INCH-POUND

MIL-PRF-48656B w/AMENDMENT 3 <u>13 November 2013</u> SUPERSEDING MIL-PRF-48656B w/AMENDMENT 2 24 October 2012

PERFORMANCE SPECIFICATION

CARTRIDGES, SHOTSHELL

This specification is approved for use by the U.S. Army Armament Research, Development and Engineering Center, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 <u>Scope</u>. This specification covers shotshell cartridges for use in military shotgun weapons (see 6.1).

1.2 <u>Classification</u>. Items covered by this specification are as follows:

Type I – Combat / Riot or Military Police Applications (12 Gauge No. 00 Buckshot) Type II - Training and Marksmanship Applications (12 Gauge No. 9 Shot & No. 7 ½

Shot)

Comments, suggestions, or questions on this document should be addressed to: Commander, U.S. Army ARDEC, ATTN: RDAR-QES-E, Picatinny Arsenal, New Jersey 07806-5000 or e-mailed to <u>usarmy.pica.ardec.list.ardec-stdzn-branch@mail.mil</u>. Since contact information can change, you may want to verify the currency of this information using ASSIST Online database at <u>https://assist.dla.mil/</u>.

AMSC N/A FSC 1305 <u>DISTRIBUTION STATEMENT A</u>: Approved for public release; distribution is unlimited.

2. APPLICABLE DOCUMENTS

2.1 <u>General</u>. The documents listed in this section are referenced in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or documents that are recommended for additional information or examples. While every effort has been made to ensure the completeness of this list, document users are cautioned they must meet all requirements as cited in sections 3 and 4 of this specification, whether or not they are listed.

2.2 Government documents.

2.2.1 <u>Specifications, standards, and handbooks</u>. The following specifications, standards and handbooks form a part of this specification to the extent specified herein. Unless otherwise specified, the issues are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

STANDARDS

DEPARTMENT OF DEFENSE

MIL-STD-286	-	Propellants, Solid: Sampling, Examination & Testing
MIL-STD-636	-	Visual Standards for Small Arms Ammunition through
		Caliber .50
MIL-STD-644	-	Visual Inspection Standards and Inspection Procedure for
		Inspection of Packaging, Packing and Marking of Small
		Arms Ammunition
MIL-STD-1168	-	Ammunition Lot Numbering
MIL-STD-1916	-	DOD Preferred Methods for Acceptance of Products

(Copies of these documents are available online at <u>https://assist.dla.mil</u> or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.3 <u>Non-Government publications</u>. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

SPORTING ARMS & AMMUNITION MANUFACTURER'S INSTITUTE

SAAMI - Technical Committee Manual Vol. IV Shotshell

(Copies of SAAMI manuals are available from Secretary, Sporting Arms & Ammunition Manufacturer's Institute, PO Box 838, Branford, CT 06405.)

AMERICAN NATIONAL STANDARDS INSTITUTE

ANSI/SAAMI Z299.2	-	Voluntary Industry Performance Standards for
		Pressure and Velocity of Shotshell Ammunition for
		the Use of Commercial Manufacturers

(Copies of ANSI Standards are available from American National Standards Institute, 11 West 42nd Street, 13th Floor, New York, NY 10036)

UN ST/SG/AC.10/11	-	Recommendations on the Transport of Dangerous
		Goods, Tests and Criteria

(Copies of UN ST/SG/AC.10/11 are available from United Nations Publications, New York, NY 10017)

2.4 <u>Order of precedence</u>. In the event of conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 <u>First article</u>. When specified (see 6.2), a sample of the shotshell cartridges shall be subjected to first article inspection in accordance with 4.2.

