MOTORIZED CONVOY OPERATIONS

B4P4878

STUDENT HANDOUT
Motorized Convoy Operations

Introduction

Motorized operations refer to missions in which wheeled vehicles are the primary method of movement. While the tactical task of the specific mission will not change simply because it is motorized, the introduction of vehicles into the operation will demand additional planning considerations. Many of the operations you have already learned about can be motorized including both offensive and defensive operations.

Another subcategory of motorized operations is tactical convoy operations. A tactical convoy is the coordinated movement of two or more vehicles over a prescribed route in support of a specific mission under the control of a single commander. Tactical convoys must have access to the current common operational picture while maintaining an aggressive posture that is both agile and unpredictable. The notion that convoys travel in safe rear areas after assault forces have cleared the way is unrealistic and dangerous. Front lines have ceased to exist in a clear, linear fashion and the enemy will often seek to target our resupply efforts rather than directly engage our combat forces.

Marine Corps convoys distinguish themselves by always being tactical in nature. Especially in today’s battlespace, convoys are nothing less than combat operations and they should be planned and executed as such. As the convoy commander, your METT-TC analysis will determine the appropriate security posture and will drive the rest of your planning as it would for any other operation. It is critical that the convoy be able to defend itself either through the employment of organic assets, supporting agencies, or attachments. Furthermore, in order to be a truly “hard” target, every Marine on the convoy should perform some sort of specific duty. There are no idle passengers on a convoy! For this reason, always give your order to “All Hands” including any attachments. Clueless individuals “riding along” who know little or nothing of your plan are just as dangerous on a convoy as they would be on a foot patrol.

Importance

Any Marine officer could potentially command a convoy. The tactical fundamentals you have learned thus far at TBS still apply to motorized convoy operations. However, the introduction of vehicles makes planning and executing more complex than previous missions. For example, command and control (C2), geometry of fires, coordination, and immediate actions become more complicated when mounted. Actions often happen more quickly and forces are dispersed over greater distances compared to foot-mobile operations. Convoy operations demand deliberate and thoughtful planning, keen METT-TC analysis, thorough training and rehearsals, and decisive execution.

In This Lesson

The purpose of this lesson is to prepare you to be a convoy commander. You will learn how to apply METT-TC analysis and the five-paragraph format to convoy operations. You will also be introduced to fundamental motorized concepts.
This lesson covers the following topics:

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Learning Objectives

Terminal Learning Objective

TBS-OPS-1004 Given motorized or mechanized assets, a unit, and an order, lead a unit in mounted operations to accomplish the mission and meet the commander’s intent.

Enabling Learning Objectives

TBS-OPS-1004a Given an evaluation, define vehicle capabilities and limitations without error.

TBS-OPS-1004b Given motorized or mechanized assets, a unit, and an order, plan mounted operations to accomplish the mission and meet the commander’s intent.

TBS-OPS-1004c Given a mounted operations order and materials, plan tactical control measures along routes, to accomplish the mission and meet the commander’s intent.

TBS-OPS-1004d Given a mounted operations order, describe mounted operations fire support considerations to support the scheme of maneuver.

TBS-OPS-1004e Given motorized or mechanized assets, a unit, and an order as part of a scenario, describe how to task organize for mounted operations to support the scheme of maneuver and accomplish the mission.

TBS-OPS-1004f Given motorized or mechanized assets, a mission, a simulated combat environment, and a threat as part of a scenario, conduct mounted operations immediate action drills to mitigate the threat and accomplish the mission.

TBS-OPS-1004g Given motorized or mechanized assets, a
mission, and a simulated combat environment, describe how to conduct mounted operations actions on the objective to accomplish the mission and meet the commander’s intent.

TBS-OPS-1004h Given a mounted operations order, as part of a unit in a simulated combat environment, describe mounted PCCs and PCIs to ensure mission readiness.

TBS-OPS-1004i Given motorized or mechanized assets, a mission and a simulated combat environment, describe mounted communications procedures to provide information relevant to the operation.

TBS-OPS-1004j Given motorized or mechanized assets, commander’s intent, and while serving as a leader, issue an order to cover motorized operations considerations to accomplish the mission and meet the commander’s intent.
Tactical Planning Process Overview

The overall tactical planning process for convoy operations is the same as any other operation except for one important consideration: the selection of the route is based off a comprehensive METT-TC that includes all route options and comes before the EMLCOA, Commander's Intent (CI), and SOM. By selecting your route prior to developing your EMLCOA, CI, and SOM, you can focus your effort and the products of your planning. Keep in mind, your route is not your SOM; it is only one of several elements that craft your SOM.

METT-TC (Route) > EMLCOA > KS/KW/EXP > SOM/FSP > Tasks

METT-TC

Whether your route is dictated by Higher or left to your discretion, as the convoy commander you will always need to conduct a detailed estimate of the situation. Upon receipt of your mission, your required vehicle footprint will become evident. This footprint directly influences what route options are actually tenable. For example, semi-trucks and Logistics Vehicle System-Replacements (LVSRs) are long, heavy, and may not be able to make tight turns through complex obstacles. They will limit your convoy’s overall mobility. Therefore, your Terrain (routes) & Weather analysis should occur directly following the analysis of your Troops (vehicle footprint) and Fire Support Available. By slightly altering the order of the METT-TC process, you can focus only on the routes that are physically possible, from which you can then proceed to analyze the enemy in detail along those routes. For every convoy operation, you should select both a primary and alternate route based off of your comprehensive METT-TC analysis.

Mission

Unlike many of the tactical operations you have learned so far at TBS, the majority of convoy missions are friendly-oriented (deliver what, to who, where, when, and why). Likewise, every convoy will usually have the following two implied tasks as well:

- **Intelligence Collection.** Just like patrolling, every Marine on a convoy is a collector and can gain valuable intelligence on the enemy situation, atmospherics, and the route.
- **Route Clearing.** Each convoy has a responsibility to make the road safer for follow-on forces. You are obligated to deal with any improvised explosive devices (IEDs) you find unless directed otherwise by Higher.

