Instructor Glossary

Modular Explosives Training Program



Bureau of Alcohol, Tobacco and Firearms

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AC - Anti-Counter Mine - to prevent counter mining; associated with ACM and mine sweeping operations; i.e. The mine has anti-counter mine features.

Access and Recovery - to gain entrance to; to expose; to avail; to remove; the operation in E.O.D. to first and finally expose a piece of ordnance to an E.O.D. procedure; i.e. digging moving probing.

<u>Accident</u> - An unexpected event involving a nuclear weapon or component resulting in any of the following: Loss or serious damage to the weapon or component; nuclear or non-nuclear detonation of the weapon; radioactive contamination; public hazard.

<u>ACM - Anti-Counter Mine Mechanism - a device in mines to prevent counter measures used in sweeping or clearing mine field; i.e. explosive countermining, acoustic countermining.</u>

A.F.T.O. - Air Force Technical Order - Code abbreviation to designate written air force publications on technical information; usually associated with EODB and TM codes.

Agent - one who is authorized or instructed to obtaining information for intelligence or counterintelligence purposes.

<u>Ammunition</u> - the projectiles thrown against an enemy; such as bullets, shells, grenades, bombs, or mines.

<u>Anti-Disturbance</u> - a device placed into an explosive unit designed to function the mechanism on any attempt to jar, tilt, or move the unit. Examples: a sensitive vibratory switch or anti-tilt (mercury switch).

<u>Anti-Lift</u> - a mechanism used to fire an explosive device when the primary object is lifted or tilted.

<u>Anti-Personnel</u> - in munitions or warfare, anti-personnel refers to the devices or munitions designed for use against personnel or troops.

<u>Anti-Tank</u> - in mine warfare, anti-tank refers to the mines designed to immobilize or destroy tanks and tracked vehicles.

Anti-Withdrawal - a device or feature which prevents the removal of a fuze or triggering mechanism from an explosive device. Examples: placing epoxy cement in the fuze threads, employing a lock ball or wedge, or welding the fuze into the device to prevent removal.

Anti-Withdrawal/Booby Trap - a device which locks the fuze into place and is designed to function the explosive on attempted removal of the fuzing system.

<u>Armed</u> - in munitions, the condition of being ready to function; that is, all explosive components are aligned, and/or all electrical connections are completed ready for firing. In straight mechanical devices, this could be removal of safety pins or lock devices.

<u>Arming</u> - the action involving removal of safety devices or arranging components from a safe condition to a state of readiness for initiation.

<u>Arming Delay</u> - the pyrotechnic, electrical, chemical or mechanical action which provides a times delay between the initiating action and complete alignment of all firing components. Usually installed in explosives devices to allow the perpertrator a safety margin for arming the device.

<u>Armed and Functioning</u> - In a timed explosive device, the unit (electrical, chemical, or mechanical) has started and is moving towards the firing time.

A.T.I.L. - Advanced Technical Information Letter - the publication used in E.O.D. to supply information or assistance to the field on new ordnance where E.O.D.B.'s have not yet been available; advance of an E.O.D.B.

<u>Auxiliary</u> - that element of the resistance force, normally located in rural areas, established to provide an organized civilian support of the resistance movement.

<u>Baffle</u> - a wall or screen used to deflect, check, or otherwise defeat an explosive shock wave. Example: mattresses placed around an explosive device.

B.I.P. - "Blow-in-Place" - the slang expression meaning to destroy where the item lays without disturbance; in some cases, an RSP.

Blast (or blast effect) - the blast of a detonation is the shock wave emitted from the point of detonation, and includes a shock front, a high pressure area behind the shock front, and the following rarefaction. The energy released by the detonation of an explosive charge compresses the layer of air around the charge and forces it outward at high velocity. This layer of highly compressed air is bounded by an extremely sharp front known as the "shock front." The shock front is followed by a high pressure area composed of the gaseous products of detonation which move outward as a strong wind. Because of the forward inertia of the gaseous products of detonation, the pressure in the High pressure area cannot decrease in velocity as rapidly as the pressure at the point of detonation. Consequently, a low pressure area is produced, a "rare-faction," behind the high pressure area. When the pressure drops below the atmospheric pressure level, the wind of the high pressure area reverses its direction and moves towards the original detonation point (suction phase). Thus a target subjected to the blast of an explosive must undergo both a shattering shock front and pressures in two directions.

Blasting - the use of explosives to shatter or destroy.

Blasting Cap - a small pencil-like cylindrical case with a thin wall in which is enclosed a sensitive high explosive, such as mercury fulminate used as a detonator to set off the main charge explosive in a device. They are normally fired by safety fuze, electric current, or chemical action. Containers for blasting caps are found constructed of copper, aluminum, or plastic. Synonym for detonator; explosive device for initiating explosives; 1^N to 2^N metal object about 1/8" to 3/16" in diameter filled with explosives; i.e. an electric blasting cap.

