

MIL-STD-444

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MILITARY STANDARD

NOMENCLATURE AND DEFINITIONS IN THE

AMMUNITION AREA



MIL-STD-444
6 February 1959

ARMED FORCES SUPPLY SUPPORT CENTER
STANDARDIZATION DIVISION
WASHINGTON 25, D. C.

Nomenclature and Definitions
in the Ammunition Area

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1. This standard has been approved by the Department of Defense and is mandatory for use by the Departments of the Army, the Navy, and the Air Force, effective 6 February 1959.

2. In accordance with established procedure, the Ordnance Corps, and the the Bureau of Ordnance, Air Force, have been designated as Army-Navy-Air Force custodians of this standard.

3. Recommended corrections, additions, or deletions should be addressed to the Standardization Division, Armed Forces Supply Support Center, Washington 25, D.C.

MIL-STD-444
6 February 1959

FOREWORD

The purpose of this standard is to establish uniform definitions for ammunition items and terms in order that engineering, procurement, inspection and other interested personnel of the Army, Navy, and Air Force will utilize the same terminology where applicable to similar and common interest items.

Every effort should be made to use the terms contained herein for the items to which they apply, and to avoid applying the terms to items not complying with the definitions given. However, since the coverage of the standard cannot be complete at any given time, it is not intended that the formulation of new terms to cover new items shall be discouraged. When possible, the basic name of an existing item should be employed, with amplifying or restricting definitions as required.

Compliance with this standard will promote uniformity among and within the services as to the nature of the item named and will tend to reduce misunderstandings or disagreements as to the meaning of a term when used.

MIL-STD-444
6 February 1959

CONTENTS

1.	SCOPE	1
1.1	Scope	1
1.2	Application	1
2.	REFERENCED DOCUMENTS	1
3.	TERMS AND DEFINITIONS	2
3.1	Terminology	2
10.	APPENDIX	150
10.1	Abbreviations	150

MIL-STD-444
6 February 1959

1. SCOPE

1.1 Scope. This standard constitutes an unclassified document for the three services of the Department of Defense, listing and defining commonly used ammunition items and components, and terms having particular significance in the ammunition area. This area includes, but is not limited to, FSC Group 13, Ammunition and Explosives, as defined in Cataloging Handbook H2-1.

This standard contains as principal entries all items in FSC Group 13, together with a limited number of closely allied items in other FSC Groups, which are assigned names approved and published by the Cataloging Division of the Armed Forces Supply Center; other items selected from supply publications of the Army, Navy and Air Force; and additional terms which have particular significance in the ammunition area. Entries are made alphabetically by word, for example, all entries of "bomb, - - -" would precede the entry "bomb blast". The expression "*Ammo nomen*", appearing immediately after an entry, signifies that the definition is intended to give the meaning of the entry only as used in ammunition nomenclature.

Those items which occur as item names in the Cataloging Handbook H6-1, and terms of equal significance abstracted from the service supply publications and from Cataloging Handbook H3, have been distinguished by being entered in bold face capital letters. Those additional terms which are included and defined as having particular significance in the ammunition field are distinguished by being entered in bold face

small letters, with capitals where applicable. Commonly used abbreviations are given in parentheses following principal entries. For convenience, these abbreviations are presented in an alphabetical list to be found in the appendix.

Following each entry of item name with its definition, there are given, in most instances, examples of items of issue carrying the basic item name, with such qualifying terms and model designations as are used by the using service or services to distinguish the particular item from other items having the same item name. The examples in each case are merely illustrative of the item nomenclature, are not necessarily complete listings, and may not be the latest models. For authentic information on current models reference should be made to the appropriate service supply publications.

Abbreviations, when used, shall be in accordance with the latest issue of MIL-STD-12. The appendix, section 10, is a compilation, in alphabetical arrangement, of the abbreviations in the ammunition area which have a sufficient degree of recognition by widespread use as to constitute a basis for official recognition. The abbreviation is the principal entry, followed by the meaning and such other information, briefly stated, as may be necessary for intelligent use.

1.2 Application. This standard is applicable to items and components thereof used in all types of ammunition other than guided missiles and atomic ordnance.

2. REFERENCED DOCUMENTS

2.1 The following documents of the latest issue form a part of this standard:

STANDARDS

MIL-STD-12 — Abbreviations for use on Drawings and Technical - Type Publications.

MIL-STD-444
6 February 1959

3. TERMS AND DEFINITIONS

3.1 Terminology. The following terms and definitions are applicable to this standard:

ACOUSTIC SYSTEM, UNDERWATER MINE

A group of electrical items specifically designed to give audible and graphic signals of underwater sound. It is used as a signaling system to detect a ship approaching a harbor.

ACOUSTIC SYSTEM, UNDER-MINE: MARK 6 MOD 0

ACTIVATOR, ANTITANK MINE

A nonmetallic item designed to adapt a firing device to an antitank mine. It may be empty, inert filled, or explosive filled.

ACTIVATOR, ANTITANK MINE: M1

ACTIVATOR, ANTITANK MINE: HE, M2 (RDX-loaded)

ACTIVATOR, ANTITANK MINE: practice, M1

actuator, explosive

See: **CARTRIDGE, INITIATOR**

adamsite (DM)

See: **CHEMICAL AGENT, DIPHENYL-AMINECHLOROARSINE (DM)**

adapted for VT fuze *Ammo nomen*

Indicates that the munition has a cavity for the fuze, usually with a liner, with dimensions such that it will receive a **FUZE, PROXIMITY**.

adapter, cluster, aimable

An **ADAPTER, CLUSTER, BOMB** used to hold the bombs together in an outer case so as to enable aiming and dropping the bombs by ordinary bombing methods. Its ballistic characteristics are such as to permit application of normal aiming and dropping techniques and to confine the dispersion of contained bombs to a smaller target area than is

experienced in the case of nonaimable adapters.

See also: **cluster, aimable**

ADAPTER, CLUSTER, BOMB

A mechanical device by means of which several bombs are suspended in the bomb station for one bomb.

ADAPTER, CLUSTER, BOMB: M3

ADAPTER, CLUSTER, BOMB: M14
 (w/shpg bnds for fragmentation bomb cluster, M27)

ADAPTER, CLUSTER, BOMB: MARK 4 MOD 0 (w/pistol assembly)

ADAPTER, CLUSTER, ROCKET

A mechanical device by means of which several rockets are suspended in the rocket station for one rocket.

ADAPTER, CLUSTER, ROCKET: aero, 6A launcher, 2.75-inch rocket

ADAPTER, FIRING MECHANISM

An adapter designed to facilitate the mounting of a firing mechanism in an underwater mine.

ADAPTER, FUZE

An adapter designed to connect a fuze to a bomb. It may or may not provide connection for a parachute unit.

ADAPTER, FUZE: M202

ADAPTER, FUZE: for bomb fuze, MARK 219 MOD 0

ADAPTER, GRENADE PROJECTION

An adapter designed for attachment to a hand grenade to facilitate firing from a rifle and to stabilize the grenade in flight.

ADAPTER, GRENADE PROJECTION: M1

ADAPTER, GRENADE PROJECTION: chemical M2A1

MIL-STD-444
6 February 1959

ADAPTER, PRIMING

An adapter designed to secure an electric or nonelectric blasting cap, a detonating cord, or a time blasting fuse in the activator

ADAPTER, PRIMING: explosive, M1A2

adapter, rocket

An adapter for launching rockets of different sizes.

ADAPTER-BOOSTER, BOMB

A device designed to accommodate an ADAPTER, FUZE and an auxiliary explosive charge used in an explosive train to detonate a bomb. It is essentially a reducing bushing threaded on the outside for assembly in the bomb body and on the inside for receiving a fuze and has assembled thereto an auxiliary explosive charge. Designed for use in the nose, or in the tail, of a bomb.

ADAPTER-BOOSTER, BOMB: nose, M117

ADAPTER-BOOSTER, BOMB: tail, M102

ADAPTER-BOOSTER, BOMB, tail, empty, M115A1

ADAPTER-BOOSTER AND ADAPTER-BOOSTER HOLDER ASSEMBLY

A device consisting of an ADAPTER-BOOSTER, BOMB and a circular threaded metal housing. It is designed to hold and position an ADAPTER-BOOSTER, BOMB in a bomb body.

additive, propellant

Any material added to the basic formulation of a propellant composition, to accomplish some special purpose. Additives are used to improve stability, to reduce flash or smoke, to reduce erosion or coppering, and the like. In general, additives are present in small proportions, and do not affect the heat of explosion to an appreciable degree.

AFTERBODY AND TAIL, TORPEDO

A conical-shaped item which includes the propulsion unit, starting mechanism, and control mechanism of a torpedo.

AFTERBODY AND TAIL, TORPEDO: MARK 28 MOD 3

after jet effect

Pertaining to functioning of shaped charge ammunition. Postulated issuing of the jet from the slug long after collapse of the liner is complete. Also called extrusion effect, toothpaste tube effect.

AIR FLASK, TORPEDO

A cylindrical item having various compartments for housing compressed air, fuel, water and/or chemicals, which when combined form the propelling charge of aerial and underwater torpedoes.

AIR FLASK, TORPEDO: MARK 18 MOD 6

air space

1. See: standoff. 2. The space between the top of the propellant and the base of the projectile in the vertically positioned assembled cartridge.

alined

Of an explosive train: Arranged in such order that the detonation wave can propagate as required for functioning. As pertains to shaped charge ammunition, the coincidence of charge axis and liner axis in order to give optimum performance.

all aluminum *Ammo nomen*

Indicates cartridge case is made entirely of aluminum. Used in connection with shotgun type cartridges.

all brass *Ammo nomen*

Indicates cartridge case is made entirely of brass. Used in connection with shotgun type cartridges.

MIL-STD-444**6 February 1959****aluminized explosive**

An explosive to which aluminum has been added. The aluminum, in flaked or powdered form, is incorporated into the explosive to increase the blast effect. Examples of aluminized explosives include ammonal, HBX's, and tritonal.

amatol

A high explosive made of a mixture of ammonium nitrate and trinitrotoluene (TNT). There are two main types, classified according to the percentage ratio of ammonium nitrate to TNT: 50-50 amatol, which is capable of being melt loaded (cast), and 80-20 amatol, which must be consolidated by pressing or extruding. This explosive has approximately the same explosive force as TNT and has been used as the bursting charge for projectiles and bombs when toluene, used in the manufacture of TNT, was in short supply.

amber star, cluster *Ammo nomen*

Indicates, in the case of a SIGNAL, ILLUMINATION, GROUND, a cluster of several freely falling amber stars (lights).

amber star, parachute *Ammo nomen*

Indicates, in the case of a SIGNAL, ILLUMINATION, GROUND, a single amber star (light), parachute supported.

ammonal

A high explosive mixture, made of ammonium nitrate, trinitrotoluene (TNT), and flaked or powdered aluminum. When used as a bursting charge in projectiles, it produces high temperature and bright flash on detonation.

ammonium nitrate

One of the most insensitive and stable high explosives. Because of the difficulty of initiating detonation it is not used alone as an explosive, but has found use

as an ingredient of binary explosives, dynamites and cratering explosives. Amatol (which see) is an example of the use of ammonium nitrate in a binary explosive.

ammonium picrate

See: Explosive D.

ammunition (ammo)

(From munition by taking Fr. la munition as l'ammunition.) 1. A generic term which includes all manner of missiles to be thrown against an enemy, such as bullets, projectiles, rockets, grenades, torpedoes, bombs and guided missiles with their necessary propellants, primers, fuzes, detonators and charges of conventional explosive, nuclear explosive, chemical or other materials. 2. In the broadest sense the term is not limited to those materials to be thrown, nor to use against an enemy, but includes, in addition to the items and materials given in sense 1, all explosives, explosive devices, pyrotechnics and pyrotechnic devices. The purpose is not limited and includes, in addition to direct use against an enemy, such uses as illumination, signaling, saluting, mining, digging, cutting, accelerating, decelerating separating, catapulting personnel or material, operating or stopping mechanisms, demolition, decoying, practice, training, guarding, game hunting and pure sport. 3. In the most restricted sense the term includes a complete round and all its components, that is, the material required for firing a weapon such as a pistol, rifle, or cannon, from which a projectile is thrown for inflicting damage upon an enemy. Generally the term is used or taken in its broadest sense (sense 2) unless a more restricted sense is indicated or is implied by the context.

ammunition, artillery

See: artillery ammunition.

MIL-STD-444
6 February 1959

ammunition, small arms

See: small arms ammunition.

ammunition data card

Identification card prepared for each individual lot manufactured, giving the type and composition of the ammunition and identifying its components by lot number and manufacturer. When necessary, may also include instructions for holding the ammunition.

Ammunition Identification Code (AIC)

Superseded code symbol formerly assigned to each item of Army ammunition for identification and supply purposes, e.g., P5HBA. First two characters referred to the pertinent ordnance catalog, and the remaining three characters to the weapon group, type and model, and packaging. The Department of Defense Ammunition Code (which see) is now normally employed for the purposes indicated.

ammunition lot

A quantity of rounds or components, each of which is manufactured by one manufacturer under uniform conditions, and which is expected to function in a uniform manner. The lot is designated and identified by assignment of an ammunition lot number and preparation of an ammunition data card.

See also: ammunition data card; ammunition lot number; lot

ammunition lot number

Code number that identifies a particular ammunition lot. The number is assigned to each lot when it is manufactured.

See also: ammunition lot

ANCHOR, UNDERWATER MINE

An item designed in various shapes to moor an underwater mine at a predetermined depth. It may contain various releasing and securing devices which can be manually fixed for use in any given depth of water.

**ANCHOR, UNDERWATER MINE:
 MARK 6 MOD 14**

angle of entry

Acute angle between the tangent at the point of impact of a bomb or projectile and the perpendicular to the surface of the ground or target at the point of impact. It is the complement of the angle of impact (which see). Also called angle of obliquity and angle of incidence.

angle of impact

The acute angle between the tangent to the trajectory at the point of impact of a projectile and the plane tangent to the surface of the ground or target at the point of impact. The complement of the angle of entry (which see).

angle of incidence

See: angle of entry.

angle of obliquity

See: angle of entry.

antiaircraft (AA)

Used, or designed to be used, against airborne aircraft.

antiamor

Of ammunition, bombs, bullets, projectiles, or the like, designed to defeat armor and other resistant targets.

antilift device

A device arranged to detonate the land mine to which it is attached, or to detonate another mine or charge nearby, if the mine is disturbed. The device causes detonation through a secondary fuze called an ACTIVATOR, ANTI-TANK MINE.

antipersonnel (apers)

Of projectiles, bombs, mines, or the like, designed to kill, wound, or obstruct personnel.

antiremoval device

A device attached to a land mine to protect it against removal. Usually attached

MIL-STD-444
6 February 1959

to the mine either on the bottom or on the side, designed to function when a pull is exerted on the mine at the time of removal, or when pressure is released from the device when the mine is lifted from its position. Detonation is by a secondary fuze called an ACTIVATOR, ANTITANK MINE.

antiricochet device

Device intended for attachment to bombs to prevent ricochet, with consequent loss of effectiveness and possible danger to the dropping plane. The device usually consists of a parachute unit, fuze adapter and fuze, and is attached to the tail end of the bomb. The bomb is slowed by the parachute, enabling the dropping plane to pass beyond the danger area before the bomb is detonated.

antitank (AT)

Used, or designed to be used, against tanks.

antiwithdrawal device

A device intended to function an item of ammunition if attempt is made to remove a fuze from the ammunition. May be an integral part of the fuze, or a separate unit.

See also: fuze, antiwithdrawal.

anvil

The rigid metal part against which the explosive charge in a PRIMER, PERCUSSION is compressed by the blow of the firing pin.

apical angle

In general the angle formed at the apex or tip of anything. As applied to projectiles, the angle between the tangents to the curve outlining the contour of the projectile at its tip, or for semi-apical angle, the angle between the axis and one of the tangents. For a projectile having a conical tip, the cone apex angle.

applique armor

Material or attachment which can be installed on a tank to give it additional protection against kinetic or nonkinetic energy ammunition.

ARBOR, DEPTH CHARGE

An item designed to provide a means of launching and supporting of a depth charge in a depth charge gun.

ARBOR, DEPTH CHARGE: MARK 6 MOD 3

arm

To make ammunition ready for detonation, as by removal of safety devices or alignment of the explosive elements in the explosive train of the fuze.

ARM, MOORING

An arm designed to properly position an underwater mine in relation to the underwater mine anchor.

ARM, MOORING: for underwater mine, MARK 10 MODS 3 and 6

arming

As applied to fuzes, the changing from a safe condition to a state of readiness for functioning. Generally a fuze is caused to arm by such means as acceleration, rotation, clock mechanism, chemical action, electrical action, or air travel, or by a combination of these.

ARMING DELAY, BOMB FUZE

A mechanical pyrotechnic or electrical device designed for attachment to a fuze to delay the start of fuze arming.

ARMING DELAY, BOMB FUZE: M1A1

arming device

Device for arming (which see) of a fuze under controlled conditions.

ARMING DEVICE, ROCKET WARHEAD

An item designed to arm and control the initiation of the explosive train of the warhead of a ROCKET, HIGH EXPLOSIVE, (as modified). It may or

MIL-STD-444
6 February 1959

may not contain a detonator.

ARMING DEVICE, ROCKET WAR-
HEAD: MARK 15 MOD 0

ARMING DEVICE, TORPEDO

An item designed to perform the electrical switching and mechanical alignment necessary to detonate a WARHEAD, TORPEDO after the warhead has been actuated by the exploder mechanism.

ARMING DEVICE, TORPEDO:
MARK 2 MOD 1

ARMING DEVICE, UNDERWATER MINE

A hydrostatically operated device designed to arm an underwater mine at a predetermined time.

ARMING DEVICE, UNDER-
WATER MINE: MARK 5 MOD 0

arming distance

See: arming range

ARMING PLUG, ANTITANK MINE

A device assembled to a MINE, ANTITANK after fuzeing which can be set to either a 'safe' position or an 'armed' position. In the latter position, sufficient pressure will cause the fuze to function.

ARMING PLUG, ANTITANK
MINE: M4

arming range

The distance from a weapon or launching point at which a fuze is expected to become armed.

arming resistance

The resistance to the displacement of certain fuze components which must be overcome in order to arm a fuze. Arming resistance may be produced by the action of an elastic machine element, such as one or more arming springs, a split resistance ring, a spring plate, etc., or by the resistance to permanent deformation of a member, such as a shear pin. Arming resistance should be as great as possible to promote safe

handling of fuzes and fuzeed ammunition, yet should also be appreciably less than the force of setback or centrifugal action on the involved fuze components, to insure positive arming of the fuze during or after firing.

See: setback force; shear pin

ARMING WIRE ASSEMBLY

An item consisting of one or more lengths of wire attached to a swivel loop to prevent accidental arming of a fuze.

ARMING WIRE ASSEMBLY:

AN-M6A2

ARMING WIRE ASSEMBLY:

M1A2

ARMING WIRE ASSEMBLY:

MARK 3 MOD 0

armor, spaced

See: spaced armor

armor-piercing (AP)

Of ammunition, bombs, bullets, projectiles, or the like: designed to penetrate armor and other resistant targets.

armor-piercing capped (APC)

Of armor-piercing projectiles, having an armor-piercing cap over the nose.

See: cap, armor-piercing

arsine (SA)

One of the blood gases. A war gas. Arsenic trihydride.

artillery ammunition

Ammunition for cannon above 30 millimeters (1.181 inches) in caliber.

astronautics

The art and science of flying through space, or sending vehicles or missiles through space.

azon (azimuth only)

A glide bomb used in World War II, having movable control surfaces in the tail adjusted by radio signals to control the bomb in azimuth only. Hence, azon bomb, azon missile.

See: bomb, glide; azon

MIL-STD-444
6 February 1959

backblast

Rearward blast of gases to the rear of recoilless weapons, rocket launchers and rocket assisted takeoff units.

backblast area

Cone shaped area in rear of a recoilless weapon, rocket launcher or rocket assisted takeoff unit which is dangerous to personnel.

bag, cartridge

See: bag, propellant

bag, powder

See: bag, propellant

bag, propellant

Fabric container that holds the propelling charge for separate loading or semi-fixed ammunition. Usually made of cartridge cloth, a special fabric that is consumed without leaving a burning residue.

bagloading

The loading of propellant into bags to form propelling charges for semifixed or separate loading ammunition.

ball Ammo nomen

1. Indicates a bullet for general use as distinguished from bullets for special uses such as armor-piercing, incendiary, high explosive, etc. 2. Indicates a small arms propellant which is oblate spheroidal in shape, generally double base propellant.

BALL, CELLULOSE-NITRATE

An item to simulate gunfire, for training purposes.

BALL, CELLULOSE-NITRATE: powder filled.

ball ammunition

Nonarmor-piercing small arms ammunition in which the projectile is solid. It is intended for use against personnel, light material targets or for training purposes.

ballistic

Pertaining to ballistics (which see) or the motion of missiles.

ballistic coefficient

The numerical measure of the ability of a missile to overcome air resistance. It is dependent upon the mass, the diameter and the form factor (which see).

ballistic equivalence

Substitution of a single perforated grain with web of 1.23 to 1.28 times the web of a seven-perforated grain for preliminary interior ballistic calculations is sometimes desirable. Since the assumed grain gives about the same calculated results as the multiperforated grain, they are said to have ballistic equivalence.

ballistic limit

The minimum velocity at which a particular armor-piercing projectile is expected to consistently completely penetrate armor plate of given thickness and physical properties at a specified angle of obliquity. Because of the expense of firing tests and the impossibility of controlling striking velocity precisely, plus the existence of a zone of mixed results in which a projectile may completely penetrate or only partially penetrate under apparently identical conditions, statistical approaches are necessary, based upon limited firings. Certain approaches lead to approximation of the V_0 Point, that is, the velocity at which complete penetration and incomplete penetration are equally likely to occur. Other methods attempt to approximate the V_0 Point, that is, the maximum velocity at which no complete penetration will occur. Other methods attempt to approximate the V_{100} Point, that is, the minimum velocity at which all projectiles will completely penetrate.

ballistic missile

Specifically, any missile guided especially in the upward part of its trajectory,

MIL-STD-444
6 February 1959

but becoming a free falling body in the latter stages of its flight through the atmosphere. This missile contains guiding devices, such as present mechanisms, but it is distinguished from a guided missile in that it becomes a free falling body, subject to ballistic reactions as it descends through the atmosphere. Currently the term has a strong connotation of a missile designed to travel outside, or in the outer reaches of, the atmosphere before plunging toward its target. The German V-2 is considered a ballistic missile.

ballistic mortar

A heavy, short barrelled mortar, pendulum mounted, for determining the relative power of explosives. A small sample of a test explosive is placed in the detonation chamber and a projectile is located forward of the charge. Upon detonation the projectile is driven into a sand bank and the mortar swings through an arc. A marker records the maximum height to which the mortar rises on its arc. The weight of the test explosive required to produce the same rise as 10 grams of TNT is determined, and the rating is the percentage resulting from dividing 10 by the determined weight and multiplying by 100. This figure is called the TNT value.

ballistic pendulum

First reasonably accurate ballistic measuring instrument for determining projectile velocity; described by Benjamin Robins before the Royal Society of England in 1743. A bullet was fired into a wood pendulum, and its velocity determined by equating the expressions for the momentum of the bullet before striking the pendulum and the momentum of the pendulum after receiving the bullet.

ballistic table

Compilation of ballistic data from which trajectory elements such as angle of

fall, range to summit, time of flight, ordinate at any time, etc., can be obtained.

See also: firing table

ballistic wave

An audible disturbance caused by the compression of air ahead of a missile in flight.

ballistic weapon

Any missile weapon, as a bomb, rocket, projectile, or bullet, affected by ballistic conditions.

ballistics

Branch of applied mechanics which deals with the motion and behavior characteristics of missiles, that is, projectiles, bombs, rockets, guided missiles, etc., and of accompanying phenomena. It can be conveniently divided into three branches: *interior ballistics*, which deals with the motion of the projectile in the bore of the weapon; *exterior ballistics*, which deals with the motion of the projectile while in flight; and *terminal ballistics*, which is concerned with the effect and action of the projectile when it impacts or bursts.

ballistic of penetration

That part of terminal ballistics which treats of the motion of a projectile as it forces its way into targets of solid or semisolid substances such as earth, concrete, or steel.

See also: ballistics

ballistite

Often capitalized. A smokeless propellant containing nitrocellulose and nitroglycerin, used in some rocket, mortar, and small arms ammunition.

balloting

A tossing or bounding movement of a projectile within the limits of the bore diameter, while moving through the bore under the influence of the propellant gases. The projectile normally contacts the bore at the rotating band and

MIL-STD-444
6 February 1959

the bourrelet. Balloting results in change in the element of the bourrelet surface which contacts the bore.

band

Term sometimes used for rotating band.
 See: band, rotating

band, copper

Term sometimes used for rotating band.
 See: band, rotating.

BAND, DUMMY PROJECTILE

A replaceable band of bronze or other nonferrous metal provided at the front (bourrelet) and rear of a dummy separate loading projectile. The bands provide bearing surfaces contacting the cannon chamber, preventing wear and damage to the chamber. The bands are replaced when they become worn or damaged. Dummy projectiles are used in training personnel in the operations of loading and firing artillery.

BAND, DUMMY PROJECTILE:
 front (for 155-mm dummy projectile, M7)

BAND, DUMMY PROJECTILE:
 front (for 155-mm dummy projectile MK1)

BAND, DUMMY PROJECTILE:
 rear (for 155-mm dummy projectile, M7)

BAND, DUMMY PROJECTILE:
 rear (for 155-mm dummy projectile, MK1)

band, lug

Any of the bands on an aircraft rocket, which, with the appropriate fittings, attach the rocket to a rail-type or post-type aircraft rocket launcher.

See also: BAND, SUSPENSION, ROCKET

BAND, RETAINING, ROCKET MOTOR CLUSTER

A single or multisection item with fastening devices specifically designed to surround and hold in position two or more rocket motors to form a rocket motor cluster. May include provisions for mounting fins.

band, rotating

Soft metal band around projectile near its base. The rotating band centers the projectile and makes it fit tightly in the bore, thus preventing the escape of gas, and by engaging the rifling, gives projectile its spin.

band, rotating, preengraved

A rotating band fitted to a projectile and containing grooves to fit the rifling of the weapon. The grooves are formed as part of the manufacture of the projectile. This practice is followed in the manufacture of ammunition for recoilless weapons.

See also: band, rotating

band, rotating, welded overlay

A rotating band formed on a projectile by depositing molten metal by welding techniques followed by machining to the required contour. This avoids weakening the projectile wall as would occur in machining the band seat deep enough to maintain a swaged band, and also reduces the possibility of band loss.

See also: band, rotating

BAND, SUSPENSION, PARACHUTE FLARE

An adjustable ring, usually of steel, of size suitable for applying to a specified type of parachute flare. Provided with lugs for attachment to a standard bomb rack, to enable carrying and release in the same manner as a bomb.

MIL-STD-414
6 February 1959

BAND, SUSPENSION, PARACHUTE FLARE: M8A1

BAND, SUSPENSION, PARACHUTE FLARE: MARK 5 and MARK 8 A/C parachute flare.

BAND, SUSPENSION, ROCKET

A metallic item designed for mounting on a rocket to provide suspension from a rocket launcher.

BAND, SUSPENSION, ROCKET:
zero length (for 3.25-inch rocket motor, MARK 7 MOD 0)

band gap

Clearance between rotating band and band seat after seating of the band on the projectile.

See: band, rotating; band seat.

band groove

One of the channels cut into the rotating band of a projectile during the process of engraving. It is produced by the corresponding land in the rifling of the gun tube.

See: band land; engraving

band land

The raised portion on the rotating band of a projectile after engraving has taken place. It is produced by the rifling groove of the gun tube.

See: band groove; engraving

band seat

Machined groove around circumference of a projectile, into which the rotating band is seated.

BAND SET, 280 MILLIMETER DUMMY PROJECTILE

The required segmental parts of dummy projectile bands required to replace the front and rear bands of the PROJECTILE, 280 MILLIMETER DUMMY.

BAND SET, 280 MILLIMETER DUMMY PROJECTILE: T299E2

BANDOLEER

A closed loop of fabric, provided with

pockets designed to accommodate small arms ammunition. Used by individual soldier for carrying ammunition, by suspending one or more bandoleers over the shoulders.

BANDOLEER: M1 (for cartridge clip, 5 rd and 8 rd)

Bangalore torpedo

Metal tube or pipe that is packed with a high explosive charge. A Bangalore torpedo is chiefly used to clear a path through barbed wire or mine fields.

See: DEMOLITION KIT, BANGALORE TORPEDO

baratol

An explosive composed of barium nitrate and TNT. Less brisant than TNT, used as burster charge for colored marker projectiles.

barrier material

1. An inert material placed in an explosive charge to shape the detonation wave.
2. Packing material impervious to moisture-vapor or other liquids and gases, as laminated material and/or plastic bags used in jungle packing of ammunition.

See also: lens; wave shaper

BASE, DUMMY CARTRIDGE

The portion of a dummy cartridge which simulates the base and flange of a service type cartridge case. It is usually designed for easy replacement when required, because of damage sustained by repeated insertions in the cannon chamber.

BASE DUMMY CARTRIDGE: M7
(for 75-mm dummy cartridge)

BASE, DUMMY CARTRIDGE: M12
(for 90-mm dummy cartridge)

BASE, DUMMY CARTRIDGE: M12B2 (for 90-mm dummy cartridge)

BASE, DUMMY CARTRIDGE: M14, w/primer, percussion, M1B-1A1, dummy (for 105-mm howitzer dummy cartridge)

MIL-STD-444
6 February 1959

BASE, DUMMY CARTRIDGE: for cartridge M19 and M19B1 (for 75-mm howitzer dummy cartridge)

base cover

A metal plate, caulked, crimped or welded to the base of a projectile to prevent leakage of propellant gases into the charge. Not ordinarily used on small projectiles. Also called 'base plate'.

base ejection (BE)

A descriptive term applied to projectiles in which provision is made for ejecting the contents through the base by internal force adequate to remove the base plug and contents simultaneously. Usually the force is applied by an expelling charge, which is functioned by a fuze. Various types of special purpose projectiles such as illuminating, leaflet and some smoke projectiles, are of the base ejection type.

base ignition (BI)

A descriptive term applied to a signal or other munition which ignites from the base with subsequent emission of smoke or chemical.

base of projectile

The rearmost section of a projectile. For projectiles having a rotating band it is the section located to the rear thereof.

base plate

See: base cover

batch

A quantity of material which has been subjected to some unit chemical process or physical mixing process which is intended to make the final product substantially uniform. For example, the quantity of explosive melted in a melt kettle at one time.

BATTERY COMPARTMENT, TORPEDO

A hollow cylindrical item designed to house the propulsion battery of a torpedo.

BATTERY COMPARTMENT, TOR-

PEDO: for torpedo, MARK 23
 MODS 2 and 3

BEAM, HOISTING, ROCKET

An item of I-beam configuration with brackets for attaching to rocket and an eye for lifting by crane or hoist.

belt, ammunition

1. Fabric or metal band with loops for carrying cartridges that are fed from it into a machine gun or other automatic weapon. 2. Belt with loops or pockets for carrying cartridges or clips of cartridges. In this meaning, usually called 'cartridge belt.'

belt, cartridge

Ammunition belt with loops or pockets for carrying cartridges or clips of cartridges.

belt, feed

See: belt, ammunition (sense 1)

belt, link

Ammunition feed belt for an automatic weapon in which metal links connect the cartridges and with them form the belt.

See also: **LINK, CARTRIDGE**

belted ammunition

Ammunition assembled in metal links or fabric belts.

bifurcation

See: jet breakup

binary explosive

High explosive composed of a mixture of two high explosives. Purpose of the mixture is to secure an explosive which is superior to its components in regard to sensitivity, fragmentation, blast or loadability.

biological agent

Viruses, any of certain classifications of micro-organisms and toxic substances derived from living organisms used to produce death or disease in man, animals and growing plants.

MIL-STD-444
6 February 1959

bipropellant

A rocket engine propellant consisting of two unmixed chemicals fed to the combustion chamber separately.

See also: monopropellant; multipropellant

biting angle

Smallest angle of impact at which a projectile will penetrate or pierce armor.

black powder (BP)

A low explosive consisting of an intimate mixture of potassium or sodium nitrate, charcoal and sulphur. It is easily ignited and is friction sensitive, but not of the same sensitivity as primer mixes and is not intended to be initiated by friction in ammunition items. Formerly extensively used as a military propellant, but now its military use is almost exclusively in propellant igniters and primers, in fuzes to give short delay, in powder train time fuzes, in blank ammunition, and as spotting charges in practice ammunition.

blank Ammo nomen

Indicates ammunition which contains no projectile but which does contain a charge of low explosive, such as black powder, to produce a noise.

blast

Specifically, the brief and rapid movement of air or other fluid away from a center of outward pressure, as in an explosion; the pressure accompanying this movement. This term is also commonly used as the equivalent of 'explosion,' but the two terms may be distinguished.

blast effect

Violent air movements and pressure changes and the destruction or damage resulting therefrom, generally caused by an explosion on or above the surface of the earth. Blast effect may be contrasted with the mining effect (which see) of an explosion beneath the surface.

blast pressure

The impact pressure of the air set in motion by an explosion.

blast wave

The air set in motion by an explosion.

blast wind

The air set in motion by an explosion.

blasting cap

See: CAP, BLASTING.

blasting fuse

See: FUSE, BLASTING, TIME.

BLASTING MACHINE

An item, key or hand-operated, which is used to generate an electrical impulse to initiate an explosive charge.

BLASTING MACHINE: 30-cap.

blasting mat

See: MAT, BLASTING.

blending

The process of mixing explosive materials, such as propellant grains, so as to obtain charges of uniform characteristics.

blister gas

Any of several war gases which produce burning, inflammation, or destruction of tissue, either externally or internally. Also called "blistering gas." Such gases were formerly listed as 'vesicants.' Examples: CHEMICAL AGENT, LEWISITE; CHEMICAL AGENT, MUSTARD, DISTILLED.

block

One or more explosive units used for demolition purposes.

See: CHARGE, DEMOLITION.

blood and nerve poison

Poison, especially war gas, which affects the blood or nervous system. Former nomenclature lists this as 'systemic poison.' Now classified separately as blood gas and nerve gas.

See: blood gas; nerve gas.

ML-STD-444
6 February 1959

blood gas

War gas which, when absorbed into the body, primarily by breathing, affects body functions through action on the oxygen-carrying properties of the blood and interferes with normal transfer of oxygen from lungs via the blood to body tissues. Examples: **CHEMICAL AGENT, HYDROGEN CYANIDE**; arsine; **CHEMICAL AGENT, CYANOGEN CHLORIDE**.

blow

(Sometimes with 'up'). Explosion.

boattail

1. Having a tapered-in base; boat-tailed.
2. The base of a projectile when shaped like the frustum of a cone.

See: base of projectile.

body

1. Principal part of any object.
2. That part of a fuze that houses the working parts.
3. The cylindrical portion of a projectile between the front bourrelet and the rotating band.

BODY, PRACTICE HAND GRENADE

An inert metal part, simulating in contour and weight the body of a service hand grenade. The body is designed to accommodate an igniter type of **FUZE, HAND GRENADE** and a small black powder charge to give indication of functioning. Designed for repeated use in training exercises by replacing fuze and black powder charge.

BODY, PRACTICE HAND GRENADE: M21 and MK2

bomb

1. In a broad sense, an explosive or other lethal agent together with its container or holder, which is planted or thrown by hand, dropped from an aircraft, or projected by some other slow-speed device (as by lobbing it from a mortar), and used to destroy, damage, injure, or kill.
2. Anything similar to this object in

appearance, operation, or effect, as a leaflet bomb, smoke bomb, photoflash bomb, a bomb-like container or chamber, etc. 3. In specific senses: a. An aerial bomb; b. A nuclear bomb. Often called 'the bomb.' In sense 1, 'bomb' includes grenades, aerial bombs, infernal machines, mortar projectiles, etc., but does not include cannon projectiles, torpedoes, aircraft rockets, or mines. Guided missiles, ballistic missiles, explosive robot planes and similar devices are, however, sometimes popularly referred to as 'bombs' or 'flying bombs.' In sense 3-a, the word 'bomb' is often modified by a designating attributive, as in armor-piercing bomb, chemical bomb, conventional bomb, etc. The various types of bombs are separately listed and defined. The term is used in this publication in sense 3-a unless otherwise indicated.

See: bomb, aerial.

bomb, aerial

A bomb designed to be dropped from an aircraft, carrying either a high explosive or another agent, and normally detonated on contact or by a timing device. Usually shortened to merely 'bomb.' Examples: **BOMB, FRAGMENTATION**; **BOMB, GENERAL PURPOSE**.

bomb, antitank

A bomb designed or intended to be used against tanks or other armored vehicles.

BOMB, ARMOR-PIERCING

A missile, designed for dropping from aircraft, which is capable of penetrating the heaviest deck armor without breaking up. Also effective against reinforced concrete structures. Usually contains an explosive charge of Explosive D, weighing about 15 percent of the total weight of the bomb.

BOMB, ARMOR-PIERCING: 1.600-lb, Explosive D, AN-MARK 1 MOD 1

MIL-STD-444
6 February 1959

bomb, atomic (A-bomb)

Meaning formerly limited to a bomb in which the explosive consists of a nuclear-fissionable, radioactive material, as uranium 235 or plutonium 239. Now accepted as synonymous with the term bomb, nuclear (which see).

bomb, blast

See: bomb, light case.

bomb, butterfly

A small fragmentation or antipersonnel bomb equipped with folding wings which rotate and arm the fuze as the bomb descends. Designed to be dropped in clusters, they are frequently fitted with antidisturbance or delay fuzes.

bomb, buzz

The V-1 robot plane of World War II, so named for the buzzlike noise of its pulse-jet engine. *Colloquial*.

See also: bomb, flying.

bomb, chemical agent

A bomb having a chemical agent for its main charge. Examples: BOMB, GAS; BOMB, INCENDIARY; BOMB, SMOKE.

bomb, cobalt

A theoretical atomic or hydrogen bomb encased in a cobalt, the cobalt of which would be transformed into deadly radioactive dust upon detonation.

bomb, conventional

Any nonatomic bomb designed primarily for explosive effect, as distinguished from a chemical bomb, leaflet bomb, incendiary bomb, or other special purpose bomb.

bomb, deep penetration

A bomb designed for deep penetration of the target before exploding.

bomb, delayed action

A bomb having a delay fuze. The delay action may vary from a fraction of a second to several days after impact, de-

pending on the type of fuzing. Bombs or other projectiles having short delay fuzes are used to penetrate targets before exploding; bombs having medium delay fuzes are used for the safety of the plane in low altitude bombing, so that the plane may move away from the point of impact before detonation; bombs having long delay fuzes are normally used to deny territory to the enemy for a period of time, or to allow successive waves of planes to drop their bombs before any of them detonate.

Cf: bomb, time

bomb, demolition

See: BOMB, GENERAL PURPOSE.

BOMB, DEPTH (DB)

An explosive item designed to be dropped from an aircraft for use against underwater targets. When empty or inert loaded it may be used for training purposes.

Cf: CHARGE, DEPTH

BOMB, DEPTH: 350-lb, HBX, AN-MARK 54 MOD 1

bomb, drill

Any uncharged aerial bomb designed or adapted to train ground crews in assembling, fuzing, or other handling of bombs.

bomb, dynamite

An aerial bomb or other explosive device prepared from dynamite sticks.

bomb, explosive

Any bomb having an explosive as its main charge, as distinguished from a chemical bomb, or the like.

BOMB, FIRE

An item designed to be dropped from an aircraft to destroy or reduce the utility of a target by the effects of combustion. It is designed so as to contain a thickened fuel which spreads on impact to burn or envelope in flames personnel

MIL-STD-444
6 February 1959

and material targets, such as vehicles and tents.

BOMB, FIRE: 750-lb, M116A2

BOMB, FIRE: 750-lb, MARK 77
MOD 0

bomb, fission

A bomb that depends upon nuclear fission for release of energy.

See: bomb, atomic

bolm, flame

See: **BOMB, FIRE**

bomb, flash

See: **BOMB, PHOTOFLASH**

bomb, flying

Popularly, any explosive robot plane, guided missile, or the like; specifically, the German V-1 explosive robot plane of World War II.

BOMB, FRAGMENTATION

An item designed to be dropped from aircraft to produce many small, high velocity fragments when detonated. Effective against personnel and light targets such as automotive materiel and aircraft on the ground.

BOMB, FRAGMENTATION: 4-lb,
M83, w/bomb fuze, M129

BOMB, FRAGMENTATION: 90-lb,
COMP B, M82

BOMB, FRAGMENTATION: 220-lb,
COMP B, AN-M88

bomb, fusion

A bomb that depends upon nuclear fusion for release of energy.

See: bomb, hydrogen.

BOMB, GAS

An item which contains a chemical agent (war gas) and designed to be dropped from an aircraft.

BOMB, GAS: 115-lb, persistent H,
M70

BOMB, GENERAL PURPOSE

An item designed to be dropped from an

aircraft to destroy or reduce the utility of a target by explosive effect. The bomb is designed to be used against both material targets and personnel. When empty, or inert loaded, the bomb may be used for training purposes.

BOMB, GENERAL PURPOSE: 100-lb, amatol, M30, w/fin

BOMB, GENERAL PURPOSE:
1000-lb, COMP B, AN-M65

BOMB, GENERAL PURPOSE:
10,000-lb, TNT, T56 series,
w/plumbing

BOMB, GENERAL PURPOSE:
10,000-lb, tritonal, T56 series,
w/o plumbing

bomb, glide

A bomb, fitted with airfoils to provide lift, carried and released in the direction of a target by an airplane. A glide bomb may be remotely controlled. Certain glide bombs, as the Henschel 293, are initially propelled by a rocket engine; other glide bombs depend for thrust entirely upon the force of gravity.

See also: azon, razon.

bomb, guided

An aerial bomb guided, during its drop, in range or azimuth, or in both.

bomb, heavy case

Any high explosive bomb in which the weight of the container is relatively large in proportion to the weight of the bursting charge.

bomb, high capacity

A general purpose bomb designed to produce maximum blast, with a charge weight ratio of more than 70 percent. *British.* Also called 'blast bomb' and 'light case bomb'.

bomb, high explosive

Any aerial bomb charged with a high explosive; specifically, any such bomb chiefly dependent upon only its explosion, or blast effect, to create damage. 'High explosive bomb,' in its broader

MIL-STD-444
6 February 1959

sense, is a generic term encompassing armor-piercing bombs, general purpose bombs, light case bombs, and semi-armor-piercing bombs. A high explosive bomb is distinguished from a chemical bomb or an atomic bomb, and in its specific sense, from a fragmentation bomb.

bomb, hydrogen

A fusion bomb in which an isotope of hydrogen is made to fuse under intense heat, with a resultant loss of weight and release of energy. Also called the 'H-bomb.'

Cf: bomb, atomic; bomb, nuclear.

BOMB, INCENDIARY

An item designed to be dropped from an aircraft to destroy or reduce the utility of a target by the effects of combustion. It contains an incendiary mixture and is designed to penetrate and destroy relatively noncombustible targets such as buildings and fortifications. When empty or inert loaded it may be used for training purposes.

BOMB, INCENDIARY: 4-lb, TH3, AN-M50A3

BOMB, INCENDIARY, INSTRUCTIONAL

A cylindrical metallic item filled with an incendiary mixture, which when ignited is used for instructing personnel in extinguishing fires.

BOMB, INCENDIARY, INSTRUCTIONAL: TH3, M2

BOMB, LEAFLET

A light case bomb (made of sheet metal or laminated plastic) designed to be filled with leaflets, provided with fuze to cause opening before impact, and released from an aircraft, for distribution of the leaflets.

BOMB, LEAFLET: 500-lb, empty, M105A1 (bomb cluster adapter, M16A1, modified)

bomb, light case

A type of general purpose bomb having a thin, light, metal casing, giving a high charge weight ratio and designed to accomplish damage primarily by blast. Also called a 'blast bomb.' A light case bomb usually contains a charge of from 70 to 80 percent of the total weight.

See also: BOMB, GENERAL PURPOSE

bomb, magnesium

1. An incendiary bomb in which the burning agent is magnesium.
2. A magnesium flare for use from aircraft.

See also: BOMB, INCENDIARY; flare, magnesium.

bomb, magnesium flare

A magnesium flare for use from aircraft. See also: FLARE, AIRCRAFT; flare, magnesium

bomb, miniature practice

Miniature bomb, light and inexpensive, used for training of bombers. Fitted with blank cartridge to produce smoke puff upon impact.

See: BOMB, PRACTICE

bomb, napalm

A BOMB, FIRE filled with napalm, a thickened petroleum oil. The napalm bomb is primarily an antipersonnel weapon and is often distinguished from the BOMB, INCENDIARY, which is used primarily against installations or materiel.

bomb, nuclear

A bomb that releases explosive energy either through nuclear fission or nuclear fusion. This term is applied either to the atomic bomb or the hydrogen bomb.

See: bomb, atomic; bomb, hydrogen

bomb, oil

See: BOMB, FIRE; bomb, napalm

bomb, open

In intelligence usage, and undisguised or

MIL-STD-444
6 February 1959

unconcealed sabotage explosive device, distinguished especially from an infernal machine, which see.

bomb, parachute fragmentation

A fragmentation bomb adapted for drop by parachute. Parachute fragmentation bombs are used in low level bombing to give the bombing plane time to escape damage from the bomb explosion, and to cause a bomb attitude which produces effective fragment distribution.

See also: BOMB, FRAGMENTATION

bomb, petrol

See: BOMB, FIRE; bomb, napalm

bomb, phosphorus

A BOMB, SMOKE filled with phosphorus, especially white phosphorus.

BOMB, PHOTOFLASH

A missile for dropping from aircraft, containing photoflash mixture with means for providing for functioning at a predetermined distance above the ground, to produce a brilliant light of short duration for photographic purposes.

BOMB, PHOTOFLASH: 100-lb, AN-M46

BOMB, PHOTOFLASH: 150-lb, M120A1

BOMB, PRACTICE

An item designed to be dropped from an aircraft for target practice. It is constructed to simulate service bombs but differs from these in that it can only be used for target practice.

BOMB, PRACTICE: 3-lb, miniature, AN-MARK 23 MOD 1

BOMB, PRACTICE: 25-lb, 76 MOD O

BOMB, PRACTICE: 250-lb, M124

BOMB, PRACTICE: 500-lb, empty, WSF, MARK 87 MOD O

bomb, radio guided

A bomb, such as the azon, guided by radio control from outside the missile.

See: azon; bomb, glide

bomb, robot

An explosive carrying winged missile or rocket, such as the German V-1 or flying bomb, normally launched from the surface and directed in flight toward its target by an automatic pilot and other automatic devices.

bomb, rocket

An aerial bomb equipped with a rocket to give it added velocity and penetrating power after being dropped from an aircraft.

bomb, sabotage

An explosive device used by a saboteur to damage, destroy, or injure property or persons.

BOMB, SEMIARMOR-PIERCING

A missile, designed for dropping from aircraft, which is capable of penetrating lightly armored ships' hulls and reinforced concrete. Usually contains an explosive charge weighing about 30 percent of the total weight of the bomb.

BOMB, SEMIARMOR-PIERCING:

500-lb, amatol, AN-M58A1

BOMB, SEMIARMOR-PIERCING:

1000-lb, TNT, AN-M59

BOMB, SEMIARMOR-PIERCING:

25,000-lb, picratol, T28E4

bomb, service

Any bomb, regardless of type, for use against an enemy. Service bombs are distinguished from practice bombs and drill bombs. Cf: bomb, drill; BOMB, PRACTICE

BOMB, SMOKE

A missile, designed to be dropped from aircraft, which contains a filler of smoke producing material with provision for an explosive charge to disperse the filler, and a fuze for functioning.

BOMB, SMOKE: 100-lb, PWP, AN-M47A4

MIL-STD-444
6 February 1959

BOMB, TARGET IDENTIFICATION

A missile designed to be dropped from aircraft, which, upon impact, produces a relatively prolonged and conspicuous effect, such as a bright colored light, which provides a means of locating and identifying the target by other aircraft.

BOMB, TARGET IDENTIFICATION: smoke, MARK 72 MOD 0

bomb, time

An aerial bomb or other explosive device that may be set to explode some time after being dropped or planted. Short delay fuzed aerial bombs are not usually classified as time bombs.

See: bomb, delayed action

bomb, trigger

Term sometimes applied to a bomb that detonates upon impact, that is, equipped with an impact fuze.

bomb, unexploded (UXB)

Bomb which fails to explode on impact or immediately thereafter. It is considered to be a delayed action bomb until the contrary is proved.

bomb blast

The blast (which see) that results from the explosion of a bomb.

bomb calorimeter

See: closed bomb

bomb complete round

A complete aerial bomb, including all of the components, such as arming wires, fuzes, etc., necessary to attach the bomb to a release mechanism and to make the bomb function after release.

See also: complete round

bomb gear

A general term applied to the bomb rack and other devices for suspending, carrying and dropping bombs.

bomb nose

The foremost section of a bomb.

bomb rack

See: SHACKLE, BOMB, AIRCRAFT

bomb shackle

See: SHACKLE, BOMB, AIRCRAFT

bombing table

A table giving the bombsight settings required for dropping a particular type of bomb at various speeds and altitudes.

booby mine

Land mine used as a booby trap, which see.

booby trap

An explosive charge such as a mine, grenade, demolition block, shell or bulk explosive fitted with a detonator and a firing device, all usually concealed and set to explode when an unsuspecting person touches off its firing mechanism as by stepping upon, lifting or moving a harmless looking object.

booster

1. Assembly of metal parts and explosive charge provided to augment the explosive component of a fuze, to cause detonation of the main explosive charge of the munition. May be an integral part of the fuze. The explosive in the booster must be sufficiently sensitive to be actuated by the small explosive elements in a fuze, and powerful enough to cause detonation of the main explosive filling.
2. Auxiliary propulsion system, employed in the early launching phase of a missile, in addition to the principal propelling means. It may be released from the missile when its impulse has been delivered.

BOOSTER, ANTITANK MINE

An item designed to be filled with explosive material to relay and amplify the detonation wave which activates the main charge of an antitank mine. When empty it may be used for training purposes.

BOOSTER, ANTITANK MINE:
 M120 (w/retainer)

MIL-STD-444
6 February 1959

booster, auxiliary

An additional booster used with a large bursting charge or for special applications.

See: BOOSTER, AUXILIARY, BOMB;
BOOSTER, AUXILIARY, ROCKET

BOOSTER, AUXILIARY, BOMB

A cylindrical metal container designed to be filled with explosive material to relay and amplify the detonation wave and insure proper detonation of the main charge of a bomb. When empty or inert loaded it may be used for training purposes.

