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CONVOY OPERATIONS

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NORTH ATLANTIC TREATY ORGANIZATION (NATO)

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NATO LETTER OF PROMULGATION

28 January 2019

1. The enclosed Allied Tactical Publication ATP-76, Edition B, Version 1, CONVOY OPERATIONS, which has been approved by the nations in the MCLSB, is promulgated herewith. The agreement of nations to use this publication is recorded in STANAG 2614.

2. ATP-76, Edition B, Version 1, is effective upon receipt and supersedes ATP-76, Edition A, Version 1, which shall be destroyed in accordance with the local procedure for the destruction of documents.

3.

4. This publication shall be handled in accordance with C-M(2002)60.

Zoltán GULYÁS
Brigadier General, HUNAF
Director, NATO Standardization Office

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RECORD OF RESERVATIONS

CHAPTER	RECORD OF RESERVATION BY NATIONS
Note: The reservations listed on this page include only those that were recorded at time of promulgation and may not be complete. Refer to the NATO Standardization Database for the complete list of existing reservations.	

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RECORD OF SPECIFIC RESERVATIONS

[nation]	[detail of reservation]
ESP	Spain will apply this publication to all forces, regardless the Component Command commanding the operations.
NLD	Para 3.1.2.g states "The escort commander is under the command and control of the Convoy Commander". The Netherlands recognizes that the Escort Commander is to be the overall Convoy Commander when an escort is assigned to a convoy. Rationale: When the threat is so severe that an escort has to be assigned to the convoy the mission becomes a tactical activity instead of a logistical task. The commander of the escorting element becomes the commander of the whole convoy.
Note: The reservations listed on this page include only those that were recorded at time of promulgation and may not be complete. Refer to the NATO Standardization Database for the complete list of existing reservations.	

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1.1. INTRODUCTION

1.1.1 Purpose.

Convoy operations are a critical function for supporting operations in a theatre of operations and their protection is a major concern for all forces. The purpose of a convoy is to take personnel, materiel, and or supplies safely to their destinations. The asymmetrical nature of the current operational environment has changed the linear dimensions of the battlefield. As such there are many unsecured areas throughout the NATO area of responsibility. This awareness stems from recent conflicts where the traditional boundaries no longer exist and the enemy uses unprotected areas to exploit and attack convoys.

1. A constant change in the adversarial tactics, combined with an increase in overall NATO operational commitments, highlights the need for a multi-national doctrine describing convoy operations. This Allied Tactical Publication describes the planning, preparation, execution, and the post-operation assessment for all convoy operations.

2. This chapter will describe the general operational context, the scope of the document and what is relevant to NATO operations.

1.1.2 Scope.

1. This publication addresses operations within a joint environment, with emphasis on NATO land forces operations. The doctrine described in this publication is nested within the context of ATP 3.2.1, Allied Doctrine for Land Tactics.

2. Current operational environment requires that a majority of land forces operate within the framework of joint and multinational operations. Supported and sustained by a joint operations area, land forces most often conduct operations (especially convoy operations) in areas partially controlled by allies or coalition partners. These operations require close coordination and synchronization of efforts which could include convoys consisting of civilian and military assets from host nation elements, third party nationals, or contracted resources. Convoys may also cross areas under the control and responsibility of a host country and local security forces. To ensure success, convoys must be supported by combined arms, joint forces, and allies, and air coverage in the joint force area of operation.

3. Military elements will, most likely, be required to organize and conduct convoys in various circumstances. These operations may require additional resources to be allocated depending on the nature of the mission. In some situations it may be wise to envisage escorts during the planning phase of the convoy operation. The number of resources devoted to convoy security can be very significant, given the convoy duration and the nature of the threat.

4. It is highly possible that convoys will consist of elements coming from many branches and Services. A land force commander may have under his command any combination of air, maritime or Special Forces units. As a result, it is important that convoy operations procedures be known and followed by all.

5. This ATP specifically concerns joint and combined, tactical and operative headquarters. It also applies to any organization responsible for the operational functions of conducting convoy operations.

1.1.3 Operational Context.

1. Current and future operations will most likely occur in non-contiguous areas of engagement. Non-contiguous areas are protected areas which are separated by largely unprotected/unsecured areas. Movements will take place along both secure and unsecured routes across the operational environment.

2. Within asymmetrical conflicts, it is beneficial to the enemy to attack the least heavily armed units, particularly logistics, with light armored vehicles, personnel carriers, or vital cargo (ammunition, fuel, food). These are considered high value targets.

3. The impact of human and material losses, given media exposure is likely to weaken national resolve due to political and psychological aspects. These are major concerns for the joint commander. To reduce this impact, convoys rarely move in uncontrolled areas without protection. Convoy operations face many challenges. To mitigate these challenges the following elements should be considered:

a. Known areas of engagement should be avoided or circumvented if possible.

b. Convoy operations must be adaptable to the threat environment and its impact on the indigenous population.

c. Intelligence is required on the operational environment, the enemy and the local population, for mission success.

4. Convoys must be adapted to the areas of engagement in varying terrain and environments:

a. **Urban area.** Avoiding these areas are vitally important and sensitive. Urban areas are familiar environment to the enemy that provide the enemy with the ability to attack in close combat a larger force with a small number of personnel. In this environment they may easily infiltrate, establish their command posts, and develop areas of aggression, where it is difficult to distinguish between combatants and civilians.

b. **Gap areas**. Convoys traveling through these areas must develop methods for maintaining force protection, communications and situational awareness. Gap areas are large, uncontrolled separated spaces ("pockets" scattered in an environment) that are dynamic (high mobility) and contiguous boundaries may not exist.

c. **Mountainous areas**. In this environment, communication is critical, however mountainous areas severely restrict communication which makes the establishment and maintaining of communications extremely challenging. The scarcity of road networks and limited maneuverability, make convoys vulnerable to the effects of adverse weather and enemy attacks. With limited road networks, routes are particularly vulnerable to obstructions by natural phenomena (snow, avalanches, landslides,

floods), to combat operations (mining, trapping, fortifications) and constrictions.

d. **Wooded areas**. These areas heavily favor the enemy, allowing the element of surprise and limiting the convoy's freedom of movement. They are subjected to restrictions common to both urban and mountainous areas.

e. **Desert and open plains areas.** In these areas, convoy operations are very exhausting for the crews, damaging to vehicles, and depending on the nature of the conflict they may favour attack by air, aviation and/or enemy forces operating in area. These areas are mostly lowland areas that are level or gently sloping or rolling. It normally has few, if any, prominent hills or valleys, but may have considerable slope.