3.2 Operating requirements.

3.2.1 <u>Primed case sensitivity</u>. The energy imparted by a steel ball weighing 1.94 ± 0.02 ounces falling 12 inches onto a simulated firing pin shall cause initiation of the primer. The energy imparted by a steel ball weighing 1.94 ± 0.02 ounces falling 2 inches onto a simulated firing pin (the simulated firing pin shall have a nominal weight of 70 grains and a spherical end radius of 0.0500 ± 0.0025 inches) shall not cause initiation of the primer.

3.2.2 <u>Velocity</u>. At a point 3.0 ± 0.5 feet from the muzzle of a 30.0 ± 0.1 inch test barrel, the mean velocity and the maximum standard deviation from the mean velocity shall be as shown in Table I.

		AMBIENT		НОТ		COLD	
TYPE	NOMENCLATURE	MEAN	SD	MEAN	SD	MEAN	SD
		(FPS)	(FPS)	(FPS)	(FPS)	(FPS)	(FPS)
I	No. 00 Buckshot	1.325 ± 50	30	1415 MAX	30	1415 MAX	35
1	Tto: 00 Duckshot	1,525 ± 50	50	1198 MIN	50	1198 MIN	55
II	No. 9 Shot	$1,145 \pm 90$	30	-	-	-	-
II	No. 7 $^{1}/_{2}$ shot	$1,145 \pm 90$	30	-	-	-	-

TABLE I. Bullet velocity requirements

3.2.3 <u>Chamber pressure</u>. The maximum average chamber pressure shall not exceed 12,500 LUP (lead units of pressure) or 13,000 PSI (pounds per square inch). The maximum individual pressure shall not exceed 14,500 LUP or 15,000 PSI. The cartridges shall be tested at ambient, hot and cold temperatures.

3.2.4 <u>Function and casualty</u>. The cartridge shall function without casualty in both manual and semiautomatic shotguns.

3.2.5 <u>Pattern</u>. The pattern shall be as follows for the appropriate shot:

No. 00 Buckshot – The average percentage of pellets inside or touching a 30 inch circle at a range of 40 yards shall be no less than 65 percent when fired through a 12 Ga. Shotgun 29.0 \pm 2.5 inches long with a full choke.

Number 9 Shot – The average percentage of pellets inside or touching a 30 inch circle at a range of 25 yards shall be no less than 50 percent when fired through a 12 Ga. Shotgun 26.0 ± 0.5 inches long with a skeet choke.

Number 7 $\frac{1}{2}$ Shot – The average percentage of pellets inside or touching a 30 inch circle at a range of 40 yards shall be no less than 70 percent when fired through a 12 Ga. Shotgun 28.0 \pm 2.5 inches long with a full choke.

3.2.6 Shot Type. The cartridges shall have the following shot:

No. 00 Buckshot – The cartridge shall contain 9 pellets of commercial shot size No. 00 Buck in accordance with SAAMI Technical Committee Manual Vol. IV Shotshell for No.00 Buckshot rounds.

No. 7 $\frac{1}{2}$ Shot – The cartridge shall contain 1 1/8 ounces + 3 percent – 5 percent of commercial shot size number 7 $\frac{1}{2}$ in accordance with SAAMI Technical Committee Manual Vol. IV Shotshell for No. 7 $\frac{1}{2}$ Shot rounds.

No. 9 Shot – The cartridge shall contain 1 1/8 ounces + 3 percent – 5 percent of commercial shot size number 9 in accordance with SAAMI Technical Committee Manual Vol. IV Shotshell for No. 9 Shot rounds.

3.3 Interface and interoperability requirements.

3.3.1 <u>Cartridge visual and physical parameters</u>. The cartridge dimensions shall be as cited in ANSI/SAAMI Z299.2 for a 12 gauge cartridge with a 2- $\frac{3}{4}$ inch chamber, with the exception that the under head radius of 0.015 in. shall be increased to 0.025 Max in. In addition, cartridges shall be free from dents, scratches and other imperfections.