WARN-O

As with any other operation, you should issue a warning order (Warn-O) to your subordinates as soon as possible after receipt of Higher's order. Due to the likely requirement to prepare numerous vehicles and loads (as well as weapons, comm, etc.), the 1/3-2/3 rule is even more critical during convoy operations. Along with the Warn-O, unit-specific vehicle and personnel checklists will significantly aid subordinate leaders in the timely preparation of the convoy (examples are provided in this handout).
In addition to analyzing organic assets and any attachments, you must also determine what fire support agencies are available along all route options. Convoys often cross into other units’ battlespace and can quickly outdistance any organic fire support their unit might have. You need to find out not only what firing agencies can support you throughout the area of operation (AO), but also how to contact them.

Quick reaction forces (QRF), explosive ordnance disposal (EOD), CASEVAC capabilities, and recovery assets are some of the many capabilities you should be considering when analyzing the route options. Again, these resources are often available when traveling in other AOs, but you must know where they are, who they belong to, and how to request them.

There are numerous vehicle variants that operate in Marine Corps convoys ranging from tracked and wheeled tactical vehicles to civilian tractor-trailers. Below are a few Marine Corps wheeled vehicles that are commonly used in convoy operations today:

- **Medium Tactical Vehicle-Replacement (MTVR).** Also known as the ‘7-Ton’, this is the most common cargo and personnel carrying vehicle in the Marine Corps. It is usually found in the Main Body. When mounted with a machinegun turret however, it can also be employed in the Lead Security Unit as a lead vehicle due to its survivability against IEDs (when up-armored).
  - Employment: troop/cargo carrier
  - Payload: 7.1 tons off-road, 15 tons on improved surfaces
  - Personnel: 16x troops in the back of a short-bed, 20x for a long-bed
  - Curb/Gross Weight: 35,000lbs & 62,000lbs (armored variants)
  - Pros: armor and ground clearance provide decent protection from undercarriage blasts (IEDs)
  - Cons: limited maneuverability due to height/weight

- **Up-Armored HMMWV (UAH).** The UAH is common throughout all elements of the MAGTF and is a highly versatile vehicle that can be used for providing security for convoys to conducting mounted patrols. The UAH is often fitted with increased communication capabilities making it a common C2 vehicle. Its smaller size and lighter weight make it significantly more maneuverable than MTVRs and MRAPs. However, it is much more vulnerable to undercarriage blasts.
  - Employment: security element, C2, mounted patrols
  - Personnel: 5x total (including machine gunner)
  - Curb/Gross Weight: 10,300lbs & 12,400lbs
  - Pros: maneuverable and capable of improved C2 capabilities
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- **Cons:** vulnerable to undercarriage blasts

- **Mine-Resistant Ambush Protected (MRAP).** MRAPs are built to survive many direct fire weapons and blasts. Their V-shaped hull, ground clearance and weight make them the most survivable wheeled vehicles currently used in convoy operations. They are commonly used as C2 or security vehicles. Although very survivable, maneuverability is limited. Their two main platforms are a 4x4 and a 6x6 (number of wheels). Below are specific characteristics of MRAPs:
  - Employment: lead vehicle, C2, security element
  - Personnel: 6x (4x4 variant), 10x (6x6 variant)
  - Gross Weights: 36,000 lbs (4x4), 51,000 lbs (6x6)
  - Pros: highest survivability due to V-shaped hull
  - Cons: poor off-road capability, maneuverability

**Air Support**

Aircraft provide a wide range of capabilities to support convoy operations, including:

- **Intelligence, Surveillance, & Reconnaissance (ISR).** Aircraft can fly ahead and to the flanks of the convoy and report on enemy activity or route conditions that are miles away.
- **Show of Force.** By simply making their presence known to the enemy, aircraft help present convoys as a “hard target” and can easily deter enemy aggression.
- **Air CASEVAC.** Generally the most responsive method of evacuating personnel.
- **Close Air Support (CAS).** As the convoy commander, you should refrain from controlling aircraft personally as your greatest responsibility is to C2 the convoy. Whenever possible, a Joint Terminal Attack Controller (JTAC) should be on the convoy and co-located in your vehicle to process the raw information coming from the aircraft into actionable intelligence for you while filtering out unnecessary details.

**Terrain & Weather**

One of the most critical aspects of your Terrain & Weather analysis is the road network that makes up the route options. Important questions are: What is the composition and current condition of the road surfaces? How wide are they? Are there bridges/overpasses and will they meet the height/weight requirements of every vehicle in the convoy? Your particular vehicle footprint will often determine what routes are suitable for transit. A semi-truck with a 70-ton M1A1 tank on the trailer will likely restrict certain options. Additionally, traffic is another subcategory to your terrain analysis. Which roads are heavily trafficked and when are peak traffic times? Make every effort to avoid heavy traffic due to the increased threat/friction it brings.

Weather conditions such as rain, fog, snow, sandstorms, or extreme temperatures can severely affect the routes, the
performance of your vehicles, and the awareness of your Marines and, therefore, must be heavily considered during your analysis.

Enemy

As always, both Composition/Disposition/Strength as well as Capabilities/Limitations of the enemy should be thoroughly analyzed during the estimate of the situation to later assist in the development of an accurate and highly detailed EMLCOA. Due to inherent time constraints, your enemy analysis should be focused on all trafficable routes available to your convoy (mobility corridors) and not every single road within the AO. The detailed enemy analysis you conduct for all tenable routes will weigh heavily in the ultimate selection of a primary and alternate route. Maybe you avoid the fastest and most direct route due to your enemy analysis.

Additionally, intelligence data compiled over time can reveal enemy trends and activity along specific portions of routes within your AO. You should always plan using the most recent intelligence products generated by your unit’s S-2. By identifying the enemy’s latest tactics, techniques, and procedures (TTPs), you will be able to better infer the EMLCOA as well as properly prioritize which immediate action (IA) drills you want to rehearse.

Time/Space/Logistics

Obviously, the amount of time available will regulate the level of detail throughout the planning process. There may be time restraints pertaining to your arrival at the objective, return to the AA, or along specific routes during certain hours. The method of loading/unloading cargo can also be a substantial factor worth analyzing as forklifts will not always be readily available.

Furthermore, you will want to analyze the distance your convoy will be covering to ensure your Marines, vehicles, and equipment are properly prepared for the mission. It is imperative that you consider the effect both time and space will have on your troops and take measures to mitigate potentially dangerous situations, such as overly fatigued drivers, gunners, and vehicle commanders. In recent conflicts in Iraq and Afghanistan, convoy operations frequently covered hundreds of miles in a single mission and easily exceeded 24 hours of non-stop operations. It is equally important to consider the significant demands that combat will place upon your vehicles. As we’ll cover later on, you will need to address specific vehicle-related issues during Coordinating Instructions.