1.1.4 Relevance to NATO Operations.

1. ATP-76 provides tactical guidance for the Combined Joint Force Land Component Command and its subordinate units, regardless of the level of command.

2. This publication is relevant across strategic, operational and tactical levels of command, and applies to any operational phase involving convoy operations. It is also applicable to the full spectrum of potential NATO campaign themes (Combat, Peace Support Operations, Security, Other Activities), as well as on exercises, or operation with the United Nations, the Organization for Security and Co-operation in Europe and the European Union once the co-operation protocols have been agreed by the North Atlantic Council.

3. In a given strategic context, the level of threat to convoy operations increases with the complexity and capabilities of the enemy. When planning convoy operations the following threats categories should be considered:

a. Enemy.

(1) Irregular

(a) Weak. This type of enemy takes many forms. In this case, they are not noticeably present or active and the population is mildly in favour of the insurgents or, at least, remains passive. They harass regular national forces by means of small-scale actions such as setting up checkpoints, racketeering, and establishing administrative controls. These militias or groups are often linked to organized crime and may, in some cases, appear to act as regular forces. In this situation, convoys are susceptible to stone and projectile throwing, sniper attack, or attacks on traffic areas (road intersections, halt lines, roundabouts, etc.). For this type of threat, convoy security can generally be performed by the convoy itself.

(b) Strong. This threat is particularly difficult to counter and often requires specific rules of engagement. This enemy seeks to disrupt or deny convoy movements. In urban areas the threat level increases when the convoy is confronted by hostile crowds. The crowds may impede convoy movement by means of demonstrating or setting up roadblocks. Agitators who blend in

with the crowd, including women and children, can use the occasion to steal convoy cargo or use it as a cover for snipers. Small groups of lightly armed fighters may attack the convoy to destroy some of the vehicles by ambush or by IED.

At this level, convoy protection can be ensured by own means or by an attached security element (armoured elements of forward traffic control, jamming, artillery observer, army aviation, and engineers). Local security forces may also provide convoy support. Combat units generally have sufficient means to counter this threat.

(2) Conventional.

(a) Weak. At this level the enemy may have a low or medium strength conventional army, equipped mainly with older weapon systems but in high numbers. Its strategic objective is to defeat allied forces. One means of accomplishing this is by destroying convoys or disrupting and denying freedom of movement. They have an established legitimacy within the local population, are recognized by the international community, and can be defined by the following:

- It is capable of deploying Special Forces to conduct reconnaissance and sabotage in friendly forces areas.
- It is able to engage in conventional combat operations.
- It may own air assets capable of sporadic air-ground attacks.
- It may be supported by it national population and forces from neighbouring countries where part of the force may be located.

At this level, additional security forces can still be provided on certain routes, and be reinforced with combat and support units. The nature of reinforcement will depend on the importance of the convoy and the nature of the threat. Generally, combat units are dedicated to this task; joint assets can also support the convoy.

(b) Strong. At this level the enemy is well equipped with technologically advanced weapon systems and a well trained, loyal, and dedicated conventional joint force. This level is considered a high-intensity conflict where the threat of air attack is possible.

The goal of a strong conventional enemy is to defeat allied joint forces, interrupt and destroy the movements of forces and of materiel, and to reduce and defeat the operational capability of friendly forces. It is able to carry out joint operations and employ

Special Forces. The enemy may also have Chemical, Biological, Radiological and Nuclear (CBRN) capabilities. Logistic elements are a prime target as they can easily be attacked and present low combat resistance. At this level, the enemy may use a variety of attacks against convoys. Unfortunately convoy assets would have little effect in protecting the convoy. As a result, convoys should plan and coordinate a multitude of protective measures including employing convoy escorts, arranging close air support and other protective functions as available to the Joint Force Commander and NATO forces.

b. Mines and Improvised Explosive Devices.

(1) The IED and mine threat has significantly increased with it becoming the weapon of choice for insurgents. They are used alone or as part of coordinated attacks that can include direct or indirect fires (light weapons, rockets or mortars). If multiple IED are used, the first IED is mainly intended to stop or channel a convoy. Secondary IEDs are used against the forces responding to the initial explosion. It may also be used as a blocking action in an ambush.

(2) An IED can be emplaced, and then abandoned until activated either by the passage of an element of a convoy, or triggered remotely by an observer. Suicide bombers (on foot or in a vehicle) are the most difficult IED threat to counter. However, suicide bombers are least effective against moving convoys if convoy separation discipline is complied with.

c. Vulnerabilities.

(1) Recent conflicts show that logistic convoys (joint, interagency, possibly including civilian vehicles) are by nature vulnerable, especially if they carry sensitive or hazardous materials.

(2) The logistic convoy requires the most protection because:

- It has limited self-defence.
- It is often linked to a predictable route and it maneuvers with difficulty.
- The size, composition and limited speed offers opportunities for the enemy to attack.

- In motion, it is difficult to deceive the enemy or remain hidden from enemy observation.
- When halted, its camouflage requires resources, time and effort for the crews.
- Its partial or total destruction reduces or neutralizes the combat readiness of the force, by depriving it of supplies.
- It is a source of supply for the opponent (ammunition, fuel and food) and for the population.
- Its destruction is an excellent propaganda tool for enemy media.

CHAPTER 2 - PLANNING CONVOY OPERATIONS

2.1.1 Introduction.

1. This chapter discusses planning considerations for convoy operations. The successful execution of convoys requires planners at all levels to adhere to basic principles and guidelines to minimize threats to the mission, equipment and personnel. If necessitated by the threat along the march route, the formation commander must order protective measures to be taken that exceed the convoy's self-protection and cover the entire march route. They include all measures which ensure the unhindered conduct of marches. The formation commander must break the route down into stretches not only on the basis of their length or the time it takes to cover them, but primarily on the basis of tactical considerations. If the situation, the mission and the factors of time and space so permit, he must avoid difficult areas and bypass urban areas and large townships or villages.

2. Depending on the level of the threat and the difficulty posed by the terrain, he must earmark additional forces to provide protection against irregular forces and keep them at the ready along the march route so that they can quickly intervene in the event of an attack and ensure that the convoy keeps moving. He must coordinate the employment of these forces with the convoy commander.