3.4 Support and ownership.

3.4.1 <u>Ammunition lot numbering</u>. Each lot of ammunition shall be identified by type and lot number. Lot numbering/identification shall be in accordance with MIL-STD-1168. The lot numbering will appear only on the outer packaging, i.e. M2A1 metal cans and wirebound boxes.

3.4.2 <u>Cartridge identification</u>. The side of each cartridge case shall be marked to identify it as a No. 00 Buckshot, No. 7 $\frac{1}{2}$ shot or No. 9 shot round.

3.4.3 <u>Final hazard classification</u>. The cartridge shall comply with the following Hazard Classification when packaged in commercial packaging or in accordance with packaging requirements in the contract.

DOD Hazard Class/Div: 1.4 DOD Hazard Compatibility Group: S DOT Hazard Class: 1.4S Net Explosive Weight: 0.004 lbs.

3.4.4 <u>Propellant stability</u>. All propellants shall be stable over a minimum time period of 5 years.

3.4.5 <u>Cartridge Color</u>. Color of cartridge case shall be olive drab approximately 34064 to 34087 per FED-STD-595. Brass casing shall be subdued to achieve a non-reflective finish.

4. VERIFICATION.

TABLE II. Requirements / Verification Cross Reference Matrix

Method of Verification		Classes of Verification						
1 Analysis								
	2 Demonstration			L	A Fir	st Articl	e	
	3 Examination			E	3 Con	formand	ce	
	4 Test							
Section 3	Description	Ve	rificatio	n Meth	ods	Verification Class		Section 4 Verification
Requirement	_	1	2	3	4	Α	В	Method
3.1	First article			X	Х	X		4.2
3.2.1	Operating case sensitivity				X	Х	Х	4.4.1
3.2.2	Velocity				Х	X	Х	4.4.2
3.2.3	Chamber pressure				Х	X	Х	4.4.3
3.2.4	Function and casualty				Х	X	Х	4.4.4
3.2.5	Pattern				Х	X	Х	4.4.5
3.2.6	Shot type			Х		Х	Х	4.4.6
3.3.1 & 3.4.2	Cartridge Visual and physical parameters			X		X	Х	4.4.7 & 4.4.9
3.4.1	Ammunition lot numbering			X		X	Х	4.4.8
3.4.2	Cartridge identification			Х		Х	Х	4.4.9
3.4.3	Final hazard classification				Х	Х		4.4.10
3.4.4	Propellant stability				Х	Х		4.4.11

4.1 <u>Classification of verifications</u>. The inspection requirements specified herein are classified as follows:

a. First article inspection (see 4.2)

b. Conformance verification (see 4.3)

4.1.1 <u>Verification conditions</u>. Unless otherwise specified, all inspections shall be performed in accordance with the test conditions specified in section 4.4.

4.2 <u>First article inspection</u>. When specified in the contract, a sample of the cartridge and components shall be subjected to first article verification in accordance with the Requirements/Verification Cross Reference Matrix, Table III.

4.2.1 <u>First article quantity</u>. First article verification shall be performed on the quantity of cartridges, primed cases and grams of propellant as specified in Table III.

4.2.2 <u>Inspections to be performed</u>. As determined by the Government, the first article assemblies, components and test specimens may be subjected to any or all of the examinations and tests specified in this specification (see Table III) and be inspected for compliance with any or all requirements of the specification and the applicable drawings.

4.2.3 <u>First article rejection</u>. If any assembly, component or test specimen fails to comply with any of the applicable requirements, the first article sample shall be rejected.

