D E P A R T M E N T O F T H E A R M Y S U P P L Y B U L L E T I N

SIMULATOR, PROJECTILE, GROUND BURST: M115 SERIES AMMUNITION SURVEILLANCE PROCEDURE

Headquarters, Department of the Army, Washington, D. C.
30 June 1972

1. Purpose and scope. This bulletin when used in conjunction with SB 742-1 provides a method for determining the serviceability of the subject item. The bulletin is to be used in the assessment of the serviceability of individual simulators only. The provisions of this bulletin are mandatory for use by all Department of the Army organizations within CONUS and overseas with a receipt, storage, and distribution mission. This bulletin is not intended for use by organizations with stocks in basic loads. Additional information pertaining to frequency of test, sample selection, defect standards, reports and records are contained in SB 742-1.

2. Errors, Omissions, and Recommended Changes. Reporting of errors, omissions, and recommendations for improving this bulletin by the individual user is authorized and encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications; to Director, US Army Materiel Systems Analysis Agency, ATTN: AMXSY- RW, Aberdeen Proving Ground, MD 21005.

3. Safety. The surveillance function testing must be conducted in accordance with the provisions set forth in appropriate safety regulations and implementing instructions, with special attention devoted to technical manuals describing the item.

4. Size of Sample. The number of simulators required to make up a representative sample from a lot for a surveillance function test is as follows:

For check investigation	as directed
For classification investigation	50
For confirmation investigation	as directed

5. Sample Selection. Sample simulators will be selected in accordance with the provisions of SB 742-1 with the exception that not more than ten simulators may be selected from any one carton and not more than one carton from any wooden box. 6. Preparation for Test. a. Number the simulators 1 through 50 and identify them as to the box from which they were drawn.

6. Preparation for Test. A. Number the simulators 1 through 50 and identify them as to the box from which they are drawn.

b. Temperature condition simulators 1 through 25 for 24 hours at 70° $\pm$ 10°F(21.1° $\pm$ 5.6°C).

This bulletin supersedes SB 742-1370-18,19 October 1971

c. Temperature condition simulators 26 through 50 for 24 hours at -65° ± 10°F (-53.9° ± 5.6°C).

7. Test Procedure. *a.* Mount the simulators on a suitable support and fire them by means of a short (approximately 20 feet) lightweight lanyard attached to the fuse lighter. Burning time of fuse and whistle time will be obtained by means of at least two stopwatches. To insure consistent and accurate measurements of time, the lanyard should first be brought to a taut position and the stopwatch started at jerking of the lanyard. Table, testing for holding and remote control actuation for pyrotechnic, APE 1903, should be used for this purpose.

b. Sound level determinations will be made by means of a sound-level meter, APE 1913, placed at distance of 75 feet from the simulator. For consistent and accurate results with the sound meter, the following procedure will be used:

(1) Conduct the test in flat, open terrain away from reflecting surfaces such as walls, buildings, or smooth hard-surface floors.

(2) Locate microphone and simulator mount 75 feet apart in the same plane so that the sound waves are perpendicular to the side of the microphone when the microphone is raised to an upright position.

(3) Place the sound-level meter so that the end of the box housing the microphone is towards the simulator mount.

(4) Set the knob generally marked "Weighting" to the "C" position.

(5) Set the switch generally marked "Slow-Fast" to the "Fast" position.

(6) Set the knob generally marked "Decibels" at 110. The meter reading is then combined with the knob setting to obtain the final reading. 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 meter is available, set the second one at 120 or 130, depending on the results of the first few firings. The results to the nearest decibel will then be recorded.

(7) Calibrate the sound-level meter periodically and whenever the readings show a trend or are in any way suspect.

c. Simulators should not be fired when the wind velocity exceeds 15 mph, during electrical, rain or snow storms, or during any other weather conditions that might make the observations inaccurate.

8. Observations. All observations of nonstandard conditions and malfunctions, especially those not included among the defects listed in paragraphs 10 and 11, should be described in full detail. Pictorial evidence of non-standard conditions, whenever pertinent and practical, should be included. The observations to be reported are as follows:

a. Burning time of fuse to the nearest tenth of a second.

b. Whistle time to the nearest tenth of a second.

c. Sound level intensity to one decibel if within the range of the meter. Otherwise, record whether the sound level intensity is above the upper or below the lower limit of the sound meter. If more than one sound meter is available, record all sound level intensities to the nearest decibel.

d. All instances of any of the following.

(1) In nonstandard marking state whether misleading, incomplete or unidentifiable.

(2) Where rust or corrosion appear give location and extent.

(3) The occurrence of any nonstandard conditions or malfunctions classified as defects in paragraphs 10 and 11.

(4) The occurrence of any nonstandard conditions or malfunctions not classified as defects in paragraphs 10 and 11 but which in the opinion of responsible personnel merits consideration.

