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DEPARTMENT OF DEFENSE STANDARD PRACTICE

AMMUNITION LOT NUMBERING AND AMMUNITION DATA CARD

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FOREWORD

1. This Military Standard is approved for use by all Departments and Agencies of the Department of Defense.

2. This standard covers the requirements for ammunition lot numbering and ammunition data cards.

3. The purpose of lot numbering ammunition items and creation of ammunition data cards as outlined herein is to provide the identification of homogeneous materiel necessary to ensure accurate control of items during development and experimental stages; during movement of items from production line to production line, from plant to plant, from plant to storage facilities; while at test facility or in the field; for issue to the using services; to enable the proper establishment and maintenance of surveillance records; and to provide a means for properly identifying materiel when withdrawal of defective, deteriorated, hazardous or obsolete ammunition and energetic materiel from service is required. Lot numbering and ammunition data cards also provide documentation and traceability for ammunition lots.

4. Comments, suggestions, or questions on this document shall be addressed to Commander ARDEC, ATTN: RDAR-QES-E, Picatinny Arsenal, NJ 07806-5000 or emailed to usarmy.picatinny.ardec.list.ardec-stdzn-branch@mail.mil. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at https://assist.dla.mil.

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1. SCOPE

1.1 Scope. This standard establishes and describes the lot numbering system and ammunition data card requirements that are used to identify and document items of ammunition (including guided missiles) and energetic materiel during all phases of their life cycles.

1.2 Exceptions. The provisions of this standard do not cover the lot numbering system used on nuclear materiel, assemblies and associated parts designed specifically for nuclear applications.

2. REFERENCED DOCUMENTS.

2.1 General. The documents listed in this section are specified in sections 3, 4, or 5 of this standard. This section does not include documents cited in other sections of this standard or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in sections 3, 4, and 5 of this standard, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

DEPARTMENT OF DEFENSE HANDBOOKS

MIL-HDBK-1461	-	Ammunition Manufacturers and their Symbols

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

2.3 Order of precedence. Unless otherwise noted herein or in the contract, in the event of a 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. DEFINITIONS.

3.1 Acronyms. The following acronyms used in this standard are defined as follows:

ACO	-	Administrative Contracting Officer
ADC	-	Ammunition Data Card
AIN	-	Ammunition Information Notice
ATACMS	-	Army Tactical Missile System
COCO	-	Contractor Owned Contractor Operated
CORP	-	Conventional Ordnance Resource Program
DoD	-	Department of Defense
DODIC	-	Department of Defense Identification Code
ECP	-	Engineering Change Proposal
GOCO	-	Government Owned Contractor Operated
GOGO	-	Government Owned Government Operated
GMLRS	-	Guided Missile Large Rocket System
JMC	-	Joint Munitions Command
LAP	-	Load, Assemble, and Pack
MHP	-	Munitions History Program
MIN	-	Missile Information Notice
NALC	-	Naval Ammunition Logistics Code
NCAS	-	Navy Conventional Ammunition Systems
NSN	-	National Stock Number
PCO	-	Procuring Contracting Officer
PQM	-	Product Quality Manager
QAO	-	Quality Assurance Operations
QASAS	-	Quality Assurance Specialist Ammunition Surveillance
QAR	-	Quality Assurance Representative
RFD	-	Request for Deviation
RFV	-	Request for Variance
RFW	-	Request for Waiver
SMCA	-	Single Manager for Conventional Ammunition
SWA	-	Southwest Asia
TB	-	Technical Bulletin
TDP	-	Technical Data Package
TOW	-	Tube-Launched, Optically-Tracked, Wire-Guided
WARP	-	Worldwide Ammunition-data Repository Program

3.2 Terms and definitions. The following terms and definitions apply to this standard:

3.2.1 Ammunition. An end item, complete round, or materiel component charged with explosives, energetics, propellants, pyrotechnics, or initiating composition for use in connection with defense or offense (including guided missiles and demolitions) as well as ammunition used for training, ceremonial, or non-operational purposes. This includes inert devices that replicate live ammunition, commonly referred to as dummy ammunition, which contain no energetic materials.

3.2.2 Ammunition data card (ADC). An ammunition data card is a record that documents essential information pertaining to the build and lifecycle of an end item lot of ammunition, a component lot of ammunition, energetic material, or a serially numbered item such as a missile. The ADC contains all required data and information pertaining to the creation of the lot and any further changes throughout the lifecycle such as rework, repairs, maintenance, and demilitarization. The ammunition data card is used to provide traceability of energetic or non-energetic end items, assemblies, sub-assemblies, component parts, and compositions/mixtures. It is also used in engineering investigations to isolate defective components and materials. The format of ADCs can vary from a paper record to electronic database entries depending upon the requirements and procuring activity. Unless otherwise specified, the default ADC electronic database is the Worldwide Ammunition-data Repository Program (WARP), currently located in the Munitions History Program (MHP) (https://mhpwarp.redstone.army.mil). Applicable information contained in the ADC includes the lot number, item nomenclature, manufacturers, contracts, drawings, specifications, components, temporary configuration management changes (such as waivers, variances, and deviations), engineering change proposals (ECPs), shipment dates, partial shipments, National Stock Numbers (NSNs), and other detailed information.

3.2.3 Ammunition lot. A quantity of homogeneous ammunition (complete rounds, components, propellants, etc.), which is manufactured, assembled, or renovated by one manufacturing activity under uniform conditions and which is expected to function in a uniform manner. An ammunition lot is designated and identified by assignment of an ammunition lot number.

3.2.4 Ammunition lot number. An alpha-numeric designator systematically assigned to each ammunition lot at the time of manufacture or assembly that uniquely identifies the particular ammunition lot. An ammunition lot number consists of a manufacturer's identification symbol, a year of production, a month of production, an interfix number, and a sequence number. It also can contain an ammunition lot suffix, an ammunition lot identifier code, and an ammunition lot theater indicator. A lot number without an ammunition lot suffix, ammunition lot identifier, and ammunition lot theater indicator is sometimes referred to as the basic lot number or a parent lot. A lot number that has been changed in some way (such as with the addition of a suffix, lot identifier, or theater indicator) but that is still traceable to the parent lot number can be referred to as a revised lot number. When a lot number replaces an existing lot number completely, such that no part of the existing lot number was reused, then it can be said that a new lot number was assigned.

3.2.4.1 Manufacturer's identification symbol. A combination of one, two, or three alpha-numeric characters used to indicate the unique identity and location of the arsenal, plant, depot, station, contractor, vendor, etc. which manufactured, assembled, regrouped, or loaded a specific item of ammunition or ammunition component. It is the first entry of the lot number preceding the numeric code used to identify the year of production (see 4.2).

3.2.4.2 Year of production. A numeric code consisting of the last two (2) digits of the calendar year in which the manufacture, assembly, or regrouping of the lot was initiated. This numeric code is placed directly between the manufacturer's identification symbol and the month of production code (see 4.3.1).

3.2.4.3 Month of production. An alpha code to identify the month that manufacture, assembly, or regrouping of the lot was initiated. This alpha code is placed directly between the year of production and the lot interfix number. A listing of the alpha codes assigned to identify the month of production are contained in 4.3.2.

3.2.4.4 Interfix number. A three (3) digit number ranging from "001" to "999" placed between the month of production code letter and the sequence number. The interfix number is designed to identify those lots in a series which have been produced or assembled by the same manufacturing activity at the same location for the same item, made according to a specific design and manufacturing process using like materials in accordance with certain administrative procedures (see 4.4). The interfix number "000" is reserved for experimental and reference lots only (see 4.7.2 and 4.7.7).

3.2.4.5 Ammunition lot identifier codes. An alpha character placed instead of the hyphen in the ammunition lot number's tenth position. For propellant lot numbers the character is placed in the eighth position instead of the 0. These codes identify specific lot types such as special lots, first article lots, calibration lots, hybrid lots, etc. These identifier codes are used to ensure the lots are properly identified and to maintain traceability (see 4.7).

3.2.4.6 Sequence number. A number ranging from "001" to "999" placed after the interfix number in an ammunition lot number. The sequence number identifies the lot within the interfix series according to the sequence of production or assembly of the item (see 4.5).

3.2.4.7 Ammunition lot suffix. An alpha character added directly after the lot sequence number in the 14^{th} and if applicable 15^{th} position to denote a rework, or to identify reprocessed propellant lots, etc. Ammunition lot suffixes are always in capital letters and are applied sequentially starting with "A" and continuing through "ZZ." Restricted or prohibited alpha characters are listed in 4.6.4. Application and use of the lot suffix to identify changes, modifications, maintenance, etc., to the original lot provides a more efficient method to control the affected portions of the original lot in the event of malfunctions, suspensions, and releases. It is also sometimes referred to as the "alpha suffix" (see 4.6).

3.2.4.8 Ammunition lot theater indicator. The ammunition lot theater indicator is an alpha character placed at the end of the lot number in the 15^{th} or 16^{th} position. When the lot theater indicator is used, it is the last part of the lot number. These codes identify items that were exposed to combat conditions and environments and provide a means of tracking which lots were sent to which theaters. This positive identification allows future monitoring of those lots for accelerated deterioration or reductions in performance and

also benefits future testing, malfunction investigations, and maintenance functions (see 4.8).

3.2.5 Calibration lot. A calibration lot serves as the current standard against which other lots may be evaluated.

3.2.6 Complete round. An assembly consisting of all component parts required to perform a specific function at the time and under the conditions desired. A complete round may consist of one or more types of components. Types of components include explosive, energetic, propellant, pyrotechnic, and non-energetic components. The term is also used interchangeably with "complete assembled rounds" and "round of ammunition." It should not be used interchangeably with "item of issue." All "items of issue" are not necessarily "complete rounds." Some examples of "complete rounds of ammunition" are:

a. bomb – consisting of all component parts required to function the bomb once.

b. fixed or semi-fixed – consisting of a primer, propelling charge, cartridge case, a projectile and a fuze except when solid projectiles are used.

c. missile – consisting of complete warhead section and a missile body with its associated components and propellants.

d. separate loading – consisting of a primer, propelling charge and except for blank ammunition, a projectile and a fuze.

3.2.7 Component lot number. A component lot number follows the same format as an ammunition lot number as described in 3.2.4. Not all components are energetic or are themselves ammunition, but they may still be required to have an ammunition lot number assigned.

3.2.8 Configuration management change. A configuration management change is a permanent or temporary change proposed to the configuration of an item. Permanent changes are proposed in the form of an engineering change proposal (ECP). Temporary changes to, or exceptions from, the technical data package requirements are requested in the form of a request for variance (RFV), request for deviation (RFD), or a request for waiver (RFW). Which temporary configuration management change to be used will depend upon the requirements of the procuring activity.

3.2.9 Energetic material. For the purposes of this standard, energetic material is considered material which undergoes a chemical reaction as part of the functioning of the ammunition. Energetic materials consist of chemical compounds or mixtures of chemical compounds that are divided into three classes according to use: explosives, propellants, and pyrotechnics.

3.2.10 Functional lot. A quantity of two or more types of cartridges packed in an authorized combination as an item of issue for field use in a weapon system. This is primarily used for functional packs of small caliber ammunition or medium caliber ammunition.

3.2.11 Homogeneity/homogenous material. When all units of product in an ammunition lot have been produced by one manufacturing activity, in one unchanged process, under stable conditions of production, in accordance with the same drawings and specifications and any revisions thereto, a "state of homogeneity" is considered to exist. This means that the items of ammunition have been manufactured or assembled during a production process which has not been altered by innovation, changes in material sources, retooling (other than routine changes to compensate for normal tool wear or breakage), or interruptions other than those due to the end of the shift, day, or week (e.g. labor strikes, explosive mishaps).

3.2.12 Hybrid lot. A hybrid lot of ammunition is an item of issue lot consisting of components with various interfix numbers or manufacturing activities, in excess of the number permitted in the item of issue specifications, drawings, or contract.

3.2.13 Interfix series. An interfix series is comprised of multiple ammunition lots manufactured or assembled by the same manufacturing activity under uniform conditions and which are expected to function in a uniform manner. Lots within an interfix series which also share components from a larger component lot are also referred to as sister lots. In an interfix series, the manufacturer's identification symbol and the interfix number remain constant while the sequence number advances sequentially. In most instances the month of production code will change progressively within an interfix series. Occasionally the year of production will also change.

Example:

XYZ07B006-001
XYZ07B006-002
XYZ07C006-003
XYZ07D006-004 etc.
to XYZ08A006-015

3.2.14 Items of issue. An item of issue is a complete round or primary/major component which is issued to a field activity.

3.2.15 Items of a similar nature. Those items produced or assembled by the same manufacturing activity at the same plant which are basically the same but vary slightly. This includes items which are used in nearly identical manners but produce different intended results, such as high-explosive, illumination, blank, less-than-lethal, and training rounds for the same weapon. Also included are those items of the same caliber or size which are manufactured or assembled at the same plant.

3.2.16 Lotting. This is the process of creating a lot in accordance with lotting concepts and in accordance with any lot formation restrictions in the item specifications, drawings, or contract. It includes the production or assembly of an item or component, the issuance and marking of a lot number in accordance with this standard, and the documentation of the lot number with an ADC.

3.2.17 Lotting concepts. This incorporates the basic philosophy that the homogenous units of product comprising a lot of ammunition have been produced or assembled at the same plant under consistent conditions and numbered systematically to ensure accurate identification and control of the lot and its major components during their entire life cycle. Moreover, it accepts the theory that all portions of the lot are reasonably identifiable or capable of being identified with the parent lot.

3.2.18 Maintenance operations. For purposes of this standard, the term maintenance operations is used to cover the broad spectrum of all operations involving the care and preservation of ammunition. These primarily occur in the depots, field locations, arsenals, and plants. The operations include but are not limited to adjusting, cleaning, derusting, repainting, remarking, repackaging, reconditioning, reworking, renovating, modifying, overhauling, converting, reprocessing, replacing, repairing, regrouping, inspecting, screening, testing, and other applicable operations.

3.2.19 Manufacturing activity. Within this standard, the term manufacturing activity will be used to identify the Government Owned Government Operated (GOGO), Government Owned Contractor Operated (GOCO), or Contractor Owned Contractor Operated (COCO) facilities that are engaged in the original manufacture, loading, or assembly of ammunition components, assemblies, or complete rounds. This does not include facilities that only repackage or redistribute material that has been manufactured, loaded, or assembled by a previous facility.