Examination or Test	C	onform	ance C	Requirement Paragraph	Inspection Method	
	Sa	mple		A aa Dai 1/		
	Ambient	Hot	Cold	Асс-кеј <u>1</u> /		
Primed case sensitivity	30			<u>1</u> /	3.2.1	4.4.1
Velocity	50	50	50	<u>2</u> /	3.2.2	4.4.2
Chamber pressure	50	50	50	<u>3</u> /	3.2.3	4.4.3
Function and casualty						
Туре І	100	100	100	<u>4</u> /	3.2.4	4.4.4
Type II	100					
Pattern	30			<u>5</u> /	3.2.5	4.4.5
Shot type	30			<u>6</u> /	3.2.6	4.4.6
Examination for defects	See MIL-STD-1916				3.3.1, 3.4.1 & 3.4.2	4.4.7, 4.4.8 & 4.4.9
Thermal stability	150 gm			0 / 1	3.4.3	4.4.10
Propellant stability	50 gm			0 / 1	3.4.6	4.4.11
Notes: 1/ See notes after Table IV.						

4.3 Conformance verification.

4.3.1 <u>Inspection lot formation</u>. Lot formation shall be in accordance with the lot formation requirement of MIL-STD-1916, paragraph 4.2.2.

4.3.2 <u>Conformance inspection</u>. The sample cartridges shall be subjected to conformance verification in accordance with Table IV.

4.3.3 <u>Examinations and tests</u>. Reference shall be made to MIL-STD-1916 for the definition of Critical, Major, and Minor defects. The attribute sampling plan required for the examination for defects in Table IV shall be in accordance with the attribute sampling plan of MIL-STD-1916, using verification level IV for Major characteristics and level III for Minor characteristics. One hundred percent inspection shall be used on all Critical characteristics.

4.3.4 <u>Alternative conformance provisions</u>. Unless otherwise specified herein or provided for in the contract, alternative conformance procedures, methods or equipment, such as statistical process control, tool control, or other types of sampling plans, may be used by the contractor when they provide, as a minimum, the level of quality assurance required by the provisions herein.

4.3.5 <u>Test Provisions</u>. If an equipment/weapon failure occurs which prevents the obtaining of a reliable test result, then the equipment/weapon shall be replaced or repaired; the individual test cartridge result shall be disregarded and another sample cartridge shall be fired for record. If the weapon/equipment failure prevented the obtaining of reliable results for the entire test series, then the entire test result shall be disregarded and a complete sample shall be fired for record.

TABLE IV. Conformance inspection

Examination or Test	Con	forma	nce Crit	Requirement Paragraph	Inspection Method	
	San	nple		A ao Dai		
	Ambient	Hot	Cold	Асс-кеј		
Primed case sensitivity	30			<u>1</u> /	3.2.1	4.4.1
Velocity	30	30	30	<u>2</u> /	3.2.2	4.4.2
Chamber pressure	30	30	30	<u>3</u> /	3.2.3	4.4.3
Function and casualty						
Type I	100	100	100	<u>4</u> /	3.2.4	4.4.4
Type II	100					
Pattern	30			<u>5</u> /	3.2.5	4.4.5
Shot type	30			<u>6</u> /	3.2.6	4.4.6
Examination for defects	See MIL-STD-1916				3.3.1, 3.4.1 & 3.4.2	4.4.7, 4.4.8 & 4.4.9

Notes:

1/ The criteria for primed case sensitivity acceptance are contained in 3.2.1 & 4.4.1.

2/ The criteria for velocity acceptance are contained in Table I.

 $\underline{3}$ / The criteria for chamber pressure are contained in 3.2.3.

 $\underline{4}$ / The criteria for function and casualty of the sample cartridges, tested at ambient, hot and cold temperatures for Type I rounds and at ambient temperature for Type II rounds, are contained in Table VI, Firing defects.

5/ The criteria for pattern acceptance are contained in 3.2.5.

 $\underline{6}$ / The criteria for shot type acceptance are contained in 3.2.6.