EMLCOA

At the conclusion of your METT-TC analysis you will develop an extensive and detailed EMLCOA. Due to the vast distances covered during motorized operations, the enemy’s Composition/Disposition/Strength, Capabilities/Limitations, and even TTPs will likely vary along the length of one route. Therefore, your analysis may often result in an EMLCOA with multiple elements. Your EMLCOA should begin with a statement describing the overall intent of the enemy. From there, you should break down the more-detailed aspects of the EMLCOA along specific portions of the route. Using TCMs such as checkpoints (CPs) is a good way to break apart the EMLCOA for your Marines. Here is an example:
Overall Enemy Intent

The enemy’s mission is to prevent the resupply of our friendly units in and around the city. He is, therefore, most likely to attack our convoy in an effort to halt or delay our movement.

CP to CP

Between CP 42 and 47 I expect the enemy will attempt complex attacks as a squad size or smaller. These attacks will likely initiate with a command-detonated IED blast (possibly located here or here) followed by small-arms fire (SAF) oriented south from the windows and rooftops of these buildings overlooking the road. Their firepower will be concentrated on any vehicles that are in their kill zone (as depicted on the terrain model). Upon accurate suppression from our crew-served weapons (CSWs), I expect the enemy to withdraw north into the adjoining neighborhood using the complex network of narrow alleyways.

CP to CP

In the more rural area between CP 47 and 35 I expect a pressure-plate IED to be located in vicinity of the narrow river crossing located here. I also suspect, based off of his TTPs, that the enemy has emplaced secondary IEDs just before or after the crossing to target our dismounted personnel whom attempt to recover the casualties from the hit vehicle…

Commander’s Intent

Up until this point, Commander’s Intent was based around the central theme of defeating the enemy, whether in offensive or defensive operations. However, because most convoy operations are friendly-oriented (mission is to support a friendly unit), the commander’s intent you provide to your subordinates also needs to reflect a friendly-oriented theme. In other words, if your primary mission is to perform CSS, then engagement with or subsequent pursuit of the enemy should not be allowed to supersede that mission, unless directed or approved by Higher. Your Commander’s Intent should be based on the theme of keeping your convoy moving.

The Method of your Commander’s Intent should follow this template:

Key Strength
Whatever best enables the enemy to prevent you from accomplishing your mission of providing support to another unit.

Key Weakness
A perceived gap in the enemy’s KS that you can affect.

Exploitation Plan
How to strike the enemy’s KW, rendering his KS ineffective. Often uses some combination of convoy TTPs and organic/supporting arms to keep the convoy moving.

Scheme of Maneuver

After completing your METT-TC analysis, fully developing the EMLCOA (broken down along portions of your route), and crafting your Commander’s Intent (focused on mission accomplishment), you will then begin to build your SOM. Like defensive operations, motorized convoy operations also have a unique combination of elements that make up the SOM. The six elements of the convoy SOM are:
Convoys are task organized into a Lead Security Unit, Main Body, and Rear Security Unit. The **Lead Sec Unit** provides security to the front and flanks of roughly the first half of the convoy and is usually tasked to “screen to the front.” Similarly, the **Rear Sec Unit** provides security to the rear and flanks of roughly the second half of the convoy and is, therefore, tasked to “screen to the rear.” The **Main Body** consists of the vehicles that are actually transporting the personnel/cargo that make up the mission and is most often tasked to “protect” that cargo. The Main Body vehicles should be located within the middle of the convoy and will supplement flank security if they are also equipped with CSWs.

Per MCDP 1-0, Screen and Protect are defined as follows:

- **Screen** (Lead & Rear Sec Units): To observe, identify, and report information and only fight in self-protection.
- **Protect** (Main Body): To prevent observation, engagement, or interference with a force or location.

*This task organization is flexible* as the different units may even overlap within the convoy if the Main Body cannot provide its own flank security. For example, your Lead Sec Unit could be vehicles 1, 2, 3, and 5; while the Main Body vehicles are 4, 6, and 8; and the Rear Sec Unit vehicles are 7, 9, and 10. Furthermore, this concept can be applied to convoys of three vehicles or thirty vehicles the same way. To the greatest extent possible, vehicles should be designated and employed in buddy pairs for mutual support. The Sec Units should also be prepared to rotate based on your SOM or immediate action (IA) drills.

For convoy operations, the distribution of forces as it applies to your task-organized subordinate units does not change. Therefore, **there is no need to brief anonymously** since the Lead Sec Unit is always SE1, the Main Body is the ME, and the Rear Sec Unit is SE2.

After briefing task organization and DOF, you will then cover both the primary and alternate routes for your SOM in detail. Routes are briefed either by a given name or by a series of CPs. You will address all movement formations, TCMs, as well as any enemy considerations and how you plan to deal with them for each route. Be sure to fully brief the primary and alternate return routes in detail as well, as opposed to just saying, “And, we’ll take the same route back.”

There are two basic movement formations for convoy operations:
Open Column. Distance between vehicles is approximately 100m-200m. This formation works best in open terrain and on roads that allow for travel at higher rates of speed.

Advantages:

- More dispersion increases survivability against enemy IDF, IEDs, or air attacks
- Fewer vehicles will be caught in the enemy’s kill zone
- Reduced chance of accidents due to increased stopping distance between vehicles

Disadvantages:

- Larger footprint and more difficult to C2
- Intervals can be hard to maintain
- More likely to lose visual contact between vehicles
- IA drills can be harder to execute due to decreased mutual support

Closed Column. Distance between vehicles is anything less than 100m. This formation works best at night, in urban areas, or in high-traffic areas.

