

DEPARTMENT OF THE ARMY SUPPLY BULLETIN

SIMULATOR, BOOBY TRAP: FLASH, M117;
SIMULATOR, BOOBY TRAP: ILLUMINATING, M118; AND
SIMULATOR, BOOBY TRAP: WHISTLING, M119
AMMUNITION SURVEILLANCE PROCEDURES

Headquarters, Department of the Army, Washington, DC
30 September 1982

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1. Purpose and Scope. This bulletin, when used in conjunction with SB 742-1, provides a method for determining the serviceability of the following items:

<i>Nomenclature</i>	<i>DODA C</i>
Simulator, booby trap: flash, M117, w/accessories	1370-L598
Simulator, booby trap: illuminating, MI 18, w/accessories	1370-L599
Simulator, booby trap: whistling, M119, w/accessories	1370-L600

The function testing in this procedure will be accomplished under a centralized control program managed by the US Army Armament Materiel Readiness Command (ARRCOM), DRSAR-QAS, Rock Island, IL 61299. This bulletin is to be used in the serviceability assessment of simulator lots based on an inspection and function test of individual simulators only. The provisions

of this bulletin are mandatory for use by all Department of the Army organizations within CONUS and OCONUS with an ammunition receipt, storage, and distribution mission. This bulletin is not intended for use by organizations with stocks in basic loads. SB 742-1 contains additional information pertaining to frequency of test, sample selection, defect standards, reports, and records.

2. Errors, Omissions, and Recommended Changes. Direct reporting of errors, omissions, and recommendations for improving this bulletin is authorized and encouraged. DA Form 2028 (Recommended Changes to Publications and Blank Forms) should be completed and forwarded to Commander, ARRCOM, ATTN: DRSAR-QAS, Rock Island, IL 61299.

3. Safely. These surveillance inspections and function tests must be conducted in accordance with the provisions set forth in appropriate safety regulations and im-

* This bulletin supersedes SB-742-1370-27, 19-October 1971, SB 742-1370-28, 19 October 1971; and SB 742-1370-29, 19 October 1971.

plementing instructions with special attention devoted to technical manuals describing the item. A Standing Operating Procedure (SOP) is also required for this operation and will delineate specific safety requirements for these inspections and tests.

4. Personnel. All inspections and function tests will be conducted under the control of a Quality Assurance Specialist (Ammunition Surveillance) hereinafter referred to as a QASAS.

5. Size of Sample. Unless otherwise directed, a sample size of fifty (50) simulators is required to make up a representative sample from a lot for a visual examination and surveillance function test. To satisfy the requirements of the periodic inspection prescribed in conjunction with the surveillance function test, additional sampling and inspection of inner and outer packing is required in accordance with SB 742-1.

6. Sample Selection. Sample simulators will be selected in accordance with the provisions of SB 742-1 except that not more than five simulators may be selected from the same carton and not more than two cartons from the same box.

7. Surveillance Test Equipment. The following equipment is to be used in testing simulators in accordance with this procedure:

- a. Ammunition Peculiar Equipment (APE):
APE 1903, Table Testing;
APE 1913, Meter, Sound Level, 24 to 150

Decibels

(for Simulator MI 117);

- APE 1926, Device, Lanyard, Quick Release;
APE 1937, Shelter, Personnel Protection;

b. Additional test equipment (for Simulators M118 and M119):

Two stopwatches, each accurate to one-tenth (1/10) of a second.

8. Preparation for Test. Number the simulators 1 through 50 and identify them as to the box and the carton from which they were drawn. Complete the periodic inspection in accordance with SB 742-1 and record the appropriate observations described in paragraphs 10 and 12.

9. Test Procedure. This test is to determine the ability of the simulator to perform its prescribed function. Function testing will be conducted during daylight hours only. Testing will not be conducted during an electrical, rain, or snow storm, or during any other conditions that might adversely affect the test results.

a. Prepare the testing table to test simulators as shown in the APE 1903 Operational Manual.

b. If MI 117 Simulators are to be tested, set up the sound level meter as prescribed in the APE 1913 Operational Manual. The meter or microphone for recording the sound level intensity shall be placed 25 + 0.5 feet (7.62 + 0.15 meters) down wind from the simulator. Set

the knob generally marked "Decibels" at 110. This setting will give a range of readings between 104 and 120 decibels. It is expected that most readings will exceed 120 decibels and will be recorded as "greater than 120 decibels". If another sound level meter is available, set the second one at 120 or 130 depending on the results of the first few tests. The results to the nearest decibel will then be recorded.

c. Carefully remove the tape securing the simulator cap to the simulator and remove the cap.

CAUTION

A condition may occur in which the pull cord adheres to the inside of the simulator cap. The simulator could ignite if the cap is pulled loose when the tape is removed. To prevent this occurrence, hold the cap firmly in place and remove the cap tape with extreme care, making sure that no pull is exerted on the pull cord.

d. Place the two holding holes in the simulator bracket over the two pins on the holding device attached to the testing table.

e. Attach one end of the spring to the table and a trip wire to the other end.

f. Pull the trip wire until the spring is extended to two and a half (2 1/2) times its original length and twist a loop in the trip wire directly under the mounted simulator.

g. Secure the opposite end of the trip wire in the lanyard quick release device as shown in the APE 1926 Operational Manual.

h. Attach the simulator pull cord to the loop in the trip wire.

i. Function the simulator by releasing the trip wire from within the personnel shelter.

j. If the spring tension is insufficient to withdraw the pull cord, repeat the test with the spring extended to three (3) times its original length.

k. Record the appropriate observations as instructed in paragraph 10 and 13.