<u>Blasting Time Fuze</u> - consists of a fabric cord containing black powder and is used in blasting to obtain a timed delay for firing blasting caps. Time is usually 30-45 seconds per foot. Time fuze is also called safety fuze.

B.D. - the abbreviation from "bomb disposal."

Body - that part of ordnance which encases the explosives and devices of the ordnance; the outer shell of ordnance; of various material; i.e. metal, plastic wood.

<u>Bomb</u> - a device filled with explosives, chemicals, pyrotechnics, inert filler; a dropped munition; used to destroy installations; dropped by plane; a weapon; usually having stabilizers and initiators.

Booby Trap - an explosive device to destroy personnel; a device concealed or camouflaged to prevent detection before initiation; sometimes a non-explosive trap; i.e. a bear trap; a spear or cocked branch of a tree; a sabotage device to inflict personal injury.

<u>Booster</u> - a high explosive element, sufficiently sensitive to be actuaged by a small explosive element in a fuze or firing device, and powerful enough to cause detonation of a main explosive charge. In a firing train, the order is usually primer, detonator, booster, and main charge.

Bottle - storage tank for gas; i.e. SCUBA bottle; helium bottle.

<u>Brisance</u> - in explosives, brisance refers to the degree of shattering effect exerted by the explosive. Example: tetryl explosive by its rapid detonating rate is far more shattering in nature than ammonium nitrate.

Bursting Charge - the internal charge or explosive of a device which breaks the casing of a shell, grenade, rocket, or bomb to produce demolition, fragmentation, or chemical action.

<u>Buttressing</u> - in bomb disposal operations, this refers to the measures taken to provide support, by means of a buttress, to prevent earth shock and blast damage to structures. Example: sand bags or loose sand poured against walls or around an explosive device.

<u>Camouflet</u> - a subterranean cavity; a cavity filled with poisonous or explosive gases; usually caused by subsurface explosions, form the word camouflage or concealed.

<u>Cartridge</u> - a case, capsule, shell, or bag of metal, containing the explosive charge or propelling charge. Example: a small arms cartridge made of brass and containing the primer, propellant and projectile.

<u>Cast</u> - in explosives, the types which are melted and formed by pouring into a mold to harden. Example: TNT which is melted and poured into a bomb case for hardening.

<u>Caution</u> - a reminder of an ever present hazard to E.O.D. personnel; used in E.O.D.B. publications as a safety to personnel.

<u>Cavitation</u> - in explosives, the formation of a cavity or indentation by means of a cavity or shape charge. The cavitation being caused by the explosive jet and slug. Example: the Munroe shape charges.

<u>Cavity</u> - any void; a space for an additional component; a standoff; a hold in the ground.

<u>Cavity Containers</u> - also known as shape charges, and are the geometric cavity and suitable liner with stand-off for deep penetration into a steel or concrete object. It normally consists of a container, cavity liner (cone), an explosive charge, and stand-off distance.

 $\underline{\text{Cell}}$ - a body of persons forming a single unit in an organization of similar groups.

<u>Clandestine Device</u> - a device made and conducted with secrecy by design usually for an evil or illicit purpose.

<u>Clandestine Operations</u> - activities to accomplish intelligence, counter-intelligence, and other related activities sponsored or conducted in such a manner as to insure secrecy or concealment.

<u>Cocked Striker</u> - also called a firing pin. Consists of a blunt or sharp pin held under spring tension and designed to fire a primer or detonator by stab, friction, or percussion action when released.

<u>Compound</u> - in explosives, the mixtures used in the manufacture of an explosive device or explosive itself.

<u>Cone</u> - a ballistic shape for munitions; a nose for munitions; the shape used in shaped charges; cavity liner for shaped charged.

<u>Contamination</u> - chemical, biological and nuclear substances hazardous to personnel; unclean; unhealthy; an over abundance of ordnance; i.e. a contaminated ordnance range.

<u>Contrived Explosive</u> - refers to an explosive which is improvised by use of fuels and oxidizers as compared to a commercially manufactured explosive.

Conventional Explosive - other than nuclear; a material capable of detonating.

<u>Cook-Off</u> - an explosive or munition which upon initiation fails to fire but due to excessive heat will eventually function at an unexpected time.

<u>Cordtex</u> - also called primacord or detonating cord. Consists of a reinforced tubular structure containing a high explosive and is used to transmit a detonating wave from one place to another.

<u>Counter Charge</u> - in disposal of explosives, counter charge means placing one explosive charge against another for purposes of detonating the charges.

<u>Covert Operations</u> - operations which are so planned and executed as to conceal the identity of or permit plausible denial by the sponsor. They differ from clandestine operations in that emphasis is placed on concealment of identity or sponsor rather than on concealment of the operations.

<u>Detonation</u> - a term usually associated with high explosives, meaning to explode with sudden violence. A low explosive would normally create a sudden explosion by rapid expansion of gases by burning, whereas a high explosive would detonate violently by a sudden chemical change, resulting in a brisant explosion.

