

IMPROVISED EXPLOSIVE DEVICE

LEXICON



UNMAS



United Nations Mine Action Service Improvised Explosive Device Lexicon

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**An IED lexicon for people working in environments contaminated with
Improvised Explosive Devices**

This lexicon is intended to provide the United Nations system with a coherent conceptual framework and operational vocabulary to address the IED threat worldwide. It encompasses the broad spectrum of IED employment scenarios, the variety of IED devices, and their critical components.

Adoption of this lexicon will improve the collection, reporting, and exploitation of IED information at the tactical, operational, and strategic levels. The lexicon will assist in:

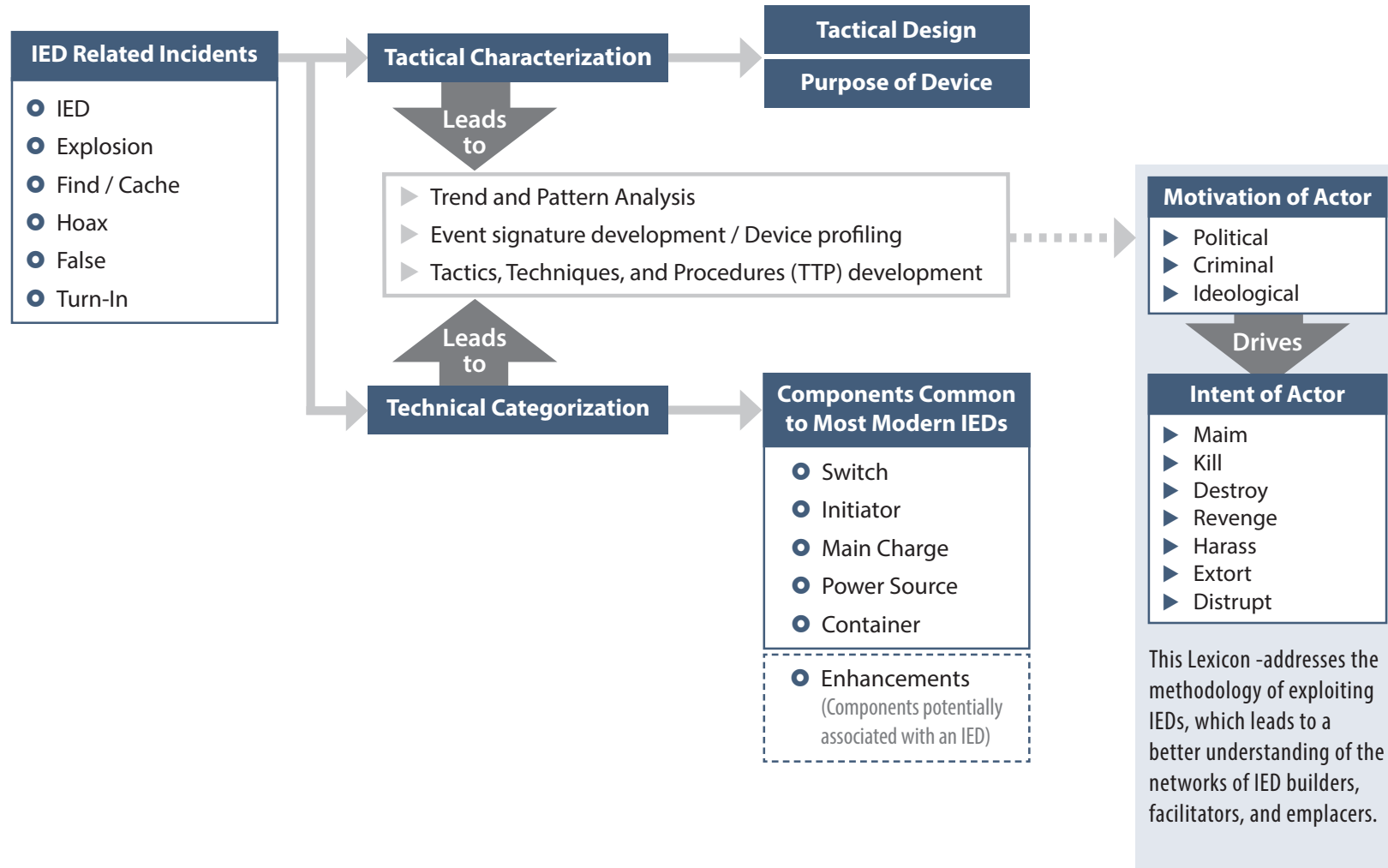
- Standardizing terminology across IED reports and improving database content management;
- IED related education and training; and
- Development and understanding in support of IED policy and doctrine.

In order to maintain the ability to effectively communicate and understand the IED using the construct and definitions posed in this lexicon, modification of definitions and diagrams is not recommended.

CONTENTS

GENERAL TERMS	1	POWER SOURCE	40
TACTICAL CHARACTERIZATION	5	CONTAINER	43
TACTICAL DESIGN	7	ENHANCEMENTS.	45
PURPOSE OF DEVICE	13	GLOSSARY	49
TECHNICAL CATEGORIZATION	17		
SWITCH	18		
INITIATOR	27		
MAIN CHARGE	31		

IED Lexicon: CONSTRUCT



GENERAL TERMS

1

Improvised Explosive Device (IED)

A device placed or fabricated in an improvised manner incorporating destructive, lethal, noxious, pyrotechnic or incendiary chemicals and designed to destroy, incapacitate, harass or distract. It may incorporate military stores, but is normally devised from non-military components. Refers to a type of IED incident that involves a complete functioning device.

Weapons Technical Intelligence (WTI)

Intelligence derived from the processes and capabilities that collect, exploit and analyze asymmetric threat weapons systems to enable material sourcing, support to prosecution, force protection and targeting of threat networks.

Associated Components

Components that are: 1) part of an IED or improvised weapon system; 2) the tools required to produce the components; or 3) precursors to the manufacture of IED components to include explosives.

Event Signature Development / Device Profiling

The process of analyzing the tactical and technical identifiers of an IED incident to support force protection, targeting, prosecution, and sourcing.

Explosion

A nuclear, chemical or physical process leading to the sudden release of energy.

Explosive Train

A succession of initiating and igniting elements arranged to cause a charge to function.

False

An IED related incident that is incorrectly identified though reported in good faith as an IED, which is subsequently categorized as a false alarm after positive Explosive Ordnance Disposal (EOD) action.

Find / Cache

An IED related incident that involves the discovery and/or recovery of an IED not yet emplaced or employed, IED components, and/or IED paraphernalia.

GENERAL TERMS (continued)

Force Protection

Preventive measures taken to mitigate hostile actions against United Nations staff, Troop Contributing Countries/ Police (TCC/PCC), resources, facilities, and critical information.

Hoax

An IED related incident that involves a device fabricated to look like an IED and that is intended to simulate one in order to elicit a response.

IED Related Incidents

An event that involves one or more of the following IED-related actions / activities: IED, Explosion, Find / Cache, Turn-In, Hoax, or False.

Improvised Weapons

Weapons constructed in an improvised manner designed to destroy, incapacitate, harass or distract.

Sourcing

The process of determining the origination point (such as a production facility or person, a geographic location, or a specific country of origin) for IED components.

Support to Prosecution

The process of associating related people, places, devices, or equipment to an individual for evidentiary purposes in a recognized court of law.

Tactical Characterization

The manner in which an IED incident is planned and conducted (tactical design) and the intent (purpose of device).

Tactics, Techniques and Procedures Development

Using the lessons learned from an IED attack to refine and improve the tools and methods used during all missions in which an IED may be encountered (e.g. convoys, tactical suppression efforts, Intelligence Surveillance and Reconnaissance (ISR), Counter-IED (C-IED) missions, etc.).

Targeting

The process of selecting and prioritizing targets and matching the appropriate response to them, considering operational requirements and capabilities.

Technical Categorization

A description of an IED using a hierarchical construct to identify its key components. The components identified in this categorization are the elements from which technical and forensic information is recovered and exploited.

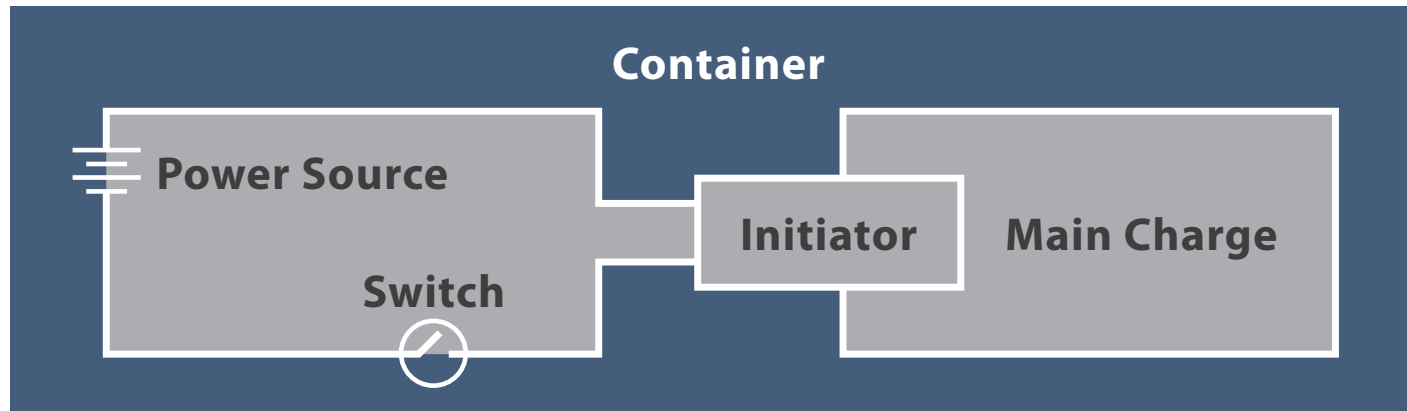
Trend and Pattern Analysis

Using prior actions and activities to identify trends in activities or behaviors. Once identified these patterns can be used to predict future attacks or incidents, and plan intelligence surveillance, reconnaissance (ISR) activities and training.

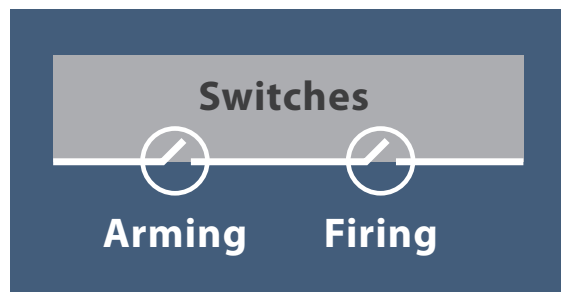
Turn-In

An IED related incident where an IED or component is turned over to the proper authority.

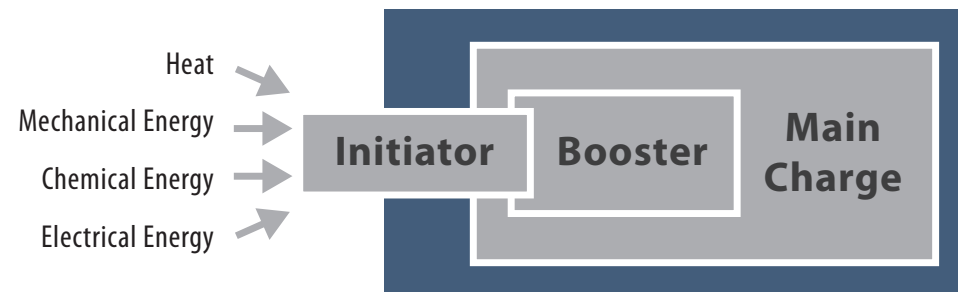
The five components common to most modern IEDs.



Multiple switches are sometimes present and connected together



A booster is sometimes present in the IED explosive train



TWO aspects for understanding an IED incident:

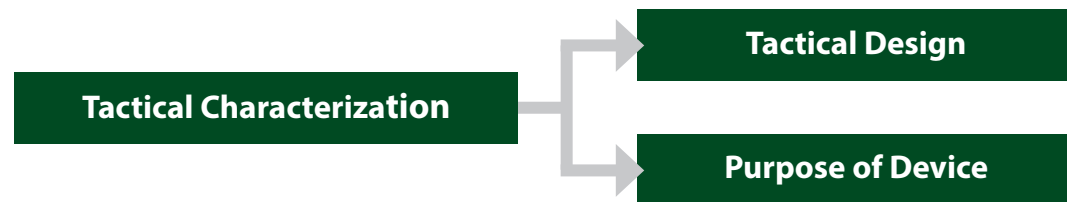
5

1. TACTICAL CHARACTERIZATION

2. TECHNICAL CATEGORIZATION

TACTICAL CHARACTERIZATION

The manner in which an IED incident is planned and conducted (tactical design) and the intent (purpose of device).