3.2.20 Modification. This operation is accomplished subsequent to the initial production and lotting. It consists of replacing, interchanging or alteration of component parts with a component of a different model number or nomenclature, etc., thereby effecting a change in design, function, or manufacturing procedure. Modifications result in a variation from the parent lot. The modification may be a direct result of engineering changes and specification revisions intended to change design or functional characteristics. When a modification occurs, a suffix will be added to the lot number. This change is necessary to ensure that the material changes are clearly understood.

3.2.21 Overhaul. The process of reconditioning an item to a completely serviceable condition conforming to the current technical specifications of the item and with a life expectancy equal to similarly configured new equipment. Overhaul specifically includes the disassembling of end items and components, inspecting for defects, replacing parts, performing any necessary machining operations, installing approved engineering and field changes, reassembling the end item and components, applying the proper markings, performing cosmetic reconditioning, and conducting final inspections for conformance. Overhaul also consists of repair or replacement of parts and

components that have failed or are of marginal quality due to wear, deterioration, or damage so as to preclude premature failure. When an overhaul is performed, a suffix will be added to the lot number and all overhaul actions will be documented in the "Remarks" section of the ADC. This change is necessary to ensure that the material changes are clearly understood.

3.2.22 Parent lot. The "original" or "basic" lot prior to any changes, modifications, maintenance, etc., which result in either the addition of a lot suffix, a lot identifier code, a lot theater indicator, or the assignment of a completely new lot number.

3.2.23 Procuring activity. Within this standard, the term procuring activity will be used to identify the Government activities that are purchasing the ammunition components, assemblies, or complete rounds. There are multiple procuring activities both across the services and within each service.

3.2.24 Propellant lot number. A unique code systematically assigned to each propellant lot at the time of manufacture, assembly, reprocessing, or blending that identifies the specific propellant lot. The propellant lot number always includes a propellant serial number (see 5.1).

3.2.25 Propellant serial number. A unique five digit numeric code ranging from "00001" to "99999" (see 6.16.a and 6.16.b). The propellant serial number is critical in providing a means for properly identifying propellant material when withdrawal of defective, deteriorated, hazardous or obsolete propellant from storage or service is required.

3.2.26 Production line. A production line consists of a series of repeatable and sequential operations performed by a single manufacturing activity, the product of which can be grouped into one or a sequence of production lots. The operations can be manual, semi-automated, or automated. Guidance on what constitutes more than one production line or multiple parts of one production line is provided in 4.4.6.3 and 4.4.6.4.

3.2.27 Reference lot. A component lot or end item lot selected for use in ballistic tests where acceptance is based upon a comparison between the reference round performance and the test round performance.

3.2.28 Regrouped lot. A regrouped lot is formed when two (2) or more complete round lots (or item of issue lots) are combined to form one (1) lot, regardless of the type of operations which may or may not be performed in conjunction with the assemblage of these lots. ("Regrouped lots" vary from hybrid lots in that they are assembled from multiple complete round lots as opposed to multiple lots of a component.)

3.2.29 Repair. The reprocessing of nonconforming material in accordance with approved written procedures and operations to reduce, but not completely eliminate, the nonconformance is considered repair. The purpose of repair is to bring nonconforming material into a useable condition. Repair is distinguished from rework in that the item

after repair still does not completely conform to all of the applicable drawings, specifications, or contract requirements. Repair must be authorized by the Government typically via temporary configuration management change (RFD/RFW/RFV). The source of the authorization must be annotated on the ADC. All lots or quantities thereof which are repaired will be identified by the assignment of an ammunition lot number suffix in accordance with the provision of this standard. This could apply at the manufacturing activity's facility prior to Government acceptance if the Government so decides. This addition is necessary to ensure that any changes or variations are clearly and readily identified.

3.2.30 Rework. The process of screening or replacing one or more nonconforming, faulty, or deteriorated components for an end item of issue with similar components of the same nomenclature and model number, returning the item to a fully conforming condition. In addition, reprocessing of propellant lots, repackaging, inspection, screening, and radiographic examination will be considered as rework operations. In some instances, economics or other factors may permit a maintenance operation to be designated as a rework when components of different nomenclatures or model numbers are used to replace the original components or the end item purpose and function may have been altered. All lots or quantities thereof which are reworked will be identified by the assignment of an ammunition lot number suffix in accordance with the provisions of this standard. This could apply at the manufacturing activity's facility prior to Government acceptance if the Government so decides. This addition is necessary to ensure that any changes or variations are clearly and readily identified. Typically rework procedures are reviewed and approved by the Government prior to implementation.

3.2.31 Serial number. A unique alpha-numeric code assigned for identification and traceability of a single unit or item within a lot. The order of serial numbers is dependent on the manufacturing activity's assembly processes.

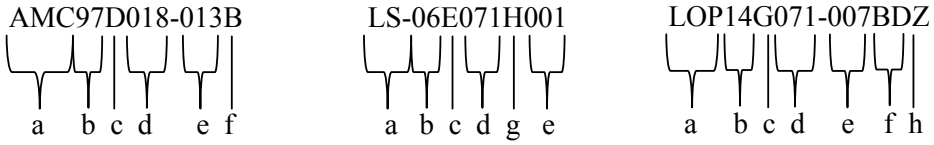
3.2.32 Sustainment activity. Within this standard, the term sustainment activity will be used to identify the wide variety of activities which perform sustainment actions on ammunition components, assemblies, or complete rounds. The activities include: GOGO facilities, GOCO facilities, COCO facilities, field activities, program offices, depots, plants, and arsenals. Sustainment actions include: renovating, reworking, repairing, overhauling, regrouping, blending, re-blending, applying lot identifier codes, and applying theater indicator codes.

4. GENERAL REQUIREMENTS.

4.1 Ammunition lot number - overview.

4.1.1 Ammunition lot number description and use. Lot numbers shall be used for all ammunition end items and their major components, including inert, dummy, or non-energetic items and components. Major components include but are not limited to items such as fins, fuzes, guidance systems, primers, chemical agents, and energetic materials. An exception is propellant lot numbering which is described in 5.1. The ammunition lot

number shall consist of a manufacturer's identification symbol, a numeric code showing the year of production, an alpha code representing the month of production, a lot interfix number followed by a hyphen, and a lot sequence number. When necessary, the lot number can also include one or two alpha characters used as an ammunition lot suffix and a theater indicator. As required, the hyphen is replaced by a lot identifier code. The ammunition lot number shall not exceed sixteen (16) characters in length and no characters shall be separated by spaces. The minimum number of characters used shall be thirteen (13). The following examples, and Figure 1, illustrate the construction of an ammunition lot number.



(a) Manufacturer's identification symbol

(b) Two (2) digit numeric code identifying the year of production

(c) A single alpha code signifying the month of production

(d) Lot interfix number

(e) Lot sequence number

(f) Ammunition lot suffix (the alpha suffix)

(g) Ammunition lot identifier code which can replace the hyphen

(h) Lot theater indicator – NOTE: "Z" has not been chosen as a lot theater indicator; it is just used here as an example. The current lot theater indicators are Y, W, and T and follow older formatting requirements. See 4.8 for a more detailed description.

4.1.2 Mandatory numbering of ammunition lots. Each lot of ammunition components, ammunition items of issue, energetics, etc., shall have a lot number assigned at the start of manufacture or assembly, regardless of the ultimate disposition of the lot. This applies regardless of whether it is purchased to a performance specification or a Technical Data Package (TDP). Lots which have been rejected and then are scheduled for reworking, demilitarization, scrapping, etc. shall have a basic lot number assigned and an associated ADC to ensure proper controls are exercised. Rejected lots that are later sold as commercial items shall also have an associated lot number and an ADC showing the rejected status and the reason for the rejection. The ammunition lot number shall be correctly applied. The applicable lot(s) shall not be accepted if the ammunition lot

number is incorrectly applied. Any noted or suspected errors in lot numbers, their formatting, their application, or associated documentation shall be identified for correction (see 6.7.a).

4.1.3 Required use of complete lot number. In reference to individual lots, whether in correspondence, in records, or in marking containers, packages, cartons, etc., the complete lot number shall be used. This includes any associated suffixes, lot identifier codes, and lot theater indicator codes.

4.1.4 Changes in lot numbers during assembly. Unless otherwise specified (see 6.5), as components from various manufacturing activities are processed or combined to the next higher assembly levels, new lot numbers shall be required. If components are assembled into a higher level assembly, then the assembly shall be identified by an appropriate assembly lot number instead of by any of the component lot numbers. The new lot number shall have a manufacturer's identification symbol that corresponds to the facility currently performing the load, assemble, or pack (LAP) operations. Additionally the lot number shall have the appropriate year of manufacture/assembly, month of production, lot interfix, and sequence numbers that correspond to the LAP operations (see 6.7.b and 6.7.c). The same applies to LAP plants processing propellants, propellant charges and other types of energetics with the exception of propellants used in single granulation propellant charges (see 5.1). The assembly lot number does not replace the component lot number; the component lot numbers are still associated with the components and shall be noted on the ADC to maintain traceability.

Example:

Fuze, Point Initiating (PI), Base Detonating (BD), M509A1 Metal Parts (MPTS) – The metal parts manufacturing activity's lot number is NNN97F007-001. The LAP facility loading the fuze shall assign its own lot number to the LAP fuze lot. (Example: XYZ97G001-001 shall be the LAP lot number for the assembled fuze.) The assembled fuze shall not retain the NNN97F007-001 lot number identification.

4.1.5 Serialized items. As specified by the contract or TDP, serial numbers shall be consecutively assigned to those ammunition end items or component items which require serialization control. The requirement for serialization can eliminate the requirement for ammunition lot numbering. Any serialization requirements should be interpreted as requirements in addition to the lot numbering requirements, unless it is specifically identified that a lot number is not required (see 6.2, 6.5, and 6.7.e). Serial numbers shall not be repeated on items with the same part number regardless of changes in the lot number.

4.2 Ammunition lot number - manufacturer's identification symbol.

4.2.1 Manufacturer's identification symbol description. Manufacturer's identification symbols shall be all capital letters, and shall not exceed three (3) characters. An exception is if a one or two character manufacturer's identification symbol is used,

the remaining positions of the three (3) character field shall be filled with hyphens (-), e.g. A--, AB-, etc. Another rare exception is the use of a number in the manufacturer identification symbol such as MA1. This symbol is a part of the ammunition lot number. It is used to identify the manufacturing activity (such as arsenal, plant, depot, station, private contractors, vendors, etc.), which manufactured, assembled, loaded, or regrouped the specific lot of ammunition. It is used in the marking of the ammunition and the ammunition packaging to ensure the accurate control of ammunition, ammunition components, and energetic material during movement, storage, maintenance, issue and receipt transactions. The applicable lot(s) shall not be accepted if the manufacturer's identification symbol is incorrectly applied.

4.2.2 Assignment of manufacturer's identification symbols. Unique manufacturer's identification symbols shall be assigned to each manufacturing activity engaged in the manufacture or assembly of ammunition, ammunition components, and energetic materials (see 6.8). Each sustainment activity shall also be assigned a unique manufacturer's identification symbol prior to performance of any rework or maintenance operations (see 6.8). The symbol shall be assigned prior to the start of production and the correct manufacturer's identification symbol shall be used at all times. Different symbols for each plant shall be assigned to those activities that have more than one location producing ammunition items for the Government.

Example:

Aerojet – General Corp., Azusa, CA – symbol "AJA,"
Aerojet – General Corp., Sacramento, CA – symbol "AJL,"
Aerojet – General Corp., Fullerton, CA – symbol "AJD,"
Aerojet – General Corp., Solid Rocket Plant, Sacramento, CA – symbol "AJS."

Different symbols shall be assigned for individual facilities when the same manufacturing concern has two or more different facilities, even if they are in the same city. Unless otherwise authorized (see 6.5), these provisions also apply to GOGO facilities or contractors who operate GOCO facilities.

4.2.3 Listing of manufacturers and their identification symbols. Manufacturer's identification symbols are published in MIL-HDBK-1461, titled "Ammunition Manufacturers and Their Symbols." An updated, completely revised handbook will be published periodically. This publication contains any and all symbols previously used by or assigned to a manufacturing activity, load plant, depot, or other type of facility. Manufacturers' identification symbols are also listed in the WARP database and the list is continually updated as changes occur.

4.2.4 Changes in manufacturer's identification symbols. Whenever a manufacturer's identification symbol is changed, the next lot, reflecting the change in symbol, shall reset the interfix and sequence numbers to "001." If multiple items of a similar nature are being produced in the facility, then the interfix numbers shall be reset and the product numbered in accordance with the block of interfix procedure described in 4.4.3.1, 4.4.5.1.1, and 4.4.5.1.3.3.

Example:

A manufacturing activity with the basic identification symbol of "EEE" had manufactured lots EEE97G001-001 through EEE98A003-006, when the identification symbol was changed to "EEF." The next lot manufactured was numbered EEF98B001-001.

Reasons for the manufacturing identification symbol change shall be annotated in the remarks section of the ADC. Changes in manufacturers' identification symbols are relatively rare but could be due to the following reasons:

a. When it is learned that a manufacturer's identification symbol is being duplicated by one or more manufacturing activities; or

b. When a manufacturing activity moves their operations from one city to another or closes out production from one facility to a distinctively different facility, even if they are in the same city; or

c. When a business establishment changes ownership, experiences mergers, alters its name, and the like.

4.3 Ammunition lot number - month and year of production.

4.3.1 Year of production. Each ammunition lot number shall have the year of production inserted after the manufacturer's identification symbol (see 6.9). The year of production is a two (2) digit code represented by the last two (2) numbers of the year that manufacture, assembly, or regrouping of the lot was initiated. Once initiated, the lot number shall keep the same year code until the lot is completed. There are no spaces between the manufacturer's identification symbol, the year of production code, and the alpha code used to identify the month of production. The year of production is the start of the manufacturing activity's operations and not the dates of the sub-component manufacture. The applicable lot(s) shall not be accepted if the year of production is incorrectly applied.