3. Depending on the threat, the commander must opt for one of the following forms of convoy protection:

a. self-protection only

b. base support

c. tunnel operation

4. The kind of protection provided may vary along different stretches of the march route. When marches are scheduled to take quite a long time and greater distances have to be covered, the commander must set up bases. They must be fortified, equipped and manned to allow effective protection and support to be provided for the convoy. These bases are used as:

a. reception points

b. assembly areas for reserves

c. casualty collecting points or, if necessary, role 1 medical treatment facilities

d. supply points and equipment casualty evacuation points

e. helipads

f. rest areas and areas for conducting maintenance halts

g. potential firing position areas

5. A commander must also set up bases when a short march route passes through a particularly dangerous area or must be used quite often because it is the only route possible.

A tunnel operation is an operation in which the highest level of convoy protection is provided. It has to be conducted when the protection that can be provided by escort forces and bases is insufficient. In this kind of operation, the commander deploys forces along particularly threatened stretches of the march route and assigns them the mission of protecting the convoy from a distance. Airborne protection is ensured by helicopters. Air forces can be requested to enhance this form of protection.

2.1.2 Principles.

Convoy operations should adhere to the following:

1. **Momentum.** The impetus gained by tactical movement. A Convoy must maintain momentum to prevent being fixed by the enemy and to deprive them of freedom of action. However retention of momentum must be balanced against the risk of separation of convoy vehicles, loss of physical cohesion, and the local threat level.

2. **Intelligence Assessment.** The product of processing information concerning internal threats to the state, foreign nations and organizations, hostile forces, and areas of actual (or potential) operations. Intelligence is a continued and ongoing process. An effective analysis of the threat is critical to the Commander's decision-making, route determination, timings and the conduct of force protection.

3. **Mutual Support.** Support which units render to each other against an enemy because of their assigned tasks, concurrent geographical location relative to the enemy, and their inherent capabilities. The constituent elements of the convoy must provide mutual support to one another to generate and maintain a level of physical cohesion that adds depth to and enhances force protection. Convoy operations should wherever possible, be integrated into other operations in order to increase the protection available to them and to ensure they do not adversely affect the operations of ground-holding units.

4. **Initiative.** Ability to make the enemy conform to one's intent. Anticipation, adaptation, deception, and effective use of intelligence are all parts of initiative. A convoy must not be reactive to the activities of the enemy. Participating troops are to take every opportunity to develop Security within the areas through which the convoy is moving and presents a visible deterrent to enemies.

5. **Co-Operation.** Entails the co-ordination of all activities to achieve an optimum outcome. Three elements of co-operation are a common aim, clear division of responsibilities, and willingness. A common aim for a convoy is to move personnel, materiel or services often in a harsh environment or a hostile tactical situation. A clear division of responsibilities between the internal elements of a convoy and between the convoy and recipient unit(s) is articulated within doctrine applied military judgment. Goodwill between the convoy and the recipient unit(s) is fostered through close, effective liaison and a mutual understanding of logistic capacity to meet logistic priorities.

6. **Communications.** Maintaining communications within the convoy, with the responsible unit for ground operations and with the convoying unit command post, is a key principle. Ensuring communication along convoy routes requires detailed coordination and planning.

2.1.3 Mission Analysis.

1. This analysis is crucial for proper convoy planning. The actual mission determines all necessary planning and preparation requirements. Disregarding the necessary convoy actions at pick-up, execution and at drop-off can negatively influence the operation, safety and protection of the convoy.

2. A considerable degree of liaison must take place between all stakeholders prior to starting detailed planning of the convoy. This is to ascertain key planning constraints and freedoms. Key areas of interest include, time and space, information, environment, accommodation, life support, materiel handling equipment, storage, and services.

3. Mission analysis should also include battlefield management. Battle space management is the use of means and measures that enable the dynamic synchronization, prioritization and de-confliction of activity across all dimensions of an assigned area of operations within the battle space. It enables fire support coordination.

2.1.4 Convoy Planning Factors.

1. **Terrain Analysis.** This analysis is critical for convoy planning. Ground conditions can vary greatly over the entirety of the convoy's route. For example, when transiting through desert areas the stability of sand varies enormously from area to area and stability is also greatly affected by weather. Terrain analysis seeks to identify natural or man-made features, including conurbations, that:

   a. Pose an obstacle to movement which results in stressed convoy momentum or integrity.

   b. Channel the convoy providing the enemy the opportunity to predict routes

   c. Place the convoy at a tactical disadvantage or denies the opportunity to bring firepower to bear upon the enemy.

   d. Must be avoided because of political, cultural, environmental or media sensitivities. The output of terrain analysis is a terrain assessment that demonstrates those areas which must or should be avoided and those areas that may be avoided because of other factors.

   e. provide cross country movement analysis for planning convoy operations and/or provide "road books."

2. **Weather.** Weather always affects the conduct of military operations and weather analysis and prediction seeks to determine how it will:

   a. Affect routes and the ability of the convoy to traverse selected routes.

   b. Impact upon Intelligence, Surveillance, Target Acquisition, and Reconnaissance (ISTAR) assets assigned to the convoy.

c. Constrain aviation support to the convoy. The outputs of weather forecast information which show the impact of weather by area and by time upon routes, ISTAR and aviation support.

3. **Civilian, Language and Cultural Considerations.** The Convoy commander is responsible for all non-military supporting assets while they are part of the convoy. These supporting elements may be coalition partners, host nation/local national contractors or contractors from other countries. The Convoy Commander should include in the planning process the awareness for diplomatic or cultural sensitivity.

a. The Law of Armed Conflict imposes strict limitations on the use of civilian personnel in a combat environment. Combatant commander's guidance may dictate policy, limitations, and restrictions for civilians supporting military forces. The Convoy Commander must be aware that contracted drivers will be unarmed.

b. The Convoy Commander should consider language and discipline differences among civilian drivers and possible implications on the convoy. For example, interpreters may be required to communicate with contractors who may not speak the national language. In some cases contractors may possess their own forms of communications, both in their vehicles and on their person, to allow them to communicate with each other and perhaps their own chain of command. Depending on the situation, the Convoy Commander may consider removing all contractors' communications capabilities because of the potential for operational security breaches.

c. Convoy Commanders must be cognizant of cultural sensitivities including host nation nationals or other contract nations operating within the convoy as well as convoy operations through cultural centres. For example, Convoy Commanders may consider scheduling convoy movement at times when religious rites would have least impact on convoy operations. Convoy Commanders may consider altering routes through cultural centres during cultural holidays or religious festivals.

