HANDLING, MAINTENANCE, STORAGE, AND INSPECTION
(Including Repair Parts and Special Tool Lists)

Section II. AIRCRAFT DISPENSER AND BOMB CBU-1A/A

2-6. General

The CBU-1A/A utilizes the bomb dispenser SUU-7A/A (fig. 2-2). The complete CBU munition consists of an expendable, electrically-fired bomb dispenser containing a cargo of bombs BLU-4A/B. The dispenser is issued loaded with bombs and explosive detent assemblies and is a non-use item.

2-7. Description

a. The dispenser is cylindrical in shape with a round nose and conical tail. Two suspension lugs (fig. 2-2) are assembled to the dispenser for attaching the dispenser to the aircraft and are also utilized for removing the dispenser from the container with a sling and hoist. A threaded center insert, which provides the dispenser with a capability for a single-point suspension, is protected with a machine thread plug (fig. 2-2) at all times. The center insert is provided in the event of future release of this dispenser to foreign allied forces with aircraft employing the single-point suspension. A special suspension lug is required for single-point suspension; however, this lug is not issued at this time. The lugs assembled to the dispenser will not fit this center insert.

b. The dispenser, which is suitable for cradling, bomb rack ejection, catapult, and arrested landing, has a thin aluminum skin and contains 19 thin-walled, anodized aluminum tubes. These tubes are supported by five aluminum bulkheads. The aluminum nose cone has a round opening in the center to permit the entrance of air during flight. The aluminum tail cone is formed to protect the rear exterior sides of the outer tubes.

c. All tubes are loaded on the CBU-1A/A. Four components are necessary in each tube to provide proper release of the bombs. These components are the helical compression spring, ejection piston assembly, retaining plug, and explosive detent assembly. The spring is placed in the tube first, followed by the ejection piston assembly, bombs, retaining plug, and explosive detent assembly. The compression spring is partially compressed when the tube is loaded to capacity. A slot in the sidewall of the retaining plug accommodates an explosive detent assembly, which prevents ejection of the bombs until the dispenser electrical circuit is energized (fig. 2-2.1).

d. The CBU-1A/A is designed to provide a choice of hookups that permit release of one, two, or three tubelands of bombs with each application of electrical current through a stepper switch. Each Navy dispenser is provided with a 4- and 6-tube firing adapter (fig. 5-1) and a salvo firing adapter (fig. 5-2) which permit release of four or six tubelands, or a salvo release of all tubes, with each application of electrical current through the stepper switch. The stepper switch is attached to the underside of the stepper switch access panel (fig. 2-2) which is located on top of the dispenser directly in front of the nose cone. The choice is made by placing the selector plug into the appropriate
stepper switch connector (fig. 2-3). The dispenser is issued with the selector plug installed for two-tube ejection. The remainder of the electrical circuit consists of an electrical connector (fig. 2-2) and a RADIAZ filter which is attached to the underside of the electrical connector plate. The electrical connector permits electrical connection to the aircraft. To enable the dispenser electrical connector to be connected to Air Force F-105 aircraft, a connector adapter is provided (fig. 2-4). To enable the electrical connector to be connected to Navy A-4 or F8U aircraft, an electrical special-purpose cable assembly (fig. 2-5) is provided.

e. Mounting labels (fig. 2-2) with alignment arrows are located on the top rear of the dispenser, adjacent to the electrical connector mounting plate, for use as a guide when attaching the dispenser to the aircraft.

f. A bomb dispenser access door (fig. 2-2) is located on the tail cone to gain access to the detent circuit connector which is used when testing the dispenser detent circuit. The access door is secured with nine machine screws or four quick-release stud assemblies.

 g. A removable nose cone dust and moisture seal protective plug and tail cone protector (fig. 2-6) provide moisture-proof sealing of the loaded dispenser. These items permit the dispenser to be stored out of the container provided adequate storage brackets are available.

Caution: When stored or handled outside its container (other than by use of its suspension lugs), the dispenser must be supported at the hard spats (CHOCK markings) only. When the dispenser is handled or transported on MHU-12/M trailer, modified (wide surface) chocks (P/N 64D33304-1, prime at SAAMA) will be used.
Figure 2-3. Stepper switch assembly 1225-140-4142 (CBU-1A/A, CBU-2/A, and CBU 2A/A)—tube release connections.
A "Remove Before Flight" red flag is attached to the protective plug and tail cone protector. Early production tail cone protectors do not have a red flag.

The tail cone protector is fastened to the dispenser by either 15 or 18 machine screws or 3 quick-release stud assemblies. Two storage boxes (fig. 2-6) are located inside the tail cone protector. One box contains two 16-unit bags of desiccant. The other box contains one 16-unit bag of desiccant, one packaged connector adapter, and one packaged electrical special-purpose cable assembly and, in addition, for the Navy dispenser, a packaged 4- and 6-tube adapter and a packaged salvo adapter (as above). A humidity indicator plug and pressure-release valve are located in the closed end of the tail cone protector (fig. 2-6).

The dispenser is white with two 1-inch yellow bands appearing in back of the nose cone. The dust and moisture seal protective plug is red; the early model is white. The tail cone protector is red; the early model is olive drab.

On Navy dispensers, a radio frequency (RF) shield assembly is installed over the tail cone of the dispenser. This RF shield (fig. 2-6.1) consists of heavy aluminum foil which will rupture when the aircraft reaches a given velocity or when the bombs are ejected from the dispenser, thereby permitting free passage of the bombs. The RF shield will not be removed from the dispenser. "DO NOT REMOVE" is stenciled in 1-inch black letters on the top of the shield.

In addition to the RF shield on Navy dispensers, a removable bomb safety retainer (fig. 5-9) is attached to the dispenser rear bulkhead over the RF shield with three machine screws. A "Remove Before Flight" red flag is attached to the safety retainer. The safety retainer prevents spillage of bombs in case of accidental release, which can be ascertained by visual inspection for a ruptured RF shield and bombs on tube ends before the safety retainer is removed.
Figure 2-6. Nose cone dust and moisture seal protective plug and bomb dispenser tail cone protector.
2-8. Bomb BLU-4A/B.

The fragmentation bomb BLU-4A/B (fig. 2-6.2) is the payload of the dispenser and bomb CBU-1A/A. It is a small antipersonnel bomb which functions upon impact with surfaces such as water, mud, soft earth, or any harder surfaces. Upon detonation, the bomb discharges uniform fragments at high velocity in a radial pattern.
2-9. Functioning

a. Functioning of CBU-IA/A.

(1) The electrical release system consists of an electrical connector for connection to the aircraft electrical system, a wiring circuit, a stepper switch assembly, and explosive detent assemblies.

(2) The dispenser is fired by depressing the firing button on the pilot's control column. The electrical charge then initiates a small explosive detent assembly which discharges the detent stop pin. The stop pin strikes the opposite wall of the retaining plug; this prevents damage to the sidewall and the aircraft. The ejection of the stop pin frees the inner face of the tube of all restrictions; this permits the combination of spring action and ram air pressure to eject the bombs from the rear of the tube.

(3) Dispenser tube identification, capacities, and firing sequence for one-, two-, and three-tube dispensing are shown in figure 2-7.

(4) The CBU-1A/A (19 tubes loaded) is fired as follows:

(a) One-tube ejection. Nineteen separate firings.

(b) Two-tube ejection. Nine firings of two tubes, followed by a tenth firing of one tube.

(c) Three-tube ejection. Five firings of three tubes, followed by two firings of two tubes.

(d) Four-tube ejection (Navy dispenser only). Four firings of four tubes followed by a fifth firing of three tubes.

(e) Six-tube ejection (Navy dispenser only). Two firings of six tubes followed by a third firing of seven tubes.

(f) Salvo ejection (Navy dispenser only). All nineteen tubes fire at once.
b. Functioning of Bomb BLU-4A/B.

(1) When the bomb is ejected from the dispenser, air pressure lifts off the tab which releases the ring holding the drag vanes together. The drag vanes then spring outward, stabilizing and orienting the bomb in its fall and arming the ejection portion of the bomb.

(2) Upon impact, the fragmenting hemisphere is ejected from the bomb housing and a lanyard, which is fastened to both the fragmenting hemisphere and the bomb housing, unreels. When the lanyard reaches its full 10-foot length, it initiates the high-explosive charge in the fragmenting hemisphere.

SECTION III. AIRCRAFT DISPENSER AND BOMB CBU-2/A

2-10. General

The CBU-2/A utilizes the bomb dispenser SUL-7A/A (fig. 2-2). The complete CBU munition consists of an expendable, electrically-fired bomb dispenser containing a cargo of bombs BLU-3/B. The dispenser is issued loaded with bomb and explosive detonation assemblies and is a one-use item.