TABLE V. Examination for defects

Classification	Examination or Test	Conformance Criteria		Requirement Paragraph	Inspection Method Reference
		Sample	Acc- Rej		
Critical					
1	Head or rim split <u>1</u> /	100%	0 / 1	3.3.1	Visual
2	Mashed head 1/	100%	0 / 1	3.3.1	Visual
3	No primer 1/, 4/	100%	0 / 1	3.3.1	Visual
4	Cocked Primer 1/, 4/	100%	0 / 1	3.3.1	Visual
5	Inverted Primer 1/, 4/	100%	0 / 1	3.3.1	Visual
Major					
101	Perforated or split case $\underline{1}/$	Level IV <u>2</u> /		3.3.1	Visual
102	Cartridge length, max	Level IV		3.3.1	SME
103	Rim thickness, max	Level IV		3.3.1	SME
104	Head diameter, max	Level IV		3.3.1	SME
105	Case diameter, max	Level IV		3.3.1	SME
106	Cartridge type, incorrect <u>6</u> /	Level IV		3.3.1	Visual/Gage
107	Open crimp <u>1</u> /	Level IV		3.4.2	Visual
108	Defective head <u>1</u> /	Level IV		3.3.1	Visual
109	Sheared case over head $\underline{1}/$	Level IV		3.3.1	Visual
110	Defective body <u>1</u> /	Level IV		3.3.1	Visual
111	Battery cup defects <u>1</u> /	Level IV		3.3.1	Visual
112	Battery cup above specification <u>5</u> /	Level IV		3.3.1	SME
Minor					
201	Illegible or missing cartridge marking $\frac{1}{2}$	Level III		3.3.1	Visual

TABLE V. Examination for defects continued.

Notes:

1/ Refer to shotshell/shotgun section of MIL-STD-636 for Visual Standards of defects.

2/ Levels III and IV refer to those verification levels of Table II attributes sampling plan in MIL-STD-1916.

 $\underline{3}$ / Accept on 0 and reject on 1

 <u>4</u>/ For Type II cartridges: Critical defect No. 3 becomes Major defect No. 113 Critical defect No. 4 becomes Major defect No. 114 Critical defect No. 5 becomes Major defect No. 115

5/Battery cup shall be no more than .004 in. above flush. The primer cup shall be below flush of the battery cup.

 $\underline{6}$ / Inspection for incorrect cartridge type shall be performed during or immediately prior to the packaging operation which is before cartridge lot acceptance. Occurrence of any other type of cartridge shall be classified as a major defect. Any incorrect cartridge type found shall be replaced with a correct cartridge type and the entire lot shall be subjected to a subsequent 100% inspection. During the subsequent inspection, any incorrect cartridge type found shall be replaced with a correct cartridge type.

TABLE VI. Firing defects

Firing Defects 1/	Acceptance	Rejection
1. Burst rim	0	1
2. Blown primer or battery cup	0	1
3. Wad or other obstruction remaining in bore	0	1
4. Blown base wad	0	1
5. Head pulled off	0	1
6. Head cut off	0	1
7. Dropped primer or battery cup	0	1
8. Misfire	0	1
9. Body cut off	0	1
10. Head split	1	2
11. Split knurl	1	2
12. Split mouth <u>2</u> /	3	4
13. Partial cut off	1	2
14. Rupture	1	2
15. Partial split	3	4
16. Head start	1	2
17. Bulged rim	1	2
18. Body split	3	4
19. Powder burns	1	2
20. Primer set back more than .025 in. above flush	1	2
21. Battery cup set back more than .025 in. above flush	1	2
22. Primer pierced	1	2
23. Primer punctured	1	2
24. Cumulative defects for 10 - 23	3	4

Notes:

 $\underline{1}$ / For defects refer to MIL-STD-636, Shotshell cartridges section, for firing defects standards.