4.3.2 Month of production. Each ammunition lot number shall have the month of production inserted after the year of production code (see 6.9). The month of production is a single alpha code assigned as follows:

January	–	A	July	–	G
February	–	B	August	–	H
March	–	C	September	–	J
April	–	D	October	–	K
May	–	E	November	–	L
June	–	F	December	–	M

The single alpha code reflects the month of the year in which the manufacture, assembly, or regrouping of the lot was initiated. Once initiated the lot number shall keep the same month code until the lot is completed. The month of production is the start of the manufacturing activity's operations and not the dates of the sub-component manufacture. There are no spaces between the year of production code, the month of production code and the lot interfix number. A change in the month of production does not necessitate the lot interfix number or the lot sequence number to revert to "001." Unless otherwise specified (see 6.5) and as applicable, date calculations, such as expiration date or shelf life, shall be calculated from the date of manufacture indicated in the lot number and expire on the last day of the month in the designated year. The applicable lot(s) shall not be accepted if the month of production is incorrectly applied.

4.4 Ammunition lot number - interfix number.

4.4.1 Lot interfix number description. Each ammunition lot number commencing with the first lot produced or assembled shall have an interfix number consisting of three (3) digits. The interfix number will usually start with "001" and continue through "999." Lot interfixes are used to maintain traceability of any significant changes during production. Types of changes include administrative, manufacturing, and configuration changes. The interfix number "000" is reserved for experimental and reference lots only (see 4.7.2 and 4.7.7).

4.4.2 Correctness of interfix numbers. Correctness of the initial interfix number(s) assignment shall be verified with the master data card repository (such as WARP) of the procuring activity prior to production (see 6.10 and 6.19). The applicable lot(s) shall not be accepted if the interfix number is incorrectly applied. Guidance on the applicable functional specialists for interfix issues is provided in 6.10.

4.4.3 Interfix sequences. In most instances, assignment of interfix numbers for an item will be in numerical sequence. The interfix number will usually start with "001" and continue through "999." A standard variation to sequential assignment of interfix numbers is the block of interfix number methodology described in 4.4.3.1. Other interfix sequence exceptions may be permitted (see 6.10.c). Reuse of interfix numbers, such as starting over at "001" in the event the "999" interfix number is reached, by the same manufacturing activity for the same item shall not be allowed unless authorized (see 6.10.c). This shall be annotated on the ADC. (See 4.10 and 4.11 for the WARP data card repository information.)

4.4.3.1 Blocks of interfix numbers. In some cases interfix numbers are not assigned sequentially but are instead assigned in "blocks of interfix numbers." This primarily occurs when manufacturing activities: produce "items of a similar nature"; produce the same ammunition item on parallel production lines; or produce items that could easily be confused with each other. The "block of interfix" numbering methodology helps prevent duplication of lot numbers, allows for simplified identification by field users, and helps to avoid use of the wrong type of ammunition in certain given situations. Blocks of interfix numbers may be assigned to "010's", "020's",

or whatever progressions are considered feasible based on procurement, contractual, and production projections. Examples of this process are provided in 4.4.5.1.1 and 4.4.5.1.3.3. Within the designated blocks of interfixes, the interfix numbers shall still be assigned sequentially.

4.4.4 Actions requiring changes in interfix numbers. Under certain conditions, changes to the contract may require a change in interfix number. Changes in design, manufacturing processes, material, production methods, certain administrative procedures, suppliers, etc., shall require a change in the interfix number. For all lots produced after the altered conditions, the interfix number shall index to the next available interfix number or the next assigned interfix number if blocks of interfixes are being used. Interfix numbers may be changed for reasons other than those noted herein when it is considered necessary (see 6.10.g and 6.10.h). Each reason for changing interfix numbers shall be stated in the remarks block of the data cards for the first lot of the new interfix. The reasons for requiring changes in interfixes can be divided into two categories: administrative purposes and technical reasons. The occurrences necessitating changes in interfix numbers are described by category in 4.4.5 and 4.4.6.

4.4.5 Changes in interfix for administrative purposes.

4.4.5.1 Different interfix numbers. Lot interfix numbers shall be different:

a. for similar items (see 3.2.15), or for items which may be confused with one another, made or assembled by the same manufacturing activity at the same location,

b. for different items which are of the same caliber or size, or

c. for situations where it is determined to be in the best interests of the Government.

Even if there are differences in Department of Defense Identification Codes (DODICs), Naval Ammunition Logistics Code (NALC), NSNs, nomenclature, or model numbers, the above rules still apply. If the items can visually or logistically be confused, then the interfixes shall be different. An example of items that can be logistically confused is if the items have the same basic model number even though they do not look alike (ex. M67 propelling charges vs. an M67 hand grenade). Note: A basic model number is the model number not including any modifiers such as “A1” or “E1” etc.

4.4.5.1.1 Concurrent manufacturing. If a manufacturing activity is concurrently manufacturing or loading several similar items at the same facility, then each item shall have distinct interfix numbers. This shall be accomplished by assigning “blocks of interfix numbers” to each of the specific items considered as “items of a similar nature.” This may be accomplished as illustrated in the following examples:

Example 1:

A manufacturing activity (manufacturer's identification symbol "XYZ") producing three (3) similar bomb tail fuzes (M800 series, M801 series, and M802 series) should have interfix numbers assigned in accordance with the following:

At the start of production, the M800 series would be assigned the "block of interfix numbers" from "001" to "009"; the M801 items, block "010" through "019"; and the M802 bomb tail fuzes, interfix numbers "020" through "029." The initial production lot number for the M800 would be XYZ12H001-001. The "001" interfix series shall continue until an approved engineering change order or some other factor requires a change from the "001" interfix. The next interfix number for the M800 production would be "002" and the initial lot produced reflecting the change would be XYZ12L002-001, then XYZ12M002-002 and so on through XYZ13J009-001, XYZ13K009-002, XYZ13L009-003, etc.

The first lot of M801 bomb tail fuzes shall be numbered XYZ12J010-001, XYZ12K010-002 and so on through XYZ13K019-001, XYZ13L019-002, XYZ13M019-003, etc.

The first lot of the M802 series shall be numbered XYZ12K020-001, XYZ12K020-002 and so on through XYZ13D029-001, XYZ13D029-002, XYZ13E029-003, etc.

The first group to exhaust its block of interfix numbers would proceed to the next logical progression.

Example 2:

The M801 bomb tail fuze production reaches lot number XYZ13M019-003. A change in interfix number is now required. This group would then be assigned a block of interfix numbers from "030" to "039." As a result, the next lot of M801 fuzes produced will have a lot number XYZ14A030-001. Also, primers, detonators, bursters, etc., produced at the same facility may be assigned the same interfix number as long as the basic model numbers are different in each case.

4.4.5.1.2 Development. When a development category (XM) model number is standardized, the next lot produced as the standardized model shall be assigned the next higher sequential interfix number. The last sequence number shall again revert to "001."

Example:

Fuze, XM302 with lot number NNN97H002-004 is re-designated as fuze, M302. The next production lot of the now standardized model shall be numbered NNN97J003-001.

4.4.5.1.3 Same size or caliber items. Whenever items of the same size or caliber are being manufactured or assembled by the same manufacturing activity at the same facility, all such items shall be assigned different blocks of interfix numbers. In these instances, blocks of interfix numbers shall be assigned in the order that production or

assembly of such items is accomplished, as noted herein and in accordance with the provisions of 4.4.3, 4.4.5.1.1, 4.4.5.1.3.3, 4.4.6.3, and 4.4.6.4.

The following reflects the situations noted above:

4.4.5.1.3.1 Different type projectiles. Different type projectiles of the same caliber manufactured or assembled by the same manufacturing activity shall be assigned different blocks of interfix numbers. However, projectiles of different calibers may be assigned the same interfix number.

4.4.5.1.3.2 Different type cartridge cases. Different type cartridge cases of the same caliber manufactured by the same manufacturing activity shall be assigned different blocks of interfix numbers. However, cartridge cases of different calibers may be assigned the same interfix number.

4.4.5.1.3.3 Different rounds of the same caliber. Different complete round items of the same caliber assembled at the same facility shall be assigned different blocks of interfix numbers. However, complete rounds of different calibers may be assigned the same interfix number.

Example:

A LAP facility is loading the 81mm cartridge, M375. The lot currently being produced is numbered NNN97H011-006. At this point the same plant starts production on the 81mm cartridge, M374. The M374 cartridge production will be assigned a block of interfix numbers, preferably “020” through “039.” The first M374 cartridge lot number would be NNN97H020-001, etc. When the M375 cartridge production finished the “019” interfix, interfix block “040” through “059” should then be assigned. These procedures are in accordance with 4.4.3.1.

4.4.5.1.3.4. Different type bombs or rocket motors. Different type bombs of the same size with identical manufacturer’s identification symbols shall be assigned different blocks of interfix numbers, but bombs of different sizes may be assigned the same interfix number. These procedures also apply to rocket motors.

4.4.5.1.4 New contract. Whenever a new contract is issued to the same manufacturing activity for the same item, the materiel delivered under the new contract shall have a new interfix number assigned. Interfix number assignments from one contract to the next shall be issued in the normal sequence, or in accordance with the exceptions noted within this standard (see 4.4.3). Lot sequence numbers shall again begin with “001.” The interfix number shall not revert back to “001” when production commences under a new contract for the same item with the same manufacturer’s identification symbol, regardless of the number of years which may have elapsed since production or loading of the item was completed under the previous contract. The exception to this is if the manufacturing activity has run out of interfix numbers as discussed in 4.4.3.

4.4.5.1.5 Sequence number exceeds "999." The next higher interfix number shall be assigned in those rare instances where the lot sequence number for an ammunition item manufactured or assembled by the same manufacturing activity reaches "999" (exceeding three digits). The next lot produced shall require that the sequence number again start with "001."

Example:

The lot number for an item produced by a company with manufacturer's identification symbol "VVV" is VVV97A006-999. The next lot of this item produced will be numbered VVV97A007-001.

4.4.5.1.6 Change in manufacturer's identification symbol. Any conditions which warrant a change in the manufacturer's identification symbol shall require a change in the pertinent interfix number (see 4.2.4). In these instances, the interfix number shall revert to "001" (exceptions already noted) and the sequence number shall again begin with "001."

4.4.6 Changes in interfixes for technical reasons.

4.4.6.1 Interruptions. Whenever production or loading of an item is interrupted for a period of time in excess of ninety (90) days, a change in the pertinent interfix number is required. If it is determined that an interruption period less than 90 days should apply, see 6.10.j. This applies even if no physical changes to the production facilities, processes, or personnel occurred during the shutdown. When production resumes, the next sequential interfix number shall be assigned and the lot sequence number shall again begin with "001."

4.4.6.2 Dismantling operations. When a manufacturing activity dismantles a production or loading line and then, at a later date, reassembles and commences production of the same item, such actions shall necessitate a change in the interfix number to the next higher sequential number. The lot sequence number shall again revert to "001."

4.4.6.3 Production line configurations. Production line configurations affect how the interfixes are assigned. A goal of the interfix is to identify any changes in manufacturing processes and to enable traceability of suspect product in the event of any problems during production or in the future during lifecycle management. The following direction applies for the production of lots of the same item.

a. If there is a production line with a number of operations performed in series to create lots of the same item, then only one interfix is required at a time.

b. If a production line is reconfigurable, then the interfix shall change each time the line is reconfigured to produce a different item. This process shall also follow the block of interfix procedure described in 4.4.3.1 to assign blocks of interfixes to the different models.

Example:

A line is initially configured to produce 60mm propelling charges with lot number XYZ12A001-001. The line then is changed to produce 81mm propelling charges for lot XYZ12B010-001. To fulfill their schedule, the manufacturing activity switches back to 60mm propelling charges but increases to the next interfix and lot number XYZ12C002-001. To resume production of 81mm propelling charges, the interfix within that block of interfixes would also increase to lot number XYZ12D011-001.

c. If there are two, or more, separate production lines creating lots of the same item, then the lots shall have different interfix numbers assigned based upon the order of their production or in accordance with the "block of interfix numbers" procedure outlined in 4.4.3.1.

d. If the production line is of a configuration other than a number of operations performed in series (such as with some operations proceeding in parallel), then different interfixes may be required. The default shall be that product made on multiple distinct sections of the production lines requires different interfixes for traceability. If it can be shown that the resulting products from the different sections of the line are homogenous, then a request for use of a single interfix (see 4.4.6.3.1) may be submitted for approval (see 6.10.d). If there are any differences in processes or materials such that the resulting products will not be homogenous, then the lots of the same item shall have two different interfix numbers assigned based upon the order of their production or in accordance with the "block of interfix numbers" procedure outlined in 4.4.3.1.

4.4.6.3.1 Request for a single interfix. Requests for use of a single interfix shall not be approved if:

a. the resulting product would not be homogenous;
Example:

A manufacturing activity uses two different cartridge case sources for Loading, Assembling and Packing a 7.62mm small caliber round.

b. the different sections of the production line involve operations affecting critical defects;
Example:

A production line divides into parallel sections for loading propellant into mortar propelling charges. The charge weight is a critical defect and traceability would be lost if the products were combined under a single interfix.

c. the operations involve "special processes" such as welding, explosive melt pouring, or radiographic examination;

Example 1:

A manufacturing activity uses two different welding processes when the specification or drawing gives a choice between Electric Resistance Welding (ERW) or Gas Metal Arc Welding (GMAW) for assembling the Canister Metal parts for an Artillery Illumination Candle.

Example 2:

A manufacturing activity has two different parallel melt pouring lines for loading high explosive but the product can come together at the Loading, Assembling, and Packing line. Since these operations involve special processes and critical defects (see 4.4.6.3.1.b), different interfixes are used and the product is not allowed to combine.

d. or if the equipment configuration, including software, for the parallel portions of the line are not identical.

Example:

IR Decoy Flares produced on the same line with the chemical bath portion being performed in parallel. All processes are identical with the exception of the chemical bath treatment. On one side the chemical bath is fully automated, on the other side the bath is performed and timed manually.

4.4.6.4 Production line modifications. Production line modifications necessitate changes in the production interfix numbers. If any step in the production process is altered then the interfix number shall change. Applicable modifications include, but are not limited to, changes to manufacturing processes, production methods, equipment, and software. Production line changes also include implementation of corrective or preventive action resulting from failure analyses, implementation of automation, and replacement of automation with manual operations. If a production line consists of significant manual operations, changing of the interfix is recommended in situations with a high or critical personnel turnover. If a manufacturing activity believes the modifications are not significant enough to warrant a change in interfix number, and if it can be shown that the resulting products from before and after the modifications are homogenous, then a request for use of a single interfix may be submitted for approval (see 6.10.d). The same restrictions from 4.4.6.3.1 apply for the request of a single interfix. Lots of the same item made by different methods of manufacture shall be assigned different interfix numbers to the next higher interfix number with the lot sequence number reverting to “001.”