BOOSTER, AUXILIARY, BOMB:
MARK 1 MOD 0 (for depth bomb,
MARK 54 MOD 0)

BOOSTER, AUXILIARY, BOMB:
MARK 4 MOD 0

BOOSTER, AUXILIARY, ROCKET

A cylindrical metal container designed to be filled with explosive material to relay and amplify the detonation wave and insure proper detonation of the main charge of a rocket. When empty or inert loaded it may be used for training purposes.

BOOSTER, AUXILIARY, ROCKET:
MARK 2 MOD 0

booster, delay arming

A booster incorporating as a safety feature a mechanism which prevents arming until a desired travel or period of time has elapsed.

BOOSTER, DEPTH CHARGE

A cylindrical item designed to contain an explosive to relay and amplify the detonation wave to insure proper detonation of the main explosive charge of a depth charge. When empty or inert loaded it may be used for training purposes.

BOOSTER, DEPTH CHARGE: TNT,
MARK 14 MOD 0

BOOSTER, TORPEDO

A cylindrical metal container designed to be filled with an explosive material to relay and amplify the detonation wave to insure proper detonation of the main charge of a torpedo. When empty or inert loaded it may be used for training purposes.

BOOSTER, TORPEDO: MARK 9
MOD 0

BOOSTER, UNDERWATER MINE

A cylindrical item containing an explosive for the purpose of amplifying the detonation wave to insure proper detonation of the main explosive charge of an underwater mine. When empty or inert loaded it may be used for training purposes.

BOOSTER, UNDERWATER MINE:
TNT, MARK 25 MOD 0

BOOSTER, WARHEAD, GUIDED MISSILE

A major explosive element in the explosive train between a FUZE, GUIDED MISSILE and a WARHEAD, GUIDED MISSILE used to amplify the detonation wave.

BOOSTER, WARHEAD, GUIDED
MISSILE: grain loaded, Terrier,
MARK 4 MOD 0

BOOSTER KIT, LEAFLET BOMB

A group of items, including a booster, booster adapter, and a length of detonating cord, designed to open a leaflet bomb.

booster well

A hollow space in the main explosive charge of an item of ammunition, into which the booster fits.

bore

The interior of a gun barrel or tube.

bore diameter

The interior diameter or caliber (which see) of a gun or launching tube.

MIL-STD-444
6 February 1959

bore safety

See: fuze, bore safe; fuze safety

bourrelet

The cylindrical surface of a projectile on which the projectile bears while in the bore of the weapon. Conventionally the bourrelet is located between the ogive and the body of the projectile and has a slightly larger diameter than the body. In some cases the bourrelet extends the full length of the body. In some projectile designs the conventional bourrelet becomes the front bourrelet, a rear bourrelet being provided behind the rotating band. In other designs a middle bourrelet is provided just forward of the rotating band.

bourrelet, front

See: bourrelet

bourrelet, middle

See: bourrelet

bourrelet, rear

See: bourrelet

BOX, CAP

A box, forming part of a demolition kit, designed to house the blasting caps provided with the kit.

See: demolition kit

BOX, CAP: 10-cap capacity, infantry

BOX, CAP: 100-cap capacity, engineer

BRACE KIT, FIN ASSEMBLY, BOMB

A group of items designed to reinforce bomb fin assemblies.

BRACE KIT, FIN ASSEMBLY, BOMB: M41

BRACE KIT, FIN ASSEMBLY, BOMB: (for 1,000-lb bomb, AN-M65A1, fin assemblies)

BRACE KIT, FIRE BOMB

A group of items designed to reinforce sway-brace areas of fire bombs.

breech

The rear part of the bore of a gun, especially the opening that permits the projectile to be inserted at the rear of the bore.

breech flash

Flames and gas flash occurring at breech of weapon.

breeching space

The linear distance between the face of the fully closed bolt and the apex of the cone formed by a prolongation of the shoulder taper. This distance, however, is sometimes measured from a datum diameter on the first shoulder.

brennschluss

(German, 'combustion termination.') Termination of combustion in a rocket motor or rocket engine, i.e., when the fuel has been expended or shut off.

brisance

The ability of an explosive to shatter the medium which confines it; the shattering effect shown by an explosive. (adj. = 'brisant')

bromobenzylcyanide (BBC)

A tear gas, used for training and riot control.

bullet

The projectile fired, or intended to be fired, from a small arm.

BULLET, CALIBER .30

A projectile suitable for use in a caliber .30 weapon.

See: CARTRIDGE, CALIBER .30 (as modified)

BULLET, CALIBER .30: M2, 152-grain, flat base

BULLET, CALIBER .45

A projectile suitable for use in a caliber .45 weapon.

See: CARTRIDGE, CALIBER .45 (as

MIL-STD-444
6 February 1959

modified)

BULLET, CALIBER .45: M1911, 234-
 grain, pistol

bullet, incendiary

A bullet having an incendiary charge, used especially against flammable targets.

bullet pull

The force required to pull a projectile from its cartridge case. The bullet pull is used as a measure of the uniformity and efficiency of the crimp holding the projectile in the case.

bullet splash

Dispersion of finely divided or melted metal produced upon impact of a projectile with armor plate or other hard objects.

burned velocity

See: burnt velocity

burning train

See: igniter train

burnout velocity

See: burnt velocity

burnt velocity

The velocity of a rocket, rocket powered aircraft, or rocket powered projectile when fuel combustion terminates; burned velocity; burnout velocity.

burst

The explosion of a projectile, bomb, or similar munition.

burster

An explosive element used in chemical ammunition (which see) to open the container and disperse the contents.

BURSTER, BOMB

A cylindrical container filled with explosive material designed to spread and/or detonate the filler of a bomb case.

BURSTER, BOMB: M26A1

bursting charge explosive train

See: explosive train

cable, explosive

See: CORD, DETONATING

CABLE ASSEMBLY, POWER, ELECTRICAL

A definite continuous length of CABLE, POWER, ELECTRICAL having one or both ends processed and/or terminated in fittings which provide for connections to another item. May have branches or forks.

CABLE ASSEMBLY, POWER, ELECTRICAL: CA-590, for conversion kit, MARK 12 MOD 0, for underwater mines, MARK 13 MODS 5 and 6

CABLE ASSEMBLY, POWER, ELECTRICAL: CA-746, for drill mine conversion kit, MARK 1 MODS 0 and 1, for underwater mine, MARK 25 MOD 0

CABLE ASSEMBLY, POWER, ELECTRICAL: CA-814, for test set, MARK 127 MOD 0

CABLE ASSEMBLY, SPECIAL PURPOSE, ELECTRICAL

A definite continuous length of CABLE, SPECIAL PURPOSE, ELECTRICAL having one or more ends processed or terminated in fittings which provide for connection to other items. Excludes items having branches or forks. Excludes LEAD, TEST.

CABLE ASSEMBLY, SPECIAL PURPOSE, ELECTRICAL MARK 11 MOD 2, for rocket

CABLE ASSEMBLY, SPECIAL PURPOSE, ELECTRICAL: T8, fuze control, for GP bomb. T54

CABLE ASSEMBLY, SPECIAL PURPOSE, ELECTRICAL: for 5-inch rocket motor

cable cutter, powder actuated

See: CUTTER, POWDER ACTUATED

MIL-STD-444
6 February 1959

caliber (cal)

The diameter of a projectile or the diameter of the bore of a gun or launching tube. In rifled arms, the caliber is measured from the surface of one land to the surface of the land directly opposite. Often the caliber designation is based on a nominal diameter and represents a close approximation rather than an exact measurement. Caliber is usually expressed in millimeters or inches. Examples: A 105-millimeter howitzer and a 6-inch gun have calibers of 105 millimeters and 6 inches, respectively. When expressed as a decimal without an indication of the unit, the unit (inches) is understood. For example, a caliber .30 cartridge has a bullet which is approximately .30 inches in diameter. The caliber (bore diameter) of a weapon is also used as a unit for indicating the length of its bore, measured from the breech face of the tube to the muzzle. For example, a 6-inch 50-caliber gun would have a caliber (bore diameter) of 6 inches and a tube length of 50 calibers or 25 feet. Note: In designating the bore of a shotgun or the size of its cartridge, the *gauge* (which see), rather than the caliber, is customarily used.

candle

In pyrotechnics, that portion of the item which, by its progressive combustion, produces smoke or light over a comparatively long period of time.

canister (cnstr)

1. A special short range antipersonnel projectile designed to be fired from rifled guns. It consists of a casing of light sheet metal, which is loaded with preformed submissiles such as small steel balls. The casing is designed so that the rotation causes it to open at, or just beyond the muzzle of the gun. The submissiles are then dispersed in a cone, giving effective coverage of the area immediately in front of the gun. See sepa-

rate entries CARTRIDGE, 57 MILLIMETER CANISTER, etc. 2. In certain special type projectiles, the subassembly or inner container in which the payload is contained, such as CANISTER, SMOKE.

CANISTER, SMOKE

A chemical fill encased in ogival or cylindrical containers for loading into projectiles of chemical shells. When ignited a colored or white smoke is produced.

CANISTER, SMOKE: 5-inch projectile, WP, M5

CANISTER, SMOKE: 105-mm projectile, HC, M1

CANISTER, SMOKE: 155-mm projectile, green, M3

cannelure

1. A groove in a bullet for containing a lubricant, or into which the cartridge case is crimped; a groove in a cartridge case providing a purchase for the extractor; extractor groove. 2. Ringlike groove for locking the jacket of an armor-piercing bullet to the core. 3. Ringlike groove in the rotating band of a gun projectile to lessen the resistance offered to the gun rifling and to prevent fringing; fringing groove.

See also: crimping groove; extractor groove; fringing groove

cannon

A complete assembly, consisting of a tube and a breech mechanism, firing mechanism or base cap, which is a component of a gun, howitzer or mortar. May also include muzzle appendages.

See also: gun

CAP, ANTIPERSONNEL MINE

A metal item designed to close the opening of the tube which holds the projectile and spotting charge in an antipersonnel practice mine.

CAP, ANTIPERSONNEL MINE: practice, M8

MIL-STD-444
6 February 1959

cap, armor-piercing

A cap fitted over the nose of an armor-piercing projectile and fastened thereto. The cap is usually of forged alloy steel, decrementally hardened so as to have a very hard face and a tough and relatively soft core in contact with the ogival surface of the point of the projectile. Its function is to improve the penetrative quality of the projectile when used against face hardened armor. The use of the cap also decreases the biting angle (which see).

cap, ballistic

See: ogive, false

CAP, BLASTING

A small tube, usually copper or aluminum, closed at one end and loaded with a charge or charges of high explosives, at least one of which is capable of detonating from the spit or sparks from the safety fuse. Electric blasting caps are blasting caps provided with a means for firing by an electric current.

CAP, BLASTING: commercial, electric, No. 6, instantaneous (long lead, 50-ft through 100-ft)

CAP, BLASTING: electric, No. 8, 1st delay

CAP, BLASTING: electric, No. 8, 3rd delay

CAP, BLASTING: nonelectric, No. 6, instantaneous

CAP, BLASTING: special, electric (type II (J2 PETN))

CAP, BLASTING: special, nonelectric (type I (J1 PETN))

cap, buffer

A light cap of ductile metal, placed over, and in contact with, an armor-piercing cap in some designs of armor-piercing ammunition. The buffer cap is useful in preventing skirting (decapping) armor from prematurely removing the armor-piercing cap.

See also: cap, armor-piercing

CAP, NOSE, TORPEDO

An item designed to decrease wind resistance when a torpedo is mounted externally on an aircraft.

CAP, NOSE, TORPEDO: MARK 1
 MOD 1

cap, waterproof protective

See: cover, fuze

carrot

Popular term for slug (which see) formed by the liner as a result of detonation of shaped charge ammunition.

cartridge (ctg)

1. An assemblage of the components required to function a weapon once; i.e., ammunition for a gun which contains in a unit assembly all of the components required to function a gun once, and which is loaded into the gun in one operation. (The term was formerly restricted to ammunition for small arms, such as caliber .22 and caliber .30 rifles, with various terms applied to artillery weapon assemblages, such as complete round and fixed shell. However, the term 'cartridge,' with suitable modifiers, is now applied to all ammunition meeting the conditions stated.) 2. An explosive item designed to produce gaseous products of combustion under pressure, for performing a mechanical operation other than the common one of expelling a projectile. The item is usually similar to a blank cartridge of small caliber, and the pressure is utilized by a device known as a cartridge actuated device (which see).

CARTRIDGE, AIRCRAFT CANOPY REMOVER

An explosive item designed to actuate a REMOVER, AIRCRAFT CANOPY.

See: cartridge (sense 2)

CARTRIDGE, AIRCRAFT CANOPY
 REMOVER: M29A2

MIL-STD-444
6 February 1959

CARTRIDGE, AIRCRAFT EJECTION SEAT CATAPULT

An explosive item designed to actuate a CATAPULT, AIRCRAFT EJECTION SEAT.

See also cartridge (sense 2)

CARTRIDGE, AIRCRAFT EJECTION SEAT CATAPULT: M28A1

CARTRIDGE, AIRCRAFT EJECTION SEAT CATAPULT: M57

CARTRIDGE, AIRCRAFT FIRE EXTINGUISHER

An item consisting of an electric squib(s), a small caliber projectile, and a mounting device. The item is designed for insertion into a liquid fire extinguisher to provide a means for activation of the extinguisher by remote control.

See also: cartridge (sense 2)

CARTRIDGE, AIRCRAFT FIRE EXTINGUISHER: liquid agent, dual squib WK840644

cartridge, ball

A cartridge in which the projectile is of the ball type.

See also: ball; ball ammunition; cartridge (sense 1)

cartridge, blank

A cartridge, sense 1 (which see), consisting of cartridge case, primer, and propellant or black powder, but no projectile. Blank ammunition is used in training, in signaling, and in firing salutes.

CARTRIDGE, BOMB EJECTION

An explosive item used to eject a bomb(s) from a bomb cluster or bomb station.

See: cartridge (sense 2); cluster

CARTRIDGE, BOMB EJECTION: M2

CARTRIDGE, BOMB EJECTION: MARK 1 MOD 0

CARTRIDGE, BUTTERFLY VALVE

A cartridge used to close the butterfly

valve on a runaway shot preventer system of a steam catapult.

CARTRIDGE, BUTTERFLY VALVE: MARK 1 MOD 0

CARTRIDGE, CALIBER .22

A rimfire cartridge designed to function in caliber .22 weapons.

See also: cartridge (sense 1); rimfire

CARTRIDGE, CALIBER .22: ball, long rifle, M24

CARTRIDGE, CALIBER .22: ball, short, high velocity

CARTRIDGE, CALIBER .22 BLANK

A cartridge, blank (which see) designed for use with caliber .22 rimfire weapons.

CARTRIDGE, CALIBER .22 BLANK: BP, short

CARTRIDGE, CALIBER .22 HORNET

A center-fire cartridge suitable for use in Hornet type rifles, specifically the Caliber .22 Hornet Rifle M4 and Caliber .22/.410-gage Rifle-Shotgun M6.

See: cartridge (sense 1)

CARTRIDGE, CALIBER .22 HORNET: ball (full jacketed bullet) M39

CARTRIDGE, CALIBER .22 HORNET: ball, soft point

CARTRIDGE, CALIBER .30

A cartridge (which see) designed to function in caliber .30 rifles and machine guns.

CARTRIDGE, CALIBER .30: armor-piercing-incendiary, M14

CARTRIDGE, CALIBER .30: ball, M2

CARTRIDGE, CALIBER .30: ball, frangible, M22

CARTRIDGE, CALIBER .30: test, high pressure, M1

CARTRIDGE, CALIBER .30: tracer, M1

MIL-STD-444

6 February 1959

CARTRIDGE, CALIBER .30 BLANK

A cartridge blank (which see) designed for use with caliber .30 rifles and machine guns.

CARTRIDGE, CALIBER .30 BLANK: M1909

CARTRIDGE, CALIBER .30 CARBINE

Cartridge (which see) designed to function in caliber .30 carbines.

CARTRIDGE, CALIBER .30 CARBINE: ball, M1

CARTRIDGE, CALIBER .30 CARBINE: test, high pressure, M18

CARTRIDGE, CALIBER .30 CARBINE: tracer, M27

CARTRIDGE, CALIBER .30 CARBINE DUMMY

A cartridge, dummy (which see) designed for caliber .30 carbines.

CARTRIDGE, CALIBER .30 CARBINE DUMMY: M13

CARTRIDGE, CALIBER .30 DUMMY

A cartridge, dummy (which see) designed for caliber .30 rifles and machine guns.

CARTRIDGE, CALIBER .30 DUMMY: M40

CARTRIDGE, CALIBER .32

A cartridge (which see) designed to function in caliber .32 weapons.

CARTRIDGE, CALIBER .32: ball, Colt automatic pistol, 71-or-74-grain bullet

CARTRIDGE, CALIBER .32 BLANK

A cartridge, blank (which see) designed for caliber .32 weapons.

CARTRIDGE, CALIBER .32 LINE THROWING

A special blank cartridge designed for use in the **LINE THROWING DEVICE**: caliber .32 deck mounted (Lyle) in conjunction with special projectile and line canister. By its use the line can be pro-

jected from one point to another, such as from ship to shore, to establish a connection between the points.

CARTRIDGE, CALIBER .38

A cartridge (which see) designed to function in various caliber .38 revolvers or pistols. It is distinguished as a class from the **CARTRIDGE, CALIBER .38 SPECIAL**, and **CARTRIDGE, CALIBER .380**.

CARTRIDGE, CALIBER .38: ball, revolver, short Colt, 125-or-130-grain bullet

CARTRIDGE, CALIBER .38: ball, revolver, S & W, 145-or-146-grain bullet

CARTRIDGE, CALIBER .38: ball, superautomatic Colt, 130-grain bullet, metal jacket

CARTRIDGE, CALIBER .38 BLANK

A cartridge, blank (which see) designed for use with caliber .38 weapons.

CARTRIDGE, CALIBER .38 BLANK: revolver, S & W regular

CARTRIDGE, CALIBER .38 SPECIAL

Cartridge (which see) designed to function in a variety of Colt and S & W caliber .38 special revolvers. Cartridges of this type are identifiable by being longer than other caliber .38 cartridges. The special ball cartridge is 1.53-inch overall and the cartridge case is 1.16-inch long.

CARTRIDGE, CALIBER .38 SPECIAL: ball, lead bullet, 158-grain bullet

CARTRIDGE, CALIBER .38 SPECIAL: ball, mid range, 148-grain bullet (wad cutter)

CARTRIDGE, CALIBER .38 SPECIAL BLANK

A cartridge, blank (which see) designed for use with caliber .38 special weapons.

MIL-STD-444
6 February 1959

CARTRIDGE, CALIBER .380

Cartridge (which see) designed to function in various caliber .380 and 9-mm (short) automatic pistols. Distinguished as a class from CARTRIDGE, CALIBER .38 SPECIAL and CARTRIDGE, CALIBER .38, and from CARTRIDGE, 9 MILLIMETER.

CARTRIDGE, CALIBER .380: ball, automatic pistol, 95-grain bullet (9-mm short)

CARTRIDGE, CALIBER .45

Cartridge (which see) designed to function in caliber .45 weapons.

CARTRIDGE, CALIBER .45: test, high pressure, M1

CARTRIDGE, CALIBER .45: tracer, M26

CARTRIDGE, CALIBER .45 BLANK

A cartridge, blank (which see) designed for use with caliber .45 weapons.

CARTRIDGE, CALIBER .45 BLANK: M9

CARTRIDGE, CALIBER .45 DUMMY

A cartridge, dummy (which see) designed for caliber .45 weapons.

CARTRIDGE, CALIBER .45 DUMMY: M1921

CARTRIDGE, CALIBER .45 LINE THROWING

A special blank cartridge designed for use in caliber .45 Line Throwing Device, in conjunction with special projectile and line canister. By its use the line can be projected from one point to another, such as from ship to shore, to establish a connection between the points.

See also: PROJECTILE, LINE THROWING GUN

CARTRIDGE, CALIBER .45 LINE THROWING: M32

CARTRIDGE, CALIBER .45 SHOT

A cartridge, caliber .45, loaded with small

shot, duplicating the shot used in shot-gun cartridges.

See also: cartridge; shot (sense 2)

CARTRIDGE, CALIBER .45 SHOT: M15

CARTRIDGE, CALIBER .50

A cartridge (which see) designed to function in caliber .50 weapons.

CARTRIDGE, CALIBER .50: armor-piercing, M2

CARTRIDGE, CALIBER .50: armor-piercing-incendiary-tracer, M20

CARTRIDGE, CALIBER .50: ball, M33

CARTRIDGE, CALIBER .50: spotter-tracer, M48

CARTRIDGE, CALIBER .50: test, high pressure, M1

CARTRIDGE, CALIBER .50: tracer, M17

CARTRIDGE, CALIBER .50: tracer, headlight, M21

CARTRIDGE, CALIBER .50 BLANK

A cartridge, blank (which see) designed for use with caliber .50 weapons.

CARTRIDGE, CALIBER .50 BLANK: M1

CARTRIDGE, CALIBER .50 DUMMY

A cartridge, dummy (which see) designed for caliber .50 weapons.

CARTRIDGE, CALIBER .50 DUM-

MY: M2

CARTRIDGE, CATALYST, TORPEDO

An item designed to decompose hydrogen peroxide into the form of oxygen and water by means of catalytic action to provide a portion of the means of propelling a torpedo.

CARTRIDGE, CATALYST, TORPEDO: MARK 16 MOD 7

cartridge, catapult

See: CARTRIDGE, AIRCRAFT EJECTION SEAT CATAPULT

MIL-STD-444
6 February 1959

CARTRIDGE, DELAY

A pyrotechnic item which provides a predetermined time delay to actuate a release mechanism.

**CARTRIDGE, DELAY: MARK 4
 MOD 0**

CARTRIDGE, DEPTH CHARGE PROJECTOR

An explosive item used to project a depth charge from a depth charge projector.

See: cartridge; CHARGE, DEPTH

**CARTRIDGE, DEPTH CHARGE
 PROJECTOR: Charge No. 1
 (SDCP)**

**CARTRIDGE, DEPTH CHARGE
 PROJECTOR: Charge No. 5
 (SDCP)**

cartridge, drill

An inert cartridge of the same weight, center of gravity and contour as the service assembled round of fixed or semifixed ammunition, designed or adapted for drill purposes.

cartridge, dummy

A cartridge, entirely inert, used for training purposes in the operations of loading and unloading, and in the inspection of the weapon for which intended.

cartridge, electric

A cartridge containing an electric primer and therefore designed to be initiated by an electric current.

See: cartridge; PRIMER, ELECTRIC

CARTRIDGE, ENGINE STARTER

An explosive item, designed to furnish energy required to start an airplane engine.

See: cartridge (sense 2)

**CARTRIDGE, ENGINE STARTER:
 MC-1, for starter, model S-12**

cartridge, full

A cartridge (which see) containing a propelling charge intended to produce full service velocity. The term 'full cart-

ridge' is sometimes used as an identifying designation when more than one type of propelling charge is available for a weapon.

CARTRIDGE, 10 GAGE BLANK

A cartridge, blank (which see) loaded in a 10-gage shotgun cartridge case, for use with appropriate adapters as blank ammunition.

**CARTRIDGE, 10 GAGE BLANK:
 for 37-mm gun**

CARTRIDGE, .410 GAGE SHOTGUN

A cartridge, shotgun (which see) designed for use in .410-gage weapons.

**CARTRIDGE, .410 GAGE SHOT-
 GUN: all aluminum, loaded with
 smokeless powder and No. 6 copper-
 coated shot, M35**

CARTRIDGE, 12 GAGE SHOTGUN

A cartridge, shotgun (which see) designed for use in 12-gage shotguns.

**CARTRIDGE, 12 GAGE SHOTGUN:
 all brass, No. 00 buckshot, M19**

CARTRIDGE, 16 GAGE SHOTGUN

A cartridge, shotgun (which see) designed for use in 16-gage shotguns.

**CARTRIDGE, 16 GAGE SHOTGUN:
 paper, loaded with No. 6 chilled
 shot**

CARTRIDGE, 20 GAGE SHOTGUN

A cartridge, shotgun (which see) designed for use in 20-gage shotguns.

**CARTRIDGE, 20 GAGE SHOTGUN:
 paper, loaded with No. 7½ chilled
 shot**

CARTRIDGE, GRENADE

An explosive item used to propel a grenade from a launcher attached to a rifle or carbine. It differs from a standard cartridge in that it has no projectile and the mouth of the cartridge case is closed by crimping.

MIL-STD-444
6 February 1959

CARTRIDGE, GRENADE: rifle, cal .30, M3

CARTRIDGE, GRENADE: rifle, NATO, 7.62-mm, M64

cartridge, grenade, auxiliary

Small auxiliary cartridge designed to increase the velocity and range of rifle grenades when fired from the rifle or carbine. It is used in addition to the **CARTRIDGE, GRENADE**.

cartridge, grenade, carbine

A **CARTRIDGE, GRENADE** designed to propel a grenade from a launcher attached to a carbine.

cartridge, grenade, rifle

A **CARTRIDGE, GRENADE** designed to propel a grenade from a launcher attached to a rifle.

CARTRIDGE, IGNITER, TURBOJET ENGINE

A pyrotechnic item, designed to furnish the flame required to initiate the functioning of a turbojet engine.

CARTRIDGE, IGNITER, TURBOJET ENGINE: type 2, for J48 Pratt and Whitney aircraft engine

CARTRIDGE, IGNITION

An explosive cartridge forming part of the propellant system for mortars. It serves as the inner zone charge and also provides the flame necessary for igniting additional increment charges.

CARTRIDGE, IGNITION: M8

CARTRIDGE, IMPULSE, 5 INCH CATAPULT

An explosive cartridge containing a charge of propellant powder designed to function an airplane launching catapult with 5-inch diameter piston.

CARTRIDGE, IMPULSE, 5 INCH CATAPULT: 26-lb charge

CARTRIDGE, IMPULSE, 6 INCH CATAPULT

An explosive cartridge containing a charge of propellant powder designed to function an airplane launching catapult with 6-inch diameter piston.

CARTRIDGE, IMPULSE, 6 INCH CATAPULT: 40-lb charge

cartridge, incendiary

Cartridge, usually of small arms ammunition, containing a projectile designed to produce an incendiary effect at the target.

See also: bullet, incendiary

CARTRIDGE, 3 INCH 23 CALIBER

A cartridge (which see) intended for use in 3-inch 23-caliber weapons.

CARTRIDGE, 3 INCH 23 CALIBER:
 AA, MARK 26 MOD 2, w/fuze,
 MARK 51 MOD 0 and tracer,
 MARK 4 MOD 0

CARTRIDGE, 3 INCH 23 CALIBER SHORT

A cartridge, short (which see) designed for 3-inch 23-caliber weapons.

CARTRIDGE, 3 INCH 50 CALIBER

A cartridge (which see) suitable for use in 3-inch 50-caliber weapons.

CARTRIDGE, 3 INCH 50 CALIBER:
 AP, MARK 29 MOD 2, w/fuze, BD,
 MARK 66 MOD 1

CARTRIDGE, 3 INCH 50 CALIBER:
 COM, MARK 3 MOD 5, w/fuze,
 MARK 8 MOD 5

CARTRIDGE, 3 INCH 50 CALIBER:
 FCL-VT (nonfrag), MARK 31
 MOD 1, w/fuze, MARK 27 MOD 0
 and ADF, MARK 44 MOD 1

CARTRIDGE, 3 INCH 50 CALIBER:
 illum, MARK 25 MOD 1, w/fuze,
 MARK 51 MOD 2

CARTRIDGE, 3 INCH 50 CALIBER BLANK

A cartridge, blank (which see) designed

MIL-STD-444
6 February 1959

for 3-inch 50-caliber weapons.

CARTRIDGE, 3 INCH 50 CALIBER
BLANK: saluting

CARTRIDGE, 3 INCH 50 CALIBER DUM-
MY

A cartridge, dummy (which see) designed
for 3-inch 50-caliber weapons.

CARTRIDGE, 3 INCH 50 CALIBER
DUMMY: MARK 6 MOD 0

CARTRIDGE, 3 INCH 50 CALIBER
SHORT

A cartridge, short (which see) designed
for 3-inch 50-caliber weapons.

CARTRIDGE, 3 INCH 70 CALIBER

A cartridge (which see) suitable for use
in 3-inch 70-caliber weapons.

CARTRIDGE, 3 INCH 70 CALIBER:
HE-VT, flashless

CARTRIDGE, 3-INCH 70-CALIBER DUM-
MY

A cartridge, dummy (which see) designed
for 3-inch 70-caliber weapons.

CARTRIDGE, 4 INCH 50 CALIBER

A cartridge suitable for use in 4-inch 50-
caliber weapons.

CARTRIDGE, 4 INCH 50 CALIBER:
BL & T, MARK 10 MOD 1, w/trac-
er, MARK 6 MOD 1

CARTRIDGE, 4 INCH 50 CALIBER:
COM, MARK 16 MOD 2, w/fuze,
MARK 36 MOD 0, and tracer,
MARK 4 MOD 0

CARTRIDGE, 4 INCH 50 CALIBER:
illum, MARK 14 MOD 6, w/fuze,
MARK 50 MOD 4

CARTRIDGE, 4 INCH 50 CALIBER DUM-
MY

A cartridge, dummy (which see) designed
for 4-inch 50-caliber weapons.

CARTRIDGE, 4 INCH 50 CALIBER
DUMMY: MARK 2 MOD 0

CARTRIDGE, 4 INCH 50 CALIBER
SHORT

A cartridge, short (which see) designed
for 4-inch 50-caliber weapons.

CARTRIDGE, 4.2 INCH

A cartridge (which see) for use in 4.2-
inch weapons.

CARTRIDGE, 4.2 INCH: gas, non-
persistent, CG, M2, w/fuze, PD, M8

CARTRIDGE, 4.2 INCH: HE, M3,
w/fuze PD, M9

CARTRIDGE, 4.2 INCH: HE, M3A1,
w/suppl chg and fuze, PD, M51A5

CARTRIDGE, 4.2 INCH: illuminat-
ing, M335, w/fuze, MTSQ, M501
or M501A1

CARTRIDGE, 5 INCH 25 CALIBER

A cartridge (which see) suitable for use
in 5-inch 25-caliber weapons.

CARTRIDGE, 5 INCH 25 CALIBER:
AAC, MARK 36 MOD 3, w/nose
fuze, MARK 18 MOD 1, base fuze,
MARK 28 MOD 8, ADF, MARK 17
MOD 1, and tracer, MARK 9 MOD
0

CARTRIDGE, 5 INCH 25 CALIBER:
HC, MARK 36 MOD 1, w/fuze,
MARK 28 MOD 7, ADF, MARK
46 MOD 0, and tracer, MARK 9
MOD 0

CARTRIDGE, 5 INCH 25 CALIBER
BLANK

A cartridge, blank (which see) designed
for 5-inch 25-caliber weapons.

CARTRIDGE, 5 INCH 25 CALIBER
BLANK: saluting

CARTRIDGE, 5 INCH 25 CALIBER DUM-
MY

A cartridge, dummy (which see) designed
for 5-inch 25-caliber weapons.

CARTRIDGE, 5 INCH 25 CALIBER
DUMMY: MARK 4 MOD 0

MIL-STD-444
6 February 1959

CARTRIDGE, 5 INCH 25 CALIBER SHORT

A cartridge, short (which see) designed for 5-inch 25-caliber weapons.

CARTRIDGE, 5 INCH 38 CALIBER BLANK

A cartridge, blank (which see) designed for 5-inch 38-caliber weapons.

CARTRIDGE, 5 INCH 3 CALIBER BLANK: saluting

CARTRIDGE, 5 INCH 38 CALIBER DUMMY

A cartridge, dummy (which see) designed for 5-inch 38-caliber weapons.

CARTRIDGE, 5 INCH 38 CALIBER DUMMY: MARK 7 MOD 0

CARTRIDGE, 5 INCH 38 CALIBER SHORT

A cartridge, short (which see) designed for 5-inch 38-caliber weapons.

CARTRIDGE, 5 INCH 54 CALIBER BLANK

A cartridge, blank (which see) designed for 5-inch 54-caliber weapons.

CARTRIDGE, 5 INCH 54 CALIBER BLANK: saluting

CARTRIDGE, 5 INCH 54 CALIBER SHORT

A cartridge, short (which see) designed for 5-inch 54-caliber weapons.

CARTRIDGE, 6 INCH 47 CALIBER DUMMY

A cartridge, dummy (which see) designed for 6-inch 47-caliber weapons.

CARTRIDGE, 6 INCH 47 CALIBER DUMMY: MARK 3 MOD 0

CARTRIDGE, 6 INCH 47 CALIBER SHORT

A cartridge, short (which see) designed for 6-inch 47-caliber weapons.

CARTRIDGE, 8 INCH 55 CALIBER SHORT

A cartridge, short (which see) designed for 8-inch 55-caliber weapons.

CARTRIDGE, INITIATOR

An explosive item designed to activate an INITIATOR, CARTRIDGE ACTUATED.

CARTRIDGE, INITIATOR: M38

cartridge, leaflet

Cartridge containing a projectile, leaflet (which see).

cartridge, line throwing

See: CARTRIDGE, CALIBER .32 LINE THROWING; CARTRIDGE, CALIBER .45 LINE THROWING

CARTRIDGE, 7.62 MILLIMETER

Cartridge (which see) designed to function in 7.62-millimeter lightweight rifles and lightweight machine guns of NATO (North Atlantic Treaty Organization) type. (Although .30-inch and 7.62-millimeter are equal, ammunition items carrying designations caliber .30 and 7.62-millimeter, respectively, are not interchangeable.)

CARTRIDGE, 7.62 MILLIMETER: armor-piercing, NATO, M61

CARTRIDGE, 7.62 MILLIMETER: armor-piercing, incendiary, NATO, T101E1

CARTRIDGE, 7.62 MILLIMETER: ball, NATO, M59

CARTRIDGE, 7.62 MILLIMETER: tracer, NATO, M62

CARTRIDGE, 7.62 MILLIMETER DUMMY

A cartridge, dummy (which see) designed for 7.62-millimeter rifles and machine guns.

CARTRIDGE, 9 MILLIMETER

Cartridge (which see) designed to function in a variety of 9-millimeter sub-machine guns and automatic pistols of

MIL-STD-444
6 February 1959

foreign manufacture. The caliber .45 submachine gun, M3, can be converted to use 9-millimeter ammunition by use of a conversion bolt and barrel. The term 'Parabellum' forming part of the item name is a part of the name of one of the pistols of Italian manufacture.

CARTRIDGE, 9 MILLIMETER: ball,
 M1, 116-grain bullet (Parabellum)
 CARTRIDGE, 9 MILLIMETER: ball,
 124-grain bullet, metal cased
 (Parabellum)

CARTRIDGE, 20 MILLIMETER

Cartridge (which see) designed for use in 20-millimeter weapons.

CARTRIDGE, 20 MILLIMETER:
 AP-T, MARK 108 MOD O

CARTRIDGE, 20 MILLIMETER:
 BL & P, MARK 3 MOD 1

CARTRIDGE, 20 MILLIMETER:
 BL & T, MARK 3 MOD O

CARTRIDGE, 20 MILLIMETER:
 electric, API, T21E1

CARTRIDGE, 20 MILLIMETER:
 electric, armor-piercing-tracer, M95

CARTRIDGE, 20 MILLIMETER:
 electric, HEI, M97A1, w/fuze, PD,
 M505

CARTRIDGE, 20 MILLIMETER:
 electric, incendiary, M96

CARTRIDGE, 20 MILLIMETER:
 electric, target practice, M99

CARTRIDGE, 20 MILLIMETER:
 HEI, MARK 106 MOD O, w/fuze,
 PD, MARK 78 MOD O

CARTRIDGE, 20 MILLIMETER:
 HET-DI, MARK 7 MOD O w/fuze,
 PD, MARK 26 MOD 1

CARTRIDGE, 20 MILLIMETER:
 incendiary, M96

CARTRIDGE, 20 MILLIMETER:
 test, high pressure, MARK 101
 MOD O

CARTRIDGE, 20 MILLIMETER:
 test, low pressure, MARK 102
 MOD O

CARTRIDGE, 20 MILLIMETER:
 TP, MARK 105 MOD O

**CARTRIDGE, 20 MILLIMETER, FIRING
 CIRCUIT TEST**

A cartridge, comprising a cartridge case and electric primer, used for testing the electrical firing circuit of 20-millimeter aircraft guns.

CARTRIDGE, 20 MILLIMETER,
 FIRING CIRCUIT TEST: MARK
 109 MOD O

CARTRIDGE, 20 MILLIMETER DUMMY

A cartridge, dummy (which see) designed for 20-millimeter weapons.

CARTRIDGE, 20 MILLIMETER
 DUMMY: MARK 103 MOD O

CARTRIDGE, 30 MILLIMETER

Cartridge, sense 1 (which see) designed for use in 30-millimeter weapons.

CARTRIDGE, 30 MILLIMETER:
 target practice, M239

CARTRIDGE, 30 MILLIMETER:
 test, high pressure, T253

CARTRIDGE, 30 MILLIMETER DUMMY

A cartridge, dummy (which see) designed for 30-millimeter weapons.

CARTRIDGE, 30 MILLIMETER
 DUMMY: T252

CARTRIDGE, 37 MILLIMETER

Cartridge, sense 1 (which see) designed for use in 37-millimeter weapons.

CARTRIDGE, 37 MILLIMETER:
 APC-T, M59, steel case, MV 2050

CARTRIDGE, 37 MILLIMETER:
 HE-T, SD, M54, MV 2600, w/fuze,
 PD, M56

CARTRIDGE, 37 MILLIMETER BLANK

A cartridge, blank (which see) designed for 37-millimeter weapons.

CARTRIDGE, 37 MILLIMETER DUMMY

A cartridge, dummy (which see) designed

MIL-STD-444
6 February 1959

for 37-millimeter weapons.

CARTRIDGE, 37 MILLIMETER
DUMMY: M21, w/fuze, dummy,
M50B2

CARTRIDGE, 40 MILLIMETER

Cartridge, sense 1 (which see) designed
for use in 40-millimeter weapons.

CARTRIDGE, 40 MILLIMETER:
AP-T, M81A1

CARTRIDGE, 40 MILLIMETER:
BL & P, MARK 3 MOD 1

CARTRIDGE, 40 MILLIMETER:
HEIP, MARK 2 MOD 1 w/fuze,
MARK 27 MOD 1

CARTRIDGE, 40 MILLIMETER:
HEIT-DI-SD, MARK 1 MOD 1,
w/tracer, MARK 11 MOD 0, and
fuze, MARK 27 MOD 1

CARTRIDGE, 40 MILLIMETER:
HEP-NP, MARK 2 MOD 1

CARTRIDGE, 40 MILLIMETER DUMMY

A cartridge, dummy (which see) designed
for 40-millimeter weapons.

CARTRIDGE, 40 MILLIMETER
DUMMY: M25, w/fuze, dummy,
M69

CARTRIDGE, 57 MILLIMETER

Cartridge, sense 1 (which see) designed
for use in 57-millimeter weapons.

CARTRIDGE, 57 MILLIMETER:
HE, M306A1, w/fuze, PD, M503
or M503A1

CARTRIDGE, 57 MILLIMETER:
HEAT, M307, w/fuze, PI, M90

CARTRIDGE, 57 MILLIMETER:
smoke, WP, M308A1, w/fuze, PD,
M503

CARTRIDGE, 57 MILLIMETER CANIS- TER

A 57-millimeter cartridge assembled with
a projectile consisting of a light metal
case filled with steel balls, steel frag-
ments, or steel slugs. When fired the
projectile breaks upon leaving the muz-

zle of the weapon and the contents scat-
ter in the manner of a shotgun cart-
ridge.

See also: canister (sense 1)

CARTRIDGE, 57 MILLIMETER
CANISTER: T25E5

CARTRIDGE, 57 MILLIMETER DUMMY

A cartridge, dummy (which see) designed
for 57-millimeter weapons.

CARTRIDGE, 57 MILLIMETER
DUMMY: M22

CARTRIDGE, 60 MILLIMETER

Cartridge, sense 1 (which see) designed
for use in 60-millimeter weapons.

CARTRIDGE, 60 MILLIMETER
HE, M49A2, w/fuze, PD, M52A1

CARTRIDGE, 60 MILLIMETER
illuminating, M83A1, w/fuze, time,
M65

CARTRIDGE, 60 MILLIMETER
smoke, WP, M302, w/fuze, PD, M82

CARTRIDGE, 75 MILLIMETER

Cartridge, sense 1 (which see) designed
for use in 75-millimeter weapons.

CARTRIDGE, 75 MILLIMETER:
APC-T, M61, w/fuze, BD, M66A1

CARTRIDGE, 75 MILLIMETER:
AP-T, M338

CARTRIDGE, 75 MILLIMETER:
HE, M48, normal charge, w/fuze,
MTSQ, M500 or M500A1

CARTRIDGE, 75 MILLIMETER:
HE, M48, reduced charge, w/fuze,
PD, M51A5, 0.05-sec delay

CARTRIDGE, 75 MILLIMETER:
HE, M48, steel case, normal charge,
w/fuze, PD, M51A5, 0.05-sec delay

CARTRIDGE, 75 MILLIMETER:
HE, M48, supercharge, w/fuze, PD,
M51A5, 0.05-sec delay

CARTRIDGE, 75 MILLIMETER:
HEP-T, T165E11

CARTRIDGE, 75 MILLIMETER:
training, M28

MIL-STD-444

6 February 1959

CARTRIDGE, 75 MILLIMETER BLANK

A cartridge, blank (which see) designed for 75-millimeter weapons.

CARTRIDGE, 75 MILLIMETER BLANK: M337

CARTRIDGE, 75 MILLIMETER BLANK: double pellet charge

CARTRIDGE, 75 MILLIMETER CANISTER

A 75-millimeter cartridge assembled with a projectile consisting of a light metal case filled with steel balls, steel fragments, or steel slugs. When fired the projectile breaks upon leaving the muzzle of the weapon and the contents scatter in the manner of a shotgun cartridge.

See also: canister (sense 1)

CARTRIDGE, 75 MILLIMETER DUMMY

A cartridge, dummy (which see) designed for 75-millimeter weapons.

CARTRIDGE, 75 MILLIMETER DUMMY: M7, w/fuze, combination, 21-sec delay, M1907M, inert

CARTRIDGE, 76 MILLIMETER

Cartridge, sense 1 (which see) designed for use in 76-millimeter weapons.

CARTRIDGE, 76 MILLIMETER: APC-T, M62, flashless, w/fuze, BD, M66A1

CARTRIDGE, 76 MILLIMETER: AP-T, M339, steel case

CARTRIDGE, 76 MILLIMETER: HE, M42A1, flashless, smokeless, w/fuze, PD, M51A4, 0.15-sec delay

CARTRIDGE, 76 MILLIMETER: HVAP-DS-T, M331A1 or M441A2, steel case, MV 4125, (M17 propellant)

CARTRIDGE, 76 MILLIMETER: HVAP-T, M93A1, smokeless

CARTRIDGE, 76 MILLIMETER BLANK

A cartridge, blank (which see) designed for 76-millimeter weapons.

CARTRIDGE, 76 MILLIMETER BLANK: M355

CARTRIDGE, 76 MILLIMETER BLANK: double pellet charge

CARTRIDGE, 76 MILLIMETER CANISTER

A 76-millimeter cartridge assembled with a projectile consisting of a light metal case filled with steel balls, steel fragments, or steel slugs. When fired the projectile breaks upon leaving the muzzle of the weapon and the contents scatter in the manner of shotgun cartridge.

See also: canister (sense 1)

CARTRIDGE, 76 MILLIMETER CANISTER: T3E7

CARTRIDGE, 76 MILLIMETER DUMMY

A cartridge, dummy (which see) designed for 76-millimeter weapons.

CARTRIDGE, 76 MILLIMETER DUMMY: M20, w/fuze, dummy, M59

CARTRIDGE, 81 MILLIMETER

Cartridge, sense 1 (which see) designed for use in 81-millimeter weapons.

CARTRIDGE, 81 MILLIMETER: HE, M43A1, w/fuze, PD, M52A1

CARTRIDGE, 81 MILLIMETER: illuminating, M301A1 or M301A2, w/fuze, time, M84

CARTRIDGE, 81 MILLIMETER: smoke, FS, M57A1, w/fuze, PD, M52A2

CARTRIDGE, 90 MILLIMETER

Cartridge, sense 1 (which see) designed for use in 90-millimeter weapons.

CARTRIDGE, 90 MILLIMETER: APC-T, M82, MV 2600, w/fuze, BD, M68 and M68A1

CARTRIDGE, 90 MILLIMETER: AP-T, M318A1, MV 2800

CARTRIDGE, 90 MILLIMETER: HE, M71, flashless, w/o fuze,

MIL-STD-444
6 February 1959

adapted for VT fuze

CARTRIDGE, 90 MILLIMETER:

HE, COMP B, M71, steel case,
 flashless, w/suppl chg, w/o fuze

CARTRIDGE, 90 MILLIMETER:

HE, AT, T108E46, w/fuze, PIBD,
 M509

CARTRIDGE, 90 MILLIMETER:

HEP-T, T142, and T142E3 steel
 case, w/fuze, BD, M91 or M91A1

CARTRIDGE, 90 MILLIMETER:

HVAP-T, M332, M332A1, or
 M332B1, MV 3875, smokeless

CARTRIDGE, 90 MILLIMETER BLANK

A cartridge, blank (which see) designed
 for 90-millimeter weapons.

CARTRIDGE, 90 MILLIMETER

BLANK: for guns M1, M2, M3,
 T8, M36, M41, and M54

**CARTRIDGE, 90 MILLIMETER CANIS-
 TER**

A 90-millimeter cartridge assembled with
 a projectile consisting of a light metal
 case filled with steel balls, steel frag-
 ments, or steel slugs. When fired the
 projectile breaks upon leaving the muz-
 zle of the weapon and the contents scat-
 ter in the manner of a shotgun cart-
 ridge.

See also: canister (sense 1)

CARTRIDGE, 90 MILLIMETER

CANISTER: M336

CARTRIDGE, 90 MILLIMETER DUMMY

A cartridge, dummy (which see) designed
 for 90-millimeter weapons.

CARTRIDGE, 90 MILLIMETER

DUMMY: M12B2, w/fuze, dum-
 my, M80

CARTRIDGE, 105 MILLIMETER

A cartridge, sense 1 (which see) designed
 for use in 105-millimeter weapons.

CARTRIDGE, 105 MILLIMETER:

gas, persistent H, M60, steel case,

dualgram, w/fuze, PD, M51A5,
 0.05-sec delay

CARTRIDGE, 105 MILLIMETER:

HE, M1, dualgram, w/suppl chg
 and fuze, MTSQ, M500 or M500A1

CARTRIDGE, 105 MILLIMETER:

HE, AT, COMP B, M341, w/fuze,
 PIBD, M509

CARTRIDGE, 105 MILLIMETER:

HEP-T, M345, w/fuze, BD, M91

CARTRIDGE, 105 MILLIMETER:

leaflet, BE, M84, steel case, dual-
 gram, w/fuze, MTSQ, M501 or
 M501A1

CARTRIDGE 105-MILLIMETER BLANK

A cartridge, blank (which see) designed
 for 105-millimeter weapons.

CARTRIDGE, 105 - MILLIMETER

BLANK: for howitzers M2A1,
 M2A2, M4, M4A1 and T96

CARTRIDGE, 105-MILLIMETER DUMMY

A cartridge, dummy (which see) designed
 for 105-millimeter weapons.

CARTRIDGE, 105 - MILLIMETER

DUMMY: M14, w/fuze, TSQ, M54,
 dummy

CARTRIDGE, 106-MILLIMETER

A cartridge, sense 1 (which see) designed
 for use in 106-millimeter weapons.

CARTRIDGE, 106 - MILLIMETER:

HEAT, M344A1, w/fuze, PIBD,
 M590

CARTRIDGE, 106 - MILLIMETER:

HEP-T, M346A1, w/fuze, PD,
 M91A1

CARTRIDGE, 165-MILLIMETER

A cartridge, sense 1 (which see) designed
 for use in 165-millimeter weapons.

CARTRIDGE, PHOTOFLASH

An explosive assembly for use in making
 aerial photographs from low altitudes,
 during reconnaissance missions. Cons-
 sists of a photoflash charge and delay

MIL-STD-444

6 February 1959

fuze assembled in a case which, in turn, is assembled in an electrically primed cartridge case together with a small propelling charge.

CARTRIDGE, PHOTOFLASH:

M112 or M112A1, 1-sec delay

CARTRIDGE, PHOTOFLASH:

M112 or M112A1, 4-sec delay

CARTRIDGE, PHOTOFLASH, PRACTICE

An assembly for use for practice or training purposes, to enable simulation of release and firing of photoflash cartridges.

See also: **CARTRIDGE, PHOTOFLASH.**

CARTRIDGE, PHOTOFLASH, PRACTICE: M124

CARTRIDGE, 1 POUNDER BLANK

A cartridge, blank, (which see) designed for 1-pounder weapons. (Corresponds to a caliber of 1.457 inches or 37 millimeters.)

CARTRIDGE, 1 POUNDER

BLANK: saluting

CARTRIDGE, 3 POUNDER BLANK

A cartridge, blank (which see) designed for 3-pounder weapons. (Corresponds to a caliber of 1.85 inches or 47 millimeters.)

CARTRIDGE, 3 POUNDER

BLANK: saluting

CARTRIDGE, 6 POUNDER

A cartridge, sense 1 (which see) designed for use in 6-pounder weapons. (Corresponds to a caliber of 2.24 inches or 57 millimeters.)

CARTRIDGE, 6 POUNDER: BL & P, MARK 3 MOD 3

CARTRIDGE, 6 POUNDER BLANK

A cartridge, blank (which see) designed for 6-pounder weapons (2.24-inch caliber).

CARTRIDGE, 6 POUNDER

BLANK: saluting

CARTRIDGE, POWDER ACTUATED TOOL

A cylindrical, metallic case containing a charge of smokeless powder. Designed to be fired in a DRIVER, PROJECTILE UNIT, POWDER ACTUATED.

See: cartridge (sense 2)

CARTRIDGE, POWDER ACTUATED TOOL: cal .22, extra heavy charge, purple wad

CARTRIDGE, POWDER ACTUATED TOOL: cal .38, heavy charge, red wad

CARTRIDGE, QUICK RELEASE, PERSONNEL PARACHUTE HARNESS

An explosive item designed to actuate a QUICK RELEASE, PERSONNEL PARACHUTE HARNESS.

See also: cartridge (sense 2)

CARTRIDGE, RELEASE, AIRCRAFT SAFETY LAP BELT

An explosive item designed to release a BELT, AIRCRAFT SAFETY LAP.

See also: cartridge (sense 2)

CARTRIDGE, RELEASE, PERSONNEL PARACHUTE, BACK

An explosive item designed to actuate the release mechanism of a PARACHUTE, PERSONNEL, BACK.