2-11. Description

a. The dispenser is cylindrical in shape with a round nose and conical tail. Two suspension lugs (fig. 2-2) are assembled to the dispenser for attaching the dispenser to the aircraft and they are also utilized for removal of dispenser from container with a sling and hoist. A threaded center insert, which provides the dispenser with a capability for single-point suspension, is protected with a machine thread plug (fig. 2-2) at all times. The center insert is provided in the event of future release of this dispenser to foreign allied forces with aircraft employing single-point suspension. A special suspension lug is required for single-point suspension; however, this lug is not issued at this time. The lugs...
assembled to the dispenser will not fit this center insert.

b. The dispenser, which is suitable for cradling, bomb rack ejection, catapult, and arrested landing, has a thin aluminum skin and contains 19 thin-walled, anodized aluminum tubes. These tubes are supported by five aluminum bulkheads. The aluminum nose cone has a round opening in the center to permit the entrance of air during flight. The aluminum tail cone is formed to protect the rear exterior sides of the outer tubes.

c. Only seventeen of the nineteen tubes are loaded in the CBU-2/A. Five components are necessary in a loaded tube to provide proper release of the bombs. These components are:
The helical compression spring, ejection piston assembly, adapter, retaining plug, and explosive detent assembly (fig. 2-3). The spring is placed in the tube first, followed by the ejection piston assembly, adapter, bombs, retaining plug, and explosive detent assembly. The compression spring becomes compressed when the tube is loaded to capacity. A slot in the sidewall of the retaining plug accommodates the explosive detent assembly which prevents ejection of the bombs until the dispenser electrical circuit is energized.

d. An electrical connector (fig. 2-2), which permits electrical connection to the aircraft, is located at the top rear of the dispenser. To enable the dispenser electrical connector to be connected to Air Force F-106 aircraft, a connector adapter is provided (fig. 2-4). To enable the electrical connector to be connected to Navy A4 or F8U aircraft, an electrical special-purpose cable assembly (fig. 2-5) is provided. A RADHAZ filter is attached to the underside of the electrical connector plate.

e. Mounting labels (fig. 2-2) with alignment arrows are located on the top rear of the dispenser, adjacent to the electrical connector mounting plate, for use as a guide when attaching the dispenser to the aircraft.

f. A bomb dispenser access door (fig. 2-2) is located on the tail cone to gain access to the
2–12. Bomb BLU–3/B

The fragmentation bomb BLU–3/B (fig. 2–10) is the payload of the dispenser and bomb CBU–2/A. It is a small, antitank bomb that detonates upon impact with surfaces such as water, mud, soft earth, or any harder surfaces. Upon detonation, the bomb discharges steel balls at high velocity in a radial pattern. The steel balls are effective against such targets as trucks, parked aircraft, ammunition, fuel tanks, and radar equipment.

2–13. Functioning

a. Functioning of CBU–2/A.

(1) The electrical release system consists of an electrical connector for connection to the aircraft electrical system, a wiring circuit, a step-swich assembly, and explosive detent assemblies.

(2) The dispenser is fired by depressing the firing button on the pilot’s control column. The electrical charge then initiates a small explosive detent assembly which projects the detent stop pin into the interior of the retaining plug. The stop pin strikes the opposite wall of the retaining plug; this prevents damage to the tube sidewall and the aircraft. The ejection of the stop pin frees the inner face of the tube of all restrictions; this permits the combination of spring action and ram air pressure to eject the bombs from the rear of the tube.

b. Functioning of Bomb BLU–3/B. When the bomb is ejected from the dispenser, air-pressure lifts off the spring tab which releases the safety strap holding the vanes together. The vanes then begin to spring outward releasing the firing pin and cup assembly which moves approximately ₃/₄ inch and withdraws the firing pin from the detonator slider. The slider then moves to the armed position in 1.5 to 2.5 seconds. The outward motion of the
vanes continues until they have moved approximately 160°, at which time they lock in place and stabilize the bomb in its fall. Impact detonates the high-explosive filler which bursts the bomb case and drives the steel balls outward.

Section IV. AIRCRAFT DISPENSER AND BOMB CBU-2A/A

2-14. General

The CBU-2A/A utilizes the bomb dispenser SUU-7A/A (fig. 2-2). The complete CBU munition consists of an expendable, electrically-fired bomb dispenser containing a cargo of bombs BLU-3/B. The dispenser is issued loaded with bombs and explosive detent assemblies and is a one-use item.

2-15. Description

a. The dispenser is cylindrical in shape with a round nose and conical tail. Two suspension lugs (fig. 2-2) are assembled to the dispenser for attaching the dispenser to the aircraft and they are also utilized for removal of dispenser from container with a sling and hoist. A threaded center insert, which provides the dispenser with a capability for single-point suspension, is protected with a machine thread plug (fig. 2-2) at all times. The center insert is provided in the event of future release of this dispenser to foreign allied forces with aircraft employing single-point suspension. A special suspension lug is required for single-point suspension; however, this lug is not issued at this time. The lugs assembled to the dispenser will not fit this center insert.

b. The dispenser, which is suitable for cradling, bomb rack ejection, catapult and arrested landing, has a thin aluminum skin and contains 19 thin-walled, anodized aluminum tubes. These tubes are supported by five aluminum bulkheads. The aluminum nose cone has a round opening to permit the entrance of air during flight. The aluminum tail cone is formed to protect the rear exterior sides of the outer tubes.

c. All tubes are loaded in the CBU-2A/A. Five components are necessary in a loaded tube to provide proper release of the bombs. These components are: the helical compression spring, ejection piston assembly, adapter, retaining plug, and explosive detent assembly (fig. 2-8). The spring is placed in the tube first, followed by the ejection piston assembly, adapter, bombs, retaining plug, and explosive detent assembly. The compression spring becomes compressed when the tube is loaded to capacity. A slot in the sidewall of the retaining plug accommodates the explosive detent assembly which prevents ejection of the bombs until the dispenser electrical circuit is energized.

d. An electrical connector (fig. 2-2), which permits electrical connection to the aircraft, is located at the top rear of the dispenser. To enable the dispenser electrical connector to be connected to Air Force F-105 aircraft, a conector adapter is provided (fig. 2-4). To enable the electrical connector to be connected to Navy A4 or F8U aircraft, an electrical special-purpose cable assembly (fig. 2-5) is provided. A RADHAZ filter is located on the underside of the electrical connector plate.

e. Mounting labels (fig. 2-2) with alignment arrows are located on the top rear of the dispenser, adjacent to the electrical connector mounting plate, for use as a guide when attaching the dispenser to the aircraft.

f. A bomb dispenser access door (fig. 2-2) is located on the tail cone to gain access to the detent circuit connector which is used when testing the dispenser detent circuit. The access door is secured with nine machine screws or four quick-release stud assemblies.

g. The bomb dispenser is designed to provide a choice of hookups that permits release of one, two, three, four, or six tube loads of bombs with each application of electric current through the stepper switch, or a salvo of all
tubeloads with a single application of electric current. The choice is made before the dis-

censer is attached to the aircraft. The dis-

censer is issued with the selector plug in-

stalled in the two- or three-tube position.

(1) Release of one, two, or three tube-

loads of bombs with each application of 

current is made by placing the se-

lector plug into the appropriate stop-

per switch connector (fig. 2-3) 

located on the underside of the stop-

per switch access panel (fig. 2-2) 

which is on top of the dispenser 

directly in back of the nose cone.

(2) To obtain release of four or six tube-

loads of bombs with each application of 

electric current, a bomb dispenser 

4- and 6-tube firing adapter 1325- 

757-4214 (fig. 5-1) must be used.

(3) To obtain salvo release of all tube-

loads with a single application of 

electric current, a bomb dispenser 

salvo firing adapter 1325-912-8818 

(fig. 5-2) must be used.

(4) Dispenser tube identification, capaci-

ties, and firing sequence are shown in 

figure 2-9.

(5) CBU-2A/A (10 tubes loaded) is fired 

as follows:

(a) One-tube ejection. Nineteen sepa-

rate firings.

(b) Two-tube ejection. Nine firings of 

two tubes, followed by a tenth fir-

ing of one tube.

(c) Three-tube ejection. Five firings of 

three tubes, followed by two firings of 

two tubes

(d) Four-tube ejection. Four firings of 

four tubes, followed by a fifth firing of 

three tubes.

(e) Six-tube ejection. Two firings of 

six tubes, followed by a third firing of 

seven tubes.

(f) Salvo ejection. All nineteen tubes 

fire at once.

h. A removable nose cone dust and moisture 

seal protective plug and tail cone protector 

(fig. 2-6) provide moisture-proof sealing of the 

loaded dispenser. These items permit the dis-

censer to be stored outside of container pro-

vided adequate storage brackets are available.

Caution: When stored or handled outside its 

container (other than by use of its suspension 

lugs), the dispenser must be supported at the 

hard spots (CHOCK markings) only. When 

the dispenser is handled or transported on 

MHU-12/M trailer, modified (wide surface) 

chocks (P/N 64D33304-1, prime at SAAMA) 

will be used.

(1) A “Remove Before Flight” red flag 

is attached to each item.

(2) The tail cone protector is fastened to 

the dispenser with either 18 machine 

screws or 3 quick-release stud assem-

blies. Two storage boxes (fig. 2-6) 

are located inside the tail cone pro-

tector. One box contains two 16-unit 

bags of desiccant. The other box con-

tains one 16-unit bag of desiccant, 

one packaged connector adapter and 

one packaged electrical special-purpose 

cable assembly (d above). A humidity 

indicator plug and pressure-release 

valve are located in the closed end of 

the tail cone protector (fig. 2-6).

i. The dispenser is white with either one 

3-inch yellow band or two 1-inch yellow bands 

appearing in back of the nose cone. The dust 

and moisture seal protective plug is white or 

red. The tail cone protector is olive drab or 

red.

2–16. Bomb BLU-3/B

Refer to paragraph 2-12 for a description of 

the bomb BLU-3/B.

2–17. Functioning

a. Functioning of CBU-2A/A.

(1) The electrical release system consists of 

an electrical connector for connec-

tion to the aircraft electrical system, 

a wiring circuit, a stepper-switch as-
(2) The dispenser is fired by depressing the firing button on the pilot’s control column. The electrical charge then initiates a small explosive detent assembly which projects the detent stop pin into the interior of the retaining plug. The stop pin strikes the opposite wall of the retaining plug; this prevents damage to the tube sidewall and the aircraft. The ejection of the stop pin frees the inner face of the tube of all restrictions; this permits the combination of spring action and ram air pressure to eject the bombs from the rear of the tube.

b. Functioning of Bomb BLU-3/B. Refer to paragraph 2-13b for functioning of the bomb BLU-3/B.

Section V. AIRCRAFT DISPENSER AND BOMB CBU-2B/A

2-18. General

The CBU-2B/A utilizes the bomb dispenser SUU-7B/A (fig. 2-11). The complete CBU munition consists of an expendable, electrically-fired bomb dispenser containing a cargo of bombs BLU-3/B. The dispenser is issued loaded with bombs and explosive detent assemblies and is a one-use item.