<u>Disarming</u> - the act or process whereby explosive items are made safe by proper replacement of all safety devices or by separation of various components in the firing train.

<u>Desensitizer</u> - any compound used to reduce the sensitivity of an explosive. Examples: gelatin, starch, sawdust, acetone, etc.

<u>Detonating Cord</u> - a cord-like explosive with a fabric cover containing a core of high explosive used to transmit a detonating wave. The exterior has a waxy appearance and is initiated by means of a blasting cap. Also called cordtex or primacord. Colors and materials of detonating cord are variable.

<u>Detonator</u> - a sensitive high explosive element used in an explosive train to create or transmit a detonating wave to a booster or a main charge of high explosives. Example: a blasting cap.

<u>Deflagration</u> - a rapid burning, Low explosives are said to deflagrate whereas high explosives are known to detonate.

<u>Demolition</u> - the act of demoloshing. However, in explosives terminology, demolitions could mean the explosives and tools needed for explosive demolition works.

<u>Desensitized</u> - refers to a normally high sensitive explosive which is desensitized by means of a compound added to reduce sensitivity. Example: nitroglycerin desensitized by adding gelatin to form gelatin dynamite.

<u>Dud-Fired</u> - in ordnance terms, this means a munition which has undergone a complete arming and firing cycle but, due to a malfunction, has failed to explode or function.

- <u>E.O.D. Explosive Ordnance Disposal</u> access, recovery, rendering safe and disposal of all ordnance, foreign or domestic.
- <u>E.O.D.B. Explosive Ordnance Disposal Bulletin</u> standard U.S. Naval publication concerning E.O.D.; contains information regarding ordnance and E.O.D. procedures.
- E.O.D.F. Explosive Ordnance Disposal Facility the U.S. Naval Tri-Service research, development, test, and evaluation of E.O.D. techniques and equipment for all ordnance foreign or domestic.
- <u>E.O.D.L. Explosive Ordnance Disposal Letter the U.S. Naval publication concerning weapons and weapon systems.</u>
- E.O.D.P. Explosive Ordnance Disposal Procedure any established system of operations followed by an E.O.D. technician.
- <u>E.O.D.S.</u> <u>Explosive Ordnance Disposal School</u> the U.S. Naval Tri-Service school for instruction and training of new and returning students in explosive ordnance and explosive ordnance techniques.
- E.O.D.T.C. Explosive Ordnance Disposal Technical Center the old designation of E.O.D.F. now associated with the Army Department; a technical center for ordnance research and development.
- E.S.P. A military abbreviation for "Electrical Safing Procedure." An example would be removal of batteries or cutting and taping certain individual leads in a circuit.
- E.S.P. Electrical Safing Procedure Emergency Safing Procedure special techniques used to safe ordnance either by removal of the potential supply of power or by some built-in feature of the ordnance.
- Explosion a chemical or mechanical action resulting in a sudden bursting accompanied by a loud noise. A rapid expansion of gases or simply a "loud" boom and a sudden going away of things from where they have just been.
- <u>Explosive</u> an explosive substance burning or detonating with violence; such as gunpowder, TNT, ammonium nitrate, etc.
- <u>Explosive Ordnance Reconnaissance E.O.R.</u> the location, identification, and descriptive registry of ordnance; determining ordnance; setting of disposal forces.
- Explosive Train the steps in which the explosives are aligned to initiate a munition or explosive device; such as a primer, detonator, booster, and main charge. Also called a firing train.

<u>Field</u> - the working area of E.O.D.; the fleet; the army; the practical E.O.D. area; a range; i.e. He has worked in the field.

<u>Filler</u> - explosives; explosive mixtures; anything contained in the cavity of ordnance; the substances loaded into ordnance.

"Fire in the Hole" - an expression or warning used by bomb disposal and demolition personnel just prior to detonating or exploding a device to warn personnel in the vicinity of the danger.

<u>Firing Device</u> - a mechanism designed to initiate a fire train in an explosive device or munition. It is often called the fuze when completely assembled and consists of the basic mechanism needed to initiate or trigger the explosive.

<u>Firing Pin</u> - a sharp or blunt pin used to initiate a sensitive explosive; such as a primer by stab action, friction, or percussion.

Firing Train - see explosive train.

"Fish-hook" - the deformation sometimes found on impinged strikers or firing pins; a striker impinged and not retracted from a detonator; the hazardous situation in which a striker is hooked in explosives.

 $\overline{\text{Flooders}}$ - an explosive or mechanical device to fill mine cases with water; used to destroy components.

F.O.I.L. - Foreign Ordnance Information Letter - standard U.S. Naval publication dealing with foreign ordnance.

"Fougasse" - a military term which refers to an improvised incendiary or explosive device, usually buried, and designed for use against personnel.

<u>Fragmentation</u> - any parts of a munition case which have been thrown off due to an explosion excluding those parts designed to be thrown off; pieces of ordnance cases or bodies.

<u>Frangible</u> - very thin and elicate; easily broken; easily destroyed; a firing device or kind of device.