See also: cartridge (sense 2)

cartridge, remover

See: **CARTRIDGE, AIRCRAFT CANOPY REMOVER**

cartridge, short (sht ctg)

A blank charge in a cartridge case; used to expel a projectile from a gun tube for the purpose of clearing the tube.

cartridge, shotgun

A container or capsule, usually of stiff paper with a brass base, containing primer, powder, wadding, and shot for use in a shotgun. For military use the container is sometimes of 'all aluminum'

MIL-STD-444
6 February 1959

or 'all brass.' Listed separately according to gage, i.e., CARTRIDGE, 12 GAGE SHOTGUN, etc.

See also: cartridge (sense 1)

CARTRIDGE, SIGNAL, PRACTICE BOMB

An explosive item inserted in the nose of a practice bomb. It is detonated upon impact and produces a puff of white smoke.

CARTRIDGE, SIGNAL, PRACTICE BOMB: MARK 6 MOD 0, w/fuze, MARK 247 MOD 0

CARTRIDGE, SIGNAL, PRACTICE BOMB: AN-MARK 4 MOD 1

CARTRIDGE, SIGNAL, PRACTICE BOMB: miniature, MARK 5 MOD 0

CARTRIDGE, SUBCALIBER, CALIBER .30

Subcaliber cartridge of caliber .30.

See: subcaliber ammunition

CARTRIDGE, SUBCALIBER, 57 MILLI-METER

A subcaliber training device for 57-millimeter recoilless rifles.

See: subcaliber ammunition

CARTRIDGE, SUBCALIBER, 75 MILLI-METER

A subcaliber training device for 75-millimeter recoilless rifles.

See: subcaliber ammunition

cartridge, test, high pressure

Cartridge for testing weapons. It is designed to produce a higher pressure than that obtained with a standard round. This may be accomplished by any of the following methods of combinations thereof: (1) Increasing the charge weight of standard propellant. (2) Utilizing a propellant of greater quickness. (3) Increasing the projectile weight. Usually the term applies to a round,

which when fired at normal temperature, produces a peak chamber pressure equal to that produced by a standard round stabilized at +106°F.

cartridge, test, low pressure

Cartridge for testing weapons. It is designed to produce a lower pressure than that obtained with a standard round. This generally is accomplished by reducing the charge weight of standard propellant. Usually the term applies to a round which, when fired at normal temperature, produces a peak chamber pressure equal to that produced by a standard round stabilized at -70°F.

CARTRIDGE, THRUSTER

An explosive item designed to actuate a THRUSTER, CARTRIDGE, ACTUATED.

See also: cartridge (sense 2)

CARTRIDGE, THRUSTER: M42

CARTRIDGE, TORPEDO IMPULSE

A propelling charge, for use in launching a torpedo.

CARTRIDGE, TORPEDO IMPULSE: for 21-inch AW tubes

CARTRIDGE, TORPEDO IMPULSE: for PT boats

CARTRIDGE, Y GUN

A cartridge case, containing a charge of propellant powder, designed for use in a projector for depth charges, called a 'Y gun.'

CARTRIDGE, Y GUN: 3-inch, charge No. 1

CARTRIDGE, Y GUN: 3-inch, charge No. 3

cartridge actuated device (CAD)

A device that employs the energy supplied by the gases produced by explosives to accomplish or initiate a mechanical action, other than expelling a projectile. The cartridge which supplies the energy may or may not be included in the de-

MIL-STD-444
6 February 1959

vice. Cartridge actuated devices are often called 'cads,' pronounced as a word. Examples of cads are REMOVER, AIRCRAFT CANOPY, CATAPULT, AIRCRAFT EJECTION SEAT.

See also: cartridge (sense 2).

CARTRIDGE ASSORTMENT, GRENADE
 A group of various sizes of CARTRIDGE, GRENADE.

CARTRIDGE ASSORTMENT, GRENADE, group A

cartridge case

See: CASE, CARTRIDGE

cartridge cloth

See: cloth, cartridge

CARTRIDGE KIT, 75 MILLIMETER DUMMY

A group of items including dummy cartridges, inert fuzes, and replacement parts provided for simulating the handling of service ammunition during training of gun crews.

CARTRIDGE KIT, 75 MILLIMETER DUMMY: for 75-mm guns, M3 and M6, and for 75-mm howitzers, M1A1 and 3

CARTRIDGE SET, 4.2 INCH INERT

A set of inert chemical projectiles for 4.2-inch weapons, for use for instructional purposes.

CARTRIDGE-VIAL, LIFE RAFT

An item consisting of an explosive cartridge assembled to a vial of compressed carbon dioxide. It is designed so that immersion of the cartridge in sea-water initiates an electric current which activates an electric squib thereby releasing the carbon dioxide and providing a means for life raft inflation.

case

Short for CASE, CARTRIDGE.

CASE, CARTRIDGE

An item designed to hold an ammunition primer and propellant, and to which a projectile may be affixed. Its profile and size conform to that of the chamber of the weapon in which the round is fired except for recoilless rifles. For a loaded cartridge case, see CARTRIDGE, (as modified).

CASE, CARTRIDGE, CALIBER .30

A cartridge case suitable for assembling a cartridge for use in a caliber .30 weapon.

See also: CASE, CARTRIDGE

CASE, CARTRIDGE, CALIBER .30:
 carbine, primed:

CASE, CARTRIDGE, CALIBER .45

A cartridge case suitable for assembling a cartridge for use in a caliber .45 weapon.

See also: CASE, CARTRIDGE

CASE, CARTRIDGE, CALIBER .45:
 primed

CASE, DEPTH CHARGE

A fabricated part of a depth charge designed to hold an explosive charge and mechanisms required to fire the charge. When empty or inert loaded it may be used for training purposes.

CASE, DEPTH CHARGE: HBX-1
 loaded, MARK 9 MOD 3

CASE, DEPTH CHARGE: practice,
 MARK 13 MOD 0, w/battery

CASE, TIME FUZE

A case designed to hold one or more time fuzes.

CASE, UNDERWATER MINE

The fabricated outer part of a MINE, UNDERWATER designed to hold an explosive charge and mechanisms required to fire this charge. When empty or inert loaded it may be used for training purposes.

MIL-STD-444
6 February 1959

CASE, UNDERWATER MINE:
drill, empty, MARK 10 MOD 3

CASE, UNDERWATER MINE:
HBX-1 loaded, MARK 10 MOD 6

CASE, UNDERWATER MINE, PRACTICE

The fabricated outer part of a MINE, UNDERMINE, PRACTICE.

CASE, UNDERWATER MINE, PRACTICE: inert loaded, MARK 41 MOD 1

case ammunition

Ammunition in which the propellant is contained in a cartridge case.

See also: CASE, CARTRIDGE

casing, bomb

Principal container, usually metal, for the main charge of a bomb.

case loading

See: melt loading

casualty agent

A toxic or lethal chemical agent that can be used effectively in the field.

See also: chemical agent

casualty criteria

Standards by means of which the ability of ammunition items or fragments therefrom to inflict disabling wounds on personnel may be classified. Three degrees of wound severity are recognized, as follows: Type A - that which will result in incapacitation within 5 minutes; Type B - that which will result in eventual incapacitation, without the limit of time; Type K - that which will result in incapacitation within 5 seconds.

casualty gas

War gas capable of producing serious injury or death in effective concentrations.

See: war gas

CATAPULT, AIRCRAFT EJECTION SEAT

An item designed to propel an ejection seat with personnel from an aircraft.

CATAPULT, AIRCRAFT EJECTION SEAT: M1A1

CATAPULT, AIRCRAFT EJECTION SEAT: training, M2

cavitation

Existence of a cavity (which see) or cavities in an explosive charge or liquid propellants.

cavity

Air space or void in explosive charge of a munition. May cause a premature explosion of a projectile in the gun because of collapse of the charge under the force of acceleration under certain conditions of size and location. May also degrade the terminal ballistics.

cavity charge

See: charge, shaped

CELL, ARMING, UNDERWATER MINE

An electrolytic device designed to prevent arming of an underwater mine until immersed in sea water. This device contains a disk which is deteriorated by electrolysis when immersed in sea water thereby permitting operation of the clock starter and extender mechanism.

CELL, ARMING, UNDERWATER MINE: MARK 2 MOD 2

cellulose nitrate

Any of several esters of nitric acid used as explosives or propellants, produced by treating cotton or some other form of cellulose with a mixture of nitric and sulfuric acids. Popularly called 'nitro-cellulose' (which see)

cement, Pettman

A mixture of iron oxide, shellac, alcohol, rosin, ethyl cellulose, and pine tar, used to seal fuzes, etc., in projectiles.

MIL-STD-444
6 February 1959

center-fire

1. Of a cartridge: having the primer in the center of the head, or base. 2. Of a fire-arm: using center-fire cartridges. Center-fire cartridges and center-fire small arms are distinguished from rimfire types.

Cf: rimfire

CHAFF, COUNTERMEASURES

A thin, flat piece of metal foil, plain or backed, specifically designed to act as a countermeasure against enemy radar when released into the atmosphere.

See also: rope; window

chain Ammo nomen

Indicates, in the case of demolition charges, that munition consists of a number of demolition blocks cast on a length of detonating cord with a short section of cord between adjacent blocks.

See also: block; CHARGE, DEMOLITION

charge (chg)

Specifically: 1. A given quantity of explosive, either by itself or contained in a bomb, projectile, mine, or the like, or used as the propellant for a bullet or projectile. 2. That with which a bomb, projectile, mine, or the like is filled, as a charge of explosive, thermite, etc. Also called the 'fill,' 'filler,' or 'filling.' 3. In small arms, a cartridge or round of ammunition.

charge, aliquot part

See: charge, equal section

charge, bag

Propelling charge contained in propellant bag(s).

See also: bag, propellant

charge, bare

An explosive charge without casing prepared for use in determining explosive blast characteristics.

charge, base

Base section of a multisection propelling

charge, where the sections are not identical.

charge, booster.

1. The explosive charge contained in a booster (which see). 2. The amount of any particular type of explosive used to reliably detonate the bursting charge of the munition.

charge, burster

The explosive charge of a burster (which see).

charge, bursting

The main explosive charge in a mine, bomb, projectile, or the like that breaks the casing and produces fragmentation or demolition.

charge, cased

1. Propelling charge within a cartridge case. 2. Any explosive charge within a case, as opposed to a bare charge.

See also: case ammunition; charge, bare

charge, cavity

See: charge, shaped

charge, confined

An explosive charge, loaded in a resistant container, as opposed to a bare charge.

Cf: charge, bare

charge, cratering

Demolition charge for use in blasting craters in roads and for similar demolition.

See also: CHARGE, DEMOLITION

charge, cutting

A trough-shaped charge, containing a wedge-shaped or curved metal liner which by projecting a sheet of molten metal upon detonation, produces straight line shearing damage rather than a cylindrical hole.

See also: CHARGE, DEMOLITION; charge, line

charge, delay

A quantity of pyrotechnic composition pressed into a holder which upon burning produces a definite time delay. Used in delay type fuzes.

MIL-STD-444
6 February 1959

CHARGE, DEMOLITION

An explosive charge used to produce a blasting, shattering or penetrating effect. It may be shaped so that the energy is concentrated in one direction.

CHARGE, DEMOLITION: block, M2
(2½-lb 75-25 tetrytol)

CHARGE, DEMOLITION: chain, M1
(eight 2½-lb 75-25 tetrytol chg strung on cord, detonating)

CHARGE, DEMOLITION: linear

CHARGE, DEMOLITION: shaped,
15-lb, M2A3

CHARGE, DEMOLITION, INERT

A **CHARGE, DEMOLITION** filled with inert material used for training purposes.

CHARGE, DEPTH

An explosive item designed to be dropped or catapulted from a watercraft for use against underwater targets. When empty or inert loaded it may be used for training purposes. For similar items dropped from aircraft see **BOMB, DEPT.**

CHARGE, DEPTH: TNT-loaded.
MARK 15 MOD 0

charge, detonating

See: detonating agent

charge, equal section

Propelling charge made up of a number of sections equal in size. The number of sections used determines the muzzle velocity and range of the projectile.

Cf: **charge, unequal section**

charge, expelling

Small charge of black powder or other low explosive provided in a base ejection projectile for the purpose of ejecting the contents, such as smoke canisters.

charge, explosive

See: **charge** (sense 1)

charge, flash

A readily ignitable explosive charge used in ignition elements of electric primers and detonators. Its function is usually

to ignite a subsequent charge of lesser sensitivity and greater brisance.

See also: **DETONATOR, ELECTRIC;**
PRIMER, ELECTRIC

charge, full

Propelling charge intended to produce full service velocity. The term 'full charge' sometimes used as an identifying designation when more than one type of propelling charge is available for a weapon.

charge, green bag

In certain cases, two types of propelling charge are provided for one howitzer — one for inner, the other for outer zones of fire. The cloth of the bags for the inner zones is dyed green to distinguish that charge from the other type which is assembled in undyed (white) bags. Accordingly, these two types are called 'green bag' and 'white bag' charges.

charge, igniter

See: first fire

charge, line

1. A shaped charge consisting of a charge with lined cavity of elongated wedge or curved shape, so that cutting or penetration effect is produced along a line. 2. Charge of split charge blocks assembled around detonating cord and dropped with attached parachute to keep the chain elongated.

See also: **charge, cutting**

charge, linear

A demolition charge of extraordinary length, in relation to its other dimensions.

See: **CHARGE, DEMOLITION**

charge, lined

A shaped charge with a lined cavity
See also: **charge, shaped**

charge, multisection

In separate loading or semifixed ammunition, propelling charge that is loaded into a number of propellant bags. Range adjustments can be made by increasing or reducing the number of bags used, as

MIL-STD-444
6 February 1959

contrasted with a single section charge, in which the size of the charge cannot be changed. Three types of multisection charge are: equal section charge, base and increment charge, and unequal section charge.

See also: charge, propelling

charge, normal

Propelling charge intended to produce a normal velocity and be suitable for ordinary targets. The term 'normal charge' is sometimes used as an identifying designation when more than one type of propelling charge is available for a weapon.

charge, pole

Number of blocks of explosive tied together, capped, fused, mounted on the end of a pole, and ready to be fired. The minimum weight of charge is usually about 15 pounds. A pole charge may be placed in a position out of handreach.

charge, powder

See: charge, propelling

CHARGE, PRACTICE HAND GRENADE

A bag of black powder used in a practice type hand grenade for training purposes.

CHARGE, PRACTICE HAND GRENADE: M21 and MK2

CHARGE, PROPELLANT INCREMENT

A propelling charge composed of increments, the number of which can be varied to produce the desired muzzle velocity. The item as issued contains the increments required to impart the maximum rated muzzle velocity. Commonly applied to charges for mortars.

See also: charge, propelling

CHARGE, PROPELLANT INCREMENT: M1A1, mortar cartridge, M43A1

CHARGE, PROPELLANT INCREMENT: M2A1, and holder, M3, for mortar cartridges, M56, M57, and M301

CHARGE, PROPELLANT INCREMENT: M3A1

CHARGE, PROPELLANT INCREMENT: M6

charge, propelling

Charge of low explosive that is burned in a weapon to propel a projectile from it; propellant; propellant charge. Burning of the confined propelling charge produces gases which force the projectile out.

See also: low explosive

charge, propelling, dummy

A completely inert item, simulating a charge, propelling (which see), used for training purposes.

CHARGE, PROPELLING, EARTH ROD

An explosive item in a metal can used to drive a metal rod into earth or shale.

See also: charge, propelling

CHARGE, PROPELLING, EARTH ROD: M12 (w/primer, M44)

CHARGE, PROPELLING, 4.2 INCH

A propelling charge for use in 4.2-inch weapons.

CHARGE, PROPELLING, 5 INCH 38 CALIBER

A charge, propelling (which see) for use in 5-inch 38-caliber weapons.

CHARGE, PROPELLING, 5 INCH 38 CALIBER: full cartridge

CHARGE, PROPELLING, 5 INCH 38 CALIBER: reduced cartridge

CHARGE, PROPELLING, 5 INCH 38 CALIBER DUMMY

A charge, propelling, dummy (which see) for 5-inch 38-caliber weapons.

CHARGE, PROPELLING, 5 INCH 38 CALIBER DUMMY: MARK 5 MOD 0

CHARGE, PROPELLING, 5 INCH 50 CALIBER

A charge, propelling (which see) for use in 5-inch 50-caliber weapons.

MIL-STD-444
6 February 1959

CHARGE, PROPELLING, 5 INCH 50
CALIBER: full charge

CHARGE, PROPELLING, 5 INCH 51 CAL-
IBER

A charge, propelling (which see) for use
in 5-inch 51-caliber weapons.

CHARGE, PROPELLING, 5 INCH 51
CALIBER: full cartridge

CHARGE, PROPELLING, 5 INCH 51
CALIBER: full charge

CHARGE, PROPELLING, 5 INCH 51 CAL-
IBER DUMMY

A charge, propelling, dummy (which see)
for 5-inch 51-caliber weapons.

CHARGE, PROPELLING, 5 INCH 54 CAL-
IBER

A charge, propelling (which see) for use
in 5-inch 54-caliber weapons.

CHARGE, PROPELLING, 5 INCH 54
CALIBER: full cartridge

CHARGE, PROPELLING, 5 INCH 54 CAL-
IBER DUMMY

A charge, propelling, dummy (which see)
for 5-inch 54-caliber weapons.

CHARGE, PROPELLING, 5 INCH 54
CALIBER DUMMY: MARK 7
MOD 0

CHARGE, PROPELLING, 6 INCH 47 CAL-
IBER

A charge, propelling (which see) for use in
6-inch 47-caliber weapons.

CHARGE, PROPELLING, 6 INCH 47
CALIBER: full cartridge

CHARGE, PROPELLING, 6 INCH 47
CALIBER: reduced cartridge

CHARGE, PROPELLING, 6 INCH 47
CALIBER: target cartridge

CHARGE, PROPELLING, 6 INCH 47 CAL-
IBER DUMMY

A charge, propelling, dummy (which see)
for 6-inch 47-caliber weapons.

CHARGE, PROPELLING, 6 INCH 47

CALIBER DUMMY: MARK 3
MOD 0

CHARBE, PROPELLING, 6 INCH 50 CAL-
IBER

A charge, propelling (which see) for use
in 6-inch 50-caliber weapons.

CHARGE, PROPELLING, 6 INCH 50
CALIBER: full charge

CHARGE, PROPELLING, 6 INCH 50
CALIBER: reduced charge

CHARGE, PROPELLING, 6 INCH 53 CAL-
IBER

A charge, propelling (which see) for use
in 6-inch 53-caliber weapons.

CHARGE, PROPELLING, 6 INCH 53
CALIBER: full charge

CHARGE, PROPELLING, 6 INCH 53
CALIBER: reduced charge

CHARGE, PROPELLING, 8 INCH

A charge, propelling (which see) for use
in 8-inch weapons.

CHARGE, PROPELLING, 8 INCH:
M9, for 240-lb proj

CHARGE, PROPELLING, 8 INCH DUMMY

A charge, propelling, dummy (which see)
for 8-inch weapons.

CHARGE, PROPELLING, 8 INCH
DUMMY: M7, for 240-lb and 260-lb
proj

CHARGE, PROPELLING, 8 INCH 55 CAL-
IBER

A charge, propelling (which see) for use
in 8-inch 55-caliber weapons.

CHARGE, PROPELLING, 8 INCH 55
CALIBER: full cartridge

CHARGE, PROPELLING, 8 INCH 55
CALIBER: full charge

CHARGE, PROPELLING, 8 INCH 55
CALIBER: special charge

CHARGE, PROPELLING, 8 INCH 55 CAL-
IBER DUMMY

A charge, propelling, dummy (which see)
for 8-inch 55-caliber weapons.

MIL-STD-444
6 February 1959

**CHARGE, PROPELLING, 8 INCH 55
 CALIBER DUMMY: MARK 2
 MOD 0**

**CHARGE, PROPELLING, 12 INCH 50 CAL-
 IBER**

A charge, propelling (which see) for use
 in 12-inch 50-caliber weapons.

**CHARGE, PROPELLING, 12 INCH
 50 CALIBER: full charge**

**CHARGE, PROPELLING, 12 INCH
 50 CALIBER: reduced charge**

**CHARGE, PROPELLING, 12 INCH
 50 CALIBER: special charge**

**CHARGE, PROPELLING, 12 INCH 50 CAL-
 IBER DUMMY**

A charge, propelling, dummy (which see)
 for 12-inch 50-caliber weapons.

**CHARGE, PROPELLING, 12 INCH
 50 CALIBER DUMMY; MARK 2
 MOD 0**

**CHARGE, PROPELLING, 14 INCH 45 CAL-
 IBER**

A charge, propelling (which see) for use
 in 14-inch 45-caliber weapons.

**CHARGE, PROPELLING, 14 INCH
 45 CALIBER: full charge**

**CHARGE, PROPELLING, 14 INCH
 45 CALIBER: reduced charge**

**CHARGE, PROPELLING, 14 INCH
 45 CALIBER: target charge**

**CHARGE, PROPELLING, 14 INCH 50 CAL-
 IBER**

A charge, propelling (which see) for use
 in 14-inch 50-caliber weapons.

**CHARGE, PROPELLING, 14 INCH
 50 CALIBER: full charge**

**CHARGE, PROPELLING, 14 INCH
 50 CALIBER: reduced charge**

**CHARGE, PROPELLING, 14 INCH
 50 CALIBER: target charge**

**CHARGE, PROPELLING, 14 INCH 50 CAL-
 IBER DUMMY**

A charge, propelling, dummy (which see)
 for 14-inch 50-caliber weapons.

**CHARGE, PROPELLING, 14 INCH
 50 CALIBER DUMMY: MARK 2
 MOD 0**

**CHARGE, PROPELLING, 16 INCHES 45
 CALIBER**

A charge, propelling (which see) for use
 in 16-inch 41-caliber weapons.

**CHARGE, PROPELLING, 16 INCH
 45 CALIBER: full charge**

**CHARGE, PROPELLING, 16 INCH
 45 CALIBER: reduced charge**

**CHARGE, PROPELLING, 16 INCH
 45 CALIBER: target charge**

**CHARGE, PROPELLING, 16 INCH 45 CAL-
 IBER DUMMY**

A charge, propelling, dummy (which see)
 for 16-inch 45-caliber weapons

**CHARGE, PROPELLING, 16 INCH
 45 CALIBER DUMMY: MARK 3
 MOD 0**

**CHARGE, PROPELLING, 16 INCH
 45 CALIBER DUMMY: MARK 4
 MOD 0**

**CHARGE, PROPELLING, 16 INCH 50 CAL-
 IBER**

A charge, propelling (which see) for use
 in 16-inch 50-caliber weapons.

**CHARGE, PROPELLING, 16 INCH
 50 CALIBER: full charge**

**CHARGE, PROPELLING, 16 INCH
 50 CALIBER: reduced charge**

**CHARGE, PROPELLING, 16 INCH
 50 CALIBER: target charge**

**CHARGE, PROPELLING, 16 INCH 50 CAL-
 IBER DUMMY**

A charge, propelling, dummy (which see)
 for 16-inch 50-caliber weapons.

**CHARGE, PROPELLING, 16 INCH
 50 CALIBER DUMMY: MARK 1
 MOD 0**

**CHARGE, PROPELLING, 105 MILLI-
 METER DUMMY**

A charge, propelling, dummy (which see)
 for 105-millimeter weapons.

MIL-STD-444
6 February 1959

CHARGE, PROPELLING, 105 MILLIMETER DUMMY: M3, for dummy cartridge, M14

CHARGE, PROPELLING, 120 MILLIMETER

A charge, propelling (which see) for use in 120-millimeter weapons.

CHARGE, PROPELLING, 120 MILLIMETER, M15A2

CHARGE, PROPELLING, 120 MILLIMETER DUMMY

A charge, propelling, dummy (which see) for 120-millimeter weapons.

CHARGE, PROPELLING, 120 MILLIMETER DUMMY: M13

CHARGE, PROPELLING, 155 MILLIMETER

A charge, propelling (which see) for use in 155-millimeter weapons.

CHARGE, PROPELLING, 155 MILLIMETER: M19

CHARGE, PROPELLING, 155 MILLIMETER DUMMY

A charge, propelling, dummy (which see) for 155-millimeter weapons.

CHARGE, PROPELLING, 155 MILLIMETER DUMMY: M100

CHARGE, PROPELLING, 240 MILLIMETER

A charge, propelling (which see) for use in 240-millimeter weapons.

CHARGE, PROPELLING, 240 MILLIMETER: M23, for 360-lb proj

CHARGE, PROPELLING, 240 MILLIMETER DUMMY

A charge, propelling, dummy (which see) for 240-millimeter weapons.

CHARGE, PROPELLING, 240 MILLIMETER DUMMY: M12

CHARGE, PROPELLING, 280 MILLIMETER

A charge, propelling (which see) for use

in 280-millimeter weapons.

CHARGE, PROPELLING, 280 MILLIMETER: M38

CHARGE, PROPELLING, 280 MILLIMETER: T44, dualgran, for 600-lb proj

CHARGE, PROPELLING, 280 MILLIMETER DUMMY

A charge, propelling, dummy (which see) for 280-millimeter weapons.

CHARGE, PROPELLING, 280 MILLIMETER DUMMY: T76

charge, reduced (red chg)

Propelling charge intended to produce a velocity below the normal. The term 'reduced charge' is sometimes used as an identifying designation when more than one type of propelling charge is available for a weapon.

charge, satchel

Number of blocks of explosive taped to a board fitted with a rope or wire loop for carrying and attaching. The minimum weight of the charge is usually about 15 pounds.

charge, shaped (SC)

An explosive charge with a shaped cavity. Sometimes called 'cavity charge.' Called 'hollow charge' in Great Britain. Use of the term shaped charge generally implies the presence of a lined cavity.

CHARGE, SIGNAL, EJECTION

An explosive item designed to eject a signal from a MINE, UNDERWATER when used for training.

CHARGE, SIGNAL, EJECTION:
MARK 3 MOD 0

charge, single section

Propelling charge in separate loading ammunition that is loaded into a single propellant bag. A single section charge cannot be reduced or increased for change of range, as can a multisection charge.

See also: charge, propelling

MIL-STD-444
6 February 1959

charge, special

Propelling charge intended to produce a special (high) velocity. The term 'special charge' is sometimes used as an identifying designation when more than one type of propelling charge is available for a weapon.

charge, spotting

A small charge, usually of black powder, in a practice bomb, practice mine, or like, to show the location of its point of functioning. Also, occasionally, use in service ammunition. See also: CHARGE, SPOTTING, BOMB; CHARGE, SPOTTING, MINE.

CHARGE, SPOTTING, BOMB

An item used with practice bombs to mark the point of impact for training drops. It may also be used with empty bombs for training personnel.

CHARGE, SPOTTING, BOMB: M1A1
 (for practice bomb, 100-lb, M38A2)
 (black powder)

CHARGE, SPOTTING, BOMB:
 MARK 7 MOD 0

CHARGE, SPOTTING, MINE

An item designed to simulate the explosion of a bounding antipersonnel mine.

See also: SIMULATOR, ANTIPERSONNEL MINE PROJECTILE CHARGE, SPOTTING, MINE, practice, M8.

charge, stacked

Propelling charge in which the propellant grains lie end to end within the propellant bag.

charge, sticky

An explosive charge covered with an adhesive substance to make it stick against an object when thrown or planted. Also called 'sticky grenade.'

charge, supplementary

A small, removable, explosive charge used in the fuze cavity of deep cavitized munitions. The charge must be removed if the munition is to be fitted with a pro-

ximity fuze, since a deep cavity is required for this fuze.

charge, target

Propelling charge intended to produce a velocity less than normal, and considered to be suitable for target practice purposes. The term 'target charge' is sometimes used as an identifying designation when more than one type of propelling charge is available for a weapon.

charge, traveling

A propelling charge which travels along the bore with the projectile as burning takes place; also called 'Langweiler charge.'

charge, unequal section

A propelling charge in separate loading or semifixed ammunition, divided into a number of increments, not all of which are alike.

Cf: charge, equal section

charge, wedge

Explosive charge using a wedge shaped cavity, lined or unlined.

See: charge, cutting

charge, white bag

See: charge, green bag

CHARGE ASSEMBLY, DEMOLITION

A group of items including explosives, assembled in a haversack designed for use in beach reconnaissance and underwater demolition missions.

CHARGE ASSEMBLY, DEMOLITION: M37

CHARGE ASSEMBLY, DEMOLITION: MARK 104 MOD 1

charge weight ratio

The ratio of the weight of a charge, especially an explosive charge, to the total weight of the complete bomb, projectile, or the like, that contains the charge.

chemical agent

A chemical item either solid, liquid, or gas divided into three (3) principal cate-

MIL-STD-444
6 February 1959

gories, war gases, smokes, and incendiaries. It is developed for the purpose of conducting defensive and/or offensive warfare. Through its chemical properties it produces lethal, injurious or irritant effects resulting in casualties; a screening or colored smoke; or it acts as an incendiary agent.

CHEMICAL AGENT, CHLOROACETOPHENONE (CN)

Tear gas, causing irritation of eyes, skin, and upper respiratory passages. No permanent effects. Used for training and riot control.

CHEMICAL AGENT, CHLOROACETOPHENONE CAPSULE (CN CAPSULE)

Chemical Agent, Chloroacetophenone (tear gas) in prepared capsule form, used for training purposes.

See also: CHEMICAL AGENT, CHLOROACETOPHENONE

CHEMICAL AGENT, CHLOROACETOPHENONE PELLET (CN PELLET)

Chemical Agent, Chloroacetophenone (tear gas) in prepared pellet form, used for training purposes.

See also: CHEMICAL AGENT, CHLOROACETOPHENONE

CHEMICAL AGENT, CHLOROACETOPHENONE PELLET: M2

CHEMICAL AGENT, CHLOROACETOPHENONE SOLUTION (CN) (CNC) (CNS) (CNB)

Solution of Chemical Agent, Chloroacetophenone (tear gas). Three solutions which have been used are chloroacetophenone in chloroform; mixture of chloroacetophenone and chloropicrin in chloroform; and chloroacetophenone in a mixture of carbon tetrachloride and benzene. These are distinguished by the abbreviations CNC, CNS and CNB, respectively.

See also: CHEMICAL AGENT, CHLO-

ROACETOPHENONE

CHEMICAL AGENT, CHLOROACETOPHENONE SOLUTION: CNB

CHEMICAL AGENT, CHLOROACETOPHENONE SOLUTION: CNC

CHEMICAL AGENT, CHLOROACETOPHENONE SOLUTION: CNS

CHEMICAL AGENT, CYANOGEN CHLORIDE (CK)

A low persistency, quick acting, casualty gas, which interferes with utilization of oxygen by body tissues and hemoglobin. A liquid at normal temperatures; one of the 'blood gases.'

CHEMICAL AGENT, DIPHENYLAMINE-CHLOROARSINE (DM)

Popular name—adamsite. Solid, dispersed by heat to produce an aerosol causing skin and eye irritation, chest distress and nausea. Relatively nontoxic. One of the 'vomiting gases.' Used for training and riot control.

CHEMICAL AGENT, DIPHENYLCHLOROARSINE (DA)

Solid, dispersed by heat to produce an aerosol causing skin and eye irritation, chest distress and nausea. Relatively nontoxic. One of the 'vomiting gases.' Used for training and riot control.

CHEMICAL AGENT, DIPHENYLCYANOARSINE (DC)

Solid, dispersed by heat to produce an aerosol causing eye and mucous membrane irritation, chest distress and nausea. Some temporary toxic effect. One of the 'vomiting gases.' Used for training and riot control.

CHEMICAL AGENT, GREEN SMOKE

A chemical agent, producing a green smoke, used for a variety of tactical

MIL-STD-444

6 February 1959

purposes such as identifying targets and friendly units, and for spotting purposes in ranging shots. Designated a 'signaling smoke.'

CHEMICAL AGENT, HEXACHLOROETHANE MIXTURE (HC)

A smoke producing agent, consisting of a mixture of grained aluminum, zinc oxide and hexachloroethane. The smoke is produced by burning of the mixture, induced by a suitable ignition charge. Used to produce a screening smoke.

CHEMICAL AGENT, HYDROGEN CYANIDE (AC)

A quick acting casualty gas of low persistency which interferes with utilization of oxygen by the body tissues. A gas at temperatures only slightly above normal room temperature. One of the 'blood gases.' Popular name—prussic acid.

CHEMICAL AGENT, INCENDIARY MIXTURE

A mixture of certain metals, oxidizers and/or petroleum fractions to form a powder or a pastry, flammable mass. Readily ignited by fuze action.

CHEMICAL AGENT, INCENDIARY OIL

An incendiary liquid or gel consisting of gasoline and fuel oil, with or without a thickening agent (necessary to produce a gel). Peptizers may also be used with thickening agent, to facilitate formation of a gel.

CHEMICAL AGENT, ISOPROPYL METHYLPHOSPHONOFUORIDATE (GB)

Nontechnical name—sarin. A quick acting casualty gas of medium persistency. Liquid at normal temperature. Very rapid lethal effect, attacking the nerve system. One of the 'nerve gases.'

CHEMICAL AGENT, LEWISITE (L)

A moderately delayed action casualty gas.

A 'blister gas,' toxic lung irritant and systemic poison. Produces immediate and strong stinging sensation of the skin. Dichloro (2-chlorovinyl) arsine.

CHEMICAL AGENT, MUSTARD, DISTILLED (HD)

A delayed action casualty gas. A blister gas, acts as cell irritant and cell poison. (Distilled refers to a purifying process, which greatly reduces the odor, and therefore increases the difficulty of detection.)

CHEMICAL AGENT, MUSTARD, SIMULATED (H)

Material having physical properties similar to 'mustard gas,' used for testing dispersion apparatus and munitions and for training purposes. Specifically a 25 percent solution by volume of molasses residuum, dissolved in water, with additive of cresol as stabilizing agent.

See also: CHEMICAL AGENT, MUSTARD, DISTILLED; CHEMICAL AGENT, MUSTARD GAS

CHEMICAL AGENT, MUSTARD GAS (H)

A delayed action casualty gas. A blister gas, acts as cell irritant and cell poison. Contains about 30 percent sulfur impurities, giving it a pronounced odor.

CHEMICAL AGENT, NITROGEN MUSTARD GAS (HN)

Any one of a group of related compounds in which nitrogen is the central atom. Three compounds are recognized, identified by the three abbreviations HN-1, HN-2 and HN-3. Similar in physiological effects to mustard or distilled mustard, but greater tendency to permanent damage. The agents are of the type called 'blister gases.'

CHEMICAL AGENT, PHENYLDICHLOROARSINE (PD)

A delayed action casualty gas of low persistency. A liquid at normal temper-

MIL-STD-444
6 February 1959

atures, may be dispersed by explosive action or as a spray. Classed as a 'blister gas,' also acts as a 'vomiting gas.'

CHEMICAL AGENT, PHOSGENE (CG)

Delayed or immediate action casualty gas. Acts on the capillaries of the lungs to produce seepage of fluid, resulting in oxygen deficiency, and death, if lethal quantity is received. One of the 'choking gases.'

CHEMICAL AGENT, PLASTICIZED WHITE PHOSPHORUS (PWP)

Smoke producing agent, with side incendiary effects. Based on white phosphorus, with polymer addition to retard the burning.

CHEMICAL AGENT, Q (Q)

A chemical agent of specialized application.

CHEMICAL AGENT, RED SMOKE

A chemical agent, producing a red smoke, used for a variety of tactical purposes, such as identifying targets and friendly units, and for spotting purposes in ranging shots. Designated a 'signaling smoke.'

CHEMICAL AGENT, SULFUR TRI-OXIDE-CHLOROSULFONIC ACID SOLUTION (FS)

A liquid which causes formation of a screening smoke when it is dispersed in air. May be dispersed by explosive effect or as a mechanically produced spray. A mixture of 55 percent sulphur trioxide and 45 percent chlorosulfonic acid. Smoke causes prickling of the skin and heavy concentration produces a severe irritation. In ordinary concentrations no protection is required.

CHEMICAL AGENT, T (T)

A chemical agent of specialized application.

CHEMICAL AGENT, THERMATE (TH)

Incendiary chemical agent, composed of mixture of thermite, additional oxidizer and binder, formerly used as igniter for magnesium bombs. The abbreviation 'TH' signifies either thermite or thermate, with specific compositions of thermate designated as TH2 and TH3. See also: CHEMICAL AGENT, THERMITE

CHEMICAL AGENT, THERMITE (TH)

A metal incendiary, composed of approximately 73 percent ferric oxide and 27 percent fine granular aluminum. Used in items of ammunition to provide a source of heat to cause fires at the target. The abbreviation 'TH' signifies either thermite or thermate, with specific composition of thermite designated as TH1.

See also: CHEMICAL AGENT, THERMATE

CHEMICAL AGENT, TITANIUM TETRACHLORIDE (FM)

A liquid which causes formation of a screening smoke when it is dispersed in air. May be dispersed by explosive effect or as a mechanically produced spray. Smoke is corrosive and irritating to nose and throat, but not serious in effect in the concentration usually present in a smoke cloud.

CHEMICAL AGENT, VIOLET SMOKE

A chemical agent, producing a violet smoke, used for a variety of tactical purposes, such as identifying targets and friendly units, and for spotting purposes in ranging shots. Designated a 'signaling smoke.'

CHEMICAL AGENT, W (W)

A chemical agent of specialized application.

CHEMICAL AGENT, WHITE PHOSPHORUS (WP)

MIL-STD-444
6 February 1959

Smoke producing agent, with side incendiary effects. A solid at normal temperature, dispersed by explosive effect of a burster charge.

CHEMICAL AGENT, YELLOW SMOKE

A chemical agent, producing a yellow smoke, used for a variety of tactical purposes, such as identifying targets and friendly units, and for spotting purposes in ranging shots. Designated a 'signaling smoke.'

chemical ammunition

Any ammunition, as bombs, projectiles, bullets, flares, or the like containing a chemical agent or agents. Such agents include war gases, smokes, and incendiaries.

See also: chemical agent. Cf: chemical energy ammunition

chemical energy ammunition

Ammunition intended to defeat armor and other resistant targets by chemical energy rather than kinetic energy as in conventional armor-piercing ammunition. Examples are HEAT and HEP ammunition.

Cf: chemical ammunition; kinetic energy ammunition

chlorine

Greenish-yellow toxic chemical, gaseous at normal temperatures and pressures, that is irritating and harmful to the eyes, nose, throat, and lungs, and may cause death.

chloropicrin (PS)

Trichloronitromethane, a chemical agent. A colorless liquid whose vapor is very irritating to the lungs, and causes vomiting, coughing, and crying. Has the odor of flypaper or licorice.

choking gas

Casualty gas which causes irritation and inflammation of the bronchial tubes and lungs. An example of this type of gas is CHEMICAL AGENT, PHOSGENE.

chuffing

An uneven or nonuniform burning of solid propellant, as in a rocket motor.

Cf: chugging

chugging

An irregular combustion of liquid fuels in a rocket engine, due to incorrect mixture or poor chamber design.

Cf: chuffing

cigarette burning

In rocket propellants, black powder, gasless delay elements, and pyrotechnic candles, the type of burning induced in a solid grain by permitting burning on one end only, so that the burning progresses in the direction of the longitudinal axis.

cliftatol

An explosive consisting of PETN/RDX/TNT in the ratio 5.25/60/34.75.

clip

See: CLIP, CARTRIDGE

clip, ammunition

See: CLIP, CARTRIDGE

CLIP, CARTRIDGE

A metal device intended to contain rifle or revolver cartridges for ease of loading into the receiver of a rifle or cylinder of a revolver.

CLIP, CARTRIDGE: cal .30, 5-rd

clip, plug, retaining

A spring clip designed to retain the male terminal of CABLE ASSEMBLY, POWER, ELECTRICAL, in bomb fuze well.

CLIP, SAFETY, ARMING WIRE

A spring clip designed to pass over an arming wire and tightly grip the wire to act as security for the free end of the arming wire, to prevent premature arming of a bomb fuze.

CLIP, SAFETY, ARMING WIRE:
 Fahnestock type

MIL-STD-444
6 February 1959

clip loading machine

Device for placing cartridges in clips.

CLOCK, DELAY, UNDERWATER MINE

A safety device designed to delay the arming of an underwater mine. Its purpose is to allow the planting craft time to withdraw from the mine field.

CLOCK, UNDERWATER MINE:

MARK 12 MOD 1, w/cable CA-27

CLOCK, UNDERWATER MINE:

MARK 17 MOD 0

closed bomb

A test device used for the evaluation of the thermochemical characteristics of combustible materials. Also called 'closed chamber.' The closed bomb is a thick-walled, alloy steel cylinder with removable threaded plug in each end. One plug contains the ignition system, and the other plug is instrumented to permit recording of pressure-time. The bomb is cooled by a water jacket. The closed bomb is used for determining the interior ballistic properties of propellants, such as the linear burning rate, relative quickness and relative force, under varying conditions of pressure and temperature.

closed chamber

See: closed bomb

cloth, cartridge

Special fabric used to hold the propelling charge for large guns. Must not leave burning residue when gun is fired. Formerly silk was used exclusively for this purpose but other satisfactory fabrics have been developed. Used in making propellant bags.

See also: bag, propellant

cluster (clstr)

1. A collection of small bombs held together by an adapter for dropping. Example: CLUSTER, FRAGMENTATION BOMB. 2. A pyrotechnic signal consisting of a group of stars or fireballs. Example: amber star, cluster.

3. A grouping of rocket motors fastened together. Example: CLUSTER, ROCKET MOTOR. 4. A group of three antipersonnel mines.

cluster, aimable

A cluster of bombs held together so as to be aimed and dropped by ordinary bombing methods.

See also: adapter, cluster, aimable

CLUSTER, FRAGMENTATION BOMB

A cluster of fragmentation bombs, so arranged that more than one bomb can be suspended and dropped from a single station of a bomb rack on an airplane.

CLUSTER, FRAGMENTATION

BOMB: (100-lb size) AN-M1A2

CLUSTER, FRAGMENTATION

(500-lb size) M26A1C

CLUSTER, GAS BOMB

A cluster of gas bombs, so arranged that more than one bomb can be suspended and dropped from a single station of a bomb rack on an airplane.

CLUSTER, GAS BOMB: 1,000-lb, nonpersistent, GB, M34A1

CLUSTER, INCENDIARY BOMB

A cluster of incendiary bombs, so arranged that more than one bomb can be suspended and dropped from a single station of a bomb rack of an airplane.

CLUSTER, INCENDIARY BOMB:

100-lb, NP, M12

CLUSTER, INCENDIARY BOMB:

750-lb, TH3, M36

CLUSTER, ROCKET MOTOR

A grouping of rocket motors fastened together.

CN solutions

Tear gas fillings for munitions.

See also: CHEMICAL AGENT, CHLOROACETOPHENONE SOLUTION

coal powder

An unglazed finely granulated black pow-

MIL-STD-144
6 February 1959

der made with coal in lieu of charcoal, relatively slow burning, used normally blended with meal powder to attain a desired burning time.

coefficient of form

See: form factor

coefficients, performance

As pertaining to cartridge actuated devices, indexes of performance defined as change of thrust, velocity or acceleration with respect to temperature over the range, -65°F. to 160°F.

See also: cartridge actuated device

COIL, UNDERWATER MINE

An item designed to detect changes in an underwater mine's magnetic field made by the passing of a ship.

COIL, UNDERWATER MINE: 72 inch, MARK 25 MOD 0

COIL, UNDERWATER MINE: SC-15 coil assembly

color code

A system of ammunition identification by color, wherein each item of ammunition is painted with a color or combination of colors in accordance with a code to make for ready identification, particularly when out of its original container.

colored smoke

Gaseous products of a distinctive color. Smokes are a class of chemical agent (which see). The basis for a colored smoke is a volatile dye, which upon condensing forms a colored cloud. The dye may be volatilized by explosion of a burster charge, as in a colored marker projectile or by combustion of a fuel mixed with the dye, as in a colored smoke candle. Colored smoke munitions are made in several forms, including projectiles, bombs, grenades and candles. They may be employed as signals, targets markers, zone identification markers, etc. Some of the most satis-

factory smoke colors are red, green, yellow and violet.

combustion

The continuous rapid combination of a substance with various elements such as oxygen or chlorine or with various oxygen bearing compounds, accompanied by the generation of light and heat.

commercial *Ammo nomen*

Indicates item is of commercial design and availability.

compatibility

In connection with ammunition, refers almost exclusively to chemical compatibility; that is, the ability of a given material to exist unchanged under certain conditions of temperature and moisture, when in the presence of some other material. If this condition exists, the two materials are said to be compatible. Thus black powder is compatible with zinc plated steel, but is incompatible with bare brass. Incompatibility may result in loss of effectiveness or in extreme hazard. The term is also sometimes used in its general sense; as, for instance, a given propellant is compatible with a given projectile, if the ballistic results on firing are favorable.

COMPENSATOR, DEPTH, UNDERWATER MINE

A hydrostatically actuated item designed to increase the sensitivity of a firing mechanism when an underwater mine exceeds a predetermined depth.

COMPENSATOR, DEPTH, UNDERWATER MINE: MARK 3 MOD 0

complete round

All of the components of ammunition necessary to fire a given gun or firearm once; also applied to all the components of other items of ammunition, such as aerial bombs, rockets, etc.

See also: bomb complete round

composition (comp)

Specifically: an explosive material that

MIL-STD-444
6 February 1959

may be cast or molded.

In this sense the word 'composition' is found followed by a letter, or by a letter and a numeral, designating the kind of explosive. Some of the more important compositions with ingredients and approximate percentages are as follows:

Composition A-3: RDX/wax, 91/9
Composition B: RDX/TNT/wax,
59.5/39.5/1.0
Composition B-2: RDX/TNT, 60/40
Composition B-3: RDX/TNT, 60/40
Composition C-4: RDX/Polyisobutylene binder, 91/9

CONDITIONING KIT, ROCKET

A specifically designed item consisting of a tent shaped shelter of quilted insulated cloth, a light metal framework for support and a forced air heating unit for maintaining a rocket within its prescribed firing and/or storage temperature limits. May contain hand tools for assembling.

cone

The hollow, conical shaped liner of a shaped charge.

See also: charge, shaped

confinement

Physical restriction, or degree of such restriction, to passage of detonation wave or reaction zone as, for instance, that of a resistant container which holds an explosive charge.

See also: charge, confined

CONTAINER, BOMB, AIRCRAFT

A suspension device installed on, but not permanently fixed to, an aircraft. It is designed for inclosing, attaching, arming and releasing of bombs. It may also be utilized to accommodate other projectiles.

CONTAINER, DEMOLITION CHARGE

A metallic item of various shapes and sizes designed to be filled with an ex-

plosive charge so as to concentrate the energy of the explosive in one direction.

CONTAINER, DEMOLITION

CHARGE: MARK 3 MOD 0

CONTAINER, DEMOLITION

CHARGE: linear, MARK 7 MOD 3

CONTAINER, PARACHUTE BOMB

A protective cover for shipping and handling a bomb parachute and container.

CONTAINER, PARACHUTE,

BOMB: for bomb parachute and container, M4

CONTROL, BOMB FUZE

A control consisting of a panel containing dials, relays, switches, or the like. It is used to determine the mode of operation of a bomb fuze.

CONTROL, GYRO, GUIDED MISSILE TAIL

An item designed to govern the control surfaces of the tail of a guided missile.

CONTROL, GYRO, GUIDED MISSILE TAIL: for missile, Model GAR-1 (Falcon)

CONTROL, REMOTE, LAND MINE FUZE

A control utilized to accomplish selective arming and disarming of land mine fuzes from a position located in friendly territory.

CONTROL BOX, UNDERWATER MINE

An electrochemical timing and switching device that prescribes overall control of an underwater mine during its live period. This includes timing of the live and dead periods, and combining the output signals of various influence firing mechanisms.

CONTROL BOX, UNDERWATER MINE: MARK 13 MOD 1, for mine, MARK 25 MOD 2

CONTROL BOX, UNDERWATER MINE: MARK 32 MOD 0

CONTROL CABLE, TORPEDO

MIL-STD-444
6 February 1959

A definite length of CABLE, SPECIAL PURPOSE, ELECTRICAL, having the ends processed or terminated in fittings which provide for connection to terminal points in a torpedo, to provide power to the control elements, and transmit signals to the control surface and elements.

CONTROL CABLE, TORPEDO:
MARK 1 MOD 9

CONTROL UNIT, PARACHUTE, UNDERWATER MINE

A barometrically actuated item designed to open an underwater mine parachute at a predetermined altitude.

CONTROL UNIT, PARACHUTE, UNDERWATER MINE: MARK 66 MOD 0

CONVERSION KIT, DEPTH CHARGE

A group of items designed to convert a depth charge to a controlled mine or demolition kit.

See also: CHARGE, DEPTH; demolition kit; mine, controlled

CONVERSION KIT, DEPTH CHARGE: MARK 7 MOD 0

CONVERSION KIT, FIRE BOMB

A group of items designed to convert a fire bomb from impact type of fuzing to variable time type of fuzing.

CONVERSION KIT, FIRE BOMB: MARK 19 MOD 0

CONVERSION KIT, FRAGMENTATION BOMB

A group of items designed to convert fragmentation bomb(s) from fin assembly type of stabilization to parachute type of stabilization.

CONVERSION KIT, FRAGMENTATION BOMB: for fragmentation bomb cluster, M27

cook-off

The deflagration or detonation of ammunition caused by the absorption of heat

from its environment. Usually it consists of the accidental and spontaneous discharge of, or explosion in, a gun or firearm, caused by an overheated chamber or barrel igniting a fuze, propellant charge, or bursting charge.

coppering

Metal fouling accumulated in the bore of a weapon due to repeated firing. The metal is deposited from the rotating bands or jackets of the projectiles.

CORD, DETONATING

Flexible fabric tube containing a filler of high explosive intended to be initiated by a blasting cap or electric detonator.

See also: fuse

CORD, DETONATING: fuse, primacord (PETN)

CORD, DETONATING: reinforced, pliofilm wrapped

cord propellant

See: cordite

cordeau

See: CORD, DETONATING

cordite

Traditional British propellant. Double base propellant in the form of cords, composed of guncotton, nitroglycerin, and mineral jelly, used by some foreign nations, and to some extent in the US, as a propellant.

See: propellant

COUNTER, SHIP, UNDERWATER MINE

An item designed to count the number of ships passing over an underwater mine. It is set to allow detonation after a predetermined number of ships have passed.

COUNTER, SHIP, UNDERWATER MINE: MARK 10 MOD 0

COUNTER, SHIP, UNDERWATER MINE: SE2 MOD 0

countermining

Method of destroying mines by detonating

MIL-STD-444
6 February 1959

them with nearby explosions.

countermining radius

The least practicable distance between mines to avoid chain countermining.

COUPLING BASE, FIRING DEVICE

A device by means of which a standard firing device may be connected to a black powder igniter or blasting cap. The item is threaded on one end to screw into a standard firing device and at the other end to screw into a cap well of demolition charge or certain types of land mines. It may or may not be assembled with a percussion primer.