4. **Threat Analysis.** The threat analysis uses knowledge and information to identify the means by which the enemy gathers information on the convoy and the typical nature and locations for attacks. The output of threat analysis is a threat assessment overlay that shows:

a. Locations where the enemy has previously gathered information on the convoy.

b. The type and varying levels of threat along routes.

c. Likely transit times through areas where attacks have previously taken place.

5. **Route Analysis.** This analysis is conducted with advice from Military Engineering Staff (e.g. Military Search Advisor), and informed by detailed map/imagery reconnaissance. Military Engineers should be included in route reconnaissance parties. They should ascertain whether the condition and capacity of the routes are adequate; if not, remedial actions, such as diversionary routes, restrictions and the reinforcement of bridges,

are to be planned. In addition a route assessment should be done. For further information, see ATP-3.12.1 Military Engineering. Each convoy has a different composition and some vehicle- types will find it easier to traverse a route, given anticipated loading plans and the impact of loads on mobility and maneuvrability. The convoy commander must be aware that contracted and civilian vehicles will have different capabilities and terrain limitations. Route analysis seeks to identify:

a. All viable routes given the dimensions of heavily laden vehicles and route classifications, including those areas of complex terrain.

b. Availability of lateral routes that connect viable routes; this provides the opportunity to develop alternative and emergency routes.

c. The area of operations of friendly and neutral units through which the convoy is likely to traverse.

d. Anticipated traffic levels – what is a 'normal' amount of traffic for the area of operations (AOO) of friendly, and neutral, units through which the convoy is likely to traverse.

e. Likely vulnerable points or traffic choke points on all viable routes.

f. Frequently used routes through examination of previous traces.

g. Possible locations for halts, leaguers, and harbours.

h. Possible rendezvous locations for guide parties and external force protections.

i. Possible Emergency Rendezvous / rally locations for lost/separated vehicles or for post enemy contact.

The output of Route Analysis is a list of viable routes, presented graphically, that includes alternative and emergency routes; locations for halts, leaguer, and harbours; and rendezvous.

6. **Route Selection.** Route selection is simply risk management. Topographical, weather and threat risks to convoy momentum and integrity on viable routes are considered and mitigating activity planned. The output is a list of viable routes, each with associated risk mitigation tasks, showing a preferential order. Alternative and emergency routes should also be identified.

7. **Convoy Support.** Due the dispersed nature of the current operational environment, convoys can be measured by days or hours. In any case, convoys will require internal and external support for its success. Internal support most likely will include convoy logistic support (food, fuel, rest, maintenance) while external support will typically include reinforcements/attachments (protection assets, ISTAR and specialist vehicles such as mobile medical teams or road clearance packages) to enhance capability.

a. **Military Police Support.** Military Police (MP) Support. During convoy operations MP provide mobility support, where MP assists the commander during the production of movement plans. This planning involves the preparation for executing movement of military forces, as well as population movements on military routes. MP support includes: route reconnaissance, recommendation of routes and timings for major road movements, sequencing priority movements, liaison between formation movement cells and other assets that assist the movement function including civilian and host nation authorities.

Additionally, MP provides security by assigning convoy escorts for these types of movements or by maintaining security in the area that a convoy will pass through, NATO MP are well suited to enhance the freedom of movement for the commander. NATO MP may also conduct route security on a specific route for a designated period during which multiple convoys move unimpeded.[1]

b. **Convoy Escort.** Convoy escort is any attached organization whose primary purpose is force protection or high capability surveillance. The role of the convoy escort is to provide depth to the convoy. When necessary, the convoy escort conducts offensive action to neutralize enemy attack or to disrupt their activities. This enables the convoy to maintain its momentum. The composition of the escort is determined by the formation headquarters, based on the size of the convoy and the threat. It may include an advance guard and a rapid response force. Consideration should be given to the use of armored infantry due to their enhanced protection, mobility and firepower. Additional tasks that may enhance situational awareness and force protection include:

i. Route checks.

ii. Vulnerable point checks tactical bound ahead of the convoy.

iii. Securing key junctions and domination of ground in depth.

iv. Electronic counter measures.

c. **Logistics.** Convoy planners must consider the distance and duration of the convoy. For example, extended convoys, several hours to days, may require logistic support vehicles (tankers, recovery vehicles, and medical support vehicles) be infused into the convoy. The Convoy commander must plan the placement of support vehicles in the convoy. For a multiple day convoy particular attention must be paid to planning stops and support once the convoy arrives at its destination.

d. **Assets**. Available support assets calculation should be done. As the manoeuvre units conduct planning, coordination with their respective engineer units should take place simultaneously in order to support the convoy requirements and durations. An estimation of current capabilities and capacities will give the planning staff the ability to assign realistic tasks and serve as a tool to determine the priorities of routes and levels support and

[1] AJP-3.21 Allied Joint Doctrine for Military Police and ATP-3.7.2 NATO Military Police Guidance and Procedures

assets required.

e. **Military Engineering Support.**

i. Convoys. The following should be taken into consideration:

1. Route clearance requirements should be tied to operations and logistics requirements in both time and space in order to deliver the appropriate level of support to be effective.

2. The length of routes to be cleared / maintained with respect to the trafficability requirements and crossing support levels needed.

8. **Planned Halts.** Convoy planners must ensure planned halts are scheduled along the convoy route. Planned halts may range from rest periods to refuel operations. In developed theaters, nations may have established convoy support centers, for enroute and life support, if available.