2-19. Description

a. The dispenser is cylindrical in shape with a round nose and conical tail. Two suspension lugs (fig. 2-11) are assembled to the dispenser for attaching the dispenser to the aircraft and they are also utilized for removal of the dispenser from the container with a sling and hoist. The early-production model has a threaded center insert, located between the suspension lugs, which provides the dispenser with a capability for single-point suspension, and is protected with a machine thread plug at all times. The center insert is provided in the event of future release of this dispenser to foreign allied forces with aircraft employing single-point suspension. A special suspension

![Diagram of Bomb Dispenser SUU-7B/A](image-url)
lug is required for single-point suspension; however, this lug is not issued at this time. The lugs assembled to the dispenser will not fit this center insert. The center insert is eliminated from the late-production model.

b. The dispenser, which is suitable for cradling, bomb rack ejection, catapult, and arrested landing, has a thin aluminum skin and contains 19 thin-walled, anodized aluminum tubes. These tubes are supported by five aluminum bulkheads. The aluminum nose cone has a round opening in the center to permit the entrance of air during flight. The aluminum tail cone is formed to protect the rear exterior sides of the outer tubes.

c. All tubes are loaded in the CBU-28/A. Five components are necessary in a loaded tube to provide proper release of the bombs. These components are: the helical compression spring, ejection piston assembly, adapter, retaining plug, and explosive detent assembly (fig. 2-8). The spring is placed in the tube first, followed by the ejection piston assembly, adapter, bombs, retaining plug, and explosive detent assembly. The compression spring becomes compressed when the tube is loaded to capacity. A slot in the side wall of the retaining plug accommodates the explosive detent assembly which prevents ejection of the bombs until the dispenser electrical circuit is energized.

d. An electrical connector (fig. 2-11), which permits electrical connection to the aircraft, is located at the top rear of the dispenser. To enable the dispenser electrical connector to be connected to Air Force F-105 aircraft, a connector adapter is provided (fig. 2-4). To enable the electrical connector to be connected to Navy A4 or F8U aircraft, an electrical special-purpose cable assembly (fig. 2-5) is provided. A RADHAZ filter is located on the underside of the electrical connector plate.

e. On late-production models for the Air Force, tube extensions and adhesive are provided with each dispenser and are packed in a molded polystyrene insert in the container M468.

f. Mounting labels (fig. 2-11) with alignment arrows are located on the top rear of the dispenser, adjacent to the electrical connector mounting plate, for use as a guide when attaching the dispenser to the aircraft.

g. A bomb dispenser access door is located on the tail cone to gain access to the detent circuit connector which is used when testing the dispenser detent circuit. The access door is secured with four quick-release stud assemblies.

h. The bomb dispenser is designed to provide a choice of hookups that permits release of two, four, or six tubeloads of bombs with each application of electric current. The choice of hookups is made by rotating the manual selector switch with a screwdriver to the desired position before or after the dispenser is attached to the aircraft. The manual selector switch (fig. 2-11) is located at the top of the dispenser adjacent to the electrical connector. Salvo release of all tubeloads of bombs is obtained by installing a shorting disk on the electrical connector, and installing a salvo adapter between the dispenser wiring harness connector and the detent connector. Installation procedures are contained in paragraph 7-17.

(1) Dispenser tube identification, capacities, and firing sequence are shown in figure 2-9.

(2) CBU-28/A (19 tubes loaded) is fired completely as follows:

(a) Two-tube ejection. Eight firings of two tubes, followed by a ninth firing of three tubes.

(b) Four-tube ejection. Four firings of four tubes, followed by a fifth firing of three tubes.

(c) Six-tube ejection. Two firings of six tubes, followed by a third firing of seven tubes.

(d) Salvo ejection. All nineteen tubes fire at once.

i. On late-production dispensers, a removable bomb safety retainer (fig. 2-17) is attached to the dispenser tail cone assembly with
four quick-release stud assemblies. A “Remove Before Flight” red flag is attached to the safety retainer. The safety retainer prevents spillage of bombs in case of accidental release. Accidental release of bombs can be ascertained by visual inspection when the tail cone protector (j below) is removed.

j. A removable nose cone dust and moisture seal protective plug and a tail cone protector (fig. 2-6) provide moisture-proof sealing of the loaded dispenser. A “Remove Before Flight” red flag is attached to each item. These items permit the dispenser to be stored outside of container provided adequate storage brackets are available.

Caution: When stored or handled outside its container (other than by use of its suspension lugs), the dispenser must be supported at the lard spots (CHOCK markings) only. When the dispenser is handled or transported on MHU-12/M trailer, modified (wide surface) chocks (P/N 64D33304-1, prime at SAAMA) will be used.

Early- and late-production models of the plug and protector have been issued on the dispenser. A description of each model is given in (1) and (2) below.

(1) Early-production models.

(a) Tail cone protector. The tail cone protector is fastened to the dispenser with three quick-release stud assemblies. Two storage boxes (fig. 2-6) are located inside the tail cone protector. One box contains two 16-unit bags of desiccant. The other box contains one 16-unit bag of desiccant, one packaged connector adapter, and one packaged electrical special-purpose cable assembly (d above). A humidity indicator plug and pressure-release valve are located in the end of the tail cone protector (fig. 2-6).

(b) Nose cone dust and moisture seal protective plug. The metal and rubber plug has a lever positioned in the center to expand or contract the rubber portion of the plug during removal or installation.

(2) Late-production models.

(a) Tail cone protector. The tail cone protector is attached to the rear of the dispenser and over the bomb safety retainer by three quick-release stud assemblies. A humidity indicator plug is located in the closed end of the tail cone protector. The pressure release valve and the two square storage boxes have been eliminated from this model. A single ring-type storage box with a removable cover, and containing three 16-unit bags of desiccant, is located at the closed end of the protector.

(b) Nose cone dust and moisture proof protective plug. The all red-rubber protective plug is wedged into the nose cone. The lever has been eliminated from this model. A packaged connector adapter and a packaged electrical special-purpose cable assembly (d above) are attached to the rear of the protective plug by a wing nut.

k. The dispenser is olive drab with a 1½-inch yellow band appearing in back of the nose cone. Early-production models are white with a 3-inch yellow band. The bomb safety retainer, nose cone dust and moisture seal protective plug, and tail cone protector are red.

2–20. Bomb BLU-3/B
Refer to paragraph 2–12 for a description of the bomb BLU-3/B.

2–21. Functioning

a. Functioning of CBU-8B/A.

(1) The electrical release system consists of an electrical connector for connection to the aircraft electrical system, a wiring circuit, a stepper-switch assembly, and explosive detent assemblies.

(2) The dispenser is fired by depressing the firing button on the pilot's control
column. The electrical charge then initiates a small explosive detent assembly which projects the detent stop pin into the interior of the retaining plug. The stop pin strikes the opposite wall of the retaining plug; this prevents damage to the tube sidewall and the aircraft. The ejection of the stop pin frees the inner face of the tube of all restrictions; this permits the combination of spring action and ram-air pressure to eject the bombs from the rear of the tube.

b. Functioning of Bomb BLU-3/B. Refer to paragraph 2-13b for functioning of the bomb.

Section VI. AIRCRAFT DISPENSER AND BOMB CBU-2C/A

2-22. General

The CBU-2C/A utilizes the bomb dispenser SUU-7C/A (fig. 2-12). The complete CBU munition consists of an expendable, electrically-fired bomb dispenser containing a cargo of bombs BLU-3/B. The dispenser is issued loaded with bombs and explosive detent assemblies and is a one-use item.

2-23. Description

a. The dispenser is cylindrical in shape with a round nose and conical tail. Two suspension lugs (fig. 2-12) are assembled to the dispenser for attaching the dispenser to the aircraft and they are also utilized for removal of the dispenser from the container with a sling and hoist.

b. The dispenser, which is suitable for cradling, bomb rack ejection, catapult, and arrested landing, has a thin aluminum skin and contains 19 thin-walled, anodized aluminum tubes. These tubes are supported by five aluminum bulkheads. The aluminum nose cone has a round opening in the center to permit the entrance of air during flight. The aluminum
tail cone is formed to protect the rear exterior sides of the outer tubes. Internal ballast is provided under the skin at the rear end to prevent damage to the aircraft when the dispenser is jettisoned, and replaces the external ballast ring used on other CBU models.

c. All tubes are loaded in the CBU-2C/A. Five components are necessary in a loaded tube to provide proper release of the bombs. These components are: the helical compression spring, ejection piston assembly, adapter, bombs, retaining plug, and explosive detent assembly (fig. 2-8). The spring is placed in the tube first, followed by the ejection piston assembly, adapter, bombs, retaining plug, and explosive detent assembly. The compression spring becomes compressed when the tube is loaded to capacity. A slot in the sidewall of the retaining plug accommodates the explosive detent assembly which prevents ejection of the bombs until the dispenser electrical circuit is energized.

d. An electrical connector (fig. 2-12), which permits electrical connection to the aircraft, is located at the top rear of the dispenser. To enable the dispenser electrical connector to be connected to Air Force F-106 aircraft, a connector adapter is provided (fig. 2-4). To enable the electrical connector to be connected to Navy F4 aircraft an electrical special-purpose cable assembly (fig. 2-5) is provided. A RADI-HAZ filter is located on the underside of the electrical connector plate.

e. A mounting label (fig. 2-12) with alignment arrows is located on the top rear of the dispenser, adjacent to the electrical connector mounting plate, for use as a guide when attaching the dispenser to the aircraft.

f. A detent connector with a removable electrical jumper plug (fig. 2-12) is located on a raised plate on the top of the dispenser to the rear of the electrical connector. The detent connector (with the electrical jumper plug disconnected) is used when testing the dispenser electrical circuit and the explosive detent circuit. The electrical jumper plug must be installed and in place at all times except for test.

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Figure 2-13 Dispenser tube identification, capacities, and firing sequence for CBU-2C/A, CBU-8A/A, and CBU-9B/A.

Change 1
g. A safe-arm switch, a jack for testing stray voltage after the dispenser is loaded on the aircraft, and a manual selector switch are located opposite the detent connector and jumper plug on the raised plate.

(1) Safe-arm switch. The safe-arm switch is locked in place with a lock pin to which a “Remove Before Flight” red flag is attached. When the switch is locked in place, the electrical circuit remains open, thus preventing activation of the electrical release system. Prior to flight, the lock pin with attached red flag, is removed.