Freeze to lower to cold temperatures; to stop the operation of a fuze by cooling; to slow down; usually associated with slush or CO₂; an RSP; to remain motionless during a RSP.

<u>Freezing</u> - a disposal technique using dry ice, liquid oxygen, liquid nitrogen, $\rm CO_2$ and alcohol to lower the firing potential of batteries or to slow down certain chemical fuze actions; such as acetone.

<u>Fuel</u> - in explosives, a compound added to provide the basis for an explosion. Nearly all explosives require a fuel to sustain burning and an oxidizer to provide oxygen.

<u>Function</u> - to operate; to explode; to cause to operate; to operate as designed; to dispose of by functioning.

<u>Fuse</u> - a mechanical, chemical or electric device which produces the initial action to trigger a munition or explosive device.

<u>Fuzee</u> - a burning flare or phrotechnic device used by railroads, autos, etc., to give warning. Usually will burn with a bright flame for illumination.

<u>Fuze Lighter</u> - a device containing a flash primer which is used in blasting operations to ignite safety fuze. Most fuze lighters use friction or percussion methods of ignition.

<u>Fuze Well</u> - in munitions, a cavity threaded or un-threaded extending into the munition to accept the fuze or firing device.

<u>Firing Delay</u> - basically the same as an arming delay but consists of a pyrotechnic or chemical used to delay the explosion after the initiating action has taken place.

<u>Fuze</u> - a mechanical, chemical or electric device which produces the initial action to trigger a munition or explosive device.

Gag - a bomb disposal term which refers to techniques used to immobilize movable components on fuzing systems, clocks, etc., to prevent further movement. Examples: plaster of Paris and water applied to a movable plunger, or syrup injected into a clock to stop the action.

Gain - an explosive train used in Japanese mines and ordnance; a detonator and booster together; a two step explosive train.

General Safety Precautions - those precautions as outlined in an E.O.D.B. or E.O.D.P. to be followed until the final procedure of disposal is accomplished; the methods set down to present hazards to E.O.D. personnel.

General War - armed conflict between the major powers of the Communist and free worlds in which the total resources of the belligerents are employed, and the national survival of the major belligerent is in jeopardy.

G.G.E.F.P. - General German Electric Fuze Precautions - the specific safety precautions set down for use against German fuzes; the E.O.D. terminology and precautions concerning German fuzes.

Greek Fire - an ancient incendiary mixture used as far back as the year 670. It consisted of saltpeter, siphones, sulfur, and pitch blends which could hurl the burning incendiaries into ships with a mortarlike device.

Guerrilla - a combat participant in guerrilla warfare.

Guerrilla Base - a temporary site where guerrilla installations, headquarters, and some guerrilla units are located. The base is considered to be transitory, and must be capable of rapid displacement by personnel within the base.

<u>Grenade</u> - a bomb or small shell tilled with explosives, gas, etc., and designed to be thrown or projected in some fashion at a target.

<u>Guerrilla Force</u> - a group of irregular, predominately indigenous personnel, organized along military lines ot conduct military and paramilitary operations in enemy or enemy-held territory.

<u>Guerrilla Warfare</u> - Military and paramilitary operations conducted in enemy-held or hostile territory, by irregular, predominately indigenous forces.

<u>Hazardous Components</u> - any device which will cause injury or death to an E.O.D. technician; i.e. a high voltage battery, explosives, detonator, etc.

H.E. - High Explosives - substances capable of exploding by themselves; not designed to burn.

Hell Box - often termed a "blasting machine" and consists of a generator, hand operated, which is used to electrically initiate blasting caps in explosive operations. A hand operated or battery operated generator.

<u>High Order</u> - a successful and complete detonation of an explosive with the entire consumation or detonation at its maximum rate of the explosive being detonated.

Hoax Bomb - a fake bomb designed by an individual to give the appearance of a high explosive bomb or to frighten personnel by its appearance.

Hot Spot - a-localized spot or area which is particularly high in radiation or contamination.

Hung Striker - an operated spring 1 ded striker which was interrupted in movement by some flaw, point of bind or other reason and is still capable of functioning.

Hygroscopic - means the ability to readily absorb and retain moisture. Example: black powder which readily accepts moisture because of its porous structure.

Hypergolic - means self-igniting. A term used in the military towards certain chemicals or compounds which, when combined, tend to burst into flames or react with explosive violence on contact. A good example is potassium chlorate and sugar in contact with sulphuric acid which will cause an immediate explosion.

<u>Identification</u> - the total description of ordnance by either pictures, drawings, words, form, etc; the initial or introductory portion of an E.O.D.B.; classification as to type and function.

Ignition Train - a flammable train used by bomb disposal personnel to ignite powders or explosives and is usually about twenty-five feet in length. It could consist of excelsior, burning time fuze, or any slow burning material for safety reason.

Impeller - a bladed moveable propeller like item or device which is incapable of self movement; must be driven or moved by travel through some medium such as water, air, etc.