9. **Force Protection.** Commanders must ensure that all convoys are afforded protection appropriate to the threat and in accordance with formation direction. Protection is defined as all measures and means to minimize the vulnerability of personnel, facilities, materiel, and operations to any threat and hazards in all situations, to preserve freedom of action and the operational effectiveness of the force. Soldiers must be fully trained in the use of the weapons systems they operate.

a. **Internal Force Protection (IFP).** The primary role for IFP is to provide the Convoy Commander with assets to ensure convoy physical cohesion, self defence, and to enable the convoy to quickly extract from the kill zone to an area of safety where the convoy can conduct reorganization and carry on with the mission. . IFP operates with an intimate understanding of priorities, and the capabilities of vehicles and equipment to ensure the convoy survives contact with both the harsh environment and enemy attack. The precise role of the IFP will depend upon the availability of other protection assets. IFP assets should be distributed throughout the convoy. In the absence of other force protection assets, elements of the integral force protection may be detached to clear and hold vulnerable points and vulnerable areas.

b. **Route Clearance.** When available, route clearance assets may be employed to achieve and maintain freedom of movement. Route clearance is the detection and if found, the confirmation, the identification, marking and neutralization, destruction or removal of explosive ordnance and non-explosive obstacles threatening a defined route to allow a military operation to continue with reduced risk. Route clearance operations will be conducted in accordance with Commander`s intent and the threat assessment. Commanders decide the requirement to conduct route clearance as their situation dictates and with input from their advisors. However, every element of a force conducting route movement should be concerned with the threat associated with their movement. Route clearance capabilities are limited and should be employed only according to a prioritization process. For further information, see ATP-3.12.1.3 route clearance.

10. **Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR).** Accurate and timely intelligence feeds are critical to the planning process but specific ISTAR assets may also be appointed to the convoy to provide support during execution.

11. **Electronic Counter Measures (ECM)**. All convoys must deploy with sufficient ECM equipment and a thorough understanding of its tactical deployment. There should be enough ECM to enable all elements of the convoy to be protected. The order-of-march may need to be adjusted to reflect the availability and range of different types of ECM.

12. **Indirect Fire Support in the framework of Joint Fire Support**. If available, the Joint Fire Support Element of higher headquarters may provide to the Convoy Commander a Joint Fire Support Team for indirect fire support planning. Joint Fire Support coordinates all indirect fire supported issues provided by land, sea and air and will provide effects with the most appropriate asset. Targets such as choke points, suspected ambush sites, danger areas, and easily identified terrain features should be coordinated prior to the convoy departure. Fires can be shifted from these pre-coordinated target reference points or simply called in with exact grid coordinates of the target. The forward observer or the forward air controlled (FAC) must be able to stop any unsafe situation that develops. Indirect fire should always be controlled with “eyes on target” in order to ensure the desired target is hit.

13. **Aviation Support**. The Convoy Commander is responsible for knowing the best use of aviation assets to support convoy operations and should consult the Tactical Air Control Party for planning purposes. Aviation can be a force multiplier where the physical presence of aircraft can dissuade an attack or cause the enemy to break contact. Aviation support to convoys is not limited to close air support (CAS), escort operations, medical evacuation and casualty evacuation; aircraft and unmanned aircraft system can also be an effective tool for intelligence, surveillance, and reconnaissance, electronic warfare, or show of force operations. When direct support aviation response time is critical, coordinate request procedures early in the planning process.

a. Aviation units need the following information to support a convoy:

i. Convoy mission route overview and objective.

ii. Enemy situation. Identify the locations of probable contact and the enemy’s most probable or most dangerous course of action.

iii. Friendly situation. Identify known friendly convoys, and patrols in the AOO. Identify the convoy frequency, call sign, and day and night markings.

iv. Convoy composition. Identify the number and type of vehicles in the convoy, order of march, limits of dispersion, and locations of the Convoy Commander and assistant convoy commander.

v. Convoy primary and alternate route. Identify the start point, check points, and rally points along the route, terrain features, planned halt

points, possible danger areas, preplanned landing zone, and release point.

b. **CAS**.

i. Effective employment of CAS requires a joint terminal attack controller (JTAC)/FAC to ensure proper coordination between air and ground forces. CAS is air action by fixed-wing and rotary-wing aircraft against hostile targets in proximity to friendly forces. CAS requires detailed integration of each air mission with the fire and movement of friendly forces.

ii. The Convoy Commander can still receive effective air support even if a JTAC/FAC is not available. Due to the complexity of CAS, the commander must consider the increased risk of fratricide when using personnel who are not qualified JTAC/FAC and accept full responsibility for the results of the attacks. The requester must notify/alert his/her command element when a JTAC/FAC is unavailable. If the maneuver commander accepts the risk, he or she forwards the request to the CAS controlling agency. This information will alert the CAS controlling agency the aircrew will be working with non-JTAC/FAC qualified personnel.

iii. To execute CAS, ground personnel must:

1. Identify themselves as “non-JTAC/FAC qualified” on aircraft check-in.

2. Target Location. This may take some time because features visible from the ground may not be visible from the air, or there may be similar to other features in the surrounding area (e.g., a multiple road intersection, burning vehicles, etc.). Use plain language and, if required, ask the pilot what reference points can be seen from the air. The target location may be provided in grid coordinates, latitude and longitude relative to a navigational aid, or visual description from a conspicuous reference point. If using grid coordinates, the 100,000-meter grid identification should be provided. For an area target, give the location of the target’s center or location of the greatest concentration. After passing target coordinates, the CAS controller may need to provide a further target description.

3. Friendly Location. The distance of friendly elements from the target is given in meters and is a cardinal heading from the target (north, south, east, or west). If the friendly position is marked, identify the type of mark.

4. Amplifying Remarks. Rules of engagement may require pilots to ask specific questions like proximity to civilians and enemy actions.

5. If an unsafe situation develops, the ground observer should

transmit “Abort, Abort, Abort” to stop the attack. Other options that can be coordinated prior to the attack may include digital messaging, obscuration employment, infrared pointer, tracer fire, and illumination.

c. Route ISR and Escort Operations.

i. Convoy routes can be examined by fixed-wing or rotary-wing aircraft, or unmanned aircraft system.

ii. Rotary wing aircraft or unmanned aircraft system can reconnoiter ahead of convoy routes and screen the flanks of the convoy.

iii. Aircraft can assist in locating roadblocks, chokepoints, enemy firing positions, or deliberate ambush sites, and describing geography and approaching traffic or personnel.

d. Show of Force/Escort. A show of force is a low and fast deterrent pass, simulating a strafing run by a tactical jet over a suspected enemy position. The specific aircraft attack profile and theater rules of engagement will dictate how low the aircraft can fly.

e. Other Aviation Support. Aviation assets can be used to support the following missions:

i. Medical evacuation and casualty evacuation.

ii. Electronic support or attack. Should be de-conflicted with prescheduled air missions to maintain the effectiveness of convoy electronic attack systems.

iii. Air assets can extend the range for line-of-sight a radio communication system (communication relay).