TACTICAL DESIGN

7

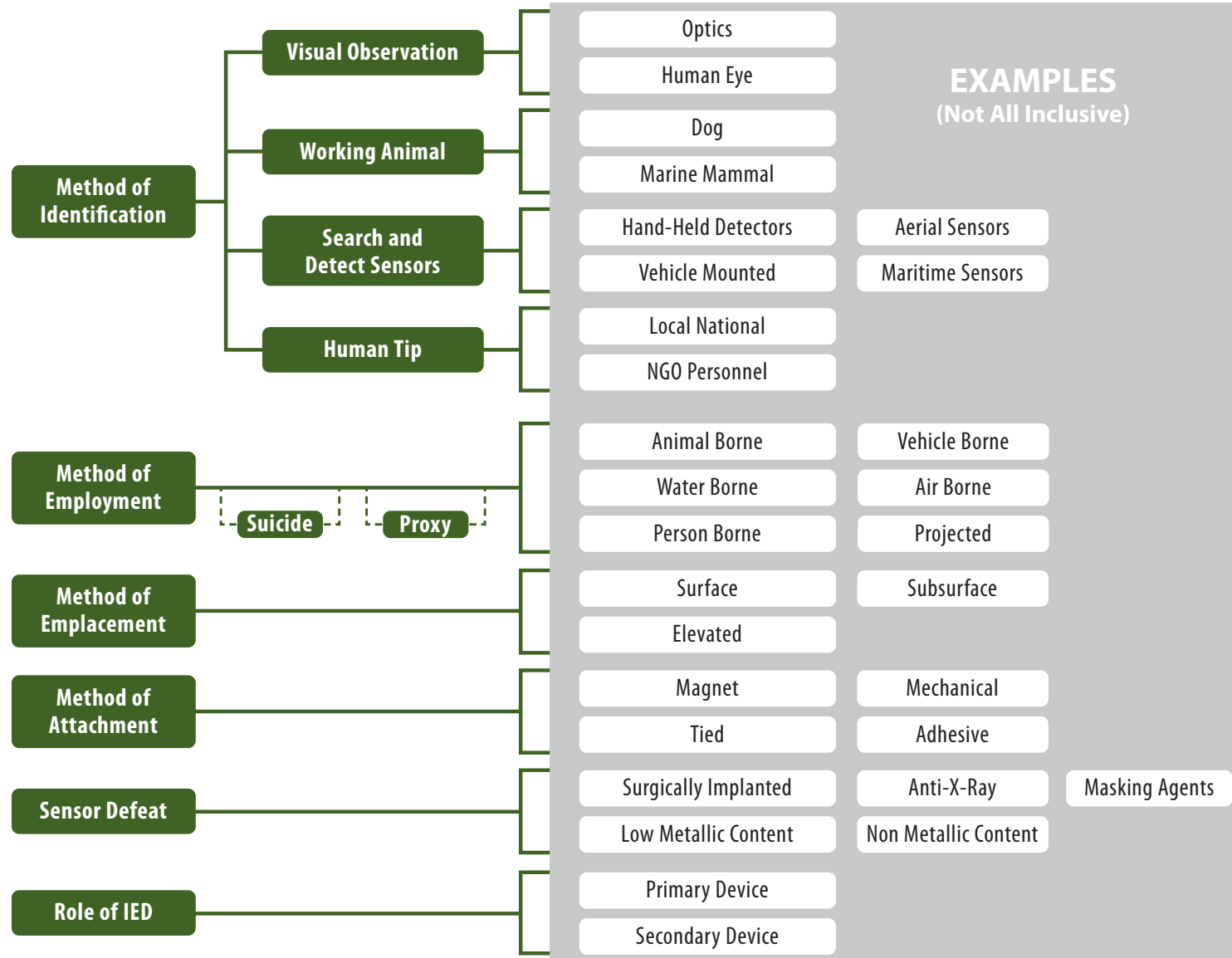
The specific design of an IED attack – including but not limited to: position of the IED, the type of IED, type of road segment used, concealment technique, use of secondary devices, the time of day, etc. Tactical design addresses the questions:

- Why here?
- Why now?
- Why in this way?

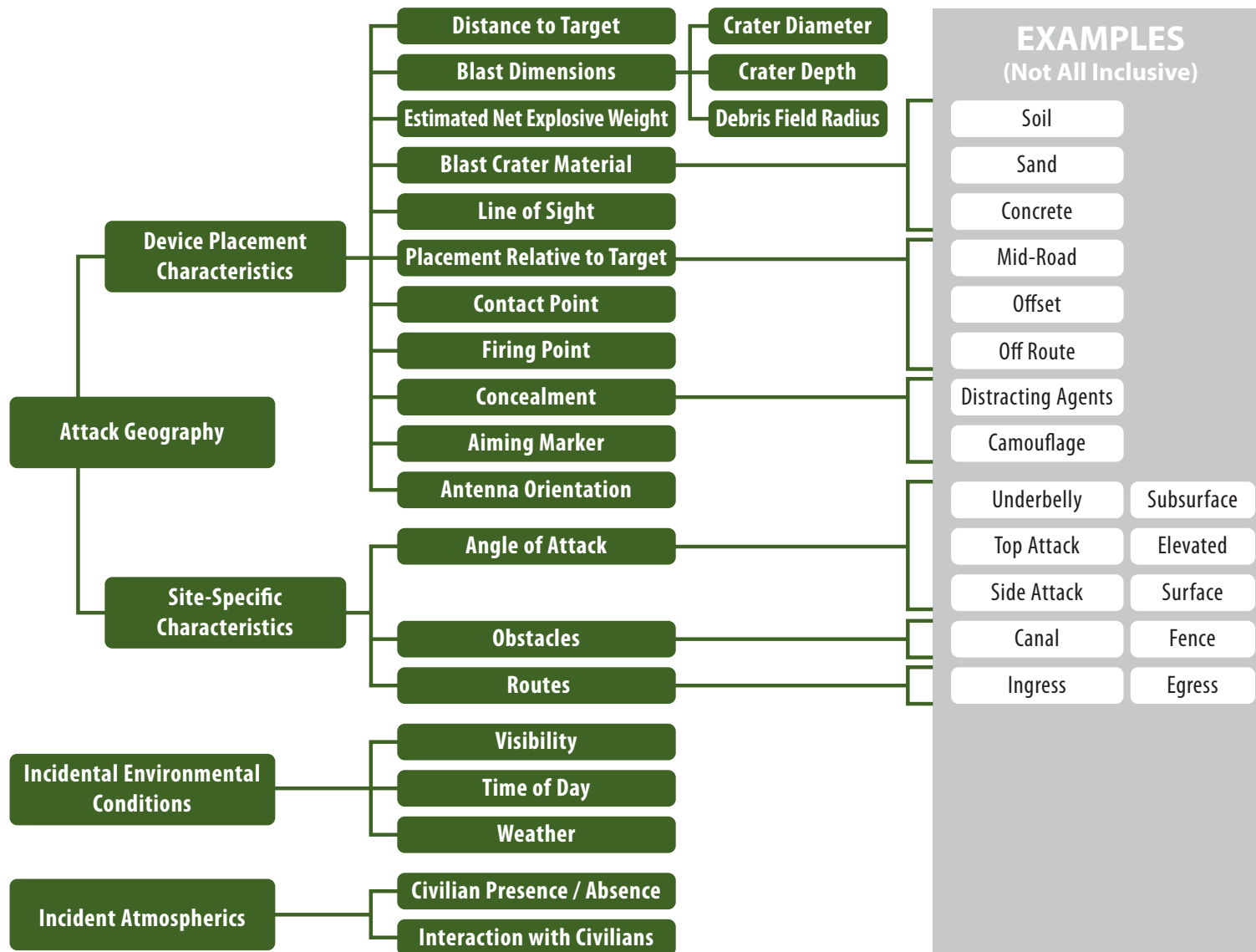
Terms used to describe a specific type of device or component of a device (e.g., VBIED) are often used to describe all or part of the tactical design.

- ▶ Method of Identification
- ▶ Method of Employment
- ▶ Method of Emplacement
- ▶ Method of Attachment
- ▶ Sensor Defeat
- ▶ Role of IED
- ▶ Attack Geography
- ▶ Incident Environmental Conditions
- ▶ Incident Atmospherics

TACTICAL DESIGN



TACTICAL DESIGN



TACTICAL DESIGN

Air Borne IED (ABIED)

An IED delivered by or concealed in an air-based vehicle.

Animal Borne IED

An IED delivered to a target by means of an animal.

Attack Geography

A description of the road segment, buildings, foliage, etc. Understanding the geography can indicate the use of the landscape to channel tactical response, slow friendly movement, or prevent pursuit of threat actors or spoilers.

Elevated

IED emplaced above the surface: hanging from an overpass, on a roof, etc.

Emplacement

A description of where a device was placed to attack the intended target.

Estimated Net Explosive Weight

A reference to the estimated weight of the main charge derived from observations of the blast effects and crater characteristics.

Human Tip

Information provided in an advance and/or confidential manner regarding an IED, IED related materials, or associated personnel. This information can be received from, but not limited to, the local populace or government, intelligence agency, or an inside source.

Incident Atmospherics

A description of the demeanor of the civilian population at an IED event to include mood, absence or presence, changes in previously experienced interactions, etc.

Incident Environmental Conditions

A description of the ambient surrounding conditions to include weather conditions such as temperature, precipitation, fog, dust, etc.

Method of Employment

A description of how a device was delivered to the target.

Method of Identification

The manner in which a unit located a device, components or improvised weapon via visual observation, working animal, sensor, or human tip.

Person Borne IED (PBIED)

An IED worn, carried, or housed by a person, either willingly or unwillingly.

Primary Device

The first of two or more IEDs encountered or initiated. Subsequent devices will be marked in the order found.

Proxy

A person (unwitting or coerced) who acts as a means of delivery of an IED.

Role of IED

Identifying enemy use of IEDs as a primary, secondary, or subsequent form of attack.

Search and Detect Sensors

Equipment which detects, measures, may indicate and/or record objects and activities by means of energy or particles emitted, reflected, or modified by objects for the purpose of identifying IED activity.

Secondary Device

An additional IED used to attack individuals or vehicles after the initial event.

Sensor Defeat

Methods and technologies incorporated into the device construction and employment for the purpose of defeating detection or identification methods and friendly TTPs.

Suicide

An IED initiated by the attacker at a time of their choosing in which they intentionally kill themselves as part of the attack, or possibly to deny capture.

TACTICAL DESIGN (continued)

Underbelly

A type of IED attack in which the device is intended to target the underside of a vehicle.

Vehicle Borne IED (VBIED)

An IED delivered by or concealed in a ground-based vehicle.

Visual Observation

Attained or maintained by sight, done or executed by sight only and relating to, or employing visual aids.

Water Borne IED (WBIED)

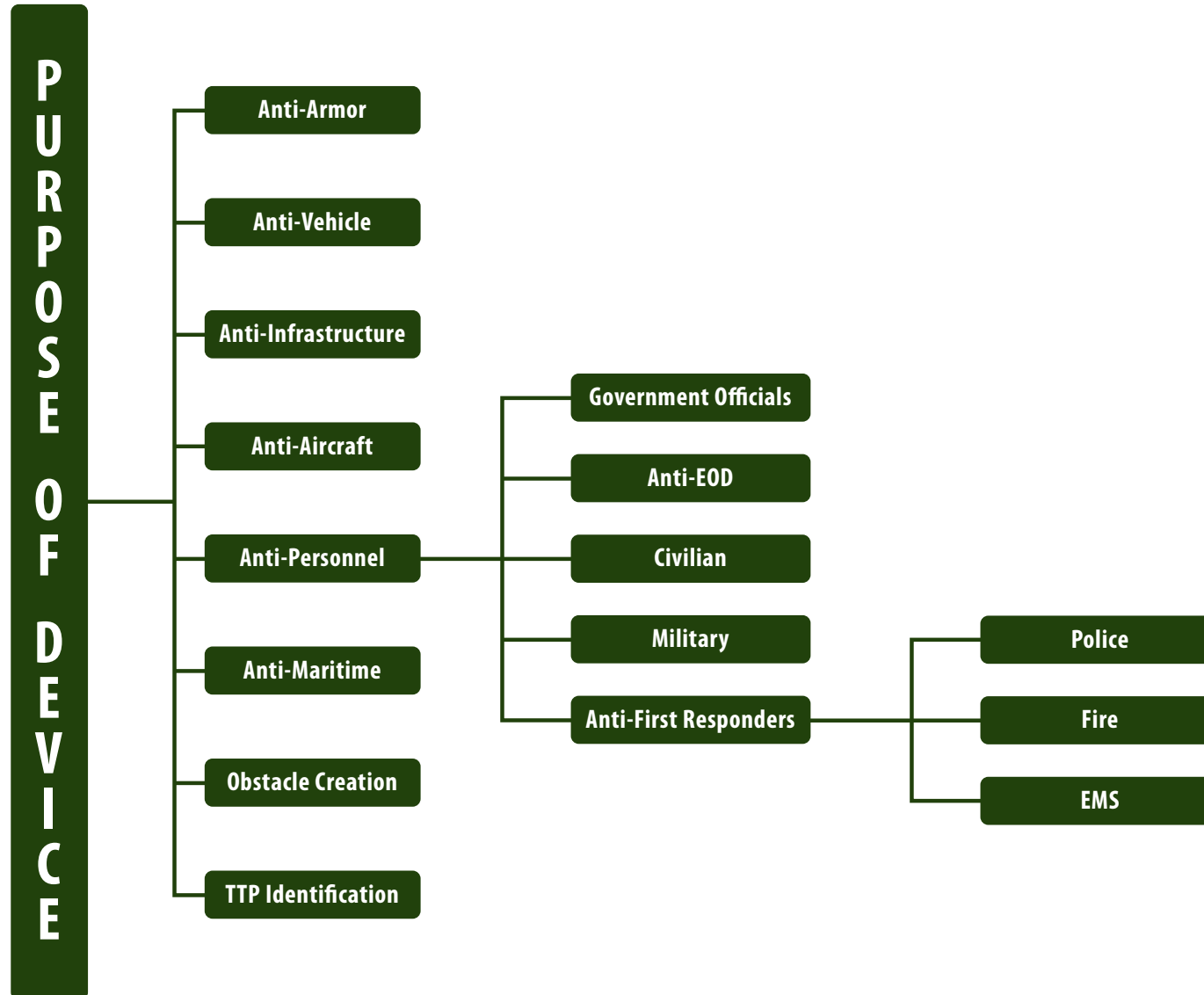
An IED delivered by or concealed in a water-based vehicle.

PURPOSE OF DEVICE

13

The immediate or direct tactical effect of the IED.

- ▶ Method of Identification
- ▶ Anti-Armor
- ▶ Anti-Vehicle
- ▶ Anti-Infrastructure
- ▶ Anti-Aircraft
- ▶ Anti-Personnel
- ▶ Anti-Maritime
- ▶ Obstacle Creation
- ▶ TTP Identification



PURPOSE OF DEVICE

15

Anti-Aircraft

An IED primarily intended to damage or destroy aircraft and/or their payload.

Anti-Armor

An IED that utilizes a directional explosive effect primarily intended to penetrate armored vehicles.