9. Classification of Defects. Defects observed during inspection and testing will be classified in accordance with paragraphs 10 and 11 and SB 742-1. Any defects observed which are not listed in paragraphs 10 and 11 will be fully described and reported with the ammunition inspector's recommendation as to classification.

10. Nonfunctioning Defects. *a. Critical.*

(1) Safety clip missing, insecurely engaged, or incorrectly positioned.

(2) Explosive on exterior of assembly.

(3) Assembly punctured or cut to the extent that the explosive can escape.

b. Major.

(1) Any of the following components missing:

(a) Firing instruction label.

(b) Cement at time blasting fuse (safety fuse)and disc contact surfaces.

(c) Fuse tape.

(d) Sealing tape.

(e) Vent hole in fuse tape.

(f) Fuse lighter assembly.

(g) Safety fuse.

(h) Whistle assembly.

(i) Closing disc.

(2) Assembly loose at any joint when light finger pressure is applied.

(3) Protective coating on fuse lighter excessive to the extent that the removal of the safety clip or fuse lighter cap becomes very difficult.

(4) Major rust.

(5) Major corrosion.

c. Minor.

(1) Protective coating inadequate (bare spots larger than thumbnail size).

(2) Improper marking.

(3) Illegible marking.

(4) Minor rust.

(5) Minor corrosion.

(6) Foreign matter such as dirt, grease, or oil.

11. Functioning Defects. *a. Critical.* Fuse burning time is less than 4 seconds.

b. Major.

(1) Pull cord breaks or comes loose from fuse lighter.

(2) Wire to which pull cord is attached breaks. (State whether it was possible to explode the simulator by other means whenever pull cord or wire broke or came loose).

(3) Fuse lighter fails to burn.

(4) Fuse lighter burns but fails to ignite fuse.

(5) Fuse burns but fails to ignite whistle.

(6) Simulator whistles but does not explode.

(7) Simulator explodes without first whistling.

(8) Low order sound level intensity of explosion.

(9) Fuse burning time exceeds 20 seconds.

(10) Fuse lighter pulls loose from simulator.

c. Minor.

(1) Fuse burning time is less than 6 seconds but not less than 4 seconds.

(2) Fuse burning time exceeds 10 seconds but does not exceed 20 seconds.

(3) Whistle time is less than 1.6 seconds.

(4) Whistle time is greater than 6 seconds.

(5) Whistle fails to produce characteristic sound.

(6) Sound level intensity is below 104 decibels but not low enough to be considered low order.

12. Evaluations. Functional and nonfunctional codes will be recommended in accordance with the following criteria and the interim condition code will be assigned in accordance with SB 700-1300-1. A lot will be classified Condition Code J and reported if one critical defect is observed.

a. Nonfunctional codes.

(1) *Code A.* A lot not classified as Code J shall qualify for Code A 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) *Code B.* A lot not classified as Code J or Code A shall qualify for Code B 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) *Code D.* A lot not classified as Code J, Code A, or Code B shall be Code D.

b. Functional codes.

(1) *Code A.* A lot not classified as Code J shall qualify for 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 Code J or Code A shall qualify for 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 Code J, Code A, or Code B shall be Code D.

13. Records and Reports. Function test results will be recorded and reported as outlined in SB 742-1.

By Order of the Secretary of the Army.

W.C. WESTMORELAND
General, United States Army.
Chief of Staff

Official:
VERNE L. BOWERS,
Major General, United States Army,
The Adjutant General

Distribution:

Active Army

ACSFOR (2)	OS Maj Comd (10)
DCSLOG (2)	Dep (1O)
DCSLOG (LOG/DAM (3)	Arsenals (51
TSG (1)	LOGCOMD (2)
AMC (5)	Armies (10)
ARADCOM (5)	Br Svc Sch (5)
MUCOM (25)	USAAPSA (25)
MICOM (25)	PG (5)
USACDCEC(2)	Gen Dep(10)
CONARC(5)	Army Dep(10)

NG: None
USAR None
For explanation of abbreviations used. see AR 310-50.

*U.S. GOVERNMENT PRINTING OFFICE: 1993 0 - 342-421 (62639)

PIN: 011847-000

TEAR ALONG PERFORATED LINE

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

THEN. . JOT DOWN THE DOPE ABOUT IT ON THIS FORM, CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL!

SOMETHING WRONG WITH THIS PUBLICATION?

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE

BE EXACT. . .PIN-POINT WHERE IT IS

PAGE NO.	PARA-GRAPH	FIGURE NO	TABLE NO.

IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

SIGN HERE:

DA FORM 1 JUL 79 2028-2

PREVIOUS EDITIONS ▸ ARE OBSOLETE.

P.S.—IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

PIN: 011847-000