Example 1:

A production line is modified where some operations that were previously done by a human have been automated instead, such as with the addition of a robot. This modification requires a change in interfix number.

Example 2:

A type of automated machining center is used to manufacture a metal component. Changes are made to the software programming, such as to address a problem or

increase the rate of manufacture. This modification requires a change in interfix number.

4.4.6.4.1 Production line splitting. If an existing production line is split into two or more production lines, then different block(s) of interfix numbers shall be assigned for those lots produced on the "new" production line(s). The lots being produced on the original production line shall continue with the old interfix number and in the lot sequence number order previously used until such time as a change is effected which normally requires an interfix number change. All changes and further assignment of interfix numbers shall be accomplished in accordance with the provisions of 4.4.

4.4.6.4.2 Production line merging. If two or more existing production lines are merged into a single line, then the lots produced on the new single line shall be assigned a different interfix number in sequence to the next highest number of those interfix numbers used previously on the separate lines. The lot sequence number shall again begin with "001."

Example:

Two (2) lines are producing lots with lot numbers VVV09H007-014 and VVV09H015-003. After the two (2) lines are merged the next lot produced on the new single production line will be numbered VVV09J016-001.

4.4.6.5 Same item – new designs. Lots of the same item made to new designs shall be assigned different interfix numbers to the next higher interfix number with the lot sequence number reverting to "001" as shown in examples 1 and 2. However, when the basic model number changes, then the interfix number shall start over at "001" commencing with the first lot produced under the new basic model number. An example of this situation is presented in example 3.

Example 1:

A change in designation from igniter, rocket motor, M23A1 to igniter M23A2 will require a change in interfix number to the next higher interfix number. If the final production lot of the M23A1 was NNN97H011-007, then the first lot of the M23A2 would be numbered NNN97J012-001.

Example 2:

The final production lot of the rocket, M72A1, 66mm was NNN97D016-012. Extensive changes are made. As a result, only the rocket motor, rocket launcher, and igniter system remain the same. The changes are reflected by merely changing the model number to M72A2. The first production lot of the M72A2 would be numbered NNN97L017-001.

Example 3:

The M52A2 fuze is last produced in 1970. After a 40 year lapse, production is again started. However, some changes are made, such as altering a timing delay through an arming slider mechanism. The fuze model number is changed to

XM717 with the intention of creating a separate identity from the original M52 fuze series. Then only at this point will the manufacturing activity revert back to a "001" interfix for the item. The lot number would then be NNN10D001-001.

4.4.6.6 Explosives and chemicals. Unless otherwise specified (see 6.5), for explosives and chemicals including black powder, blank powder, nitrocellulose, etc., the interfix number shall be used to designate different types, grades, or classes of the same material.

Example:

Aluminum powder, type 1, grade 1, class 1 will be assigned interfix "001." For aluminum powder, type II grade 1, class 1 the interfix number will be "002." Any change in any designations of the basic item will necessitate a change in the interfix number.

4.4.6.7 Best interest of the Government. Changes in interfix numbers shall also be accomplished when it is determined that it is necessary to change or the best interest of the Government will be served by changing interfix numbers (see 6.10.g).

4.4.7 Documenting changes in interfix numbers. Whenever changes in interfix numbers are effected, all such changes shall be appropriately documented on the ADC (see 6.10.a). Any and all reasons for interfix changes shall be clearly and precisely stated on the card for the first lot of the new interfix number. These comments shall be inserted in the remarks block of the ADC.

4.5 Ammunition lot number - lot sequence number.

4.5.1 Lot sequence number description. The three (3) digit lot sequence number identifies a lot according to the sequence of production, within each lot interfix number. A sequence number shall be assigned to each lot produced regardless of the final disposition (see 4.1.2). The lot sequence number within each interfix shall always begin with "001" and continue sequentially to a maximum of "999." The lot sequence number shall also begin with "001" following a successful first article.

Example:

A manufacturing activity submits lot XYZ12C001A001 as a first article sample. The first article test failed. The manufacturing activity then produces XYZ12D001A002 as a second First Article submission. This lot passed and the manufacturing activity was given permission to start production with lot XYZ12E001-001.

Note: First article failures often require significant corrective actions or production changes. These did not require interfix changes at this point because the production line configuration had not yet been approved.

4.5.2 Correctness of lot sequence numbers. Additional or specific requirements for lot sequence numbers may be in the lot formation requirements defined in the TDP or the contract. The applicable lot(s) shall not be accepted if the lot sequence number is incorrectly applied.

4.5.3 Changes in lot sequence numbers. All conditions which necessitate a change in the lot interfix number shall also manifest themselves in a change in the lot sequence number (see 4.4.3, 4.4.4, 4.4.5, 4.4.6 and all subparagraphs thereof). Actions which require changes in lot sequence numbers to the next higher sequential number and where the interfix remains unchanged are described in each of the following events:

4.5.3.1 For administrative purposes.

4.5.3.1.1 Time. Lot sequence numbers may be required to change when the contractually stipulated time frame for a lot has been attained. Frequently, the contract states that specific production time frames such as a shift, a day, a week, a month, etc., shall constitute a production lot, regardless of the quantity produced during the period. When such requirements have been met, a new lot sequence number, continuing in the sequence of the previous production, shall be assigned.

4.5.3.1.2 Quantity. Lot sequence numbers may be required to change when the contractually stipulated quantity has been produced. In certain instances, a contract states that a particular number of units such as 5,000, 10,000, 20,000, etc., shall constitute a production lot regardless of the length of time required to produce such an amount. When such requirements have been met, a new lot sequence number, continuing in the order of the previous production, shall be assigned.

4.5.3.2. For technical reasons.

4.5.3.2.1 Interruptions. When production or assembly of an item is interrupted and resumes again after a time lapse of more than thirty (30) days, a new lot sequence number, continuing in the order of the previous production, shall be assigned provided no design changes were made in the interim or the method or production was not altered.

4.5.3.2.2 Homogeneity. Lot sequence numbers shall be changed to ensure that the material in the lot is homogenous and can be expected to perform in a uniform manner (see 3.2.3 and 3.2.11). If a lot was originally determined by a different method, such as by time or quantity, and it is determined that the material is not homogenous, then the sequence numbering method shall be changed and lots determined based upon homogeneity instead. Additionally, lot sequence number changes shall conform to the lot formation and homogeneity restrictions in place in other documentation such as the specifications, drawings, or contract.

Example:

A lot of material is made via a batch process. The lots are normally determined by a quantity of time (see 4.5.3.1.1) such as a one month period. Testing found

that, within a lot, the performance was significantly different due to the batch nature of the manufacturing process. The procuring activity determined that the lots going forward should consist of a smaller amount of material to maintain traceability and preserve homogeneity.

4.5.3.2.3 Best interest of the Government. Changes in sequence numbers shall also be accomplished when it is determined that it is necessary to change or the best interest of the Government will be served by changing sequence numbers.

4.6 Ammunition lot number - lot suffix.

4.6.1 Ammunition lot suffix description. The lot suffix, as defined herein and when required, becomes an integral part of the ammunition lot number and is applied directly after the sequence number as shown in 4.1. Lot suffixes shall in all instances consist of one (1) or two (2) capitalized alpha characters. In identifying lots of ammunition or any quantities thereof which are being reworked, modified, overhauled, etc., the lot suffix shall be assigned in alphabetical sequence starting with the letter "A" and continuing through "ZZ." (See 4.6.4 for a listing of alpha characters whose use is restricted or prohibited.) Once a lot of ammunition or any portion thereof has been assigned an ammunition lot number suffix, the suffixed lot assumes an independent status and a completely separate identity from that of the original basic lot or any quantities of the original lot which may be assigned a different suffix letter. Suffixed lots shall have their own ADC. The remarks section of the ADC shall specify the reason and authorization for the application of the suffix. Common reasons include rework, repair, modifications, and overhaul. Further pertinent data relevant to the authorization and detailed use of ammunition lot suffixes is contained in 4.6.2 through 4.6.8.

4.6.2. Use and documentation of suffixing. Lot suffixes shall be used to identify operations (such as rework, repair, modifications, and overhaul) performed on a lot of ammunition under the conditions described in 4.6. When a request for a suffix is submitted prior to starting the operations, the activity shall also submit definitive information relative to the planned procedures. When suffixes are added, traceability to the parent lot and documentation of the changes made shall be maintained as long as it is considered practical or economically feasible. To do this, the changes made to the lot shall be documented and recorded in the remarks portion of the new ADC (see 6.12). The ADC shall include the operations performed, the authorizations provided, the performing facility, and updated component lists showing any changes.

4.6.3 Suffix request. The suffix request or authorization shall contain the specific quantity of the item, the lot number for which the rework is to be performed, and a description of the changes being made during the operation or maintenance process. All suffix requests should be documented e.g., letter, email, etc. Once a procedure has been issued for a lot of ammunition or a quantity thereof to a facility other than the original production plant, a unique suffix shall be assigned (see 6.12). If an operation is cancelled and a suffix is no longer required, then the activity that assigned the suffix shall be notified so that the suffix may be released and used elsewhere.

4.6.4 Suffix sequence and exceptions. The suffix is a one to two character code that usually progresses sequentially. When reworking any items of ammunition at a manufacturing activity or sustainment activity, where the application of an ammunition lot suffix is required, the following letters shall not be used as suffixes except as noted herein:

a. "E" – no exceptions. Ensuring E is used just as a lot identifier, and not a suffix, helps quickly identify and prevent experimental products from being unintentionally released into the supply stream. (See 4.7.2)

b. "I" – no exceptions. Can easily be confused with the number "1."

c. "O" – no exceptions. Can easily be mistaken for the number "0" (zero).

d. "X" – no exceptions. (See 6.4)

e. "Y", "W", and "T" – no exceptions. Can be confused with the ammunition theater indicator codes. (When new theater indicators are identified, they shall be added to this suffix exclusion list.)

The suffix sequence is initially: A, B, C, D, F…V, Z. Due to some lots requiring suffixes beyond Z, a second suffix character may now be used. After Z, the suffix transitions to: AA, AB, AC, AD…AV, AZ, BA, BB…ZV, ZZ. The excluded characters may not be used in either space of the two character suffix.

4.6.5 Suffixing of lots prior to Government acceptance. Unless otherwise specified (see 6.5), when a lot of materiel is rejected at the point of original manufacture or assembly and it is determined that the lot can be made usable by actions such as rework or repair, a suffix shall be authorized (see 6.12) and applied to the lot. Lot suffixes will be assigned in alphabetical sequence as defined in 4.6.1 with exceptions as noted in 4.6.4. A note shall be placed in the remarks of the ADC stating what suffix was assigned, what rework was performed, and that the parent lot (the lot without the suffix) does not exist. When only a quantity of the lot is being reworked, the first change or rework performed shall be identified by affixing a capital letter suffix "A", the next change or rework of the same basic lot or quantity thereof for the same item shall be identified by the addition of a "B" suffix, etc. A note shall be placed in the remarks stating what rework was done and the parent lot of the quantity. Use Example 2 and 4.6.6 as a guide to suffixing quantities less than the entire lot.

Example 1:

Lot EEE97J006-002 original production lot is rejected. After reworking, the lot number becomes EEE97J006-002A. The reworked lot EEE97J006-002A is again rejected and reworked. The revised lot number then will be EEE97J006-002B, etc. Authorizations for the suffixes were obtained from the appropriate QAR, ACO, PCO, or PQM.

Example 2:

Lot XYZ09C600-007 was produced. During lot acceptance, defects are found and the lot is initially rejected. The manufacturing activity conducts screening and divides the lot into three groups: conforming, reworkable, and nonconforming. The screened and conforming portion is assigned suffix A so the lot number becomes XYZ09C600-007A. The portion that was screened and reworked to a conforming condition is assigned suffix B so the lot number becomes XYZ09C600-007B. The nonconforming portion was assigned suffix C for a lot number of XYZ09C600-007C. The Government then accepted the A and B suffixed lots and determined the nonconforming suffixed lot C could be used as destructive test samples.

Example 3:

Lot YYY11F200-001 is rejected during lot acceptance testing due to the identification of a critical defect escape. The manufacturing activity then performs a radiographic rescreening and issues a suffix of A to those that were determined to be acceptable. Since it was a critical defect that could not be reworked or repaired, the nonconforming product was discarded. With the completion of the rescreening, root cause analyses, corrective action, and update to the ADC, the Government then accepted the rescreened lot YYY11F200-001A.

4.6.6 Suffixing of lots after Government acceptance. When a lot of ammunition or a quantity thereof has been designated for rework, repair, modification, or overhaul, at a facility other than the original plant (such as a depot, station, field, ship, base, etc.), then a unique suffix shall be assigned (see 6.12). The first operation or maintenance performed on a lot of ammunition or a quantity thereof shall be identified by affixing a capital letter suffix “A”, the next change or rework of the same basic lot or quantity thereof for the same item shall be identified by the addition of a “B” suffix, etc., as described in the following example. When lots are assigned a suffix during production (see 4.6.5) and later require reworking in the field, the next available sequential alpha character will be assigned to identify the quantity being reworked in accordance with exceptions noted in 4.6.4.

Example:

a. The original quantity of VVV97J002-012 is 10,000 rounds. Three (3) years later 2,000 rounds at Depot 1 are defuzed and plugged. This 2,000 quantity now becomes VVV97J002-012A.

b. Depot 2 has 3,000 rounds of the same basic lot. Four (4) years later it is found that 1,000 of these rounds need replacement primers. The 1,000 are then identified as VVV97J002-012B. The 2,000 rounds with the original primer at depot 2 remain as VVV97J002-012.

c. Four and one-half (4 ½) years after production, Depot 3 determines to defuze and plug the 800 rounds of the same basic item and lot which they have in storage. This 800 quantity would now be identified as VVV97J002-012C.

d. Five (5) years later Depot 1 decides to unplug and refuze 500 rounds of the original 2,000 rounds which were defuzed and plugged. These 500 rounds now become lot VVV97J002-012D.