COVER, ANTITANK MINE

An item specifically designed for use with light antitank mines to prevent entry of dirt, stone, or sand in the working space between the mine body and the mine pressure plate.

COVER, ANTITANK MINE: HE, M7A2, and practice, M1C and M10A1

cover, fuze

Metal cover which fits over nose fuze on projectile to waterproof and to prevent damage during handling and shipment. Sometimes called 'waterproof protective cap.'

COVER, ROCKET MOTOR, ELECTRICAL- LY HEATED

An electrically heated item consisting of a shell, heating element and the like, designed to preheat a rocket motor.

cover, rocket nozzle

See: FAIRING, NOZZLE, ROCKET

crater

Hole in the ground caused by an explosion.

crater analysis

shelling is determined from analysis of the burst pattern of the craters. At the same time, fragments are collected and studied to determine their caliber.

cratering *Ammo nomen*

Indicates, in the case of demolition charges, that munition is intended for blasting craters in roads and for similar demolitions.

See also: charge, cratering

creep

Forward motion of fuze parts relative to the missile that is caused by deceleration of the missile during flight. Also called 'creep action.'

creep spring

In the fuze design, a spring used to prevent creep action.

See also: creep

crimping

1. Mechanical operation on metal or other material by which the material is permanently deformed, usually by small undulations, frills or wrinkles. 2. The process by which the cartridge case is secured to the projectile, either by a continuous folding in of the neck of the cartridge case into the crimping groove or by a series of deformations (crimps) at a location somewhat below the cartridge case mouth. 3. In blank small arms ammunition, the closing in of the neck of the cartridge case to secure the wadding over the charge.

crimping groove

Groove around a projectile base which provides a means of crimping the cartridge case to the projectile.

See also: crimping

cruciform

A configuration in form of a cross with equal legs, 90° apart. Shape used for certain grains of rocket propellant.

CRYPTOGRAPHIC EQUIPMENT DESTROYER, INCENDIARY

An item designed to be filled with an incendiary mixture and to destroy, by burning, cryptographic equipment and associated material. It is provided

MIL-STD-444
6 February 1959

with a mechanical fuze and electrical squib(s). If used for training or instructional purposes, it is either empty of incendiary mixture or sectionalized and filled with simulated incendiary mixture, and in either condition is provided with an inert fuze and inert squib(s). Excludes FILE DESTROYER, INCENDIARY.

**CRYPTOGRAPHIC EQUIPMENT
 DESTROYER, INCENDIARY:
 TH1, M2A1**

curved fire

Fire with low velocity and hence relatively large curvature of the trajectory.

CUSHION, INSTRUMENT, UNDERWATER MINE

An item fabricated from a resilient material, molded or cut into various shapes. It is designed to be fitted around a delicate instrument within an underwater mine to absorb the shock of the underwater mine entering the water when launched from an aircraft.

CUSHION, INSTRUMENT, UNDERWATER MINE: bottom, rubber, MARK 17 MOD 0

CUSHION, INSTRUMENT, UNDERWATER MINE: cellulose, MARK 15 MOD 0

CUSHION, INSTRUMENT, UNDERWATER MINE: hair felt, MARK 19 MOD 0

CUSHION SET, INSTRUMENT, UNDERWATER MINE

A group of two or more CUSHION, INSTRUMENT, UNDERWATER MINE.

CUSHION SET, INSTRUMENT, UNDERWATER MINE: 4-piece, foam latex, MARK 18 MOD 0

CUSHION SET, INSTRUMENT, UNDERWATER MINE: 5-piece, hair felt, MARK 13, MOD 0

CUTTER, POWDER ACTUATED

A tool designed to cut wire, rope, pipe, and like items by utilizing an explosive

charge to actuate a cutting blade. In operation the tool is not fixed and is controlled by hand. The items are suitable for use under water as well as above water.

CUTTER, POWDER ACTUATED:
 cable and chain, MARK 1, MOD 0

CUTTER, POWDER ACTUATED:
 cable and chain, COMP C-2-loaded, MARK 2 MOD 0

CUTTER, POWDER ACTUATED, REEFING LINE

An explosive actuated item designed to cut the reefing line of a reefing device used to restrain the opening of high speed parachutes during initial deployment.

CUTTER, POWDER ACTUATED, REEFING LINE: M1

CUTTER, POWDER ACTUATED, REEFING LINE: M2, 2-sec delay, w/mounting bracket

cyanogen chloride (CK)

See: CHEMICAL AGENT, CYANOGEN CHLORIDE

cyclonite (RDX)

A white crystalline explosive, $(CH_3)_3N$, $(NO_2)_3$, having high sensitivity and brisance. Cyclonite is used with other explosives or substances to form explosive mixtures and compositions.

See also: composition

cyclotol

High explosive composed of RDX (cyclonite) and TNT. Mixtures containing up to 75 percent RDX can be loaded by casting.

CYLINDER, RELEASE

An element of the propellant control for a guided missile.

See also: RELEASE, PROPELLANT VALVE, GUIDED MISSILE CYLINDER, RELEASE: propellant valve, XM4

dark ignition (DI)

MIL-STD-444
6 February 1959

Igniter for tracer with low luminous intensity to prevent blinding of gunner.

DASHPOT, ANCHOR, UNDERWATER MINE

An item consisting of a cylinder and piston with a means of securing on both ends. Its purpose is to delay release of the anchor plummet by a restricted passage of fluid through an orifice or around the piston.

See also: RELEASE, ANCHOR, UNDERWATER MINE

DASHPOT, ANCHOR, UNDERWATER MINE: for anchor, underwater mine, MARK 6 all MODS

DBX

A depth bomb explosive containing RDX, ammonium nitrate, TNT, and aluminum in the ratio 21/21/40/18.

deactivate

The act of rendering an explosive device inert or harmless.

See also: defuze; disarm

decontamination (decon)

The act of removing chemical, biological, or radiological contamination from, or neutralizing it on, a person, object or area.

decoppering agent

Material included in a propelling charge, or material inserted in the chamber with the propelling charge, for the purpose of removing the coppering from the surface of the bore. Finely divided tin has been used for this purpose.

See also: coppering

dedud

Clearing areas by neutralization of explosive missiles.

deflagration

Very rapid combustion sometimes accompanied by flame, sparks and/or spattering of burning particles. Deflagration, although classed as an explosion (which see) generally implies the burning of

a substance with self-contained oxygen so that the reaction zone advances into the unreacted material at less than the velocity of sound in the unreacted material. The term is often used to refer to the action of a high explosive projectile which upon impact with a target does not produce the usual effects of a high order detonation. Strictly speaking, the term low order detonation should be used to describe such a phenomenon if it is intended to connote a detonation at lower than the stable detonation velocity of the explosive. The term deflagration should be used if it is intended to connote a burning reaction.

defoliant

A biological agent which destroys the leaves or green plants.

defuze

To remove the fuze from a munition.

degressive granulation

Propellant granulation in which the surface area of a grain decreases during burning. The burning of a propellant with degressive granulation is termed degressive burning or sometimes regressive burning.

Cf: neutral granulation; progressive granulation

delay

A mechanical, electronic, or explosive train component which introduces a controlled time delay in some phase of the arming or functioning of a fuze mechanism.

See also: delay, arming; delay, functioning

delay, arming

1. The interval expressed in time or distance between the instant a piece of ammunition carrying the fuze is launched and the instant the fuze becomes armed.
2. The time interval required for the arming processes to be completed in a

MIL-STD-444
6 February 1959

nonlaunched piece of ammunition.

See also: delay

delay, functioning

The interval expressed in time or distance between initiation of the fuze and detonation of the bursting charge.

See also: delay

DELAY RELEASE ASSEMBLY

An item which releases a retardant device on a bomb, to reduce the velocity of the bomb.

DELAY RELEASE ASSEMBLY:
M18

delay train

An explosive train incorporating a delay.

See also: delay; explosive train.

delayer

A substance mixed with the propellant of a solid fuel rocket to decrease the rate of combustion.

demolition kit

Any of several groups of items of an explosive nature, with the necessary non-explosive accessories and tools, with specially designed containers and carrying attachments, to enable efficient performance of particularly designated demolition tasks. Example: **DEMOLITION KIT, BLASTING**.

DEMOLITION KIT, BANGALORE TORPEDO

A group of items consisting of a number of Bangalore torpedoes with connecting sleeves and a nose sleeve to facilitate assembly of an explosive unit of varying length.

See also: Bangalore torpedo

DEMOLITION KIT, BANGALORE TORPEDO: M1A1

DEMOLITION KIT, BLASTING

A collection of items of an explosive nature and the necessary nonexplosive accessories and tools, with specially designed containers and carrying attach-

ments, to enable the accomplishment of suitable demolition assignments by personnel groups of various sizes.

DEMOLITION KIT, BLASTING:

set No. 1, engineer squad

DEMOLITION KIT, BLASTING:

set No. 2, engineer platoon

DEMOLITION KIT, BLASTING:

set No. 5, individual

DEMOLITION KIT, PROJECTED CHARGE

A group of items including demolition charges designed for assembly into a device to be positioned by an external force for clearing a path through a mine field.

See also: **CHARGE, DEMOLITION**

DEMOLITION KIT, PROJECTED

CHARGE: M1, complete with rocket motor

DEMOLITION KIT, PROJECTED

CHARGE: M3

DEMOLITION KIT, PROJECTED CHARGE, INERT

A **DEMOLITION KIT, PROJECTED CHARGE** with component filled with simulated explosives used for training purposes.

demonstration ammunition

Ammunition authorized for use in approved exhibitions of firepower.

density of loading

The weight of propelling charge per unit volume of the chamber, usually expressed in grams per cubic centimeter. It may be taken as the ratio of the weight of the propelling charge to the weight of the volume of pure water at a temperature of 39.2°F., that would fill the chamber behind the seated projectile.

Cf: loading density

Department of Defense Ammunition Code (DOD Ammunition Code)

An eight character number, assigned to generic descriptions applicable to am-

MIL-STD-444
6 February 1959

munition and explosive items of supply. Such items are identified under the Federal Catalog System in Federal Supply Classification Group 13. The first four members in the code, for example, 1320, constitute the FSC code number assigned to the items covered by the generic description. The second part consists of a letter and three numerals, for example, D548, assigned to a generic description within the FSC class and is separated from the FSC code number by a hyphen. The letter and three numerals, e.g., D548 is known as the Department of Defense Identification Code (which see). Each different generic description, consisting of the approved item name, plus the common characteristics of one or more specific items of supply which are functionally interchangeable, is assigned a different DOD Ammunition Code number. The DOD Ammunition Code numbers are centrally assigned by the Cataloging Division, Office of the Assistant Secretary of Defense (S&L), and are designed as an aid in supply management for worldwide stock status, requirements, and for requisitioning (except where more specific items provided by Federal stock numbers are required). Examples of generic descriptions covering more than one item with the same DOD Ammunition Code number follow:

DOD Ammunition Code: 1325-E500

BOMB, GENERAL PURPOSE:

1000 lb, amatol, M44.

BOMB, GENERAL PURPOSE:

1000 lb, TNT, M44.

BOMB, GENERAL PURPOSE:

1000 lb, amatol, M44, modified (w/o British lug)

DOD Ammunition Code: 1320-D540

CHARGE, PROPELLING, 155

MILLIMETER: M3 packed 2 per fiber container, M68A1.

CHARGE, PROPELLING, 155

MILLIMETER: M3 packed 2 per metal container, M14.

Department of Defense Identification Code (DODIC)

Code consisting of a letter and three digits. Used as a suffix to the Federal stock number as an identification code for items. Identical codes signify interchangeable items for issue and use. For requisition of ammunition items the 4-digit class code number from the Federal supply classification, followed by a hyphen and the DODIC is normally employed. This combination is known as the Department of Defense Ammunition Code (which see).

depth charge

See: CHARGE, DEPTH

DEPTH CHARGE PISTOL

An item designed to properly position a detonator in relation to a booster within a depth charge.

DEPTH CHARGE PISTOL: MARK
12 MOD 0

DESTRUCTOR, EXPLOSIVE

A cylindrical metallic item containing explosive components for destruction of material by explosion.

DESTRUCTOR, EXPLOSIVE:

MARK 2 MOD 0

DESTRUCTOR, EXPLOSIVE:

universal, M10

DETECTOR, PRESSURE, UNDERWATER MINE

An item designed to provide a means of actuating a firing mechanism in an underwater mine from the effects of pressure changes.

DETECTOR, PRESSURE, UNDERWATER MINE: MARK 1 MOD 0

deterrent

A material sometimes applied as a coating on propellant grains to reduce the initial rate of burning. Distinguished from an inhibitor, which prevents burning on the coated surfaces.

Eff: inhibitor

MIL-STD-444
6 February 1959

detonate

To be changed by exothermic chemical reaction usually from a solid or liquid to a gas with such rapidity that the rate of advance of the reaction zone into the unreacted material exceeds the velocity of sound in the unreacted material; that is, the advancing reaction zone is preceded by a shock wave.

See also: detonation

detonating agent

See: primary high explosive

detonating cord

See: CORD, DETONATING

detonating cord assembly, guided missile

See: EXPLOSIVE HARNESS ASSEMBLY, GUIDED MISSILE

detonating net

Network of detonating cord that is interlaced in a mesh design; Brimacord net. Detonating nets are used for clearing paths through mine fields by exploding the mines over which the nets are placed and detonated.

See also: CORD, DETONATING

detonation

An exothermic chemical reaction that propagates with such rapidity that the rate of advance of the reaction zone into the unreacted material exceeds the velocity of sound in the unreacted material, that is, the advancing reaction zone is preceded by a shock wave. A detonation is classed as an explosion. The rate of advance of the reaction zone is termed detonation rate or detonation velocity. When this rate of advance attains such a value that it will continue without diminution through the unreacted material, it is termed the stable detonation velocity. The exact value of this term is dependent upon a number of factors, principally the chemical and physical properties of the material. When the detonation rate is equal to or greater than the stable detonation velocity of the explosive, the reaction is

termed a high order detonation. When the detonation rate is lower than the stable detonation velocity of the explosive, the reaction is termed a low order detonation.

See also: detonate; detonation wave; explosion

detonation rate

See: detonation

detonation velocity

See: detonation

detonation wave

The shock wave which precedes the advancing reaction zone in a high order detonation.

See also: detonation

detonator

1. An explosive train component which can be activated by either a nonexplosive impulse of the action of a primer and is capable of reliably initiating high order detonation in a subsequent high explosive component of train. When activated by a nonexplosive impulse a detonator includes the function of a primer. In general, detonators are classified in accordance with the method of initiation; such as percussion, stab, electric, flash, etc. 2. An explosive charge placed in certain equipment and set to destroy the equipment under certain conditions. Preferred term in this sense is DESTRUCTOR, EXPLOSIVE.

detonator, dummy

See: DUMMY DETONATOR

DETONATOR, ELECTRIC

An item consisting of electrical leads and explosive elements designed to detonate an explosive charge.

See also: detonator

DETONATOR, ELECTRIC: E76

DETONATOR, ELECTRIC: MARK
 35 MOD 1

DETONATOR, FRICTION

An item consisting of a blasting cap, fuse

MIL-STD-444
6 February 1959

and a pull type fuse lighter for detonating an explosive charge.

See also: detonator

DETONATOR, FRICTION: 8-sec delay, M2

DETONATOR, FRICTION: 15-sec delay, M1

DETONATOR, PERCUSSION

An item consisting of a blasting cap and explosive elements designated to detonate an explosive charge.

See also: detonator

DETONATOR, PERCUSSION: initiator, cord detonating, MARK 1 MOD 0

DETONATOR, STAB

An explosive device which is designed to initiate the detonation wave in the explosive train by the stabbing action of a PIN, FIRING.

DETONATOR KIT, CONCUSSION

A group of items including a blasting cap and a mechanical firing device designed to be actuated by the concussion wave of a nearby blast. It may be used to detonate several charges simultaneously without interconnecting the charges with wires or detonating cord.

DETONATOR KIT, CONCUSSION: M1

detonator safety

A fuze is said to have detonator safety or to be detonator safe when functioning of the detonator cannot initiate subsequent explosive train components.

See also: fuze safety

diazodinitrophenol (DDNP)

A primary high explosive. Greenish-yellow to brown crystals in the form for military use.

See also: primary high explosive

dibutylphthalate (DBT)

An additive used in propellant manufacture to assist in gelatinizing the nitro-

cellulose. It is nonexplosive and contributes to reduction of muzzle flash.

diethyleneglycol dinitrate (DEGN)

Liquid aliphatic nitrate used in propellant compositions by the Germans during World War II. Propellants based on DEGN and nitrocellulose develop relatively low temperatures and cause little erosion of guns, but are unduly volatile.

dinitrotoluene (DNT)

A high explosive, formed by nitration of toluene. A lower degree of nitration than that attained in producing trinitrotoluene (TNT). Used in the formulation of propellants, in which it acts as a gelatinizing and moisture-proofing agent and contributes to the ballistic potential.

diphenylamine (DPA)

An additive used in propellants to increase the storage life by neutralizing the acid products formed upon decomposition of the nitrocellulose.

diphosgene (DP)

Trichloromethyl chloroformate, one of the choking gases.

disarm

To remove the detonating device or fuze of a bomb, mine, or other piece of explosive ordinance, or otherwise render it incapable of exploding in its usual manner.

See also: deactivate; defuze

disc, blowout

A mechanism, consisting generally of a thin metal diaphragm, sometimes installed in a rocket motor as a safety measure against excess gas pressure.

discarding petal

A part of a discarding sabot in which the sabot (which see) is composed of a base and attached pieces extending from it. These pieces, called 'petals', surround the core. They peel back under centrifugal and aerodynamic forces and

MIL-STD-444
6 February 1959

are discarded just in front of the gun muzzle.

discarding sabot
 See: sabot

DISCHARGER, SMOKE PUFF

A device designed to ignite a powder charge which produces a puff of smoke for artillery training purposes.

DISCHARGER, SMOKE PUFF: dwg
 39-3-36

disintegrating belt
 See: belt, link

distance piece

Item which holds the propelling charge in place (around the primer) in the cartridge case of some types of ammunition, e.g., in separated ammunition, it maintains the proper distance between the mouth plug and the wad which covers the propelling charge. It is usually made of a rectangular cardboard sheet, folded into a triangular shape and cut to length.

See also: distance wadding; wad

distance wadding

In fixed ammunition, inert material such as cardboard, placed in the cartridge case to occupy the excess volume and to keep the propellant charge back around the primer, when the capacity of the case is materially greater than the volume of the propellant charge.

See also: distance piece

DOCUMENT DESTROYER, EMERGENCY, INCENDIARY

An item designed to be used in an emergency to destroy documents, papers, or books which need not be torn up. It is intended to be used with a suitable container which is not part of the item of supply.

DOCUMENT DESTROYER, EMERGENCY, INCENDIARY: M3

double angle liner

In shaped charge ammunition, a liner made up from two surmounted, coaxial, conical sections having different apex angles.

double base propellant

See: propellant

double star *Ammo nomen*

Indicates, in the case of a SIGNAL, ILLUMINATION, AIRCRAFT, two freely falling stars (lights) of the color or colors indicated.

drag

Components of air resistance in the direction opposite to that of the motion of the center of gravity of a projectile.

drag parachute

A deceleration parachute.

drill ammunition

Inert ammunition designed or adapted for use in training of the weapon's crew.

driving band

See: band, rotating

dual granulation (dualgran)

Pertaining to propelling charges, indicates a propelling charge composed of grains of two different webs. This is done for some howitzers in order that a higher pressure and more uniform ballistics may be obtained for the inner zones. The propellant for the inner zones has a faster rate of burning than that for the outer zone.

dud

An explosive munition that has failed to explode, although such was intended.

dumdum

A bullet that flattens excessively on contact, or one especially designed to flatten excessively. In full, 'dumdum bullet.' The use of this type of bullet in warfare is forbidden under international law.

MIL-STD-444
6 February 1959

dummy Ammo nomen

Indicates ammunition is completely inert and simulates the item of issue in other respects.

dummy ammunition

See: drill ammunition.

DUMMY DETONATOR

An inert item designed to be used in lieu of a detonator for training purposes only. The item may be simulated electric type or simulated percussion type.

**DUMMY DETONATOR: MARK 1
MOD 1**

DUMMY TORPEDO

An item designed to be substituted for a torpedo when proof-checking the fitment requirements of the various launching devices. It is similar to its legitimate counterpart in outside configuration.

**DUMMY TORPEDO: MARK 27
MOD 4**

DUMMY WARHEAD, ROCKET

An item designed to be substituted for a tactical warhead. It conforms to the outside configuration of the legitimate rocket warhead, and is used for training purposes only.

**DUMMY WARHEAD, ROCKET:
Type MA-1**

dunnite

See: Explosive D

DYNAMITE

A high explosive consisting of nitroglycerine and/or nitroglycol and/or ammonium nitrate and other materials with or without an iner base packed in cylindrical paper cartridges or in bags. It is set off by a detonator and is generally used to break rocks, move dirt or demolish buildings. The item may be nitroglycerin type or ammonium nitrate type. It may be in gelatin form, semigelatin form, or granular form. It

may be fast permissible or slow permissible, and may be packed in cartridges or in bags. Its water resistance may be excellent, very good, fair or limited.

DYNAMITE: ammonia, 40 percent.

DYNAMITE: ammonia gelatin, 40 percent, stick 1¼-in. diam x 8-in. long

DYNAMITE: ammonia gelatin, 60 percent.

DYNAMITE: gelatin, 60 percent.

DYNAMITE: military, MI

dynamite, military

A blasting explosive in cartridges especially suitable for use in military construction, quarrying, and service demolition work. It has good storage stability, is rifle bullet insensitive and can be detonated when wet.

See also: DYNAMITE

EC blank fire

See: EC smokeless powder

EC smokeless powder

An explosive powder used chiefly in blank cartridges. Also called 'EC blank fire,' 'EC blank powder,' and 'EC powder.' EC powder is used in some caliber .22 and shotgun ammunition, and was formerly used in fragmentation grenades.

eccentricity

Static eccentricity of a projectile is the distance, in calibers, of the center of mass from the axis of the projectile. Dynamic eccentricity is the angle, in radians, between the axis of form and the longitudinal principal axis of inertia.

ednatol

A binary explosive composed of 55 percent Haleite and 45 percent TNT. Permits melt loading into munitions and has greater brisance than TNT alone. See also: Haleite

MIL-STD-444
6 February 1959

ejecta

Jet fragments ejected essentially beyond primary target plate in the testing of shaped charges.

electric (elec) Ammo nomen

Indicates, in the case of a cartridge, that the cartridge contains an electric primer; and in the case of a primer, igniter, or blasting cap, that initiation is by electric current.

electric primer

See: PRIMER, ELECTRIC

empty Ammo nomen

Indicates that the munition does not contain a payload, but is designed to contain one at the time of final use.

end, metallic belt Ammo nomen

Indicates that item forms the end link or section of a metallic link belt for machine guns or automatic weapons.

See also: belt, link

end link

See: LINK, CARTRIDGE

engine, rocket, liquid propellant

See: ROCKET ENGINE

engine, rocket, solid propellant

See: ROCKET MOTOR

engraving

Process by which the rotating band of a projectile (or jacket of a bullet) is cut and formed by the rifling of the gun tube as the projectile is forced through the tube; the lands and grooves produced on the band or jacket by this process.

See also: band groove; band land

ENVELOPE, PROPELLANT CHARGE

An item manufactured from either a combustible or frangible material. It is cylindrical in shape and is designed to contain propellant powders. It is to be attached to a fin stabilized projectile.

ethyl centralite

Symmetrical-diethyldiphenylurea. An additive used in propellant formulation having an effect similar to diphenylamine.

See: diphenylamine

ethyl phosphorodimethylamidocyanidate (GA)

See: tabun

ethyldichloroarsine (ED)

A blister gas, irritating to the eyes and respiratory tract, which will produce eye and lung injury upon sufficient exposure.

ethylenediamine dinitrate (EDD)

High explosive, used to a limited extent by the Germans during World War II as a bursting charge. Must be loaded by pressing. Considered to be an inferior substitute for TNT because of its solubility, hygroscopicity, and acidity characteristics.

extractor

A cartridge actuated device intended to release the safety mechanism of another cartridge actuated device. The extractor operates by gas pressure supplied from an INITIATOR, CARTRIDGE ACTUATED.

See also: cartridge actuated device.

EXERCISE HEAD, GUIDED MISSILE

An item designed to simulate a WARHEAD, GUIDED MISSILE. It may or may not contain telemetering devices and/or flash signals.

EXERCISE HEAD, GUIDED MISSILE: Talos

EXERCISE HEAD, TORPEDO

An item designed for attachment to a TORPEDO MAIN ASSEMBLAGE to complete a torpedo for a practice run. It may contain recording instruments.

EXERCISE HEAD, TORPEDO: MARK 37 MOD 4

expelling charge

See: charge, expelling.

MIL-STD-444
6 February 1959

explode

To be changed in chemical or physical state usually from a solid or liquid to a gas (as by chemical decomposition or sudden vaporization) so as suddenly to transform considerable energy into the kinetic form.

See also: explosion

EXPLODER MECHANISM, TORPEDO

An electrical and/or mechanical device designed to actuate the explosive train of a WARHEAD, TORPEDO by means of a physical impact or an influence signal. It may contain a disarming device.

EXPLODER MECHANISM, TORPEDO: MARK 14 MOD 2

explosion (explo).

A chemical reaction or change of state which is effected in an exceedingly short space of time with the generation of a high temperature and generally a large quantity of gas. An explosion produces a shock wave in the surrounding medium. The term includes both deflagration and detonation.

Cf: deflagration; detonation

explosion, confined

Explosion occurring, as in a closed chamber, where the volume is constant.

explosion, unconfined

Explosion occurring in the open air where the (atmospheric) pressure is constant.

explosive (explo)

A substance or mixture of substances which may be made to undergo a rapid chemical change, without an outside supply of oxygen, with the liberation of large quantities of energy generally accompanied by the evolution of hot gases. Explosives are divided into two classes: high explosives and low explosives, according to their rate of reaction in normal usage. Certain mixtures of fuels and oxidizers can be made to ex-

plode and these are considered to be explosives. However, a substance such as a fuel which requires an outside source of oxidizer, or an oxidizer which requires an outside source of fuel to explode, is not considered an explosive.

See also: high explosive; low explosive.

explosive, conventional

A nonatomic explosive.

explosive bullet

A bullet which contains an explosive.

Explosive D

A high explosive, ammonium picrate or dunnite. Used in some armor-piercing projectiles because of its comparative insensitivity to shock and friction.

explosive filler

Main explosive charge contained in a projectile, missile, bomb, or the like.

See also: charge (sense 2)

EXPLOSIVE HARNESS ASSEMBLY, GUIDED MISSILE

An intermediate assemblage of items in an explosive train between the safety and arming devices and the guided missile warhead(s) in order to transmit a detonating wave for initiation of the warhead(s).

EXPLOSIVE HARNESS ASSEMBLY, GUIDED MISSILE: M24

EXPLOSIVE KIT, EARTH ROD

A set of explosive and nonexplosive items, with carrying case, designed to make holes, for demolition or constructional purposes, in earth and soft shale.

EXPLOSIVE KIT, EARTH ROD: set No. 1

explosive ordnance (EO)

Term used to denote ordnance material which normally contains or consists of explosives. Examples: bombs, mines, torpedoes, missiles, projectiles, and the like.

MIL-STD-444
6 February 1959

explosive ordnance disposal (EOD)

The handling, disarming, or destroying of unexpected bombs and other explosive ordnance.

See also: explosive ordnance

explosive ordnance disposal unit

Organization of personnel with special training or equipment who render safe explosive ordnance, make intelligence reports on such ordnance, and supervise the safe removal and disposal thereof.

See also: explosive ordnance.

explosive ordnance reconnaissance (EOR)

Act of reconnoitering to determine the presence of an unexploded missile, ascertaining its nature, applying all practicable protective measures for the protection of personnel, installations and equipment and finally reporting essential information to the authority directing explosive ordnance disposal operations.

See also: explosive ordnance

EXPLOSIVE SECTION ASSEMBLY, PRACTICE DEPTH CHARGE

A group of items assembled together to form the explosive charge compartment for a practice depth charge. It may be empty or explosive filled.

EXPLOSIVE SECTION ASSEMBLY, PRACTICE DEPTH CHARGE: empty, practice depth charge. MARK 15 MOD 5

EXPLOSIVE SECTION ASSEMBLY, PRACTICE DEPTH CHARGE: flash powder-loaded, practice depth charge, MARK 15 MOD 0

explosive train

A train of combustible and explosive elements arranged in the order of decreasing sensitivity, inside a fuze, projectile, bomb, gun chamber, or the like. The function of the explosive train is to accomplish the controlled augmentation of

a small impulse into one of suitable energy to cause the main charge of the munition to function. A fuze explosive train may consist of a primer, a detonator, a delay, a relay, a lead and booster charge, one or more of which may be either omitted or combined. If the bursting charge is added to the foregoing train it becomes a bursting charge explosive train. A propelling charge explosive train might consist of a primer, igniter or igniting charge, usually black powder, and finally, any of the various types of propellants.

EXTENDER, BOOSTER, DEPTH CHARGE

A hydrostatically operated item designed to properly position a depth charge booster in relation to its detonator within a depth charge.

EXTENDER, BOOSTER, DEPTH CHARGE: MARK 6 MOD 0

EXTENDER MECHANISM, UNDERWATER MINE

An item designed to extend the detonator into the booster for arming an underwater mine by means of hydrostatic pressure.

EXTENDER MECHANISM, UNDERWATER MINE: MARK 14 MOD 8

EXTENSION, ARMING WIRE, BOMB

A length of cable with a SWIVEL AND LOOP ASSEMBLY, ARMING WIRE on one end and a snap fastener on the other, designed to extend the length of an ARMING WIRE ASSEMBLY.

EXTENSION, ARMING WIRE, BOMB: MARK 1 MOD 0

EXTENSION, FUZE, BOMB

A steel tube filled with an explosive material and designed to extend a nose fuze a distance forward of the bomb.

MIL-STD-444
6 February 1959

EXTENSION, FUZE, BOMB: 18-inch, M1

EXTENSION, SEARCH COIL, UNDERWATER MINE

A metallic item designed to extend the length of the core of a COIL, UNDERWATER MINE.

EXTENSION, SEARCH COIL, UNDERWATER MINE: CE5

EXTENSION, TORPEDO WARHEAD

A metallic cylindrical item, designed to change the center of gravity of a torpedo. It may or may not be explosive filled.

EXTENSION, TORPEDO WARHEAD: empty, MARK 5 MOD 2

EXTENSION, TORPEDO WARHEAD: HBX-1 loaded, MARK 5 MOD 2

EXTRACTOR, DUMMY PROJECTILE, HAND

A tool for use with dummy projectiles in large caliber weapons to engage with the base of the projectile and enable withdrawing the projectile from the seated position.

EXTRACTOR, DUMMY PROJECTILE, HAND: 280-mm

extractor groove

Groove machined in the base of a cartridge case, a short distance above the head. The groove receives the extractor of the breech mechanism and permits the case to be withdrawn by the extractor. Extractor grooves are used in automatic weapons, in preference to extractor rims (flanges) formed on the cartridge case base.

Cf: extractor rim

extractor rim

A rim or flange around the head of a cartridge case to provide a grip for the mechanical extractor of the weapon.

Cf: extractor groove

fail safe

Descriptive of fuze design features whereby a component failure prevents the fuze from functioning.

FAIRING, CLUSTER ADAPTER, ROCKET

An item designed to be mounted on an ADAPTER, CLUSTER, ROCKET shaped so as to reduce the air resistance.

FAIRING, CLUSTER ADAPTER, ROCKET: nose and tail, 6A launcher, aero

FAIRING, NOZZLE, ROCKET

A cylindrical shaped item, designed to cover the nozzle expansion section of a rocket motor to reduce air resistance.

FAIRING, NOZZLE, ROCKET: M1A1

FAIRING, UMBILICAL PLUG, ROCKET

A streamlined item or covering designed to protect and produce a smooth outline to the umbilical plug of a rocket. Its primary purpose is to reduce the plug to a form having the least possible head resistance.

FAIRING, UMBILICAL PLUG, ROCKET: alum. 4 $\frac{3}{4}$ inches lg, 2 $\frac{3}{8}$ inches w; dwg 4681685

FAIRING, UNDERWATER MINE

An item designed to be mounted on an underwater mine. It is shaped to reduce or equally distribute air resistance when suspended and launched from an aircraft. It may have collapsible fins.

FAIRING, UNDERWATER MINE: MARK 8 MOD 0

FAIRING, UNDERWATER MINE: for underwater mine, MARK 39 MOD 0

FALSE TARGET, SUBMARINE

A pyrotechnic item designed to be ejected from a submarine to confuse and disrupt underwater echo ranging equip-

MIL-STD-444
6 February 1959

ment and create a bubble wake which can be seen by aircraft and surface vessels.

FALSE TARGET, SUBMARINE:
MARK 2 MOD 1

FASTENER UNIT, POWDER ACTUATED TOOL

An item consisting of a CARTRIDGE, POWDER ACTUATED TOOL, a fastener, and a sabot designed to be fired from a powder actuated projectile unit driver.

FASTENER UNIT, POWDER ACTUATED TOOL: and disk, cal .38

Federal Item Identification Number (FIIN)

A series of seven Arabic numbers, as follows: three digits, hyphen, four digits (123-4567) requiring eight spaces. The FIIN differentiates concisely and permanently each individual supply item from all other supply items. It is non-significant in character, which means that the FIIN will fix the identity of the individual item but will not determine its position or sequence in relation to other items.

Federal Stock Number (FSN)

An identifying number for an item of supply consisting of the applicable 4-digit class code number from the Federal Supply Classification, plus the applicable 7-digit Federal item identification number.

See also: Federal Item Identification Number; Federal Supply Classification

Federal Supply Classification (FSC)

A 4-digit coding structure for use in classification items of supply identified under the Federal Cataloging program. The first two digits of the code number identify the group, and the last two digits of the code number identify the classes within each group.

See also: Federal stock number.

FERRULE, ARMING WIRE

A fastener sleeve used in an ARMING WIRE ASSEMBLY to secure the loop which retains the swivel loop in its proper position on the arming wire.

FILE DESTROYER, INCENDIARY

An incendiary device designed for use in destroying combustible file material. Excludes CRYPTOGRAPHIC EQUIPMENT DESTROYER, INCENDIARY.
FILE DESTROYER, INCENDIARY: M4

filler

See: charge (sense 2)

filler, link

See: LINK FILLER, CARTRIDGE

fin

A fixed or adjustable vane or airfoil affixed longitudinally to an aerodynamically or ballistically designed body for stabilizing purposes.

fin, bomb

A fin (which see) attached to a bomb in order to afford directional stability.

fin, box-type

A fin assembly (which see) designed like a box, open at both ends.

FIN, 318 MILLIMETER ROCKET

One of a group of vanes or airfoils designed to be assembled longitudinally to the rear end of a 318-millimeter rocket, to provide stabilized flight.

FIN, 762 MILLIMETER ROCKET

One of a group of vanes or airfoils designed to be assembled longitudinally to the rear end of a 762 millimeter rocket, to provide stabilized flight.

FIN, 762 MILLIMETER ROCKET:
M136A1

FIN, UNDERWATER MINE

An item designed to stabilize an underwater mine after its launching.

MIL-STD-444
6 February 1959

**FIN, UNDERWATER MINE:
 MARK 1 MOD 0**

fin assembly

An assembly of a quantity of metal blades, usually mounted lengthwise on a sleeve, and used on a missile, such as bomb or rifle grenade, to give directional stability.

FIN ASSEMBLY, BOMB

A group of items consisting of a quantity of streamlined metal blades mounted on a sleeve with or without supporting braces or shrouds.

FIN ASSEMBLY, BOMB: M101
 (clustered)

FIN ASSEMBLY, BOMB: M107A1
 (250-lb size)

FIN ASSEMBLY, BOMB: M120,
 f/bomb, general purpose, 12,000-lb,
 M109

FIN ASSEMBLY, 81 MILLIMETER CARTRIDGE

A group of vanes or airfoils mounted longitudinally on a sleeve, designed to be assembled to the rear end of an 81-millimeter projectile to provide stabilized flight. Also may provide for reception of ignition cartridge and propellant increments.

FIN ASSEMBLY, 81 MILLIMETER CARTRIDGE: M6, for mortar cartridge, training, M68

FIN ASSEMBLY, 60 MILLIMETER PROJECTILE

A group of vanes or airfoils mounted longitudinally on a sleeve, designed to be assembled to the rear of a 60-millimeter projectile to provide stabilized flight. Also may provide for reception of ignition cartridge and propellant increments.

FIN ASSEMBLY, 60 MILLIMETER PROJECTILE: M2, w/cartridge, ignition, M5A1; primer, percus-

sion, M32; and holder, increment, M1A1

FIN ASSEMBLY, 60 MILLIMETER PROJECTILE: M5

FIN ASSEMBLY, PRACTICE BOMB

A **FIN ASSEMBLY, BOMB** for use with practice bombs.

FIN ASSEMBLY, PRACTICE BOMB: T160 (for practice bomb, T64)

FIN ASSEMBLY, RIFLE GRENADE

A group of vanes or airfoils mounted longitudinally on a sleeve, designed to be assembled to the rear end of a rifle grenade to provide stabilized flight.

FIN ASSEMBLY, RIFLE GRENADE: practice, M11A2 or M11A3

FIN ASSEMBLY, RIFLE GRENADE: w/lock ring, for rifle grenade, AT, practice, M29

FIN ASSEMBLY, ROCKET MOTOR

A group of vanes or airfoils mounted longitudinally on a suitably designed sleeve, arranged so that the complete assembly can be securely attached to the rear end of a rocket motor to provide stabilized flight.

FIN ASSEMBLY, ROCKET MOTOR: for 3.25-inch rocket motor, MARK 16 MOD 0

FIN ASSEMBLY, ROCKET MOTOR: for 5-inch rocket motor, MARK 2 MODS 2 and 3 and MARK 10 MODS 4 and 5

FIN ASSEMBLY, ROCKET MOTOR: for 11.75-inch rocket motor, MARK 1 MODS 0 and 1

FIN KIT, 5 INCH ROCKET

A group of items required to modify a 5-inch rocket originally made for use with one type of launcher to permit its use on a launcher of some other type.

FIN KIT, 5 INCH ROCKET: M34,

MIL-STD-444
6 February 1959

for 5-inch high velocity aircraft
 rocket

FIN REINFORCING ASSEMBLY

An assemblage of components required to
 reinforce a FIN ASSEMBLY, BOMB.

FIN REINFORCING ASSEMBLY:
 1,000-pound bomb fin

fin stabilization

Method of stabilizing a projectile, as a
 rocket, bomb, or missile, during flight
 by the aerodynamic use of protruding
 fins.

fire

1. The discharge of a gun, launching of a
 missile, or the like. 2. The projectiles or
 missiles fired.

fire roe

A powder which, when added to gasoline,
 gelatinizes or thickens it.

See also: napalm; THICKENER, IN-
 CENDIARY OIL

firearm

1. In a general sense, a gun (which see).
2. *Specifically*, a small arm, as a pistol
 or rifle, designed to be carried and used
 by an individual.

FIRECRACKER

A cylindrical shaped item containing an
 explosive and a fuse. It is used to simu-
 late the noise of an explosive charge.

FIRECRACKER: M80

FIRECRACKER: MARK 2 MOD 0

FIRING AND ARMING MECHANISM, PRACTICE DEPTH CHARGE

A hydrostatically operated mechanism de-
 signed to contain a method of arming
 and a detonator for firing a practice
 depth charge. It may or may not con-
 tain a detonator.

**FIRING AND ARMING MECHAN-
 ISM, PRACTICE DEPTH
 CHARGE: w/detonator, practice**

depth charge, MARK 15 MODS 1
 and 4

**FIRING AND ARMING MECHAN-
 ISM, PRACTICE DEPTH
 CHARGE: w/o detonator, practice
 depth charge, MARK 15 MODS 3
 and 7**

firing device

A mechanism designed to detonate the
 main charge of explosives contained in
 booby traps, antipersonnel mines, anti-
 tank mines and demolition charges.
 There are several types of either metal-
 lic or nonmetallic construction: pres-
 sure, pull, release, or combination
 thereof.

See also: FIRING DEVICE, DEMOLI-
 TION

FIRING DEVICE, DEMOLITION

An item designed to detonate a blasting
 cap(s) or a detonator by mechanical
 means such as release of a spring pro-
 pelled striker or firing pins.

FIRING DEVICE, DEMOLITION:
 delay type, blue 11½-hr delay, M1

FIRE DEVICE, DEMOLITION:
 pressure type, M1

FIRING DEVICE, DEMOLITION:
 pull release type, M3

FIRING DEVICE, DEMOLITION:
 release type, M1

FIRING DEVICE, EXPLOSIVE ACTUA- TOR

A semiautomatic item designed to be initi-
 ated by an external force. Its function
 is to detonate an explosive actuator car-
 tridge by mechanical means, for the
 actuation of mechanical contrivances.

FIRING DEVICE SET, DEMOLITION

A collection of demolition firing devices,
 with suitable packing and carrying
 means, to enable preparation of demo-
 lition charges, and bobbytraps in the
 field.

See also: FIRING DEVICE, DEMOLI-
 TION

MIL-STD-444
6 February 1959

FIRING DEVICE SET, DEMOLITION: delay type, M1

FIRING MECHANISM, DEPTH CHARGE

An electronic item designed to initiate the detonation of a depth charge.

FIRING MECHANISM, DEPTH CHARGE: A-4 MOD 0

FIRING MECHANISM, DEPTH CHARGE: M-13 MOD 0

FIRING MECHANISM, ROCKET

An item designed to initiate the detonation of a rocket.

FIRING MECHANISM, ROCKET: MARK 15 MOD 0, for 12.75-inch rocket

FIRING MECHANISM, ROCKET: selective time, Type MB-1

FIRING MECHANISM, UNDERWATER MINE

An item designed to initiate the detonation of an underwater mine. It may be actuated by an acoustic signal, physical impact, hydrostatic pressure, and/or magnetic influences. It may contain explosive components.

FIRING MECHANISM, UNDERWATER MINE: K-3 MOD 1

FIRING MECHANISM, UNDERWATER MINE: M-4 MOD 1

firing pin

See: PIN, FIRING

firing table

Table or chart giving the data needed for firing a gun accurately on a target under standard conditions and also the corrections that must be made for special conditions, such as winds or variations of temperature.

See also: ballistic table

first fire

The igniter used with pyrotechnic devices. Consists of first fire composition, loaded in direct contact with the main pyrotechnic charge. The ignition of the ig-

niter or first fire is generally accomplished by fuze action.

See also: first fire composition

first fire composition

A pyrotechnic composition, compounded to produce a high temperature, preferably with creation of slag to give heat capacity. The composition is required to be readily ignitable, and capable of being pressed into a strong, solid mass.

See also: first fire

fission, nuclear

The splitting of an atomic nucleus, as by neutron bombardment.

See also: bomb, atomic

fixed (fxd) Ammo nomen

Indicates that the cartridge is of the fixed type, that is, the projectile is rigidly attached to the cartridge case.

See also: fixed ammunition

fixed ammunition

Ammunition with primer and propellant contained in a cartridge case permanently crimped or attached to a projectile. Loaded into the weapon as a unit. Usually termed a 'cartridge.'

flare

A pyrotechnic item designed to produce a single source of intense light for purposes such as target and/or airfield illumination.

FLARE, AIRCRAFT

A pyrotechnic item, for use from aircraft, designed to produce a single source of intense light for purposes such as target and/or airfield illumination.

FLARE, AIRCRAFT: guide, red, T7E1

FLARE, AIRCRAFT: parachute, M8A1 (w/o suspension bands) (emergency night landing)

FLARE, AIRCRAFT: parachute, MARK 6 MOD 4

FLARE, AIRCRAFT: towed, green, M79

MIL-STD-444
6 February 1959

flare, airport

A surface flare consisting of an illuminant candle fitted with a means of ignition, designed to identify and illuminate an airport in the absence of other illumination.

See also candle; **FLARE, SURFACE**

flare, float

A signal launched from aircraft, to mark a location at sea. It floats on the surface and emits smoke and flame for up to one hour.

See also: **FLARE, SURFACE**

flare, guide

An electrically ignited **FLARE, AIRCRAFT** for attachment to an aerial bomb, which produces very bright light, either white or colored, to mark the position of the bomb and permit its guidance to the target.

FLARE, GUIDED MISSILE

A pyrotechnic item designed to produce a single source of intense light for the purpose of visually tracking a guided missile during its flight to a target. Excludes **TRACER, GUIDED MISSILE**.

flare, illuminating

A general term, indicating a pyrotechnic device which produces a brilliant, single source light.

FLARE, INERT, AIRCRAFT

A **FLARE, AIRCRAFT**, without a pyrotechnic component.

FLARE, INERT, AIRCRAFT: parachute, M26A1

flare, magnesium

A general term indicating a flare using magnesium as the illuminating agent.

flare, parachute

Pyrotechnic device attached to a parachute and designed to provide intense illumination for a short period. May be discharged from aircraft or from the surface.

FLARE, PARACHUTE, HAND FIRED

A complete, self-contained device which is fired from the hand, and which provides a rocket projected, parachute borne, pyrotechnic light.

FLARE, PARACHUTE, HAND FIRED: high altitude, MARK 20 MOD 0

FLARE, SURFACE

A pyrotechnic item for use in surface positions, ground or water, designed to produce a single source of intense light for purposes such as illumination of airport runways and warning of infiltrating enemy troops.

FLARE, SURFACE: airport, M76
FLARE, SURFACE: float, MARK 15 MOD 0

FLARE, SURFACE: trip, parachute, M48

FLARE, SURFACE: trip wire, MARK 1 MOD 0

flare, trip

A **FLARE, SURFACE** which is actuated by, and thus serves as a warning of the approach of, infiltrating enemy troops. It is boobytrapped and, in one type, is attached to a parachute which is projected into the air.

flare chute

Popular name for parachute attached to a flare.

FLARE MIXTURE

A pyrotechnic composition, compounded to produce a brilliant light, either white or colored.

flash Ammo nomen

Indicates, in the case of simulators and other pyrotechnic items, that item is intended to produce a flash.

See also: **SIMULATOR, FLASH, ARTILLERY**

flash depressor

A substance used to reduce the flash from a rocket motor.

MIL-STD-444
6 February 1959

flash fuse

See: squib (sense 2)

flash hider

A device fitted to the muzzle of a weapon to conceal flash.

flash reducer

Any material issued separately for use with a propelling charge to reduce its muzzle flash.

See: REDUCER, FLASH, PROPELLING CHARGE. Cf: flash suppressor

flash suppressor

Material incorporated into a propellant to suppress flash. Differs from flash reducer which is issued separately for use with the propelling charge.

Cf: flash reducer

flashback tube

See: spitback tube

flashless

Said of a propellant or a propelling charge that does not produce a muzzle flash in the weapon for which intended.

flat base *Ammo nomen*

Indicates that projectile is of flat base type, i.e., base is cylindrical. Sometimes called 'square base.'

Cf: boattail

flat nose

Popular term for missiles used against submarines. Designed to prevent ricocheting on water impact.

hechette

(French 'a small arrow.') 1. An aerial dart. 2. A small fin stabilized missile, a large number of which can be loaded in artillery canister.

See also: canister (sense 1)

FLOAT, UNDERWATER MINE

A buoyant item of various shapes and sizes designed to contain and properly position a component of an underwater mine. It is secured to the underwater

mine by means of a desired length of cable or chain.

FLOAT, UNDERWATER MINE:
 D-8 MOD 1

FLOAT, UNDERWATER MINE:
 MARK 12 MOD 0 (drill mine)

FLOODER ASSEMBLY, UNDERWATER MINE

A group of items assembled as one unit designed to actuate a detonator within a PLUG, FLOODER, UNDERWATER MINE.

FLOODER ASSEMBLY, UNDERWATER MINE: MARK 1 MOD 1

fluted liner

In shaped charge ammunition, a liner (which see) with grooves (flutes) on one or both of the surfaces.

FM smoke

See: CHEMICAL AGENT, TITANIUM TETRACHLORIDE

folding fin (FF)

A fin on a rocket, missile, or the like hinged to permit outward extension when the missile is in flight.

follow through

Material which follows the jet of a shaped charge through the hole formed in the target. Used as noun or adjective.

form factor

Factor introduced into the ballistic coefficient of a projectile, based on the shape of the projectile. Sometimes called 'coefficient of form.'

See also: ballistic coefficient

form function

The mathematical expression for the relationship between the fraction of the propellant burned and the distance that each burning surface has regressed.

ougasse

A mine constructed so that upon explosion of the charge, pieces of metal, rock, gasoline, or other substances are blown

MIL-STD-444
6 February 1959

in a predetermined direction.

fouling

Deposit that remains in the bore of a gun after it is fired.

frag bomb

Short for 'fragmentation bomb.'

See: BOMB, FRAGMENTATION

frag cluster

Short for 'fragmentation bomb cluster.'

See: CLUSTER, FRAGMENTATION
 BOMB

fragment (frag)

A piece of an exploding or exploded bomb, projectile or the like.

fragmentation (frag) Ammo nomen

Indicates that item is primarily intended to produce a fragmentation effect.

fragmentation test

Test conducted to determine the number and weight distribution, and where the method used permits, the velocity and spatial distribution of the fragments produced by a projectile or other munition upon detonation. Recovery of fragments, without determination of velocity or spatial distribution can be accomplished by fragmenting in sand or sawdust, or over water. Determination of velocity and spatial distribution requires elaborate recovery means and instrumentation.

frangible Ammo nomen

1. Indicates a bullet composed of material which will disintegrate without penetrating upon striking a target. 2. Indicates a grenade composed of a brittle body (as a glass bottle) with a flammable filler and an igniter.

frangible bullet

A brittle plastic or other nonmetallic bullet for firing practice which, upon striking a target, breaks into powder or small fragments without penetrating. Frangible bullets are usually designed to leave a mark at the point of impact.

free rocket

A rocket having fixed fins but no control surface, that is, no provision for guidance.

free run

As applied to guns, the travel of a projectile from its original position in the gun chamber until it engages with the rifling in the gun bore.

free space

See: standoff

fringing groove

A groove cut into a rotating band to collect metal from the band while it travels through the bore. Excess metal so collected is prevented from forming a fringe in rear of the rotating band. Fringe formation has been a cause of excess dispersion and short range.

FS smoke mix

See: CHEMICAL AGENT, SULFUR
 TRIOXIDE - CHLOROSULFONIC
 ACID SOLUTION

fuel structure ratio

See: fuel weight ratio

fuel thickener

A substance, such as napalm, for gelatinizing gasoline.

See also: fire roe; THICKENER, INCENDIARY OIL

fuel weight ratio

Rocketry. The ratio of the weight of a rocket's fuel to the weight of the unfueled rocket. Also called the 'fuel structure ratio.'

full cartridge

See: cartridge, full

full charge

See: charge, full

fulminate

Short for 'fulminate of mercury' (mercury fulminate).