Advantages:

- Smaller footprint and easier to C2
- Vehicles can mutually support one another and more effectively mass fires
- Civilian traffic is less likely to enter convoy and disrupt movement

Disadvantages:

- More vulnerable to IDF, IEDs, or air attacks
- More vehicles may be caught in the enemy’s kill zone
- Less stopping and maneuvering distance between vehicles
- Maintaining short intervals for long periods of time causes faster driver fatigue

Your METT-TC analysis and route reconnaissance will help you determine the best movement formation(s) for your convoy, which may vary for different portions of the route. You can even incorporate an open column between your units while maintaining a closed column within each unit. Overall, you want to make sure that your chosen movement formation properly balances the need for passive security (dispersion) with the need for active security (overlapping fields of fire) along with your inherent need to maintain C2.
Tactical Control Measures

TCMs facilitate C2 of a convoy just like they facilitate C2 of a platoon attack. Obviously, not all TCMs from offensive operations will apply to convoy ops. However, the following three TCMs are most commonly used:

**Checkpoints.** Like in any other operation, CPs are used to facilitate the C2 of convoy operations for both you and your higher headquarters. Every vehicle can report the crossing of CPs to you, or just the first and last vehicle. Similarly, when you report crossing CPs to Higher, you’ll want to specify whether you are referring to the first vehicle, your vehicle, or the last vehicle.

**Rally Points.** Similar to patrolling, Rally Points are used to consolidate your forces and collect ACE reports following contact with the enemy. Fixed rally points are preplanned locations on a map, such as CPs. Floating Rally Points are not preplanned locations, but are instead preplanned distances from points of enemy contact. Both are briefed in the SOM.

**Unit Boundaries.** You must be aware of unit boundaries that your convoy will cross and other important control measures within adjacent unit AOs. It is imperative that you check in and out with each adjacent unit as your convoy crosses their battlespace. Your convoy is essentially a guest in another unit’s territory and you must inform them of your presence to deconflict with their current operations and mitigate fratricide. Furthermore, they may be able to provide assistance to you in the form of fire support, CASEVAC, recovery support, QRF, or EOD if needed. **Timely coordination with adjacent units is one of your most important tasks during execution of the convoy.**

Actions on Objective

A detailed plan of your convoy’s actions on the objective is just as important for convoys as it is for any other operation. A few key considerations to address with your subordinates are:

- Has the objective been cleared or secured, or are we doing it?
- How will the convoy occupy the objective?
- Who is receiving the convoy’s cargo and what is the specific link-up plan?
- What is the plan for offloading/loading cargo, and where will different items go?
- How long will the convoy remain on the objective and what is the security and rest plan?
You will brief your task organization, DOF, and a quick overview of the route before "walking the dog" during SOM. It should follow this general outline:

We will conduct a tactical resupply convoy, task organized into a Lead Sec Unit (vehicles 1-3) as SE1, Main Body (vehicles 4-7) as the ME, and Rear Sec Unit (vehicles 8-9) as SE2. Since vehicles 5 and 7 are also equipped with CSWs, they will provide flank security within the Main Body. Our primary route will be along Route Gold from the Bn AA to the resupply point at COP Bastion (Co Obj A), passing CPs 13, 21, 7, 6, and 8. [Start walking the dog] Between CPs 13 and 7 we will be in an open column to mitigate the high IED threat. When we reach CP 7 we will collapse to a closed column to enhance mutual support while moving through the built-up urban terrain. CPs 13 and 6 will be designated as our fixed rally points to be used at my discretion. In the event of enemy contact, floating rally points will be established 1km (or one terrain feature, whichever is greater) beyond the initial point of contact. As the lead vehicle passes CP 8, I will contact the supported unit via the Bn Tac Net and request link-up. [Then brief alternate route] Upon arrival to Co Obj A, the Main Body will enter the COP and execute offload while the rest of the convoy will remain in their vehicles and establish 360 degree security outside the compound. [Show how you plan to conduct actions on the obj using objects on the terrain model] Once resupply is complete, we will get back into the original order of march and return to the Bn AA along the same route [Walk the dog back along the pri/alt return routes while briefing pertinent details]

When it comes to briefing danger areas, those that are dealt with by SOP (IA drills) are briefed in Coordinating Instructions. If you are going to deal with a unique danger area along your route (e.g., a bridge with a particular barrier plan), then you would address it in the SOM.

Key Personnel

There is a tremendous amount of work to do during both the preparation and execution of a convoy. You must properly guide, task, and supervise your subordinates which cannot happen without understanding the specific roles and responsibilities of key convoy personnel.
You must be focused outward and on the overall mission. While you may delegate a number of tasks, you must also supervise critical actions, such as a final inspection once vehicles and personnel are staged. Best location to C2 the convoy will usually be around the front of the Main Body (your “bid for success”). Responsibilities include:

- Maintain overall command of the convoy
- Assess enemy situation and properly plan the convoy: formation, route, fire support, etc.
- Develop and issue the convoy order (and warning orders)
- Conduct COC and cross-boundary coordination (during preparation and execution)
- Coordinate actions on the objective (link-up plan, general offload/on-load plan, etc.)
- Develop, refine, and train Marines on IA drills
- Submit a detailed manifest to the COC (containing all essential information for personnel, vehicles, serialized equipment, and cargo)

He/she is more focused inward on details that ensure the unit is properly prepared and should strive to assume the more routine items to allow the CC to maintain an outward focus. Typically located towards the rear of the convoy. Responsibilities include:

- Second in command, makes recommendations to the CC as appropriate
- Responsible for managing personnel as well as vehicle preparation, loading, and staging
- Assess and attempt to repair or recover down vehicles
- Ensure convoy maintains proper formation, dispersion, and order of march during execution
- Ensure accurate and timely submission of convoy manifest to the CC

Located in the lead vehicle, should be a highly competent and trusted Marine as he/she will be your “eyes and ears” at the front of the convoy. Responsibilities include:

- Navigate the convoy (should take part in any route reconnaissance conducted)
- Communicate CPs, turns, danger areas, or other potential threats to the CC
- Monitor speed and adjust as needed for dispersion

Typically the most senior Marine after the CC and ACC and is responsible for maintaining constant 360 degree security for the lead half of the convoy during execution and the entire convoy whenever halted. Should not typically be located in the lead vehicle but should be positioned forward of the CC. Responsibilities include:
• Third in command, makes recommendations to the CC as appropriate
• Employ the Lead Sec Unit (vehicles & personnel) in accordance with the IA drills
• Ensure 360 degree security on the objective, at landing zones (CASEVAC), or during halts

Rear Security Unit Leader

He/she is responsible for maintaining constant 360 degree security for the rear half of the convoy during execution and assists the Lead Sec Unit Leader during any halts. Usually located towards the start of the Rear Sec Unit. Duties can be assumed by the ACC in smaller convoys. Responsibilities include:

• Employ the Rear Sec Unit (vehicles & personnel) in accordance with the IA drills
• Ensure 360 degree security on the objective, at landing zones (CASEVAC), or during halts
• Assume duties of Lead Sec Unit Leader in his/her absence

Vehicle Commanders (VC)

Your VCs will be responsible for all aspects of their vehicle throughout preparation and execution of the convoy. Responsibilities include:

• Take charge of all personnel within the vehicle and execute the CC’s intent
• Know both the primary and alternate route in detail
• Account for all personnel/equipment in that vehicle at every stop and before each departure
• Communicate pertinent information to the CC or ACC as needed

Grunners

Convoys must maintain 360 degree security at all times. Specific sectors of fire must be assigned to your gunners to prevent gaps in your security. Responsibilities include:

• Properly maintain and employ their weapon system
• Constantly scan assigned sector of fire
• Be well-versed and trained in the proper escalation of force (EOF) procedures
• Positively identify (PID) and engage targets per the rules of engagement (ROE)
• Ensure the vehicle’s CSW is manned at all times
• Follow all orders from their VC

Drivers

Many of your drivers will not have the Motor Transport Operator MOS, but all are required to be licensed for the vehicle they are operating. Responsibilities include:

• Drive: this is their primary duty (avoid assigning them additional tasks during execution)
• Maintain correct interval and speed. Do not lose sight of
the vehicle behind them

- Operate their vehicle in accordance with its capabilities and limitations
- Conduct all required checks & services on their vehicle and report issues to the ACC
- Follow all orders from their VC

**Tasking Statements**

Obviously, everyone within a convoy should perform a specific function and should be ready to assume the functions of others. However, you do not formally task each of the billets mentioned above. You can address your expectations of them in Coordinating Instructions which will be covered late on. The following are examples of basic tasking statements you should provide for convoy operations:

**Lead Security Unit**

You are Supporting Effort 1. Upon departure, screen to the front of the convoy throughout its movement to Co Obj A IOT allow the Main Effort to complete its mission. You will be the EPW team. BPT secure an LZ. BPT assume the mission of Rear Security Unit.

**Main Body**

You are the Main Effort. NLT [insert departure time], protect the [insert convoy’s cargo] throughout the convoy’s movement IOT resupply friendly forces on Co Obj A.

**Rear Security Unit**

You are Supporting Effort 2. Upon departure, screen to rear of the convoy throughout its movement to Co Obj A IOT allow the Main Effort to complete its mission. You will be the vehicle recovery team. You will also provide an aid & litter team. BPT establish and mark an LZ. BPT assume the mission of Lead Security Unit.

You may also have attachments with unique roles or capabilities, such as: corpsmen, interpreters, EOD, military working dogs (MWD), JTAC/JFO, etc. While you may not need to provide a formal tasking statement with a specified tactical task to every attachment, you must understand what each one brings to the fight to ensure they best support your mission.

**Coordinating Instructions**

The coordinating instructions for convoy orders should be detailed and extensive as there is plenty of amplifying information that you will need to provide. A few commonly used coordinating instructions are:

- **Timeline**: Clearly stress importance of meeting the mission’s timeline requirements
- **Order Of March**: ACC reviews how the convoy is arranged from the first to last vehicle
- **Base Unit**: A specific vehicle that will be the “pacesetter” for the convoy
- **Speeds**: Provide the convoy’s set Rate of March as well as “Slow Down” & “Catch Up” speeds (if convoy becomes too dispersed, how slow do you want the lead vehicle to go and how fast do you want the vehicles that have to catch up to go?). Provide any other guidance for the convoy’s speed along the route as well.
- **Dispersion**: When do you want to open/close the column?
• **ROE**: Either you or the ACC should read the ROE verbatim as provided by Higher

• **Target Precedence & Engagement Criteria**: Specify for each weapon system in the convoy

• **IA Drills & Priority of Rehearsals**: Prioritize which to cover during the order based off your perceived points of greatest friction (e.g., EMLCOA, vehicle breakdowns, etc.). *Walk the Dog* when briefing your IA Drills.

• **Lost Marine Plan**: Your mission might cover significant distances, so craft this accordingly

• **Lost Vehicle Plan**: Must be able to execute this when a vehicle breaks away from the rest of the convoy and the Marines in it have no idea where they are (worst case scenario)

• **Bump Plan**: When a vehicle goes down (due to enemy or maintenance), where will you transfer the Marines & cargo to keep moving? Have a plan for every vehicle in the convoy.

• **Fuel/Refuel Plan**: When will the convoy be able to refuel? Will you need all vehicles to be fully “topped off” before departure? Do you need to bring additional fuel with you? [This could also be covered in Admin & Logistics]

• **Vehicle Commander / Gunner / Driver Requirements**: Since you will often have personnel from other units within your convoy, it is customary for you to cover your expectations of ALL vehicle commanders, gunners, and drivers within Coordinating Instructions (address each one separately). You are not issuing them a formal tasking statement, just a clear and concise explanation of their responsibilities while they are part of your convoy.

---

**Immediate Action Drills**

IA drills are preplanned actions in response to anticipated events. Due to the sheer number of contingencies that could occur during convoy operations, IA drills will be paramount to your success. In order to maximize their benefit though, **they must be applicable to today’s fight and all of your Marines must execute them on impulse**. These two things only occur with frequent, realistic rehearsals immediately followed with honest critiques and refinements. **Each of your IA drills should emphasize the importance of dealing with the enemy first, casualties second, and equipment third**. The following are not all encompassing. They simply provide a baseline from which you can build if your unit does not already have them established. (Note: Friendly vehicles are commonly referred to as “vics” during convoy operations.)

**Short Halt**

You estimate the convoy will be stopped for 10 minutes or less.

- Vics come to a rolling stop while maintaining dispersion and 360 degree security
- All personnel visually conduct 5/25s (This refers to first observing the area immediately around you in detail out to 5m to check for any signs of IEDs or other threats. From there, you then methodically continue to scan out to at least 25m using your optics.)
- No one should dismount, except to deal with the purpose of the halt (e.g., fix cargo straps)
- ACC collects and reports accountability prior to departure to CC
Long Halt

You estimate to be halted for more than 10 minutes. The longer a unit is static, the more susceptible it is to contact. Therefore, you should increase your security posture.