4.6.7 Assignment of different suffixes. Different suffixes must be assigned for different types of operations or maintenance which are performed on the same basic item. Different suffixes shall also be assigned when even the same work is performed at a different time or different place as exemplified in examples a and c in 4.6.6. For instance, radiographic examination of separate quantities of the same basic item at different times, even if performed at the same depot, would necessitate the assignment of different suffixes to identify each of the quantities examined. The ADC shall note the location where the operations or maintenance were performed. Unless otherwise specified (see 6.5), if production has ceased and more than 30 days have lapsed without production, then a new suffix shall be issued, even if it is the same rework procedures.

4.6.7.1 Navy Exception. The only Navy exception (see 6.7.f) to the requirement for different suffixes for actions performed by different units or at different times is the Navy practice to assign one suffix per specific operation, regardless of where or when the actions are performed.

Examples:

a. The original quantity of PFC09A850-001 is 10,000 rounds. Two (2) years after production it is noted that rounds have been found without proper markings indicating suspect identity. There are 6,000 of the original lot remaining in the inventory. The assets are held by 27 different activities. The governing Navy authority directs 100% inspection for appropriate markings by all holding activities. Suffix A is directed for all properly marked rounds with the application of suffix A to the lot number marked on the outer packaging. Even though the action is performed by 27 different activities, suffix A is applied for all 5,800 rounds found to be properly marked. Their lot number is now PFC09A850-001A. The 200 rounds found without proper markings are reclassified unserviceable for disposition and retain the original lot number.

b. The original quantity of JJJ92G001-001 is 1,000 rounds. Four (4) years after delivery a fleet installed upgrade kit is required. The 700 remaining assets are held by multiple fleet activities. The governing Navy authority directs kits to be installed upon de-containerization with suffix A to be applied upon completion of kit installation. Even though the kit installation is completed by different activities and at different times, suffix A is to be assigned. The lot number is now JJJ92G001-001A.

4.6.8 Assignment of suffixes on previous lot number formats. Over time, lot numbering formatting and requirements have changed (see 6.4). Whenever lots with older lot number formats, or quantities thereof, are reworked, the assigned lot suffix shall be the last entry in the lot number. The exception to this shall be when a theater indicator code is applied, in which case the suffix shall be the second to last entry. (Due to a large variation in the past application of theater indicator codes, this may not be true with characters Y, W, and T.)

4.6.9 Situations which may not require a suffix. In some instances, such as where the actions cause the items to change to another approved NSN, an addition of a suffix may not be required (see 6.12.j). This most commonly occurs with actions such as repackaging to a different configuration. If it is approved to proceed without a new suffix, a new ADC shall still be created. ADC comments shall include the original NSN and the approval to not add a suffix. This should only occur in situations where the NSN in association with the new ADC can provide sufficient traceability to the items.

4.7 Ammunition lot number - lot identifier codes.

4.7.1 Lot identifier code description. The lot identifier code is a capital letter inserted in the ammunition lot number by replacing the hyphen in the ammunition lot number's tenth position with the appropriate alpha code or inserted into the propellant lot number by replacing the numeric character "0" in the propellant lot number's eighth position with the appropriate alpha code as specified in the following paragraphs. The following is a list of non-standard lots with their corresponding lot identifier codes. This list only includes those lots that require special marking identification in the lot number for proper handling.

TYPES OF NON-STANDARD LOTS	LOT IDENTIFIER CODE
Experimental Lots	E
First Article Lots	A
Functional Packed Lots	L
Hybrid Lots	H
Master Calibration Component Lots and Master Calibration Lots	C
Reference Lots	R
Regrouped Lots (includes blended propellant lots)	G
Special Lots – Proving Ground Tests, Special Requirements, Special Tests, Engineering Tests, etc.	S

4.7.2 Experimental lots. (The "E" lots.) These lots shall be identified by replacing the hyphen between the lot interfix number and the lot sequence number with a capital letter "E." The appropriate manufacturer's identification symbol shall be applied and the lot sequence number shall identify in sequence the number of experimental lots

developed by the particular manufacturing activity. The lot interfix number shall be identified by the numeric characters "000." At no time shall the same manufacturing activity duplicate experimental lot numbers even though the type of materiel involved is different. Experimental lots shall be numbered in accordance with the following example.

Example:

1st Experimental Lot:	PA-97K000E001
2nd Experimental Lot:	PA-97K000E002
3rd Experimental Lot:	PA-97L000E003
Etc.	

Experimental lots are produced in accordance with special instructions and are covered by engineering production orders. Experimental lots are those generally small quantities of ammunition items that are produced for:

(1) Research and development.
(2) Engineering design tests and special tests for engineering evaluations.

Special and engineering experiments performed outside the place of manufacture, such as at the proving grounds, are normally covered by engineering test program requests – exclusive of engineering production orders. Ammunition designated as experimental lots shall not be issued for field use nor flow into the regular supply stream without special and specific authorization.

4.7.3 First article lots. (The "A" lots.) These types of lots shall be identified by replacing the hyphen between the lot series number and the lot sequence number with a capital "A."

Example:

XYZ97B001A001	(Indicates interfix 001 – first submission)
XYZ97C001A002	(Indicates interfix 001 – second submission)
XYZ97M002A001	(Indicates interfix 002 – first submission)
Etc.	

Uses and applications of the manufacturer's identification symbol, the year of production code, the month of production code and the lot interfix procedures remain consistent with the pertinent provisions of this standard. The term "first article lots" is used herein and replaces previous use of such terms as, "pre-production lots", "pilot lots", "initial production", "prototypes", "first lots", etc.

NOTE: Upon successful completion of the first article the sequence number of the production lot reverts to 001.

4.7.4 Functional packed lots. (The "L" lots.) These lots shall be identified by replacing the hyphen between the lot interfix number and the lot sequence number with a

capital letter "L." The appropriate manufacturer's identification symbol shall be applied and the lot sequence number shall identify the order of production of a particular pack. At no time shall the same manufacturing activity duplicate functional lot numbers for items of a similar nature or for the same item in different combinations. Functional lots shall be numbered in accordance with the following examples.

Examples:

Cartridge, 20mm, 4-HE, M56A3, and 1-TP-T, M220
1st Functional lot: AB-97E001L001
2nd Functional lot: AB-97E001L002

Cartridge, 20mm, 4-TP, M55A2 and 1-HEIT-SD, M246
1st Functional lot: AB-97B003L001
2nd Functional lot: AB-97C003L002

Cartridge, 7.62mm, 4-Ball, M80 and 1-Tracer, M62
1st Functional lot: CD-97E001L001
2nd Functional lot: CD-97E001L002

Cartridge, 7.62mm, 9-Ball, M80, and 1-Tracer, M276
1st Functional lot: FAA97A001L001
2nd Functional lot: FAA97B001L002

Cartridge, 40mm, 22-TP, M918, and 10-Practice, M385A1
1st Functional lot: DSB09M001L001
2nd Functional lot: DSB10A001L002

4.7.5 Hybrid lot. (The "H" lots.) A hybrid lot of ammunition is an item of assembly or item of issue lot consisting of components of various interfix numbers or manufacturing activities in excess of the number permitted in the item of assembly or item of issue detailed specification. The primary purpose for the formation of hybrid lots is to reduce the waste of remnant accumulations of component items and lots through utilization in one or more conglomerate lots.

4.7.5.1 Hybrid lot formation. Hybrid lots are formed from remnants of acceptable item-of-assembly lots which are considered to have an inherent quality of performance good enough to economically justify their formation. Hybrid lots should only be authorized for those cases in which experience has demonstrated that the safety and functioning of the item shall not be jeopardized to any undesirable extent.

4.7.5.2 Hybrid lot authorization. Strict controls shall be exercised to ensure satisfactory and uniform performance of the item of issue. In order to authorize a hybrid lot, a request for a temporary configuration management change (RFD/RFW/RFV) shall be submitted and approved through the configuration management process. The formation of the hybrid lot shall be authorized before, not after, it is created.

4.7.5.3 Hybrid lot identification and documentation. Once a hybrid lot is authorized and produced, it shall be numbered in accordance with the provisions of this standard. A hybrid lot shall be identified by replacing the hyphen between the lot series number and the lot sequence number in the ammunition lot number with a capital letter "H." Other pertinent, identifying, and authorization information shall be placed in the remarks block of the ADC. When formation of a hybrid lot is approved, it shall retain the same interfix number and simply be assigned the next higher lot sequence number than that of the last regular lot produced as shown in the following example.

Example:

A manufacturing activity has produced 37 lots in the "004" interfix series of a particular item of assembly. The last lot interfix number of this production is YYY97K004-037. The manufacturing activity finds they have a large amount of components remaining which are from an assortment of manufacturing activities and metal parts lot numbers. Throughout the production of the "004" interfix series the product had been conforming to the TDP requirements, contractually accepted, and had no quality problems noted. The manufacturing activity submits a request for variance and requests permission to produce a "hybrid lot" with a quantity of 8,127 units. Upon receiving approval, they produce a "hybrid lot" consisting of 8,127 units. The lot is numbered as YYY97L004H038.

4.7.5.4 Multiple hybrid lots. Occasionally more than one (1) hybrid lot would be formed within an interfix. In such instances, the lot sequence number would progress in the usual manner – YYY97M004H039, YYY98A004H040, etc. Year of production and month of production would progress as appropriate.

4.7.6 Master calibration component lots and master calibration lots. (The "C" lots.) Non-propellant component or end item lots approved as master calibration lots shall be identified by replacing the hyphen between the lot interfix number and the lot sequence number with a capital "C." Propellant lots approved as master calibration lots shall be identified by replacing the character immediately after the hyphen in the propellant lot number with a capital letter "C." The updated lot number with the lot identifier code shall be applied directly to the ADC and all appropriate controlling documents. Any detailed comments shall be made in the remarks block of the ADC. As a minimum, the revised lot number shall be marked on all external packages or cartons, and if necessary, applied directly to the individual units for identification purposes (see 6.13). Upon selection of a lot to be a calibration lot, the manufacturing activity shall be notified of the selection (see 6.13). Where only a portion of a lot is approved as a calibration lot, then only those units shall be marked appropriately. Ammunition designated as calibration lots shall not be issued for field use nor flow into the regular supply stream without special and specific authorization.

4.7.7 Reference lots. (The "R" lots.) These lots pertain to the reference lots for: ammunition up to and including .50 caliber; reference standard component lots and items of issue lots above .50 caliber; and reference propellant lots. Component or end item lots

approved as reference lots shall be identified by replacing the hyphen between the lot interfix number and the lot sequence number with a capital letter "R." The appropriate manufacturer's identification symbol, year of production code, and month of production code remain consistent with the pertinent provisions of this standard. At no time shall the same manufacturing activity duplicate a reference lot sequence number even though the type of material involved is different. The specific requirements for the three categories of reference lots are described below with associated examples:

a. For ammunition reference lots up to and including .50 caliber, the lot sequence number shall be used to identify in sequence the number of reference lots produced by the manufacturing activity identified with the manufacturer's identification symbol. The interfix number shall be the number "000."

   Example for ammunition up to and including .50 caliber:
   1st reference lot: AB-12L000R001
   2nd reference lot: AB-13B000R002
   3rd reference lot: AB-13D000R003

b. Ammunition above .50 caliber (component or end item lots) approved as reference lots shall keep their original interfix.

   Example for other than small arms ammunition:
   Lot LLL13D031-009 was selected and approved to be a reference lot. The revised lot number becomes LLL13D031R009.

c. A propellant lot approved as reference lot shall be identified by replacing the character immediately after the hyphen in the propellant lot number with a capital letter "R."

   Example for propellant lots:
   M1 propellant lot XYZ11C-071984 was selected and approved to be a reference lot. The new number becomes XYZ11C-R71984.

The revised lot number shall be applied directly to the ADC and all appropriate controlling documents. Any detailed comments shall be made in the remarks block of the ADC concerning reference lots. As a minimum, the new lot number shall be marked on all external packages or cartons, and if necessary, applied directly to the individual units for identification purposes (see 6.3). Ammunition designated as reference lots shall not be issued for field use nor flow into the regular supply stream without special and specific authorization.

4.7.8 Special lots. (The "S" lots.) Certain lots of ammunition are manufactured for specially expressed purposes, such as proving ground tests, special requirements, special tests, engineering tests, etc. Generally they are not intended for use as service or training ammunition. These "S" lots shall be numbered consecutively regardless of type

and size of the item and no matter how small the quantity. Lots shall simply be numbered UVW97F001S001, UVW97F001S002, etc. When UVW98D001S999 is reached the producing facility shall continue numbering by merely changing the interfix to 002. The next "special lot" of these types would then be UVW98E002S001, etc. The following exemplifies this type of lot numbering.

Example:

A quantity of grenade bodies is diverted from an assembly line and is loaded with an inert filler in lieu of an explosive bursting charge. A standard line fuze is then assembled to the inert loaded grenade bodies. This special lot is being assembled for use in special tests. Lot number UVW97K001S001 will be assigned. At the same plant a special lot of a completely different item is prepared. Despite the different item and because it is a special lot, this lot number will keep the same interfix and be UVW97L001S002. (No national stock number shall be assigned/used for these special lots. The sole identification for these lots shall be the complete nomenclature and the lot number.)

The authority for creation of the special lot, how it is to be used, where to be used, the test project designation, and all other information pertinent thereto shall be cited in the remarks block of the ADC. Ammunition designated as special lots shall not be issued for field use nor flow into the regular supply stream without special and specific authorization.

4.7.9 Regrouped lots (includes blended propellant lots). (The "G" lots). The "G" lots shall be identified by replacing the hyphen between the lot interfix number and the lot sequence number with a capital letter "G." Regrouping is when two (2) or more complete round lots are combined to form one (1) lot. Regrouping shall only be authorized (see 6.13.c) and occur when the items do not, or no longer, follow the principles of homogenous lotting. Examples of this include: purchases of commercial items for which the lotting practices are unknown; items affected by actions, such as rework or maintenance, to the extent that the original lotting concepts are destroyed; and when there has been a loss of lot visibility. Regrouping can occur, provided the above requirement is met, regardless of type of operations which may or may not be performed in conjunction with the assemblage of these lots. The regrouping action may or may not include modification, conversion, overhaul, propellant blending, or extensive maintenance. Work may be performed at LAP facilities, depots, bases, etc.

4.7.9.1 Regrouped lots – documentation. When regrouping is performed, a completely new lot number shall be assigned, and a new ADC created. In all such actions, detailed comments shall be inserted in the remarks portion of the data card including a listing of the former lot(s) when available and the actions being performed.