See: mercury fulminate

MIL-STD-444
6 February 1959

fuse

Term for an igniting or explosive device in the form of a cord, consisting of a flexible fabric tube and core of low or high explosive. Used in blasting and demolition work, and in certain munitions. Fuse with black powder or other low explosive core is called FUSE, BLASTING, TIME. Fuse with PETN or other high explosive core is called CORD, DETONATING.

Cf: fuse

fuse, Bickford

A safety fuse, having a core of black powder enclosed within a tube of woven threads surrounded by various layers of textile, waterproof material, sheathing, etc. Burns at specific rates.

See also: fuse; FUSE, BLASTING, TIME

fuse, blasting

Short for 'FUSE, BLASTING, TIME.'

FUSE, BLASTING, TIME

A flexible water resistant fabric covered cord containing a black powder core, which burns at a known rate from one end to the other, providing a time delay proportional to the length of fuse. Used for igniting a blasting cap or an explosive charge.

FUSE, BLASTING, TIME: M700

FUSE, BLASTING, TIME: Commercial

fusee

(Pronounced 'fu-zee.') An igniter squib for a rocket motor.

See: FUSEE, WARNING, RAILROAD

FUSEE, WARNING, RAILROAD

A pyrotechnic device used as a safety signal on railroads, normally consisting of a tube or cartridge with a spike point base. When placed in an erect position and ignited, the cartridge burns with a white or colored light for a definite period of time.

FUSEE, WARNING, RAILROAD:
red, 5-min.

fusion, nuclear

The fusing or uniting of the atomic nuclei of an isotope, as those of deuterium, to form other nuclei under the influence of intense heat.

See also: bomb, hydrogen

fuze

(Cf: fuse). 1. A device with explosive components designed to initiate a train of fire or detonation in an item of ammunition by an action such as hydrostatic pressure, electrical energy, chemical action, impact, mechanical time, or a combination of these. Types of fuzes are distinguished by modifying terms forms part of the item name. (In some cases the explosive components may be simulated or omitted.) 2. To equip an item of ammunition with a fuze.

fuze, air nose

A point detonating rocket fuze which uses vanes in the air stream to arm itself.

fuze, air pressure

A conclusion fuze or a barometric fuze.

See: fuze, barometric; fuze, concussion

fuze, all way

An impact fuze designed to function regardless of the direction of target impact. Also called 'allways' fuze.

fuze, antidisturbance

Fuze designed to become armed after impact, or after being emplaced, so that any further movement or disturbance will result in detonation.

Cf: fuze, antiwithdrawal

fuze, antihandling

See: fuze, antidisturbance

fuze, antiwithdrawal

A fuze incorporating an antiwithdrawal device (which see).

fuze, auxiliary detonating (ADF)

An additional fuze used to augment the

MIL-STD-444

6 February 1959

output of a fuze explosive train or to increase the overall safety features of the ammunition.

Cf: booster

fuze, bare

An unprotected and unpackaged fuze separated from its intended piece of ammunition.

fuze, barometric

A fuze that functions as a result of change in the pressure exerted by the surrounding air. Usually the change in pressure occurs by reason of travel from a region of one ambient pressure to a region of different ambient pressure. Also called 'air pressure fuze.'

fuze, base

Any fuze installed in the base of a projectile.

Cf: FUZE, BASE DETONATING

FUZE, BASE DETONATING (BDF)

A fuze, located in the base of a projectile, designed to be activated as a result of impact. Excludes FUZE, BOMB; FUZE, MINE; FUZE, HAND GRENADE and FUZE, ROCKET.

FUZE, BASE DETONATING:
M91A1

FUZE, BASE DETONATING:
MARK 28 MOD 7

**FUZE, BASE DETONATING, SELF-DE-
STROYING**

A FUZE, BASE DETONATING containing a device which causes the projectile bursting charge to detonate if prior functioning has not been caused by impact. Excludes FUZE, BOMB; FUZE, MINE; FUZE, HAND GRENADE and FUZE, ROCKET.

FUZE, BOMB

A fuze for use with bombs to be dropped from aircraft.

FUZE, BOMB: nose, AN-M103A1

FUZE, BOMB: nose, mechanical
time, AN-M146E2

FUZE, BOMB: nose, VT, AN-M166,
3,600-ft MinSAT

FUZE, BOMB: tail, M100A2, w/
bomb fuze primer-detonator, M14,
.01-sec delay

FUZE, BOMB: tail, 12-hr delay,
M123

FUZE, BOMB: tail, hydrostatic,
AN-MARK 230 MOD 3

FUZE, BOMB, INERT

A FUZE, BOMB without explosive components used for training purposes.

FUZE, BOMB, INERT: nose, AN-
M103A1

FUZE, BOMB, INERT: tail, M112,
w/bomb fuze primer-detonator,
empty, M16

fuze, bore riding

Name sometimes given to a fuze which incorporates as a safety device a bore riding pin.

See also: pin, bore riding

fuze, bore safe

A fuze that has a means for preventing the detonator from initiating an explosion of the bursting charge while the missile is within its launching tube.

See also: bore safety; fuze safety

FUZE, BULLET IMPACT

A fuze designed to set off a demolition charge by the impact of a bullet.

FUZE, BULLET IMPACT: M1 (for
projected charge demolition kit,
M2A1 and M3)

fuze, combination

A fuze combining two different types of fuze mechanisms, especially one combining impact and time mechanisms.

See: FUZE, TIME AND SUPERQUICK

fuze, command

A fuze that functions as a result of intelligence transmitted to it from a remote location by means not directly associated with its environment.

MIL-STD-444
6 February 1959

fuze, concrete piercing

Fuze especially designed for piercing concrete before detonating its projectile.

fuze, concussion

A bomb fuze designed to function in the air in response to the concussion produced by the explosion of a preceding bomb. Also called an 'airburst fuze' or 'air pressure fuze.'

fuze, contact

A fuze wherein primary initiation results from actual contact with the target to include such phenomena as impact, crush, tilt, electrical contact.

See also: fuze, impact

fuze, delay

Any impact fuze incorporating a means of delaying its action after contact with the target. Delay fuzes are classified according to the length of time of the delay.

See also: fuze, long delay; fuze, medium delay; fuze, short delay

fuze, delay action

See: fuze, delay

fuze, delayed

See: fuze, delay

fuze, detonating

Fuze designed to initiate its main munition by a detonating action, as compared to the igniting action of a fuze, igniting. A detonating fuze is required for adequate ignition of a high explosive main charge.

fuze, dummy

An imitation of a fuze which has the same shape, weight, and center of gravity as the fuze but has no explosives or moving parts.

fuze, electric

A fuze which depends for its arming and functioning upon events of an electronic nature. Such a fuze does not necessarily have to be entirely electric but

may contain mechanical components.

Cf: fuze, mechanical

fuze, electric time

A fuze in which the time from initiation of action to the functioning can be controlled by 'setting' and is determined by electronic events.

fuze, electromechanical

See: fuze, mechanical

fuze, electronic

See: fuze, electric

FUZE, FLARE

A fuze for use with a flare (which see), to initiate ignition of the charge.

FUZE, FLARE: mechanical time, Mill

FUZE, FLARE, INERT

A FUZE, FLARE without explosive components used for training purposes.

FUZE, FLARE, INERT: MT, inert, M11FA2

fuze, flashback

See: fuze, spitback

FUZE, GUIDED MISSILE

A fuze for use with a guided missile, to initiate functioning at the desired time.

FUZE, GUIDED MISSILE: nose, T1402

FUZE, GUIDED MISSILE: proximity, Sidewinder, MARK 303 MOD 0

FUZE, GUIDED MISSILE, INERT

A FUZE, GUIDED MISSILE which has no ability to initiate a train of fire and which contains in itself no explosive items.

FUZE, GUIDED MISSILE, INERT: proximity, Sidewinder, MARK 303 MOD 0

FUZE, HAND GRENADE

A pyrotechnic delay fuze initiated by release of a lever which in turn permits a

MIL-STD-444**6 February 1959**

striker to impinge on a primer. The output of the fuze is designed to initiate a detonator or to ignite the filler of a hand grenade.

FUZE, HAND GRENADE: M10A3

FUZE, HAND GRENADE: M206A2
and M206A2

fuze, hydrostatic

Fuze employed with depth bombs or charges to cause underwater detonation at a predetermined depth. Initiation is caused by the ambient fluid pressure.

fuze, igniting

Fuze designed to initiate its main munition by an igniting action, as compared to the detonating action of a fuze, detonating. This type of fuze is suitable only for munitions using a main charge of low explosive or other readily ignitable material.

fuze, impact

A fuze in which the action is initiated by the force of impact. Sometimes called a 'contact fuze' or 'percussion fuze.'

fuze, inert

A fuze containing no explosive, pyrotechnic or chemical agent.

fuze, inertia

See: fuze, nondelay

fuze, influence

See: FUZE, PROXIMITY

fuze, instantaneous

See: fuze, superquick

fuze, live

A fuze containing explosives or active chemicals.

fuze, long delay

A type of delay fuze, especially for bombs, in which the fuze action is delayed for a relatively long period of time, depending upon the type, from minutes to days.

See also: fuze, delay

fuze, mechanical

Any fuze which depends for its arming and functioning on events primarily of a mechanical nature. Fuzes may consist of a combination of mechanical and electronic features. Proximity fuzes may contain a mechanical delayed arming device; mechanical fuzes may be functioned by electrical energy from a piezoelectric element. The classification is dependent upon which features are predominant. Fuzes combining mechanical and electronic features are sometimes referred to as electromechanical fuzes.

FUZE, MECHANICAL TIME (MTF)

A fuze which is actuated by a clocklike mechanism preset to the desired time. Excludes FUZE, BOMB; FUZE, MINE and FUZE, HAND GRENADE.

FUZE, MECHANICAL TIME:
M61A2 (w/booster, M21A4)

FUZE, MECHANICAL TIME:
MARK 51 MOD 4

FUZE, MECHANICAL TIME, DUMMY

An imitation of a mechanical time fuze having the same shape, weight and center of gravity as the fuze, but without explosive components.

FUZE, MECHANICAL TIME, DUMMY: M44 series

FUZE, MECHANICAL TIME, INERT

A FUZE, MECHANICAL TIME without explosive components. Excludes FUZE, BOMB, INERT.

FUZE, MECHANICAL TIME, INERT: M43 series

FUZE, MECHANICAL TIME AND SUPERQUICK

A FUZE, MECHANICAL TIME containing an additional device designed to cause instantaneous activation as a result of impact. Excludes FUZE, BOMB;

MIL-STD-444
6 February 1959

FUZE, MINE and FUZE, HAND GRENADE.

FUZE, MECHANICAL TIME AND SUPERQUICK: M500A1 (w/o booster, M21A4)

FUZE, MECHANICAL TIME AND SUPERQUICK: M501 (w/o booster)

FUZE, MECHANICAL TIME AND SUPERQUICK INERT

A FUZE, MECHANICAL TIME AND SUPERQUICK, without explosive elements.

FUZE, MECHANICAL TIME AND SUPERQUICK INERT. M500 series

fuze, medium delay

A type of delay fuze, especially for bombs, in which the fuze action is delayed for a period of time between that of short delay and long delay fuzes, normally four to fifteen seconds.

See also: fuze, delay

FUZE, MINE

A fuze designed to initiate a train of fire in a land mine. (For underwater mine initiating device see FIRING MECHANISM, UNDERWATER MINE).

FUZE, MINE: antitank, practice, M604

FUZE, MINE: antitank, service, M603

FUZE, MINE: combination, M6A1

fuze, nondelay

Fuze that functions as a result of inertia of firing pin (or primer) as missile is retarded during penetration of target. The inertia causes the firing pin to strike the primer (or primer the firing pin), initiating fuze action. This type of fuze is inherently slower in action than the superquick or instantaneous fuze, since its action depends upon deceleration (retardation) of the missile during impact with the target. Also called 'inertia fuze.'

fuze, nose

A fuze for use in the forward end (nose) of a bomb or other missile. Term not generally applied to fuzes for use in artillery projectiles, where the term 'point fuze' is more commonly used.

See also: fuze, point

fuze, percussion

See: fuze impact

fuze, point

A fuze for use in the forward end of a projectile or rocket warhead.

FUZE, POINT DETONATING

A fuze which is located in the nose of a projectile and is designed to be actuated as a result of impact. Excludes FUZE, POINT DETONATING, SELF-DESTRUCTING; FUZE, BOMB; FUZE, MINE and FUZE, HAND GRENADE.

FUZE, POINT DETONATING: MARK 78 MOD 0

FUZE, POINT DETONATING: M507

FUZE, POINT DETONATING: concrete piercing, 0.025-sec delay, M78, w/booster, M25

FUZE, POINT DETONATING: .05-sec delay, M48A3

FUZE, POINT DETONATING, DUMMY

An imitation of a point detonating fuze, having the same shape, weight and center of gravity as the fuze, but without explosive components.

FUZE, POINT DETONATING, DUMMY: M59

FUZE, POINT DETONATING, INERT

A FUZE, POINT DETONATING without explosive components. Excludes FUZE, BOMB, INERT.

FUZE, POINT DETONATING, INERT: M48A2

FUZE, POINT DETONATING, INERT: M51 and Mods, w/booster, M20 and Mods

MIL-STD-444
6 February 1959

FUZE, POINT DETONATING, SELF-DESTROYING

A FUZE, POINT DETONATING containing a device which causes the bursting charge to detonate if prior functioning has not been caused by impact. Excludes FUZE, BOMB; FUZE, MINE and FUE, HAND GRENADE.

See also: fuze, self-destroying

FUZE, POINT DETONATING, SELF-DESTROYING: T234E2

FUZE, POINT DETONATING, TRAINING

An item simulating a FUZE, POINT DETONATING used for training purposes. It is provided with manual safety and/or setting devices simulating those of a standard or proposed standard FUZE, POINT DETONATING. It may or may not be a ballistic match with the fuze it represents and/or contains an explosive charge for realism or spotting purposes. Excludes FUZE, POINT DETONATING, DUMMY.

fuze, point initiating

A fuze which has the target sensing element in the nose of the missile. (Usually refers to PIBD fuzes.)

See also: FUZE, POINT INITIATING, BASE DETONATING

FUZE, POINT INITIATING, BASE DETONATING

A fuze, with initiating components located in the nose of a projectile and detonating components located in the base of a projectile, designed to be activated as a result of impact.

FUZE, POINT INITIATING, BASE DETONATING: M509

FUZE, PROXIMITY

A fuze wherein primary initiation occurs by sensing the presence, distance, and/or direction of the target through the characteristics of the target itself or its environment. (This name is preferred over other synonymous terms.)

FUZE, PROXIMITY: M96

**FUZE, PROXIMITY: MARK 53
 MOD 9**

FUZE, PROXIMITY, PRACTICE

A FUZE, PROXIMITY, restricted to practice use because of minor imperfections or other features tending toward malfunction and/or unreliability.

**FUZE, PROXIMITY, PRACTICE:
 M517**

fuze, radio

See: FUZE, PROXIMITY

fuze, radio proximity

See: FUZE, PROXIMITY

FUZE, ROCKET

A fuze for use with a rocket. (In some cases rocket detonation is initiated by a FIRING MECHANISM, ROCKET.)

**FUZE, ROCKET: nose, MARK 137
 MOD 2**

FUZE, ROCKET: PD, M81A1

FUZE, ROCKET: VT, M403E2

FUZE, ROCKET, INERT

A FUZE, ROCKET without explosive components.

**FUZE, ROCKET, INERT: nose,
 MARK 149 MOD 0**

fuze, selective delay

A delay fuze which permits a selection from two or more functioning delay times.

fuze, self-destroying

Fuze designed to destroy itself (and the associated munition) after flight to a range greater than that to any probable target. Employed in anti-aircraft ammunition, to avoid impact in friendly territory.

fuze, short delay

A type of delay fuze used both in bombs and artillery projectiles, in which the fuze action is delayed for a short period of time, less than 1 second.

MIL-STD-444
6 February 1959

FUZE, SMOKE POT

A fuze designed to initiate combustion in a smoke pot.

FUZE, SMOKE POT: igniting, M207A1 (for floating smoke pot, M4A2)

fuze, spitback

A fuze located in the nose of a shaped charge munition. When initiated by impact it produces a detonation which is directed toward the base element which detonates the main explosive charge. The combination of point impact fuze and base element is referred to as a point initiating base detonating (PIBD) fuzing system.

See also: **FUZE, POINT INITIATING, BASE DETONATING**

fuze, standard contour

Point fuze having a standard shape, size and weight agreed upon for use with a certain group of artillery projectiles. Such fuzes may be interchanged without affecting the flight of the projectile.

fuze, superquick

A fuze designed to function with the least possible delay after impact. The delay is of the order of microseconds.

fuze, supersensitive

Fuze that will set off a projectile dependably when it strikes a very light target, such as a fabric airplane wing.

fuze, tail

A fuze inserted in the after end of a bomb.

fuze, time

A fuze that can be preset to function after the lapse of a specified time.

FUZE, TIME AND SUPERQUICK

A fuze which is activated by the burning of a powder train preset to the desired time and which contains an additional device designed to cause instantaneous activation as a result of impact. Excludes **FUZE, BOMB**; **FUZE, MINE**

and **FUZE, HAND GRENADE.**

FUZE, TIME AND SUPERQUICK:
M55A3

FUZE, TIME AND SUPERQUICK, INERT
A FUZE, TIME AND SUPERQUICK
 without explosive components. Excludes **FUZE, BOMB, INERT.**

FUZE, TIME AND SUPERQUICK,
INERT: M54

FUZE, TORPEDO

A fuze designed for use in the warhead of a torpedo, to initiate its functioning.

FUZE, TORPEDO: MARK 142
MOD 0

FUZE, TORPEDO, INERT

A FUZE, TORPEDO without explosive components.

FUZE, TORPEDO, INERT: MARK
142 MOD 0

fuze, variable time

See: **FUZE, PROXIMITY**

fuze, VT

See: **FUZE, PROXIMITY**

FUZE AND BURSTER, BOMB

A combination of fuze and burster, for use in a bomb, such as a liquid filled incendiary bomb, which may be filled in the field.

FUZE AND BURSTER, BOMB:
 part no R4-6-96

fuze body

That part of a fuze contributing the major portion of the total weight, and which houses the majority of the functioning parts, and to which smaller parts are attached.

fuze cavity

A socket or hole in a bomb, projectile, or the like for receiving a fuze, or a portion of the fuze.

fuze explosive train

See: **explosive train**

MIL-STD-444
6 February 1959

FUZE KIT, BOMB

A group of FUZE, BOMB, INERT used for training purposes:

FUZE KIT, BOMB: instruction

fuze safety

Two terms have been commonly used to describe the safety built into a fuze to prevent premature functionings at the time of employment, and to provide the required safety in transportation. One term, bore safety, is a term which is strictly applicable only to fuzes used in artillery or mortar projectiles or rockets, and refers to the provision of means to prevent functioning while in the bore of the gun, or in the launching tube. Such fuzes are said to be 'bore safe.' Detonator safety is the second term, and may relate to fuzes for any application. It refers to the provision of means to prevent functioning of the succeeding element(s) of the explosive train if the detonator functions while the fuze parts are in the safe position. Such a fuze is said to be 'detonator safe.' In general the terms are interchangeable with respect of artillery, mortar and rocket fuzes, but bore safety applies only to those types of fuzes.

See also: bore safety; detonator safety; fuze, bore safe; interrupter, nonbore-safe.

fuze well

See: fuze cavity

fuzed

Of a bomb, projectile, etc: equipped with one or more fuzes, as required.

G-agent

Any one of a group of war gases known as nerve gases. The group is known as the 'G-series.'

See also: CHEMICAL AGENT ISOPROPYL METHOSPHONOFUORIDATE; nerve gas; soman; tabun

gage

The interior diameter of the barrel of a

shotgun expressed by the number of spherical lead bullets fitting it required to make a pound; chiefly in combination, as a twelve-gage shotgun. The measurements of shotguns of popular sizes are standardized on the above basis as follows:

size of gun	diam. inches	size of gun	diam. inches
8-gage	.835	14-gage	.693
10-gage	.775	16-gage	.662
12-gage	.729	20-gage	.615

Also used as part of the nomenclature of cartridges to fit the shotguns, thus, CARTRIDGE, 12 GAGE SHOTGUN.

gage, copper crusher

Device used to measure pressure developed in gun chamber by measuring the deformation of a copper cylinder.

gaine

A booster or auxiliary detonating fuze. *British.*

gallery practice ammunition

Small arms ammunition with a reduced charge, used in gallery practice and also for guard purposes.

gas Ammo nomen

Short for 'war gas.' In nomenclature, indicates that the munition is intended to contain a war gas (which see) of the kind indicated.

gas munition

Munition such as bomb, projectile, pot, candle, or spray tank containing a war gas (which see) and means of release.

gasoline gels

See: gelatinized gasoline

gelatinized gasoline

Gasoline treated with a thickening agent as used in napalm bombs, flame throwers, etc. Also called 'gasoline gels' and 'thickened fuel.'

See also CHEMICAL AGENT, INCENDIARY OIL

MIL-STD-444
6 February 1959

gelatinizing agent

In manufacture of propellants, a material which softens the nitrocellulose, permitting the mixture to be processed and formed.

GENERATOR, SMOKE, MECHANICAL

A generator for producing quantities of dense particulate clouds for the purpose of concealing objects from enemy observation.

gilding metal

Copper alloy used to jacket small arms bullets, to form detonator or primer cups, and to form rotating bands for artillery projectiles; this metal can be readily engraved by the lands as the projectile moves down the bore. Gilding metal is composed of approximately 90 percent copper and 10 percent zinc.

goop

A compound in paste form containing finely divided magnesium used as a constituent of certain incendiary bomb fillings

GP bomb

Short for BOMB, GENERAL PURPOSE.

grain (gr)

1. A single piece of solid propellant regardless of size or shape used in a gun or rocket. For the latter a grain is often very large and shaped to fit the requirements of the rocket. It is termed GRAIN, PROPELLANT, ROCKET. 2. A measure of weight, 1/7000 lb.

GRAIN, PROPELLANT, ROCKET

A preformed item of explosive material designed to constitute a component of a rocket propulsion charge. When ignited the item burns and provides a large volume of gas for propulsion effects.

GRAIN, PROPELLANT, ROCKET:
 MARK 22 MOD 0 (uninhibited)

GRAIN, PROPELLANT, ROCKET:
 MARK 25 MOD 0 (inhibited)

granulation

Size and shape of grains of materials, particularly solid propellants.

graze

1. Pass close to the surface, as a shot that follows a path nearly parallel to the ground and low enough to strike a standing man. 2. Burst of a projectile at the instant of impact with the ground. In this meaning also called 'graze burst.' 3. The sensing, in time fire, for a burst on impact with the ground or other material object on a level with or below the target.

graze sensitivity

The ability of a fuze to be initiated by grazing, that is, when the missile strikes a surface at a glancing angle (80°—90° from the normal).

green Ammo nomen

Indicates, in the case of a SIGNAL, SMOKE, GROUND, several smoke pellets which produce freely falling streamers of green smoke at the height of the trajectory.

green parachute Ammo nomen

Indicates, in the case of a SIGNAL, SMOKE, GROUND, several smoke pellet, parachute suspended, which produces a green smoke.

green star, cluster Ammo nomen

Indicates, in the case of a SIGNAL, ILLUMINATION, GROUND, a cluster of several freely falling green stars (lights).

green star, parachute Ammo nomen

Indicates, in the case of a SIGNAL, ILLUMINATION, GROUND, a single green star (light), parachute supported.

green tracer Ammo nomen

Indicates, in the case of a SIGNAL, ILLUMINATION, AIRCRAFT, a green tracer (light) preceding the ejection of displays of other types.

MIL-STD-444
6 February 1959

grenade

A small explosive or chemical missile, originally designed to be thrown by hand, but now also designed to be projected from special grenade launchers, usually fitted to rifles or carbines. Grenades may be classified in a broad sense as GRENADE, HAND and GRENADE, RIFLE. Many varieties and variations of these have been used, including a number of improvised ones. Some of the principal types and designations used in recent years are identified in the entries which follow.

grenade, antipersonnel

Grenade term for any GRENADE, HAND or GRENADE, RIFLE, designed primarily for casualty effect against personnel. Usually refers to a grenade, fragmentation (which see).

grenade, antitank

A GRENADE, RIFLE designed to be used against tanks or other armored vehicles.

grenade, chemical

General term for any GRENADE, HAND or GRENADE, RIFLE charged with a chemical agent (which see).

grenade, chemical, burning type

General term for any grenade, chemical (which see) which releases its agent by a burning action. Contrasted with grenade, chemical, bursting type (which see).

grenade, chemical, bursting type

General term for any grenade, chemical (which see) which releases its agent by a bursting action. Contrasted with a grenade, chemical, burning type (which see).

grenade, concussion

See: grenade, offensive

grenade, defensive

See: grenade, fragmentation

grenade, dummy

See: grenade, training

grenade, fragmentation

A GRENADE, HAND designed to give fragmentation which is effective against personnel. The thrower needs protective cover, hence the grenade is used primarily for defensive operations and is often called a 'defensive grenade.'

grenade, frangible

Improvised incendiary hand grenade consisting of a glass container filled with a flammable liquid, with an igniter attached. It breaks and ignites upon striking a resistant target, such as a tank. Sometimes called 'Molotov cocktail.'

grenade, gas

Popular name for a grenade, chemical (which see), designed to release a war gas. The types of gases released are limited, usually, to tear gas and other irritants.

GRENADE, HAND

A grenade designed to be thrown by hand. May be projected by a rifle or carbine when grenade is fitted with an adapting device such as a adapter, grenade projection.

GRENADE, HAND: fragmentation, COMP B, w/fuze, M204A1 or M2-04A2

GRENADE, HAND: illuminating, MK1, w/fuze

GRENADE, HAND: offensive, MK3A1 (w/o fuze)

GRENADE, HAND: practice, M30, w/fuze, M205A1

grenade, illuminating

GRENADE, HAND or GRENADE, RIFLE designed to be placed or projected and to provide illumination by a burning action. It may be used also as a trip flare or as an incendiary device.

grenade, incendiary

GRENADE, HAND designed to be filled with incendiary materials or used primarily for incendiary purposes.

MIL-STD-444
6 February 1959

grenade, offensive

GRENAD, HAND having a nonmetallic container, designed to kill or injure by blast and concussion. Distinguished especially from a fragmentation or defensive grenade. The offensive grenade is so called because the thrower, being out of range of the grenade's effects, can continue to advance as he throws, and does not have to take cover.

grenade, practice

GRENAD, HAND or **GRENAD, RIFLE** used for practice purposes. The grenade may contain a small charge of black powder to give an indicating puff of smoke on functioning.

GRENAD, RIFLE

A grenade especially designed or adapted to be fired or launched from the muzzle of a rifle or carbine.

GRENAD, RIFLE: HE, AT, M31,
w/ fuze, grenade, rifle, M211

GRENAD, RIFLE: illuminating,
M27

GRENAD, RIFLE: practice M29

GRENAD, RIFLE: smoke, green,
M22A2

GRENAD, RIFLE: smoke, green,
streamer, M23

GRENAD, RIFLE: smoke, WP,
M19 or M19A1

grenade, riot

Grenade of plastic or other nonfragmenting material, containing a charge of tear gas and a detonating fuze with short delay. The grenade functions and the gas is released by a bursting action.

grenade, smoke

GRENAD, HAND OR **GRENAD, RIFLE** containing a smoke producing mixture. Used for screening or signaling. Sometimes charged with colored smoke, as red, green, yellow or violet.

grenade, stickv

A small explosive charge covered with an

adhesive, intended to be thrown or placed by hand where the adhesion will hold the charge in place until detonated by a time fuze. Also called 'sticky charge.'

grenade, training

An inert **GRENAD, HAND** used in throwing training. Formerly called 'dummy grenade.'

grenade, white phosphorus

GRENAD, HAND or **GRENAD, RIFLE** containing a main charge of white phosphorus and a small explosive burster charge for scattering the main charge. Used for smoke and some incendiary effect.

grommet

Device made of rope, plastic, rubber or metal to protect the rotating band of projectiles.

ground signal

Pyrotechnic signal intended to be fired from a position at ground level.

G-series

See: G-agent

guard ammunition

Ammunition specifically designed for use by guards. It usually contains a reduced propelling charge.

guided missile (GM)

A missile that is directed to its target while in flight or motion, either by a preset or self-reacting device within the missile or by radio command outside the missile, or through wire linkage to the missile. Guided missiles may be air-to-air (AAM), air-to-surface (ASM), air-to-underwater (AUM), surface-to-air (SAM), surface-to-surface (SSM), surface-to-underwater (SUM), underwater-to-air (UAM), underwater-to-surface (USM), and underwater-to-underwater (UUM).

gun

1. *General.* Unless otherwise indicated, the

MIL-STD-444
6 February 1959

term is used in this publication in its general sense, that is, to indicate a piece of ordnance consisting essentially of a tube or barrel for throwing projectiles by the force of an explosive. The general term embraces those weapons sometimes specifically designated as gun, cannon, mortar, howitzer, rifle, firearm, etc. 2. *Specif.* A gun, (sense 1, with a relatively long barrel, that is, greater than about 30 calibers, and a relatively high muzzle velocity.

guncotton

Nitrocellulose of high nitration (13.35 to 13.4 percent nitrogen); nitrocotton. Explosive made by treating cotton with nitric and sulfuric acids. Guncotton is used principally in the manufacture of single base and double base propellants.

Haleite (EDNA)

High explosive, ethylenedinitramine or EDNA. A white crystalline compound. It was named for its developer, the late Dr. G. C. Hale of Picatinny Arsenal. It has been found suitable for use as a bursting charge explosive and as an ingredient of the binary explosive ednatol (which see).

hand held Ammo nomen

Indicates, in the case of SIGNAL, ILLUMINATION, GROUND and SIGNAL, SMOKE, GROUND a rocket propelled, fin stabilized signal that has the launching mechanism integral with the signal.

hand rammed Ammo nomen

As part of cartridge nomenclature, indicates that the cartridge is intended to be rammed into the gun by hand rather than by power.

HANGER, UNDERWATER MINE

A metallic item attached to an underwater mine case for the purpose of supporting an underwater mine anchor.

hangfire

A brief undesired delay in the functioning of an ammunition item after initiating action is taken. Usually refers to delay in ignition of a propelling charge.

Cf: misfire. See also: fire (sense 1)

harassing agent

A chemical agent (which see), such as irritating gas or smoke, that forces troops to wear masks and so cuts down their efficiency. It produces irritating effects only.

HBX

Several explosive compositions used primarily for blast effect, carrying distinguishing nomenclature, such as HBX-1, etc., differing in proportions and constituents, being essentially mixtures of TNT, RDX, and aluminum.

HC mixture

See: CHEMICAL AGENT, HEXACHLOROETHANE MIXTURE

head

1. That part of a torpedo, rocket, or guided missile that carries the explosive or other payload. Now termed warhead (which see). 2. Flat circular part of the base of a cartridge case; the covering area surrounding the face of the primer pocket.

headlight Ammo nomen

Indicates, in connection with tracer ammunition, that the tracer produces a light which is visible from the front, as from an airplane which is under fire.

headspace

The linear distance from the face of the fully closed bolt to one of several different reference points, depending somewhat upon cartridge design.

HEAT; HEAT

(Often pronounced as a word.) Originally an abbreviation for 'high explosive anti-tank.' A term used to designate high

MIL-STD-444
6 February 1959

explosive ammunition containing a shaped charge.

See also: charge, shaped

heat of combustion

Heat evolved in the complete oxidation of a substance under standard conditions of pressure and temperature.

heat of explosion

Heat evolved in burning (exploding) a sample in a combustion bomb in an inert atmosphere under standard conditions of pressure and temperature. Products of explosion vary with the oxygen balance (which see) of the sample.

heat of formation

Heat evolved, or absorbed, when a compound is formed by combination of its elements. One of the important properties to be determined with regard to explosives.

heat of reaction

Heat evolved when a sample is burned in a combustion bomb in an atmosphere of helium or other inert gas. Products of this reaction are dependent on the oxygen balance (which see) of the sample.

heat tests

Tests consisting of heating explosive materials to temperatures above normal atmospheric temperatures, conducted to determine whether the explosives are safe for storage and use under various climatic conditions. When conducted with propellants containing nitrocellulose the tests give an indication as to the useful life. Six heat tests are recognized and used as follows: *Bergmann-Junk test*. A heat test conducted on a sample of nitrocellulose in which the amount of gas liberated over a given period of time is determined. Used to determine the satisfactoriness (stability) of nitrocellulose for use in propellants. *Methyl violet test*. A sample is heated in a glass tube

containing a slip of methyl violet test paper. Observation is made of the time required for the test paper to become salmon pink in color, for evolution of NO, fumes, and for explosion to occur. Temperature used is 135°C. for single base propellants, and 120°C. for double base propellants. Time requirements have been established for individual propellants. (Used for finished propellant testing.) *100°C. heat test*. A 0.6-gram sample is heated for two 48-hour periods at 100°C. At the end of each period the sample is examined for indication of volatility. (Used for high explosive testing.) *75°C. international heat test*. A 10-gram sample is heated for 48 hours at 75°C. and is then examined for indication of decomposition or volatility. (Used for high explosive testing.) *65.5°C. surveillance test*. A sample is placed in a bottle, sealed, and then stored at 65.5°C. until red fumes of nitrous oxide appear. The time to this event is recorded and compared with an established standard. (Used for finished propellant testing.) *Vacuum stability test*. A 5.0-gram dried sample (1.0-gram for primary explosives) is heated in a vacuum for 40 hours at 90°C., 100°C. and/or 120°C. The evolution of gas at each temperature is recorded. (Used for high explosive and propellant testing.)

hedgehog round

A small, mortarlike, antisubmarine projectile. Called PROJECTOR CHARGE, HIGH EXPLOSIVE, 7.2 INCH.

hexachloroethane

See: CHEMICAL AGENT, HEXACHLOROETHANE MIXTURE

hexanite

A mixture of 60 percent TNT and 40 percent hexanitrodiphenylamine (hexite). Slightly superior to TNT in brisance and power. Called 'novit' by the Germans.

MIL-STD-444
6 February 1959

See: hexanitrodiphenylamine

hexanitrodiphenylamine (hexite)

A high explosive which is intermediate between tetryl and TNT in its properties. It may be made from benzene derivatives.

hexite

See: hexanitrodiphenylamine

high explosive (HE)

An explosive which when used in its normal manner detonates, rather than deflagrating or burning; that is, the rate of advance of the reaction zone into the unreacted material exceeds the velocity of sound in the unreacted material. Whether an explosive reacts as a high explosive or as a low explosive depends on the manner in which it is initiated and confined. For example, a double base propellant when initiated in the usual manner is a low explosive. However, this material can be made to detonate if the propellant is initiated by an intense shock. Conversely, a high explosive like TNT, under certain conditions, can be ignited by flame and will burn without detonating. High explosives are divided into two classes: primary high explosives and secondary high explosives, according to their sensitivity to heat and shock. (Note: This division is not accepted by some authorities who maintain that high explosives and primary explosives are entirely separate "entities.")

See: low explosive; primary high explosive; secondary high explosive

high explosive plastic (HEP)

1. High explosive substance or mixture which, within normal ranges of atmospheric temperature, is capable of being molded into desired shapes; plastic explosive or PE.
2. A type of antitank projectile which defeats armor by producing a spalling action on the side away from the point of impact. The original

functioning concept for this projectile type involved plastic deformation of the bursting charge against the face of the armor plate prior to fuze action.

high explosive plastic antitank (HEPAT)

Term designating a shaped charge and a high explosive plastic charge, intended to produce jet penetration followed by a detonated plastic charge.

See also: charge, shaped; high explosive plastic

high order detonation

See: detonation

high velocity (HV)

As used in connection with artillery, small arms, and tank cannon, generally accepted to have the following meanings:

1. Muzzle velocity of an artillery projectile of from 3000 feet per second to, but not including, 3500 feet per second.
2. Velocities of small arms ammunition between 3500 and 5000 feet per second.
3. Velocities of tank cannon projectiles between 1550 and 3350 feet per second.

Cf: hypervelocity

HMX

High explosive, cyclotetramethylene-tetranitramine.

HOLDER, ADAPTER-BOOSTER, BOMB

A ring shaped device designed to accommodate and position an ADAPTER-BOOSTER, BOMB in a bomb body.

HOLDER, ADAPTER-BOOSTER, BOMB: w/o adapter-booster

HOLDER, BLASTING CAP

A holder for a blasting cap for detonating an explosive charge.

HOLDER, BLASTING CAP: for use w/plastic charges

HOLDER, DESTRUCTOR

A holder for an electrically detonated type of explosive cartridge used to destroy electronic equipment.

MIL-STD-444
6 February 1959

hollow charge

A term sometimes used (especially in the United Kingdom) to designate a shaped charge. Term arose from the fact that the explosive charge is hollowed out. Where the hollowed out portion is conical in shape, the charge is sometimes called 'hollow cone charge.' Also called 'beehive' or 'beehive shaped charge.'

See: charge, shaped

Honest John

Popular name for the 762-millimeter rocket system.

HORN, UNDERWATER MINE

An item designed to protrude from an underwater mine case or an underwater mine float. Its purpose is to actuate a detonator or firing mechanism when struck by an external object.

**HORN, UNDERWATER MINE: H6
 MOD O device**

**HORN, UNDERWATER MINE:
 MARK 5 MOD 1**

HOUSING, RELAY ASSEMBLY, UNDERWATER MINE

An item designed to inclose a relay assembly that is used in a controlled underwater mine system.

howitzer (how)

A gun, sense 1 (which see) with a medium muzzle velocity and a relatively short barrel. The bore diameter is over 30 millimeters. It is designed for high angle fire against targets that cannot be reached by flat trajectories.

hydrogen cyanide (AC)

See: CHEMICAL AGENT, HYDROGEN CYANIDE

HYDROSTAT, UNDERWATER MINE

An item designed to be actuated by hydrostatic pressure at a predetermined depth. Its function is to assure proper depth of an underwater mine by lock-

ing the cable release mechanism in the underwater mine anchor.

HYDROSTAT, UNDERWATER MINE: MARK 3 MOD O

hypergolic propellant

A rocket propellant that ignites spontaneously upon contact with an oxidizer. 'Hypergolic' is a coined word; the element 'golic' being obtained from a German code word 'Gola,' used to refer to a series of rocket propellants containing methylaniline, organic amine, pyrol, and certain other compounds.

hypervelocity (HV)

As used in connection with artillery, small arms, and tank cannon, generally accepted to have the following meanings:

1. Muzzle velocity of an artillery projectile of 3500 feet per second or more.
2. Muzzle velocity of a small arm projectile of 5000 feet per second or more.
3. Muzzle velocities of tank cannon projectiles in excess of 3350 feet per second.

Cf: high velocity

hypervelocity armor-piercing (HVAP)

A term used to designate a type of artillery projectile consisting of a core of extremely hard, high density material, such as tungsten carbide, contained within a light weight carrier called a sabot (which see). Because of the low total weight, hypervelocity (which see) is obtainable within the allowable pressure of the gun tube. The velocity is rapidly lost but at short ranges the projectile is effective against armor.

hypervelocity armor-piercing discarding sabot (HVAPDS)

A term used to designate a type of HVAP projectile in which the sabot (which see) is designed so that it will become separated from the core a short distance from the muzzle of the gun. Separation of the sabot from the core results in the core becoming the free flight projectile with lowered air resistance.

MIL-STD-444**6 February 1959**

See: hypervelocity armor-piercing

hypervelocity armor-piercing discarding sabot fin stabilized (HVAPDSFS)

A term used to designate a type of HVAPDS projectile in which the free flight projectile (core) is stabilized in flight by fins rather than by spin.

See: hypervelocity armor-piercing discarding sabot

igniter

1. Any device, chemical, electrical, or mechanical, used to ignite. IGNITER, BOMB and other specific types are listed and defined in the entries which follow. 2. Specially arranged charge of a ready burning composition, usually black powder, used to assist in the initiation of a propelling charge. 3. Device containing such a composition, used to amplify the initiation of a primer in the functioning of a fuze.

IGNITER, BOMB

A metal container designed to be filled with spontaneously combustible material to ignite the filler of incendiary and/or fire bombs. When empty or inert loaded it may be used for training purposes.

IGNITER, BOMB: Na, M16

IGNITER, BOMB: WP, AN-M23A1

igniter, first fire

See: first fire

IGNITER, GUIDED MISSILE

A device for effecting ignition of the propelling mixture in the motor or engine of a guided missile.

IGNITER, GUIDED MISSILE:
111082

IGNITER, INCENDIARY DOCUMENT, DESTROYER

A device used to ignite the incendiary component of a document destroyer.

igniter, jato unit

See: IGNITER, ROCKET MOTOR

IGNITER, RAMJET ENGINE

A pyrotechnic item designed to ignite the combustible mixture in a ramjet engine.

IGNITER, RAMJET ENGINE: 45-sec delay, M114

IGNITER, ROCKET MOTOR

An explosive item designed to ignite the propelling charge in a rocket motor.

IGNITER, ROCKET MOTOR: M14

IGNITER, ROCKET MOTOR: Type MA-1, Model 17A

IGNITER, ROCKET MOTOR:
MARK 153 MOD 2 for rocket motor, jato unit, MARK 4 MOD 2

IGNITER, ROCKET MOTOR: jato unit, electric, M24

IGNITER, SPOTTING CHARGE, BOMB

A tube containing an explosive designed to relay the detonation wave from the nose fuze to the spotting charge in the base of a practice bomb.

IGNITER, SPOTTING CHARGE,
BOMB: M32

IGNITER, TIME BLASTING FUSE

A device containing a firing mechanism and suitable ignition material for igniting a FUSE, BLASTING, TIME.

IGNITER, TIME BLASTING FUSE:
friction type, M1

IGNITER, TIME BLASTING FUSE:
weatherproof, M2

IGNITER, TORPEDO

A metal container with a combustible material to ignite the fuel in the combustion chamber of a torpedo.

IGNITER, TORPEDO: MARK 6
MOD 4

igniter train

Step by step arrangement of charges in pyrotechnic munitions by which the initial fire from the primer is transmitted and intensified until it reaches and sets off the main charge. Also called 'burning train.' Explosive munitions use a similar

MIL-STD-444
6 February 1959

series, called an 'explosive train' (which see).

ignition cartridge

See: CARTRIDGE, IGNITION

IGNITION CYLINDER, FLAME THROW- ER

A hollow cylindrical item having more than one chamber, in the body parallel to the axis of the bore. These chambers ignites the flame thrower when the ignities the flame thrower when the ignition grip is engaged.

IGNITION CYLINDER, FLAME THROWER: M1

ignition system, central tube

System of propelling charge ignition originating along the longitudinal axis, as exemplified by the long primers used in cased charges and the central core igniters used in bag charges.

illuminant composition

A mixture of materials suitable for use in the candle of a pyrotechnic device, having production of high intensity light as its principal function. The materials used include a fuel (reducing agent), an oxidizing agent, and a binder, plus color intensifier and waterproofing agent. The mixture is loaded under pressure in a container to form the illuminant candle.

illuminating *Ammo nomen*

Indicates, in the case of pyrotechnic ammunition, that the munition is intended primarily for illuminating purposes. Usually contains a flare and may contain a parachute for suspension in the air.

impact velocity

The velocity of a projectile or missile at the instant of impact. Also called 'sticking velocity.'

implosion

1. A sudden inward burst of particles or

gases that brings pressure upon the center of something. 2. The sudden reduction of pressure by chemical reaction or change of state which causes an in-rushing of the surrounding medium. Opposed to 'explosion' (which see) which results in a sudden expansion of the surrounding medium.

incendiary (inc (inced) *Ammo nomen*

Indicates that an incendiary effect at the target is intended.

increment

An amount of propellant added to, or taken away from, a propelling charge of semifixed or separate loading ammunition to allow for differences in range. Increments are commonly packed in propellant bags made of cartridge cloth, as for the main propelling charge.

INDICATOR: propellant temperature

A unit consisting of a standard cartridge case with propelling charge, but without primer. The cartridge case is sealed with a plug through which the stem of a dial type thermometer extends into the propelling charge. The unit is contained in a fiber container which is closed with a transparent plastic cover. The temperature shown by the thermometer is used to determine the temperature corrections to be applied to firing table figures.

INDICATOR: propellant temperature, M13

inert

Descriptive of condition of a munition, or component thereof, which contains no explosive, pyrotechnic or chemical agent.

infernal machine

Disguised or cleverly concealed explosive device, usually intended for sabotage. Distinguished from an 'open bomb.' (Both terms now rarely used.)

See: bomb, open

MIL-STD-444
6 February 1959

inhibitor

A material applied to surface(s) of propellant grains to prevent burning on the coated surface(s).

initial detonating agent

See: primary high explosive

initial mass

The mass of a rocket missile at the beginning of its flight.

initial velocity (IV)

The projectile velocity at the moment that the projectile ceases to be acted upon by propelling forces. For a gunfired projectile the initial velocity, expressed in feet or meters per second, is also called 'muzzle velocity.' It is obtained by measuring the velocity over a distance forward of the gun, and correcting back to the muzzle for the retardation in flight. For a rocket a slightly fictitious value is used. The fictitious initial velocity is the velocity at the launcher which would produce the actual velocity at the point of burnout if there were no thrust. The initial velocity of a bomb dropped from an airplane is the speed of the airplane.

initiating agent

An explosive material which has the necessary sensitivity to heat, friction, or percussion to make it suitable for use as the initial element in an explosive train.

See: primary high explosive; priming composition

initiation

1. As applied to an explosive item, the beginning of the deflagration or detonation of the explosive.
2. The first action in a fuze which occurs as a direct result of the action of the functioning medium.
3. In a time fuze, the starting of the action which is terminated in the functioning of the fuzed munition.

initiation, base

Detonation initiated at the base (rear) of the charge.

initiation, peripheral

Simultaneous initiation of detonation around the entire periphery of a cylindrical explosive charge. It may be accomplished from point initiation by inserting a disc of inert material, of proper dimensions, in the explosive column.

initiation, plane wave

Simultaneous initiation at all points of the rear surface of the main explosive charge by a flat detonation wave, usually accomplished by a composite explosive charge of proper dimensions.

initiation, point

Application of the initial impulse from the detonator to a single point on the main charge surface; for a cylindrical charge this point is usually the center of one face.

initiator

A device used as the first element of an explosive train, such as a detonator or squib, which upon receipt of the proper mechanical or electrical impulse produces a burning or detonating action. It generally contains a small quantity of a sensitive explosive.

INITIATOR, CARTRIDGE ACTUATED

An item designed to provide gas pressure for activation of various aircraft components such as canopy removers, thrusters, catapults, and the like.

INITIATOR, CARTRIDGE ACTUATED: M3 (with cartridge, M38)

INITIATOR, CARTRIDGE ACTUATED: T8

INITIATOR, CARTRIDGE ACTUATED: delay, M4, (with delay cartridge, M46)

intercontinental ballistic missile (ICBM)

A ballistic missile which has a range of not less than 5000 nautical miles.

MIL-STD-444
6 February 1959

intermediate range ballistic missile (IRBM)

A ballistic missile which has a range of approximately 1500 nautical miles.

international candle

An international unit of luminous intensity which is the light emitted by five square millimeters of platinum at solidification temperature.

interrupter

A barrier in a fuze which prevents transmission of an explosive effect to some element beyond the interrupter. Used to obtain fuze safety (which see).

intrusion

For a fuze which is partially housed within the missile, the length of that portion of the fuze which intrudes.

irritant gas

A nonlethal gas, causing irritation of the skin and flow of tears. Any one of the family of 'tear gases' used for training and riot control.

See: tear gas

jacket

See: jacket, bullet

jacket, bullet

A metal shell surrounding a metal core, the combination comprising a bullet for small arms. The jacket is either composed of, or coated with, a relatively soft metal such as gilding metal (which see) which engages the rifling in the bore, causing rotation of the bullet.

jato, reverse

See: rocket motor, reverse

jato unit

A ROCKET MOTOR, consisting of one or more continuous type combustion units closed at one end, with a nozzle type opening(s) at the other end containing a propelling charge which, when ignited, creates a gas pressure that is expelled through the nozzle(s), exerting a propulsion action. The item is normally

used to assist the initial action of the main propulsion unit(s). Terms JATO and JATO UNIT discontinued as official names in favor of ROCKET MOTOR or ROCKET ENGINE.

jellied gasoline

See: CHEMICAL AGENT, INCENDIARY OIL

jet

As pertains to shaped charge ammunition:
 a. From a lined charge: the slender, generally fastest moving part of a liner after collapse. b. From an unlined shaped charge: the central stream of high velocity gases produced upon detonation.

jet assisted takeoff (JATO)

A takeoff assisted by use of a jet stream, especially that of a ROCKET MOTOR.

See also: jato unit

jet breakup

As pertains to shaped charge ammunition: breaking of jet into discrete particles. The time of breakup is a factor in effective penetration. Bifurcation: radial breakup of the jet into two distinct jets. Polyfurcation: radial breakup of the jet resulting in two or more distinct jets.

jet vane

A fixed, adjustable, or removable vane placed directly in a jet stream to improve stability or control, especially at low speeds.

jet velocity

1. The velocity of a jet stream, usually measured with respect to surrounding air. 2. Pertaining to shaped charge ammunition. The measured velocity is usually the velocity of the tip of the moving jet after detonation of the charge but before penetration of the target. For conical liners in cylindrical charges, the tip moves fastest, the tail of the jet slowest, with a gradient of velocities between.

MIL-STD-444
6 February 1959

jolt and jumble tests

A standardized program of tests intended to simulate the shocks to which various components of ammunition are subjected in transportation and handling.

JUNCTION BOX

An inclosure of other than cast metal designed to house, mount and protect, but does not include wiring connections or electrical devices such as terminals and/or terminal boards, switches, jacks, fuseholders, connectors, circuit breakers and the like. (The specific application in the ammunition field is in connection with underwater mines.)

JUNCTION BOX: MARK 28 MOD O

K I starch paper test

Test applied to check the stability of nitrocellulose, a sample of which is heated to 65.5°C. in a glass tube in which is placed a piece of paper impregnated with potassium iodide and starch. The stability is measured by the length of time required for the products of decomposition to discolor the test paper. Specifications require that the paper shall not be discolored in less than 35 minutes.

kiloton

The explosive power of 1,000 tons of TNT.
Cf: megaton

kinetic energy ammunition

Ammunition designed to inflict damage to fortifications, armored vehicles or ships by reason of the kinetic energy of the missile upon impact. The damage may consist of shattering, spalling or piercing. The missile may be solid, or may contain an explosive charge, intended to function after penetration.

