power to achieve simulation of actual conditions, the transmit button was pushed, causing the equipment to fail to operate.
2. A storage inspection was then performed with new fuzes. The coder transmitter failed to pass the functional test.
3. The cause of the incident was personnel error due to the supervisor reading the step to push the transmit button without warning the technician that the step should not be performed while using external power without the antenna being erected.

Incident #2:  DASA Code 503-64

Date - 11 June 1964

1. An ASROC-4 Training Missile was being unloaded with a loader crane when the Mk 10 Umbilical Cable, bound on the after snubber of the launcher, was torn off.
2. Pins on the Ignition and Separation Assembly (ISA) connecting plug were bent and the ISA connecting plug broke loose from its mounting.
3. The cause of the incident was personnel error due to inattention of the handling personnel.

Incident #3:  DASA Code 504-74

Date - 8 July 1964

1. The forward vapor barrier of the H-65B Trailer Mounted Bomb Container of a Mk 7 Mod 5 Training Weapon was dented in an area 5 x 5 x 1 inch deep and the case sustained a 3-inch split when the H-65B struck a ship's structure while being transferred aboard the ship.
2. Transfer was being conducted by secondary conventional single Burton method. The damage occurred as a result of slacking outboard whip as per normal Burton procedure causing the weapon to swing into Station M - frame face.

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3. The cause of the incident was considered to be a combination of personnel inexperience and insufficient lateral clearance between the Burton suspension joint and M-frame face.

Incident #4: ~~(S)~~ DASA Code 502-64

Date - 5 June 1964

1. While performing a retrofit in accordance with Retrofit Order W25-503 on a Mk 25 Mod 1 War Reserve Warhead, the center contact of Detonator Cable Number  was found to be defective.

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2. The female contact of the bayonet connector had separated at the solder to metal juncture. Pieces of the female contact were found adhered to the male side of the connector assembly.

3. The cause of the incident was unknown.

Incident #5: ~~(S)~~ DASA Code 503-74

Date - 1 July 1964

1. While performing Alt 223 on a Mk 28 Y1 Mod 1 War Reserve Weapon the CF-1436 Cable Assembly was discovered damaged.

2. The vinyl sleeving had a tear one-half inch in length approximately 8 inches from the J-2 Connector. There was also approximately one-half inch of insulation torn from one wire of the branched cable.

3. Probable cause of the incident was personnel error during previous assembly.

Incident #6: ~~(S)~~ DASA Code 507-64

Date - 15 June 1964

1. The threads of the tapped hole on the left side of a Mk 28 Y2 Mod 2 War Reserve Warhead were stripped.

2. Maintenance personnel had installed the Adapter, Lifting P/N 131900-00 on the MC-706 Ballistic Case. When torque was applied to one of the cap screws, the screw continued to turn preventing application of proper torque. Upon removal of the adapter, the helicoil insert and tapped threads of the warhead were found to be damaged preventing proper installation of the replacement helicoil insert.

3. Probable cause of the incident was material failure.

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Incident #7: [REDACTED] DASA Code 505-74

Date - 12 July 1964

1. The rear lug insert of a Mk 28 Y1 Mod 1 War Reserve Warhead turned approximately 1 inch while the lugs were being aligned to accept the H-418A Bomb Hoist Adapter.
2. The probable cause of the incident was due to excessive use of Grade "A" Loctite Sealant.
3. Retrofit Order W28-515, which prescribes proper use of the sealant, should eliminate further lug insert problems.

Incident #8: [REDACTED] DASA Code 506-64

Date - 16 June 1964

1. The plastic component shelf on a Mk 28 Mod 2 War Reserve Warhead was cracked where the shelf attaches to the lower MC-890 Neutron Generator.
2. Reservoir exchange had been completed and preparations were being made to remove the MC-890 Neutron Generator. Prior to any wrench being applied to the bolts supporting the MC-890 to the component shelf, four cracks were observed in the mounting flange of the plastic component shelf.
3. Further examination revealed a gap 0.025 inch between the mating surfaces of the shelf and the MC-890.
4. The exact cause of the incident was unknown; however, the cracks may have been caused by either of the following: (1) A defective component shelf or (2) subsequent torqueing of the cap screws after fastening the MC-890 and the component shelf together.

Incident #9: [REDACTED] DASA Code 510-64

Date - 21 June 1964

1. A Mk 28 Y1 Mod 2 War Reserve Warhead failed the second 24-hour pressure test following maintenance.
2. The warhead failed the first 24-hour pressure test with a 0.32 differential and the second 24-hour pressure test with a 0.29 differential. The pressure record card indicated there was approximately 7 psig drop per 30 days.
3. After repeated pressure losses, all the seals, preformed packings, and a valve were replaced. On 19 June 1964, the container cover, valve, P/N 137961-00, and all preformed packings and seals were changed.
4. The cause of the pressure failures has been determined to be defective sealant. A new sealant has been tested and proven to be effective in preventing leakage. The sealant and procedures for a field fix are being made available and procedures for use of the sealant will be contained in Technical Publications W28-1 and W28-3.

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Incident #10: [REDACTED] DASA Code 509-64

Date - 17 June 1964

1. A zero pressure reading was obtained on a Mk 28 Y2 Mod 2 War Reserve Warhead.
2. The warhead had a record of previous pressure losses, at which time seals on the container cover and seal, P/N 152024-00, were replaced.
3. The warhead was rejected.
4. Cause of the incident: Reference Incident #9.