<u>Impinged</u> - having struck; hit; stuck or stuck in; resting on the detonator; capable of being pulled out; having to do with a striker.

<u>Implosion</u> - a collapse caused by a rapid drop in pressure; air pressure collapsing a device.

<u>Improvised</u> - anything "made up" or devised; not of standard use or manufacture; associated with clandestine and booby device.

<u>Improvised Mine</u> - an explosive device manufactured and designed from locally available materials. Not of standard manufacture. Example: a pipe bomb filled with black or smokeless powder.

<u>Incendiary</u> - a burning compound or metal used to produce intense heat. Examples: thermite or magnesium.

<u>Incident</u> - an unexpected event involving a weapon where: 1. an increase in radiation takes place; 2. errors in assembly or logistics occurred where arming or firing may take place and a yield obtained; 3. an act of God, unfavorable condition, damage of a weapon, component or facility.

<u>Inert</u> - having no explosive charges; may operate properly yet will have no explosive charges.

<u>Infernal Machine</u> - a machine or apparatus maliciously designed to explore or destroy life and property.

<u>Infiltration</u> - the clandestine entrance of selected personnel into enemy or enemy-controlled territory making maximum use of deception to avoid enemy detection.

<u>Initiator</u> - that part of an explosive train which starts or initiates; such as primer or detonator. The fuze, in certain instances, could be considered the initiator or first action.

<u>Initiating Action</u> - the first action in a normal firing train which starts the device into motion. Examples: pressure on a plunger, pull on a slack wire, or cutting a tight wire (called tension release) etc.

<u>Interim R.S.P.</u> - the publication or notice that suffices as an E.O.D. procedure until the E.O.D.B. is available.

<u>Jet</u> - the hot gasses produced by a shaped charge; an ultra high velocity, high temperature gas produced by a shaped charge used to penetrate ordnance bodies and cases.

<u>J.N.A.C.C.</u> - <u>Joint Nuclear Accident Coordinating Center</u> - a Tri-Service facility for assistance in coordination and information regarding a weapons accident and/or incident.

<u>Lead-in</u> - the connecting substance between the initator and the detonator; a piece of pyrotechnic cord; fuse; a connector between two explosive charges.

<u>Linear Shaped Charge</u> - an explosive charge in a long continuous "V" or cone shaped container; a charge for cutting a straight line in ordnance cases.

Long Delay - a military team associated with fuzes which incorporate a delay feature extending from minutes to hours. Some long delay fuzes can run to 120 days in time.

Low Order - the incomplete initiation of an explosive or one which has detonated at less than its maximum rate. The explosive usually fails to detonate because of deterioration, insufficient detonating wave, separation of explosive, or like causes.

Lucky; Lucky Crystal - Piezo-Electric Crystal - a crystal for producing voltage to fire a detonator; called "lucky" due to it's hazard to E.O.D. technicians.

<u>Main Charge</u> - the final explosive in an explosive train; the bulk of the explosives; bursting charge; least sensitive explosive.

Manual Removal - to remove by hand or with hand tools.

<u>Mechanical Explosion</u> - the result of bursting pressure on a container; the explosion caused by slow buildup of pressure created by low explosives.

<u>Mine</u> - a cased or uncased explosive, chemical agent, or incendiary designed to destroy or damage vehicles, boats, aircraft, or designed to wound, kill or otherwise incapacitate personnel. It may be detonated by the action of its victim, by time, or by controlled means.

<u>Misfire</u> - failure to operate; a round of ammunition which did not fire; usually associated with missiles or rockets; i.e. the rocket misfired.

<u>Missile</u> - a spear, arrow, bullet, rocket, or bomb capable of being thrown or projected to strike an object.

 $\underline{\text{Mission Support Site (MSS)}}$ - a relatively secure site, utilized by an unconventional warfare force as a temporary storage site or stop-over point during the conduct of UW operations.

Molotov Cocktail - a crude incendiary hand grenade filled with an inflammable liquid, chiefly gasoline, and fitted with a wick or like ignition device which ignites the device upon impact with its target.

<u>Motor</u> - the propelling device for rockets; a solid fueled booster; a liquid rocket motor.

<u>Munition</u> - ordnance; explosive ordnance; complete explosive items; war materials which are directly used in battle.

<u>Mustard</u> - a chemical agent known as a blister agent, used during World War I as a war gas. This agent produces large blisters on contact, creates blindness, and affects lungs.

<u>Neutralize</u> - the act of making neutral or rendering safe a device by insertion of safety pins, separation of components, etc. Also referred to as an RSP (Rendering Safe Procedure).

<u>Non-Sparking</u> - will not produce sparks or flame; associated with tools used to carry out an R.S.P.; descriptive phrase for E.O.D. tools.

<u>Nuclear Safety Precautions</u> - precautions peculiar to weapons so as to prevent inadvertent damage, loss, detonation or contamination.

Obsolescent - in the process of becoming obsolete.

Obsolete - no longer in use; outdated; dropped or discontinued.

Open - to explosively break; to expose the filler; to remove a cover or plate.