(2) Manual selector switch. The manual selector switch provides a choice of tube releases that permits release of two, four, or six tubeloads of bombs or a salvo release of all tubeloads. The choice is made by rotating the manual selector switch with a screwdriver to the desired position before or after the dispenser is attached to the aircraft.

h. Dispenser tube identification, capacities, and firing sequence are shown in figure 2-13. CBU 2C/A (19 tubes loaded) is fired as follows:

(1) Two-tube ejection. Eight firings of two tubes, followed by a ninth firing of three tubes.

(2) Four-tube ejection. Four firings of four tubes, followed by a fifth firing of three tubes.

(3) Six-tube ejection. Two firings of six tubes, followed by a third firing of seven tubes.

(4) Salvo ejection. All nineteen tubes fire at once.

i. A removable bomb safety retainer is attached to the dispenser rear bulkhead with three quick-release fasteners. A “Remove Before Flight” red flag is attached to the safety retainer. The safety retainer prevents spillage of bombs in case of accidental release. Accidental release of bombs can be ascertained by visual inspection of tube ends before the safety retainer is removed. A black vinyl desiccant bag holder, resembling a bandoleer with six pockets, is strapped to the safety retainer. Each pocket accommodates an 8-unit bag of desiccant.

j. A removable nose cone dust and moisture seal protective plug and a clear vinyl plastic tail cone protector provide moisture-proof sealing of the loaded dispenser. A “Remove Before Flight” red flag is attached to each item. These items permit the dispenser to be stored out of the container provided adequate storage brackets are available.

Caution: When stored or handled outside its container (other than by use of its suspension lugs), the dispenser must be supported at the hard spots (CHOCK markings) only. When the dispenser is handled or transported on MHU-12/M trailer, modified (wide surface) chocks (P/N 64D33304-1, prime at SAAMA) will be used.

(1) Tail cone protector. The vinyl tail cone protector is attached to the rear of the dispenser and over the bomb safety retainer and is held in place with pressure-sensitive tape. A humidity indicator plug is located in the closed end of the tail cone protector.

(2) Nose cone dust and moisture seal protective plug. The red-rubber protective plug is wedged into the nose cone. A packaged connector adapter and a packaged electrical special-purpose cable assembly are attached to the rear of the protective plug by a wing nut.

k. Tube extensions and adhesive are provided with each dispenser for the Air Force and are packed in the container M468.

l. The dispenser is olive drab with a 1½-inch yellow band appearing in back of the nose cone. The bomb safety retainer and nose cone dust and moisture seal protective plug are red.
2-24. Bomb BLU-3/B

Refer to paragraph 2-12 for a description of the bomb BLU-3/B.

2-25. Functioning

a. Functioning of CBU-2C/A.

(1) The electrical release system consists of an electrical connector for connection to the aircraft electrical system, a wiring circuit, a stepper-switch assembly, and explosive detent assemblies.

(2) The dispenser is fired by depressing the firing button on the pilot’s control column. The electrical charge then initiates a small explosive detent assembly which projects the detent stop pin into the interior of the retaining plug. The stop pin strikes the opposite wall of the retaining plug; this prevents damage to the tube sidewall and the aircraft. The ejection of the stop pin frees the inner face of the tube of all restrictions; this permits the combination of spring action and ram-air pressure to eject the bombs from rear of the tube.

b. Functioning of Bomb BLU-3/B. Refer to paragraph 2-13b for functioning of the bomb.

Section VII. AIRCRAFT DISPENSER AND BOMB CBU-3/A

2-26. General

The CBU-3/A utilizes the bomb dispenser SUU-10/A (fig. 2-14). The complete CBU munition consists of an expendable, electrically-ignited bomb dispenser containing a cargo of bombs BLU-7/R. The dispenser is issued loaded with bombs and explosive detent assemblies and is a one-use item.

2-27. Description

a. The dispenser is cylindrical in shape with a round nose and conical tail. Two suspension lugs (fig. 2-14) are assembled to the dispenser for attaching the dispenser to the aircraft and they are also utilized for removal of dispenser from container with a hoist and sling. A threaded center insert, which provides the dispenser with a capability for single-point suspension, is protected with a machine thread plug (fig. 2-14) at all times. The center insert is provided in the event of future release of this dispenser to foreign allied forces with aircraft employing single-point suspension. A special suspension lug is required for single-point suspension; however, this lug is not issued at this time. The lugs assembled to the dispenser will not fit this center insert.

b. The dispenser, which is suitable for crating, bomb rack ejection, catapult, and arrested landing, has a thin aluminum skin and contains 19 thin-walled, anodized aluminum tubes. These tubes are supported by five aluminum bulkheads. The aluminum nose cone has a round opening in the center to permit the entrance of air during flight. The aluminum tail cone is formed to protect the rear exterior sides of the outer tubes.

c. All tubes are loaded on the CBU-3/A. Four components are necessary in each tube to provide proper release of the bombs. These are the ejection spring, a piston assembly, an end plug, and an explosive detent assembly (fig. 2-15). The ejection spring is inserted into the tube first, followed by the piston assembly, bombs, and end plug. Insertion of the piston assembly, bombs, and end plug exerts pressure against the spring which is partially compressed when the tube is loaded to capacity. A cutout in the side of the end plug fits against an explosive detent assembly which prevents rearward movement of the bombs until the dispenser electrical circuit is energized.

d. An electrical connector (fig. 2-14), which permits electrical connection to the aircraft, is located at the top rear of the dispenser. To enable the dispenser electrical connector to be connected to Air Force F-105 aircraft, a connector adapter is provided (fig. 2-4). To en-
able the electrical connector to be connected to Navy P4 aircraft, an electrical special-purpose cable assembly (fig. 2-5) is provided. A RADHAZ filter is located on the underside of the electrical connector plate.

e. Mounting labels (fig. 2-14) with alignment arrows are located on the top rear of the dispenser, adjacent to the electrical connector mounting plate, for use as a guide when attaching the dispenser to the aircraft.

f. A safe-arm switch (fig. 2-14), located on top of the dispenser adjacent to the electrical connector, is locked in place with a lock pin to which a “Remove Before Flight” red flag is attached. When the switch is locked in place, the electrical circuit remains open, thus preventing activation of the electrical release system. Prior to flight, the lock pin, with attached red flag, is removed.

g. A bomb dispenser access door (fig. 2-14) is located on the tail cone to gain access to the detent circuit connector which is used when testing the dispenser detent circuit. The door is secured by four quick-release stud assemblies.

h. The bomb dispenser is designed to release simultaneously all 19 tubes of bombs with a single application of current. Dispenser tube identification and capacities are shown in figure 2-16.

i. A removable bomb safety retainer (fig. 2-17) is attached to the dispenser tail cone assembly by four quick-release stud assemblies. The safety retainer prevents spillage of bombs in case of accidental release. Release of bombs can be ascertained by visual inspection when the tail cone protector (j below) is removed. A “Remove Before Flight” red flag is attached to the safety retainer.

j. A removable nose cone dust and moisture seal protective plug and a tail cone protector (fig. 2-6) provide moisture-proof sealing of the loaded dispenser. These items permit the dispenser to be stored out of the container provided adequate storage brackets are available.

Caution: When stored or handled outside its container (other than by use of its suspension lugs), the dispenser must be supported at the hard spots (CHOCK markings) only. When the dispenser is handled or transported on MUH-12/M trailer, modified (wide surface) chocks (P/N 61D33304-1, prime at SAAMA) will be used.

2-22

Figure 2-14. Bomb dispenser SUU-10/A (for CBU-3/A).
Figure 2-15. Arrangement of components in a single tube.

Figure 2-16. CBU-3/A tube identification and capacities.
(1) A “Remove Before Flight” red flag is attached to each item.

(2) The tail cone protector is fastened to the dispenser with three quick-release stud assemblies. Two storage boxes (fig. 2-6) are located inside the tail cone protector. One box contains two 16-unit bags of desiccant. The other box contains one 16-unit bag of desiccant, one packaged connector adapter (fig. 2-4) and one packaged electrical special-purpose cable assembly (fig. 2-5) (as above). A humidity indicator plug and pressure-release valve are located in the closed end of the tail cone protector (fig. 2-6).

2-29. Functioning

a. Functioning of CBU-3/A.

(1) The electrical release system consists of an electrical connector for connection to the aircraft electrical system, a wiring circuit, and explosive detent assemblies.

(2) All tubes in the dispenser are fired by depressing the firing button on the pilot’s control panel. The electrical charge then initiates the explosive detent assembly which projects the detent stop pin into the interior of
When the bomb is ejected from the dispenser, the stop pin strikes the opposite wall of the end plug; this prevents damage to the tube sidewall and aircraft. The ejection of the stop pin frees the inner face of the tube of all restrictions; this permits the combination of spring action and ram air pressure to eject the bombs from the rear of the tube.

b. Functioning of Bomb BLU-7/B.

(1) When the bomb is ejected from the dispenser, the air stream tears off the retaining clip which permits the retaining strap and parachute protector to fall off. This permits the ribbon parachute, folded within the parachute protector, to open up and function. Functioning of the parachute yanks the cap up approximately 1/4 inch. The firing pin, attached to the cap by the spring pin, also moves with the cap.

Withdrawal of the firing pin from its position against the side of the rotor permits the spring-loaded rotor to rotate. However, rotation of the rotor is slowed down by a delay mechanism which provides a delay of 0.8 to 1.3 seconds at which time the detonator is in line with the firing pin.

(2) Although the parachute provides some braking effect upon the descent of the bomb, its primary function is to stabilize the trajectory and reduce rotation of the bomb to a minimum. Minimum rotation is of prime importance in utilization of a shaped charge.

(3) Upon impact with an object, inertia of the cap and firing pin, connected together by the spring pin, causes them to move downwards. The firing pin stabs the detonator which initiates the explosive train consisting of the lead cup, booster, and main charge.