Cf: chemical energy ammunition

kopfring

A metal ring which is attached to the nose of a bomb to reduce its penetration in earth or water.

lacrimator

A chemical agent of the tear gas type.
See: tear gas

Langweiler charge

See: charge, traveling

latch

A device designed to fasten a rocket in or on a launcher prior to firing.

launch

1. To release or send forth, under its own power only, a rocket missile, robot bomb, or the like from a special launcher rack, ramp, or other device or installation.
2. To drop or release an aerial torpedo from an aircraft.
3. To catapult, especially to catapult or discharge a torpedo from a torpedo tube or to catapult an airplane, as from a ship's deck.

lead

(Rhymes with 'feed.') An explosive train component which consists of a column of high explosive, usually small in diameter, used to transmit detonation from one detonating component to a succeeding high explosive component. It is generally used to transmit the detonation from a detonator to a booster charge. Also called 'explosive lead.'

lead azide

Primary high explosive (which see) used in small quantities (as in detonators) to set off other explosives. Lead azide, $Pb(N_3)_2$, as usually prepared, consists of colorless crystals. This agent has largely replaced mercury fulminate in military ammunition.

lead bullet Ammo nomen

In small arms ammunition nomenclature, indicates a bullet (which see) composed of lead or of a composition with a high percentage of lead.

lead in

A lead (which see) that conducts a detonating impulse into an explosive loaded cavity.

MIL-STD-444
6 February 1959

lead out

A lead (which see) that conducts a detonating impulse *out* of an explosive loaded cavity.

lead styphnate

A primary high explosive (which see). It forms reddish-brown rhombic crystals. It is a relatively poor initiator of detonation but has found use as a cover charge for lead azide and as an ingredient of priming compositions because of its relative heat sensitivity. Used extensively in some explosive trains.

leaflet *Ammo nomen*

Indicates that the munition is intended for containing and dispensing leaflets.

leaker

Popular term for bomb or projectile filled with a chemical agent, which is leaking the contents and contaminating the surrounding area.

lens

An insert placed within an explosive charge and shaped so that the detonation wave front set up in the explosive emerges from the insert with a different curvature from that with which it entered.

See also: barrier material; wave shaper

lewisite (L)

See: CHEMICAL AGENT, LEWISITE

lifting plug

Threaded eye bolt which fits into the fuze cavity of a separate loading projectile, permitting the heavy projectile to be handled by means of a winch.

lighter, fuse

See: IGNITER, TIME BLASTING FUSE

limiting velocity

See: terminal velocity (sense 1)

linear burning rate

The distance normal to any burning surface of the propellant grain burned through in unit time.

liner

1. Metal inner box usually with soldered or welded seams, designed as an inside container for placing within a sturdily constructed exterior container for protection of ammunition or explosive against deterioration. 2. Cone of material used as an integral part of shaped charges; a shaped charge liner.

See also: charge, shaped

liner, conic

A shaped charge liner of conical shape.

See: liner (sense 2)

liner, fuze cavity

A thin-walled lining in the fuze cavity of a bursting charge.

liner assembly

Pertaining to shaped charge ammunition: A liner (sense 2) plus the parts immediately attached, all functioning as a unit. These can be liner with spitback tube, plus cap or cup.

liner collapse

The collapse of the liner of a shaped charge into jet and slug as a result of detonation.

See: jet; liner (sense 2); slug

line throwing cartridge

See: CARTRIDGE, CALIBER .32 LINE THROWING, CARTRIDGE, CALIBER .45 LINE THROWING

LINK, CARTRIDGE

A unit part of a belt, link (which see) by means of which ammunition is fed into automatic weapons.

LINK, CARTRIDGE: disintegrating 20-mm, M10

LINK, CARTRIDGE: end, metallic belt, caliber .30

LINK, CARTRIDGE: metallic belt, cal .30, M1

LINK, CARTRIDGE: metallic belt, cal .50, M1

MIL-STD-444
6 February 1959

link, end

See: LINK, CARTRIDGE

LINK, RELEASE, FLOAT

An item designed to contain an explosive charge and to connect a float to a switch box submerged under water. The float surfaces when the link is ruptured by the explosive charge to provide a means of locating the switch box.

LINK FILLER, CARTRIDGE

A filler piece for linked ammunition, used to prevent the trailing loop from catching when leaving the feed system.

LINK FILLER, CARTRIDGE: 20-mm, M10

linked ammunition

Cartridges fastened to one another side by side with metal links, forming a belt, link (which see) for ready feed to a machine gun.

liquid propellant

A propellant in a liquid state, as distinguished from a solid propellant. May be classified as monopropellant, bipropellant, and sometimes multipropellant. Used in rocket engines.

See also: bipropellant; monopropellant; multipropellant; ROCKET ENGINE; solid propellant

live ammunition

Ammunition containing explosives or active chemicals as distinguished from inert or drill ammunition.

load

See: charge

loading density

A term applied specifically to explosive charges of projectiles, bombs, warheads, etc. The quantity of explosive per unit volume, usually expressed as grams per cubic centimeter.

Cf: density of loading

LOCKING CUP ASSEMBLY, BOMB

A group of metallic items designed to hold an ADAPTER, CLUSTER, BOMB in a closed position.

LOCKING CUP ASSEMBLY,
 BOMB: f/bomb cluster adapter,
 M16

LOCKING WEB, BOMB FIN

A metallic item designed to prevent rotation of a FIN ASSEMBLY, BOMB in relation to the bomb.

LOCKING WEB, BOMB FIN: conical fins

loose round

Defective cartridge in which the bullet is loose in the cartridge case.

lot

Quantity of material, such as propellant, the units of which were manufactured under identical conditions. A lot is not ordinarily made up of identical units, in fact, the units will only rarely be identical. To minimize the effect of this, the units composing a lot are sometimes deliberately and thoroughly mixed. This is always done in the case of propellant lots. It is called 'blending.' A lot in which the units are so thoroughly mixed that all portions are essentially alike is called a 'homogenous lot.'

See also: ammunition lot; blending

lot, grand

A designated combination of a number of lots, each of which is expected to give the same level of quality and performance. The lots are selected on the basis of being made by the same manufacturer, either consecutively or at nearly the same time under the same conditions and from nearly identical components or raw materials.

lot, reference

A lot of select ammunition components or cartridges assembled with such components; used as a standard.

MIL-STD-444
6 February 1959

lot number

Identification number assigned to a particular quantity or lot of materiel, such as ammunition, from a single manufacturer.

See: ammunition lot number

low explosive (LE)

An explosive which when used in its normal manner deflagrates or burns rather than detonates; that is, the rate of advance of the reaction zone into the unreacted material is less than the velocity of sound in the unreacted material. Low explosives include propellants, certain primer mixtures, black powder, photo-flash powders and delay compositions. Whether an explosive reacts as a high explosive (which see) or a low explosive depends on the manner in which it is initiated and confined. For example a double base propellant when initiated in the usual manner is a low explosive. However, this material can be made to detonate if the propellant is initiated by an intense shock. Conversely, a high explosive like TNT, under certain conditions, can be ignited by flame and will burn without detonating.

low order burst

Functioning of a projectile or bomb in which the explosive fails to attain a high order detonation. Usually evidenced by the breaking of the container into a few large fragments instead of a large number of smaller fragments.

See also: detonation

low order detonation

See: detonation

LOX

Liquid *oxygen*; used as an oxidizer in certain liquid propellant mixtures.

LOZ

Liquid *ozone*; used as an oxidizer in certain liquid propellant mixtures.

LUG, SUSPENSION, BOMB

A steel forging with one or more mounting holes or with a threaded base for attachment to a bomb or ADAPTER, CLUSTER, BOMB to provide connecting means for suspension in the bomb station.

LUG, SUSPENSION, BOMB: for cluster, M26

LUG, SUSPENSION, UNDERWATER MINE

An item designed for attachment to an underwater mine to provide connecting means for suspension in the bomb station of an aircraft.

LUG, SUSPENSION, UNDERWATER MINE: f/mine case, MARK 25 MOD 1

LUG ASSEMBLY

Part of a rocket motor, when used as a jato unit, by which the motor is attached to the load. To be differentiated from the thrust structure.

LUG ASSEMBLY: 2.2KS33000 rocket motor, jato unit

lung irritant

A chemical agent which attacks the respiratory passages. One of the family of 'choking gases.'

See: choking gas

lyddite

Picric acid (which see). a high explosive. Also called "melinite."

Mach number (M)

The ratio of the velocity of a body to that of sound in the medium being considered. Thus, at sea level, in air at the standard US Atmosphere, a body moving at a Mach number of one ($M=1$) would have a velocity of 1116.2 ft/sec (the speed of sound in air under those conditions). Term is frequently shortened to 'Mach.'

magazine, gun

See: CLIP, CARTRIDGE

MIL-STD-444
6 February 1959

magazine, pistol

See: CLIP, CARTRIDGE

magazine, rifle

See: CLIP, CARTRIDGE

marker

A sign or signal for marking a location on land or water. Frequently contains pyrotechnics.

MARKER, LOCATION, MARINE

An item which contains a dye or a burning mixture for marking a location on water. It may contain an explosive charge for dispersion of contents.

MARKER, LOCATION, MARINE:

MARK 7 MOD 1

MARKER, LOCATION, MARINE:

dye, AN-M59

MARKER, LOCATION, MARINE:

night, MARK 2 MOD 0

MARKER, LOCATION, TORPEDO

An item containing an explosive charge for expulsion of wooden disks. Its purpose is to indicate the point of actuation of an **EXPLODER MECHANISM, TORPEDO** for training purposes only.

MARKER, LOCATION, TORPEDO:

dwg 5G-4350

MARKER KIT, UNDERWATER MINE

A group of items designed to be assembled to an underwater practice mine. Its purpose is to locate the underwater mine during training and evaluation operation.

MARKER KIT, UNDERWATER

MINE: MARK 5 MOD 0

MAT, BLASTING

An item fabricated by weaving or plaiting together fiber rope or steel chain to a specific size. It is designed to be placed over blasts to confine flying fragments.

maximum pressure

The maximum value of the pressure ex-

erted by the propellant gases on the walls of a gun during the firing of the round.

meal powder

An unglazed black powder of very fine granulation.

See also: black powder; coal powder

megaton

The explosive power of 1,000,000 tons of TNT.

Cf: kiloton

melinite

Picric acid (which see), a high explosive. Also called 'lyddite.'

melt

A quantity of material, such as explosives, melted in one kettle at one time.

melt loading

Process of melting solid explosive by heat and pouring into bombs, projectiles, and the like to solidify. Also called 'cast loading.'

Cf: pressed loading

meplat

The flat nose formed by truncation of the ogival portion of a projectile or point fuze.

mercury fulminate

A primary high explosive (which see) that is detonated by friction, impact, or heat; fulminate of mercury. Mercury fulminate is used to initiate other less sensitive explosives in fuzes, projectiles, mines, or bombs. Its military uses have been taken over to a large extent by lead azide because of the poor stability of mercury fulminate at elevated temperatures.

metal jacket *Ammo nomen*

Indicates a bullet consisting of a metal jacket surrounding a metal core.

See: jacket, bullet

metallic belt *Ammo nomen*

MIL-STD-444
6 February 1959

Indicates that item forms part of a metallic link belt for automatic weapons.

See: belt, link

meter, blast

A device for measuring the severity of a blast wave. Electric blast meters give a record of peak pressure, duration of the pressure wave and enable total impulse to be computed. The simplest meter is the diaphragm type, in which holes of various sizes (diameters) are covered by a paper or foil diaphragm. Observation of the smallest hole in which the diaphragm is broken gives a comparative measure of the peak pressure.

methyldichloroarsine (MD)

A blister gas, very similar to ethyldichloroarsine (which see).

mid range *Ammo nomen*

Indicates that the cartridge is suitable for use at ranges considered to be middle ranges for the caliber concerned.

mine

1. An encased explosive or chemical charge designed to be placed in position so that it detonates when its target touches or moves near it or when touched off by remote control. General types are: land mine and underwater mine. 2. An explosive charge placed in a subterranean tunnel under a fortification. 3. To place mines or prepared charges.

See also: mine, land; MINE, UNDERWATER

mine, acoustic

A MINE, UNDERWATER designed to be detonated by the sound waves from a ship's propeller, engines, or the like.

mine, activated

A mine having a secondary fuze which will cause detonation when the mine is moved or otherwise interfered with. The device may be attached either to the mine itself or to a second mine or to an

auxiliary charge beside or beneath the mine.

mine, actuated

A controlled mine whose detecting element has been operated, resulting either in explosion of the mine, or signaling to the control station.

mine, aerial

1. A mine designed to be dropped from an aircraft, especially into water. Hence, aerial minelaying, aerial mining. 2. An early World War II light case bomb, the predecessor of the blockbuster, that was normally dropped by parachute. Was also called a 'land mine.'

mine, amphibious

A mine designed especially to hinder beach landings and river crossing operations by damaging or destroying landing craft, small boats, water fording vehicles, and floating bridges. It may be contact, controlled, drifting, ground or ground influence type.

MINE, ANTIPERSONNEL

A land mine, for use against personnel, consisting of a small amount of high explosive, generally less than 1 pound, in a metallic or nonmetallic container fitted with a detonating fuze arranged for actuation by pressure or release of pressure by pull on a trip wire, or by release of tension (cutting) of a taut wire. Two types are available, the blast type, which explodes in place, and the bounding type, which projects a fragmenting body into the air that, upon detonation, scatters fragments over a wide area.

Cf: mine, bounding

MINE, ANTIPERSONNEL: M16, and fuze, mine, combination, M605
 MINE, ANTIPERSONNEL: M18, w/carrying kit, antipersonnel mine, M68

MINE, ANTIPERSONNEL: NM, M14, w/fuze integral

MIL-STD-444
6 February 1959

MINE, ANTIPERSONNEL, PRACTICE

An antipersonnel practice mine is the same size, weight, and shape as an antipersonnel mine but contains a small charge consisting of black powder or pyrotechnic composition instead of a high explosive.

MINE, ANTIPERSONNEL, PRACTICE: M8, and fuze, mine, combination, M10 or M10A1, practice

MINE, ANTITANK

A land mine, consisting of an explosive charge, contained in a metallic or non-metallic case, with provision for a main fuze, and usually for secondary antiremoval fuzes. Designed to function when a tank or other vehicle runs over it. Provided with a charge designed to produce disabling effect on a tank.

MINE, ANTITANK: HE, heavy, M15, and fuze, mine, AT, M603, and activator, M1

MINE, ANTITANK: HE, light, M7A2, and fuze, mine, AT, M603

MINE, ANTITANK: HE, NM, w/fuze, mine, M606

MINE, ANTITANK: light, inert loaded, M7A2, and fuze, mine, AT, inert, M603

MINE, ANTITANK, PRACTICE

An antitank practice mine is of the same size, weight, and shape as an antitank mine but contains a small charge consisting of black powder or pyrotechnic composition instead of a high explosive.

MINE, ANTITANK, PRACTICE: heavy, M12 or M12A1 (w/o fuze)

MINE, ANTITANK, PRACTICE: light, M10 (w/o fuze)

mine, armed

1. Mine with all safety devices removed so that the mine is ready to function.
2. Controlled underwater mine that will be fired when firing power is applied to the shore cable.

mine, booby trapped

A hidden mine arranged so that it will be detonated by the disturbance of an apparently harmless object.

mine, bounding

Type of MINE, ANTIPERSONNEL usually buried just below the surface of the ground. It has a small charge which throws the case up in the air. This case explodes at a height of three or four feet, throwing shrapnel or fragments in all directions.

MINE, CHEMICAL AGENT

Container filled with war gas for detonation by burster. Used to contaminate materiel or areas.

MINE, CHEMICAL AGENT: one gallon

mine, contact

Mine fitted with a firing device which explodes the mine when it is touched by a vessel, personnel, or vehicle.

mine, controlled

Mine fitted with firing devices capable of being activated by an electrical system leading to a central control station. May apply to underwater mines or to land mines.

mine, delayed action

Explosive charge designed to go off some time after planting, and often left behind by a retreating enemy to harass or destroy pursuing forces.

mine, drifting

MINE, UNDERWATER adjusted to float, unanchored, on or just below the surface of the water. A special type of drifting mine is the oscillating mine, which rises and falls gently as it continuously seeks its point of balance.

mine, dummy

False or imitation land mine used to deceive the enemy, or used for training purposes.

MIL-STD-444
6 February 1959

mine, ground

MINE, UNDERWATER possessing considerable negative buoyancy and intended to rest on the bottom. For this reason it is suitable for use in relatively shallow water only.

mine, ground influence

A mine, ground (which see) designed to be dropped from aircraft, and to rest on the bottom. It is detonated by magnetic or other influence.

mine, improvised

A mine manufactured of available materials because of unavailability of standard mines or because those mines available are not capable of producing the desired result.

mine, land

Container filled with high explosive or chemicals, placed on the ground or lightly covered, and fitted with a fuze or a firing device or both. It is usually set off by the weight of vehicles or troops passing over it.

mine, magnetic

MINE, UNDERWATER intended to be detonated when the hull of a passing vessel causes a change in the magnetic field at the mine.

mine, moored

MINE, UNDERWATER with positively buoyant mine case, held at a predetermined depth beneath the surface by a cable or chain mooring attached to an anchor that rests on the bottom.

mine, oscillating

See: mine, drifting

mine, phony

Harmless object used to simulate mine or to give false signals in detectors. Used in phony mine fields.

mine, practice

Imitation land mine used in training. A practice mine may contain a smoke pro-

ducing agent for maneuvers or for practice in observing the effects of mines against vehicles, or it may be simply a block of wood, metal, or concrete for practice in laying mine fields.

mine, sea

See: **MINE, UNDERWATER**

mine, selected

Controlled **MINE, UNDERWATER** which has been connected, through the selector assembly, to the control equipment at the shore station. A selected mine is exclusive of all other mines in its group and may be fired, tested, or disarmed independently of the remainder of the group.

See: mine, controlled

mine, submarine

See: **MINE, UNDERWATER**

MINE, UNDERWATER

An item designed to be located underwater and exploded by means of propeller vibration, magnetic attraction, contact, and/or remote control. When empty or inert loaded it may be used for training purposes.

**MINE, UNDERWATER: MARK 45
MOD 0**

MINE, UNDERWATER, PRACTICE

An item designed for launching from an aircraft to simulate the trajectory and falling speed of a **MINE, UNDERWATER**. Various weights are installed to represent different types of underwater mines.

MINE, UNDERWATER, PRACTICE: MARK 41 MOD 2

mine case

See: **CASE, UNDERWATER MINE**

mining effect

Violent upheaval or movement of earth and the destruction or damage resulting therefrom, generally caused by an ex-

MIL-STD-444
6 February 1959

plosion below the surface of the earth. Mining effect may be contrasted with the blast effect produced by an explosion on or above the surface of the earth.

Cf: blast effect

minol

High explosive mixture containing 40 percent TNT, 40 percent ammonium nitrate, and 20 percent powdered aluminum. Produces large blast effect. Suitable for melt loading (which see).

misfire

Failure of a round of ammunition to fire after initiating action is taken.

Cf: hangfire; see also: fire (sense 1)

missile (msl)

1. Any object that is, or is designed to be, thrown, dropped, projected, or propelled, for the purpose of making it strike a target. 2. A guided missile (which see). 3. A ballistic missile (which see).

missile, antiaircraft

A guided or a ballistic missile intended to be launched from the surface against an airborne target.

See: ballistic missile; guided missile

MISSILE, FREE FALLING, ANTIPERSONNEL

A nonexplosive missile designed to be dropped from aircraft, for effect against personnel.

MISSILE FREE FALLING, TIRE-PUNCTURING

A nonexplosive missile designed to be dropped from aircraft, on roads and airfield runways, to cause damage to tires of vehicles or aircraft, by contact.

Misznay-Schardin effect

The acceleration of a solid endplate (usually metal) from the face of an explosive charge under detonation, such that the

endplate remains a solid and functions as a missile.

Mohaupt effect

The effect of a metal liner introduced in a shaped charge to increase penetration. Generally incorporated in HEAT ammunition.

See also: Munroe effect

monopropellant

A liquid chemical compound, or liquid mixture of compatible chemical compounds, which is stable and can be handled, stored, and fed into the combustion chamber of the missile from one storage tank. The liquid must then be capable, under proper ignition conditions, of supporting its own combustion at a rate to develop a useful thrust.

Cf: bipropellant; multipropellant

MOORING AND SAFETY DEVICE, UNDERWATER MINE

An item designed to provide a safe-when-adrift feature in an underwater mine. It is assembled to an underwater mine case and contains a spring loaded shackle to which the mooring is secured. When properly moored, tension of the mooring chain or cable operates the underwater mine extender; when this tension is released the item releases the extender and allows it to retract, rendering the underwater mine safe.

MOORING AND SAFETY DEVICE, UNDERWATER MINE: MARK 1 MOD 0

mortar

A gun, sense 1 (which see) with a short barrel and a low muzzle velocity. These values are below those of a howitzer. It is designed for high angle fire against targets which cannot be reached by flat trajectories. It is usually of simple construction and designed for lightness and mobility.

motor; rocket

MIL-STD-444
6 February 1959

See: ROCKET MOTOR

mouth plug

Plug which seals the mouth of the cartridge case in separated ammunition. It may be made of various materials, such as cork, plastic, or cardboard.

MOX

'Oxidized metal explosive.' An explosive mixture containing a high explosive, plus powdered metal and an oxidizing agent. Used in some antiaircraft projectiles for blast effect.

multiperforated

Referring to solid propellants, indicating that the propellant grain has more than one longitudinal perforation, for control of burning rate. One of the most common types has seven longitudinal perforations, one being central, and the remaining six being regularly located around the center.

multiple wall

Descriptive of a projectile or missile designed for antipersonnel effect, in which the wall consists of two or more layers.

multipropellant

A rocket propellant consisting of two or more unmixed chemicals fed into the combustion chamber separately.

Cf: bipropellant, monopropellant

multistage rocket

A rocket or rocket missile having two or more thrust producing units, each used for different stages of the rocket's flight. Normally, each unit of a multistage rocket is jettisoned when its fuel is consumed.

Munroe effect

The effect produced by a shaped charge. In Europe sometimes called 'Neumann effect.' When a liner is used, the effect is termed 'Mohaupt effect.'

See also: charge, shaped; Mohaupt effect

mustard, simulated

See: CHEMICAL AGENT, MUSTARD, SIMULATED

mustard gas (H)

See: CHEMICAL AGENT, MUSTARD GAS

mustard gas, distilled (HD)

See: CHEMICAL AGENT, MUSTARD, DISTILLED

mustard-lewisite (HL)

A mixture of mustard gas and lewisite, two of the blister gases.

See: CHEMICAL AGENT, LEWISITE; CHEMICAL AGENT, MUSTARD GAS

mustard-T-mixture (HT)

A mixture of mustard gas and agent T. Properties are similar to distilled mustard gas.

See: CHEMICAL AGENT, MUSTARD, DISTILLED; CHEMICAL AGENT, MUSTARD GAS; CHEMICAL AGENT, T

muzzle brake

(Also called a 'recoil brake.') Device attached to the muzzle of a gun which utilizes escaping gases to reduce the effective recoil force of the gun tube on the carriage or mount. In some designs it eliminates or reduces muzzle flash.

muzzle burst

Explosion of a projectile at the muzzle of a weapon, or at a very short distance from the muzzle.

muzzle flash

Flame that appears at the muzzle of a gun when a projectile leaves the barrel.

muzzle velocity (MV)

See: initial velocity

napalm (NP)

1. Aluminum soap in powder form, used to gelatinize oil or gasoline for use in napalm bombs or flame throwers. 2. The resultant gelatinized substance.

MIL-STD-444
6 February 1959

See also: CHEMICAL AGENT, INCENDIARY OIL; THICKENER, INCENDIARY OIL

NATO *Ammo nomen*

The initial letters of North Atlantic Treaty Organization. Indicates that ammunition is for use in NATO weapons, as for example, the 7.62-millimeter lightweight rifle or machine gun.

NAVOL TANK, TORPEDO

A tank forming part of a torpedo assemblage, provided for the storage of solution of hydrogen peroxide in water. Decomposition of the hydrogen peroxide furnishes the oxygen required to effect combustion of the fuel, alcohol.

NAVOL TANK, TORPEDO: for torpedo, MARK 16 MOD 6

neck, case

Cylindrical portion of cartridge case between mouth and shoulder.

nerve gas

Chemical agent (war gas) which is absorbed into the body by breathing, by ingestion, or through the skin, and affects the nervous and respiratory systems and various body functions. Examples: soman; tabun; CHEMICAL AGENT, ISOPROPYL METHYLPHOSPHONOFUORIDATE (sarin). (See separate entries.)

Neumann effect

Term sometimes used by Europeans for the more common British-American term of Munroe effect (which see).

neutral burning

See: neutral granulation

neutral granulation

Propellant granulation in which the surface area of a grain remains constant during burning. The burning of a propellant with neutral granulation is termed 'neutral burning.'

Cf: degressive granulation; progressive granulation

NH propellant

A propellant which, by reason of its formulation or method of manufacture, does not absorb moisture from the air.

See: nonhygroscopic

NITRIC ACID, GUIDED MISSILE

A chemical manufactured specifically for use in guided missiles which must contain a minimum by weight of 0.5 percent hydrofluoric acid inhibitor and 13 percent nitrogen dioxide. Excludes NITRIC ACID, ACS; NITRIC ACID, ANALYZED REAGENT; NITRIC ACID, FUMING, ACS; NITRIC ACID, FUMING, TECHNICAL; NITRIC ACID, REAGENT and NITRIC ACID, TECHNICAL.

NITRIC ACID, GUIDED MISSILE: special purpose, for Nike

nitrocellulose (NC)

Cellulose nitrate. An explosive used in the manufacture of smokeless propellants. Formed by the action of a mixture of nitric and sulfuric acids on cotton or some other form of cellulose. Guncotton is a nitrocellulose that has a very high nitrogen content.

nitrocellulose propellant

A single base propellant whose main constituent is nitrocellulose, with only minor percentages of additives, for stabilizing, etc.

See: propellant

nitrocotton

See: guncotton

nitrogen-mustard gas (HN)

See: CHEMICAL AGENT, NITROGEN MUSTARD GAS

nitroglycerin (NG)

Nitrated ester of glycerol in which the OH radicals are replaced by NO₂. A color-

MIL-STD-444
6 February 1959

less liquid at ordinary temperatures. Very powerful and sensitive high explosive; used in dynamites and in some propellant mixtures.

See also: DYNAMITE: propellant

nitroguanidine

Picrite, a colorless crystalline compound. One of the principal constituents of triple base propellants. The other two principal constituents are nitrocellulose and nitroglycerin. The nitroguanidine is present in the nitrocellulose-nitroglycerin colloid as a finely dispersed crystalline solid. The nitroguanidine contributes to the ballistic potential and helps in reducing muzzle flash.

nitromethane

A liquid compound, CH_3NO_2 , oily and colorless, used as a monopropellant (which see) for rockets.

nitrostarch

Explosive used in some blasting compositions. It has been used during emergencies as a substitute for TNT. Manufactured from starch by nitration.

nonboresafe

Term applied to a fuze or booster that does not include a safety device to prevent the explosion of the main charge of a projectile prematurely, while it is still in the bore of the gun.

See also: fuze safety

nonelectric *Ammo nomen*

Indicates, in the case of blasting caps, that functioning is initiated by means other than electric, e.g., by FUSE, BLASTING, TIME.

nonhygroscopic (NH)

Not capable of absorbing moisture from the air. Used especially in regard to smokeless propellants.

nonhypergolic

Not capable of igniting spontaneously upon contact. Used especially with reference to rocket fuels.

Cf: hypergolic

noninitiating high explosive

See: secondary high explosive

nonpersistent war gas

Chemical agent (was gas) normally effective in the open 10 minutes or less at the point of dispersion.

Cf: persistent war gas; see also: war gas

normal charge

See: charge, normal

nose

The foremost point or section of a bomb, missile, or the like. Indicates, in the case of fuze nomenclature, that item is to be attached to the nose of the munition for which intended; and, in the case of the component of a fuze, that the component is to be used with a nose fuze.

NOSE ASSEMBLY, TORPEDO

An item attached to the front of a torpedo warhead designed to contain hydrophones or transducer electronic circuits, and other equipment necessary for acoustic control.

NOSE ASSEMBLY, TORPEDO: for torpedo, MARK 28 MOD 0

nuclear

1. Of or pertaining to a nucleus, especially to the nucleus of an atom. 2. Of or pertaining to the fission or fusion of an atomic nucleus.

See also: fission, nuclear; fusion, nuclear

nuclear fission

See: fission, nuclear

nuclear fusion

See: fusion, nuclear

nuclear rocket

A rocket propelled by reactions to released nuclear energy.

nuclear warhead

A warhead that contains fissionable or fissionable-fusionable material.

nuclear weapon

MIL-STD-444
6 February 1959

A bomb, projectile, missile, or the like that carries a nuclear warhead:

NUT, FIN LOCK, BOMB

A nut, circular in shape, with holding or tightening features; designed to position and hold a FIN ASSEMBLY, BOMB to a bomb.

NUT, FIN LOCK, BOMB: M2, for general purpose bomb, 500-lb, AN-M64A1, and general purpose bomb, 1,000-lb, AN-M65A1

octol

A high explosive composed of HMX and TNT in varying proportions.

offensive Ammo nomen

Indicates, when used in grenade nomenclature, that grenade may be used from open (uncovered) position; that is, it is designed for blast effect rather than for fragmentation effect.

ogive

The curved or tapered front of a projectile. As a geometrical body, a convex solid of revolution in which the generating area is bounded by an arc of a circle the center of which lies on the side of the axis of revolution opposite to the arc. When applied to a projectile contour the radius of the arc is expressed in calibers, such as a '7-caliber ogive.' With a bullet, bomb, or other projectile having a fuze forming the nose, the ogive is included between a point where the projectile begins to curve or taper and a point on the line where fuze and body meet; in other types of projectiles, the nose of the projectile is included as a part of the ogive.

See also: ogive, false

ogive, conical

A cone plus cylinder; an ogive generated by a line segment plus an arc of infinite radius.

See also: ogive

ogive, false

A rounded or pointed hollow cup added to the nose of a projectile to improve streamlining. Also called a 'windshield' or 'ballistic cap.'

OGIVE, RIFLE GRENADE

A hollow metallic item designed for attachment to the forward end of a practice rifle grenade. It cushions the impact and permits reuse of the grenade.

OGIVE, RIFLE GRENADE: AT, practice, M11A2 or M11A3

OGIVE, ROCKET

A hollow, conical, metallic shell covering for a rocket warhead, designed to reduce air resistance during flight.

ogive, secant

An ogive generated by an arc not tangent to, but intersecting at a small angle, a segment which forms the cylindrical surface. A secant ogive may have any radius of curvature greater than that of the tangent ogive up to an infinite radius of curvature (i.e., a straight, conical ogive); but, unless otherwise specified, a secant ogive has approximately twice the radius of curvature of a tangent ogive. Called 'fractional ogive' by the British.

See also: ogive; ogive, tangent

ogive, tangent

Ogive generated by arc, tangent to segment forming the cylindrical surface. Called 'true ogive' by the British.

See: ogive

opacifier

A substance used to treat a solid rocket propellant so as to absorb light and heat and thus protect the propellant from deterioration until ready for use.

optimum charge

Propelling charge with web and propellant weight combination which produces maximum velocity at a specified pressure.

MIL-STD-444
6 February 1959

out-of-line safety

A term descriptive of a method by which detonator safety or bore safety is attained. In the safe condition, one or more components of the fuze or booster explosive train are in a nonaligned condition with respect to the other components, so that normal functioning cannot occur.

See also: bore safety; detonator safety. fuze safety

overmatching plate

Armor plate whose thickness exceeds the diameter of the projectile.

Cf: overmatching projectile

overmatching projectile

A projectile whose diameter exceeds the thickness of the armor plate.

Cf: overmatching plate

overspin

In a spin stabilized projectile, when the rate of spin is too great for the particular design of projectile, it becomes overstable and its nose does not turn downward as it passes the summit of the trajectory and follows the descending branch. In such cases the projectile is said to have 'overspin,' or 'overstabilization.'

overstabilization

See: overspin

oxidizer

In an explosive or other chemical mixture, a substance that furnishes the oxygen for burning the fuel. For rocket propellants, the oxidizer is often liquid oxygen, nitric acid or the like.

oxygen balance

The excess or deficiency of oxygen as compared to that required to convert the carbon in an explosive to carbon dioxide and the hydrogen to water, expressed as a percentage. It is a measure of the extent to which an explosive is deficient or overly rich in oxygen com-

pared to the amount necessary for its complete decomposition.

PACK ASSEMBLY, PARACHUTE, UNDERWATER MINE

A complete assembly of all the component parts of a parachute used to retard and stabilize an underwater mine when launched from an aircraft.

PACK ASSEMBLY, PARACHUTE, UNDERWATER MINE: MARK 13 MOD 0

paper *Ammo nomen*

Used in nomenclature of shotgun type cartridges to indicate that cartridge case is composed of paper.

PARACHUTE, ANCHOR, UNDERWATER MINE

An item designed to retard the descent of an underwater mine anchor during planting operation.

PARACHUTE, ANCHOR, UNDERWATER MINE: MARK 1 MOD 0

PARACHUTE AND CONTAINER, BOMB

An assembled unit designed to retard and stabilize a bomb in flight.

PARACHUTE AND CONTAINER, BOMB: M5

parafrag

Short for 'parachute fragmentation bomb.' See: bomb, parachute fragmentation

parasheet

A simple form of parachute, in which the canopy is a single piece of material or two or more pieces sewed together to form the equivalent of a single piece. It may have any geometrical form, such as square, hexagonal, or other, and the hem may be gathered to assist in the development of a crown on opening of the parasheet. Sometimes used as an antiricochet device (which see).

passive armor

A protective device against shaped charge ammunition. Designed to absorb the

MIL-STD-444
6 February 1959

energy of a shaped charge. Examples: spaced armor (which see), homogeneous materials, plastic armors, composite designs.

payload

1. Generally, that part of a load that is expandable, deliverable, or ready for use in direct accomplishment of the mission.
2. In a guided missile or rocket, the warhead compartment and that which is carried in it.
3. In a projectile, the explosive or other filler.

pelleting

1. Method of accelerating solidification of cast explosive charges by blending pre-cast pellets of the explosives into the molten charge.
2. The pressing of an explosive so as to form cylindrical pellets.

pentaerythritol (PE)

A chemical used to produce the explosive PETN.

pentolite

An explosive composition of any mixture of PETN and TNT, but usually a 50/50 composition. Can be melt loaded.

percussion

Sharp blow, especially one for setting off an explosive.

percussion primer

See: PRIMER, PERCUSSION

performance index

See: specific impulse

persistent war gas

War gas (which see) that is normally effective in the open at the point of dispersion more than 10 minutes. A moderately persistent war gas is one which is normally effective in the open at the point of dispersion from 10 minutes to 12 hours.

Cf: nonpersistent war gas

PETN

A high explosive of exceptional brisance,

pentaerythrite tetranitrate. Used in detonating cord, boosters, detonators, blasting caps, and as a constituent of pentolite, in which it is mixed with TNT.

phlegmatizer

Material used to desensitize explosives, also to reduce erosion effect of gases in gun barrel.

phosgene (CG)

See: CHEMICAL AGENT, PHOSGENE

photoflash composition

Pyrotechnic material which, when loaded in a suitable casing and ignited, will produce a flash of sufficient intensity and duration for photographic purposes. Used as the filler in photoflash bombs and cartridges.

See also: BOMB, PHOTOFLASH; CARTRIDGE, PHOTOFLASH

picratol

A binary explosive composed of 52 percent Explosive D (ammonium picrate) and 48 percent TNT (trinitrotoluene). Can be melt loaded. Less sensitive than TNT, picratol was developed for use in armor-piercing bombs.

picric acid

Trinitrophenol, high explosive, slightly more powerful than TNT, used widely in the form of mixtures with other nitro compounds. Extensively used in some foreign countries. Also called 'melinite' and 'lyddite.'

pillaring

The rapid vertical movement of smoke which sometimes results for instance, from the explosion of a white phosphorus bomb or projectile. Undesirable because it does not produce obscuration over a desirably large area.

pin, arming

Safety device used in fuzes. A pin partly inserted into a fuze to prevent arming process from starting until its removal.

MIL-STD-444
6 February 1959

pin, bore riding

A safety pin which is held in place in the fuze while the projectile or missile is within the gun barrel or launching tube and then ejected from the fuze by centrifugal effects or spring action beyond the muzzle.

PIN, FIRING

An item used in a firing mechanism of a gun, mine, bomb, fuze, projectile or the like which strikes and detonates a sensitive explosive to initiate an explosive train or a propelling charge.

pinacolyl methylphosphonofluoridate (GD)

See: soman

pistol, depth charge

See: DEPTH CHARGE PISTOL

plastic explosive (PE)

Explosive which, within normal ranges of atmospheric temperature, is capable of being molded into desired shapes.

plasticized white phosphorus (PWP)

See: CHEMICAL AGENT, PLASTICIZED WHITE PHOSPHORUS

plasticizer

A constituent of a propellant or high explosive composition which makes the finished product less brittle.

PLATE, ARMING WIRE

A metallic item specifically designed to provide a means of attaching a primary arming wire to two or more secondary arming wires permitting simultaneous operation of all secondary arming wires.

PLATE, DRAG AND RING, SPOILER

A set of two parts designed for attachment to an aimable cluster adapter to increase the drag. It consists of a drag plate for attachment to the tail, and a spoiler ring for attachment to the nose, of the adapter.

See: adapter, cluster, aimable; ADAPTER, CLUSTER, BOMB

PLATE, DRAG AND RING, SPOILER, for fragmentation bomb cluster

plug, base

A plug used for closure of the base of some types of projectiles. It may include provision for housing a fuze.

plug, closing

A plug used to close openings of various components of a round of ammunition, i.e., primer, nose of unfuzed projectile, etc.

PLUG, DELAY CLOCK

An electrical fitting with integrally molded wire designed to replace a delay clock in an underwater mine.

PLUG, FLOODER, UNDERWATER MINE

An item designed to contain a detonator and installed in an opening in the side of an underwater mine case. The detonator ruptures it, thus providing a means for sinking the underwater mine by flooding it with water.

PLUG, FLOODER, UNDERWATER MINE: MARK 2 MOD 0

plumbing *Amno nomen*

In bomb nomenclature refers to the metal tubing which extends from the side well to the nose and tail of some bombs and which forms a conduit to accommodate the electrical connections to the fuze(s).

PLUMMET, ANCHOR, UNDERWATER MINE

An item designed to separate an anchor from an underwater mine case and to actuate a pawling mechanism in the underwater mine anchor. This controls the planting depth of an underwater mine.

PLUMMET, ANCHOR, UNDERWATER MINE: MARK 11 MOD 0

point

Tip or foremost part of a projectile. In fuze nomenclature, indicates that fuze

MIL-STD-444
6 February 1959

is to be attached to the point of the projectile.

polyfurcation

See: jet breakup

potential (of an explosive)

Total work that can be performed by the gas resulting from the explosion of an explosive when expanded adiabatically from its original volume until its pressure is reduced to atmospheric pressure and its temperature to 150°C., or the total quantity of heat given off at constant volume when expressed in equivalent work units.

powder (pdr)

An explosive in powder form, that is, in small granules or grains, such as black powder or smokeless propellant of fine granulation. No longer accepted as a general term for propellant or propelling charge.

See: PROPELLANT POWDER

powder silk

Also called 'cartridge silk.' Special silk fabric formerly used in making propellant bags. Powder silk leaves no burning residue when the propellant is burned. Silk has now been largely replaced by other materials and the fabric is called 'cartridge cloth.'

See also: bag, propellant; cloth, cartridge

powder tag

See: propellant tag

powder train

1. Train, usually of compressed black powder, used to obtain time action in older fuze types. 2. Train of explosives laid out for destruction by burning.

power rammed *Ammo nomen*

Indicates, in cartridge nomenclature, that the cartridge is intended to be rammed into the gun by a power rammer.

practice (prac) *Ammo nomen*

Indicates ammunition is intended for practice, usually indicating also that

any explosive or chemical filler has been reduced, replaced by a less dangerous type or removed altogether.

See also: practice ammunition

practice ammunition

Ammunition used for target practice or similar types of training. For gun and rocket type weapons, practice ammunition contains a propelling charge, and either an inert filler or a spotting charge in the projectile. Other types of practice ammunition, such as bombs or mines, usually contain a spotting charge or some form of charge to indicate functioning.

PRACTICE UNIT

An item comprising the necessary equipment for practice runs simulating special bombing missions.

PRACTICE UNIT: M19

preengraved rotating band

See: band, rotating, preengraved

premature

A type of malfunctioning in which a munition functions before the expected time or circumstance.

prescribed muzzle velocity

See: standard muzzle velocity

pressed loading

A loading operation in which bulk material, such as an explosive in granular form, is reduced in volume by the application of pressure.

Cf: melt loading

pressure-travel curve

Curve showing pressure plotted against the travel of the projectile within the bore of the weapon.

Primacord

Trade name for a type of CORD, DETONATING, utilizing PETN as the explosive filler.

Primacord net

See: detonating net

MIL-STD-444
6 February 1959

primary high explosive

An explosive which is extremely sensitive to heat and shock and is normally used to initiate a secondary high explosive. A primary explosive is capable of building up from a deflagration to detonation in an extremely short distance and time; it can also propagate a detonation wave in an extremely small diameter column. The term is generally used in referring to a pure compound and not to an explosive mixture. It has been suggested (Bowden and Yoffe) that primary explosives can be defined on the basis that upon slow heating they will decompose explosively while still in the solid state, while secondary high explosives will melt before undergoing an explosive reaction. This characteristic is true for mercury fulminate, lead azide, lead styphnate and tetracene; however, data are not available for all primary explosives.

(Note. Some authorities recognize the term as 'primary explosive' but not as 'primary high explosive', maintaining that 'high explosive' is an entirely separate entity.)

Cf: secondary high explosive

primer

A relatively small and sensitive initial explosive train component which on being actuated initiates functioning of the explosive train and will not reliably initiate high explosive charges. In general, primers are classified in accordance with the method of initiation; such as, percussion, stab, electric, friction etc. Primer is also used as a term referring to the assembly which ignites propelling charges. Primers exist in various forms and types, some of which are listed and defined in suitable entries below.

primer, artillery

Term applied to a primer (which see) provided to effect ignition of the propellant charge of an artillery weapon. In ammunition employing a cartridge case,

the primer is contained in the cartridge case. For separate loading ammunition the primer is inserted in the breech block. Consists of a charge of heat producing material, such as black powder, together with means for igniting the charge, and a metal housing to permit it to be handled as a unit. Artillery primers are classified by the method of initiation, as percussion, electric, friction, and combination percussion-electric.

primer, blown

A primer that, when the cartridge is fired, is entirely blown from the head of a small arms cartridge case. This is one of the most serious defects found in a cartridge.

primer, cannon

Term applied to primer (which see) used with separate loading ammunition.

primer, case

Term applied to primer (which see) intended to be assembled into the cartridge case of case ammunition.

PRIMER, ELECTRIC

A primer (which see) designed for initiation by an electric current.

PRIMER, ELECTRIC: M52A2

**PRIMER, ELECTRIC: MARK 34
 MOD 0**

PRIMER, ELECTRIC AND PERCUSSION

A primer (which see) designed for initiation either by impact of a firing pin, or by electric current, as desired.

**PRIMER, ELECTRIC AND PERCUSSION MARK 15 MODS 1
 and 2**

primer, friction

Type of primer (which see) that is fixed by pulling a toothed wire or plug through an explosive mixture. Largely supplanted by **PRIMER, ELECTRIC** and **PRIMER, PERCUSSION**.

primer, lock

Term applied to primer (which see) in-

MIL-STD-444
6 February 1959

tended to be placed by hand in the firing lock of a gun. It is used for initiation of the ignition of bag charges.

primer, long

Term applied to primer (which see) with relatively long body, designed to provide central ignition for a propelling charge. Such a primer is used in a central tube ignition system.

See also: ignition system, central tube

PRIMER, PERCUSSION

Any primer (which see) designed to be initiated by percussion.

PRIMER, PERCUSSION: M34 for 81-mm cartridge

PRIMER, PERCUSSION: cap

PRIMER, PERCUSSION: M28A2

PRIMER, PERCUSSION cartridge, caliber .30, No 26

PRIMER, PERCUSSION, INERT

A **PRIMER, PERCUSSION** in which the explosive components are simulated by inert components.

PRIMER, PERCUSSION, INERT: MK2A4

primer cup

A small metal cup, into which the primer mixture is loaded.

See: primer; primer mixture

primer mixture

An explosive mixture containing a sensitive explosive and other ingredients, used in a primer.

primer mixture, conductive

Primer mixture (which see) containing a small amount of conductive material, such as carbon, used in bridgeless type **PRIMER, ELECTRIC**. The heat necessary for firing the primer is generated by the resistance offered to the flow of the firing current through the mixture.

primer setback

The backward movement of a primer cup in a cartridge case which occurs when

the base of the cup is not properly supported by the bolt face or breech block.

primer-detonator

A unit, in a metal housing, in which are assembled a primer, a detonator, and when indicated, an intervening delay charge.

PRIMER-DETONATOR, FUZE, BOMB

A metallic device designed to contain a combination of explosive charges for assembly in a fuze to initiate the detonation wave in the explosive train of a bomb. It may be empty for use in training.

See: primer-detonator

PRIMER-DETONATOR, FUZE, BOMB: .01-sec delay, M14

PRIMER-IGNITER, MINE FUZE

An item consisting of a priming device and an igniting device designed to initiate explosive action of an antipersonnel mine.

PRIMER-IGNITER, MINE FUZE: combination, M10 (for practice antipersonnel mine, M8)

priming composition

A physical mixture of materials that is very sensitive to impact or percussion and, when so exploded, undergoes very rapid autocombustion. The products of such an explosion are hot gases and incandescent solid particles. Priming compositions are used for the ignition of primary high explosives, black powder igniter charges, propellants in small arms ammunition, etc.

progressive burning

See: progressive granulation

progressive granulation

Propellant granulation in which the surface area of a grain increases during burning. The burning of a propellant with progressive granulation is termed 'progressive burning.'

MIL-STD-444
6 February 1959

Cf: degressive granulation; neutral granulation

projectile (proj)

1. General: a body projected by exterior force and continuing in motion by its own inertia. 2. Specifically: a missile (sense 1) for use in any type of gun (sense 1). In the general sense the term is sometimes applied to rockets and guided missiles, although they may not fall within the stated definition. In sense 2, the term 'projectile' is preferred over 'shell,' 'shot,' and the like, in official nomenclature.

projectile, arrow

A relatively long projectile which is designed to be fired from a gun of a caliber considerably larger than the diameter of the projectile body. It is stabilized by fins having a span approximately that of the caliber of the gun. This design is made for the purpose of increasing the velocity, to decrease the time of flight, and/or increase the striking energy of the projectile.

projectile, colored marker

Projectile loaded with a charge consisting primarily of organic dye, and provided with a burster charge. Upon impact the projectile is ruptured and the dye is dispersed and vaporized by the heat of explosion. The dye then resolidifies in the air, forming a colored smoke cloud, which serves as a marker and/or target indicator to supporting ground and air forces.

projectile, common

A penetrating type projectile containing a bursting charge of high explosive, intended to explode after passing through the lighter protective armor of a vessel.

projectile, composite rigid

An armor-piercing projectile consisting of a core of heavy, hard material, such as tungsten carbide, contained within a nonseparable carrier of lightweight

material, such as aluminum. The carrier is termed a 'sabot.'

See also: hypervelocity armor-piercing; sabot

projectile, concrete piercing

Projectile especially designed or adapted for penetrating concrete and other similarly resistant targets.

projectile, drill

An inert projectile, of the same weight, center of gravity, and essential contour as the service separate loading projectile, designed or adapted for drill purposes.

projectile, dummy

Projectile that has no explosive charge. Dummy projectiles are used for practice and training purposes.

projectile, fragment simulator

Projectile which simulates the action of a fragment. Used in ballistic tests at the proving ground.

projectile, high capacity

A projectile with thin walls and high explosive loading, for use where no special penetrative qualities are required.

projectile, high explosive

Projectile with a bursting charge of high explosive

projectile, high explosive plastic (HEP projectile)

A thin-walled projectile, filled with plastic explosive. The projectile is designed to 'squash' against an armored target before detonation, and to defeat the armor by producing spalls which are detached with considerable velocity from the back of the target plate. Also called 'squash head,' especially by the British. See: high explosive plastic

projectile, illuminating

Projectile, with a time fuze, that releases a parachute flare at any desired height. Used for lighting up an area. Popul-

MIL-STD-444
6 February 1959

arly called 'star shell.'
 See: flare, parachute

PROJECTILE, 5 INCH 38 CALIBER

A projectile intended for firing from 5-inch 38 caliber weapons.

PROJECTILE, 5 INCH 38 CALIBER: AAC, MARK 35 MOD 4, w/fuzes, MT, MARK 50 MOD 4 and BD, MARK 28 MOD 17

PROJECTILE, 5 INCH 38 CALIBER DUMMY

A projectile, dummy (which see) for 5-inch 38-caliber weapons.

PROJECTILE, 5 INCH 38 CALIBER DUMMY: MARK 4 MOD 0

PROJECTILE, 5 INCH 51 CALIBER

A projectile intended for firing from 5-inch 51-caliber weapons.

PROJECTILE, 5 INCH 51 CALIBER: illuminating, MARK 25 MOD 5 w/fuze, MT, MARK 50 MOD 5

PROJECTILE, 5 INCH 51 CALIBER DUMMY

A projectile, dummy (which see) for 5-inch 51-caliber weapons.

PROJECTILE, 5 INCH 51 CALIBER DUMMY: MARK 5 MOD 0

PROJECTILE, 5 INCH 54 CALIBER

A projectile intended for firing from 5-inch 54-caliber weapons.

PROJECTILE, 5 INCH 54 CALIBER: FCL-VT (nonfrag), MARK 41 MOD 0, w/fuze, proximity, MARK 73 MOD 1

PROJECTILE 5 INCH 54 CALIBER DUMMY

A projectile, dummy (which see) for 5-inch 54-caliber weapons.

PROJECTILE, 5 INCH 54 CALIBER DUMMY: MARK 6 MOD 0

PROJECTILE, 6 INCH

A projectile intended for firing from 6-inch weapons.

PROJECTILE, 6 INCH: common, MARK 27 MOD 8, w/fuze, BD, MARK 28 MOD 8

PROJECTILE, 6-INCH DUMMY

A projectile, dummy (which see) for 6-inch weapons.

PROJECTILE, 8 INCH

A projectile intended for firing from 8-inch weapons.

PROJECTILE, 8 INCH: HC, MARK 24 MOD 3, w/fuze, BD, MARK 48 MOD 1

PROJECTILE, 8 INCH: HE, M103, w/fuze, PD, .15-sec delay, M51A1 MOD 3

PROJECTILE, 8 INCH DUMMY

A projectile, dummy (which see) for 8-inch weapons.