Incident #11: [REDACTED] DASA Code 502-74

Date - 5 July 1964

1. Three radial cracks were discovered on the component shelf of a Mk 28 Mod 2 War Reserve Warhead while performing procedures in accordance with Technical Publication B28-1A.
2. The reservoir and valve assembly were removed. While inspecting the area that surrounds the inserts on the component shelf the three radial cracks were discovered. The cracks were located at the top left insert which is used to attach the reservoir and valve mounting plate.
3. The warhead was rejected.
4. Probable cause of the incident was material failure.

Incident #12: [REDACTED] DASA Code 506-74

Date - 13 July 1964

1. Following a high altitude flight the plastic cover of the MC-1531 Differential Pressure Inducer of a Mk 28 Y1 Mod 2 War Reserve Weapon was missing and the fence was protruding.
2. The weapon was mounted in the upper right position of the MHU-20C Clip-in Assembly. The cover apparently came loose during flight, dropped off, and could not be found.
3. Post mortem of the fuze disclosed the only damage was the missing cover. The [REDACTED] in the MC-1531 had not been fired. The fence did protrude one-half inch; however, this is normal.
4. Cause of cover breaking off undetermined.

Incident #13: [REDACTED] DASA Code 505-64

Date - 15 June 1964

1. A reservoir and valve change was being performed on a Mk 28 Y1 War Reserve Warhead when three radial cracks were discovered on the component shelf.

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- 2. The cracks extended from around the insert which is used to attach the MC-796 Thermal Battery Pack to the component shelf.
- 3. The warhead was rejected.
- 4. The probable cause of the incident was material failure.

Incident #14: ~~(S)~~ DASA Code 504-64

Date - 10 June 1964

- 1. A Mk 28 Mod 2 War Reserve Warhead was being prepared for mating in accordance with Technical Order 11N-W28.54-1CL-1, when a pressure leak was detected at the 1130 o'clock position of the forward lug insert.
- 2. The probable cause of the incident was design deficiency.

Incident #15: ~~(S)~~ DASA Code 508-64

Date - 16 June 1964

- 1. ~~(S)~~ Mk 38 Mod 0 War Reserve Warheads were being inspected after operational use when scratches over 0.010 inch deep were discovered on the stiffening rings of each warhead.
- 2. The scratches were of undetermined origin; however, they probably were caused during performance of Alt 225.

Incident #16: ~~(S)~~ DASA Code 509-74

Date - 23 July 1964

- 1. The booster bottle of a Mk 43 Mod 0 War Reserve Weapon was being changed in accordance with Technical Publication B43A-1A. When the steps in figure 6-3, Technical Publication B43A-1 were being performed it was discovered the unit would not pressurize.
- 2. The weapon was disassembled to make the necessary repairs when it was noted that the first support ring was attached to and moving with the pressure bulkhead as it was being withdrawn. Inspection revealed that the ~~(S)~~ cables routed to the MC-991 Firing Set had been inadvertently withdrawn. The weapon was reassembled and resealed to prevent further damage.
- 3. Cause of incident pending post mortem examination at Atomic Energy Commission repair facility.

Incident #17: ~~(S)~~ DASA Code 507-74

Date - 18 July 1964

- 1. While performing an electrical monitor of a Mk 53 Y1 Mod 0 War Reserve Weapon with a T-304C Multiple Purpose Continuity Test Set, the DS1 lamp lit, but the DS2 lamp would not light.

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2. Another T-304C was used with the same results.
3. The weapon was rejected in accordance with paragraph 8-3.1.3, Technical Publication B58-1.
4. Cause of incident pending post mortem examination at Atomic Energy Commission repair facility.

Incident #18: [REDACTED]

DASA Code 511-74

Date - 30 July 1964

1. Mk 25 Mod 0 War Reserve Warhead was undergoing a general inspection and test when an unusual sound was heard within the warhead assembly.
2. The warhead was being prepared for assembly and mating to an AIR 2A Rocket when a noise which sounded like a heavy ball bearing rolling back and forth on a concave surface was heard.
3. Cause of the incident pending post mortem examination at Atomic Energy Commission repair facility.

Incident #19: [REDACTED]

DASA Code 505-84

Date - 25 August 1964

1. [REDACTED] Mk 28 Y1 Mod 2 War Reserve Warheads were being inspected when a radial crack was found on the component shelf of each weapon.
2. The cracks were located around the inserts which are used to attach the reservoir to the valve mounting plate. The cracks exceeded 0.50 inch as specified in paragraph 4-2.17.2, Technical Publication B28-1A.
3. The cause of the incidents were unknown.

Incident #20: [REDACTED]

DASA Code 502-84

Date - 12 August 1964

1. During repackaging of the Mk 28 Mod 1 Fuze, the blue plastic cap was detached from the MC-934 Differential Pressure Inducer.
2. Masking tape had been applied over the blue plastic cap while the fuze was being painted. It was believed that the cap loosened when the tape was removed due to the pulling force of the tape. When the security cover was later pulled over the fuze it dislodged the blue plastic cap.
3. The probable cause of the incident was personnel error.

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