Section VIII. AIRCRAFT DISPENSER AND BOMB CBU-3A/A

2-30. General

The CBU-3A/A utilizes the bomb dispenser SUU-10A/A (fig. 2-19). The complete CBU munition consists of an expendable, electrically-fired bomb dispenser containing a cargo of bombs BLU-7A/B. The dispenser is loaded with bombs and explosive detonation assemblies and is a one-use item.

2-31. Description

a. The dispenser is cylindrical in shape with a round nose and conical tail. Two suspension lugs (fig. 2-19) are assembled to the dispenser for attaching the dispenser to the aircraft and they are utilized for removal of the dispenser from the container with a hoist and slings. The early production model has a threaded center insert, located between the suspension lugs, which provides the dispenser with a capability for single-point suspension. A special lug is required for single-point suspension; however, this lug is not issued at this time. The lugs assembled to the dispenser will not fit the center insert. The center insert is eliminated from the late-production model.

b. The dispenser, which is suitable for cradling, bomb rack ejection, catapult, and arrested landing, has a thin aluminum skin and contains 19 thin-walled, anodized aluminum tubes. These tubes are supported by five aluminum bulkheads. The aluminum nose cone has a round opening in the center to permit the entrance of air during flight. The aluminum tail cone is formed to protect the rear exterior sides of the outer tubes.

c. All tubes are loaded on the CBU-3A/A. Four components are necessary in each tube to provide proper release of the bombs. These are the ejection spring, a piston assembly, an end plug, and an explosive detonation assembly. The ejection spring is inserted into the tube first, followed by the piston assembly, bombs, and...
and the end plug assembly. Insertion of the piston assembly, bombs, and end plug exerts pressure against the spring which is partially compressed when the tube is loaded to capacity. A cutout in the side of the retaining plug assembly fits against an explosive detent assembly which prevents rearward movement of the bombs until the dispenser electrical circuit is energized. Refer to figure 2-15 for arrangement of components in a single tube.

d. An electrical connector (fig. 2-19), which permits electrical connection to the aircraft, is located at the top rear of the dispenser. To enable the dispenser electrical connector to be connected to Air Force F-105 aircraft, a connector adapter is provided (fig. 2-4). To enable the electrical connector to be connected to Navy F4 aircraft, an electrical special-purpose cable assembly (fig. 2-5) is provided. A RADHAZ filter is located on the underside of the electrical connector plate.

e. Mounting labels (fig. 2-19) with alignment arrows are located on the top rear of the dispenser, adjacent to the electrical connector mounting plate, for use as a guide when attaching the dispenser to the aircraft.

f. A safe-arm switch (fig. 2-19), located on the top of the dispenser adjacent to the electrical connector, is locked in place with a lock pin to which a “Remove Before Flight” red flag is attached. When the switch is locked in place, the electrical circuit remains open, thus preventing activation of the electrical release system. Prior to flight, the lock pin, with the attached red flag, is removed.

g. A detent connector with a removable electrical jumper plug (fig. 2-19) is located on the top of the dispenser opposite the safe-arm switch. The detent connector (with the electrical jumper plug disconnected) is used when testing the dispenser electrical circuit and the explosive detent circuits. The electrical jumper plug must be installed and locked in place at all times except for test.

h. The bomb dispenser is designed to release
simultaneously all 19 tubes of bombs with a single application of current. Dispenser tube identification and capacities are shown in figure 2-20.

i. A removable bomb safety retainer is attached to the dispenser tail cone assembly by four quick-release stud assemblies. The safety retainer prevents spillage of bombs in case of accidental release. Release of bombs can be ascertained by visual inspection when the tail cone protector (j below) is removed. A “Remove Before Flight” red flag is attached to the safety retainer. The safety retainer is illustrated in figure 2-17; the access door shown in the illustration is not applicable to the CBU-3A/A.

j. A removable nose cone dust and moisture seal protective plug and a tail cone protector (fig. 2-6) provide moisture-proof sealing of the loaded dispenser. These items permit the dispenser to be stored outside of the shipping and storage container provided adequate storage brackets are available.

Caution: When stored or handled outside its container (other than by use of its suspension lugs), the dispenser must be supported at the hard spots (CHOCK markings) only. When the dispenser is handled or transported on MHU-12/M trailer, modified (wide surface) chocks (P/N 64D3330-1, prime at SAAMA) will be used.

(1) A “Remove Before Flight” red flag is attached to each item.

(2) The tail cone protector is attached to the rear of the dispenser and over the bomb safety retainer by three quick-release stud assemblies. A humidity indicator plug is located in the closed end of the protector. A single circular storage box with a removable cover, and containing three 16-unit bags of desiccant, is located at the closed end of the protector.

(3) A packaged connector adapter and a packaged special-purpose cable assembly (d above) are attached to the rear of the nose cone protective plug with a screw.

k. The dispenser is olive drab with a 1½-inch wide black band and a 1-inch wide yellow
band appearing in back of the nose cone. The early-production model is white with a 3-inch wide black band and a 1½-inch wide yellow band. The dust and moisture are protective plug, tail cone protector, and bomb safety retainer are red.

2-32. Bomb BLU-7A/B

The bomb BLU-7A/B (fig. 2-21) is the payload of the CBU-3A/A. It is intended for use against armored vehicles, such as tanks, armored cars, and armored personnel carriers, and parked aircraft.

2-33. Functioning

a. Functioning of CBU-3A/A.

(1) The electrical release system consists of an electrical connector for connection to the aircraft electrical system, a wiring circuit, and explosive detonator assemblies.

(2) All tubes in the dispenser are fired by depressing the firing button on the pilot's control panel. The electrical charge then initiates each explosive detonator assembly which projects the detonator stop pin into the interior of the end plug assembly. The stop pin strikes the opposite wall of the end plug; this prevents damage to the tube sidewall and aircraft. The ejection of the stop pin frees the inner face of the tube of all restrictions; this permits the combination of spring action and ram air pressure to ejection the bombs from the rear of the tube.

b. Functioning of Bomb BLU-7A/B.

(1) When the bomb is ejected from the dispenser, the airstream tears off the retaining clip which permits the retaining strap and both halves of the protector to fall away. This allows the parachute assembly, folded within the protector halves, to open up and function. Functioning of the parachute assembly, attached to a swivel assembly that is attached to the telescope pin of the inertial firing pin assembly, causes the telescope pin to be yanked out of a detent wire. The firing pin, no longer restrained by the telescope pin, is moved upwards approximately ½ inch by a spring. Withdrawal of the firing pin from its safe position against the side of the rotor in the delay fuse assembly permits the spring-loaded rotor to rotate to the armed position. However, rotation of the rotor is slowed down by a delay mechanism which provides a delay of 0.8 to 1.3 seconds, at the end of which time the detonator is in line with the firing pin.

(2) Through drag, the parachute provides a braking effect upon the descent of the bomb, thereby stabilizing the trajectory of the bomb. The swivel assembly attached to the parachute reduces rotation of the bomb to a minimum which is important in optimum utilization of a shaped charge.

(3) Upon impact with an object, inertia of the firing pin causes it to overcome the creep spring and stab the detonator which initiates the explosive train consisting of the lead cup, booster, and main charge.

Section IX. AIRCRAFT DISPENSER AND BOMB CBU-12/A

2-34. General

The CBU-12/A utilizes the bomb dispenser SUU-7B/A (fig. 2-11). The complete CBU munition consists of an expendable, electrically-fired bomb dispenser containing a cargo of bombs BLU-17/B. The dispenser is issued loaded with bombs and explosive detonator assemblies and is a one-use item.
2-35. Description

a. The dispenser is cylindrical in shape with a round nose and conical tail. Two suspension lugs (fig. 2-11) are assembled to the dispenser for attaching the dispenser to the aircraft and they are also utilized for removal of the dispenser from the container with a sling and hoist. The early-production model has a threaded center insert, located between the suspension lugs, which provides the dispenser with a capability for single-point suspension, and is protected with a machine thread plug at all times. The center insert is provided in the event of future release of this dispenser to foreign allied forces with aircraft employing single-point suspension. A special suspension lug is required for single-point suspension; however, this lug is not issued at this time. The lugs assembled to the dispenser will not fit this center insert. The center insert is eliminated from the late-production model.

d. An electrical connector (fig. 2-11), which permits electrical connection to the aircraft, is located at the top rear of the dispenser. To enable the dispenser electrical connector to be connected to Air Force F-105 aircraft, a connector adapter is provided (fig. 2-4). To enable the electrical connector to be connected to Navy A4 or F8U aircraft, an electrical special-purpose cable assembly (fig. 2-5) is provided. A RADHAZ filter is located on the underside of the electrical receptacle plate.

e. Mounting labels (fig. 2-11) with alignment arrows are located on the top rear of the dispenser, adjacent to the electrical connector mounting plate, for use as a guide when attaching the dispenser to the aircraft.

f. A bomb dispenser access door is located on the tail cone to gain access to the detonation circuit connector which is used when testing the dispenser detonation circuit. The access door is secured with four quick-release snap assemblies.

g. The bomb dispenser is designed to provide a choice of hookups that permits release of two, four, or six tube loads of bombs with each application of electric current through a stepper switch. The choice of hookups is made by rotating the manual selector switch of the stepper switch with a screwdriver to the desired position before or after the dispenser is attached to the aircraft. The manual selector switch (fig. 2-11) is located at the top of the dispenser adjacent to the electrical connector.

(1) Dispenser tube identification, capacities, and firing sequence are shown in figure 2-22.

(2) CBU-12/A (16 tubes loaded) is fired completely as follows:

(a) Two-tube ejection. Three firings of two tubes, two firings of one tube, followed by four firings of two tubes.

(b) Four-tube ejection. Three firings of four tubes, followed by two firings of two tubes.
Figure 2-22. Dispenser tube identification, capacity, and firing sequences for CBU-12/A and CBU-12A/A.
(c) **Six-tube ejection.** Two firings of five tubes, followed by a third firing of six tubes.

h. A removable bomb safety retainer is attached to the dispenser tail cone assembly with four quick-release stud assemblies. A "Remove Before Flight" red flag is attached to the safety retainer. The safety retainer prevents spillage of bombs in case of accidental release. Accidental release of bombs can be ascertained by visual inspection when the tail cone protector (i below) is removed.

i. A removable nose cone and moisture seal protective plug and a tail cone protector (fig. 2-6) provide moisture-proof sealing of the loaded dispenser. A "Remove Before Flight" red flag is attached to each item. These items permit the dispenser to be stored outside of container provided adequate storage brackets are available.