 $\underline{2}$ / At cold temperatures only, splits that do not exceed the severity of those shown in MIL-STd-636, figure no. 11, are permissible

4.4 Methods of inspection.

4.4.1 <u>Primed case sensitivity verification</u>. The primed case sensitivity testing shall be performed as specified in SAAMI Technical Committee Manual Vol. IV Shotshell. Empty primed shotshell cartridges shall be tested for primer sensitivity. Two-thirds of the sample shall be tested at a height of 12 inches and one-third of the sample shall be tested at a height of 2 inches. If one or more cartridge primers fail at either height, the sample fails and a sensitivity rundown test shall be conducted. The sensitivity rundown test shall consist of a 25 cartridge test at each 1 inch increment of height between 0 percent and 100 percent firing. If the average critical height (H) plus four standard deviations (4 sigma) exceeds 14 inches, or if the average critical height minus two standard deviations (2 sigma) is less than 1 inch, the lot of cartridges shall be rejected. The average critical height (H) is defined as the mean height at which 50 percent of the primers being tested will fire.

4.4.2 <u>Velocity verification</u>. The velocity test shall be conducted in accordance with SAAMI Technical Committee Manual Vol. IV Shotshell and ANSI/SAAMI Z299.2. The sample cartridges shall be temperature conditioned as follows (unpackaged cartridges) for four hours minimum:

- a. Ambient: 70 ± 10 degrees Fahrenheit
- b. Hot: 125 ± 5 degrees Fahrenheit
- c. Cold: -20 ± 5 degrees Fahrenheit

4.4.3 <u>Chamber pressure verification</u>. The chamber pressure test shall be conducted in accordance with SAAMI Technical Committee Manual Vol. IV Shotshell and ANSI/SAAMI Z299.2. Conditioning for the sample cartridges temperature shall be as follows (unpackaged cartridges) for four hours minimum:

- a. Ambient: 70 ± 10 degrees Fahrenheit
- b. Hot: 125 ± 5 degrees Fahrenheit
- c. Cold: -20 ± 5 degrees Fahrenheit

4.4.4 <u>Function and casualty verification</u>. Cartridges shall be fired in a ratio of approximately 50 percent – 50 percent for each temperature through two unaltered shotguns per Table VII below. Conditioning for the sample cartridges temperature shall be as follows (unpackaged cartridges) for four hours minimum:

Type I and Type II cartridges - Ambient, 70 ± 10 degrees Fahrenheit Type I cartridges - Hot, 125 ± 5 degrees Fahrenheit Type I cartridges - Cold, -20 ± 5 degrees Fahrenheit

Semi-automatic weapons shall have a total chamber and magazine capacity of five cartridges minimum. The weapons shall be loaded to capacity and the test performed until the total test sample quantity is reached.

Table VII. Function and casualty weapons

	Туре І	Type II
Manual	2	1
Semi-automatic	2	1

4.4.5 <u>Pattern verification</u>. The pattern test shall be conducted in accordance with SAAMI Technical Committee Manual Vol. IV Shotshell.

4.4.6 <u>Shot type verification</u>. The shot from each of five cartridges shall be weighed, and the pellets shall be counted. The number of pellets per pound shall be calculated for each cartridge, and the average of the pellet counts per pound shall be calculated. The average pellet count shall vary from the nominal value cited in 3.2.6 by no more than 8 percent.

4.4.7 <u>Cartridge visual and physical parameters verification</u>. All test cartridges shall be inspected for the defects listed in Table V. The criteria for grading defects shall be in accordance with MIL-STD-636.

4.4.8 <u>Ammunition lot numbering verification</u>. Visually verify that an ammunition lot number has been assigned to each lot of 12 gauge shotshell cartridges in accordance with MIL-STD-1168.

4.4.9 <u>Cartridge identification verification</u>. Visually verify that the cartridge identification marking is as follows on the case for the appropriate round:

No.00 Buckshot:	9 PEL 00 BUCK
No. 7 ½ Shot:	1 1/8 OZ. 7 ½ SHOT
No. 9 Shot:	1 1/8 OZ. 9 Shot

4.4.10 <u>Final hazard classification verification</u>. Compliance with the FHC requirements specified at paragraph 3.4.3 shall be validated during the First Article Test (FAT). FAT tests for Final Hazard Classification shall be in accordance with UN ST/SG/AC.10/11, Recommendations on the Transportation of Dangerous Goods, Tests and Criteria. The following test series shall be used: 4.a for thermal stability. Test results from prior in-house verifications of these tests are acceptable.