- Rolling stop, maintain dispersion, 360 degree security
- Visual 5/25s followed by dismounts conducting physical 0/5/25s (the zero refers to looking down and under the vic before stepping onto the ground). Unless absolutely necessary, drivers and gunners should not be dismounts.
- Gunners maintain their sectors of fire and provide over watch for dismounts
- Both Sec Unit Leaders ensure dismounts are emplaced in positions that best provide security and also ensure EOF cones are emplaced 300m, 200m, and 100m away from the convoy to its front, rear, and sides if applicable.
- Once the reason for the halt has been addressed, everyone mounts up and ACC reports accountability to the CC before departure.

Danger Area (DA) Crossing

Any specific area that poses an added threat, such as: complex intersections, traffic circles, overpasses, chokepoints, etc. There are countless ways to address each of these. However, you’ll need to figure out which specific method is best given the composition of your convoy. The following sequence is a basic approach:

- Navigator identifies DA and convoy slows to allow Rear Sec Unit to post security on DA
- Once Rear Sec Unit is set, Lead Sec Unit and Main Body cross DA
- Rear Sec Unit collapses security and resumes its place in the convoy

EOF for Vehicles

Unknown vehicle approaches the convoy (ROE will likely dictate).

While convoy is halted:

- +300m (before vehicle reaches your furthest cone that says “STOP” in the local language): Blast horns, flash headlights, wave arms/flags to stop vehicle
- 300-200m (vehicle passes the furthest cone): Fire pyro towards approaching vehicle
- 200-100m (vehicle passes the second cone): Shoot tires then engine of approaching vehicle
- -100m (vehicle passes the final cone): Shoot driver

When convoy is moving:

- Wave arms / Fire pyro / Gain PID of hostile act and hostile intent / Engage vehicle then driver (whether or not there will be time for each step and the exact distances that trigger each action will be situationally dependent)
<table>
<thead>
<tr>
<th><strong>Dismount Drill</strong></th>
<th>Executed when a vic is disabled in a kill zone (KZ).</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Gunners get PID and gain fire superiority (may pop smoke)</td>
<td></td>
</tr>
<tr>
<td>• VC assesses enemy threat to decide to dismount crew or remain in vic</td>
<td></td>
</tr>
<tr>
<td>• If dismounting, all except gunner dismount on cold side and use best cover to return fire</td>
<td></td>
</tr>
<tr>
<td>• If unable to move over to cold side, wait until enemy is suppressed to dismount on hot side</td>
<td></td>
</tr>
<tr>
<td>• VC communicates situation to CC IOT coordinate supporting fires (other gun trucks, IDF, CAS). VC must maintain comms.</td>
<td></td>
</tr>
<tr>
<td>• VC takes charge of dismounts and maintains accountability of all personnel</td>
<td></td>
</tr>
<tr>
<td>• After fire superiority is established, nearest able vic will conduct hast recovery</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Deliberate Recovery</strong></th>
<th>Vic is disabled and there is no enemy contact.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• VC communicates status to CC who orders short halt.</td>
<td></td>
</tr>
<tr>
<td>• ACC &amp; recovery team pull in front of down vic to assess. If needed, convoy executes long halt.</td>
<td></td>
</tr>
<tr>
<td>• Depending on situation, ACC repairs, rigs for tow, or requests recovery support from Higher.</td>
<td></td>
</tr>
<tr>
<td>• Execute bump plan as needed and ACC reports full accountability to CC prior to departure.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Hasty Recovery</strong></th>
<th>Vic is disabled in an enemy KZ.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• After gaining fire superiority, Hasty Recovery Team (nearest abled vic) moves into position</td>
<td></td>
</tr>
<tr>
<td>• Use pre-staged tow-bar or tow-strap or the “push through” technique (literally push the down vic out of the KZ with a good vic)</td>
<td></td>
</tr>
<tr>
<td>• Personnel will most likely ride out of KZ in the disabled vic (can execute bump plan once contact is broken). VC ensures no one is left behind.</td>
<td></td>
</tr>
<tr>
<td>• After contact with enemy, ACC will collect ACE reports from VCs and relay summary to CC</td>
<td></td>
</tr>
<tr>
<td>• CC sends appropriate report(s) to Higher and determines follow-on actions</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Unblocked Ambush</strong></th>
<th>In an enemy KZ or taking fire with no road block.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Gunners gain PID then fire superiority. Lead gunners pop smoke to screen convoy.</td>
<td></td>
</tr>
<tr>
<td>• Vics continue at normal rate of march and scan carefully for IEDs as it may be a distraction</td>
<td></td>
</tr>
<tr>
<td>• If any vics go down in KZ, convoy executes hasty recovery drill.</td>
<td></td>
</tr>
<tr>
<td>• Convoy then proceeds away from KZ while ACC collects ACE reports.</td>
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</tr>
</tbody>
</table>
**Blocked Ambush**

In a KZ or taking fire and the road is blocked.

- Nav attempts to find a way around obstacle for entire convoy (relays his assessment to CC). Convoy must BPT back out of KZ.
- Gunners in KZ gain PID then fire superiority immediately (may pop smoke).
- Gun trucks near KZ maneuver to provide support by fire (SBF) to vics in KZ
- Gun trucks away from KZ maintain 360 degree security
- If any vics in KZ go down, execute hasty recovery drill
- Convoy departs when lead vic finds a way around obstacle or CC determines alternate route

**Hasty LZ**

Establishing an LZ to conduct an air CASEVAC.

- CC identifies location of possible LZ (ACC or Nav makes recommendations)
- If recovery time of vic jeopardizes casualty, convoy may split up (CC goes with CASEVAC)
- Convoy will establish 360 security around the LZ via gun trucks or dismounts
- CC or LZ NCO transmits LZ brief to aircraft and LZ team marks LZ according to plan
- A&L team brings casualty to aircraft
- All dismounts return to vics, CC gets accountability from VCs, and convoy returns to recovery site or objective to link up with ACC and the rest of the convoy.

**IED Spotted**

IED is identified prior to detonation (Execute 5x Cs).