4.7.9.2 Regrouped lots – lot number assignment. New lots shall be formed in accordance with the requirements of the regrouping directive. Lot numbers shall be assigned in the normal manner with the interfix numbering beginning at "001" and

advance numerically in accordance with the provisions contained herein for assigning lot interfix numbers (see 4.4 and all paragraphs thereto).

a. The manufacturer's identification symbol shall be that of the activity performing the regrouping.

b. The year and month codes shall correspond to the year and month in which the regrouping was initiated.

c. Assignment, changes, etc. of the lot interfix numbers and lot sequence numbers for the "G" lots, shall be accomplished in the same manner as normal production lots as outlined in 4.4 and 4.5 and all subparagraphs thereto.

The following exemplifies the numbering of regrouped lots by a given depot for any item on which regrouping operations are performed.

Example:
QRS75A001G001, QRS75A001G002, etc.
QRS75C002G001, QRS75C002G002, etc.
QRS75E003G001, QRS75E003G002, etc.
QRS75G004G001, QRS75G004G002, etc.

4.7.9.3 Regrouped lots – Navy lot numbering exceptions. In some cases, the Navy's practice is to assign the manufacturer's identification symbol corresponding to the activity authorizing the regrouping (see 6.7.f). In other cases when the manufacturing activity is known, an alternate Navy practice is to keep the original manufacturer identification symbol when assigning the new regrouping lot number (see 6.7.f).

4.7.9.4 Regrouped lots – lot number revisions. If any additional actions need to be performed on the regrouped lot after the establishment of the lot, such as rework or repair, then suffixes shall be added or changed per this standard. If applicable, a lot theater indicator can also be added to a regrouped lot number.

4.8 Ammunition lot number – ammunition lot theater indicators.

4.8.1 Ammunition lot theater indicator description. The ammunition lot theater indicators identify items that were exposed to combat conditions and environments and provide a means of tracking which lots were sent to which theaters. The lot theater indicators are normally applied by the using military service prior to returning from theater. Previous ammunition lot theater indicators used were Y, W, and T and the practice associated with applying an ammunition lot theater indicator varied greatly by service (see 4.8.5 and 6.17).

4.8.2 Ammunition lot theater indicator usage. To establish a consistent practice across the services, theater indicators shall be placed after the lot suffix at the fifteenth (15^{th}) or sixteenth (16^{th}) position of an ammunition lot number or a propellant lot number.

If no suffix is currently assigned or a single character suffix is present, then the theater indicator shall be in the fifteenth (15^{th}) position. When no suffix is present, then a single hyphen shall be used as a placeholder for a possible future suffix. (Note: To prevent confusion and ensure readability, it was determined that a double hyphen placeholder for the two character suffix shall not be used.) If a two character suffix is already present or a single character suffix transitions to a two character suffix, then the theater indicator shall be in the sixteenth (16^{th}) position. The following examples illustrate how the theater indicator shall be assigned. While most of the examples use ammunition lot numbers, propellant lot numbers shall follow the same guidance.

Examples:

For the purposes of this example, the character "Z" is hypothetically chosen as the next lot theater indicator.

a. An ammunition lot number with no suffix:
   EFG02B005-043 becomes EFG02B005-043-Z

b. An ammunition lot number with a single suffix:
   EFG02B005-043D becomes EFG02B005-043DZ

c. An ammunition lot number with a double suffix:
   EFG02B005-043BA becomes EFG02B005-043BAZ

d. An ammunition lot number with a suffix transitioning from single to double suffix:
   EFG02B005-043VZ becomes EFG02B005-043AAZ
   Note: In this case "V" was the last suffix letter since "Z" would not be allowed to be both a suffix and a theater indicator.

e. A propellant lot number with no suffix:
   IND90B-G70888 becomes IND90B-G70888-Z

If the theater indicator is to be placed on older format lot numbers, then the theater indicator shall be added at the end of the lot number and preceded by a hyphen if no suffix is present or after the suffix if one is present.

Examples:

For the purposes of this example, the character "Z" is hypothetically chosen as the next lot theater indicator.

a. An older format ammunition lot number with no suffix:
   AB-223-5 becomes AB-223-5-Z

b. An older format ammunition lot number with a single suffix:
   AB-223-5A becomes AB-223-5AZ

4.8.3 Ammunition lot theater indicator marking and documentation. The theater indicator shall be placed on the outer packaging of the assets. Inner packs and assets shall be marked when the ammo is opened for any type of maintenance, inspection, or use. A new ADC shall be created and associated with the revised lot number. The ADC shall note the specific theater the ammunition was in and the corresponding theater indicator that was applied. Any suspensions and restrictions applied to the parent lot shall also be applied to the lot with the theater indicator.

4.8.4 Ammunition lot theater indicator selection and coordination. Theater indicators shall be coordinated jointly by all services when sufficient concern with environmental effects on the performance of the ammunitions and energetics will be impacted by storage, handling, and use within a specific region of the globe. Application of the theater indicator shall follow the requirements established here. For specific information on new theater indicators, see the owning service's applicable directions, technical bulletins, and information notices. Alpha characters chosen for the theater indicator shall not be those already in use as lot identifier codes or lot theater indicator codes. This standard shall also be updated to include the new theater indicators.

4.8.5 Previous ammunition lot theater indicators. The guidance and examples above apply to theater indicators assigned after the date of this standard. This is not intended to affect lots previously marked with Y, W, or T per the previous MIN and AIN instructions.

4.9 Ammunition lot number - marking on energetic components, inert components, complete rounds, and missiles. (This section is not to be used as instructions to the service draftsman for the preparation of marking drawings.)

4.9.1 Marking drawings. Drawings shall be prepared for each item showing all required markings. These drawings shall locate, describe, and specify method(s) and material(s) for all markings and shall be known as marking drawings. Approved marking drawings shall be required before commencing the manufacture of the ammunition or energetic materiel involved. Marking shall be accomplished in accordance with the appropriate marking drawing.

4.9.2 Energetic loaded components. (See 4.9) Each energetic loaded component shall be identified by a loader's lot number, meeting the requirements of this standard, which shall appear on the item itself. If the size of the item does not permit a lot number, guidance from the procuring activity shall be requested. The location, method of marking, and size of the lot number shall be shown on the applicable marking drawing. The marking shall be permanent in nature and may consist of a stamping in the material of the item; a permanently attached non-destructible plate; or stenciling with a marking fluid of material that is highly resistant to weather and wear. The method of marking shall be an engineering determination (see 6.3). The location of the marking shall be an engineering determination also, due to such considerations as kind of material to be marked, size and shape of item, etc. The size the marking shall be such that the identification of the lot number may be readily determined. Examples of such

components are defined as those components containing explosive, pyrotechnic, or propellant material and the lot numbers are known as component lot numbers.

4.9.3 Inert components. Unless otherwise specified (see 6.5) or if authorized due to the size of the item, inert components, subassemblies, and parts shall be marked with their respective lot numbers. When size does not permit marking on the individual item, the lot number shall be recorded/ marked on the appropriate packing containers.

4.9.4 Complete assembled rounds. Unless otherwise specified (see 6.5), complete assembled rounds, except for small caliber cartridge (below 20mm) shall be identified by lot numbers on the item itself. Some exceptions are for items that are identified by serial number instead of lot number (see 6.3 for other type exceptions). The location, method of marking, size, and color of the lot number shall be as shown on the applicable marking drawing. The marking shall be permanent in nature and may consist of a stamping in the material of the item; a permanently attached non-destructible plate; or stenciling with a marking fluid of material that is highly resistant to weather and wear. The method of marking shall be an engineering determination (see 6.3). The markings shall be prominently displayed on the body of the items in such a manner as to be easily read. Marking shall be accomplished in the color specified for the type of ammunition or energetic materiel concerned. For items too small to be identified by lot number or serial number on the item, at a minimum, the lot number shall be recorded/marked on the packaging material down to and including the smallest immediate pack.

4.9.5 Missiles. (See 4.9) Unless otherwise specified (see 6.5), missiles as complete items of ammunition shall be lotted/ serialized. Energetic loaded components shall be lotted and properly identified by the loader's component lot number as described in 4.9.2. If specifically required, the complete nomenclature and lot number of each energetic component shall be marked on the body of the guided missile. Details of marking shall be shown on applicable marking drawings. The size, placement, and application method of the markings shall be verified.

4.10 Ammunition data cards - description and applicability.

4.10.1 Description. Ammunition data cards shall be used for all ammunition end items and their major components, including inert, dummy, or non-energetic items and components unless otherwise specified (see 6.5). Components include but are not limited to items such as fins, fuzes, guidance systems, primers, and energetic materials. Ammunition data cards shall link to the associated ammunition lot number. The ADCs shall contain all required data and information pertaining to the creation of the lot and any further changes throughout the lifecycle such as rework, repairs, maintenance, and demilitarization. Applicable information contained in the ADC includes manufacturing activities, contracts, drawings, specifications, components, temporary configuration management changes (RFD/RFW/RFV), ECPs, shipment dates, partial shipments, NSNs, and other detailed information. Unless otherwise listed on a sub-assembly or component ADC, the ADC for the ammunition materiel shall be sufficiently detailed to identify all the components.

4.10.2 Applicability. Unless otherwise specified (see 6.5), an ADC is required for each lot of ammunition materiel and serially numbered item of ammunition. Unless otherwise specified, the default ADC electronic database shall be WARP.

4.11 Ammunition data card – preparation and instructions.

4.11.1 Preparation instructions. Unless otherwise specified (see 6.18 and 6.5), ADCs shall be prepared using the secure web-based database WARP and in accordance with the WARP User's Manual (see 6.14.a). Propellant description sheets shall also be prepared in accordance with requirements from the contract and/or WARP. Any noted or suspected errors in ADCs, their associated documentation, or their associated lot numbers shall be identified for correction.

4.11.2 Ammunition data card content. Energetic mixtures including energetic materials (pyrotechnics, propellants, explosives) and their constituents shall be entered using the actual manufacturing activity's part number, lot number, and manufacturing date. Components, sub-components, and materials of end items shall also be entered using the actual manufacturing activity's part number, lot number, and manufacturing date. The ADC data and information entered into WARP for all materials and components shall stand alone for traceability to the actual manufacturing activity's information (manufacturing part number, manufacturing date, manufacturing activity's lot number, etc.). If the manufacturing activity chooses to add their own part number, reference date for acceptance or other "trace" identification used internally, this information may be added in the remarks section. In the event of conflict or if there is a need for clarification, the applicable engineering system authority shall be contacted to resolve any issues.

4.11.3 Incorrect or missing ADCs. The correct preparation or revision of ammunition data cards shall be required (see 6.14). For new production, the applicable lot(s) shall not be accepted if ADC documentation is missing. If ADC documentation is incorrect or incomplete, authorization for shipment shall be withheld. For already accepted lots, if ADC documentation is missing, incomplete, or incorrect, it shall be considered cause for suspension of the lot pending analysis and correction of the problems. This includes appropriate documentation of suffixed lots.

4.11.4 New ammunition data cards. A new ADC is created when a lot number is created or changes. This includes when lots are suffixed, lot identifier codes added, lot theater indicator codes added, or if a completely new lot number is created. When all or part of an ammunition lot is reworked, renovated, or modified, a new ADC for the suffixed lot shall be prepared (see 6.14). All of the changes from the previous lot and ADC shall be noted.

4.11.5 Data card format for inert items. The format of the data card for inert items shall be the same format as that for energetic items, with unnecessary blocks left blank.

4.11.6 Revised data cards. Data cards are revised for situations such as updates of acceptance status, correction of errors or typos, or for addition of information in the remarks section (see 6.14). The revised data card shall include a description of the work performed or action taken on the lot. Information shall be entered into all blocks where it differs from the original data card.

4.11.7 Documenting information pertinent to lots produced under special conditions. Actions and reasons pertinent to forming, numbering, and identifying any and all ammunition lots produced under special conditions shall be explained in detail in the remarks block of the ADC. These remarks shall include: a listing of the lot(s) being reworked, repaired, modified, regrouped, etc.; the authorizations for the actions; descriptions of the actions performed; a listing of any components changed; and other information as required.

4.12 Ammunition data card - submission and distribution.

4.12.1 Distribution of data cards. Distribution of data cards beyond what is listed in 4.12.2 through 4.12.8, shall be in accordance with furnished instructions (see 6.14).

4.12.2 Accompany lot. Unless otherwise specified (see 6.5), a hardcopy or paper ADC shall accompany each lot of ammunition materiel and each serially numbered item of ammunition.

4.12.3 Cards enclosed with shipping document. To reduce paper use and to promote cost savings, requests to eliminate or reduce the paper copies shall be submitted for approval. Requests shall not be considered if the ADC information is not present in WARP.

4.12.4 Electronic submission. Unless otherwise specified (see 6.5), prior to lot acceptance, a copy of the ADC shall be entered into the WARP database.

4.12.5 Sample card submission. A sample ADC shall be submitted when a manufacturing or sustainment activity produces an item requiring an ADC for the first time, prior to first article, after a one-year production lapse, or as defined in the contract (see 6.14.c). The sample ADC shall use the actual manufacturer's identification symbol, the month and year corresponding to when the ADC is created, and the applicable interfix and sequence numbers that correspond to what will next be produced. To clearly identify that it is a sample, the character "Z" shall be placed in the lot identifier code position which is instead of the hyphen in the ammunition lot number's tenth position or instead of the 0 in the propellant lot number's eighth position. For the sample ADC interfix and sequence numbers, the characters "XXX" shall not be used instead of numbers (example: EFG14B005Z001). It shall be clearly noted in the remarks that it is a sample ADC. The sample ADC shall be approved (see 6.14.c) prior to submission of a final ADC. All subsequent ADCs produced shall be in the approved format until notified of changes, at which time a new sample card shall be submitted for review and approval.

4.12.6 Provisional card to the proving ground. For lots requiring function test, a provisional data card shall be prepared for distribution pending determination of the final disposition of the lot (see 6.14.f). A provisional data card is identical in all respects to a final data card, except that the disposition block is marked "PA". This stands for "Provisionally Accepted" and is used when the lot is awaiting functional or ballistic testing. Two copies of the provisional data card shall be forwarded to the proving ground with the test samples. Upon learning the final disposition of the lot and after any required configuration management requests have been completed, the disposition shall be changed to reflect the determination.