PROJECTILE, 8 INCH DUMMY: M13

PROJECTILE, 12 INCH

A projectile intended for firing from 12-inch weapons.

PROJECTILE, 12 INCH: AP, MARK 18 MOD 1, w/fuze, BD, MARK 21 MOD 1

PROJECTILE, 14 INCH

A projectile intended for firing from 14-inch weapons.

PROJECTILE, 14 INCH: BL&T, MARK 16 MOD 3, w/tracer, MARK 5 MOD 1

PROJECTILE, 14 INCH DUMMY

A projectile, dummy (which see) for 14-inch weapons.

PROJECTILE, 14 INCH DUMMY: MARK 2 MOD 0

PROJECTILE, 16 INCH

A projectile intended for firing from 16-inch weapons.

MIL-STD-444
6 February 1959

PROJECTILE, 16 INCH: HC
MARK 13 MOD 6, w/fuze, BD,
MARK 48 MOD 1

PROJECTILE, 16 INCH DUMMY

A projectile, dummy (which see) for 16-inch weapons.

PROJECTILE, 16 INCH DUMMY:
MARK 3 MOD 0

projectile, leaflet

A projectile designed for, or adapted to, use as a carrier for leaflets.

PROJECTILE, LINE THROWING GUN

A special projectile for use in the Lyle Lifesaving Gun, caliber .45/70, a smooth bore shoulder rifle used for line throwing. The projectile is a steel, club-shaped rod and the rear end fits into a special blank cartridge. The forward end of the projectile has an eye machined into it, for attachment of one end of the line.

See also: CARTRIDGE, CALIBER .45
LINE THROWING

PROJECTILE, 60 MILLIMETER

A projectile intended for firing from 60-millimeter weapons.

PROJECTILE, 60 MILLIMETER:
training, M69 (w/o fin assembly)

PROJECTILE, 81 MILLIMETER

A projectile intended for firing from 81-millimeter weapons.

PROJECTILE, 81 MILLIMETER:
training, M68, w/o fin assembly.

PROJECTILE, 120 MILLIMETER

A projectile intended for firing from 120-millimeter weapons.

PROJECTILE, 120 MILLIMETER:
HE, M73, w/suppl chg and fuze, time, mechanical, M61A2

PROJECTILE, 120 MILLIMETER DUMMY

A projectile, dummy (which see) for 120-millimeter weapons.

PROJECTILE, 120 MILLIMETER
DUMMY: M15, w/fuze, dummy,
M79

PROJECTILE, 155 MILLIMETER

A projectile intended for firing from 155-millimeter weapons.

PROJECTILE 155 MILLIMETER:
empty, M101

PROJECTILE 155 MILLIMETER:
gas, persistent, HD, M104

PROJECTILE 155 MILLIMETER:
HE, M101

PROJECTILE 155 MILLIMETER:
HE, M107, adapted for VT fuze

PROJECTILE 155 MILLIMETER:
illuminating, M113A2B1

PROJECTILE 155 MILLIMETER:
Smoke, HC, BE, M116

PROJECTILE, 155 MILLIMETER DUMMY

A projectile dummy (which see) for 155-millimeter weapons.

PROJECTILE, 155 MILLIMETER
DUMMY: M7

PROJECTILE, 240 MILLIMETER

A projectile intended for firing from 240-millimeter weapons.

PROJECTILE, 240 MILLIMETER:
HE, adapted for VT fuze, M114

PROJECTILE, 240 MILLIMETER DUMMY

A projectile, dummy (which see) for 240-millimeter weapons.

PROJECTILE, 240 MILLIMETER
DUMMY: M12

PROJECTILE, 280 MILLIMETER

A projectile intended for firing from 280-millimeter weapons.

PROJECTILE, 280 MILLIMETER:
HE, T122, w/suppl chg

PROJECTILE, 280 MILLIMETER:
HE-S, M350, w/fuze, MT, T220

MIL-STD-444
6 February 1959

PROJECTILE, 280 MILLIMETER DUMMY

A projectile, dummy (which see) for 280-millimeter weapons.

PROJECTILE, 280 MILLIMETER DUMMY: T299E2

projectile, monobloc

Armor-piercing projectile which consists of one piece of steel, suitably heat treated. May be provided with a false ogive to decrease air resistance.

projectile, multipurpose

A projectile designed so that the type of payload can be changed. This is accomplished by using prepared loads in canister form and providing a removable base plug to permit change of canister. Thus a canister containing colored smoke mixture can be replaced by, for instance, one containing leaflets.

projectile, nonfragmenting

Projectiles for antiaircraft gun practice, containing a smoke producing substance, available in various colors, which makes it possible to observe the burst without close bursts destroying the target.

projectile, proof

Special projectile for use at proving grounds, usually consisting of a solid, blunt nosed projectile of low cost. It duplicates the standard projectile in weight and location and type of rotating band so that it may be used in developing propelling charges as well as for proof firing of guns.

projectile, smoke

Any projectile containing a smoke producing chemical agent with means for properly dispersing the agent.

projectile, tapered bore

A projectile intended for firing in a gun tube having a tapered bore (squeeze bore), as a means of obtaining increased velocity.

See: tapered bore

projectile, target practice

Projectile suitable for target practice use. Usually has same size, shape, and weight as a projectile actually used in service. Some models are inert; others contain a smoke puff charge. Sometimes called merely 'target projectile.'

projectile, training

Projectile used in instruction and drill, often one that contains no explosive. Some training projectiles may be used more than once.

PROJECTILE AND PROPELLING CHARGE, 120 MILLIMETER

An item, consisting of a projectile and a propelling charge in a cartridge case, boxed and issued as a unit to provide all material required to fire a 120-millimeter weapon once.

PROJECTILE AND PROPELLING CHARGE, 120 MILLIMETER: consisting of projectile, AP-T, M358, and charge, propelling (case), T38E1

PROJECTILE AND PROPELLING CHARGE, 120 MILLIMETER: consisting of projectile, HE-T, COMP B T15E3, w/fuze, PD, M51A5, and charge, propelling (case), T21E1

PROJECTILE AND PROPELLING CHARGE, 120 MILLIMETER: consisting of projectile, TP-T, M359 and charge, propelling (case), T38E1

PROJECTOR CHARGE, HIGH EXPLOSIVE, 7.2 INCH

A missile which is propelled by an explosive cartridge from a projector. The missile consists of a head, a tail assembly, a means of stabilization, and a fuze. Excludes rockets and missiles whose trajectory can be altered in flight.

PROJECTOR CHARGE, HIGH EX-

MIL-STD-444
6 February 1959

PLOSIVE, 7.2 INCH: head, HBX loaded, MARK 4 MOD 3, and tail, MARK 6 MOD 2

PROJECTOR CHARGE, INERT, 7.2 INCH

A missile similar to a PROJECTOR CHARGE, HIGH EXPLOSIVE, 7.2 INCH except that it is without explosive components in fuze, head, or tail assembly. Excludes rockets and missiles whose trajectory can be altered in flight.

PROJECTOR CHARGE, INERT, 7.2 INCH: head, inert, MARK 4 MOD 3 and tail, inert, MARK 6 MOD 2

PROJECTOR CHARGE, PRACTICE, 7.2 INCH

A missile similar to a PROJECTOR CHARGE, HIGH EXPLOSIVE, 7.2 INCH except that it is without a fuze and the head is fitted with a practice charge or with an inert material. The tail assembly contains an explosive cartridge. Excludes rockets and missiles whose trajectory can be altered in flight.

PROJECTOR CHARGE, PRACTICE, 7.2 INCH: head, inert, MARK 4 MOD 3, and tail, MARK 6 MOD 2

propellant

A propellant agent; specifically, a low explosive substance or mixture of substances which, through burning, can be made to produce gases at controlled rates and to provide the energy necessary to propel a projectile or missile. Propellants may be classified as liquid propellants and solid propellants according to physical state. Liquid propellants, used primarily in rocket engines, may be classified as monopropellants, bipropellants, and sometimes multipropellants, according to the number of unmixed chemicals fed to the combustion chamber. Solid propellants, used primarily in gun type weapons and rocket motors, may be classified according to the number of basic explosives which they con-

tain. A single base propellant contains only one explosive ingredient. A common example of this is pyropropellant. A double base propellant contains two explosive ingredients, commonly nitrocellulose and nitroglycerin. Ballistite, the standard propellant used in US mortars, is of this type.

See also: liquid propellant; pyropropellant; solid propellant; triple base propellant

propellant, cool

A propellant which burns with a relatively low temperature, thus making it easier to obtain flashlessness and reducing gun tube erosion.

PROPELLANT, SOLID, GUIDED MISSILE

A premixed item of solid explosive material containing an adequate supply of available oxygen in its chemical composition. It is formed by cast or extrusion process and specifically designed to produce the required propulsion effects in guided missiles.

Cf: propellant; PROPELLANT MIXTURE, GUIDED MISSILE

propellant increment charge

See: CHARGE, PROPELLANT INCREMENT

PROPELLANT MIXTURE, GUIDED MISSILE

A premixed item of liquid explosive material designed for use with oxidizers to produce the required propulsion effects in guided missiles.

PROPELLANT MIXTURE, GUIDED MISSILE: aniline-furfuryl alcohol, 50-50

PROPELLANT MIXTURE, GUIDED MISSILE: XM2

PROPELLANT POWDER

A low explosive of fine granulation which, through burning, produces gases at a controlled rate to provide the energy for

MIL-STD-444
6 February 1959

propelling a projectile. Restricted to small arms propellants, for which the grain size is small. In larger grain form it is called simply 'propellant.'

See also: powder, propellant

PROPELLANT POWDER: I M R, caliber .30 carbine

PROPELLANT POWDER: pistol, P-4768, caliber .45

PROPELLANT POWDER: pyro DG, caliber .30

propellant tag

Linen tag attached to a propellant bag, carrying information about the propellant charge, such as the name of the loading plant, the date of loading, and the caliber and model of the gun for which it was made. Formerly called 'powder tag.'

propelleat

Driving forward, able or tending to propel, as in 'a propellent gas.' Should not be used as a noun in place of propellant (which see).

propelling charge explosive train

See: explosive train

PTXI

Explosive consisting of RDX, tetryl and TNT.

PTX2

Explosive consisting of RDX, PETN and TNT.

PUNK, STICK

A preformed material in cylindrical form, which when ignited smolders without flame, to provide means for igniting safety fuse.

pyrocellulose

Nitrocellulose having a lower nitration than guncotton, used in smokeless propellants. Contains approximately 12.6 percent nitrogen. Also called 'pyrocotton.'

pyrocotton

See: pyrocellulose

pyropropellant

Single base propellant consisting principally of nitrocellulose.

See: propellant

pyrotechnic outfit

See: SIGNAL KIT, PYROTECHNIC PISTOL

pyrotechnic signal

Signal (which see) designed for military use to produce a colored light or smoke, for the purpose of transmitting information.

pyrotechnics

Items used for both military and nonmilitary purposes, such as producing a bright light for illumination, or colored lights or smoke for signaling, and which are consumed in the process.

pyroxylin

Nitrocellulose containing less than 12.5 percent nitrogen

quantity-distance tables

The regulations pertaining to the amounts and kinds of explosives that can be stored and the proximity of such storage to buildings, highways, railways, magazines, or other installations.

quickmatch

Fast burning fuse made from a cord impregnated with black powder.

quickness

General term, expressing the mass rate of gas evolution of a propellant in a quantitative sense. Basically a function of the propellant geometry.

quickness, relative

Ratio of the quickness of a test propellant to the quickness of a standard propellant, measured at the same initial temperature and loading density in the same closed chamber.

radial band pressure

The pressure which is exerted on the rotating band by the walls of the gun tube, and hence against the projection wall at the band seat, as a result of the engraving of the band by the gun rifling. Since the same pressure is exerted against the gun tube, it must be taken into account in gun design as well as in projectile design.

radiological agent

Any of a family of substances that produce casualties by emitting radiation.

radius of rupture

Greatest distance from the center of an underground explosive charge at which the explosion will be destructive.

railway torpedo

See: TORPEDO, SIGNALING, RAILROAD

rate of detonation

Rate at which detonation of an explosive progresses. Usually expressed in meters or yards per second.

See: detonation

razon

(Range plus azon.) A kind of glide bomb having movable control surfaces in the tail adjusted by radio signals to control the bomb in range and in azimuth. Hence, 'razon bomb.'

See also: azon; bomb, glide

RDX

See: cyclonite

reactant ratio

The ratio of the weight flow of oxidizer to fuel in a ROCKET ENGINE.

reaction engine

An engine that derives thrust by expelling its gases of combustion to the rear.

See: ROCKET ENGINE

reaction motor

A motor that derives thrust by expelling its gases of combustion to the rear.

See: ROCKET MOTOR

reaction propulsion

Propulsion system in which a forward motion or thrust is produced by the expulsion of propellant gases through nozzles or venturi, generally longitudinally opposed to the intended line of travel.

recoilless ammunition

Term used to identify ammunition intended for use in recoilless rifles. Provision is made in the ammunition for release of propellant gases in the manner and quantity necessary to produce the recoilless action.

red Ammo nomen

Indicates, in the case of a SIGNAL, SMOKE, GROUND several smoke pellets which produce freely falling streamers of red smoke at the height of the trajectory.

red, parachute Ammo nomen

Indicates, in the case of a SIGNAL, SMOKE, GROUND a single smoke pellet, parachute suspended, which produces red smoke.

red star, cluster Ammo nomen

Indicates, in the case of a SIGNAL, ILLUMINATION, GROUND a cluster of several freely falling red stars (lights).

red star, parachute Ammo nomen

Indicates, in the case of a SIGNAL, ILLUMINATION, GROUND a single red star (light), parachute supported.

red tractor Ammo nomen

Indicates, in the case of a SIGNAL, ILLUMINATION, AIRCRAFT a red tracer light which burns for 2½ to 4 seconds, followed by two freely falling stars (lights) of indicated colors, which burn for 3 to 4½ seconds.

reduced charge

See charge, reduced

REDUCER, FLASH, PROPELLING CHARGE

An item designed for use with a propelling charge to reduce muzzle flash.

MIL-STD-444
6 February 1959

**REDUCER, FLASH, PROPELLING
 CHARGE: M1**

relay

An explosive train component that provides the required explosive energy to reliably initiate the next element in the train. Specifically applied to small charges that are initiated by a delay element and, in turn, cause the functioning of a detonator.

See: explosive train

**RELEASE, ANCHOR, UNDERWATER
 MINE**

A hydrostatically operated release mounted on the mine anchor designed to separate the anchor from the mine case at a predetermined depth.

**RELEASE, ANCHOR, UNDER-
 WATER MINE: MARK 6 MOD 0**

RELEASE, CASE, UNDERWATER MINE

A hydrostatically operated release mounted on the mine case designed to separate the case from the mine anchor at a predetermined depth.

**RELEASE, CASE, UNDERWATER
 MINE: MARK 1 MOD 1**

**RELEASE, DRAG PLATE, UNDER-
 WATER MINE**

A hydrostatically operated release designed to separate a mine drag plate from a mine at a predetermined depth.

**RELEASE, DRAG PLATE, UNDER-
 WATER MINE: MARK 3 MOD 5**

RELEASE, FIRING PIN

A gas operated release utilized to hold or free a firing pin in a canopy remover, thruster, initiator, and the like. Basically it is a small cylindrical piston and cylinder assembly incorporating a pressure inlet with an integral fitting for attaching a standard high pressure hose.

**RELEASE, FIRING PIN: gas-actu-
 ated, M1**

**RELEASE, FLOAT, UNDERWATER
 MINE**

A hydrostatically operated release designed to separate a mine float from a mine case at a predetermined depth.

**RELEASE, FLOAT, UNDER-
 WATER MINE: MARK 14 MOD 0**

**RELEASE, MARKER BUOY, UNDER-
 WATER MINE**

An item designed to be actuated by a blasting cap for the release of a marker buoy from an underwater mine control box and/or junction box.

**RELEASE MARKER BUOY, UN-
 DERWATER MINE: MARK 13
 MOD 0**

**RELEASE, PARACHUTE, UNDER-
 WATER MINE**

A release designed to separate an underwater mine parachute from an underwater mine upon impact with the water.

**RELEASE, PARACHUTE, UNDER-
 WATER MINE: MARK 10 MOD 0**

**RELEASE, PROPELLANT VALVE,
 GUIDED MISSILE**

An item specifically designed to operate a propellant valve through explosive actuation and shut off the flow of the guided missile propellant.

**RELEASE, PROPELLANT VALVE,
 GUIDED MISSILE: XM4**

REMOVER, AIRCRAFT CANOPY

An item designed to jettison the canopy from an aircraft to provide an exit for personnel.

**REMOVER, AIRCRAFT CANOPY:
 M1A1 (w/cartridge M29A2)**

renovation

Restoration of ammunition to serviceability condition by operations more extensive or hazardous than reconditioning, normally by the replacement of components.

**REPAIR KIT, MARKER, UNDERWATER
 MINE**

MIL-STD-444
6 February 1959

A group of replacement parts used for overhauling a **MARKER KIT, UNDERWATER MINE**

REPAIR KIT, MARKER, UNDERWATER MINE: MARK 4 MOD 5

residual penetration

As pertains to shaped charge ammunition: penetration of the jet into a backing target of some standard material after passage through a thickness of target material under test. This penetration is a measure of the effectiveness of the tested material against the jet.

RETAINER, ANTITANK MINE BOOSTER

Component for a **MINE, ANTITANK** which serves to retain a booster charge in place, prior to insertion of the fuze.

RETAINER, ANTITANK MINE BOOSTER: for booster, M120

RETAINER, ARMING WIRE SEAL

An item which mates with another item to compress a special rubber seal to form a seal around one or more arming wires and to seal arming wire openings when wires are removed.

retardation

Loss of velocity of a projectile or other missile as it travels along its trajectory.

retro *Ammo nomen*

Indicates, in the case of an aircraft rocket or its component, that the rocket is intended for firing to the rear from a plane at a velocity which will result in a vertical drop against a target such as a submarine.

retro-fired

Rearward-fired.

See: retro

rifle

A firearm having spiral grooves upon the surface of its bore to impart rotary motion to the projectile and to insure greater accuracy of fire and longer range. It is a lightweight weapon usual-

ly fired from the shoulder and can be automatic or semi-automatic hand operated.

rifle bullet impact sensitivity

See: sensitivity, rifle bullet impact

rifling

Spiral grooves in the bore of a weapon designed to give spin to the projectile for greater accuracy and carrying power. Rifling includes both the grooves and the ridges between, called lands

rimfire

1. Of a cartridge: having the primer mixture in the rim of the cartridge case base. 2. Of a firearm: using rimfire cartridges.

Cf: center-fire

rimless

Said of a cartridge case in which an exterior groove is machined into the body of the case, i.e., no part of the case extends beyond the body.

rimmed

Said of a cartridge case in which an extractor rim projects beyond the body of the case.

RING, DRAG, TORPEDO

A cylindrical item designed to fit over a torpedo warhead or exercise head. It is used to increase the efficiency of a torpedo stabilizer and reduce the impact of an aircraft torpedo when entering the water.

RING, DRAG, TORPEDO: MARK 3 MOD 0

RING, DUMMY PROJECTILE

A replaceable part of a dummy projectile. **RING, DUMMY PROJECTILE**, sliding type, is the carrier for the **BAND, DUMMY PROJECTILE**, and serves to facilitate release of the dummy projectile from the weapon. The retaining ring retains the **BAND, DUMMY PROJECTILE**: rear, in place and permits its replacement when necessary.

MIL-STD-444
6 February 1959

RING, DUMMY PROJECTILE: retaining, for 155-mm dummy projectile, MK1

RING, DUMMY PROJECTILE: sliding, for 155-mm dummy projectile, MK1

ring, powder

1. Cloth bag in the shape of a ring that holds a section of the propelling charge in some types of ammunition. The number of rings used controls the strength of the charge and the range of the projectile.
2. Metal ring in which powder train of black powder time fuzes is loaded.

rocket

An unmanned self-propelled vehicle, with or without a warhead, designed to travel above the surface of the earth and whose trajectory or course, while in flight, cannot be controlled. Excludes Guided Missile and other vehicles whose trajectory or course, while in flight, can be controlled remotely, or by homing systems, or by inertial and/or programmed guidance from within.

rocket, aircraft (AR)

A rocket especially designed to be carried by, and launched from, an airplane.

See: rocket

rocket, antitank

Rocket designed for use against tanks or other armored vehicles.

See: rocket

ROCKET, BOOSTED, 105 MILLIMETER

A rocket contained in a cylindrical shaped case, one end of which is fitted with a primer and propelling charge for imparting initial velocity to the rocket.

ROCKET, BOOSTED, 107 MILLIMETER

A rocket contained in a cylindrical shaped case, one end of which is fitted with a primer and propelling charge for imparting initial velocity to the rocket.

rocket, booster

A ROCKET MOTOR that increases the speed, range, or altitude of the airplane, rocket, missile or other vehicle to which it is attached.

See also: jato unit

ROCKET, CHEMICAL AGENT, 115 MILLIMETER

A rocket, with warhead 115 millimeters in diameter, containing a chemical agent.

ROCKET, CHEMICAL AGENT, 115 MILLIMETER: T238

ROCKET, GAS, 4.5 INCH

A rocket, with warhead 4.5 inches in diameter, containing a war gas.

ROCKET, GAS, 4.5 INCH: warhead, T164E1, w/motor

ROCKET, HIGH EXPLOSIVE, 2.75 INCH

A rocket, with warhead 2.75 inches in diameter, containing a high explosive charge.

ROCKET, HIGH EXPLOSIVE, 2.75 INCH: FFAR (consists of 2.75-inch warhead, HBX-loaded, MARK 1, MODS, w/PD fuze, MARK 176 MODS, and 2.75-inch rocket motor, MARK 2 MODS, w/propellant grain, MARK 43 MODS, unassembled

ROCKET, HIGH EXPLOSIVE, 3.5 INCH

A rocket, with warhead 3.5 inches in diameter, containing a high explosive charge.

ROCKET, HIGH EXPLOSIVE, 3.5 INCH: AT, M28A2

ROCKET, HIGH EXPLOSIVE, 3.5 INCH: SS, MARK 5 MOD 0

ROCKET, HIGH EXPLOSIVE, 4.5 INCH

A rocket, with warhead 4.5 inches in diameter, containing a high explosive charge.

ROCKET, HIGH EXPLOSIVE, 4.5 INCH: M20, unfuzed, and PD rocket fuze, M81, 0.05-sec delay, (or

MIL-STD-444
6 February 1959

PD rocket fuze, M48A2, 0.05-sec delay, w/booster, M21A1) in 4.5-inch rocket launcher, M12A1

ROCKET, HIGH EXPLOSIVE, 4.5 INCH: M32, w/o fuze
ROCKET, HIGH EXPLOSIVE, 4.5 INCH: MARK 1 MOD 1

ROCKET, HIGH EXPLOSIVE, 5 INCH

A rocket, with warhead 5 inches in diameter, containing a high explosive charge.

ROCKET, HIGH EXPLOSIVE, 5 INCH: SS, MARK 10 MOD 0

ROCKET, HIGH EXPLOSIVE, 12.75 INCH

A rocket, with warhead 12.75 inches in diameter, containing a high explosive charge.

ROCKET, HIGH EXPLOSIVE, 12.75 INCH: MARK 1 MOD 0

ROCKET, HIGH EXPLOSIVE, 76 MILLIMETER

A rocket, with warhead 76 millimeters in diameter, containing a high explosive charge.

ROCKET, HIGH EXPLOSIVE, 76 MILLIMETER: AA, T220 (consists of warhead, T2033, w/PDS rocket fuze, T2024 and rocket motor, T2006), unassembled

ROCKET, HIGH EXPLOSIVE, 80 MILLIMETER

A rocket, with warhead 80 millimeters in diameter, containing a high explosive charge.

rocket, illuminating

A rocket to be fired into the air for the purpose of producing illumination.

ROCKET, INCENDIARY, 8 INCH

A rocket, with warhead 8 inches in diameter, designed to produce an incendiary effect at the target.

ROCKET, INCENDIARY, 8 INCH:

warhead, w/MARK 15 MOD 0
 SCAR motor, assembled

ROCKET, INERT, 2.25 INCH

A rocket, with warhead 2.25 inches in diameter, in which all explosive components are omitted or replaced with inert materials.

ROCKET, INERT, 2.25 INCH: MARK 5 MOD 0

ROCKET, INERT, 2.75 INCH

A rocket, with warhead 2.25 inches in diameter, in which all explosive components are omitted or replaced with inert materials.

ROCKET, INERT, 2.75 INCH: (consists of 2.75-inch warhead, MARK 1 MOD 3 and 2.75-inch rocket motor, MARK 1 MOD 3, w/wdn propellant, MARK 31 MOD 1, unassembled

ROCKET, INERT, 4.5 INCH

A rocket, with warhead 4.5 inches in diameter, in which all explosive components are omitted or replaced with inert materials.

ROCKET, INERT, 4.5 INCH: M24
ROCKET INERT, 4.5 INCH: MARK 2 MOD 0

ROCKET, INERT, 2.75 INCH

A rocket, with warhead 12.75 inches in diameter, in which all explosive components are omitted or replaced with inert materials.

ROCKET, INERT, 12.75 INCH: warhead, inert, 12.75-inch MARK 1 MODs. w/5.25-inch rocket motor, inert, MARK 1 MOD 0

rocket, liquid

Term used to indicate a rocket using liquid propellant.

See: **ROCKET ENGINE**

rocket, practice

A rocket used in practice or training, hav-

MIL-STD-444
6 February 1959

ing either an uncharged warhead, or a warhead containing a spotting charge, but having the same engine or motor as the corresponding service rocket.

ROCKET, PRACTICE, 2.25 INCH

A rocket, practice (which see) with warhead 2.25 inches in diameter.

ROCKET, PRACTICE, 2.25 INCH:
MARK 2 MOD 1

ROCKET, PRACTICE, 2.25 INCH:
SCAR, (consists of solid 2.25-inch warhead, MARK 3 MOD 2, 2.25-inch rocket motor, MARK 16 MOD 5, w/propellant grain MARK 16 MODS), unassembled

ROCKET, PRACTICE, 2.75 INCH

A rocket, practice (which see) with warhead 2.75 inches in diameter.

ROCKET, PRACTICE, 2.75 INCH:
MARK 9 MOD 0

ROCKET, PRACTICE, 2.75 INCH:
FFAR, (consists of 2.75-inch warhead, inert loaded, MARK 1 MODS, and 2.75-inch rocket motor, MARK 2 MODS, w/propellant grain, MARK 43 MODS), unassembled

ROCKET, PRACTICE, 3.5 INCH

A rocket, practice (which see) with warhead 3.5 inches in diameter.

ROCKET, PRACTICE, 3.5 INCH:
M29A2

ROCKET, PRACTICE, 4.5 INCH

A rocket, practice (which see) with warhead 4.5 inches in diameter.

ROCKET, PRACTICE, 4.5 INCH:
M17 and M17A1

ROCKET, PRACTICE, 4.5 INCH:
MARK 2 MOD 0

ROCKET, PRACTICE, 12.75 INCH

A rocket, practice (which see) with warhead 80 millimeters in diameter

ROCKET, PRACTICE, 12.75 INCH:
MARK 2 MOD 0

ROCKET, PRACTICE, 80 MILLIMETER

A rocket, practice (which see) with warhead 890 millimeters in diameter.

ROCKET, PRACTICE, 318 MILLIMETER

A rocket, practice (which see) with warhead 318 millimeters in diameter.

ROCKET, PRACTICE, 318 MILLIMETER: XM47

ROCKET, SMOKE, 3.5 INCH

A rocket, with warhead 3.8 inches in diameter, in which the warhead contains material which produces a smoke cloud on functioning.

ROCKET, SMOKE, 3.5 INCH: MARK 3 MOD 0

ROCKET, SMOKE, 3.5 INCH: WP, T127E2 and M30

rocket, sounding

A high altitude rocket for carrying equipment for recording an/or transmitting information on ambient conditions at high altitudes.

rocket, subcaliber

A rocket designed especially to be fired from launching tubes of larger caliber than the rocket itself.

rocket, subcaliber aircraft (SCAR)

A subcaliber rocket designed to be launched from aircraft.

See: rocket, subcaliber

ROCKET, TRAINING

A practice missile designed to be used with rocket launchers for training in launching techniques.

ROCKET ASSEMBLY KIT

A collection of tools, fixtures and hardware items required to accomplish assembly of the components of a rocket, preparatory to launching, packed in a manner suitable for issue.

ROCKET ASSEMBLY KIT: 762-mm rocket, XM659

MIL-STD-444
6 February 1959

rocket assist

An assist in thrust given an airplane or missile by use of a **ROCKET MOTOR(S)** or **ROCKET ENGINE(S)** during flight or during takeoff.

See also: jet assisted takeoff

rocket assisted takeoff (RATO)

A term referring to rocket assist (which see) at takeoff.

rocket assisted torpedo (RAT)

See: torpedo, rocket assisted

rocket booster

See: booster (sense 2)

rocket conditioning kit

See: **CONDITIONING KIT, ROCKET**

ROCKET ENGINE

An nonairbreathing reaction propulsion device that consists essentially of an injector, thrust chamber(s) and exhaust nozzle(s), and utilizes liquid fuels and oxidizers at controlled rates from which hot gases are generated by combustion and expanded through a nozzle(s).

rocket fuel

A fuel, either in liquid or solid form, developed for, or used by, a rocket. Sometimes includes the oxidizing substance.

rocket head

See: warhead

rocket igniter

An igniter for igniting the propellant in a rocket.

See: **IGNITER, ROCKET MOTOR**

rocket missile

A missile using rocket propulsion.

See: missile; rocket propulsion

ROCKET MOTOR

A nonairbearing reaction propulsion device that consists essentially of a thrust chamber(s) and exhaust nozzle(s) and that carries its own solid oxidizer-fuel

combination from which hot gases are generated by combustion and expanded through a nozzle(s). It may be empty or contain a simulated and/or inert load.

ROCKET MOTOR: jato unit, M5, w/thrust structure, M2, and igniter, M24

ROCKET MOTOR: jato unit, 14-AS-1000, MARK 2 MOD 3 (w/o igniter)

ROCKET MOTOR: 1.25-inch, MARK 4 MOD 1

ROCKET MOTOR: 2-inch, T2007E3-E4

ROCKET MOTOR: 2.25-inch, inert, MARK 9 MODS

ROCKET MOTOR: 2.75-inch, FFAR, MARK 1 MODS, w/propellant grain, MARK 31 MODS

ROCKET MOTOR: 3.25-inch, MARK 13 MOD 0

ROCKET MOTOR: 5-inch, AN-MARK 2 MOD 4 (w/bayonet-type connector plug)

ROCKET MOTOR: 5.25-inch, MARK 1 MOD 0

ROCKET MOTOR: 11.75-inch, MARK 2 MOD 0

ROCKET MOTOR: 762-millimeter, M3

ROCKET MOTOR: sustainer, guided missile, MARK 3 MODS

rocket motor, guided missile

See: **ROCKET ENGINE; ROCKET MOTOR**

rocket motor, reverse

A **ROCKET MOTOR** mounted or turned backward so that the force can be used for decelerating an airplane or other moving object.

rocket propulsion

Propulsion by means of a rocket or rockets. A species of reaction propulsion.

See: reaction propulsion; rocket

rocketry

1. The science or study of rockets, em-

MIL-STD-444
6 February 1959

bracing theory, research, development, and experimentation. 2. The art and science of using rockets, especially rocket ammunition.

rope

Electromagnetic wave reflectors consisting of long strips of metal foil. Similar to window or chaff, but longer. Dropped from planes or shot into the air in projectiles. A small parachute or other device may be attached to each strip to reduce rate of fall.

See also: CHAFF, COUNTERMEASURES; window

rotating band

See: band, rotating

round (rnd)

Short for complete round (which see).

round of ammunition

See: complete round

sabot

Lightweight carrier in which a subcaliber projectile is centered to permit firing the projectile in the larger caliber weapon. The sabot diameter fills the bore of the weapon from which the projectile is fired. One type of sabot is discarded a short distance from the muzzle and is known as a 'discarding sabot.' A sabot is used with a hypervelocity armor-piercing projectile having a tungsten carbide core; in this case, the core may be considered as the subcaliber projectile.

See also: hypervelocity armor-piercing; hypervelocity armor-piercing discarding sabot

safe

Of ammunition: so constituted and set as not to detonate accidentally; in a safe condition.

safe contents destroyer

See: CRYPTOGRAPHIC EQUIPMENT DESTROYER, INCENDIARY; FILE DESTROYER, INCENDIARY

SAFETY AND ARMING DEVICE, GUIDED MISSILE

A mechanism which prevents or allows the warhead train of explosives to operate.

SAFETY AND ARMING DEVICE, GUIDED MISSILE: M27

SAFETY AND ARMING DEVICE, GUIDED MISSILE: electrical, for Terrier

safety block

A block which, in the safe position, prevents functioning of the fuze, by limiting the motion of the PIN, FIRING.

safety fork

Metal clip that fits over the collar of the fuze in a land mine and prevents the mine from being set off accidentally. Its function is the same as that of a safety pin.

Cf: safety pin; safety wire

safety fuse

See: FUSE, BLASTING, TIME

safety groove

A groove incorporated in an item or component of ammunition, so that any failure will occur at a selected location and will be of a less hazardous nature than might otherwise result from a failure.

safety lever

A metal piece forming part of a grenade fuze that is restrained by the thrower's hand or by the projection adapter after the safety pin is removed. Upon throwing or projection, the lever is discarded and the fuze train is initiated by the action of the released fuze firing pin.

Cf: safety pin

safety pin

A device designed to fit the mechanism of a fuze and to remain with it throughout transportation. Presence of the safety device prevents arming or functioning of the fuze, and the device is intended to be removed by the user just prior to employment.

MIL-STD-444
6 February 1959

Cf: safety fork; safety wire

safety wire

Wire set into the body of a fuze to lock all movable parts into safe positions so that the fuze will not be set off accidentally. It is pulled out just before firing. In some cases it is called 'safety pin.'

Cf: safety fork; safety pin

saluting *Ammo nomen*

Indicates, in cartridge nomenclature, a cartridge, blank (which see) intended for saluting purposes.

sarin (GB)

See: CHEMICAL AGENT, ISOPROPYL METHYLPHOSPHONOFUORIDATE

screening smoke

A smoke cloud produced by chemical agents or smoke generators. Used to conceal friendly troops and/or to deny observation by enemy troops.

See also: smoke blanket; smoke screen

season cracking

An occurrence in brass cartridge cases and other brass parts in which cracking occurs because of residual internal strains from the manufacturing operations. Prevented by a short time anneal, which removes the residual strains without affecting the hardness.

secondary high explosive

A high explosive which is relatively insensitive to heat and shock and is usually initiated by a primary high explosive. It requires a relatively long distance and time to build up from a deflagration to detonation and will not propagate in extremely small diameter columns. Secondary high explosives are used for boosters and bursting charges. Sometimes called 'noninitiating high explosives.'

(Note: The use of the terms 'secondary high explosive' and 'noninitiating high explosive' are not accepted by all authorities.)

Cf: primary high explosive

self-destroying (SD) *Ammun nomen*

Indicates, in connection with a fuze or a tracer, that the missile (projectile, rocket, or missile) with which it is used will be destroyed (functioned) in flight prior to ground impact in case the target is missed.

See also: self-destruction

SELF-DESTRUCT CHARGE, GUIDED MISSILE

An explosive element which operates in conjunction with that part of the missile which, of itself or by command, senses a catastrophic flight malfunction and destroys the missile.

SELF-DESTRUCT CHARGE, GUIDED MISSILE: EX-16, for Terrier

self-destruction (SD)

A term descriptive of an event which occurs from fuze or tracer action without outside stimulus, when provided for in the design, by which the fuze (or tracer) effects projectile or missile destruction, after flight to a range greater than that of the target. Self-destruction (also called 'self-destroying') items are employed in several types of antiaircraft ammunition where impact of unexploded projectiles or missiles would occur in friendly areas.

See also: fuze, self-destroying; shell destroying tracer

semiapical angle

See: apical angle

semi-armor-piercing bomb (SAP bomb)

See: BOMB, SEMI-ARMOR-PIERCING

semifixed ammunition

Ammunition in which the cartridge case is not permanently fixed to the projectile, so that the zone charge (which see) within the cartridge case can be adjusted to obtain the desired range; loaded into the weapon as a unit.

Cf: fixed ammunition; separate loading ammunition; separated ammunition

MIL-STD-444
6 February 1959

Semple plunger

A centrifugal plunger, named for the inventor. This plunger operates to maintain a fuze in a safe condition until centrifugal force unlocks and moves the PIN, FIRING into the armed position.

sensitivity

The characteristic of an explosive component which expresses its susceptibility to initiation by externally applied energy.

sensitivity, rifle bullet impact

A measure of sensitivity of an explosive, determined by firing a caliber .30 bullet (standard ball ammunition) under standard conditions through a charge of test explosive loaded in a short pipe nipple closed at both ends by pipe caps. The results of a series of tests are compared with those for an accepted explosive.

separate loading ammunition

Ammunition in which the projectile, propellant charge (bag loaded), and primer are handled and loaded separately into the gun. No cartridge case is utilized in this type of ammunition.

Cf: fixed ammunition; semifixed ammunition; separated ammunition

separated ammunition

Separated ammunition is characterized by the arrangement of the propelling charge and the projectile for loading into the gun. The propelling charge, contained in a primed cartridge case that is sealed with a closing plug, and the projectile, are loaded into the gun in one operation. Separated ammunition is used when the ammunition is too large to handle as fixed ammunition.

Cf: fixed ammunition; semifixed ammunition; separate loading ammunition

Series, G

See: G-agent

service ammunition

Ammunition intended for combat, rather than for training purposes.

SERVICE KIT, GAS BOMB

A collection of spare parts, accessories and tools contained in a wooden chest. It is intended to provide equipment for making repairs, testing for gas pressure within the bomb body and the detection of and sealing against gas leakage.

SERVICE KIT, GAS BOMB: M13

setback

1. The relative rearward movement of component parts in a projectile, missile or fuze undergoing forward acceleration during its launching. These movements, and the setback force which causes them, are used to promote events which participate in the arming and eventual functioning of the fuze. 2. Short for 'setback force.'

See also: setback force

setback force

The rearward force of inertia which is created by a forward acceleration of a projectile or missile during its launching phase. The forces are directly proportional to the acceleration and mass of the parts being accelerated.

See also: setback

set forward

1. Relative forward movement of component parts which occurs in a projectile, missile or bomb in flight when impact occurs. The effect is due to inertia and is opposite in direction to 'setback'. 2. Short for 'set forward force.'

See also: setback; set forward force

set forward force

The forward force of inertia which is created by the deceleration of a projectile, missile or bomb when impact occurs. The forces are directly proportional to the deceleration and mass of the parts being decelerated. Also called 'impact force.'

MIL-STD-444
6 February 1959

See also: set forward

SHACKLE, BOMB, AIRCRAFT

A suspension device installed in, but not permanently fixed to, an aircraft. It is designed for attaching, arming and releasing of a bomb. It may also be utilized to accommodate other items such as mines, rockets, torpedoes, fuel tanks, rescue equipment, sonobuoys, flares and the like.

shaped charge

See: charge, shaped

shear pin

1. A pin or wire provided in a fuze design to hold parts in a fixed relationship until forces are exerted on one or more of the parts which cause shearing of a pin or wire. The shearing is usually accomplished by setback or set forward (impact) forces. The shear member may be augmented during transportation by an additional safety device. 2. In a cartridge actuated device, a locking member which is released by shearing. Called 'shearing pin' in this sense.

shear wire

See: shear pin

shearing wire

See: shear pin

shelf life

The storage time during which an item remains serviceable.

shell

1. A hollow metal projectile designed to be projected from a gun, containing, or intended to contain, a high explosive, chemical, atomic or other charge. 2. A shotgun shell or a cartridge for artillery or small arms. 3. To shoot projectiles at. For uniformity in nomenclature the term 'projectile' is now used in sense 1 and the term 'cartridge' in sense 2.

See: cartridge; projectile

shell destroying tracer

A tracer which includes an explosive element beyond the tracer element, that is designed to cause activation of the explosive by the tracer after the anti-aircraft projectile has passed the target point, thus destroying the projectile to avoid impact in friendly territory.

See: fuze, self-destroying; self-destruction

shell filler

Explosive or other material used to make up the filler or charge in a projectile.

See: charge (sense 2)

shock tube

A long tube divided into two parts by a diaphragm. The volume on one side of the diaphragm constitutes the compression chamber; the other side is the expansion chamber. A high pressure is developed by suitable means in the compression chamber, and the diaphragm is then punctured by a knife. The shock wave produced in the expansion chamber can be used for the calibration of air blast gages, or the chamber can be instrumented for the study of the characteristics of the shock wave.

shock wave

A boundary surface or line across which a flow of air or other fluid, relative to a body or projectile passing through the air or fluid, changes discontinuously in pressure, velocity, density, temperature, and entropy within an infinitesimal period of time. a. Such a boundary surface or line that comes into being when an object moves at transonic or supersonic speeds. b. Such a surface or line produced by the expansion of gases away from an explosion.

shock wave, reflected

A shock wave resulting from an explosion, especially from the explosion of an air-burst bomb, which is reflected from a surface or object.

short cartridge (shrt etg)

MIL-STD-444
6 February 1959

See: cartridge, short

short round

1. Defective cartridge in which the bullet has been seated too deeply. 2. A projectile which fails to travel the expected distance or range.

shot

1. a. A solid projectile for cannon, without a bursting charge. b. A mass or load of numerous, relatively small, lead pellets used in a shotgun, as birdshot or buckshot. 2. That which is fired from a gun as 'the first shot was over the target.' In sense 1.a. the term 'projectile' (which see) is preferred for uniformity in nomenclature.

shoulder, case

The portion of the cartridge case between the neck and the body, shaped like the frustum of a cone.

shrapnel

1. Strictly speaking, small lead or steel balls contained in a shrapnel case which is fired from an artillery piece. The balls are projected in a forward direction upon functioning of the fuze. Shrapnel is no longer in use by US Services. 2. Also applied to munition fragments. *Popular.*

shrapnel ball

One of the balls used in filling a shrapnel case.

See also: shapnel

shutter

A barrier in an explosive train used to stop a detonation wave. An interrupter which opens or closes as a shutter. Often used to obtain fuze safety.

See: fuze safety; interrupter

signal

A pyrotechnic item designed to produce a sign by means of illumination, smoke, sound or combination of these effects to provide identification, location, warning, etc.

SIGNAL, FLASH, GUIDED MISSILE

A signal which simulates fuze and/or warhead operation in guided missile flights in which live warheads are not used.

SIGNAL, FLASH, GUIDED MISSILE: for Sparrow

signal, illumination

A pyrotechnic item designed to produce a sign by means of illumination to provide identification, location, warning, etc.

See: signal

SIGNAL, ILLUMINATION, AIRCRAFT

A signal which produces a sign by illumination, designed to be discharged from aircraft.

SIGNAL, ILLUMINATION, AIRCRAFT: double star, green-yellow; AN-M42A1 or AN-M42A2

SIGNAL, ILLUMINATION, AIRCRAFT: green star, MARK 6 MOD 0

SIGNAL, ILLUMINATION, AIRCRAFT: red tracer, red-red star, AN-M57, AN-M57A1 or AN-M57A2

SIGNAL, ILLUMINATION, GROUND

A signal which produces a sign by illumination, designed to be discharged from ground positions.

SIGNAL, ILLUMINATION, GROUND: green star, cluster, M125 (hand held)

SIGNAL, ILLUMINATION, GROUND: green star, parachute, M19A1

SIGNAL, ILLUMINATION, MARINE

A signal which produces a sign by illumination, designed to be discharged from surface craft or submarines.

SIGNAL, ILLUMINATION, MARINE: comet, green, MARK 1 MOD 0

SIGNAL, ILLUMINATION,

MIL-STD-444
6 February 1959

MARINE: occulting, red-green-yellow, MARK 1 MOD 4

SIGNAL, ILLUMINATION,

MARINE: two star, red, AN-M75

signal, smoke

A pyrotechnic item designed to produce a sign by means of smoke to provide identification, location, warning, etc.

See: signal

SIGNAL, SMOKE, AIRCRAFT

A signal which produces a sign by production of smoke, designed to be discharged from aircraft.

SIGNAL, SMOKE, AIRCRAFT:

black, MARK 7 MOD 0

SIGNAL, SMOKE, GROUND

A signal which produces a sign by production of smoke, designed to be discharged from ground positions.

SIGNAL, SMOKE, GROUND: green, M65

SIGNAL, SMOKE, GROUND: green, parachute, M128, (hand held)

SIGNAL, SMOKE, MARINE

A signal which produces a sign by production of smoke, designed to be discharged from surface craft or submarines.

SIGNAL, SMOKE, MARINE: hand AN-MARK 1 MOD 1

SIGNAL, SMOKE, MARINE: orange, floating (merchant ships)

SIGNAL, SMOKE AND ILLUMINATION, AIRCRAFT

A signal which produces a sign by production of light and smoke, designed to be discharged from aircraft.

SIGNAL, SMOKE AND ILLUMINATION, AIRCRAFT: AN-MARK 6 MODS 2 and 3

SIGNAL, SMOKE AND ILLUMINATION, MARINE

A signal which produces a sign by produc-

tion of light and smoke, designed to be discharged from surface craft or submarines.

SIGNAL, SMOKE AND ILLUMINATION, MARINE: AN-MARK 13 MOD 0

SIGNAL KIT, ABANDON SHIP

A group of items consisting of a hand projector and pyrotechnic signals in a metal container designed for use with an abandon ship outfit.

SIGNAL KIT, PYROTECHNIC PISTOL

A group of items consisting of a pyrotechnic pistol(s), pyrotechnic signals and associated items in a container.

See also: SIGNAL KIT, ABANDON SHIP

SIGNAL KIT, PYROTECHNIC PISTOL: MARK 1 MOD 1

signal light

General term indicating a signal, illumination (which see) or any pyrotechnic light used as a sign.

signature

The identifying characteristics peculiar to each type of target which enable fuzes to sense and differentiate targets.

SIMULATOR, ANTIPERSONNEL MINE PROJECTILE

An item designed to hold a spotting charge. When the spotting charge is ignited, it causes the item to simulate the projectile of a bounding antipersonnel mine.

SIMULATOR, ANTIPERSONNEL MINE PROJECTILE: practice, M8

SIMULATOR, BOOBY TRAP

An item for use during maneuvers and in troop training, providing a small pyrotechnic device which can be installed as a 'safe' booby trap. Used to give train-

MIL-STD-444
6 February 1959

ing in the installation and use of booby traps and instill caution in troops who may be exposed to traps set by the enemy.

SIMULATOR, BOOBY TRAP: flash, M117

SIMULATOR, BOOBY TRAP: illuminating, M118

SIMULATOR, BOOBY TRAP: whistling, M119

SIMULATOR, FLASH, ARTILLERY

An item designed to simulate the flash of artillery fire. Used in the training of artillery observers and troops in army maneuvers, and as a decoy in forward combat areas.

SIMULATOR, FLASH, ARTILLERY: M110, w/electric squib

SIMULATOR, HAND GRENADE

An explosive pyrotechnic item designed to simulate the flash and sound of a hand grenade.

SIMULATOR, HAND GRENADE: M116

SIMULATOR, PROJECTILE AIR BURST

An item used to simulate the burst of an artillery projectile by producing a puff of smoke.

SIMULATOR, PROJECTILE AIR BURST: M27A1B1

SIMULATOR, PROJECTILE GROUND BURST

A pyrotechnic device used to provide battle noises and effects during troop maneuvers.

SIMULATOR, PROJECTILE GROUND BURST: M115

single base propellant

See: propellant

single compound explosive

Explosive composed of a single chemical compound. For example, TNT.

single perforated grain

A cylindrical propellant grain with a single perforation located in its axis. This type of granulation is used in propelling charges for several calibers of guns, and in rockets.

single stage rocket

A rocket or rocket missile to which the total thrust is imparted in a single phase, by either a single or multiple thrust unit.

Cf: multistage rocket

single star *Ammo nomen*

Indicates, in the case of a SIGNAL, ILLUMINATION, AIRCRAFT freely falling, single star (light) of the color indicated.

sinking valve

See: PLUG, FLOODER, UNDERWATER MINE

skirting plate

A thin plate, which is spaced a considerable distance in front of the main armor plate and which acts as a passive form of resistance to the jet of shaped charge ammunition.

slider

A fuze or exploder component that interrupts the explosive train when the device is in the unarmed condition, and that moves during arming in such a way as to render the explosive train operative.

See also: interrupter

SLING, ROCKET HANDLING

A sling consisting of an I-beam and straps, specifically designed for handling a rocket.

slivers

Pieces of propellant grains of triangular cross section which remain unburned when the web (which see) of multiperforated grains has been burned through. Usually burning of the slivers is com-

MIL-STD-444
6 February 1959

pleted before the projectile leaves the bore.

See also: web

slug

As pertains to shaped charge ammunition, the massive and relatively slow-moving remnant of the collapsed metal liner, as distinguished from the jet.

small arms ammunition

Ammunition for use in small arms; rounds of a caliber up to, and including, 30 millimeters (1.181 inches).

smoke

1. Suspension of small liquid or solid particles in air. 2. Filling for smoke munitions such as bombs, projectiles, and grenades. 3. As part of ammunition nomenclature, signifies that the munition is intended to produce smoke of the type(s) or color(s) indicated.

See also: chemical agent

smoke blanket

Dense concentration of smoke, sense 1 (which see). Established over and around friendly areas to protect from observation and precision bombing. Established over enemy areas to protect attacking aircraft from antiaircraft fire.

smoke candle

Munition which produces smoke by vaporizing a smoke producing oil.

Cf: SMOKE POT

smoke curtain

Vertical smoke screen placed between friendly and hostile troops or installations to prevent enemy ground observation.

See: smoke screen

smoke generator

See: GENERATOR, SMOKE, MECHANICAL

SMOKE POT

A cylindrical metal munition designed to produce smoke for screening or signaling purposes, either by combustion of a fuel mixture to vaporize a smoke producing oil. It may be with or without igniting device and filling, and is not intended for throwing or for firing from weapons.