**Confirm:**

- Closest Marine uses optics to make best determination on validity of IED
- If determined to be a possible IED, CC will call-in IED 9-line report
- Throw something identifiable nearby it as a reference point for EOD (chemlight, bottle, cone)

**Clear:**

- All vics obtain 300m clearance from the threat

**Check:**

- All vics come to rolling stop making sure to scan the area they are about to stop on (vics near threat get 300m clearance first)
- Everyone scans area around them to check for
secondary IEDs
• Check for triggerman or possible ambush (remember ROE)

Cordon:
• Cover avenues of approach with CSWs (dismounts may be needed)
• Create 360 perimeter around IED site as best as possible (terrain permitting)

Control:
• Nobody goes in or out of cordon unless authorized by CC
• CC will need to coordinate proper link up with EOD

IED Detonates

Convoy performs REACTER.

Report:
• ACC collects ACE reports from VC(s) involved (if comms are down, use signal plan)
• CC initiates IED report / CASEVAC report

Establish Security:
• Obtain 300m clearance from blast site (terrain dependent). Except for A&L team
• Maintain 360 degree security and only dismount if absolutely necessary

Assault the Enemy:
• Look for triggerman or possible ambush (remember ROE)

Clear to and through the Casualties:
• Nearest A&L team visually sweeps for secondary IEDs up to 50m from hit vic
• Once within 50m, A&L team dismounts and conducts 0/5/25s up to and around vic
• A&L team assesses casualties and radios status to CC

Treat Casualties:
• ACC establishes a casualty collection point (CCP) outside of KZ
• Corpsman treats casualties in a safe area and/or en route to higher echelon of care

Evacuate Casualties:

• CC coordinates appropriate method of CASEVAC based upon Corpsman’s triage

Recover Vic:

• Once casualties are cleared, recover down vic with organic assets or call for support

Convoy Communication

By the nature of convoy operations, vehicles and personnel are spread out along considerable distances, making radio communications your main method to maintain C2 of the unit. Ideally, each vehicle would have a radio. However, communication assets are often limited and you will have to choose where to position them. You must know the capabilities and limitations of all the communications gear and how to properly employ them, keeping in mind the distance the convoy will cover and the length of the convoy itself. For example, in larger convoys you may need other ‘middle’ vehicles to act as a relay in order to communicate with your first or last vehicle. There are three types of communication inherent to a convoy:

External to the Convoy

As the convoy commander, you are the primary person talking to forces external to the convoy in order to coordinate with Higher, adjacent, and supporting units. External communication is typically conducted to coordinate boundary crossings, keep Higher informed, employ supporting arms, and call for external support (e.g., CASEVAC, EOD, QRF, or recovery support). As the convoy progresses, you will be required to keep both Higher and adjacent units aware of your current location. Relaying tactical control measures, such as checkpoints, that all pertinent forces are tracking is the best way to accomplish this task.

Vehicle-to-Vehicle

You will issue orders to your subordinates and they will, in turn, report status updates, observations, or enemy contact to you. The more a convoy can reduce vehicle-to-vehicle communication to just essential information via brevity codes, the better.

Internal to the Vehicle

Personnel inside the vehicles communicate amongst themselves more often visually or by voice than by radio. The vehicle commander relays orders he/she received from you to his/her crew. Gunners and drivers report their observations to the vehicle commander who, in turn, passes essential information to you.

While these three types of communication may seem simple and intuitive, they will inherently be a tremendous source of friction for a unit that has not yet fully developed its SOPs. As the convoy commander, you will often find yourself employing multiple C2 systems simultaneously; submitting an IED 9-line to Higher through a Blue Force Tracker (BFT), receiving further updates from your lead vehicle while providing orders or guidance to all of your subordinates via the convoy internal net, attempting to contact EOD to initiate link-up on an external net, while also relaying to the unit you are supporting that you will be arriving late to the objective on a
different external net. Knowing the capabilities and limitations of your comms equipment is the science and it is important, but effectively employing everything at your disposal in harmony is an art and will only develop through intense and realistic training.

With radios being as central as they are to convoy operations, having a well-thought out Signal Plan that compensates for lost comms is vital. Although alternate and tertiary signals may not be as simple as dismounted operations where “voice” or “messenger” are common defaults, there are still plenty of options available. Gunners can in fact yell commands back and forth to each other if they are close enough. Also, your unit can establish SOPs for what certain vehicle signals mean at certain times (e.g., four-ways on while driving means troubleshooting comms). Furthermore, hand & arm signals out of windows or turrets can be as sophisticated and creative as your imagination will allow (your Marines will have some great ideas). **Ultimately, your convoy should still be able to execute every IA drill even if several vehicles lack comm.**

**PCCs & PCIs**

You must find time to conduct final PCCs and PCIs of your Marines and equipment prior to departure because the difference between success and failure in convoy operations is often determined by whether or not we remembered to bring the simplest items, like working AA batteries, or whether or not every VC actually knew the route. Although they are commonly referred to synonymously, PCCs and PCIs are different. PCCs are conducted to ensure your personnel are physically prepped for combat. PCIs ensure your Marines are mentally prepped; that they actually know the plan. In a strong unit, every item you check or every question you ask will have already been checked or asked at least once by your NCOs/SNCOs. Anyone in a leadership billet should conduct PCCs/PCIs. Below are sample checklists of each that you can build upon with time and experience:

<table>
<thead>
<tr>
<th>PRE-COMBAT CHECKS</th>
<th>Key Billets</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Personnel</strong></td>
<td><strong>Key Billets</strong></td>
</tr>
<tr>
<td>□ PPE</td>
<td>□ ACC: 1x Slave Cable per Convoy / Maximum Tow Bars/Straps w/ chains</td>
</tr>
<tr>
<td>Kevlar</td>
<td>□ Nav: GPS / Map / Compass / Map Pens</td>
</tr>
<tr>
<td>Goggles (clear &amp; dark lenses)</td>
<td>□ VC: Strip Map / Radio (op-checked) / Report Smartpack / Vic &amp; PAX ready</td>
</tr>
<tr>
<td>Full NVG SL-3 attached</td>
<td>□ Operator: Trip Ticket &amp; License (on-hand) / Pre-Op Checks Complete / No less than 3/4 fuel / POLs topped off / Lug Nuts Torqued / Fuel &amp; Water Jugs Full / SL-3 &amp; SL-4 Complete (issues briefed to ACC)</td>
</tr>
<tr>
<td>Flak w/ all Sapis</td>
<td>□ Gunners: Harness / CSW SL-3 / Mount &amp; Functions Check CSW / Ammo Issued &amp; Qty Confirmed / EOF Kit on hand</td>
</tr>
<tr>
<td>2x Grenade Pouches</td>
<td>□ Corpsman: CLS bag / 1x Litter each</td>
</tr>
<tr>
<td>6x Magazines w/ Pouches</td>
<td>□ Radio Operator: Comm w/ Higher &amp; Adj Units (op-check)</td>
</tr>
<tr>
<td>Complete IFAK</td>
<td>□ Mechanic: Complete Tool Kit / Extra POLs</td>
</tr>
<tr>
<td>Flashlight w/ Red Lens</td>
<td>□ A&amp;L/LZ NCO: Complete LZ Kit (2 methods of Marking) / 2x Pole-less Litters</td>
</tr>
<tr>
<td>Ballistic Eye Pro / Ear Pro / Gloves</td>
<td></td>
</tr>
<tr>
<td>Sunblock / Insect Repellant</td>
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</table>
Pre-Combat Inspections