Operation - the systematic order of events to cause ordnance to function; an explosive operation; to work correctly; to function; a procedure.

Ordnance - any and all explosive munitions including weapons and chemical; biological munitions.

"Out-of-Line" - the phrase used to describe detonators in a safe position; a detonator not in contact with the lead-in or explosives in a fuze.

Overt Operations - operations which are planned and executed without attempt at concealment and with evident intent.

Oxidizer - an oxygen-bearing compound used in the manufacture of explosives; such as potassium nitrate or chlorate, to produce fast burning internally of a device. The oxidizer supplies the oxygen needed for the internal combustion or detonation of the item.

<u>Paramilitary Forces</u> - forces or groups which are distinct from the regular armed forces of any country, but resembling them in organization, equipment, training or mission.

<u>Percussion</u> - sensitive to mechanical shock; such as a rifle percussion cap or primer. It fires upon being struck by a blunt firing pin. The percussion primer usually transmits a flame to a propellant or detonator.

<u>Photo-Flash</u> - often called flash powder, which is extremely sens tive to heat, shock, or friction and is often used as a main charge in clandestine devices. A good example of the brisance of photo-flash is the common "cherry bomb" which explodes with great violence.

"Pineapple" - a slang term for a dynamite bomb, hand grenade, or like improvised device.

<u>Pit</u> - a hole dug in the ground for disposal of chemical and biological munitions; a place for disposing of small arms ammunition.

<u>Plastic Bomb</u> - an explosive device manufactured using the newer pliable or plastic (putty) type explosives. Often used by terrorists because of its flexibility.

<u>Plastic Explosive</u> - a pliable, putty-like explosive which can be molded into various shapes and much resembles wood putty. In military terms, these are called the composition explosives; such as C-3, C-4, etc. and range in color from yellow to white.

<u>Powder Train</u> - the alignment of a group of powders to produce a desired effect, such as a powder train delay with a powder propelling charge designed to hurl a mine into the air after a pre-determined delay period.

<u>Precaution</u> - the making aware of a hazard; a basic set method or methods for proceeding safely and with caution on ordnance; presenting a hazard and the method to cope with it.

Primacord - see detonating cord or cordtex.

<u>Primer</u> - a small cylindrical metal device containing a primary high explosive, which is detonated by means of a firing pin, and produces the flame or explosion needed to detonate a detonator or ignite a propellant in a normal firing train. The two types of primers are percussion and stab types. A good example of a primer is the type found in the base of a standard shotgun shell which, upon being struck, will ignite the propelling charge ejecting the bird shot of the shell.

<u>Priming</u> - indicates the methods used to set up an explosive charge for firing; such as inserting the blasting caps for a detonation.

<u>Probing</u> - a method of finding hidden ordnance or devices by feeling with a long rod <u>or</u> blade; to stick a probe in a package or device.

<u>Procedure</u> - the method of operating or carrying out a R.S.P.; any set pattern of events following by an E.O.D. technician.

<u>Protective Clothing</u> - a set of cloths <u>or</u> a covering worn to prevent contact with a hazard <u>or</u> contamination.

<u>P.S.E. - Preventive Stripping Equipment - sometimes called a booby trap;</u> a device to prevent an E.O.D. technician from safing <u>or</u> rendering safe ordnance.

<u>Projectile</u> - a missile, either solid or with an explosive, chemical, or inert filler propelled from a weapon by the force of gases produced by the propelling charge. Example: an artillery projectile.

<u>Propaganda</u> - any information, ideas, doctrines or special appeals in support of national objectives, designed to influence the opinions, emotions, attitudes, or behavior of any specified group in order to benefit the sponsor, either directly or indirectly.

<u>Propellant</u> - an explosive which rapidly burns and propels a projectile from a gun tube. Another example is a liquid propellant used to propel a missile or rocket into the air.

<u>Protective Measures</u> - those measures taken for protection against chemicals or explosives during disposal and rendering safe operations on bombs and like devices. These may include shelter, full protective clothing, and certain other precautions; such as chemical, or fragmentation precautions.

<u>Psychological Operations</u> - this term includes psychological warfare, and, in addition, encompasses those political, military, economic, and ideological actions planned and conducted to create in neutral or friendly foreign groups the emotions, attitudes or behavior favorable to the achievement of **nat**ional objectives.

<u>Psychological Warfare</u> - the planned use of propaganda and other psychological actions having the primary purpose of influencing the opinions, emotions, attitudes, and behavior of hostile foreign groups in such a way as to support the achievement of national objectives.

<u>Psychotic Bomber</u> - a person, considered insane by normal standards, who contrives an explosive or incendiary device to be used for an evil purpose against society.

<u>Pyrotechnic</u> - modifications of fireworks designed to produce a brilliant light for illumination or to produce colored lights or smoke for signaling purposes,

<u>Quick-Match</u> - a very rapid burning time fuze often used in blasting operations to ignite time or safety fuzes. Quick-match fuzes can be very rapid in burning - some are timed at one foot per second.