14. **Psychological Operations Support.** If available, psychological operations teams may provide loudspeaker assets in order to communicate with the local population if demonstrations or roadblocks are expected.

15. **Command, Control and Communication**.

a. Effective command, control and communication is the product of thorough training, effective standard operating procedure (SOP) and good coordination at all levels. The Convoy Commander must specify, in his orders, the responsibilities of all commanders. In the event of an attack, the Convoy Commander will usually retain control of the IFP troops. The Convoy Commander usually delegates responsibility for reacting to the attack to the convoy escort force. The Convoy Commander‘s main focus is getting the main body out of the kill zone. Commanders must understand the communications within the convoy, as well as between flanking forces and battle groups through whose AOO the

convoy is moving. The prime means of communication within the convoy will usually be wireless Communication and Information Systems (Very High Frequency/High Frequency radios). Tactical Satellite and high frequency communications will be required for external communication and to maintain situational awareness at all levels. The Communications Plan must be closely coordinated with the ECM.

b. Communications are required for effective command and control. Below are potential elements convoy planners may be required to coordinate contact during convoy operations and for communications requirements. The list is not all inclusive and may vary between nations. The communications methods employed by national convoys may vary according to their composition, equipment and tactical situation; therefore, each nation should develop its own SOP for both internal and external national contacts.

Higher headquarters.
Movement control elements.
Military police elements.
Military Engineer Elements
Security elements.
Escort elements (if available).
Close air support.
Indirect fire support.
Explosive Ordnance Disposal support.
Medical support.
Joint and coalition units.
Any unit controlling any boundary the route crosses.
Non-governmental organizations

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CHAPTER 3 - PREPARING FOR CONVOY OPERATIONS

3.1.1 Introduction

This chapter covers those actions required by the planning headquarters and/or Convoy Commander in preparing the convoy for movement.

3.1.2 Roles and Responsibilities

1. The successful execution of any mission demands a designated command and control structure which is known and understood by all participants. This is no different for convoy operations. There should be one Convoy Commander in charge with subordinate commanders appointed for discreet functions. A well-defined command and control structure enables the delegation of responsibilities and becomes particularly important during hostile activity.

2. Every Soldier has a dedicated role/function to perform in preparation for and during the convoy for the benefit and safety of all. Below is a discussion of participants' roles and responsibilities for the convoy.

a. Formation Headquarters. A formation headquarters will task a unit to fulfil a mission or conduct an operation. The staff element of the formation headquarters is responsible for planning, coordinating and providing required support to a tasked unit to execute convoy operations. The staff element:

(1) Conducts an initial assessment within their AOO, including establishing liaison with flanking Formations and coalition forces through whose AOO the convoy will pass. Close, and frequent, liaison is critical to preventing fratricide.

(2) Commands the traffic control operation, if required and disseminates the latest intelligence assessments, and subsequent updates, to the tasked unit. Provides current rules of engagement.

b. Movement Control Centre.

(1) The Movement Control Centre is responsible for the planning, routing, scheduling, and control of personnel and cargo movements. These might include:

(a) Hub and spoke activities

(b) Rail movement and convoy control on designated routes

(c) Coordination for availability and safety of those routes within the area of operations.

(2) The Movement Control Centre works in close co-ordination with Military Police Movement Control. The Military Police Movement Control reports route conditions; reports environmental,

social, and threat factors that affect routes; maintains a traffic control network; maintain control of the routes; and coordinates for route assistance

(3) The Joint Force Commander/Land Component Commander may establish movement control elements along routes as necessary. In some instances coalition forces may not have dedicated movement control organizations assigned to its AOO. Therefore it is important for Formation headquarters to coordinate with national command and control elements for boundary crossing procedures and traffic control requirements.

c. Tasked Unit.

(1) The commander of the tasked unit will identify troops to execute the convoy. It is essential that all Soldiers tasked to execute convoy have appropriate rest, hydration, and nutrition to maintain optimal alertness, situational awareness and improve mission success. Much of the planning for a convoy will be conducted at unit level, with input from the Convoy Commander and with assistance from assets tasked by the Formation headquarters. The tasked unit may not have the full range of military capabilities necessary to conduct a convoy, and may require augmentation from an attached organization.

(2) The tasked unit C2 element coordinates the Intelligence Preparation of the Battle space, and threat analysis. It also tasks the reconnaissance assets, which are attached to it. In addition to conducting the mission analysis and orders production, tasked unit responsibilities include:

(a) Making the 'Go versus No-Go' decision (usually following a formal brief by the Convoy Commander to the tasked unit commander).

(b) Liaison with friendly forces – including one-up, flanking Formations, and Formations/units holding ground through which the convoy will traverse.

(c) Developing a communications plan that incorporates Formations/units holding ground through which the convoy will traverse.

(d) Providing Reports and Returns to the Formation headquarters and to the Movement Control Centre.

(e) Coordinating with Movement Control Centre controlling convoy movement.

(f) Arranging the replacement of supplies consumed during the convoy. The size of the replacement task is not to be under estimated. Replacement tasks are also to be conducted during convoy when resources can be pre-positioned or flown forward, or on completion of the convoy.

d. **Convoy Commander.** The Convoy Commander, regardless of any other senior ranking personnel within the convoy, is in command of the convoy and is responsible for the conduct of the convoy to its destination[1]. The Convoy Commander:

(1) Assigns overall responsibility for the conduct of the convoy.

(2) Approves task organization and delegate personnel and vehicle responsibilities.

(3) Contributes to the estimate, plans the convoy, issues operations/verbal orders, and conducts the debriefing.

(4) Conducts rehearsals prior to deployment.

(5) Maintains internal and external communications.

e. **Assistant Convoy Commander.** The assistant convoy commander is second in command of the convoy. The assistant convoy commander:

(1) Assumes convoy command duties during Convoy Commander absence.

(2) Ensures loads are properly prepared, collected, distributed and managed in liaison with the supported force.

(3) Responsible for logistic aspects of the operation – including rations, vehicle load plan, ECM, ammunition, and provision of support services to the convoy.

(4) Coordinates with civilian contractors.

f. **Packet Commander.** In land convoy movements, a packet is a small number of vehicles that moves as part of a convoy[2]. The packet commander is under the command and control of the Convoy Commander. The packet commander is responsible for:

(1) Navigation and control of packet.

(2) Maintenance of packet speed and packet interval.