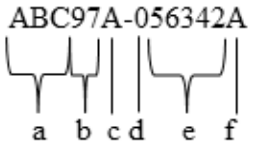
4.12.7 Rejected lots. Immediately upon notification of lot rejection or lot acceptance test failure, and even if alternative means of acceptance are being pursued, the ADC showing the rejected status and reason why it was rejected shall be submitted and entered into WARP or the applicable electronic database (see 6.14.e). If a rejected lot is later accepted with an RFD, RFV, or RFW, then the ADC shall be updated to show the new status of the lot. The ADC remarks block shall note the source of the authorization (such as PCO letter, RFD/RFW/RFV, or contract modification) and why the lot was previously rejected.

4.12.8 Partial lot. Partial lots are defined as "sub-divisions" of normal ammunition lots. Usually they are of predetermined equal quantities or represent specific production time frames. A partial lot is not intended to be identified as an independent lot and shall never be so considered. Partial lots are usually permitted for: use to expedite shipments and deliveries of critically needed items, as a convenience in controlling production quantities of a shift, day, week, etc.; to facilitate ease of shipments, e.g., an exact amount for loading in a railroad car or semi-trailer; or to allow for split shipments to two (2) or more plants, depots, etc. Their intended purposes and usage are temporary. Identification shall only be shown on the appropriate controlling documents which shall be updated after the "partial" has served its intended purposes. Partial lots shall simply be identified with the basic lot in a numerical sequence based on the order of production. This information shall be placed in the remarks block of the ADC and shall not be a part of the lot number. Authorizations to manufacture, assemble, and move partial lots of ammunition shall be requested in advance (see 6.15).

5. DETAILED REQUIREMENTS.

5.1 Propellant lot numbers. An exception to the lot numbering system for standard ammunition as defined in 4.1 is the propellant lot numbering system for bulk and unassembled propellants. The propellant lot numbering system shall follow the requirements for the manufacturing identification symbol, the year and month of production, the ammunition suffix, and the lot theater indicator. The system shall also follow the requirements for the lot identifier codes with a different placement in the propellant lot number. The interfix and sequence number requirements shall not be followed for propellant lot numbers and the propellant serial number shall be used

instead. The following, and Figure 2, illustrate the construction of a propellant lot number.



(a) Manufacturer's identification symbol

(b) A two (2) digit numeric code identifying the year of production

(c) A single alpha code signifying the month of production

(d) A one (1) digit code signifying regular production propellant lots or nonstandard propellant lots as specified in the following paragraphs and 4.7

(e) A five (5) digit number representing the propellant serial number

(f) A one to two character ammunition suffix (the alpha suffix)

(g) A lot theater indicator as applicable (not shown in image above – see 4.8)

The appropriate manufacturer's identification symbol (see 3.2.4.1 and 4.2) and the correct month and year of production (see 3.2.4.2, 3.2.4.3, and 4.3) shall be applied. Propellant lot numbers shall not exceed sixteen (16) characters in length and no characters shall be separated by spaces. The minimum number of characters used shall be thirteen (13). This occurs only if no ammunition lot suffix (see 4.6) or theater indicator (see 4.8) are added. When the theater indicator is applied, it is the last character of the propellant lot number.

5.1.1 Propellant serial number. Propellant lot serial numbers (see 3.2.25) shall be assigned (see 6.16) and shall range from "00001" to "99999". Propellant serial numbers shall be unique and not repeated. Unless otherwise specified (see 6.5), once the propellant is assembled (such as into propelling charges) a lot number of the standard ammunition lot number construction shall be assigned. A known exception to this standard practice is to assign a lot number with the propellant lot number format for some of the assembled propellants subject to stability monitoring. If this exception applies, then the propellant lot number assigned shall contain the same serial number as that of the bulk propellant used in the assembly. This exception is not valid if multiple propellant lots are assembled together.

5.1.2 Propellant lot identifier code placement. Regular production lots shall be identified by retaining the numeric character "0" immediately after the hyphen in the propellant lot number, while those lots not of regular production, included in the non-

standard lots (see 4.7), shall be identified by replacing that numeric character "0" with the appropriate lot identifier code.

5.1.3 Reprocessed propellant lots. Propellant lots that are reprocessed shall have been ground, re-solvated, and taken through the entire manufacturing process. Reprocessed propellant lots shall be considered new lots and shall take on an entirely new identity. The manufacturer's identification symbol shall be that of the activity performing the re-processing operation and a new propellant lot number shall be assigned at the completion of this process.

5.1.4 Re-blending of a single lot of propellant. Single propellant lots may be re-blended without losing their physical identity. The propellant lot number shall remain the same except for the addition of a suffix. No change is required for the year and month in which the re-blending was accomplished as illustrated below.

Example:

XYZ97K-067210 is re-blended.
The revised lot number becomes XYZ97K-067210A.

5.1.5 Blending of multiple propellant lots. When authorized (see 6.16.c) or in accordance with the contract, a blending of one or more propellant lots acquires new chemical characteristics and shall require a new propellant lot number, including a new serial number, to be assigned. Blended lots shall be identified by replacing the number "0" directly after the hyphen with a capital letter "G." The year and month codes shall correspond to the year and month in which the blending of the propellant lots was initiated. The manufacturer's identification symbol shall be that of the activity performing the blending operation. The following example illustrates the identification of blended propellant lots.

Example:

HCL88J-071104 and HCL88J-071060 are blended together a propellant manufacturing activity in June of 2009. The new lot number becomes EG-09F-G72931.

6. NOTES.

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

6.1 Intended use. This document describes the standard practices for lot numbering and data cards for use with ammunition and energetic materiel lots. Lot numbers and data cards provide traceability and documentation of the materiel throughout its lifecycle.

6.2 Acquisition requirements. Acquisition documents should specify the following:

a. Title, number, and date of this standard

b. Any exceptions to the standard practices (see 6.5)

c. Serialization requirements (see 4.1.5)

d. Any lot formation and homogeneity requirements

e. Any associated contract clauses such as a MIL-STD-1168 clause, an ADC clause, or energetic material clauses

f. That paragraphs 6.7 through 6.16 are mandatory

6.3 Items. Items (squibs, small arms cartridges, etc.) too small to be identified by lot number or serial number on the item proper may be identified by tag or like methods if considered necessary or desirable. These determinations are functions and responsibilities of the appropriate engineering agency. (See 4.9 and pertinent sub-paragraphs thereto.)

6.4 Historical information. Previous editions of MIL-STD-1168 and MIL-STD-1167 should be referenced for details and explanations of the historical ammunition lot numbering and ADC practices.

Listed below are the previous standards and the approximate time periods for which they were active. It is not guaranteed that lots produced within these years were numbered in accordance to that associated standard. This information is provided for reference only.

MIL-STD-1168B	1998 – 2013
MIL-STD-1168A	1975 – 1998
MIL-STD-1168	1965 – 1975
MIL-L-9835	1957 – 1965

6.5 "Unless otherwise specified". While the default requirements for ammunition lot numbering and ammunition data cards are specified in this standard, there may be some exceptions to the requirements. For those situations, the procuring activities or owning services will specifically describe any deviations from this standard practice in the applicable documentation such as the contract, specifications, or drawings. If no exceptions are enumerated, then all of the requirements of this standard practice apply.

6.6 Method for obtaining required technical data. Copies of specifications, standards, drawings and publications required by manufacturing activity in connection with applicable procurement and production functions should be obtained from the appropriate procuring activity or as directed by the applicable PCO, commodity manager, ACO, QAR, or PQM.

6.7 General responsibilities. In conjunction with the requirements outlined in sections 4 and 5, the following responsibility references are provided and recommended.

a. It is the responsibility of all user personnel of ammunition to note and report any ammunition lot number or ammunition data card problems to the proper persons when such occurrences are observed or suspected. Types of problems include: incorrect applications of lot numbers, errors in marking and on documents, missing or incomplete ADCs, and other related discrepancies.

b. The manufacturing activities and sustainment activities have the responsibility to properly apply ammunition lot numbers in accordance with the requirements of this standard.

c. The procuring activities and owning services have the responsibility to verify that the lot numbers were properly applied and documented in accordance with the requirements of this standard.

d. For the Government responsibilities listed in paragraphs 6.7-6.16, a letter of delegation can be issued. For example, a PQM could delegate to a QAR some of the responsibilities for ADC verification. Any delegation of authority does not relieve the applicable service, activity, office, specialist, etc. of primary responsibility.

e. The manufacturing or sustainment activity should consult the technical data package, contract, or procuring activity to determine if any serialization requirements replace the lot numbering requirements (see 4.1.5).

f. The Navy exceptions listed in sections 4 and 5 are only authorized as directed by the governing Navy authority (see 4.6.7.1 and 4.7.9.3).

6.8 Manufacturer's identification symbol responsibilities. In conjunction with the requirements outlined in sections 4 and 5, the following responsibility references are provided and recommended.

a. The manufacturing activity or sustainment activity should request the assignment of a manufacturer's identification symbol from JMC if they do not already have one.

b. Assignment of manufacturer's identification symbols for all services within the Department of Defense (DoD) is the responsibility of the United States Army Joint Munitions Command (JMC), Quality Assurance Operations (AMSJM-QAO). It is also the responsibility of the JMC QAO office to ensure that the assigned manufacturer's identification symbols are not duplicated (see 4.2.2). The JMC AMSJM-QAO contact information is also available on the WARP website (https://mhpwarp.redstone.army.mil).

c. The manufacturing activity or sustainment activity should ensure that they are using the proper manufacturer's identification symbol at all times. Additionally, it is their responsibility to inform the PQM if under a contract, or the applicable QASAS or Chief Inspector for sustainment actions, if any of the conditions have been met which could require the assignment of a new manufacturer's identification symbol (see 4.2.4).

d. For manufacturing activities, the PQM should ensure that the activity is assigned a symbol from JMC prior to the start of production and should verify that the activity uses the correct manufacturer's identification symbol at all times.

e. For sustainment activities, the responsible functional specialist who issues instructions and directives for reworks, maintenance, modifications, etc. should also be responsible for ensuring that a manufacturer's identification symbol is assigned prior to starting work on actions that require the establishment of a new lot number, such as regrouping or blending. The responsible functional specialist should also verify that each installation performing such operations uses the correct manufacturer's identification symbol at all times.

6.9 Year and month of production responsibilities. In conjunction with the requirements outlined in sections 4 and 5, the following responsibility references are provided and recommended.

a. The manufacturing activity is responsible for the correct application and placement of the year of production code and the month of production code into the lot number (see 4.3).

b. When sustainment activities perform actions that require the establishment of a new lot number, such as regrouping or blending, then they are responsible for the proper application of the month and year of production (see 4.3).

6.10 Interfix management responsibilities. In conjunction with the requirements outlined in sections 4 and 5, the following responsibility references are provided and recommended.

a. The manufacturing activity or sustainment activity is directly responsible for the assignment of interfix numbers or blocks of interfix and for making changes, as required in accordance with this standard (see 4.4). They have the primary responsibility to ensure that interfix numbers are correct and used properly at all times. They also have the responsibility to ensure that all interfix changes are properly documented on the ADCs.

b. The applicable Government functional specialist is responsible for verifying the correctness and proper use of the interfix numbers. They are also

responsible for verifying that the manufacturing activity or sustainment activity is correctly determining when the interfix numbers change.

(1) Unless otherwise specified (see 6.5), for lots of ammunition components, ammunition items of issue, energetic materials, etc., manufactured or assembled by the various manufacturing activities, the responsible functional specialist is the Government PQM.

(2) For situations where lots are regrouped or some other type of operation is performed which necessitate a change in the interfix number at sustainment activities (depots, in the field, etc.), the responsible functional specialist is the Quality Assurance Specialist Ammunition Surveillance (QASAS) or the Chief Inspector located at those facilities.

(3) Any delegation of authority to plant Quality Assurance Representatives (QARs), Administrative Contracting Officers (ACOs), etc., does not relieve the responsible functional specialist of primary responsibility.

c. The manufacturing activity or sustainment activity should request authorization from the responsible functional specialist for any interfix sequence exceptions other than the block of interfix procedure (see 4.4.3). This includes any requests to restart interfix numbering at "001".

d. For production line configurations and modifications, the manufacturing activity or sustainment activity can submit a request for approval to use a single interfix. The request should be submitted to the applicable procuring service if under a contract or to the owning service if for a sustainment action. Requests for use of a single interfix should meet the criteria in 4.4.6.3.1 in order to be approved by the Government.

e. If there are any questions relating to interfix assignment or when interfixes should be changed, the manufacturing activity or sustainment activity should ask the responsible functional specialist.

f. Personnel at each manufacturing or sustainment activity are responsible for alerting the responsible functional specialist when changes are anticipated.

g. Changes in interfix numbers should also be accomplished when it is determined by the responsible functional specialist that it is necessary to change or the best interest of the Government will be served by changing interfix numbers (4.4.6.7).

h. Interfix numbers may be changed for reasons other than those noted herein when it is considered necessary by either the Government or by the contractor with concurrence from the Government functional specialist.

i. When there is any uncertainty as to the last previous interfix number used for the item, the assignment should be coordinated with the appropriate procuring service prior to authorizing production and assignment of an interfix number. (See 4.10 and 4.11 for the WARP data card repository information.)

j. Taking into consideration the item and the manufacturing processes, the responsible functional specialist may determine an alternate interruption time period, less than 90 days, after which the manufacturer is required to change the interfix number. (See 4.4.6.1)

6.11 Sequence number responsibilities. In conjunction with the requirements outlined in sections 4 and 5, the following responsibility references are provided and recommended.

a. The manufacturing activity or sustainment activity is directly responsible for the assignment of sequence numbers and for making changes, as necessary (see 4.5). They also have the primary responsibility to ensure that sequence numbers are correct and used properly at all times.

b. The PQM if under a contract or the applicable QASAS or Chief Inspector for sustainment actions should ensure that the sequence numbers are being used correctly, changed properly, etc. (see 4.5). These persons are the cognizant authorities for uses and applications of the sequence numbers.