Radiac - recording instruments used to register or relay information regarding radiation levels; an instrument which registers visably radiation levels.

Radiation Hazards - the hazards specifically peculiar to radiation; i.e. Alpha Particles, Gamma Rays, etc.

Range - the area where disposal of ordnance is carried out; a cleared area of ground safe for explosive operations.

<u>Recognition</u> - the identification of ordnance; to determine ordnance; realization of ordnance.

Rendering Safe Procedure (RSP) - the tools and methods employed against an explosive device or munition designed to neutralize or otherwise make safe the fuzing system, so that it can be assumed safe for transportation and disposal. Any method which could detonate or initiate the munition would not be considered a true rendering safe procedure in bomb disposal circles.

Resistance (Revolutionary) Force - that portion of the civil population of a country which is engaged in the resistance movement, i.e., guerrillas, auxiliaries, and the underground.

Resistance (Revolutionary) Movement - an organized effort by some portion of the civil population of a country to resist the legally established government or an occupying power. Initially such resistance may consist of subversive political activities and other actions designed to agitate and propagandize the population to distruct and lose confidence in the legally established government or occupying power. If not suppressed such resistance can result in organized guerrilla warfare.

R.S.P. - Rendering Safe Procedure - the steps actually involving the explosive safing of ordnance; the specific section of an E.O.D.B. dealing with safing of ordnance; a sub-division of explosive ordnance disposal procedures.

<u>Sabotage</u> - any act, except direct military action, which employs disruptive or destructive methods against personnel, critical materials, facilities or installations for the purpose of denying or limiting their use. Derived from the term to "Tread with a wooden shoe." Means the malicious waste or destruction of an employer's property by workmen, or by an enemy agent, or, destructive acts designed to impede the armed forces or essential war industry by neglect or by actions.

<u>Safe</u> - not armed; not functioned; theoretically free from harm <u>or</u> hazards; unable to operate <u>or</u> function.

<u>Safe Area</u> - a relatively safe location in enemy or enemy-controlled territory where a limited number of sponsoring power advisors and/or guerrilla personnel may receive temporary refuge.

<u>Safety</u> - a device to prevent arming; any positive block between a detonator and main charge; a cotton pin.

<u>Safety Precautions</u> - specific precautions to be followed when attacking or proceeding with an R.S.P.; a specific section in an E.O.D.B.

<u>Safety Fuze</u> - a cord containing a continuous core of black powder. It is used to carry flame at a uniform rate to an explosive charge and is usually water-proofed. Burning time is usually 30-45 seconds per foot. Also called time fuze.

<u>Salts</u> - explosives which are created by reaction or ordnance bodies or cases with existing explosives; ultra sensitive explosives; found on <u>or</u> near body breaks <u>or</u> joints.

S.D.A. - Safe Disposal Area - a range; an area for disposal; an abbreviation for an E.O.D. procedure.

<u>Self Destruct</u> - to function or destroy after a set period of time; to destroy itself if it did not operate or reach its target; to fall short and function.

<u>Serrated</u> - a scored <u>or</u> machined surface; a jagged edge; made to form shrapnel.

<u>Shafting</u> - materials for open pit digging and bracing; wooden planks and beams; the process of "digging down" to an item or piece of ordnance.

Shape Charge - see cavity container. Also called cavity charge, using Munroe effect.

Shaped Charge - a shaped charge consists of a high explosive charge (usually cylindrical) into one end of which a cone has been sunk. The cone may or may not be lined with an inert material such as glass or metal. In certain cases the cone may be cut into the explosive charge itself. The shaped charge in most cases is detonated at a distance from the target called "stand off distance." When a shape charge is detonated detonation waves are formed which travel in different predetermined directions in such a manner that they meet and reinforce each other (much like light rays reflecting off a parabolic mirror). This reinforcing effect is called the 'Munroe Effect" after the man who discovered it. The reinforced detonation forms a rapidly moving jet which contain in it small particles of the collapsing cone liner. The jet is followed by the "slug" which contains the major portion of the cone liner (Mohaupt effect). The major damage from a shaped charge detonation is caused from the jet, which exerts a pressure on the target of several hundred thousand atmospheres, and which literally pushes aside the target material by plastic flow.

<u>Shells</u> - in munitions, artillery projectiles and various projected rounds are called shells.

<u>Shoot</u> - to carry out an explosive detonation on a range; the verbal order to fire or detonate explosives.

<u>Shot</u> - the "setup" <u>or</u> readied explosive procedure; the ordnance, explosives involved, and special tools or equipment as arranged for the operation; a quanity of explosives.

<u>Shrapnal</u> - specifically designed pieces of metal <u>or</u> missles, pre-cut or per-formed cubes, darts, or ball bearings placed into or attached to an explosive device, used to injure <u>or</u> kill personnel when a piece of ordnance explodes; other than fragmentation.

Slush - a freezing mixture of dry ice and alcohol in a slurry.