Pre-combat inspections are best conducted as back-briefs immediately following the conclusion of your convoy order. These are just a few examples:

- Nav: Back-brief the primary route.
- VC: What are the signals for ACE report if you lose comm?
- PFC: What is the lost vehicle plan?
- Operator: What will our dispersion be between CP ___ & ___?
- VC: What will you do if your driver is an urgent casualty?
- Sgt: what is our mission statement?
- LCpl: What is the EMLCOA?
- Sgt: What are the primary & alternate means of comm with Higher?
- LCpl: Describe the hasty recovery drill

Post-Convoy Actions

As with everything else, your unit’s actions immediately following the completion of a convoy should be conducted per an established SOP. A few important considerations are:

Debrief

As soon as possible following the mission, convoy personnel should conduct a comprehensive debrief with S-2 or the Watch Officer. As the CC, you should be present at a minimum. However, every Marine is a collector as mentioned before, so the more Marines you have participating in the debrief, the better a product S-2 will ultimately be able to provide back to you or other units prior to their upcoming departure.

Weapon / Gear / Self

Just like in any other operation, the most disciplined units are the ones who tend to their weapons first, their gear second, and their personal needs last. You must enforce this same mentality when returning back to the AA after an operation, whether it was for 3 hours or 3 days. Maintenance of CSWs and T/O weapons should be the first priority, followed by vehicle preparation (refueling, loading, staging) for the next mission. **This mindset only becomes second-nature to your Marines if the standard is set and enforced early on.**

Summary

This class offers fundamental planning considerations, principles, and techniques to conduct convoy operations; however, it is only a starting point. Unit SOPs and the operating environment will substantially influence how you operate and you must be able to adapt as necessary. Ultimately, your ability to apply the fundamentals while simultaneously adapting to the environment will be essential to your unit’s success since the full spectrum of convoy operations is profoundly complex and varied. The mission, size, task organization, route, and enemy threat will likely be unique to every convoy operation. However, whether you are leading a nine vehicle convoy along the roads and training areas of Camp Pendleton just to get your Marines away from the motorpool or you happen to be tasked to lead a twenty-five vehicle resupply convoy two months later through the most kinetic AO in the Middle East, the principles and concepts you apply will be fundamentally the same. **Train like you fight!**
### References

<table>
<thead>
<tr>
<th>Reference Number</th>
<th>Reference Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMFRP 4-19</td>
<td>Vehicle Recovery Operations</td>
</tr>
<tr>
<td>MCRP 3-11.1A</td>
<td>Commander’s Tactical Handbook</td>
</tr>
<tr>
<td>MCRP 4-11.3F</td>
<td>Convoy Operations Handbook</td>
</tr>
<tr>
<td>MCRP 4-11.3H</td>
<td>Multi-Service Tactics, Techniques, and Procedures for Tactical Convoy Operations</td>
</tr>
</tbody>
</table>

### Glossary of Terms and Acronyms

<table>
<thead>
<tr>
<th>Term or Acronym</th>
<th>Definition or Identification</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC</td>
<td>Assistant Convoy Commander</td>
</tr>
<tr>
<td>AO</td>
<td>Area of Operations</td>
</tr>
<tr>
<td>C2</td>
<td>Command &amp; Control</td>
</tr>
<tr>
<td>CAS</td>
<td>Close Air Support</td>
</tr>
<tr>
<td>CC</td>
<td>Convoy Commander</td>
</tr>
<tr>
<td>CSS</td>
<td>Combat Service Support</td>
</tr>
<tr>
<td>CSW</td>
<td>Crew-Served Weapon</td>
</tr>
<tr>
<td>EOD</td>
<td>Explosive Ordnance Disposal</td>
</tr>
<tr>
<td>HMMWV</td>
<td>High Mobility, Multipurpose, Wheeled Vehicle</td>
</tr>
<tr>
<td>IA</td>
<td>Immediate Action</td>
</tr>
<tr>
<td>IED</td>
<td>Improvised Explosive Device</td>
</tr>
<tr>
<td>ISR</td>
<td>Intelligence, Surveillance, and Reconnaissance</td>
</tr>
<tr>
<td>LVSR</td>
<td>Logistics Vehicle System-Replacement</td>
</tr>
<tr>
<td>MRAP</td>
<td>Mine-Resistant Ambush Protected</td>
</tr>
<tr>
<td>MTVR</td>
<td>Medium Tactical Vehicle Replacement</td>
</tr>
<tr>
<td>MWD</td>
<td>Military Working Dog</td>
</tr>
<tr>
<td>NAV</td>
<td>Navigator</td>
</tr>
<tr>
<td>PCC</td>
<td>Pre-Combat Check</td>
</tr>
<tr>
<td>PCI</td>
<td>Pre-Combat Inspection</td>
</tr>
<tr>
<td>PID</td>
<td>Positive Identification</td>
</tr>
<tr>
<td>QRF</td>
<td>Quick Reaction Force</td>
</tr>
<tr>
<td>SAF</td>
<td>Small Arms Fire</td>
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<tr>
<td>SOP</td>
<td>Standard Operating Procedures</td>
</tr>
<tr>
<td>TTP</td>
<td>Tactics, Techniques, &amp; Procedures</td>
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<tr>
<td>UAH</td>
<td>Up-Armored HMMWV</td>
</tr>
<tr>
<td>UAV</td>
<td>Unmanned Aerial Vehicle</td>
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<tr>
<td>VC</td>
<td>Vehicle Commander</td>
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<tr>
<td>VIC</td>
<td>Vehicle</td>
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### Notes