**Caution:** When stored or handled outside its container (other than by use of its suspension lugs), the dispenser must be supported at the hard spots (CHOCK markings) only. When the dispenser is handled or transported on MHU-12/M trailer, modified (wide surface) chocks (P/N 64D33304-1, prime at SAAMA) will be used.

Early- and late-production models of the plug and protector have been issued on the dispenser. A description of each model is given in (1) and (2) below.

(1) **Early-production models.**

(a) **Tail cone protector.** The tail cone protector is fastened to the dispenser with three quick-release stud assemblies. Two storage boxes (fig. 2-6) are located inside the tail cone protector. One box contains two 16-unit bags of desiccant. The other box contains one 16-unit bag of desiccant, one packaged connector adapter, and one packaged electrical special-purpose cable assembly (d above). A humidity indicator plug and pressure-release valve are located in the end of the tail cone protector (fig. 2-6).

(b) **Nose cone dust and moisture seal protective plug.** The metal and rubber plug has a lever positioned in the center to expand or contract the rubber portion of the plug during removal or installation.

(2) **Late-production models.**

(a) **Tail cone protector.** The tail cone protector is attached to the rear of the dispenser and over the bomb safety retainer by three quick-release stud assemblies. A humidity indicator plug is located in the closed end of the tail cone protector. The pressure release valve and the two square storage boxes have been eliminated from this model. A single ring-type storage box with a removable cover, and containing three 16-unit bags of desiccant, is located at the closed end of the protector.

(b) **Nose cone dust and moisture proof protective plug.** The all red rubber protective plug is wedged into the nose cone. The lever has been eliminated from this model. A packaged connector adapter and a packaged electrical special-purpose cable assembly are attached to the rear of the protective plug by a wing nut.

j. The dispenser is olive drab. A 1½-inch wide green band with red "WP" letters on top of band, a 1-inch yellow band, and a ¼-inch red band appear directly in back of the nose cone. Early production models are white with a 3-inch green band with red "WP" letters on top of band, and a 1½-inch yellow band. The bomb safety retainer, nose cone dust and moisture seal protective plug, and tail cone protector are red.

**2-36. Bomb BLU-17/B**

The smoke bomb BLU-17/B (fig. 2-23) is the payload of the aircraft dispenser and bomb CBU-12/A. It is a small bomb that discharges
white phosphorous over a 35-yard radius. It consists essentially of a bomb body and a fuse M206A2E2. The bomb body is a cylindrical steel container fitted with a burster well which is threaded to receive the fuze. The bomb is filled with white phosphorous (WP). The bomb body is coated with light green lacquer and has the model and lot numbers stamped in red on the bottom. The fuze M206A2E2 is a bursting-type fuze containing a primer, a delay charge, and a high-explosive burster. The fuze lever is secured to the bomb body by a spring tab which in turn is secured by a safety strap.

2–37. Functioning

a. Functioning of CRU-12/A.

(1) The electrical release system consists of an electrical connector for connection to the aircraft electrical system, a wiring circuit, a stepper-switch assembly, and explosive detent assemblies.

(2) The dispenser is fired by depressing the firing button on the pilot's control column. The electrical charge then initiates a small explosive detent assembly which projects the detent stop pin into the interior of the retaining plug. The stop pin strikes the opposite wall of the retaining plug; this prevents damage to the tube sidewall and the aircraft. The ejection of the stop pin frees the inner face of the tube of all restrictions; this permits the combination of spring action and ram air pressure to eject the bombs from the rear of the tube.

b. Functioning of Bomb-BLU-17/B. When the bomb is ejected from the dispenser, air pressure lifts off the spring tab which releases the safety strap holding the lever to the bomb body. As the lever moves outward, it releases pressure on the spring-actuated striker which rotates about a hinge pin and strikes the primer. The primer ignites the delay charge which, after a delay of 4 to 5 seconds, explodes.
the burster. The burster shatters the bomb body and scatters particles of steel and white phosphorus over a 35-yard radius. The particles of white phosphorus ignite spontaneously on exposure to air, producing a yellow-white flame and dense white smoke.

Section X. AIRCRAFT DISPENSER AND BOMB CBU-12A/A

2–38. General

The CBU-12A/A utilizes the bomb dispenser SCU-7C/A (fig. 2-12). The complete CBU munition consists of an expendable, electrically-fired bomb dispenser containing a cargo of bombs B/JU-17/B. The dispenser is issued loaded with bombs and explosive detent assemblies and is a one-use item.

2–39. Description

a. The dispenser is cylindrical in shape with a round nose and conical tail. Two suspension lugs (fig. 2-12) are assembled to the dispenser for attaching the dispenser to the aircraft and they are also utilized for removal of the dispenser from the container with a sling and hoist.

b. The dispenser, which is suitable for cradling, bomb rack ejection, catapult, and arrested landing, has a thin aluminum skin and contains 19 thin-walled, anodized aluminum tubes. These tubes are supported by five aluminum bulkheads. The aluminum nose cone has a round opening in the center to permit the entrance of air during flight. The aluminum tail cone is formed to protect the rear exterior sides of the outer tubes. Internal ballast is provided under the skin at the rear end to prevent damage to the aircraft when the dispenser is jettisoned, and replaces the external ballast ring used on other CBU models.

c. Sixteen tubes are loaded in the CBU-12A/A. Five components are necessary in a loaded tube to provide proper release of the bombs. These components are: the helical compression spring, ejection piston assembly, adapter, bombs, retaining plug, and explosive detent assembly (fig. 2-8). The spring is placed in the tube first, followed by the ejection piston assembly, adapter, bombs, retaining plug, and explosive detent assembly. The compression spring becomes compressed when the tube is loaded to capacity. A slot in the sidewall of the retaining plug accommodates the explosive detent assembly which prevents ejection of the bombs until the dispenser electrical circuit is energized.

d. An electrical connector (fig. 2-12), which permits electrical connection to the aircraft, is located at the top rear of the dispenser. To enable the dispenser electrical connector to be connected to Air Force F-105 aircraft, a connector adapter is provided (fig. 2-4). To enable the electrical connector to be connected to Navy F4 aircraft, an electrical special-purpose cable assembly (fig. 2-5) is provided. A RAD-HAZ filter is located on the underside of the electrical connector plate.

e. A mounting lable (fig. 2-12) with alignment arrows is located on the top rear of the dispenser, adjacent to the electrical connector mounting plate, for use as a guide when attaching the dispenser to the aircraft.

f. A detent connector with a removable electrical jumper plug (fig. 2-12) is located on a raised plate on the top of the dispenser to the rear of the electrical connector. The detent connector (with the electrical jumper plug disconnected) is used when testing the dispenser electrical circuit and the explosive detent circuit. The electrical jumper plug must be installed and in place at all times except for test.

g. A safe-arm switch, a jack for testing stray voltage after the dispenser is loaded on the aircraft, and a manual selector switch are located opposite the detent connector and jumper plug on the raised plate.
(1) Safe-arm switch. The safe-arm switch is locked in place with a lock pin to which a “Remove Before Flight” red flag is attached. When the switch is locked in place, the electrical circuit remains open, thus preventing activation of the electrical release system. Prior to flight, the lock pin with attached red flag is removed.

(2) Manual selector switch. The manual selector switch provides a choice of releases that permits release of two, four, or six tube loads of bombs or a salvo release of all tube loads. The choice is made by rotating the manual selector switch with a screwdriver to the desired position before or after the dispenser is attached to the aircraft.

h. Dispenser tube identification, capacities, and firing sequence are shown in figure 2-22. CBU-12A/A (16 tubes loaded) is fired as follows:

(1) Two-tube ejection. Three firings of two tubes, two firings of one tube, followed by four firings of two tubes.

(2) Four-tube ejection. Three firings of four tubes, followed by a fourth and fifth firing of two tubes.

(3) Six-tube ejection. Two firings of five tubes, followed by a third firing of six tubes.

(4) Salvo ejection. All sixteen tubes fire at once.

i. A removable bomb safety retainer is attached to the dispenser rear bulkhead with three quick-release fasteners. A “Remove Before Flight” red flag is attached to the safety retainer. The safety retainer prevents spillage of bombs in case of accidental release. Accidental release of bombs can be ascertained by visual inspection of the tube ends before the safety retainer is removed. A black vinyl desiccant bag holder, resembling a bandoleer with six pockets, is strapped to the safety retainer. Each pocket accommodates an 8-unit bag of desiccant.

j. A removable nose cone dust and moisture seal protective plug and a clear vinyl plastic tail cone protector provide moisture-proof sealing of the loaded dispenser. A “Remove Before Flight” red flag is attached to each item. These items permit the dispenser to be stored out of the container provided adequate storage brackets are available.

Caution: When stored or handled outside its container (other than by use of its suspension lugs), the dispenser must be supported at the hard spots (CHOCK markings) only. When the dispenser is handled or transported on MHU-12/M trailer, modified (wide surface) chocks (P/N 64D33304-1, prime at SAAMA) will be used.

(1) Tail cone protector. The vinyl tail cone protector is attached to the rear of the dispenser and over the bomb safety retainer and is held in place with pressure-sensitive tape. A humidity indicator plug is located in the closed end of the tail cone protector.

(2) Nose cone dust and moisture seal protective plug. The red-rubber protective plug is wedged into the nose cone. A packaged connector adapter and a packaged electrical special-purpose cable assembly are attached to the rear of the protective plug by a wing nut.

k. Tube extensions and adhesive are provided with each dispenser for the Air Force and are packed in the container M468.