Anti-EOD

An IED primarily intended to kill or wound EOD personnel or to counter Render Safe Procedures.

Anti-First Responder

An IED primarily intended to kill or wound first responders such as police/law enforcement, medics, and firefighters.

Anti-Infrastructure

An IED primarily intended to damage or destroy physical infrastructure such as pipelines, communications towers, bridges, buildings, utility lines and/or facilities such as electrical transformers or water pump houses.

Anti-Maritime

An IED primarily intended to damage or destroy maritime vessels and/or their payload.

Anti-Personnel

An IED primarily intended to kill or wound people.

Anti-Vehicle

An IED primarily intended to damage or destroy vehicles – is not intended to penetrate a vehicle's armor.

Obstacle Creation

An IED primarily intended to create an obstacle to impede movement or channel movement into a desired location, possibly as part of a complex attack or ambush.

TTP Identification

An IED primarily intended to cause a reaction by forces in an effort to learn and understand employed tactics. This knowledge is then used by the attacker to plan new attacks incorporating the lessons learned to inflict additional casualties or to avoid countermeasures. The IED need not function to serve this purpose. A Hoax IED can have TTP Identification as its intended outcome.

TWO aspects for understanding an IED incident:

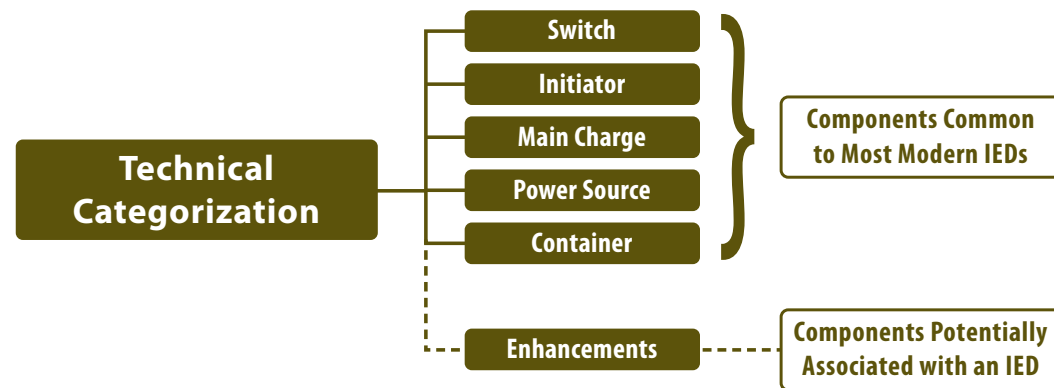
1. TACTICAL CHARACTERIZATION

2. TECHNICAL CATEGORIZATION

TECHNICAL CATEGORIZATION

17

A description of an IED using a hierarchical construct to identify its key components. The components identified in this categorization are the elements from which technical and forensic information is recovered and exploited.



SWITCH

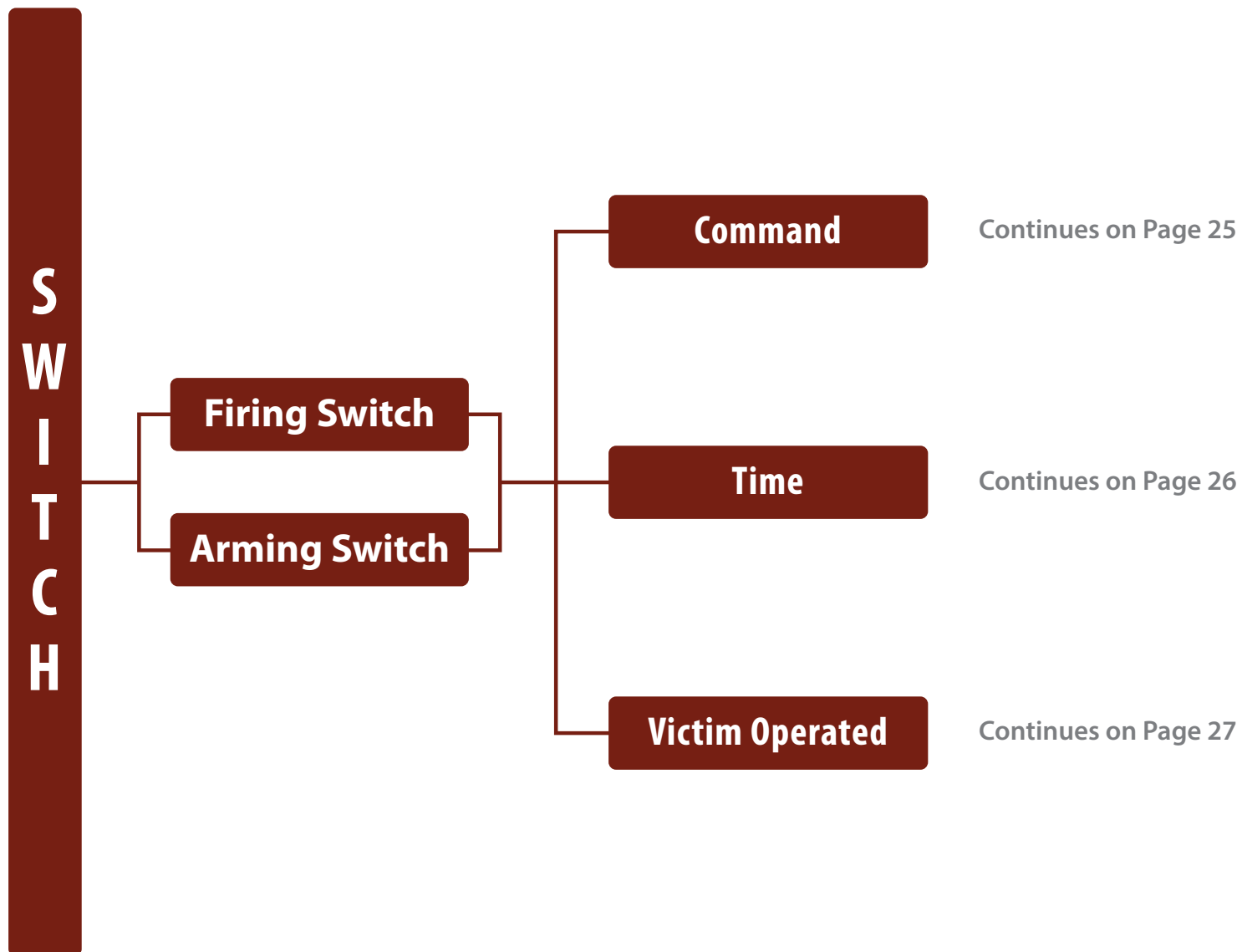
A device for making, breaking, or changing a connection in an IED.

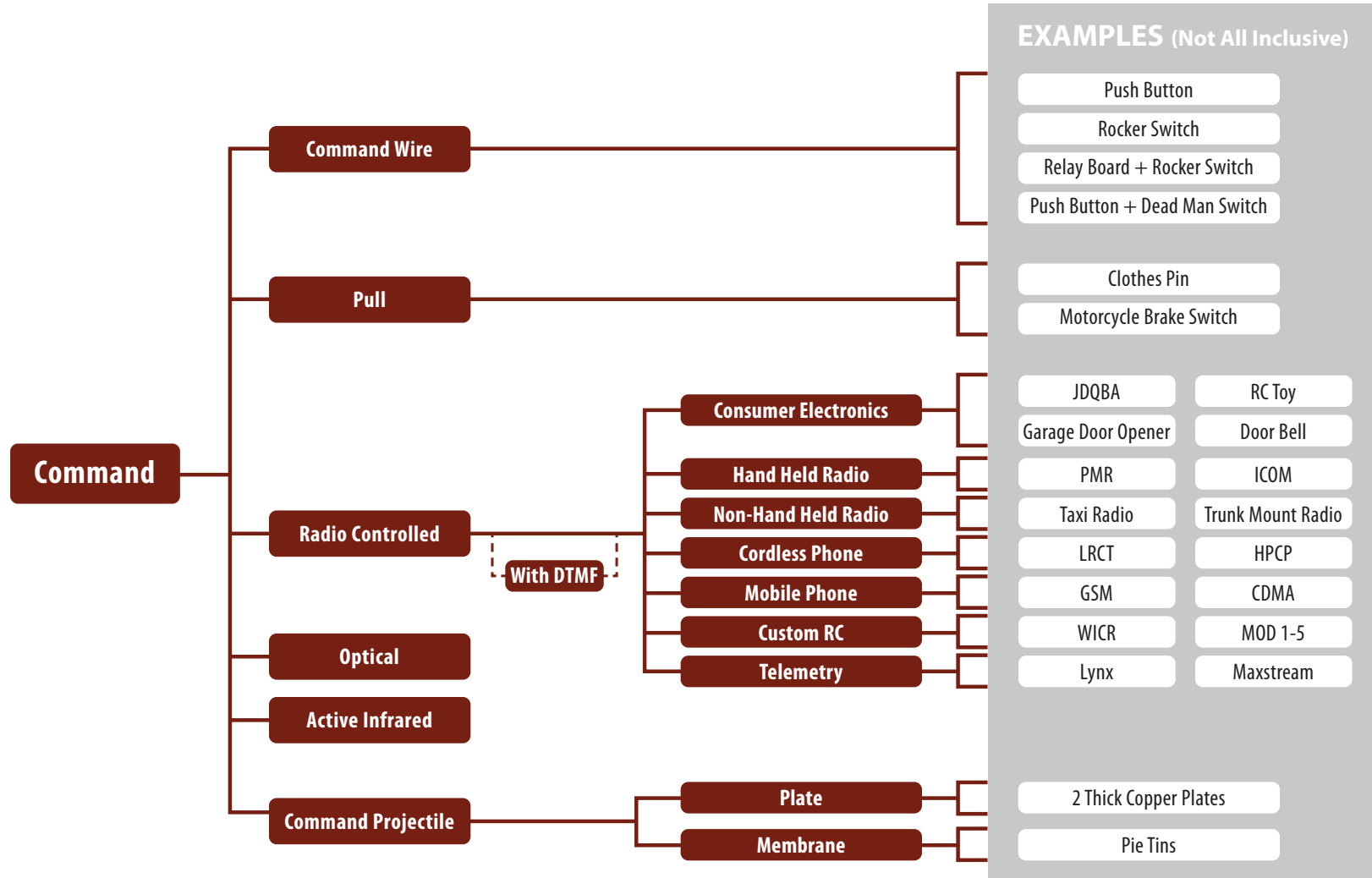
A single switch can have multiple functions (i.e., arming and firing).

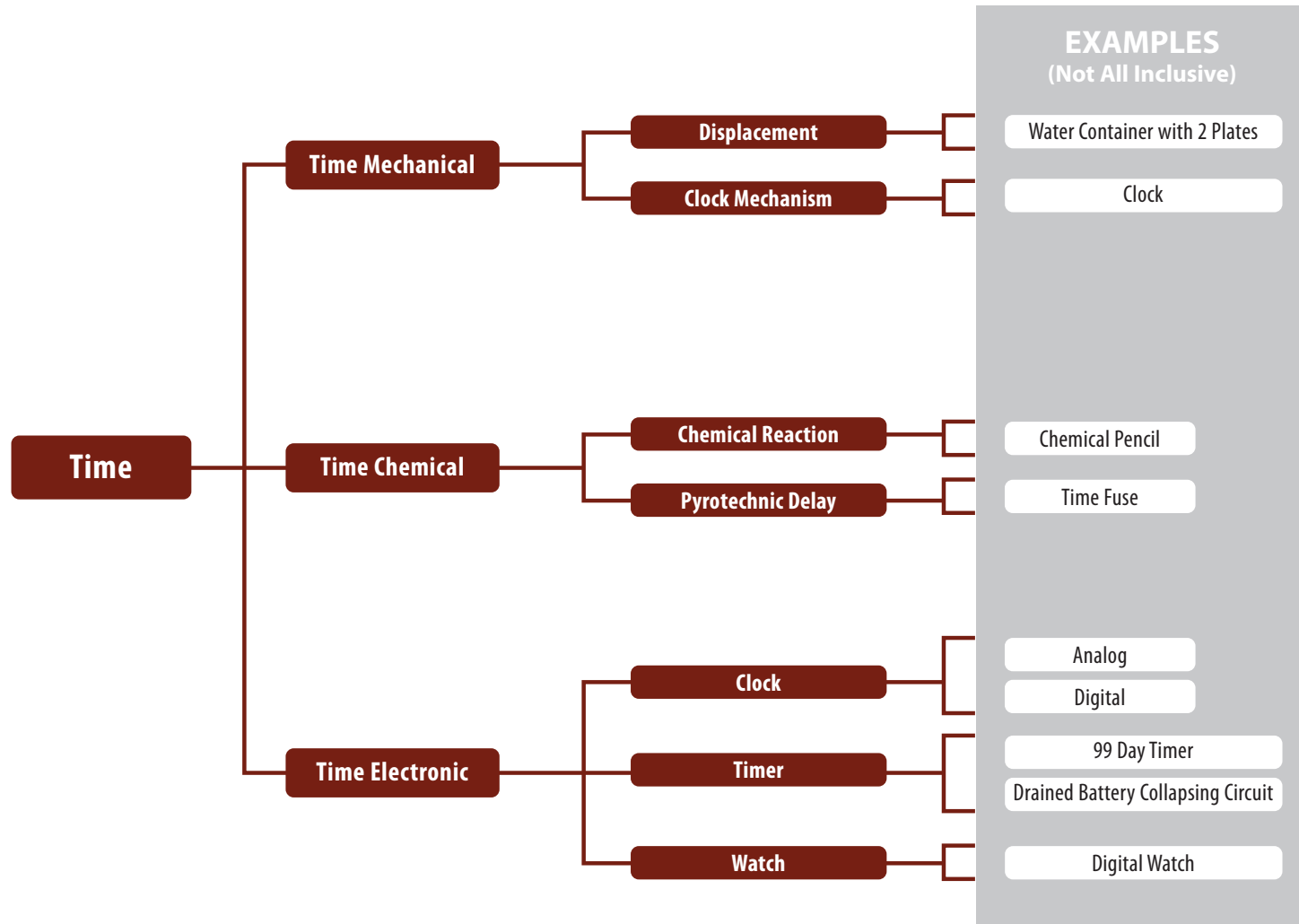
The firing switch that initiates the IED determines the device type by category (command / time / victim operated). If present, the arming switch should also be categorized.