SMOKE POT: floating, SGF2, AN-M7

SMOKE POT: 10-lb, HC, M1

smoke pot, floating

SMOKE POT that emits dense smoke when ignited and which floats on the surface of water to provide a temporary screen.

smoke screen

A screen of smoke used to hide a maneuver, force, place, or activity. Smoke screens may be generated on the ground by use of a GENERATOR, SMOKE, MECHANICAL; a grenade, smoke; or a SMOKE POT. They may also be laid down by aircraft using smoke tanks, or by artillery fire.

smokeless (smkls) *Ammo nomen*

When used in cartridge or propelling charge nomenclature, indicates that the ammunition is relatively smokeless when used in the weapon for which intended.

smokeless powder (SP)

See: smokeless propellant

smokeless propellant (SP)

Term used to distinguish the relatively 'smokeless' propellants from black powder which produces a heavy smoke and which they have supplanted as a propellant. More appropriate classifications are given under the term propellant (which see).

snake, demolition

Specially constructed explosive charge used for clearing paths through mine

MIL-STD-444
6 February 1959

fields or for denudation. It is so constructed that it may be pulled near the obstacle, then finally pushed into place by a tank. Recent design, with necessary accessories, is designated **DEMOLITION KIT, PROJECTED CHARGE**.

soft point *Ammo nomen*

In small arms cartridge nomenclature, indicates a bullet with a soft point, intended to spread upon striking a target with some resistance, such as the flesh of game. Not intended for, nor permitted to be used in, combat operations.

solid fuel

Any fuel in a solid state. Specifically, a solid propellant as used in a **ROCKET MOTOR**.

solid propellant

A propellant (which see) in a solid state, as distinguished from a liquid propellant.

solid propellant, guided missile

See: **PROPELLANT, SOLID, GUIDED MISSILE**

solid rocket

Popular term for a rocket using solid propellant.

solvent recovery

Process, in the manufacture of nitrocellulose propellant, by which the ether-alcohol mixture used for colloidizing the nitrocellulose is recovered by evaporating and condensing the solvent.

soman (GD)

Pinacolyl methylphosphonofluoridate, one of the G-agents or nerve gases. A war gas.

See also: chemical agent; nerve gas

spaced armor

An arrangement of armor plate, using two or more thicknesses, each thickness spaced from the adjoining one. Used as protective device, particularly against shaped charge ammunition.

SPACER, BATTERY, DEPTH CHARGE

An item designed to position a battery in relation to the firing mechanism within a depth charge.

SPACER, BATTERY, DEPTH CHARGE: for depth charge, MARK 16 MOD 0

spall

Fragment(s) torn from either surface of armor plate, such as might result from the impact of kinetic energy ammunition (which see), or the functioning of chemical energy ammunition (which see).

spalling

Production of a spall(s) (which see).

spare parts set, 280 millimeter dummy projectile

See: **BAND SET, 280 MILLIMETER DUMMY PROJECTILE**

specific impulse

The thrust in pounds produced by burning one pound of a specified fuel or fuel combination in one second. Said especially of a **ROCKET MOTOR** or **ROCKET ENGINE**. It is also known as the performance index.

spiked armor

Armor with spikes on the face, used as active resistance to the penetrating jet of shaped charge ammunition.

spin

The rotation of a projectile or missile about its longitudinal axis to provide stability during flight.

See also: spin stabilization

spin compensation

Overcoming or reducing the effect of projectile rotation in decreasing the penetrating capacity of the jet in shaped charge ammunition.

spin safe

Said of a fuze that is safe when experiencing a rotation equivalent to that attain-

MIL-STD-444
6 February 1959

ed during flight; i.e., other arming forces are necessary to arm the fuze.

spin stabilization

Method of stabilizing a projectile during flight by causing it to rotate about its own longitudinal axis.

Cf: fin stabilization

spinner rocket

A spin stabilized rocket.

See: spin stabilization

spiral wrppd *Ammo nomen*

In cartridge nomenclature, indicates that the body of the cartridge case was manufactured by the process of spirally wrapping a strip of metal.

spitback tube

As pertains to shaped charge ammunition: a tube attached to the truncated apex of a liner, ordinarily extending through the explosive charge. Through this tube the detonating impulse is transmitted from the point of initiation to a detonator at the base of the explosive charge.

SPOILER PLATE, DEPTH CHARGE

An item designed to be attached to a depth charge to decrease its sinking speed.

SPOILER PLATE, DEPTH CHARGE: for case, depth charge, MARK 9 MOD 0

SPOOL, PLUMMET, UNDERWATER MINE

A cylindrical shaped item with a flange at each end upon which may be wound a wire rope or the like.

SPOOL, PLUMMET, UNDERWATER MINE: empty, for mine, MARK 6 and MODS

spotter tracer *Ammo nomen*

In cartridge nomenclature, indicates that the bullet or projectile is equipped with a tracer and contains a filler suitable for spotting purposes.

square base

Descriptive of a bullet or projectile with cylindrical base (as opposed to a boat-tail projectile). Also called 'flat base'.

Cf: boattail

squash head

A term used, especially by the British, for a high explosive plastic (HEP) projectile.

See: projectile, high explosive plastic.

squeeze bore

See: tapered bore

squib

1. Used in a general sense to mean any of various small size pyrotechnic or explosive devices. 2. Specifically, a small explosive device, similar in appearance to a detonator (which see), but loaded with low explosive, so that its output is primarily heat (flash). Usually electrically initiated, and provided to initiate action of pyrotechnic devices and rocket propellants.

See also: SQUIB, ELECTRIC

SQUIB, ELECTRIC

An item designed for electrical firing of burning type munitions. It consists essentially of a tube containing a flammable material, and a small charge of powder compressed around a fine resistance wire connected to electrical leads or terminals.

SQUIB, ELECTRIC: M1 (instantaneous) (commercial type)

stab detonator

See: DETONATOR, STAB

stab primer

See: DETONATOR, STAB

stability, dynamic

The measure of the projectile's ability to limit yaw.

stability factor

A factor which indicates the relative sta-

MIL-STD-444
6 February 1959

bility (ability to maintain a fixed attitude in flight) of a projectile under given conditions. It depends upon the moments of inertia of the projectile, its spin, and the moment of the aerodynamic force about the center of gravity. A necessary, but not sufficient, condition for stability is that the stability factor be greater than unity or negative. Stability factor is sometimes referred to as the coefficient of gyroscopic stability.

stability test

Accelerated test to determine the probable suitability of an explosive material for long term storage.

stabilization

Expression of the ability of a missile in flight to maintain a fixed attitude relative to the trajectory.

See: fin stabilization; spin stabilization

STABILIZER, TORPEDO

An assembled unit designed to retard and stabilize the trajectory of a torpedo in flight prior to water entry.

STABILIZER, TORPEDO: MARK 22 MOD 1

stabilizing sleeve

General: a tube of fabric attached to an item to provide stabilization of the item as it moves through the air. Specifically: a cloth tube attached to an aircraft flare to hold it in proper position while it is descending.

stable detonation velocity

See: detonation

standard muzzle velocity

Velocity at which a given projectile is supposed to leave the muzzle of a gun. The velocity is calculated on the basis of the particular gun, the propelling charge used, and the type of projectile fired from the gun. Firing tables are based on standard muzzle velocity. Also sometimes called 'prescribed muzzle velocity.'

standoff

As pertains to shaped charge ammunition: the distance or spacing between the base of the liner and the target at the time of initiation. The 'built-in' standoff is represented by the spacing between the base of the liner and the impact surface of the tip of the projectile. 'Free space' is represented by the same distance at the time of functioning, allowing for the crush-up of the nose. 'Air space' is used to refer to this same spacing in underwater weapons.

star

Pyrotechnic signal that burns as a single light.

star shell

See: projectile, illuminating

STARTER, CLOCK, UNDERWATER MINE

A hydrostatically operated device designed to prevent the premature operation of a clock delay mechanism in an underwater mine.

STARTER, CLOCK, UNDERWATER MINE: MARK 3 MOD 0

STARTER, FIRE

An item containing flammable material, designed to start fires under adverse weather conditions where ordinary ignition methods would fail.

STARTER, FIRE: NP3, M2

starting mix

In pyrotechnic devices, an easily ignited mixture which transmits flame from an initiating device to a less readily ignitable composition.

STARTING MIXTURE, GUIDED MISSILE

A premixed item of liquid explosive material designed for initial combustion chamber warm-up through hypergolic reaction with missile contained oxidizers. This item is used prior to the cut-

MIL-STD-444
6 February 1959

in of certain primary propellant mixtures in guided missiles.

See also: hypergolic propellant

STARTING MIXTURE, GUIDED MISSILE: M1

steel case *Ammo nomen*

In cartridge nomenclature, indicates that the cartridge case is made of steel.

steel jacket *Ammo nomen*

In small arms ammunition nomenclature, indicates that the bullet has a steel jacket.

step rocket

See: multistage rocket

sterilizer

Device incorporated in a munition to detonate or make inactive at a desired time.

STERILIZER, UNDERWATER MINE

An electrolytic device designed to limit the armed life of an underwater mine by shorting the batteries, flooding, or exploding the underwater mine.

STERILIZER, UNDERWATER MINE: MARK 9 MOD 0

STOPPER, BOTTLE

A closure to fit within the mouth of a bottle. It is made of cork, rubber, glass and glazed ceramics, paper, or plastic. It has other uses such as closure for an oil hole or bolt hole in a small machine assembly.

STOPPER, BOTTLE: No 6, for practice hand grenade, M21

strategic missile (SM)

Specifically, a missile designed for use in strategic attack.

striker

A PIN, FIRING or a projection on the hammer of a firearm, which strikes the primer to initiate a propelling charge explosive train or a fuze explosive train.

See: explosive train

striking velocity

See: impact velocity

subcaliber aircraft rocket (SCAR)

See: rocket, subcaliber aircraft

subcaliber ammunition

Ammunition used with a gun or launching tube, usually in practice firing, of a smaller caliber than that which is standard for the weapon used. Subcaliber ammunition is adapted for firing in weapons of larger caliber by subcaliber tubes, interchangeable barrels, sabots, or other devices.

supercharge

Propelling charge intended to give the highest standard muzzle velocity, authorized for the projectile in the weapon for which intended. The term 'supercharge' is sometimes used as an identifying designation when more than one type of propelling charge is available for a weapon.

suppl charge *Ammo nomen*

Indicates that the fuze cavity of the projectile contains a supplementary charge which is readily removable to provide space for inserting a FUZE, PROXIMITY.

See: charge, supplementary

SUPPORT, DETONATOR CABLE COILS

A support designed to hold two or more detonator cable coils in position to form a detonator cable coil assembly.

surveillance

Observation, inspection, investigation, test, study, and classification of ammunition, ammunition components, and explosives in movement, storage, and use with respect to degree of serviceability and rate of deterioration.

SUSPENSION BAND, TORPEDO

A metallic item designed to be clamped around a torpedo to provide a means of

MIL-STD-444
6 February 1959

suspension when mounted on an aircraft.

SUSPENSION BAND, UNDERWATER MINE

A metallic item designed to be clamped around an underwater mine to provide a means of suspension when mounted on an aircraft.

SUSPENSION BAND, UNDERWATER MINE: MARK 17 MOD 1

SUSPENSION BEAM, TORPEDO

A metallic item designed to be bolted to the top of a torpedo to provide a means of suspension when mounted on an aircraft.

SUSPENSION BEAM, TORPEDO: MARK 2 MOD 0

sustainer

A propulsion system, which travels with, and does not separate from, the missile. Usually applied to a ROCKET MOTOR or ROCKET ENGINE when used as the principal propulsion system as distinguished from an auxiliary system such as the jato unit (which see).

swell diameter

In a body of revolution having an ogival portion, such as a projectile, the swell diameter is the diameter of the maximum transverse section of the geometrical ogive.

See also: ogive

SWITCH, ANTICOUNTER MINING

A device designed to prevent an underwater mine from being fired when subjected to a physical shock such as a nearby explosion. It opens the detonator circuit for a short period of time.

SWITCH, ANTICOUNTER MINING: for mine, MARK 10 MOD 3

SWIVEL AND LOOP ASSEMBLY, ARMING WIRE

A metallic item consisting of two loops

mounted on a common axis so as to permit relative rotation between the parts; designed to form part of an ARMING WIRE ASSEMBLY.

SWIVEL AND LOOP ASSEMBLY, ARMING WIRE: dwg No. 82-3-135

sympathetic detonation

Explosion caused by the transmission of a detonation wave through the air from another explosion.

tabun (GA)

One of the G-agents or nerve gases. A war gas. Ethyl phosphorodimethylamidocyanide.

See also: chemical agent; nerve gas

tactical missile (TM)

A missile for use in tactical operations.

tail

1. The rearmost part or section of a bomb, guided missile or the like. 2. Indicates, in fuze nomenclature, that the fuze is to be used in the tail of the munition for which it is intended, and in the case of a fuze component, that the component is part of a tail fuze.

tail assembly

The assembly of fins and/or vanes of a missile that is provided directional stability or guidance. For assemblies having fixed surfaces only, the term fin assembly (which see) is preferred.

TAIL ASSEMBLY, PROJECTOR CHARGE

An assembly consisting of a steel tube, designed to be attached to a projector charge and to fit over the projector spigot. The forward end of the tube carries a propelling charge, and stabilizing surfaces are attached to the rear end.

TAIL ASSEMBLY, PROJECTOR CHARGE: MARK 6 MOD 2

tapered bore

Term applied to a gun with a tapered bore,

MIL-STD-444
6 February 1959

and also to its ammunition. The gun bore may be tapered throughout its length or only in the muzzle section. The projectile which starts out as a light weight projectile of the larger caliber may be projected at hypervelocity in the form of a smaller caliber projectile of normal or heavy weight. The smaller caliber maintains a higher velocity than would the larger caliber (for equal weight projectiles) because of lowered air resistance. For this reason the tapered bore is sometimes used for antitank weapons. Sometimes referred to as 'squeeze bore' or 'Gerlich gun,' after its originator.

target charge

See: charge, target

target projectile

See: projectile, target practice

tear gas

A substance, usually liquid, which, when atomized and of a certain concentration, causes temporary but intense eye irritation and a blinding flow of tears in anyone exposed to it. Also called a 'lacrimator.' Chloroacetophenone is a common tear gas.

See also: CHEMICAL AGENT, CHLOROACETOPHENONE; lacrimator

teller mine

Large land mine employed by the Germans during World War II. It was an antitank mine weighing about 15 pounds, shaped like a large plate ('teller') and was frequently booby trapped.

terminal velocity

1. The constant velocity of a falling body attained when the resistance of air or other ambient fluid has become equal to the force of gravity acting upon the body. Sometimes called 'limiting velocity.'
2. Velocity at end of trajectory, i.e., impact velocity (which see).

test, high pressure (HPT) Ammo nomen

Indicates, in cartridge nomenclature, that

item is intended to produce a high pressure in the weapon and is to be used for test purposes.

See: cartridge, test, high pressure

test, low pressure (LPT) Ammo nomen

Indicates, in cartridge nomenclature, that item is intended to produce a low pressure in the weapon and is to be used for test purposes.

See: cartridge, test, low pressure

test ammunition

In a general sense, any ammunition used, or intended to be used, for test purposes. Specifically, ammunition prepared for testing firearms.

See also: cartridge, test, high pressure; cartridge, test, low pressure

tetryl

2, 4, 6-trinitrophenylmethylnitramine. A crystalline explosive of high sensitivity and brisance, used especially as a detonator or booster, and sometimes as a bursting charge in small caliber missiles.

tetrytol

A high explosive mixture of tetryl and TNT in any of several proportions which permit melt loading (which see).

thermate (TH)

See: CHEMICAL AGENT, THERMATE

Thermit

Trademarked term for CHEMICAL AGENT, THERMITE.

thermite (TH)

See: CHEMICAL AGENT, THERMITE

thermometer, propellant temperature

See: INDICATOR: propellant temperature

thickened fuel

Gasoline or a blend of gasoline and light fuel oil with THICKENER, INCENDIARY OIL added; used as an incendiary

MIL-STD-444
6 February 1959

fuel in flame throwers and BOMB(S), FIRE.

See also: CHEMICAL AGENT, INCENDIARY OIL; fuel thickener: unthickened fuel

THICKENER, INCENDIARY OIL

A material which, when added to an incendiary liquid, increases the viscosity.

THICKENER, INCENDIARY OIL:
 antiagglomerated napalm, M2

THICKENER, INCENDIARY OIL:
 napalm, M1

THRUST PLATE, TORPEDO

An item designed to be used with aircraft launched torpedoes. Its purpose is to prevent fore-and-aft motion of the aircraft from being transmitted to the torpedo during catapult takeoffs and arrested landings. It may be secured to either the aircraft or torpedo.

THRUST PLATE, TORPEDO: LD
 271975, dwg 778771

THRUSTER, CARTRIDGE ACTUATED

An item operated by gases generated by explosion of a cartridge. The item provides thrust for opening or closing latches, hatches, and the like, and/or positioning aircraft components such as instrument panels, seats, etc., to facilitate emergency escape of personnel.

THRUSTER, CARTRIDGE ACTUATED: T7

time fuse

See: FUSE, BLASTING, TIME

titanium tetrachloride (FM)

See: CHEMICAL AGENT, TITANIUM TETRACHLORIDE

TNT

Trinitrotoluene (which see). This explosive is better known by its abbreviation than by its chemical name.

toluene

A liquid hydrocarbon ($C_6H_5CH_3$), a raw

material used in the manufacture of explosives, such as DNT and TNT.

TOOL KIT, BOMB CLUSTER ASSEMBLY

A group of tools such as metal shears, pliers, screwdrivers, gages, and the like used to assemble bomb clusters.

See: cluster

TOOL KIT, BOMB CLUSTER ASSEMBLY: for fragmentation bomb cluster, M29

TOOL KIT, ROCKET MODIFICATION

A group of tools, such as socket wrench handles, socket wrench sockets, screwdrivers, and the like used to modify rockets.

TOOL KIT, ROCKET MODIFICATION: M35

torpedo (torp)

1. A missile designed to contain an explosive charge and to be launched into water, where it is self-propelling and usually directable. Used against ships or other targets in the water. When designed for launching from aircraft, it is sometimes called an 'aerial torpedo.'
2. An explosive device for railroad signaling. Sense 1 is intended unless otherwise indicated.

See also: torpedo, aerial; TORPEDO, SIGNALING, RAILROAD

torpedo, aerial

1. A torpedo (which see) designed or adapted to be launched from flying aircraft.
2. An aerial bomb guided through the air to its target by remote control, as a bomb, glide (also see). Loose usage.

torpedo, dummy

See: DUMMY TORPEDO

torpedo, rocket assisted (RAT)

A torpedo (which see) designed to be fired into the air by rocket and to drop into the water by parachute. Upon entering the water the torpedo seeks its underwater target by a special homing device.

MIL-STD-444
6 February 1959

TORPEDO, SIGNALING, RAILROAD

An item consisting of an explosive charge with means for attaching to a railroad rail. When run over by a locomotive or car wheel, the resulting explosion serves as a signal to alert the train crew.

TORPEDO, SIGNALING, RAILROAD: waterproof case, with lead straps

torpedo bombing

The launching of a torpedo or torpedoes from an aircraft against a target in the water.

TORPEDO MAIN ASSEMBLAGE

A group of components consisting of an **AIR FLASK, TORPEDO; BATTERY COMPARTMENT, TORPEDO** or a **TORPEDO AFTERBODY AND TAIL**. It may include a torpedo nose assembly but does not include a **WARHEAD, TORPEDO** or **EXERCISE HEAD, TORPEDO**.

TORPEDO MAIN ASSEMBLAGE:
MARK 43 MOD 1

torpex (tpx)

A high explosive consisting of TNT, cyclonite, and aluminum powder, used especially in torpedoes, mines, and depth bombs.

tracer (trac) (T)

1. A tracer bullet (which see). 2. A tracer element for any projectile. 3. Tracer mixture (which see) for loading into tracer bullets or elements. 4. As part of ammunition nomenclature, indicates item is equipped with tracer.

tracer, dummy

Inert filler for tracer cavity in a projectile.

TRACER, GUIDED MISSILE

A pyrotechnic tracer which provides a sign to permit tracking of a guided missile.

See also: **FLARE, GUIDED MISSILE**

TRACER, GUIDED MISSILE: tracking, 90-sec, M137

tracer ammunition

Any ammunition equipped with tracer (which see).

tracer bullet

A bullet containing a pyrotechnic mixture to make the flight of the projectile visible by day and night.

Cf: bullet, incendiary

tracer mixture

A pyrotechnic composition, used for loading tracers. Also called 'tracer composition.'

TRAIL KIT, BOMB

A group of items designed to be attached to a bomb or fin assembly to retard flight of a bomb. May or may not include a spoiler ring.

TRAIL KIT, BOMB: angle, M43

TRAIL KIT, BOMB: plate, M42A1

training *Ammo nomen*

Indicates that the item is intended only for training purposes.

training ammunition

Ammunition used for training persons in marksmanship, handling weapons, etc.

training rocket

See: **ROCKET, TRAINING**

trap

Rocketry. That part of a **ROCKET MOTOR** that keeps the propellant grain in place.

trap mine

Land mine designed to explode unexpectedly when enemy personnel attempt to move an object. A form of booby trap (which see).

Trauzl test

A test to determine the relative disruptive power of explosives. In the test a standard quantity of explosive (10 gram) is placed in cavity in a lead block (grams) is placed in a cavity in a lead block and exploded. The resulting volume of cavity in the block is compared

MIL-STD-444
6 February 1959

with the volume produced under the same conditions by a standard explosive, usually TNT.

trepanning

The action of cutting a section from the casing of an unexploded munition so as to permit defuzing it.

triacetin

Nonexplosive gelatinizing agent used as a constituent of double base propellants. See: gelatinizing agent

tridite

Mixture of 80 percent trinitrophenol (picric acid) and 20 percent dinitrophenol. May be used as an emergency high explosive for projectile or bomb filling.

trimonite

High explosive used as a substitute for TNT as a bursting charge. Mixture of picric acid and mononitronapthalene.

trinitrophenol (TNP)

See: picric acid

trinitrotoluene (TNT)

High explosive widely used as explosive filler in munitions and by engineers; trinitrotoluol; TNT.

trinitrotoluol (TNT)

See: trinitrotoluene

triple base propellant

Propellant (which see) with three principal active ingredients, such as nitrocellulose, nitroglycerin, and nitroguanidine.

triton block

Block of pressed TNT, used for demolition purposes.

See: trinitrotoluene

triton

An explosive composed of 80 percent TNT and 20 percent powdered aluminum. Developed and standardized in the United States during World War II. Can be melt loaded and is used in bombs for its blast effect.

tube, burster

Tube that holds the explosive charge of a burster (which see) in chemical ammunition (also see).

tumbling

Concerning missiles and projectiles in flight, turning end-over-end about the transverse missile axis.

tungsten carbide core

The heavy, hard core used in hypervelocity armor-piercing type projectiles.

unarmed

The condition of a fuze (or other firing device) in which the necessary steps to put in condition to function have not taken place. It is the condition of the fuze when it is safe for handling, storage, and transportation. The fuze is 'partially armed' if some, but not all, of the steps have taken place.

underspin

Insufficient rate of spin for a projectile to give it proper stabilization. Such a projectile is said to have 'underspin' or 'understabilization.'

Cf: stabilization

underwater demolition

Destruction or neutralization of underwater obstacles (near a landing beach) which can affect the approach of landing craft. The destruction is normally accomplished by an underwater demolition team (which see).

underwater demolition team (UDT)

Naval unit organized and equipped to perform beach reconnaissance and underwater demolition (which see) in an amphibious operation.

underwater ordnance

Munitions designed for use under water, e.g., torpedo, MINE, UNDERWATER; depth charge, etc.

unthickened fuel

Blend of gasoline and light fuel oils or lu-

MIL-STD-444
6 February 1959

bricating oils (without thickener) used as an incendiary fuel in portable flame throwers.

See also: CHEMICAL AGENT, INCENDIARY OIL; thickened fuel

VALVE, PRESSURE, GAS BOMB

A metallic device specifically designed to permit the measuring of pressure in a GAS BOMB. It is assembled within the bomb body, with a partial projection to permit opening of the valve. A gage is then attached to obtain a pressure reading. The valve is not spring loaded and design does not permit variation of pressure. Excludes VALVE, PNEUMATIC TANK.

VALVE, PRESSURE, GAS BOMB:
 AN-M1

vane

1. An arming vane for a FUZE, BOMB, rocket and the like. 2. Lengthwise partition in a chemical projectile which makes the contained liquid rotate with the casing. This is necessary for accuracy in flight.

See: VANE, ARMING, BOMB FUZE;
 VANE, ROCKET ARMING DEVICE

VANE, ARMING, BOMB FUZE

A metallic item designed for attachment to the fuze mechanism of a bomb. The vane arms the fuze through action of the air stream created by falling of the bomb.

VANE, ARMING, BOMB FUZE: for fuze, bomb, tail, AN-M100A2

VANE, ARMING, BOMB FUZE:
 nose, M3

VANE, ROCKET ARMING DEVICE

A metallic item designed to activate an arming device of a rocket by action of the air stream incident to its flight.

VANE, ROCKET ARMING DEVICE:
 for 12.75-inch rocket

vesicant

Former designation for blister gas (which see).

violet Ammo nomen

Indicates, in the case of a SIGNAL, SMOKE, GROUND several smoke pellets which produce freely falling streamers of violet smoke at the height of the trajectory.

vomiting gas

Any one of a group of toxic gases, such as adamsite, that causes coughing, sneezing, sometimes vomiting, and other effects. A war gas (which see).

VT fuze

See: FUZE, PROXIMITY

wad (wadding)

A felt or cardboard pad used to secure the propellant in place in cartridges. Also used for various other purposes.

See also: distance piece; distance wadding

wad cutter

Bullet designed for target shooting, shaped to cut a clean hole in a paper target.

war gas

Toxic or irritant chemical agent (which see) regardless of its physical state, whose properties may be effectively exploited in the field of war.

warhead

(Rocket and Guided Missile) That portion of a rocket or guided missile designed to contain the load which the vehicle is to deliver. It may be empty or contain high explosives, chemicals, instruments, or inert materials. It may include a booster, fuze(s), adaption kits, and/or burster. Excludes items which contain atomic weapon components.

WARHEAD, GUIDED MISSILE, CHEMICAL AGENT

A warhead containing a chemical agent, designed for attachment to a guided

MIL-STD-444
6 February 1959

missile. It may be provided with a means of bursting. Excludes atomic weapon warheads and WARHEAD, GUIDED MISSILE, HIGH EXPLOSIVE.

WARHEAD, GUIDED MISSILE, EMPTY

A guided missile warhead without explosive or inert load. Excludes atomic weapon dummy warheads.

WARHEADS, GUIDED MISSILE, EMPTY: MARK 5 MOD 2 (Terrier)

warhead, guided missile, exercise

See: EXERCISE HEAD, GUIDED MISSILE

WARHEAD, GUIDED MISSILE, FRAGMENTATION

A warhead for a guided missile, designed so that functioning of the explosive filler will destroy or reduce the utility of a target, primarily by fragmentation effect.

WARHEAD, GUIDED MISSILE, FRAGMENTATION: 122-lb, M4, w/initiator assembly

WARHEAD, GUIDED MISSILE, GENERAL PURPOSE

A warhead for a guided missile, designed so that functioning of the explosive filler will destroy or reduce the utility of a target by explosive effect.

WARHEAD, GUIDED MISSILE, GENERAL PURPOSE: 1,500-lb, inert loaded, T25E1

WARHEAD, GUIDED MISSILE, HIGH EXPLOSIVE

An explosive filled metal part constituting a major payload of a guided missile. Excludes atomic weapon warheads.

WARHEAD, GUIDED MISSILE, HIGH EXPLOSIVE: COMP B, MARK 5 MOD 3 (Terrier)

WARHEAD, GUIDED MISSILE, INERT

A guided missile warhead loaded with nonexplosive inert material. Excludes atomic weapon inert warheads.

WARHEAD, GUIDED MISSILE, INERT: 1,500-lb, GP, inert loaded, T23E2

WARHEAD, 2 INCH ROCKET, HIGH EXPLOSIVE

Rocket warhead of 2-inch caliber designed for loading with high explosives.

WARHEAD, 2 INCH ROCKET, HIGH EXPLOSIVE: T2032E1, w/ fuze, rocket, T2033E1

WARHEAD, 2 INCH ROCKET, INERT

Warhead of 2-inch caliber with inert filler for use in practice firing.

WARHEAD, 2 INCH ROCKET, INERT: T2033E1, w/dummy rocket fuze, T2062

WARHEAD, 2.25 INCH ROCKET, EMPTY

Warhead of 2.25-inch caliber, without explosive filler, for practice firing.

WARHEAD, 2.25 INCH ROCKET, EMPTY: MARK 3 MOD 0

WARHEAD, 2.5 INCH ROCKET, INERT

Warhead of 2.5-inch caliber, without explosive filler, for practice firing.

WARHEAD, 2.5 INCH ROCKET, INERT: MARK 3 MOD 0

WARHEAD, 2.75 INCH ROCKET, HIGH EXPLOSIVE

Rocket warhead of 2.75-inch caliber loaded with, or intended for loading with, high explosives.

WARHEAD, 2.75 INCH ROCKET, EXPLOSIVE: FFAR, AT, MARK 5 MOD 0, COMP B, w/fuze, rocket, base, MARK 181 MOD 0

WARHEAD, 2.75 INCH ROCKET, HIGH EXPLOSIVE: HE, AT, M1, w/fuze, PI, M406

WARHEAD, 2.75 INCH ROCKET, INERT

MIL-STD-444
6 February 1959

Warhead of 2.75-inch caliber with inert filler for use in practice firing.

WARHEAD, 2.75 INCH ROCKET,
INERT: FFAR, practice, MARK 1
MOD 0, inert loaded w/dummy
fuze.

WARHEAD, 3.5 INCH ROCKET, EMPTY
 Warhead of 3.5-inch caliber, without explosive filler, for practice firing.

WARHEAD, 3.5 INCH ROCKET,
EMPTY: MARK 15 MOD 0

WARHEAD, 3.5 INCH ROCKET, SMOKE
 Rocket warhead of 3.5-inch caliber loaded with, or designed for loading with, smoke producing filler.

WARHEAD, 3.5 INCH ROCKET,
SMOKE: FS-loaded MARK 6 MOD
0

WARHEAD, 4.5 INCH ROCKET, GAS
 Rocket warhead of 4.5-inch caliber loaded with, or designed for loading with, war gases.

WARHEAD, 4.5 INCH ROCKET,
GAS: Mod T164E1

WARHEAD, 4.5 INCH ROCKET, HIGH
EXPLOSIVE

Rocket warhead of 4.5-inch caliber loaded with, or designed for loading with, high explosives.

WARHEAD, 4.5 INCH ROCKET,
HIGH EXPLOSIVE: MARK 4
MOD 0

WARHEAD, 4.5 INCH ROCKET,
HIGH EXPLOSIVE: TNT-loaded,
MARK 3 MOD 0 (w/booster,
MARK 3 MOD 0)

WARHEAD, 4.5 INCH ROCKET, INERT
 Warhead of 4.5-inch caliber, with inert filler, for use in practice firing.

WARHEAD, 4.5 INCH ROCKET,
INERT: plaster loaded, MARK 8
MOD 0

WARHEAD, 4.5 INCH ROCKET, SMOKE
 Rocket warhead of 4.5-inch caliber loaded smoke producing filler.

WARHEAD, 4.5 INCH ROCKET,
SMOKE: WP-loaded, MARK 7
MOD 0

WARHEAD, 5 INCH ROCKET, EMPTY
 Warhead of 5-inch caliber, without explosive filler, for practice firing

WARHEAD, 5 INCH ROCKET,
EMPTY: MARK 8 MOD 0

WARHEAD, 5 INCH ROCKET, GAS
 Rocket warhead of 5-inch caliber loaded with, or designed for loading with, war gases.

WARHEAD, 5 INCH ROCKET,
GAS: MARK 15 MOD 0

WARHEAD, 5 INCH ROCKET, HIGH EX-
PLOSIVE

Rocket warhead of 5-inch caliber loaded with, or designed for loading with, high explosives.

WARHEAD, 5 INCH ROCKET,
HIGH EXPLOSIVE: MARK 22
MOD 0

WARHEAD, 5 INCH ROCKET,
HIGH EXPLOSIVE: (HVAR),
COMP B-loaded, MARK 25 MOD 1,
unfuzed

WARHEAD, 5 INCH ROCKET, INERT
 Warhead of 5-inch caliber, with inert filler, for use in practice firing.

WARHEAD, 5 INCH ROCKET,
INERT: SS, plaster loaded, MARK
8 MOD 2

WARHEAD, 5 INCH ROCKET, SMOKE
 Rocket warhead of 5-inch caliber, loaded with, or designed for loading with, smoke producing filler.

WARHEAD, 5 INCH ROCKET,
SMOKE: PWP-loaded, MARK 3
MOD 0

MIL-STD-444
6 February 1959

WARHEAD, 6 INCH ROCKET, INERT
 Warhead of 6-inch caliber, with inert filler, for practice firing.

WARHEAD, 6 INCH ROCKET,
INERT: practice, MARK 6 MOD 0

WARHEAD, 7.2 INCH ROCKET, HIGH EXPLOSIVE

Rocket warhead of 7.2-inch caliber loaded with, or designed for loading with, high explosives.

WARHEAD, 7.2 INCH ROCKET,
HIGH EXPLOSIVE: ASW, MARK
11 MOD 0

WARHEAD, 7.2 INCH ROCKET,
HIGH EXPLOSIVE: retro, MARK
6 MOD 0

WARHEAD, 7.2 INCH ROCKET, INERT
 Warhead of 7.2-inch caliber, with inert filler, for practice firing.

WARHEAD, 7.2 INCH ROCKET,
INERT: plaster loaded, MARK 4
MOD 3

WARHEAD, 11.75 INCH ROCKET,
EMPTY

Warhead of 11.75-inch caliber, without explosive filler, for practice firing.

WARHEAD, 11.75 INCH ROCKET,
EMPTY: MARK 5 MOD 2

WARHEAD, 11.75 INCH ROCKET,
HIGH EXPLOSIVE

Rocket warhead of 11.75-inch caliber loaded with, or designed for loading with, high explosives.

WARHEAD, 11.75 INCH ROCKET,
HIGH EXPLOSIVE: GP, MARK
4 MOD 2

WARHEAD, 11.75 INCH ROCKET,
HIGH EXPLOSIVE: TNT-loaded,
MARK 2 MODS 0 and 1, (w/fuze,
rocket, MARK 157 MOD 2)

WARHEAD, 11.75 INCH ROCKET,
INERT

Warhead of 11.75-inch caliber, with inert filler, for practice firing.

WARHEAD, 11.75 INCH ROCKET,
INERT: mortar filled, MARK 5
MOD 0

WARHEAD, 12.75 INCH ROCKET,
HIGH EXPLOSIVE

Rocket warhead of 12.75-inch caliber loaded with, or designed for loading with, high explosives.

WARHEAD, 12.75 INCH ROCKET,
HIGH EXPLOSIVE: ASW, MARK
1 MOD 2

WARHEAD, 12.75 INCH ROCKET,
INERT

Warhead of 12.75-inch caliber with inert filler, for practice firing.

WARHEAD, 12.75 INCH ROCKET,
INERT: plaster loaded, MARK 2
MOD 0

WARHEAD, 318 MILLIMETER ROCKET,
INERT

Warhead of 318-millimeter caliber, with inert filler, for practice firing.

WARHEAD, 762 MILLIMETER ROCKET,
INERT

Warhead of 762-millimeter caliber, with inert filler, for practice firing.

WARHEAD, 762 MILLIMETER
ROCKET, INERT: practice, T2037

warhead, rocket, dummy

See: DUMMY WARHEAD, ROCKET

WARHEAD, TORPEDO

with, or designed for loading with, An item designed to contain an explosive charge and a means of detonation for attachment to a TORPEDO MAIN ASSEMBLAGE. When empty or inert loaded it may be used for training purposes.

WARHEAD, TORPEDO: HBX-load-
ed, MARK 16 MOD 7

warhead, torpedo exercise

See: EXERCISE HEAD, TORPEDO

MIL-STD-444
6 February 1959

WARHEAD ASSEMBLY, 762 MILLI-METER ROCKET, EMPTY

Rocket warhead of 762-millimeter caliber, without filling.

WARHEAD ASSEMBLY, 762 MILLI-METER ROCKET, EMPTY: M1A1

WARHEAD ASSEMBLY, 762 MILLI-METER ROCKET, FLASH-SMOKE

A warhead assembly for the 762-millimeter rocket intended to produce flash and smoke as the results of functioning.

WARHEAD ASSEMBLY, 762 MILLI-METER ROCKET, HIGH EXPLOSIVE

Rocket warhead of 762-millimeter caliber loaded with, or designed for loading with, high explosives.

WARHEAD ASSEMBLY, 762 MILLI-METER ROCKET, HIGH EXPLOSIVE: M1A1 (with 762-mm warhead, T2021 and fuse kit, XM62)

WASHER, SOLUBLE, UNDERWATER MINE

An item formulated of chemical ingredients molded into a prescribed shape. When dissolved it permits mechanical movement of the mechanism in which it is used.

WASHER, SOLUBLE, UNDERWATER MINE: (green) 15-min

wave shaper

Pertaining to explosives, an insert or core of inert material or of explosives having different detonation rates, used for changing the shape of the detonation wave.

See also: barrier material; lens

web

In a grain of propellant, the minimum thickness of the grain between any two adjacent surfaces is called the 'web' or the 'web thickness.' In a cord the diameter is the web, and in a single perforated grain there is but one web; but

a multiperforated grain has an 'inner web' and an 'outer web.' The mean of these values is known as the 'average web.' In designs of solid or single perforated grains the propellant is entirely consumed when the web is burned through. In multiperforated grains this is not true, as 'slivers' are formed at this stage which then burn to completion.

web range

Range of webs prescribed for a propellant, taking into consideration manufacturing limitations.

See: web

web thickness

See: web

WEIGHT, ANCHOR, UNDERWATER MINE

A weight which may be added to the underwater mine anchor, when tidal or other conditions make its use advisable.

WEIGHT, ANCHOR, UNDERWATER MINE: 60-lb

WEIGHT, CASE, UNDERWATER MINE

A weight which may be added to the underwater mine case, when conditions of planting require it.

WEIGHT, CASE, UNDERWATER MINE: 15 1/10-lb lead cast

WEIGHT, TRIM, TORPEDO

A metallic item specifically designed to replace the secondary battery to maintain the original center of gravity of a torpedo.

WEIGHT, TRIM, TORPEDO: dwg B950657

weight zone

A classification of certain projectiles of 75-millimeter and larger into groupings (zones) by weight. The weight zone in such cases is indicated on each projectile by symbols (crosses or squares) painted thereon.

MIL-STD-444

6 February 1959

whistling *Ammo nomen*

Indicates, in nomenclature of a SIMULATOR, BOOBY TRAP that munition emits a whistling sound in addition to a flash and report.

white phosphorus (WP)

See: CHEMICAL AGENT, WHITE PHOSPHORUS

white star, cluster *Ammo nomen*

Indicates, in the case of a SIGNAL ILLUMINATION, GROUND, a cluster of several freely falling white stars (lights).

white star, parachute *Ammo nomen*

Indicates, in the case of a SIGNAL, ILLUMINATION, GROUND, a white star (light), parachute supported.

window

A type of confusion reflector, consisting essentially of metal foil ribbon, but sometimes metalized only on one side. Also known as 'chaff.' Similar to, but shorter in length than 'rope.' May be dropped from planes or shot into the air in projectiles. Original use of the word 'window' appears to have been strictly a matter of code.

See also: CHAFF, COUNTERMEASURES; rope; window projectile

window projectile

Special projectile containing 'window,' 'chaff,' or 'rope,' which is ejected in the air to confuse enemy radar.

See also: CHAFF, COUNTERMEASURES; rope; window

windshield

See: ogive, false

WIRE, ARMING

Wire of a size and type suitable for use in an ARMING WIRE ASSEMBLY.

WIRE, ARMING: low brass, 0.036-inch diameter

yaw

The angle between the direction of motion

of a projectile and the axis of the projectile, referred to either as 'yaw,' or more completely 'angle of yaw.' The angle of yaw increases with time of flight in an unstable projectile and decreases to a constant value, called the 'yaw or repose,' or the 'repose angle of yaw,' in a stable projectile.

See also: stability factor

yaw in bore

The maximum angle between the axis of the bore of a gun and the axis of the projectile which can occur due to the clearance between the bore diameter and the bourrelet.

yellow *Ammo nomen*

Indicates, in the case of a SIGNAL, SMOKE, GROUND, several smoke pellets which produce freely falling streamers of yellow smoke at the height of the trajectory.

yellow tracer *Ammo nomen*

Indicates in the case of a SIGNAL, ILLUMINATION, AIRCRAFT, a yellow tracer light, followed by freely falling stars (lights) of indicated colors.

yield

The amount of explosive force expended in an atomic explosion, measured or expressed in kilotons or megatons, terms which indicate the amount of TNT that would produce an explosion of the same power.

See: kiloton; megaton

zero length

Term applied to such items as rocket launchers and rocket suspension bands to indicate that the item is designed to hold the rocket in position for launching but not to give it guidance.

See: BAND, SUSPENSION, ROCKET

zone, weight

See: weight zone

zone charge

The number of increments of propellant

MIL-STD-444
6 February 1959

in a propellant charge of semifixed rounds, corresponding to the intended zone of fire; e.g., zone charge 5 consists of 5 increments of propellant.

See also: increment

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Custodians:

Army—Ordnance Corps
Navy—Bureau of Ordnance
Air Force—Headquarters, AMC

Preparing activity:

Ordnance Corps

MIL-STD-444
6 February 1959

10. APPENDIX

10.1 ABBREVIATIONS. The following is a compilation of abbreviations in the ammunition field, together with meaning and other pertinent information. Although not mandatory, these abbreviations should be considered applicable for use in identification of items and components covered by this standard. The abbreviations in this standard are limited to terms not included in MIL-STD-12.

MIL-STD-444
6 February 1959

A	In such usage as M18A3, designates an accepted modification of standardized item; in jato unit nomenclature, designates acid with fuel or asphalt with perchlorate propellant.
abbr	Abbreviate; abbreviation
A-bomb	Atomic bomb
AC	Chemical agent, hydrogen cyanide (prussic acid, war gas)
A/C	Aircraft
ADF	Auxiliary detonating fuze
A-FA-H	Aniline-furfuryl alcohol-hydrazine
AIR	Air arming impact rocket
APCBC	Armor-piercing, capped ballistic capped
APF	Aircraft parachute flare
ATAR	Antitank aircraft rocket
ATO	Assist takeoff; assisted takeoff
AW	Above water
B	In such usage as M56B1, designates a modification of standardized item, using an alternate material or method of manufacture
BAT	Battalion antitank
BBC	Bromobenzylcyanide (a tear gas)
BL&P	Blind loaded and plugged (inert loaded projectile with plugged tracer cavity)
BL&T	Blind loaded with tracer (inert loaded projectile with tracer)
blstg	Blasting
BR	Barrage rocket
C	In jato unit nomenclature, designates a composite (picrate-nitrate) propellant.
Cf	Compare
CG	Chemical agent, phosgene (war gas)
CK	Chemical agent, cyanogen chloride (war gas)
clstr	Cluster
CN	Chemical agent, chloroacetophenone (tear gas)
CNB	Chemical agent, chloroacetophenone-benzene (tear gas solution)
CNC	Chemical agent, chloroacetophenone-chloroform (tear gas solution)
CNS	Chemical agent, chloroacetophenone-chloropicrin-chloroform (tear gas solution)
cnstr	Canister
COMP A-3	Composition A-3 (explosive)
COMP B	Composition B (explosive)
COMP B-2	Composition B-2 (explosive)
COMP B-3	Composition B-3 (explosive)
COMP C-4	Composition C-4 (explosive)
D	In jato unit nomenclature, designates a cast double-base propellant
DA	Chemical agent, diphenylchloroarsine (war gas)
DB	Depth bomb

MIL-STD-444
6 February 1959

DBT	Dibutylphthalate (propellant additive)
DC	Chemical agent, diphenylcyanoarsine (war gas)
DDNP	Diazodinitrophenol (explosive)
decon	Decontamination
DEGN	Diethyleneglycol dinitrate (propellant additive)
DI	Dark ignition
DM	Chemical agent, diphenylaminechloroarsine (adamsite, war gas)
DNP	Dummy nose plug
DNT	Dinitrotoluene (explosive)
DODIC	Department of Defense Identification Code
DP	Deck penetrating; diphosgene (war gas); dual purpose
DPA	Diphenylamine (propellant additive)
DR	Demolition rocket
dualgran	Dual granulation
E	In such usage as M53E4, designates an experimental modification of a standard item; in jato unit nomenclature, designates an extruded double base solid propellant.
ED	Ethylchloroarsine (war gas)
EDD	Ethylenediamine dinitrate (explosive)
EDNA	Ethylenedinitramine (Haleite, explosive)
EO	Explosive ordnance
EOD	Explosive ordnance disposal
EOR	Explosive ordnance reconnaissance
expl	Explosive (alt abbr: exp)
f/	For (in combinations only)
FCL	Fuze cavity lined
FCL-VT	Fuze cavity lined-proximity fuze
FF	Folding fin; forward firing
FFAR	Folding fin aircraft rocket; forward firing aircraft rocket
FIIN	Federal Item Identification Number
FP	Flashless propellant
FSC	Federal Supply Classification
GA	Ethyl phosphorodimethylamidocyanide (tabun, war gas)
GAR	Guided aircraft rocket
GASR	Guided air-to-surface rocket
GB	Chemical agent, isopropyl methylphosphonofluoridate (sarin, war gas)
GD	Pinacolyl methylphosphonofluoridate (soman, war gas)
gnd	Ground
H	Chemical agent, mustard gas (war gas)
HBX	General name for several explosive compositions, differing in proportions and constituents, being essentially mixtures of TNT, RDX, and aluminum.
HBX-1	One of a series of HBX compositions (explosive)
HD	Chemical agent, mustard, distilled (war gas)
HE, AT-T	High explosive antitank, with tracer (alt abbr: HEAT-T)
HEIP	High explosive incendiary, with plugged tracer cavity

MIL-STD-444
6 February 1959

HEIPNP	High explosive incendiary, with plugged tracer cavity and dummy nose plug (alt abbr: HEIF-NP)
HEISD	High explosive incendiary, self-destroying (alt abbr: HEI-SD)
HEITDISD	High explosive incendiary, with dark ignition tracer, self-destroying (alt abbr: HEIT-DI-SD)
HEITSD	High explosive incendiary, with self-destroying tracer (alt abbr: HEIT-SD)
HEPAT	High explosive plastic antitank
HEPDNP	High explosive, with plugged tracer cavity and dummy nose plug (alt abbr: HEP-DNP)
HEP-T	High explosive plastic, with tracer
HESD	High explosive self-destroying (alt abbr: HE-SD)
HETDI	High explosive, with tracer, dark ignition (alt abbr: HE-T-DI)
HETSD	High explosive, with tracer, self-destroying (alt abbr: HET-SD)
HIR	Hydrostatic arming impact firing rocket
HL	Mustard-lewisite (war gas)
HMX	Cyclotetramethylenetetranitramine (explosive)
HN	Chemical agent, nitrogen mustard gas (war gas). Individual gases are abbreviated HN-1, HN-2, HN-3.
HS	Hydrostatic
HT	Mustard gas-agent T (war gas)
HV	High velocity; hypervelocity
hv	Heavy
HVAPDSFS	Hypervelocity armor-piercing discarding-sabot fin-stabilized (alt abbr: HVAP-DS-FS) abbrs may also be extended by adding '-T' to indicate 'with tracer')
HVAP-T	Hypervelocity armor-piercing, with tracer (alt abbr: HVAPT)
HVAT	Hypervelocity antitank
HVTP-T	Hypervelocity target practice, with tracer
ICBM	Intercontinental ballistic missile
illum	Illuminant; illuminating
IRBM	Intermediate range ballistic missile
IRFNA	Inhibited red fuming nitric acid
JAN	Joint Army-Navy
JANAF	Joint Army-Navy-Air Force
JATO	Jet assisted takeoff
L	Chemical agent, lewisite (war gas)
LE	Low explosive
LPT	Low pressure test
M	In such usage as M19, designates a standardized item; Mach number
MD	Methyldichloroarsine (war gas)
minSAT	Minimum safe air travel
MNT	Mononitrotoluene
MT	Mechanical time
mtr	Motor

MIL-STD-444
6 February 1959

NATO	North Atlantic Treaty Organization
NC	Nitrocellulose (explosive)
NG	Nitroglycerin (explosive)
NIR	Nose fuze impact rocket
nonfrag	Nonfragmenting (alt abbr: NF)
NP	Napalm-incendiary oil mixture; thickener, M1 (napalm); dummy nose plug
NSD	Nonself-destroying
NSP	Nose shipping plug
OP	Ordnance Pamphlet
PAT	Platoon antitank
PD	Chemical agent, phenyldichloroarsine (war gas); point-detonating
PDSQ	Point detonating superquick
PE	Plastic explosive; pentaerythritol (explosive)
PIR	Pressure arming impact rocket
plstr	Plaster
prcht	Parachute
PS	Trichloronitromethane (chloropicrin, war gas)
PWP	Chemical agent, plasticized white phosphorous (smoke)
Q	Chemical agent, Q
qty-dis	Quantity-distance
RAT	Rocket assisted torpedo
RDx	Cyclonite (explosive)
red chg	Reduced charge
RFNA	Red fuming nitric acid
rn	Range
S	In jato unit nomenclature, indicates a solid propellant.
SA	Arsenic trihydride (arsine, war gas)
SAP bomb	Semi-armor-piercing bomb
S&W	Smith and Wesson
SB	Supply Bulletin
SCAR	Subcaliber aircraft rocket
SF	Sand fillable
shpg bnd(s)	Shipping band(s)
sht ctg	Short cartridge
SL	Stock List
SM	Strategic missile; Supply Manual
SNL	Standard Nomenclature List
specif	Specific; specifically
SQ-DEL	Superquick and delay
SSR	Spin stabilized rocket
T	In such usage as T61, designates an experimental or development type item; chemical agent, T
-T	With tracer (in combinations only)
TH	Chemical agent, thermate; chemical agent, thermite

MIL-STD-444
6 February 1959

TH1	Specific composition of chemical agent, thermite
TH2	Specific composition of chemical agent, thermate
TH3	Specific composition of chemical agent, thermate
TNB	Trinitrobenzene (explosive)
TNP	Trinitrophenol (picric acid, explosive)
TNTBP	Mixed TNT and black powder
TNTCT	Cast TNT
tpx	Torpex (explosive)
trac	Tracer (alt abbr: tr)
UDMH	Unsymmetrical dimethylhydrazine
UDT	Underwater demolition team
UDU	Underwater demolition unit
UUM	Underwater-to-underwater missile
UW	Underwater
UXB	Unexploded bomb
VAR	Vertical aircraft rocket
vel	Velocity
VT	Proximity (variable time)
W	Chemical agent, W
wdn	Wooden
WF	Water fillable
WFNA	White fuming nitric acid
WSF	Water and sand fillable
X	In guided missile nomenclature, designates an experimental model.

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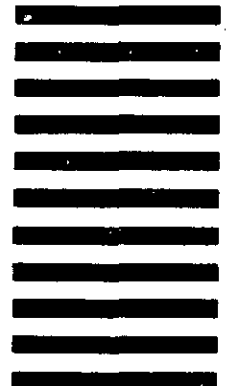
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