I. The dispenser is olive drab. A 1½-inch wide green band with red “WP” letters on top of band, a 1-inch yellow band, and a ½-inch red band appear directly in back of the nose cone. The bomb safety retainer and nose cone dust and moisture seal protective plug are red.

2-40. Bomb BLU-17/B

Refer to paragraph 2-36 for a description of the bomb BLU-17/B.
2-41. Functioning

a. Functioning of CBU-12A/A.

(1) The electrical release system consists of an electrical connector for connection to the aircraft electrical system, a wiring circuit, a stepper-switch assembly, and explosive detent assemblies.

(2) The dispenser is fired by depressing the firing button on the pilot's control column. The electrical charge then initiates a small explosive detent assembly which projects the detent stop pin into the interior of the retaining plug. The stop pin strikes the opposite wall of the retaining plug; this prevents damage to the tube sidewall and the aircraft. The ejection of the stop pin frees the inner face of the tube of all restrictions; this permits the combination of spring action and ram-air pressure to eject the bombs from rear of the tube.

b. Functioning of Bomb BLU-17/B. Refer to paragraph 2-37b for functioning of the bomb.

Section XI. AIRCRAFT DISPENSER AND BOMB CBU-46/A

2-42. General

The CBU-46/A utilizes the bomb dispenser SUU-7C/A (fig. 2-12). The complete CBU munition consists of an expendable, electrically-fired bomb dispenser containing a cargo of bombs BLU-60/R. The dispenser is issued loaded with bombs and explosive detent assemblies and is a one-use item.

2-43. Description

a. The dispenser is cylindrical in shape with a round nose and conical tail. Two suspension lugs (fig. 2-12) are assembled to the dispenser for attaching the dispenser to the aircraft and they are also utilized for removal of the dispenser from the container with a sling and hoist.

b. The dispenser, which is suitable for cradling, bomb rack ejection, catapult, and arrested landing, has a thin aluminum skin and contains 19 thin-walled, unoxidized aluminum tubes. These tubes are supported by five aluminum bulkheads. The aluminum nose cone has a round opening in the center to permit the entrance of air during flight. The aluminum tail cone is formed to protect the rear exterior sides of the outer tubes. Internal ballast is provided under the skin at the rear end to prevent damage to the aircraft when the dispenser is jettisoned, and replaces the external ballast ring used on other CBU models.

c. Only eighteen of the nineteen tubes are loaded in the CBU-46/A. Five components are necessary in a loaded tube to provide proper release of the bombs. These components are: the helical compression spring, ejection piston assembly, adapter, bombs, retaining plug, and explosive detent assembly (fig. 2-8). The spring is placed in the tube first, followed by the ejection piston assembly, adapter, bombs, retaining plug, and explosive detent assembly. The compression spring becomes compressed when the tube is loaded to capacity. A slot in the sidewall of the retaining plug accommodates the explosive detent assembly which prevents ejection of the bombs until the dispenser electrical circuit is energized.

d. An electrical connector (fig. 2-12), which permits electrical connection to the aircraft, is located at the top rear of the dispenser. To enable the dispenser electrical connector to be connected to Air Force F-105 aircraft, a connector adapter is provided (fig. 2-4). To enable the electrical connector to be connected to Navy F4 aircraft, an electrical special-purpose cable assembly (fig. 2-5) is provided. A RADIHAZ filter is located on the underside of the electrical connector plate.

e. A mounting label (fig. 2-12) with alignment arrows is located on the top rear of the dispenser, adjacent to the electrical connector mounting plate, for use as a guide when attaching the dispenser to the aircraft.

f. A detent connector with a removable electrical jumper plug (fig. 2-12) is located on a raised plate on the top of the dispenser to the rear of the electrical connector. The detent connector (with the electrical jumper plug dis-
CBU-16/A (18 tubes loaded) is fired as follows.

1. **Two-tube ejection.** Two firings of two tubes, one firing of one tube, five firings of two tubes, followed by one firing of three tubes.

2. **Four-tube ejection.** Two firings of four tubes, one firing of three tubes, one firing of four tubes, followed by one firing of three tubes.

3. **Six-tube ejection.** Three firings of six tubes.

4. **Salvo ejection.** All eighteen tubes fire at once.

i. A removable bomb safety retainer is attached to the dispenser rear bulkhead with three quick-release fasteners. A “Remove Before Flight” red flag is attached to the safety retainer. The safety retainer prevents spillage of bombs in case of accidental release. Accidental release of bombs can be ascertained by visual inspection of the tube ends before the safety retainer is removed. A black vinyl desiccant bag holder, resembling a hankie with six pockets, is attached to the safety retainer. Each pocket accommodates an 8-unit bag of desiccant.
j. A removable nose cone dust and moisture seal protective plug and a clear vinyl plastic tail cone protector provide moisture-proof sealing of the loaded dispenser. A "Remove Before Flight" red flag is attached to each item. These items permit the dispenser to be stored out of the container provided adequate storage brackets are available.

Caution: When stored or handled outside its container (other than by use of its suspension lugs), the dispenser must be supported at the hard spots (CHOCK markings) only. When the dispenser is handled or transported on MHU-12/M trailer, modified (wide surface) chocks (P/N 64D33304-1, prime at SAAMA) will be used.

(1) Tail cone protector. The vinyl tail cone protector is attached to the rear of the dispenser and over the bomb safety retainer and is held in place with pressure-sensitive tape. A humidity indicator plug is located in the closed end of the tail cone protector.

(2) Nose cone dust and moisture seal protective plug. The red-rubber protective plug is wedged into the nose cone. A packaged connector adapter and a packaged electrical special-purpose cable assembly are attached to the rear of the protective plug by a wing nut.

k. The dispenser is olive drab. A 1 1/2-inch yellow band appears directly in back of the nose cone. The bomb safety retainer and nose cone dust and moisture seal protective plug are red.

2-44. Bomb BLU-66/B

The fragmentation bomb BLU-66/B (fig. 2-25) is the payload of the aircraft dispenser and bomb CBU-46/A. It is a small antipersonnel bomb designed to penetrate jungle foliage and detonate after spin is reduced below 2,000 rpm. Upon detonation, the bomb bursts and scatters cast-iron fragments in all directions. The bomb consists essentially of a smooth cast-iron body assembly, fuze assembly, explosive train, and plastic vane assembly. The body is yellow and the plastic vane assembly is white.

2-45. Functioning

a. Functioning of CBU-46/A.

(1) The electrical release system consists of an electrical connector for connection to the aircraft electrical system, a wiring circuit, a stepper-switch assembly, and explosive detent assemblies.

(2) The dispenser is fired by depressing the firing button on the pilot's control column. The electrical charge then initiates a small explosive detent assembly which projects the detent stop pin into the interior of the retaining plug. The stop pin strikes the opposite wall of the retaining plug; this prevents damage to the tube sidewall and the aircraft. The ejection of the stop pin frees the inner face of the tube of all restrictions; this permits the combination of spring action and ram-air pressure to eject the bombs from rear of the tube.

b. Functioning of Bomb BLU-66/B. When the bomb is ejected from the dispenser, the air stream acts on the vane assembly and causes the bomb to spin. As the spin of the bomb increases, centrifugal force causes three weights in the bomb fuze to rotate out and engage the firing pin. At approximately 3,600 rpm, the weights overcome the firing pin spring and retract the firing pin from a slide assembly which
contains the detonator in an out-of-line position. The slide assembly is moved outward by centrifugal force until it is locked in place by a spring-loaded detent. The detonator in the slide assembly is now in line with the lead assembly and firing pin, and the bomb is armed. As the bomb is slowed in its fall by foliage, spin is reduced. At about 2,000 rpm, the firing-pin spring overcomes the centrifugal force of the weights causing them to rotate inwardly until the firing pin is released. The firing-pin spring continues to act on the firing pin until the pin strikes the detonator, initiating the explosive train which bursts the bomb body.
Section XII. TABULATED DATA

2-46. Components of Major Combinations
The components of the major combinations (tactical) are shown in table 2-1.

<table>
<thead>
<tr>
<th>Loaded Assembly</th>
<th>Empty Dispenser</th>
<th>Bombs</th>
<th>Shipping and Storage Container</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISPENSER AND BOMB, AIRCRAFT: CRU-1A/A SUU-7A/A</td>
<td>BOMB, FRAGMENTATION: BLU-4A/B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DISPENSER AND BOMB, AIRCRAFT: CBU-2A/A SUU-7A/A</td>
<td>BOMB, FRAGMENTATION: BLU-5/B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DISPENSER AND BOMB, AIRCRAFT: CBU-2A/A SUU-7A/A</td>
<td>BOMB, FRAGMENTATION: BLU-3/B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DISPENSER AND BOMB, AIRCRAFT: CBU-2C/A SUU-7C/A</td>
<td>BOMB, FRAGMENTATION: BLU-8/B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DISPENSER AND BOMB, AIRCRAFT: CRU-3A/A SUU-10A/A</td>
<td>BOMB, ANTI-TANK: BLU-7B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DISPENSER AND BOMB, AIRCRAFT: CRU-12/A SUU-7B/A</td>
<td>BOMB, SMOKE: BLU-17/B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DISPENSER AND BOMB, AIRCRAFT: CBU-12A/A SUU-7C/A</td>
<td>BOMB, SMOKE: BLU-17/B</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2-47. Differences Among Models
Bombs:
- CBU-1A/A ........................................ BLU-4A/B
- CBU-2A/A ........................................ BLU-8/B
- CBU-3A/A ........................................ BLU-7/B
- CBU-4A/A ........................................ BLU-7A/B
- CBU-12A/A ....................................... BLU-17/B
- CBU-46/A ........................................ BLU-66/B

Tubes:
- CBU-2A ........................................ Two empty tubes (tubes F and R).
- CBU-1A/A ........................................ All tubes loaded.
- CBU-2C/A ........................................ One empty tube (tube K)
- CBU-3A/A ........................................
- CBU-5A/A ........................................
- CBU-12A/A .......................................
2-48. Tabulated Data

a. Dispensers.