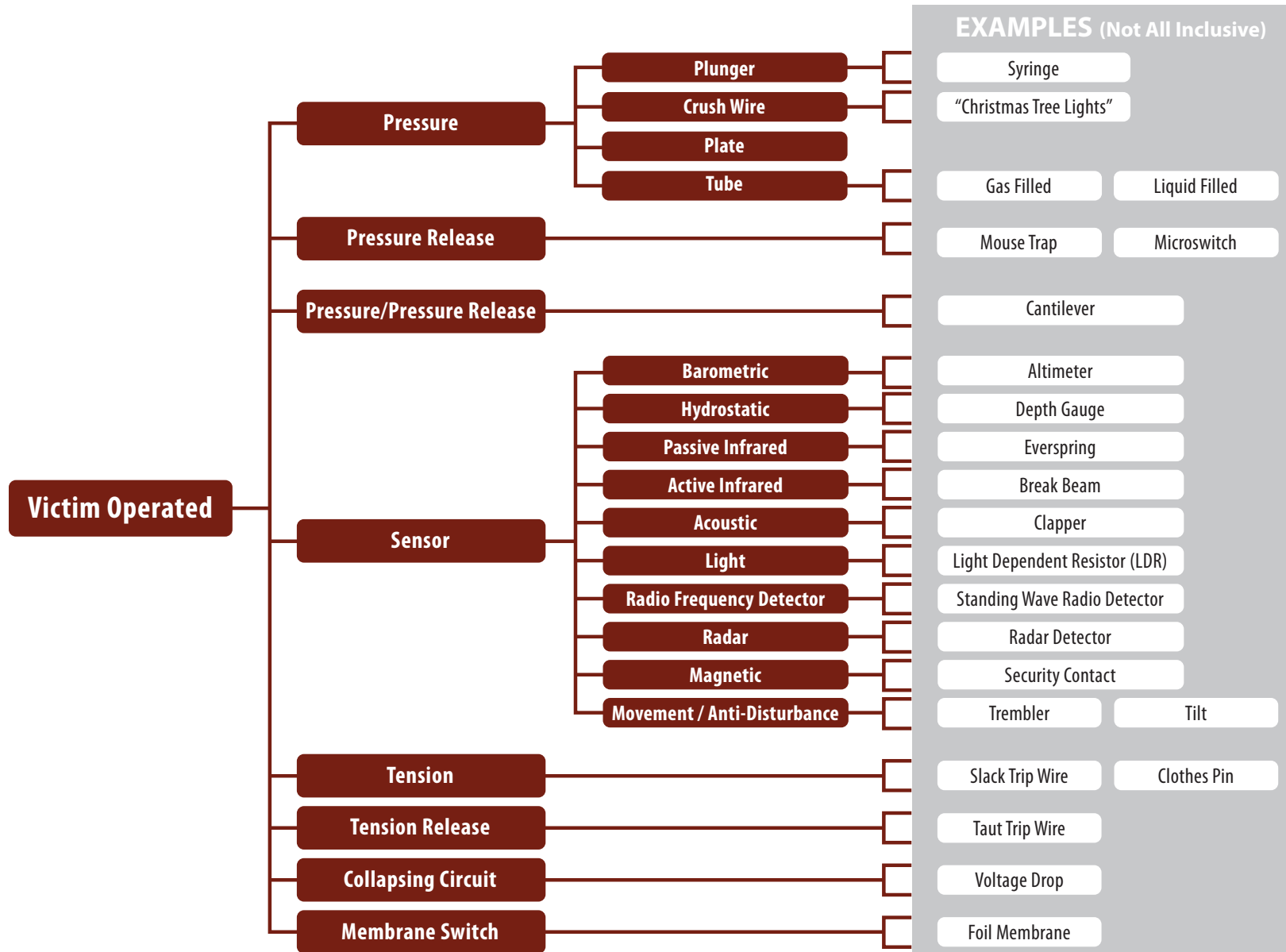
When categorizing switches it is important to understand switches can be configured in a multitude of ways. The observed configuration of the switch should be considered when categorizing the device. Also, the same configuration of components could function in more than one way.

- ▶ Firing Switch
- ▶ Arming Switch
 - ▶ Command
 - ▶ Time
 - ▶ Victim Operated









SWITCH

23

Acoustic

A sensor that passively detects and utilizes the presence of sound in order to activate an IED.

Active Infrared

A sensor that emits an infrared beam to a matched receiver forming an invisible link that, when broken, releases power to the initiator. These sensors act like an electronic version of a trip wire.

Arming Switch

A switch that prevents an IED from arming until an acceptable set of criteria has occurred and subsequently effects arming and allows functioning.

Barometric

A sensor that acts as a switch by the measurement of atmospheric (air / water) pressure.

Chemical Reaction

A switch using the reaction of chemical compounds to provide a delay before starting the initiation train.

Clock Mechanism

The internal working parts of a clock used in an improvised manner to function an IED.

Collapsing Circuit

A switch which utilizes a circuit designed to detect a failure in an active circuit by monitoring voltage or amperage levels on the target circuit (wire being cut or battery drain).

Command

A type of switch that is activated by the attacker in order to control the moment of initiation.

Command Projectile

The use of a small arms bullet to close the circuit by penetrating two metal plates. This provides standoff between the firing point and contact point.

Command Wire IED (CWIED)

A switch where the firing point and contact point are separate but joined together by a length of wire. A Command Wire may contain multiple power sources located near both the firing point and the contact point to overcome the resistance in the length of the wire.

Consumer Electronics

Simple radio controlled devices, readily available in the consumer marketplace, (not purpose-built for telecommunication purposes).

Crush Wire

Contact point(s) spanning a length of wire that function an IED when crushed.

Custom Radio Controlled (RC)

A purpose built radio controlled circuit board.

Displacement

A switch that utilizes a jug or other container, with two contacts, one fixed and one floating. As a substance dissipates or fills the container, the contacts meet and complete the circuit.

Dual Tone Multi-Frequency (DTMF)

A pairing of transmitter and receiver utilizing dual tones and multiple frequency hardware that allows for precision arming and firing, thus preventing unintended firing.

Firing Switch

The component that initiates the explosive train.

Hydrostatic

A switch designed to complete a circuit or force a mechanical action with the change of fluid pressure.

Light / Photo-electric

A sensor acting as a switch that is looking for a change in ambient light (either light to dark or dark to light).

Long Range Cordless Telephone (LRCT)

A switch utilizing a cordless telephone that has the capability to transmit signal significantly further than a normal telephone from the base station.

Magnetic

A proximity switch using a magnetic field to arm or fire an IED. This can sense an active field and close the switch when the field is disturbed; or react upon coming near a magnetic field.

Membrane

A switch incorporating two metal layers, separated by an insulator that functions the IED when perforated or when pressure is applied.

SWITCH (continued)

Movement / Anti-Disturbance

A switch that causes two parts to make contact, completing a circuit after a disturbance to the IED (tilt, vibration).

Passive Infrared

A switch that detects movement of a heat source. When the change in ambient temperature is detected, the sensor acts as a trigger to function the IED.

Plunger

A switch utilizing a shaft, like that found in a syringe, where application of pressure on the head of the device will force the shaft downward, functioning the IED.

Pressure

A switch designed to function when pressure is applied in a predetermined direction (plate, tube, plunger, crush wire).

Pressure and Pressure Release

A method for activating the device that occurs as a result of either application or reduction of pressure.

Pressure Release

A switch for activating the device that occurs as a result of reductions in pressure.

Pull

A switch that functions when a person applies tension to a firing mechanism – such as pulling a spring. The tension causes an action that releases a firing pin or activates an electrical or electronic switch.

Pyrotechnic Delay

A pyrotechnic device added to a firing system which transmits the ignition flame after a predetermined delay.

Radar

A sensor that passively detects radar signals and power, usually operating within a specific range, in order to function an IED.

Radio Controlled IED (RCIED)

A switch initiated electronically by wireless means consisting of a transmitter / receiver.

Radio Frequency Detector

A sensor that passively detects RF signals and power, usually operating within a specific range, in order to function an IED.

Sensor

A switch used to detect change in heat, light, movement, vibration, electromagnetic frequency, sound or magnetic field.

Telemetry

A switch utilizing paired RF modules that transmit and receive binary data.

Tension

A switch that functions when tension is applied to a firing mechanism – such as pulling a trip wire. The tension causes an action that releases a firing pin or activates an electrical or electronic switch.

Tension Release

A switch that functions when tension is released – such as when a taut wire or cord is cut or broken – releasing a spring-loaded firing pin or closes electrical contacts initiating the device.

Tilt

A switch that allows current to flow to the output wires after a conductive material (i.e., mercury or a ball bearing) is moved enough (up / down, left / right) to flow onto the switch contacts, completing the circuit.

Time

A type of switch that functions after a set time. Used widely against infrastructure targets.

Time Chemical

A chemical timing switch using a corrosive chemical with a known decomposition rate that is designed to destroy a physical restraint on a triggering device to start the initiation train.

Time Electronic

A timing switch using a commercial or improvised electric timer or integrated circuit to start the initiation train.

Time Fuse / Safety Fuse

A pyrotechnic burning at a certain rate used to transmit a flame to the non-electric detonator or a low explosive charge with a predetermined delay.

Time Mechanical

A timing switch constructed or modified so that physical contact between two parts of the timing mechanism complete an electrical circuit.

Victim Operated IED (VOIED)

A type of switch that is activated by the actions of an unsuspecting individual. These instruments rely on the intended target to carry out some form of action that will cause it to function.

INITIATOR

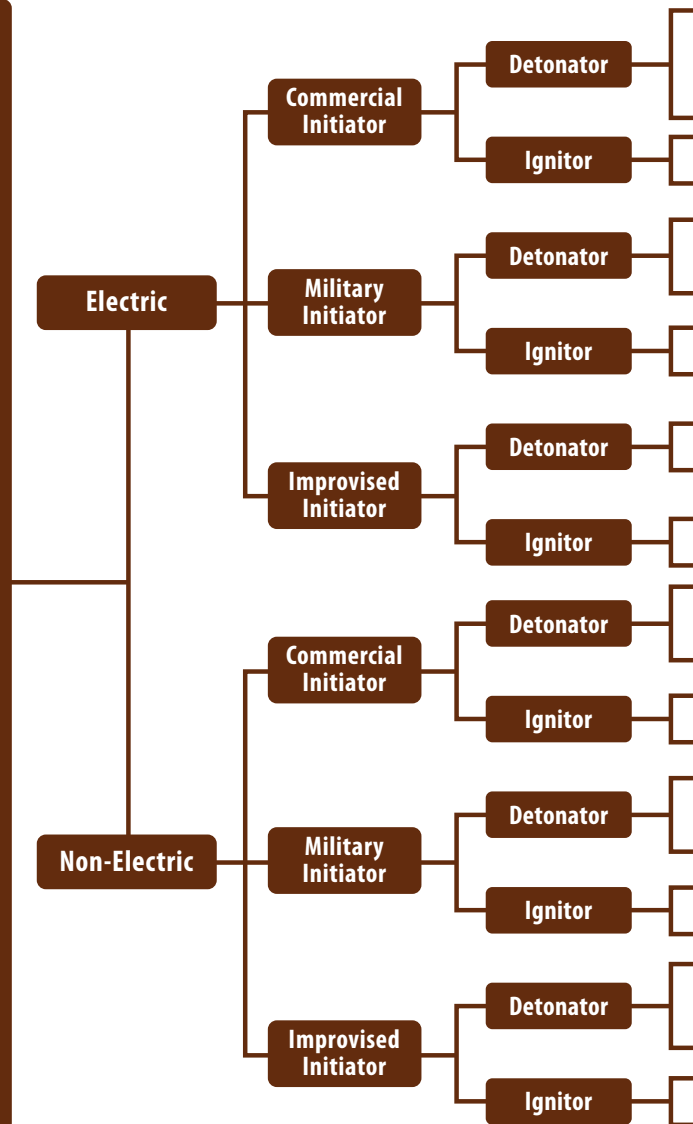
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Any component that may be used to start a detonation or deflagration.

An initiator will be categorized as either a detonator or an igniter.

- ▶ Electric
- ▶ Non-Electric

INITIATOR



EXAMPLES (Not All Inclusive)

Standard Electric Detonator	Electronic Detonator	Exploding Foil Bridge
Delay	Exploding Bridge Wire	Semi-Conducting Bridge
Electric Ignitor	Electronic Lighter	Squib
Electric Detonator / Electric Blasting Cap		
Ignitor Safety Fuse Electric		
Flash Bulb + Mercury Fulminate	Light Bulb + PETN	
Nails + Cork + Wire + Flash Powder	22 Guage Wire + Copper Wire + Match Heads + Morning Glory Powder	
Plain Detonator / Non-Electric Blasting Cap	Shock Tube	
Pyrotechnic Ignitor		
Plain Detonator / Non-Electric Blasting Cap		
Match Fuse		
Striker Assembly + .22 Cap + Fuse + Plain Detonator	Friction Bar + Armstrong's Mixture	
Latex Rubber + Acid	Hypergolic	

INITIATOR

29

Blasting Cap / Detonator

A device containing a sensitive explosive intended to produce a detonation wave. Can be either electric or nonelectric (plain).

Electric

An initiator whose function is initiated by an electrical impulse that creates heat or a spark.

Electronic

An initiator controlled or operated by the controlled flow of electrons.

Exploding Bridge Wire (EBW)

An initiator or system in which a very high-energy electrical impulse is passed through a bridge wire, literally exploding the bridge wire and releasing thermal and shock energy capable of initiating a relatively insensitive explosive in contact with the bridge wire.