<u>Small Arms</u> - defined as ammunition fired in weapons whose bores are 0.60 inch or less in diameter. Example: 22 caliber round.

<u>Solvent</u> - in explosives disposal, those solvents which will soften and dissolve certain explosives. Example: acetone/TNT.

<u>Special Tools and Equipment</u> - those tools and equipment as outlined in the appropriate E.O.D.B. to serve a specially designed purpose for E.O.D.

<u>Specific Safety Precautions</u> - those precautions only peculiar to the ordnance the E.O.D. technician is working on; other than general safety precautions.

<u>Sponsoring Power</u> - any nation which actively provides external support to a revolutionary movement.

<u>Spray</u> - during munitions disposal using explosives, a spray is considered to be certain unexploded devices which will fly out of the site of detonation. This usually is the result of poor priming procedures or insufficient explosives to create a complete detonation. A munition which has sprayed isusually quite hazardous due to powdered high explosives.

<u>Squib</u> - a small pencil-like tube containing black powder used to transmit a flame to ignite certain devices. Squibs resemble blasting caps in appearance and are used for many purposes; such as to ignite rocket igniters, initiate ejection seats in aircraft, or to ignite propelling charges.

"Stand-Off" - the distance provided between the cavity or cone of a shape charge to allow formation of the jet before contact with the target is made. The stand-off distance is determined by the size and shape of the cavity container.

Striker - a blunt or sharp pin, also called a firing pin.

<u>Sub-Missile</u> - small sphere-like missiles placed inside a carrier or container and designed to be hurled from the container or ejected in some fashion at or near the target. The sub-missles may be fuzed to fire on impact with the target or in the air near the target.

<u>Subversion</u> - action designed to undermine the military, economic, psychological, morale, or political strength of a regime.

Surface Ordnance - all ordnance other than under water ordnance.

Sympathetic Detonation - a detonation occurring from one explosion transmitting a wave to another nearby explosive, in turn causing it to detonate.

<u>Tank</u> - the safe retreating area <u>or</u> bunker on a range; a special explosion and blast proof bunker; a place to safely observe a shot.

Tape and Line - a technique used to render safe ordnance.

<u>Technique</u> - a well rehearsed <u>or</u> mastered operation; peculiar procedures; E.O.D. method; craft or ability.

Terror - a state of fear, dread, or anxiety, induced within an individual or group of individuals by the revolutionaries in open defiance of the law. The means of demoralizing government authority, separating the people from their leaders, undermining the power of the government, and initiating a revolution or counterrevolution.

Terrorist - one who uses explosives or clandestine means to demoralize a government or area by terrorist means. Usually an agent, partisan, or member of a party.

Thin Wall - a very thin case; light metal construction; specific ordnance as opposed to heavy or thick case ordnance.

<u>Timbering</u> - in bomb disposal, the act of placing wooden beams into an excavation for support.

<u>Timing Disc</u> - a small spring-wound disc found in military fuzes and using a clock work mechanism. The rotating disc provides the means to release a spring-loaded firing pin at the proper time. They are found in fuzes called clockwork aerial burst or mechanical time.

<u>Torch</u> - hot gases shooting out of a burning piece of ordnance; explosives burning unevenly causing a spewing flame.

Trepan - to cut through or gain access or entrance by cutting, sawing, or corrosive acid action.

Trigger - basically the same as a fuze. The device in a firing train which starts the initiation or initiating action. An electronic circuit to operate or function; to cause detonation; to operate.

Trip Wire - a small fine wire attached to a standard or improvised firing device designed to initiate the fuze as a unsuspecting person breaks or pulls the wire.

<u>Unconventional Warfare</u> - includes the three interrelated fields of subversion, guerrilla warfare and evasion and escape. Unconventional warfare operations are conducted within enemy or enemy-controlled territory by predominately indigenous personnel, usually supported and directed in varying degrees by an external (foreign) power.

<u>Underground</u> - that element of the resistance force established to conduct covert operations in areas which are normally denied to the auxiliary and guerrillas.

U.X.B. - a military abbreviation for "Unexploded Bomb."

<u>U.W.O.</u> - <u>Underwater Ordnance</u> - mines, depth charges, etc. Ordnance designed to operate and function under or in water.

<u>U.X.O.</u> - <u>Unexploded Ordnance</u> - ordnance which did not function as designed; stock piled ordnance; usually associated with a dropped munition; i.e. a bomb.

<u>Vent</u> - to cautiously open so as to not expose or release an over abundant amount of filler; to allow access to air; to release pressure; to punch a hole in ordnance cases.

<u>Warning</u> - a reminder of possible hazards to E.O.D. personnel; used in E.O.D.B. publications.

Weapon - any nuclear device.

<u>X-Unit</u> - a capacitor bank charged to high voltage; a voltage storage unit.

<u>X-Ray</u> - to determine the internal components of ordnance by x-ray; a hard fast EMR; apparatus for x-ray; Baltograph.

Yield - the total effective energy released in a nuclear explosion.

END