<table>
<thead>
<tr>
<th>Name</th>
<th>Empty</th>
<th>Load 1</th>
<th>Load 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUU-7A/A</td>
<td>121 lb</td>
<td>138 lb</td>
<td>165 lb</td>
</tr>
<tr>
<td>SUU-7B/A</td>
<td>128 lb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUU-7C/A</td>
<td>165 lb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUU-10A/A</td>
<td>138 lb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUU-10A/A</td>
<td>138 lb</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Loaded, ready for aircraft attachment:

<table>
<thead>
<tr>
<th>Bomb Type</th>
<th>Weight (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBU-1A/A</td>
<td>752</td>
</tr>
<tr>
<td>CBU-2/A</td>
<td>749</td>
</tr>
<tr>
<td>CBU-2A/A</td>
<td>828</td>
</tr>
<tr>
<td>CBU-2B/A</td>
<td>840</td>
</tr>
<tr>
<td>CBU-2C/A</td>
<td>877</td>
</tr>
<tr>
<td>CBU-3/A</td>
<td>679</td>
</tr>
<tr>
<td>CBU-5A/A</td>
<td>653</td>
</tr>
<tr>
<td>CBU-12/A</td>
<td>670</td>
</tr>
<tr>
<td>CBU-12A/A</td>
<td>657</td>
</tr>
<tr>
<td>CBU-46/A</td>
<td>880</td>
</tr>
</tbody>
</table>

### Center of gravity (measured from nose) (w/o nose cone protective plug and tail cone protector):

#### Empty dispenser:

<table>
<thead>
<tr>
<th>Dispenser Type</th>
<th>CoG (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUU-7A/A</td>
<td>55.9</td>
</tr>
<tr>
<td>SUU-7B/A</td>
<td>54.22</td>
</tr>
<tr>
<td>SUU-7C/A</td>
<td>61.34</td>
</tr>
<tr>
<td>SUU-10A/A</td>
<td>33.2</td>
</tr>
<tr>
<td>SUU-10A/A</td>
<td>55.1</td>
</tr>
</tbody>
</table>

#### When removed from container:

<table>
<thead>
<tr>
<th>Bomb Type</th>
<th>CoG (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBU-1A/A</td>
<td>60.96</td>
</tr>
<tr>
<td>CBU-3/A</td>
<td>64.8</td>
</tr>
<tr>
<td>CBU-5A/A</td>
<td>62.3</td>
</tr>
<tr>
<td>CBU-2B/A</td>
<td>62.5</td>
</tr>
<tr>
<td>CBU-2C/A</td>
<td>63.55</td>
</tr>
<tr>
<td>CBU-3/A</td>
<td>60.6</td>
</tr>
<tr>
<td>CBU-5A/A</td>
<td>66.4</td>
</tr>
<tr>
<td>CBU-12/A</td>
<td>66.1</td>
</tr>
<tr>
<td>CBU-12A/A</td>
<td>66.6</td>
</tr>
<tr>
<td>CBU-46/A</td>
<td>66.6</td>
</tr>
</tbody>
</table>

### b. Number of Bombs:

<table>
<thead>
<tr>
<th>Bomb Type</th>
<th>Number of Bombs</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBU-1A/A</td>
<td>609</td>
</tr>
<tr>
<td>CBU-2/A</td>
<td>360</td>
</tr>
<tr>
<td>CBU-2A/A</td>
<td>406</td>
</tr>
<tr>
<td>CBU-2B/A</td>
<td>409</td>
</tr>
<tr>
<td>CBU-2C/A</td>
<td>409</td>
</tr>
<tr>
<td>CBU-3/A</td>
<td>371</td>
</tr>
<tr>
<td>CBU-3A/A</td>
<td>362</td>
</tr>
<tr>
<td>CBU-12/A</td>
<td>213</td>
</tr>
<tr>
<td>CBU-12A/A</td>
<td>213</td>
</tr>
<tr>
<td>CBU-46/A</td>
<td>444</td>
</tr>
</tbody>
</table>

### c. Total Explosive Weight (approx):

<table>
<thead>
<tr>
<th>Bomb Type</th>
<th>Weight (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBU-1A/A</td>
<td>96.97</td>
</tr>
<tr>
<td>CBU-2/A</td>
<td>129.07</td>
</tr>
<tr>
<td>CBU-2B/A</td>
<td>143.06</td>
</tr>
<tr>
<td>CBU-2C/A</td>
<td>144.14</td>
</tr>
<tr>
<td>CBU-3/A</td>
<td>222.6</td>
</tr>
<tr>
<td>CBU-3A/A</td>
<td>211.2</td>
</tr>
<tr>
<td>CBU-12/A</td>
<td>234.93</td>
</tr>
<tr>
<td>CBU-12A/A</td>
<td>234.93</td>
</tr>
<tr>
<td>CBU-46/A</td>
<td>117.7</td>
</tr>
</tbody>
</table>

### d. Bombs:

<table>
<thead>
<tr>
<th>Bomb Type</th>
<th>Weight (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLU-3/B</td>
<td>3.75</td>
</tr>
<tr>
<td>Diameter (max)</td>
<td>2.76</td>
</tr>
<tr>
<td>Weight</td>
<td>1.79</td>
</tr>
</tbody>
</table>

---

**Change 3**  
2-43
<table>
<thead>
<tr>
<th>Model</th>
<th>Length</th>
<th>Diameter (max)</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLU 4A/B</td>
<td>4.92 in.</td>
<td>2.78 in.</td>
<td>1.19 lb</td>
</tr>
<tr>
<td>BLU 7/R</td>
<td>7.86 in.</td>
<td>2.78 in.</td>
<td>1.40 lb</td>
</tr>
<tr>
<td>BLU 7A/R</td>
<td>8.28 in.</td>
<td>2.78 in.</td>
<td>1.40 lb</td>
</tr>
<tr>
<td>BLU-17/R</td>
<td>5.7 in.</td>
<td>2.74 in.</td>
<td>2.31 lb</td>
</tr>
<tr>
<td>BLU-66 R</td>
<td>3.7 in.</td>
<td>2.8 in.</td>
<td>1.6 lb</td>
</tr>
</tbody>
</table>

### Shipping and Storage Container M468

<table>
<thead>
<tr>
<th>Length</th>
<th>Width</th>
<th>Weight (empty)</th>
<th>Height</th>
<th>Cube</th>
<th>Center of gravity from front end</th>
</tr>
</thead>
<tbody>
<tr>
<td>186 in.</td>
<td>81 in.</td>
<td>250 lb.</td>
<td>29 in.</td>
<td>70.75 cu ft</td>
<td>66.1 in.</td>
</tr>
</tbody>
</table>
CHAPTER 3
SAFETY PRECAUTIONS

3–1. General

a. The procedures in this section prescribe minimum safety standards and requirements that must be observed during all operations involving the CBU munitions. In addition to these instructions, the general instructions on storage, care, handling, preservation, and quantity-distance requirements for ammunition, outlined in TM 9–1300–206 and FM 9–6, AFM 127–100, or OP 5, as applicable, will apply.

b. Disassembly of the CBU munition beyond the extent prescribed in this manual is strictly forbidden.

c. The cargo within the bomb dispenser is extremely lethal. Perform all operations carefully.

d. When an abnormal condition is noted and pertinent procedures contained herein do not specifically relate to the noted irregularity, work will be stopped and technically qualified guidance will be obtained before continuing operation.

3–2. Safety Precautions

Warning: Bombs accidentally released from the dispenser will not be handled or moved under any circumstances. Personnel in the vicinity of exposed bombs will evacuate the area immediately. Exposed bombs will be reported to explosive ordnance disposal personnel.

Warning: In the event of fire within the area occupied by the dispensers, and when time prevents the safe removal of the dispensers from the site, personnel will evacuate the area and/or take maximum cover.

a. Handling.

(1) CBU munitions, in common with other types of ammunition, are designed to be as safe to handle as is consistent with their function, and are packed to withstand all conditions ordinarily encountered in storage and transit.

(2) Exercise care, especially during handling, unpacking, and packing, to avoid denting or otherwise damaging the dispenser. The dispenser should be moved only with approved handling equipment. Containers will not be jolted, rolled, dragged, dropped, or otherwise roughly handled.

(3) Do not strike or drop the CBU munition.

b. Tools and Equipment. Prevention of accidents during use of tools and equipment is dependent upon proper instructions and training of personnel, adequate maintenance and inspection of equipment, and observation of safety precautions. Lack of proper maintenance and inspection of material handling equipment may result in defects which can present a hazardous condition when such equipment is in use. The following general precautions establish the minimum safety requirements that must be observed in the use of tools and handling equipment.

(1) Defective tools and equipment will not be used. All special tools and equipment must meet the safety require-
gloves and coveralls, and chemical safety goggles, sufficient in number to equip all personnel required to work with the CBU-12/A or CBU-12A/A shall be centrally stored and maintained under close supervision. These items shall be issued to personnel working with white phosphorous items and shall be worn whenever leaks develop.

c. **First Aid Equiment.** The following first-aid equipment shall be centrally stored and issued to the one in charge of a group of personnel required to work with the CBU-12/A and CBU-12A/A.

   (1) Copper sulfate pads sufficient for each worker.
   (2) A 5-gallon pail or other vessel and two sponges.
   (3) A 1-gallon bottle of 5 percent copper sulfate solution and gauze sponges.

### 3-5. First Aid (CBU-12/A and CBU-12A/A)

a. **General.** The smoke bombs BLU-17/B, which contain white phosphorus, is the cargo of the CBU-12/A and CBU-12A/A. White phosphorus (WP) particles burn when exposed to the air and when contacting flesh will burn the flesh. When this occurs, immediately plunge under water that portion of the body being burned; this stops the phosphorus from burning.

   b. **First Aid.** Apply copper sulfate (5 percent solution) with pads for 3 minutes to flesh where WP has become imbedded. The phosphorus particles should be removed by washing or with forceps and the injury treated as an ordinary burn. Oily base salves must not be used to treat WP burns because WP is soluble in oil and may cause systemic poisoning. If no copper sulfate is available, keep the burning part of the body under water, or apply water-saturated compresses to it until medical help arrives.