Heat

A type of initiator that serves as an igniting element through the application of heat. This may include direct heat to a sensitive explosive.

Ignitor

A device designed to produce a flame or a spark to initiate an explosive train.

Light Bulb / Flash Bulb

Devices used as electric initiators that incorporate an improvised use of the bulb filament to initiate primary or low explosives.

Non-electric

An initiator that functions by other than electric means (friction, chemical, impact).

Percussion

An initiator that serves as an igniting element when mechanically struck.

Shock Tube

A thin, plastic tube of extruded polymer with a layer of powdered high explosive deposited on its interior surface that propagates a detonation wave to the blasting cap.

INITIATOR (continued)

30

Time Fuse / Safety Fuse

A pyrotechnic burning at a certain rate used to transmit a flame to the non-electric detonator or a low explosive charge with a predetermined delay.

MAIN CHARGE

31

The explosive charge which is provided to accomplish the end result in a munition.

- ▶ High Explosives
- ▶ Low Explosives
- ▶ Main Charge Configuration

Examples for end results are:
bursting a casing to provide blast and fragmentation;
splitting a canister to dispense sub-munitions; or producing other effects for which it may be designed.

**M
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E****High Explosive**

Commercial Explosives

Military Explosives

Improvised Explosives / HME

Continues on Page 39

Low Explosive

Commercial Explosives

Military Explosives

Improvised Explosives / HME

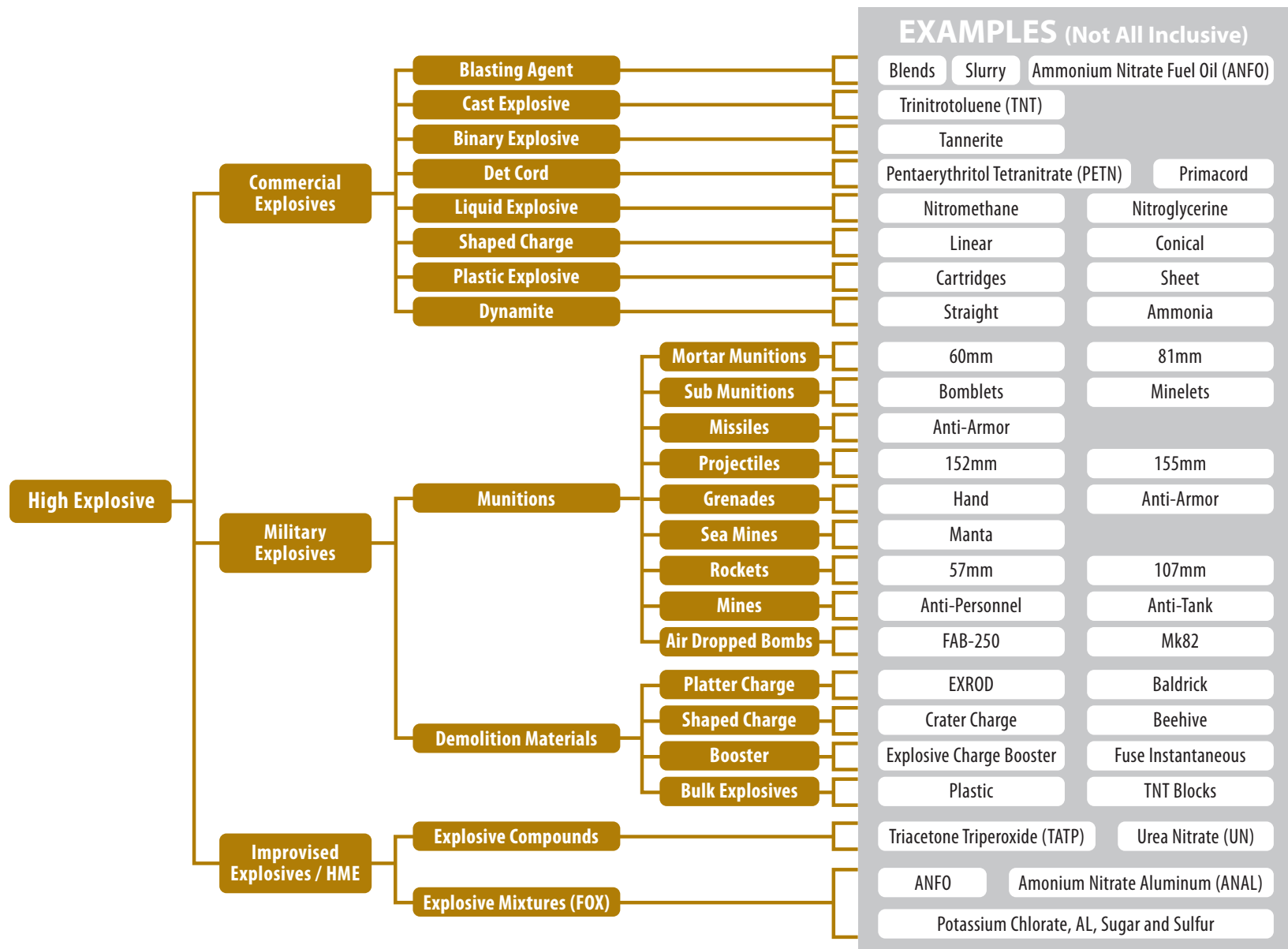
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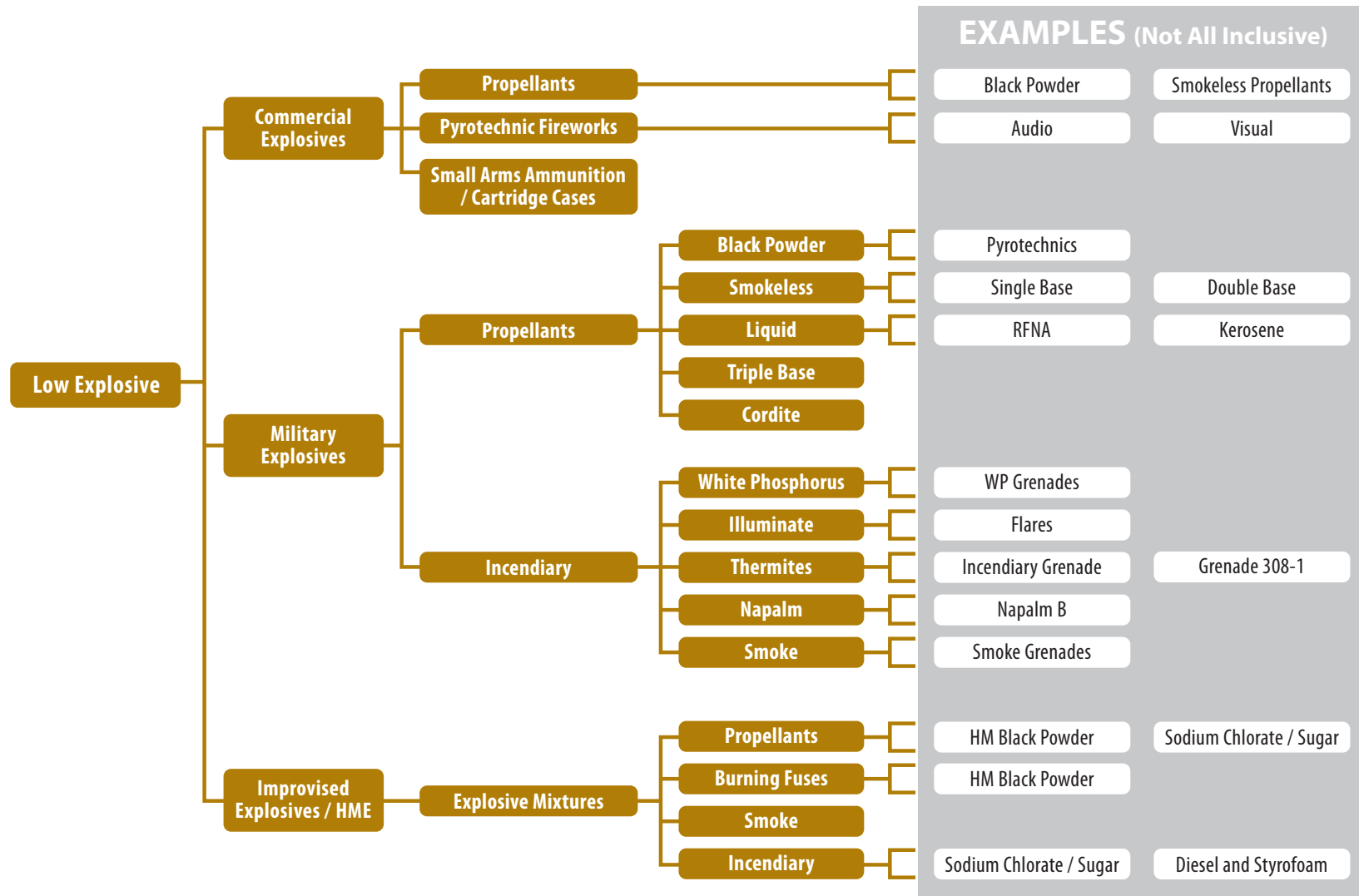
Main Charge Configuration

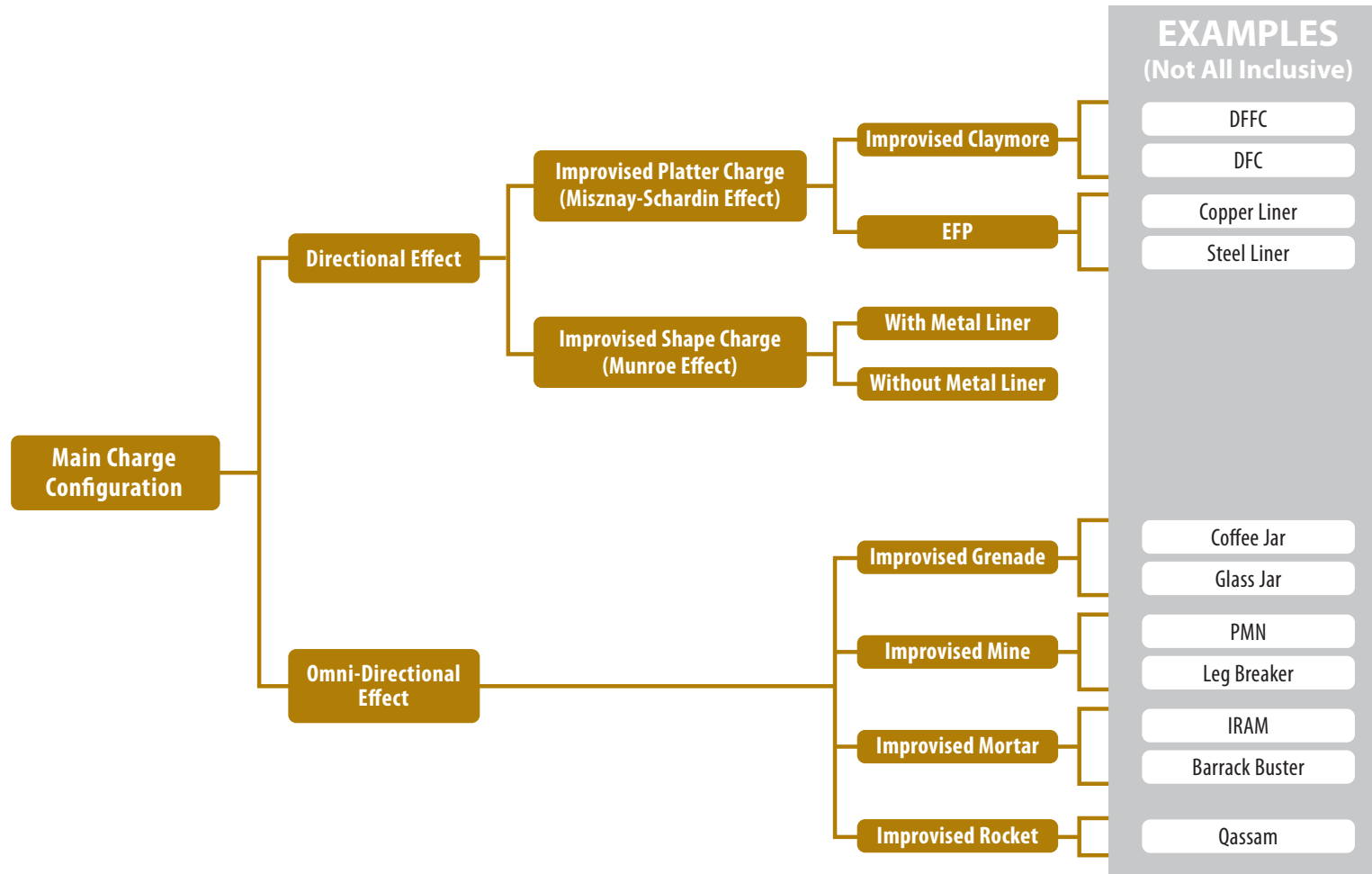
Directional Effect

Omni-Directional (Blast Effect)

Continues on Page 41







MAIN CHARGE

Air-Dropped Bomb

Explosive article dropped from an aircraft. It may contain a flammable liquid with a bursting charge, a photo-flash composition or a bursting charge.

Binary Explosive

An explosive formed by combining two non-explosive materials (an oxidizer and a fuel).

Blasting Accessory

Devices and materials used in blasting. Examples are: cap crimpers, tamping bags, blasting machines, and blasting galvanometers.

Blasting Agent

An explosive material which meets prescribed criteria for insensitivity to initiation. Generally a non-detonator

sensitive explosive that must be initiated by a booster to detonate. May be configured in cartridge form or as a mass of explosive material prepared for use on site without packaging.

Booster

A high explosive element sufficiently sensitive so as to be actuated by small explosive elements and powerful enough to cause detonation of the main charge filling (initiator » booster » maincharge).

Bulk Explosives

Manufactured explosive charges in their original packaging or that have been removed from weapons or munitions.

Cast Explosive

Any explosive poured in liquid form and allowed to harden.

Commercial Explosives

Explosives produced and used for commercial, industrial, or recreational applications.