(3) Command of all vehicles in packet.

g. **Escort Commander.** The person in charge of the combat force assigned to execute the convoy escort task[3]. The escort commander is under the command and control of the Convoy Commander. The escort commander is responsible for maneuvering escort capabilities to engage and protect the convoy from hostile activity. Additionally, the Escort Commander:

[1] Proposed definition of convoy commander
[2] Definition of Packet from AAP 6 (2010)
[3] Proposed Definition for escort commander

(1) Performs Route reconnaissance and clearance especially vulnerable point/ vulnerable area checks.

(2) Provides depth security to convoy.

(3) Provides immediate protection/internal support to convoy.

(4) Conducts over watch/static security (securing of routes).

(5) Conducts reconnaissance during halts.

(6) Reacts to attack in order to maintain freedom of action for convoy.

h. **Vehicle Commander.** Responsible for all personnel, cargo, and equipment in the assigned vehicle. Task organizes personnel based on vehicle type, equipment, weapons systems, and the tactical employment of the vehicle. Additionally, Vehicle Commander:

(1) Conducts pre-combat checks and pre-combat inspection of all individuals and equipment assigned to his vehicle.

(2) Supervises the vehicle and its personnel during rehearsals.

(3) Maintains communications with Convoy Commander and Vehicle Commander.

(4) Provides supervision and guidance to driver as required.

(5) Controls and accounts for the removal or destruction of all sensitive items in the vehicle.

(6) Ensures all personnel assigned to the vehicle have been briefed and understand Rules of Engagement and continuum of force procedures.

i. **Driver.** Responsible for the personnel, safety, cargo, fueling, and maintenance of the vehicle. The driver's primary duty is to drive. Additionally, driver:

(1) Maintains proper interval between vehicles

(2) Scans his assigned sector of observation.

(3) Prepared to return fire in extreme situations, but does not fire while driving.

j. **Gunner.** Responsible for the operation, maintenance, and employment of his assigned weapon system and maintains proficient knowledge of current Rules of Engagement along the route.

k. **Designated Marksman.** Should be an expert shooter and have an advanced optical sight. He provides precision fire against a given threat as directed by the

Convoy Commander.

l. Medical Emergency Response Team.

(1) Provides pre-hospital specialized emergency care and patient transport to a medical treatment facility.

(2) Preferably dispersed throughout the convoy.

m. Aid and Casualty Evacuation Team. Responsible for transporting casualties from the point of injury to a casualty collection point or ambulance, and all Aid and casualty evacuation equipment. They should be assigned throughout the convoy and consist of two personnel each at a minimum.

n. Landing Zone Team. Responsible for establishing, marking, and confirming the landing zone is clear for medical evacuation or casualty evacuation and should be familiar with rotary wing landing zone requirements. They are also responsible for maintaining the landing zone marking kit.

o. Recovery Team. Designated to assist with maintenance and recovery of convoy assets along the route. They are normally positioned near the rear of the convoy.

p. Enemy Prisoner of War Team. Responsible for handling enemy prisoner of war and detainees in accordance with unit SOPs. They maintain the enemy prisoner of war kit and should consist of a minimum of two personnel trained in detainee and enemy prisoner of war procedures.

q. Other convoy personnel. Should be formed into tactical teams and rehearse as such, and prepared to:

(1) Act as additional security assets when required.

(2) Observe their assigned sectors for potential close threats, and scan for air threats.

(3) Dismount on order.

(4) Signal and direct civilian traffic as directed by Vehicle Commander.

3.1.3 Convoy Organization

1. In general convoys are organized into three elements:

a. Advance element/guard that provides situational awareness concerning the route, forward protection from hostile activity and engineer assets/route clearance capabilities to ensure freedom of movement.

b. Main body containing the bulk of the convoy assets.

c. Rear element/guard that provides rear protection and maintenance and recovery assets.

2. If required, a tasked organization may provide convoy escort functions. A convoy

escort protects a convoy of vehicles from being scattered, destroyed or captured[4]. The escort commander under the command and control of the Convoy Commander employs escort assets along the convoy formation to best respond to hostile activity.

3. The convoy, including IFP, should be formed so that it can readily react to any threat. The Convoy Commander's vehicle should be positioned in the convoy for optimum command and control and situational awareness. If the convoy is divided into packets, each packet must have its own commander. Spare prime movers, maintenance personnel, recovery vehicles, and casualty evacuation vehicles should be positioned at the rear of the convoy.

3.1.4 Convoy Preparation Considerations

1. Operational Security. Operational security is to deny the enemy knowledge of convoy dispositions, capabilities and intentions. Tactics, training and procedures to enforce operational security include activities to:

a. Employ Deception. Seeks to manipulate the enemies' perception of the convoy including: its available capabilities; its ability to respond to incidents; and the route the convoy is likely to take. The purpose of deception is to make the enemy waste time and resources in the wrong place. Deception considerations include:

(1) Avoid setting patterns by changing tactics, training and procedures and this can be as simple as varying spacing; adjusting speed at random intervals to make

[4] Convoy Escort definition from AAP 6

targeting of specific vehicles harder; altering vehicle order-of-march; or driving at night with night vision devices.

(2) Varying patrol routes by selecting lateral routes, or sub-optimal routes, to confuse hostile protagonists.

b. Counter Reconnaissance. It is highly unlikely that a convoy will be able to prevent local populations observing patrol movement. However, it is possible to counter enemy reconnaissance. The goal of counter reconnaissance is to detect, engage, deny, defeat or destroy the reconnaissance assets of the enemy; clear orders for the targeting of hostile reconnaissance assets are to be approved.

2. Communications. Efficient communications are vital to the successful execution of convoy operations. It is the Convoy Commander's responsibility to ensure that appropriate levels of required communications are provided to meet the threat. The following points should be considered:

a. Radio. Shall be primary means of communications. All vehicles should be able to communicate within packets. Secure communications with sufficient range will be required between packets and the escort force. All packet commanders and above should be able to communicate with local units and formations, having a full knowledge of frequencies and all call signs. A radio check must be carried out before movement. In some circumstances high frequency radio and tactical satellite may provide the primary means of communication. All means of communications should be coordinated with ECM.

b. Alternate Means. In the orders the Convoy Commander should specify all alternate means of communication. These may include flares, hand signals, vehicle signals, and other signs. Due to information security reasons use of mobile phones should be restricted, and checked that they are switched off during convoy operations

c. Situational Awareness. Keeping a high level of situational awareness throughout the convoy is essential. Escort forces should constantly be talking to one another, informing relevant call signs of traffic movement, the progress of the convoy and potential threats. Use of radio to give a running commentary of activity and progress will also assist those in the back of armoured vehicles.

d. Blue force situational awareness. Preferably, the unit should be capable of sharing a Common Operational Picture through dependent units down to squad level (even if dismounted). This capability requires a real/near real time blue force situational awareness.