6.12 Suffix responsibilities. In conjunction with the requirements outlined in sections 4 and 5, the following responsibility references are provided and recommended.

a. For new production, the manufacturing activity should request authorization for suffixing and assignment of suffixes from the procuring activity. If the original manufacturing activity is performing the suffixing, prior to any shipment of the items, then they can assign the suffixes. The manufacturing activity should notify the procuring activity and update the ADC with the suffixes assigned and the actions performed.

b. When a lot of ammunition or a quantity thereof has been designated for rework, repair, modification, or overhaul, at a facility other than the original plant (such as a depot, station, field, ship, base, etc.), the sustainment activity performing the operation or maintenance should request a suffix from the applicable procuring activity designated element, owning Government service, Program Office, or their designated representative.

c. For joint items, suffix assignment should be from a single responsible functional specialist office in the managing service. For example, for Single Manager for Conventional Ammunition (SMCA) managed items, the JMC Office AMSJM-QAS has the responsibility for suffix assignment.

d. For service unique items that are not shared across services, suffix assignment should be from the owning service's designated functional specialist.

e. The activities that assign suffixes are responsible for ensuring that the suffixes assigned are unique, traceable, and do not duplicate other existing suffixes for the same lot.

f. The manufacturing activity or sustainment activity is responsible for the proper application of the assigned suffixes.

g. The manufacturing or sustainment activities performing the operations and applying the suffix are responsible for updating the ADCs with the suffix assignment and description of associated operations. For sustainment actions where the activity does not have the capability to create or update ADCs, such as rework performed by end users in the field, then the owning service has the responsibility to ensure the documentation requirements are met.

h. If an operation is cancelled and a suffix is no longer required, then the applicable manufacturing or sustainment activity should contact the activity that assigned the suffix and notify them of the cancellation (see 4.6.3).

i. When lots or portions of lots of ammunition are being reworked at depots, in the field, etc., the authorization for issuing rework instructions and the types of operations to be performed, quantities, etc., is the responsibility of the owning service.

j. For situations which may not require a suffix (see 4.6.9), the manufacturing or sustainment activity should request a determination from the applicable QASAS or other designated Government functional specialist.

6.13 Lot identifier code responsibilities. In conjunction with the requirements outlined in sections 4 and 5, the following responsibility references are provided and recommended.

a. For new lots in production, the procuring activity is responsible for notifying the manufacturing activity that a lot has been selected to be a calibration lot (see 4.7.6). The manufacturing activity is then responsible for taking actions needed to apply the appropriate identification to the individual units in the lot, the containers in which the lot is packed, the ADC (in WARP) for the lot, and all other pertinent documents.

b. For lots which have already been accepted by the Government and are later selected as calibration lots, the owning service is responsible for taking actions needed to apply the appropriate identification to the individual units in the lot, the containers in which the lot is packed, the ADC (in WARP) for the

lot, and all other pertinent documents (see 4.7.6). This can be delegated to sustainment activities or even the testing activity.

c. Proper use and application of the "G" lots is the responsibility of the Joint Munitions Command in coordination with the owning service, if appropriate (see 4.7.9). This includes establishment of the instructions and conditions under which the work is performed and oversight to ensure the regrouping is performed and documented properly. The owning service is responsible for ensuring a new ADC is created and the old ADCs updated. If the owning service chooses, this may be delegated to the sustainment activity.

6.14 Ammunition data card responsibilities. In conjunction with the requirements outlined in sections 4 and 5, the following responsibility references are provided and recommended.

a. The procuring activity should provide information on how to access the applicable ADC database, such as WARP.

b. New, revised, or sample ADCs should all be prepared by the responsible manufacturing activity or sustainment activity (manufacturer, field inspector, renovator, maintenance facility, etc.). The manufacturing activity or sustainment activity should also ensure that all the changes from the previous lot, lot number, or ADC are properly documented on an ADC. This includes reporting interfix changes and the reasons for the interfix changes. For sustainment actions where the activity does not have the capability to create or update ADCs, such as rework performed by end users in the field, then the owning service has the responsibility to ensure the documentation requirements are met.

c. The procuring activity or owning service should provide information on the required distribution of ADCs.

d. Sample ADCs should be approved by the procuring activity if under a contract or by the owning service if for a sustainment action. If changes are required to the ADC format, after approval of the sample ADC, the Government should notify the preparing activity (manufacturing activity or sustainment activity) of the required changes. The manufacturing activity or sustainment activity should then submit a new sample data card (see 4.12.5).

e. New or revised ADCs should be approved by the PQM if under a contract or by the applicable QASAS or Chief Inspector for sustainment actions. No organization other than the Government approves ADCs.

f. For lots requiring function testing, the manufacturing activity or sustainment activity is responsible for the preparation of a provisional data card and

submission of the data card to the applicable proving ground or testing facility (see 4.12.6).

g. When a lot is rejected, even if alternative means of acceptance are being pursued, the applicable manufacturing or sustainment activity should immediately update the ADC showing the rejected status and note the reason why it was rejected. The updated ADC should then be entered into WARP and submitted to the procuring activity if under a contract or to the owning service if for a sustainment action (see 4.12.7).

6.15 Partial lot responsibilities. In conjunction with the requirements outlined in sections 4 and 5, the following responsibility references are provided and recommended.

a. The manufacturing activity or sustainment activity should request in advance authorization to manufacture, assemble, and move partial lots of ammunition (see 4.12.8).

b. Authorization should be provided by the applicable procuring service if under a contract or by the owning service if for a sustainment action (see 4.12.8).

6.16 Propellant responsibilities. In conjunction with the requirements outlined in sections 4 and 5, the following responsibility references are provided and recommended.

a. Propellant serial numbers should be obtained from the Joint Munitions Command (JMC) Propellant Product Quality Manager (PQM) (AMSJM-CDB) (see 5.1.1) or the Navy Program Manager Navy Conventional Ammunition Systems (PM NCAS-GP) as applicable.

b. It is the responsibility of the assigning activity to ensure that the propellant serial numbers that they assign are unique (see 5.1.1).

c. Blending of multiple propellant lots should be authorized from the procuring activity if under a contract or by the owning service if for a sustainment action (see 5.1.5).

6.17 Ammunition lot theater indicator history. For reference on how the ammunition lot theater indicators Y, W, and T were used previously to identify lots which had been in Southwest Asia (SWA), see Army MIN 09-05, Navy AIN 038-2009, Navy AIN 067-2001, and TB 9-1300-385 –Introduction. The Y indicator only applies to Desert Shield/Storm. The W indicator denotes missiles shipped into Iraq or Afghanistan. The T indicator denotes two deployments, Desert Shield/Storm and either Iraq or Afghanistan. It should also be noted that the W and T indicators only apply to the following Army owned missile systems: Hellfire; Tube-Launched, Optically-Tracked, Wire-Guided (TOW); Javelin; Stinger; Guided Missile Large Rocket System (GMLRS); Army Tactical Missile System (ATACMS), and High Mobility Artillery Rocket System (HIMARS).

6.18 Associated Data Item Descriptions (DID). This standard has been assigned an Acquisition Management Systems Control (AMSC) number authorizing it as the source document for the following DID. When it is necessary to obtain the data, the applicable DIDs must be listed on the Contract Data Requirements List (DD Form 1423).

DID Number	DID Title
DI-MISC-80043	Ammunition Data Card (ADC)

The above DIDs were current as of the date of this standard. The ASSIST database should be researched at https://assist.dla.mil to ensure that only current and approved DIDs are cited on the DD Form 1423.

6.19 Method for acquiring ammunition data cards. ADCs are maintained in the WARP database and accessible to authorized users. ADCs are also accessible in other Government electronic databases such as Conventional Ordnance Resource Program (CORP). An alternate means of acquiring the ADCs is to direct the request to the appropriate agency as follows:

a. For the Navy – Commander, Code JXRT, NAVSURFWARCENDIV, 300 Highway 361, Crane, IN 4752-5001.

b. For the Air Force – Commander, Ogden Air Logistics Complex, ATTN: AFLCMC/EBH, Hill AFB, UT 84056.

c. For the Army – Commander, Joint Munitions Command, ATTN: AMSJM-QAO, Rock Island, IL 62199-6000.

6.20 Subject term (key word) listing.

ADC
Energetic material
Explosive materiel
Homogeneous material
Lot identifier code
Lot interfix number
Lot sequence number
Lot suffix
Manufacturer's identification symbol
Marking
Missiles
Production Line
Propellant
Propellant lot numbers
Pyrotechnics

Rejected lots
Worldwide Ammunition-data Repository Program (WARP)

6.21 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

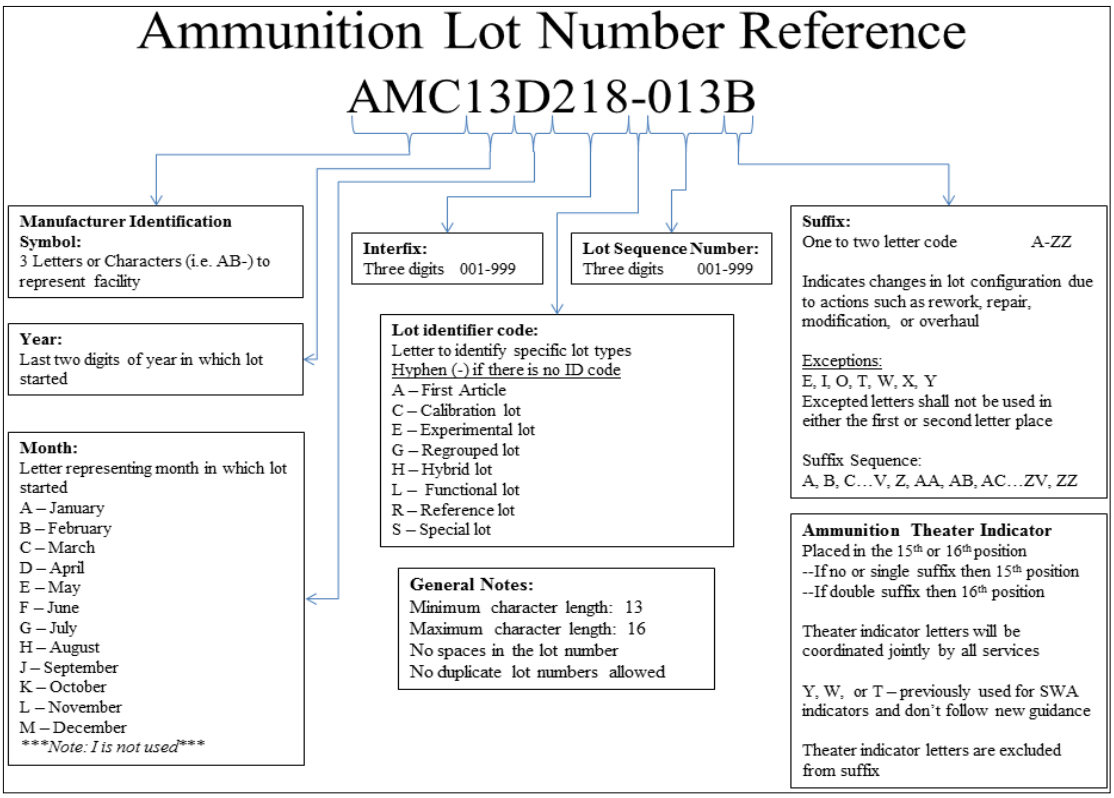


FIGURE 1. Reference Chart for Ammunition Lot Numbering

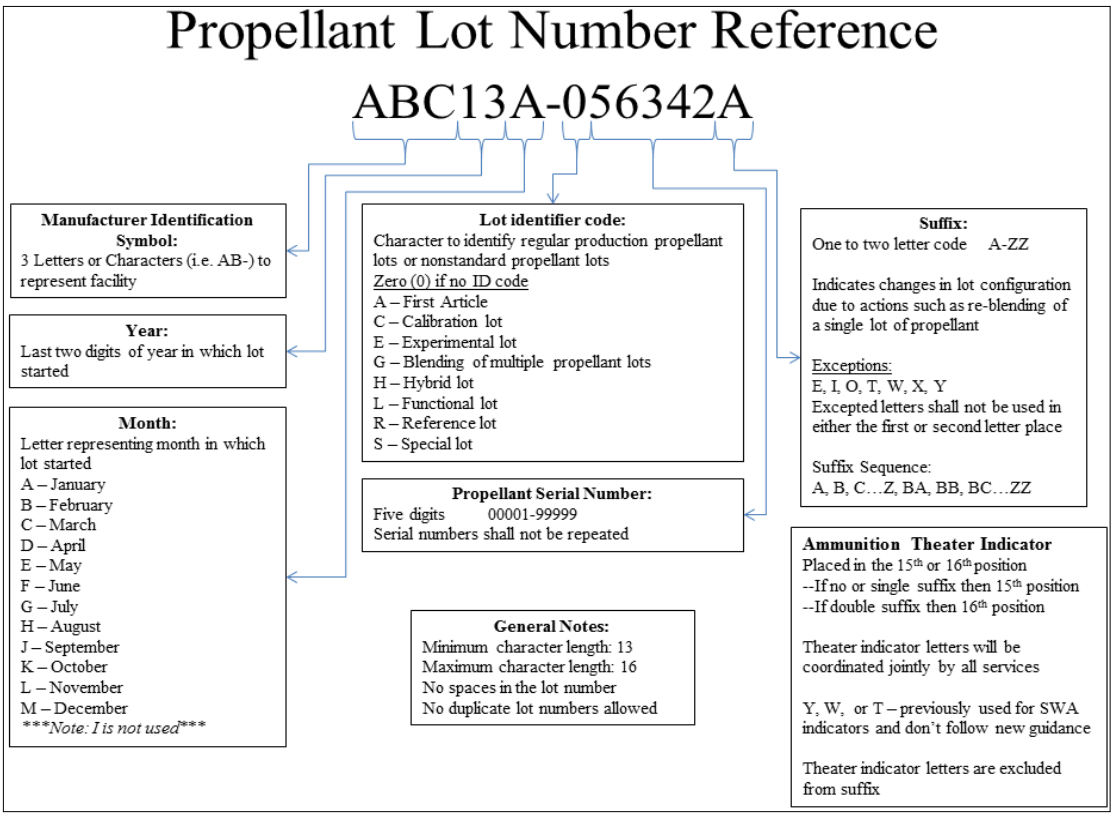


FIGURE 2. Reference Chart for Propellant Lot Numbering

Custodians:
Army – AR
Navy – OS
Air Force - 99

Review activities:
Army –MI
Navy - MC
Air Force – 70

Preparing activity:
Army - AR
(Project 1395-2014-001)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at https://assist.dla.mil.