Detonating Cord

A waterproof, flexible fabric tube containing a high explosive designed to transmit the detonation wave.

Directional Effect

Type of main charge configuration where the explosive effect is channeled to an intended area.

Dynamite

A high explosive used for blasting, consisting essentially of a mixture of, but not limited to, nitroglycerin, nitrocellulose, ammonium nitrate, sodium nitrate, and carbonaceous materials.

Explosive Compounds

Explosive compounds are homogeneous substances whose molecules contain within themselves the oxygen, carbon, and hydrogen necessary for combustion.

Explosively Formed Projectile (EFP)

Specially designed main charge configuration incorporating an explosive charge with a concave metal liner which by the force of the charge reshapes the plate into a high velocity metal slug capable of penetrating armor.

Fuel Oxidizer eXplosive (FOX) Mixture

An explosive mixture of fuel and oxidizer that deflagrates (very rapid burning) or detonates creating a blast wave.

High Explosive

A chemical compound or mixture that is capable of supporting or sustaining a detonation wave. High explosives do not require confinement as they combust instantaneously producing heat, gas, a rapid expansion of matter, and a detonation / shock wave.

Improvised Claymore

An improvised weapon, military or homemade, designed to explosively propel a pattern of ball bearings or other fragmentation in an aimed direction.

Improvised Explosive (IE) / Homemade Explosive (HME)

Non-standard explosive mixtures / compounds which have been formulated / synthesized from available ingredients. Most often utilized in the absence of commercial / military explosives.

Improvised Grenade

An improvised weapon, using military or homemade components, designed to explode when a restraint is removed (usually hand held, but can be projected).

Improvised Mortar

An improvised weapon, using military or homemade components, designed to launch an explosive charge to the target.

MAIN CHARGE (continued)

38

Improvised Rocket

An improvised weapon, using military or homemade components, designed to propel an explosive charge to the target.

Incendiary

Chemical mixtures and flammable liquids that cause fire.

Liquid Explosive

An explosive material in a liquid state. Examples include nitric acid esters (e.g. nitroglycerin, nitroglycol) and EDGN.

Low Explosive

A chemical compound or mixture that is designed to deflagrate (rapid burn) and generally require confinement to explode.

Main Charge Configuration

The arrangement or design of the main charge and other materials (usually metal) to create an effective weapon to attack personnel, vehicles, or structures.

Military Explosives

Explosives manufactured for military use.

Mine

In land mine warfare, an explosive munition designed to be placed under, on or near the ground or other surface area and to be actuated by the presence, proximity or contact of a person, land vehicle, aircraft or boat, including landing craft.

Missile

A self-propelled munition whose trajectory or course is controlled while in flight.

Misznay-Schardin Effect

A characteristic of the detonation of a broad sheet of explosive. The explosive blast expands directly away from (perpendicular to) the surface of an explosive.

Mortar Munition

The complete munition, comprised of projectile and propellant system, to be fired from the mortar. The projectile normally comprises fuze, body filled with high explosives (HE) or other filling, obturator, and tail assembly.

Munition

A complete device charged with explosives, propellants, pyrotechnics, initiating composition or chemical, biological, radiological or nuclear material, for use in military operations, including demolitions.

Munroe Effect

A focusing of blast energy caused by a hollow or void cut into the surface of an explosive.

Omni-directional Effect

An aspect of main charge configuration where the explosion expands in all directions.

Plastic Explosive

A malleable or flexible explosive at room temperature.

Platter Charge

The use of an explosive to propel a metal plate toward a target in a manner where the plate remains intact.

Projectile

An object, projected by an applied exterior force and continuing in motion by virtue of its own inertia. Projectiles can have a variety of fillers including explosives or chemicals.

Propellant

An explosive material that normally functions by burning to produce a controlled release of gasses used for propulsion purposes.

Rocket

Self-propelled ordnance that uses gas pressure from rapidly burning propellant to transport a payload (warhead) to a desired target.

Sea Mine

An explosive device laid in the water with the intention of damaging or sinking ships or of deterring shipping from entering an area. The term sea mine does not include devices attached to the bottom of ships or to harbor installations by personnel operating underwater.

Shaped Charge

A main charge configuration incorporating explosives shaped so as to concentrate explosive force utilizing the Munroe Effect in a particular direction in order to cut or penetrate.

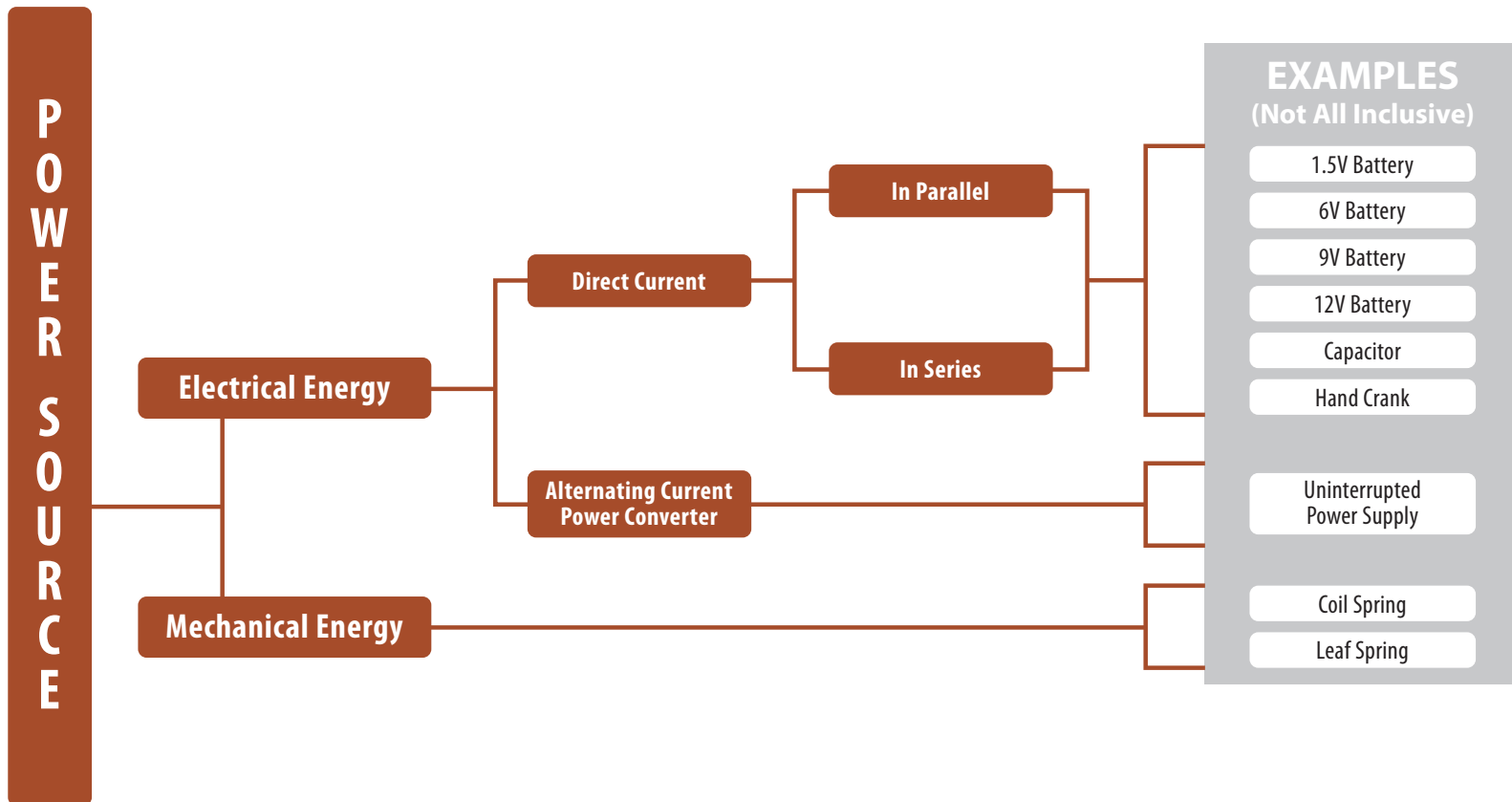
Submunition

Any munition that, to perform its task, separates from a parent munition. Submunitions are classified as bomblets, grenades, or mines.

POWER SOURCE

A device that stores or releases electrical or mechanical energy. The key elements of information about a power source are its type and source, number of batteries and their configuration (series or parallel), its voltage (if electrical) and how it is connected to close an IED switch.

- ▶ Electrical Energy
- ▶ Mechanical Energy



POWER SOURCE

Alternating Current (AC)

Electric current that flows through a circuit in both directions with the change in direction occurring with a well-defined and specified frequency.

Direct Current (DC)

Electric current that flows through a circuit in just one direction.

In Parallel

Multiple batteries or other power sources which have their positive terminals connected to one another and their negative terminals connected to one another which results in an increase in the available current.

In Series

Multiple batteries or other power sources which have one positive terminal connected to the negative terminal of the next power source which results in an increase in the available voltage.

Mechanical Energy

Stored or applied energy that results in physical movement of an IED component.

Series-Parallel Circuit

A combination of one or more series circuits and parallel circuits.

CONTAINER

43

Concealment

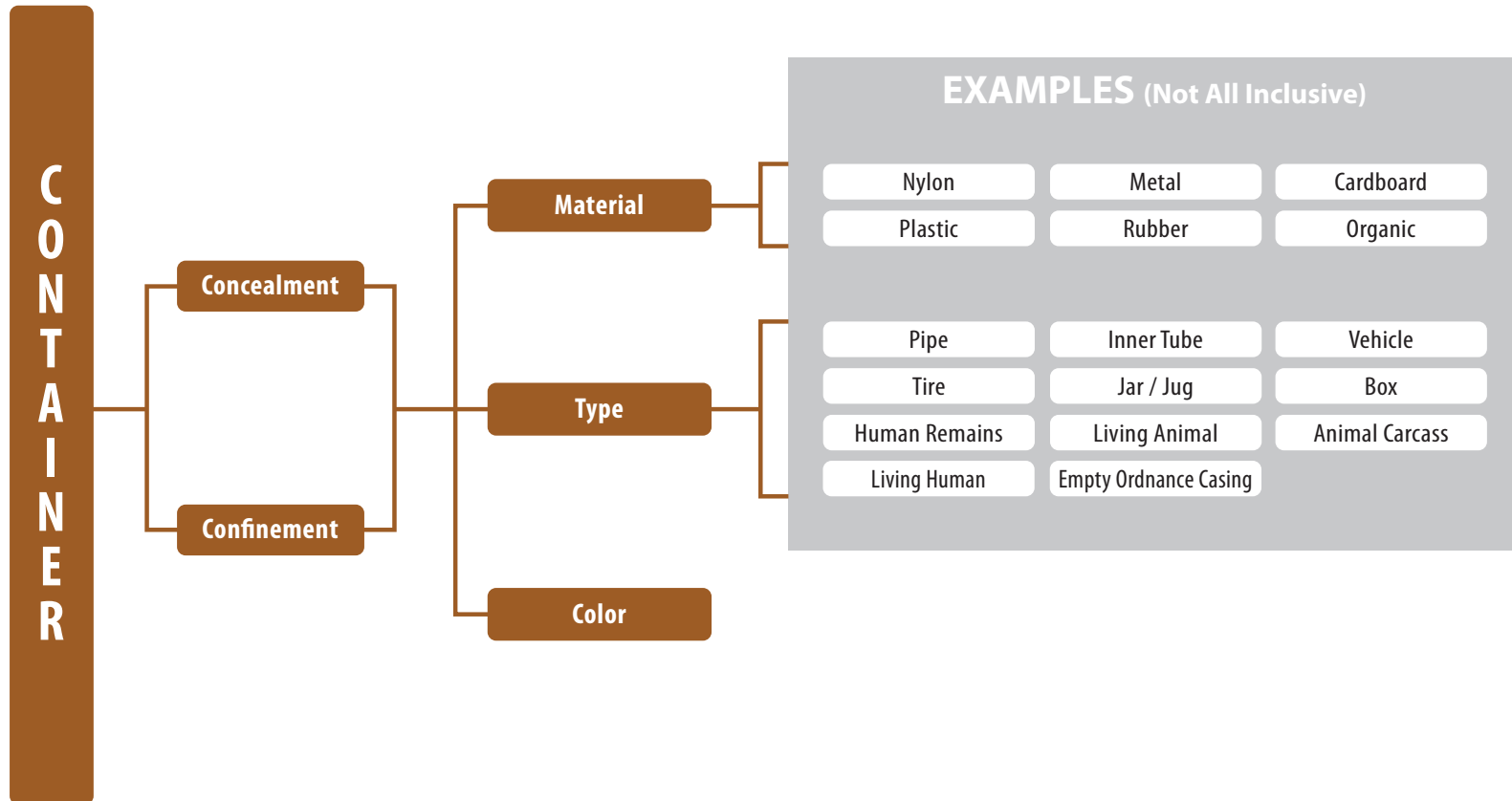
A vessel commonly used to prevent the discovery of an IED by visual inspection. May also be used to add fragmentation.

► Concealment

► Confinement

Confinement

A vessel commonly used to hold the main charge together. May also be used to add fragmentation.