4.4.11 <u>Propellant stability verification</u>. Propellant stability tests shall be conducted in accordance with the test procedures listed below. Stability is demonstrated when results comply with the requirements listed below.

Test	Reference Document	Test Procedure Description	Requirement
Heat	MIL-STD- 286	Method 404.1.2	For single base propellants - Methyl violet paper shall not change to salmon pink in less than 40 minutes, and the sample shall not explode in less than 5 hours at 134.5°C.
			For double base propellants - Methyl violet paper shall not change to salmon pink in less than 40 minutes, and no fumes given off less than 1 hour at 120°C.
Storage Degradation/Surveillance	MIL-STD- 286	Method 407.1	No fumes in less than 30 days of storage at 65.5°C

5. PACKAGING

5.1 <u>Packaging</u>. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD or inhouse contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the military service's system commands. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 <u>Intended use</u>. These cartridges are intended for use in US military weapons for tactical and training purposes. The 12 gauge cartridges procured to this specification are military unique because they must meet the military's propellant stability and shelf life storage requirements of 5 years, which exceeds commercial industries normal requirements. They must also meet the high and low temperature requirements for the combat rounds.

6.2 Acquisition requirements. Acquisition documents should specify the following:

a. Title, number and date of this specification.

b. Issue of DODISS to be sited in the solicitation, and, if required, the specific issue of individual documents referenced (see 2.2.1).

c. Requirements for submission of first article.

d. Requirement and provisions for submission of test data as required.

e. Certificate of conformance for each lot of ammunition.

f. Requirements for Ammunition Lot Numbering.

g. Packaging requirements (see section 5.1): The following is provided as reference information.

Packaging will be level A for Type I rounds and level B for Type II rounds:

Type I cartridges can be packed in accordance with packaging drawing 9396206 (Cartridge, 12 Gauge Shotshell, No. 00 Buckshot, NSN 1305-01-232-8338). Type II cartridges can be unit packed in cartons in accordance with the best commercial practice. The packed cartridges will be over packed in a (4G) fiberboard box Class WWVR, Grade V3c or W5c, Style RSC, waterproofed per ASTM D5118 and closed in accordance with ASTM D1974. Five hundred rounds is a standard quantity per fiberboard box (25 cartridges/carton, 20 cartons/fiberboard box) (Cartridge, 12 Gauge Shotshell, No. 71/2 Shot, NSN 1305-01-232-8339; and Cartridge, 12 Gauge Shotshell, No. 9 Shot, NSN 1305-01-232-7415).

h. If the Final Hazard Classification on record was based on government packaging drawings it may be necessary to include those packaging drawings in the contract to ensure continued legal transportation. Determination should be made by AMSTA-AR-QAW-S.

6.3 <u>Reference drawings</u>. Drawings 9390438, 9390440 and 9390439 may be used as references for designs that have been qualified.

6.4 <u>Ammunition lot numbers</u>. Ammunition lot numbers require ammunition data cards in accordance with MIL-STD-1168.

6.5 <u>Submission of alternative conformance provisions</u>. All contractor proposed alternative conformance provisions will be submitted to the Government for evaluation / approval as directed by the contracting activity.

6.6 Subject term (keyword) listing.

12 Gauge Shotgun Combat Riot Military Police Training

6.7 <u>Changes incorporated</u>. MIL-DTL-48656 Revision B AMENDMENT 3 incorporates ECPs R12S5030-1 and R13Q2030-1.

6.8 <u>Amendment notations</u>. The margins of this specification are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Custodian:	Preparing activity:
Army —AR	Army — AR
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