10. Observations. All observations of nonstandard conditions and malfunctions, especially those not included among the defects listed in paragraphs 12 and 13, or in SB 742-1 should be described in full detail. Pictorial evidence of nonstandard conditions should be included whenever pertinent and practical. The observations to be reported are as follows:

a. Sound level intensity to the nearest decibel (Simulator MI17). If the sound level is not within the range of the meter, record it as "less than 104 decibels" or "greater than 120 decibels" as appropriate.

b. Burning time of the assembly to the nearest tenth of a second (Simulator MI18).

c. Whistle time of the assembly to the nearest tenth of a second (Simulator MI 19).

d. All instances of any of the following:

(1) Marking misleading, incomplete, or unidentifiable;

(2) Rust or corrosion (give location and extent).

e. The occurrence of any nonstandard conditions or malfunctions classified as defects in paragraphs 12 and 13, or SB 742-1.

f. The occurrence of any nonstandard condition or malfunction not specifically classified as a defect in paragraphs 12 and 13 or SB 742-1; but which, in the opinion of responsible personnel, merits consideration.

11. Classification of Defects. Defects observed during inspection and testing will be classified in accordance with paragraphs 12 and 13 and with SB 742-1. Any defects observed which are not listed in paragraphs 12 and 13 or in SB 742-1 will be described fully and reported with the recommendations of the QASAS as to classification.

12. Nonfunctioning Defects.

a. *Critical: None.*

b. *Major.*

(1) Use of the simulator is precluded due to difficulty of cap removal;

(2) Any of the following components missing:

- (a) Simulator assembly;
- (b) Spool assembly;
- (c) Simulator cap;
- (d) Extension spring;
- (e) Bracket.

(3) Major damage (damage to an extent which precludes use of the simulator) to any of the following:

- (a) Simulator assembly;
- (b) Spool assembly;
- (c) Simulator cap;
- (d) Extension spring;
- (e) Bracket.

(4) Major corrosion.

b. *Minor.*

(1) Either the bracket or the simulator cap is insecure to the extent that it can be removed by slight finger pressure.

(2) Any of the following components missing:

- (a) Both nails (either size);
- (b) Both bracket holes;
- (c) All staples.

(3) Minor damage (damage to an extent which precludes proper use of the component but does not preclude use of the simulator) to any of the following components:

- (a) Both nails (either size);
- (b) Both bracket holes;
- (c) All staples.

(4) Improper marking;

(5) Illegible marking;

(6) Minor corrosion;

(7) Simulator not properly sealed.

13. Functioning Defects.

a. *Critical.*

(1) Premature functioning is attributable to defective simulator or component;

(2) Simulator explodes (Simulator M118 or M119 only).

b. *Major.*

(1) Simulator fails to function due to any of the following (specify):

(a) The extension spring, when stretched to three times its original length, fails to withdraw the pull cord when the trip wire is released;

(b) Pull cord breaks or otherwise fails;

(c) Match composition failure;

(d) Charge composition failure;

(e) Bracket failure;

(f) Inner tube separates from outer tube while attempting to function simulator;

(g) Any other reason attributable to the simulator or component.

(2) Extension spring breaks or shows permanent distortion when extended according to instructions;

(3) Trip wire breaks while spring is being extended according to instructions;

(4) Sound level intensity is less than 104 decibels (MI 17);

(5) Illuminant assembly burns less than 25 seconds (M 118);

(6) Whistle assembly ignites but fails to produce characteristic sound (M119).

c. *Minor.*

(1) Sound level intensity is less than 120 but not less than 104 decibels (MI 117);

(2) Illuminant assembly burns less than 30 seconds but not less than 25 seconds (M118);

(3) Whistle time is less than 1.6 seconds or more than 6.0 seconds (MI 119);

(4) The extension spring, when stretched to two and a half times its original length, fails to withdraw the pull cord when the trip wire is released, but does not fail when stretched to three times its length.

14. Evaluation. Using the following criteria, and considering functional codes and nonfunctional characteristics separately, an interim condition code will be assigned in accordance with SB 742-1. A lot will be classified Condition Code J and reported in accordance with SB 742-1 if any critical defects are observed.

a. *Nonfunctional Characteristics.*

(1) *Serviceable for unrestricted issue and use.*

A lot not classified as Condition Code J shall qualify as serviceable for unrestricted issue and use if it meets the following requirements on inspection of 50 simulators by attributes:

(a) Not more than 3 major defectives;

(b) Not more than 7 minor defectives.

(2) Priority of issue. A lot not classified as Condition Code J or as serviceable for unrestricted issue and use shall qualify as serviceable for priority of issue if it meets the following requirements on inspection of 50 simulators by attributes:

(a) Not more than 7 major defectives;

(b) Not more than 12 minor defectives.

(3) Unserviceable. A lot not classified as serviceable for unrestricted issue and use or for priority of issue shall be classified as unserviceable.

b. Functional Codes.

(1) *Code A.* A lot not classified as Condition Code J shall qualify for Functional Code A if it meets the following requirements in the test of 50 simulators:

(a) Not more than 3 major defectives;

(b) Not more than 7 minor defectives.

(2) *Code B.* A lot not classified as Condition Code J or Functional Code A shall qualify for Functional Code B if it meets the following requirements in the test of 50 simulators:

(a) Not more than 7 major defectives;

(b) Not more than 12 minor defectives.

(3) *Code D.* A lot not classified as Condition Code J, Functional Code A, or Functional Code B shall be Functional Code D.

15. Records and Reports. Inspection and function test results will be recorded and reported on DA Form 984 and other appropriate forms as outlined in SB 742-1.

By Order of the Secretary of the Army:

Official:

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Major General, United States Army
The Adjutant General

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