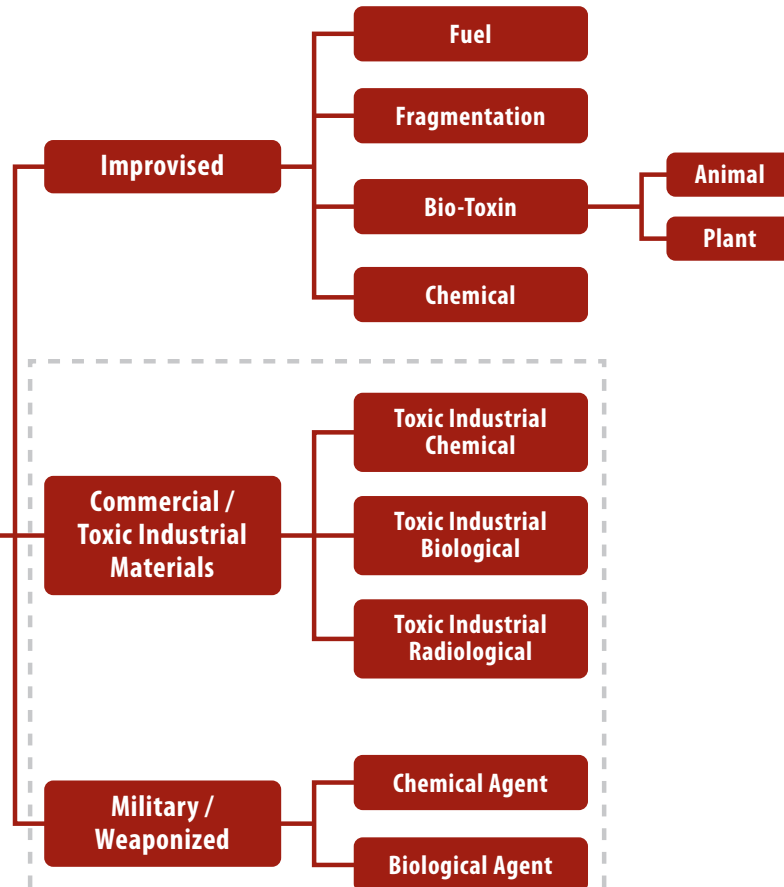
ENHANCEMENTS

45

An optional, deliberately added component as opposed to a secondary hazard which modifies the effects of the IED. The IED would be effective, yet produce a different measurable result if this material were not added. The effect can be additional physical destruction, proliferation of dangerous substances (radiation, chemicals, etc.), or other results to enhance the effect of the IED.

- ▶ Improvised
- ▶ Commercial / Toxic Industrial Materials
- ▶ Military / Weaponized

The terminology in this lexicon only applies to enhancements used as secondary effect of the IED, not Weapons of Mass Destruction (WMD), where the primary tactical outcome is the explosive effect.

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The terminology in this lexicon only applies to enhancements used as secondary effect of the IED, not Weapons of Mass Destruction (WMD), where the primary tactical outcome is the explosive effect.

ENHANCEMENTS

47

Bio-Toxin

A toxic substance produced by and derived from plants and animals.

Biological Agent

A microorganism that causes disease in personnel, plants, or animals or causes the deterioration of materiel.

Chemical Agent

A chemical substance which is intended for use in military operations to kill, seriously injure, or incapacitate mainly through its physiological effects. The term excludes riot control agents when used for law enforcement purposes, herbicides, smoke, and flames.

Fragmentation

Small objects designed to be accelerated by explosive forces.

Fuel

An incendiary material designed to enhance the burning and visual effect of the device.

Radiological Dispersal Device (RDD)

An improvised assembly or process, other than a nuclear explosive device, designed to disseminate radioactive material in order to cause destruction, damage, or injury.

Toxic Industrial Biological (TIB)

Any biological material manufactured, used, transported, or stored by industrial, medical, or commercial processes which could pose an infectious or toxic threat.

Toxic Industrial Chemical (TIC)

A chemical developed or manufactured for use in industrial operations or research by industry, government, or academia. For example: pesticides, petrochemicals, fertilizers, corrosives, poisons, etc. These chemicals are not primarily manufactured for the specific purpose of producing human casualties or rendering equipment, facilities, or areas dangerous for human use. Hydrogen cyanide, cyanogen chloride, phosgene, and chloropicrin are industrial chemicals that can also be military chemical agents.

ENHANCEMENTS (continued)

Toxic Industrial Material (TIM)

A generic term for toxic or radioactive substances in solid, liquid, aerosolized, or gaseous form that may be used, or stored for use, for industrial, commercial, medical, military, or domestic purposes. Toxic industrial material may be chemical, biological, or radioactive and described as toxic industrial chemical, toxic industrial biological, or toxic industrial radiological.

Toxic Industrial Radiological (TIR)

Any radiological material manufactured, used, transported, or stored by industrial, medical, or commercial processes. For example: spent fuel rods, medical sources, etc.

GLOSSARY

49

Term	Acronym	Definition	Page #
Acoustic		A sensor that passively detects and utilizes the presence of sound in order to activate an IED.	23
Active Infrared		A sensor that emits an infrared beam to a matched receiver forming an invisible link that, when broken, releases power to the initiator. These sensors act like an electronic version of a trip wire.	23
Air Borne IED	ABIED	An IED delivered by or concealed in an air-based vehicle.	10
Air-Dropped Bomb		Explosive article dropped from an aircraft. It may contain a flammable liquid with a bursting charge, a photo-flash composition or a bursting charge.	36
Alternating Current	AC	Electric current that flows through a circuit in both directions with the change in direction occurring with a well-defined and specified frequency.	42
Animal Borne IED		An IED delivered to a target by means of an animal.	10
Anti-Aircraft		An IED primarily intended to damage or destroy aircraft and/or their payload.	15
Anti-Armor		An IED that utilizes a directional explosive effect primarily intended to penetrate armored vehicles.	15
Anti-EOD		An IED primarily intended to kill or wound EOD personnel or to counter Render Safe Procedures.	15
Anti-First Responder		An IED primarily intended to kill or wound first responders such as police/law enforcement, medics, and firefighters.	15

GLOSSARY (continued)

Term	Acronym	Definition	Page #
Anti-Infrastructure		An IED primarily intended to damage or destroy physical infrastructure such as pipelines, communications towers, bridges, buildings, utility lines and/or facilities such as electrical transformers or water pump houses.	15
Anti-Maritime		An IED primarily intended to damage or destroy maritime vessels and/or their payload.	15
Anti-Personnel		An IED primarily intended to kill or wound people.	15
Anti-Vehicle		An IED primarily intended to damage or destroy vehicles – is not intended to penetrate a vehicle's armor.	15
Arming Switch		A switch that prevents an IED from arming until an acceptable set of criteria has occurred and subsequently effects arming and allows functioning.	23
Associated Components		Components that are: 1) part of an IED or improvised weapon system; 2) the tools required to produce the components; or 3) precursors to the manufacture of IED components to include explosives.	1
Attack Geography		A description of the road segment, buildings, foliage, etc. Understanding the geography indicates enemy use of landscape to channel tactical response, slow friendly movement, or prevent pursuit of enemy forces.	10
Barometric		A sensor that acts as a switch by the measurement of atmospheric (air /water) pressure.	23
Binary Explosive		An explosive formed by combining two non-explosive materials (an oxidizer and a fuel).	36
Biological Agent		A microorganism that causes disease in personnel, plants, or animals or causes the deterioration of materiel.	47
Bio-Toxin		A toxic substance produced by and derived from plants and animals.	47

Term	Acronym	Definition	Page #
Blasting Accessory		Devices and materials used in blasting. Examples are: cap crimpers, tamping bags, blasting machines, and blasting galvanometers.	36
Blasting Agent		An explosive material which meets prescribed criteria for insensitivity to initiation. Generally a non-detonator sensitive explosive that must be initiated by a booster to detonate. May be configured in cartridge form or as a mass of explosive material prepared for use on site without packaging.	36
Blasting Cap / Detonator		A device containing a sensitive explosive intended to produce a detonation wave. Can be either electric or nonelectric (plain).	29
Booster		A high explosive element sufficiently sensitive so as to be actuated by small explosive elements and powerful enough to cause detonation of the main charge filling (initiator » booster » maincharge).	36
Bulk Explosives		Manufactured explosive charges in their original packaging or that have been removed from weapons or munitions.	36
Cast Explosive		Any explosive poured in liquid form and allowed to harden.	36
Chemical Agent		A chemical substance which is intended for use in military operations to kill, seriously injure, or incapacitate mainly through its physiological effects. The term excludes riot control agents when used for law enforcement purposes, herbicides, smoke, and flames.	47
Chemical Reaction		A switch using the reaction of chemical compounds to provide a delay before starting the initiation train.	23
Clock Mechanism		The internal working parts of a clock used in an improvised manner to function an IED.	23
Collapsing Circuit		A switch which utilizes a circuit designed to detect a failure in an active circuit by monitoring voltage or amperage levels on the target circuit (wire being cut or battery drain).	23

GLOSSARY (continued)

Term	Acronym	Definition	Page #
Command		A type of switch that is activated by the attacker in order to control the moment of initiation.	23
Command Projectile		The use of a small arms bullet to close the circuit by penetrating two metal plates. This provides standoff between the firing point and contact point.	23
Command Wire IED	CWIED	A switch where the firing point and contact point are separate but joined together by a length of wire. A Command Wire may contain multiple power sources located near both the firing point and the contact point to overcome the resistance in the length of the wire.	23
Commercial Explosives		Explosives produced and used for commercial, industrial, or recreational applications.	36
Concealment		A vessel commonly used to prevent the discovery of an IED by visual inspection. May also be used to add fragmentation.	43
Confinement		A vessel commonly used to hold the main charge together. May also be used to add fragmentation.	43
Consumer Electronics		Simple radio controlled devices, readily available in the consumer marketplace, (not purpose-built for telecommunication purposes).	24
Crush Wire		Contact point(s) spanning a length of wire that function an IED when crushed.	24
Custom Radio Controlled	RC	A purpose built radio controlled circuit board.	24
Detonating Cord		A waterproof, flexible fabric tube containing a high explosive designed to transmit the detonation wave.	36
Direct Current	DC	Electric current that flows through a circuit in just one direction.	42
Directional Effect		Type of main charge configuration where the explosive effect is channeled to an intended area.	36

Term	Acronym	Definition	Page #
Displacement		A switch that utilizes a jug or other container, with two contacts, one fixed and one floating. As a substance dissipates or fills the container, the contacts meet and complete the circuit.	24
Dual Tone Multi-Frequency	DTMF	A pairing of transmitter and receiver utilizing dual tones and multiple frequency hardware that allows for precision arming and firing, thus preventing unintended firing.	24
Dynamite		A high explosive used for blasting, consisting essentially of a mixture of, but not limited to, nitroglycerin, nitrocellulose, ammonium nitrate, sodium nitrate, and carbonaceous materials.	36
Electric		An initiator who's function is initiated by an electrical impulse that creates heat or a spark.	29
Electronic		An initiator controlled or operated by the controlled flow of electrons.	29
Elevated		IED emplaced above the surface: hanging from an overpass, on a roof, etc.	10
Emplacement		A description of where a device was placed to attack the intended target.	10
Enhancements		An optional, deliberately added component as opposed to a secondary hazard which modifies the effects of the IED. The IED would be effective, yet produce a different measurable result if this material were not added.	45
Estimated Net Explosive Weight		A reference to the estimated weight of the main charge derived from observations of the blast effects and crater characteristics.	10
Event Signature Development / Device Profiling		The process of analyzing the tactical and technical identifiers of an IED incident to support force protection, targeting, prosecution, and sourcing.	1

GLOSSARY (continued)

Term	Acronym	Definition	Page #
Exploding Bridge Wire	EBW	An initiator or system in which a very high-energy electrical impulse is passed through a bridge wire, literally exploding the bridge wire and releasing thermal and shock energy capable of initiating a relatively insensitive explosive in contact with the bridge wire.	29
Explosion		A nuclear, chemical or physical process leading to the sudden release of energy.	1
Explosive Compounds		Explosive compounds are homogeneous substances whose molecules contain within themselves the oxygen, carbon, and hydrogen necessary for combustion.	37
Explosive Train		A succession of initiating and igniting elements arranged to cause a charge to function.	1
Explosively Formed Projectile	EFP	Specially designed main charge configuration incorporating an explosive charge with a concave metal liner which by the force of the charge reshapes the plate into a high velocity metal slug capable of penetrating armor.	37
False		An IED related incident that is incorrectly identified though reported in good faith as an IED, which is subsequently categorized as a false alarm after positive Explosive Ordnance Disposal (EOD) action.	1
Find / Cache		An IED related incident that involves the discovery and/or recovery of an IED not yet emplaced or employed, IED components, and/or IED paraphernalia.	1
Firing Switch		The component that initiates the explosive train.	24
Force Protection		Preventive measures taken to mitigate hostile actions against Department of Defense personnel (to include family members), resources, facilities, and critical information.	2
Fragmentation		Small objects designed to be accelerated by explosive forces.	47
Fuel		An incendiary material designed to enhance the burning and visual effect of the device.	47

Term	Acronym	Definition	Page #
Fuel Oxidizer eXplosive (FOX) Mixture		An explosive mixture of fuel and oxidizer that deflagrates (very rapid burning) or detonates creating a blast wave.	37
Heat		A type of initiator that serves as an igniting element through the application of heat. This may include direct heat to a sensitive explosive.	29
High Explosive		A chemical compound or mixture that is capable of supporting or sustaining a detonation wave. High explosives do not require confinement as they combust instantaneously producing heat, gas, a rapid expansion of matter, and a detonation / shock wave.	37
Hoax		An IED related incident that involves a device fabricated to look like an IED and that is intended to simulate one in order to elicit a response.	2
Human Tip		Information provided in an advance and/or confidential manner regarding an IED, IED related materials, or associated personnel. This information can be received from, but not limited to, the local populace or government, intelligence agency, or an inside source.	10
Hydrostatic		A switch designed to complete a circuit or force a mechanical action with the change of fluid pressure.	24
IED Related Incidents		An event that involves one or more of the following IED-related actions / activities: IED, Explosion, Find / Cache, Turn-In, Hoax, or False.	2
Ignitor		A device designed to produce a flame or a spark to initiate an explosive train.	29
Improvised Claymore		An improvised weapon, military or homemade, designed to explosively propel a pattern of ball bearings or other fragmentation in an aimed direction.	37

GLOSSARY (continued)

Term	Acronym	Definition	Page #
Improvised Explosive Device	IED	A device placed or fabricated in an improvised manner incorporating destructive, lethal, noxious, pyrotechnic or incendiary chemicals and designed to destroy, incapacitate, harass or distract. It may incorporate military stores, but is normally devised from non-military components. Refers to a type of IED incident that involves a complete functioning device.	1
Improvised Explosive / Homemade Explosive	IE / HME	Non-standard explosive mixtures / compounds which have been formulated / synthesized from available ingredients. Most often utilized in the absence of commercial / military explosives.	37
Improvised Grenade		An improvised weapon, using military or homemade components, designed to explode when a restraint is removed (usually hand held, but can be projected).	37
Improvised Mortar		An improvised weapon, using military or homemade components, designed to launch an explosive charge to the target.	37
Improvised Rocket		An improvised weapon, using military or homemade components, designed to propel an explosive charge to the target.	38
Improvised Weapons		Weapons constructed in an improvised manner designed to destroy, incapacitate, harass or distract.	2
In Parallel		Multiple batteries or other power sources which have their positive terminals connected to one another and their negative terminals connected to one another which results in an increase in the available current.	42
In Series		Multiple batteries or other power sources which have one positive terminal connected to the negative terminal of the next power source which results in an increase in the available voltage.	42
Incendiary		Chemical mixtures and flammable liquids that cause fire.	38
Incident Atmospherics		A description of the demeanor of the civilian population at an IED event to include mood, absence or presence, changes in previously experienced interactions, etc.	10

Term	Acronym	Definition	Page #
Incident Environmental Conditions		A description of the ambient surrounding conditions to include weather conditions such as temperature, precipitation, fog, dust, etc.	10
Initiator		Any component that may be used to start a detonation or deflagration. An initiator will be categorized as either a detonator or an igniter	27
Light / Photo-electric		A sensor acting as a switch that is looking for a change in ambient light (either light to dark or dark to light).	24
Light Bulb / Flash Bulb		Devices used as electric initiators that incorporate an improvised use of the bulb filament to initiate primary or low explosives.	29
Liquid Explosive		An explosive material in a liquid state. Examples include nitric acid esters (e.g. nitroglycerin, nitroglycol) and EDGN.	38
Long Range Cordless Telephone	LRCT	A switch utilizing a cordless telephone that has the capability to transmit signal significantly further than a normal telephone from the base station.	24
Low Explosive		A chemical compound or mixture that is designed to deflagrate (rapid burn) and generally require confinement to explode.	38
Magnetic		A proximity switch using a magnetic field to arm or fire an IED. This can sense an active field and close the switch when the field is disturbed; or react upon coming near a magnetic field.	24
Main Charge		The explosive charge which is provided to accomplish the end result in a munition. Examples for end results are: bursting a casing to provide blast and fragmentation; splitting a canister to dispense sub-munitions; or producing other effects for which it may be designed.	31
Main Charge Configuration		The arrangement or design of the main charge and other materials (usually metal) to create an effective weapon to attack personnel, vehicles, or structures.	38
Mechanical Energy		Stored or applied energy that results in physical movement of an IED component.	42

GLOSSARY (continued)

Term	Acronym	Definition	Page #
Membrane		A switch incorporating two metal layers, separated by an insulator that functions the IED when perforated or when pressure is applied.	24
Method of Employment		A description of how a device was delivered to the target.	10
Method of Identification		The manner in which a unit located a device, components or improvised weapon via visual observation, working animal, sensor, or human tip.	11
Military Explosives		Explosives manufactured for military use.	38
Mine		In land mine warfare, an explosive munition designed to be placed under, on or near the ground or other surface area and to be actuated by the presence, proximity or contact of a person, land vehicle, aircraft or boat, including landing craft.	38
Missile		A self-propelled munition whose trajectory or course is controlled while in flight.	38
Misznay-Schardin Effect		A characteristic of the detonation of a broad sheet of explosive. The explosive blast expands directly away from (perpendicular to) the surface of an explosive.	38
Mortar Munition		The complete munition, comprised of projectile and propellant system, to be fired from the mortar. The projectile normally comprises fuze, body filled with high explosives (HE) or other filling, obturator, and tail assembly.	38
Movement / Anti-Disturbance		A switch that causes two parts to make contact, completing a circuit after a disturbance to the IED (tilt, vibration).	25
Munition		A complete device charged with explosives, propellants, pyrotechnics, initiating composition or chemical, biological, radiological or nuclear material, for use in military operations, including demolitions.	39
Munroe Effect		A focusing of blast energy caused by a hollow or void cut into the surface of an explosive.	39
Non-electric		An initiator that functions by other than electric means (friction, chemical, impact).	29

Term	Acronym	Definition	Page #
Obstacle Creation		An IED primarily intended to create an obstacle to impede movement or channel movement into a desired location, possibly as part of a complex attack or ambush.	15
Omni-directional Effect		An aspect of main charge configuration where the explosion expands in all directions.	39
Passive Infrared		A switch that detects movement of a heat source. When the change in ambient temperature is detected, the sensor acts as a trigger to function the IED.	25
Percussion		An initiator that serves as an igniting element when mechanically struck.	29
Person Borne IED	PBIED	An IED worn, carried, or housed by a person, either willingly or unwillingly.	11
Plastic Explosive		A malleable or flexible explosive at room temperature.	39
Platter Charge		The use of an explosive to propel a metal plate toward a target in a manner where the plate remains intact.	39
Plunger		A switch utilizing a shaft, like that found in a syringe, where application of pressure on the head of the device will force the shaft downward, functioning the IED.	25
Power Source		A device that either stores or releases electrical or mechanical energy. The key elements of information about a power source are its type/ source, number of batteries and their configuration (series or parallel), its voltage (if electrical) and how it is connected to close an IED switch.	40
Pressure		A switch designed to function when pressure is applied in a predetermined direction (plate, tube, plunger, crush wire).	25
Pressure and Pressure Release		A method for activating the device that occurs as a result of either application or reduction of pressure.	25
Pressure Release		A switch for activating the device that occurs as a result of reductions in pressure.	25
Primary Device		The first of two or more IEDs encountered or initiated. Subsequent devices will be marked in the order found.	11

GLOSSARY (continued)

Term	Acronym	Definition	Page #
Projectile		An object, projected by an applied exterior force and continuing in motion by virtue of its own inertia. Projectiles can have a variety of fillers including explosives or chemicals.	39
Propellant		An explosive material that normally functions by burning to produce a controlled release of gasses used for propulsion purposes.	39
Proxy		A person (unwitting or coerced) who acts as a means of delivery of an IED.	11
Pull		A switch that functions when a person applies tension to a firing mechanism – such as pulling a spring. The tension causes an action that releases a firing pin or activates an electrical or electronic switch.	25
Purpose of Device		The immediate or direct tactical effect of the IED.	13
Pyrotechnic Delay		A pyrotechnic device added to a firing system which transmits the ignition flame after a predetermined delay.	25
Radar		A sensor that passively detects radar signals and power, usually operating within a specific range, in order to function an IED.	25
Radio Controlled IED	RCIED	A switch initiated electronically by wireless means consisting of a transmitter / receiver.	25
Radio Frequency Detector		A sensor that passively detects RF signals and power, usually operating within a specific range, in order to function an IED.	25
Radiological Dispersal Device	RDD	An improvised assembly or process, other than a nuclear explosive device, designed to disseminate radioactive material in order to cause destruction, damage, or injury.	47
Rocket		Self-propelled ordnance that uses gas pressure from rapidly burning propellant to transport a payload (warhead) to a desired target.	39
Role of IED		Identifying enemy use of IEDs as a primary, secondary, or subsequent form of attack.	11

Term	Acronym	Definition	Page #
Sea Mine		An explosive device laid in the water with the intention of damaging or sinking ships or of deterring shipping from entering an area. The term sea mine does not include devices attached to the bottom of ships or to harbor installations by personnel operating underwater.	39
Search and Detect Sensors		Equipment which detects, measures, may indicate and/or record objects and activities by means of energy or particles emitted, reflected, or modified by objects for the purpose of identifying IED activity.	11
Secondary Device		An additional IED used to attack individuals or vehicles after the initial event.	11
Sensor		A switch used to detect change in heat, light, movement, vibration, electromagnetic frequency, sound or magnetic field.	26
Sensor Defeat		Methods and technologies incorporated into the device construction and employment for the purpose of defeating detection or identification methods and friendly TTPs.	11
Series-Parallel Circuit		A combination of one or more series circuits and parallel circuits.	42
Shaped Charge		A main charge configuration incorporating explosives shaped so as to concentrate explosive force utilizing the Munroe Effect in a particular direction in order to cut or penetrate.	39
Shock Tube		A thin, plastic tube of extruded polymer with a layer of powdered high explosive deposited on its interior surface that propagates a detonation wave to the blasting cap.	29
Sourcing		The process of determining the origination point (such as a production facility or person, a geographic location, or a specific country of origin) for IED components.	2
Submunition		Any munition that, to perform its task, separates from a parent munition. Submunitions are classified as bomblets, grenades, or mines.	39

GLOSSARY (continued)

Term	Acronym	Definition	Page #
Suicide		An IED initiated by the attacker at a time of their choosing in which they intentionally kill themselves as part of the attack, or possibly to deny capture.	11
Support to Prosecution		The process of associating related people, places, devices, or equipment to an individual for evidentiary purposes in a recognized court of law.	2
Switch		A device for making, breaking, or changing a connection in an IED. A single switch can have multiple functions (i.e., arming and firing).	18
Tactical Characterization		The manner in which an IED incident is planned and conducted (tactical design) and the intent (purpose of device).	2
Tactical Design		The specific design of an IED attack – including but not limited to: position of the IED, the type of IED, method of actuation, type of road segment used, concealment technique, use of secondary devices, the time of day, etc. Tactical design addresses the questions of “why here, why now, and why in this way.” Terms used to describe a specific type of device or component of a device (e.g., VBIED) are often used to describe all or part of the tactical design.	10
Tactics, Techniques and Procedures Development		Using the lessons learned from an IED attack to refine and improve the tools and methods used during all missions in which an IED may be encountered (e.g. convoys, tactical suppression efforts, ISR, Counter-IED (C-IED) missions, etc.).	2
Targeting		The process of selecting and prioritizing targets and matching the appropriate response to them, considering operational requirements and capabilities.	2
Technical Categorization		A description of an IED using a hierarchical construct to identify its key components. The components identified in this categorization are the elements from which technical and forensic information is recovered and exploited.	3
Telemetry		A switch utilizing paired RF modules that transmit and receive binary data.	26

Term	Acronym	Definition	Page #
Tension		A switch that functions when tension is applied to a firing mechanism – such as pulling a trip wire. The tension causes an action that releasing a firing pin or activates an electrical or electronic switch.	26
Tension Release		A switch that functions when tension is released – such as when a taut wire or cord is cut or broken – releases a spring-loaded firing pin or closes electrical contacts initiating the device.	26
Tilt		A switch that allows current to flow to the output wires after a conductive material (i.e., mercury or a ball bearing) is moved enough (up / down, left / right) to flow onto the switch contacts, completing the circuit.	26
Time		A type of switch that functions after a set time. Used widely against infrastructure targets.	26
Time Chemical		A chemical timing switch using a corrosive chemical with a known decomposition rate that is designed to destroy a physical restraint on a triggering device to start the initiation train.	26
Time Electronic		A timing switch using a commercial or improvised electric timer or integrated circuit to start the initiation train.	26
Time Fuse / Safety Fuse		A pyrotechnic burning at a certain rate used to transmit a flame to the non-electric detonator or a low explosive charge with a predetermined delay.	26
Time Mechanical		A timing switch constructed or modified so that physical contact between two parts of the timing mechanism complete an electrical circuit.	26
Toxic Industrial Biological	TIB	Any biological material manufactured, used, transported, or stored by industrial, medical, or commercial processes which could pose an infectious or toxic threat.	47

GLOSSARY (continued)

Term	Acronym	Definition	Page #
Toxic Industrial Chemical	TIC	A chemical developed or manufactured for use in industrial operations or research by industry, government, or academia. For example: pesticides, petrochemicals, fertilizers, corrosives, poisons, etc. These chemicals are not primarily manufactured for the specific purpose of producing human casualties or rendering equipment, facilities, or areas dangerous for human use. Hydrogen cyanide, cyanogen chloride, phosgene, and chloropicrin are industrial chemicals that can also be military chemical agents.	47
Toxic Industrial Material	TIM	A generic term for toxic or radioactive substances in solid, liquid, aerosolized, or gaseous form that may be used, or stored for use, for industrial, commercial, medical, military, or domestic purposes. Toxic industrial material may be chemical, biological, or radioactive and described as toxic industrial chemical, toxic industrial biological, or toxic industrial radiological.	48
Toxic Industrial Radiological	TIR	Any radiological material manufactured, used, transported, or stored by industrial, medical, or commercial processes. For example: spent fuel rods, medical sources, etc.	48
Trend and Pattern Analysis		Using prior actions and activities to identify trends in activities or behaviors. Once identified these patterns can be used to predict future enemy actions, and plan intelligence surveillance, reconnaissance (ISR) activities and training.	3
TTP Identification		An IED primarily intended to cause a reaction by forces in an effort to learn and understand employed tactics. This knowledge is then used by the attacker to plan new attacks incorporating the lessons learned to inflict additional casualties or to avoid countermeasures. The IED need not function to serve this purpose. A Hoax IED can have TTP Identification as its intended outcome.	15
Turn-In		An IED related incident where an IED or component is turned over to friendly forces.	3
Underbelly		A type of IED attack in which the device is intended to target the underside of a vehicle.	12
Vehicle Borne IED	VBIED	An IED delivered by or concealed in a ground-based vehicle.	12

Term	Acronym	Definition	Page #
Victim Operated IED	VOIED	A type of switch that is activated by the actions of an unsuspecting individual. These instruments rely on the intended target to carry out some form of action that will cause it to function.	26
Visual Observation		Attained or maintained by sight, done or executed by sight only and relating to, or employing visual aids.	12
Water Borne IED	WBIED	An IED delivered by or concealed in a water-based vehicle.	12
Weapons Technical Intelligence	WTI	Intelligence derived from the processes and capabilities that collect, exploit and analyze asymmetric threat weapons systems to enable material sourcing, support to prosecution, force protection and targeting of threat networks.	1



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