3. Four key types or groups of communications should be considered.

a. Communications internal to the convoy and convoy escorts.

b. Communications to the Convoy Commander's higher headquarters (including any movement control elements).

c. Lateral communications with adjacent units.

d. Communications with aviation / fire support assets, Quick Reaction Force and maintenance support or medical assets (where applicable).

3.1.5 Convoy Training.

Proficiency in the execution of convoys can only be achieved by repeated individual and collective training. It is imperative that convoy drills are exercised whenever and wherever possible and that unit commanders, their staff and Convoy Commander are well practiced in the planning and execution of convoys. Only total familiarity will enable swift accommodation of any change in the tactical environment.

1. REHEARSAL AND BATTLE DRILLS.

a. Good rehearsals happen only if they are carefully planned and prepared. Each vehicle commander must supervise individual and crew drills for everyone assigned to the convoy. Rehearsals and battle drills instill confidence and ensure all convoy participants are fully prepared to execute the plan. A battle drill is a collective action rapidly executed without applying a deliberate decision making process. When time is limited, convoy leaders should concentrate on battle drill reactions for the most likely threats.

b. Rehearsals are pivotal to the success of battle drills. Each drill should be practiced until soldiers, teams, and crews execute to standard. Rehearsals ensure the following:

(1) Everyone in the convoy understands and demonstrates the capability to execute the plan and essential drills.

(2) Discovers and corrects misunderstandings and disconnects concerning execution of the drills.

(3) Full integration of assets within the convoy and planned potential support from other combat elements in the area of operations.

(4) Mitigates tactical risks, enhances situational awareness, and puts into practice safety procedures.

(5) Soldiers have confidence that they and their convoy are fully prepared for combat.

c. Time permitting, conduct walk through drills and mounted rehearsals when convoy is lined up. Examples of drills and rehearsal that may be conducted are:

(1) Conduct sand table exercise or route walkthrough.

(2) Immediate action drills/battle drills.

(3) Medical support including drills for personnel recovery.

(4) Communications including audio, visual, and radio communication rehearsals. There should be redundancy for both long and short range communications. Non-secure means of communication should not be used.

(5) Ensure escort roles and responsibilities are understood.

(6) Vehicle recovery operations (internal/external) are understood.

3.1.6 Warning Orders and Movement Orders.

A warning order is a preliminary notice of an order or action which is to follow. It is normally issued by a designated commander or Formation headquarters. A movement order is an order issued by a commander covering the details for the movement of a unit, personnel and/or materiel[5]. An example of a movement order is at Annex A.

3.1.7 Battle Planning Sequence.

Preparation for each convoy should follow a set procedure. Any temptation to cut battle procedures should be resisted, although well developed SOPs will assist in speeding it up. Full integration of all attached personnel and civilian drivers plus comprehensive briefing at all levels must take place prior to departure. An 11 day planning timeline may be used for new operations or complex convoys. This may be shortened as required. A suggested 11 day planning sequence is as shown below.

<table>
<tr><td></td><td>Intelligence</td><td>Planning</td><td>Orders/Briefings</td><td>Actions</td></tr>
<tr><td>D-11</td><td></td><td>Receive FRAGO and priority load list</td><td></td><td></td></tr>
<tr><td>D-10</td><td>Initial Weather Forecast, Brief on Ground and Enemy threat</td><td rowspan="4">Mission Analysis</td><td>Issue Warning Order</td><td rowspan="3">Air Reconnaisance</td></tr>
<tr><td>D-9</td><td rowspan="2"></td><td>Convoy Coordination Conference</td></tr>
<tr><td>D-8</td></tr>
<tr><td>D-7</td><td>Weather Update, Routes and Areas of Interest submitted to Geographical</td><td>Courses of Action brief to commander</td><td></td></tr>
<tr><td>D-6</td><td>Submit Air Support Requests</td><td>War Game</td><td>Publish FRAGO</td><td></td></tr>
<tr><td>D-5</td><td rowspan="2"></td><td rowspan="2"></td><td rowspan="2"></td><td rowspan="2"></td></tr>
<tr><td>D-4</td></tr>
</table>

[5] Definitions of Warning Order and Movement Order from AAP 6 (2010)

D-3	Intelligence Update Weather Update		Concept of Operations brief to Regulating Headquarters.	Rehearsal of Concepts Drills and loading
D-2		priority load list freeze	Convoy orders	
D-1	Weather Update, Intelligence Update		Go/No-go brief	
H-16	Enforced Rest			
H-4				Parade/ Staging
H-3			Confirmatory brief	Vehicle, Comms and ECM check. Test fire weapons.
H-1	Weather Update		Execution brief	
H-45 mins				Engines running
H-20 mins				Convoy departs Convoy Marshalling Area
H Hr				Convoy crosses SP Line

Table 3-1 - Example of a Battle Planning Sequence

3.1.8 Convoy staging.

The Convoy Commander should conduct a certain set of procedures in preparation for departing friendly lines. Recommended actions from the staging area to the Start Point that a Convoy Commander can employ to meet the specific requirements include:

a. Pre-staging. Prior to reporting to the staging area, the vehicle commander conducts pre-combat checks. These checks are conducted by each vehicle commander and include items contained in Annex B.

b. Staging Area. The Convoy Commander or designated deputy inspects or spot checks selected equipment during the pre-combat inspection. Actions at the staging area include:

(1) Place vehicles in convoy order.

(2) Confirm manifest (who and what is in each vehicle).

(3) Conduct final communication/CREW system checks.

(4) Inform personnel of last minute changes to movement plan.

(5) Update strip maps.

(6) Update intelligence/ Rules of Engagement.

(7) Synchronize watches.

(8) Test fire weapons in accordance with local SOPs.

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CHAPTER 4 - EXECUTING CONVOY OPERATIONS

4.1.1 Introduction.

The purpose of this chapter is to discuss procedures for the successful execution of convoy operations. While planning and preparation is essential to the conduct of convoy operations, it is the execution of the convoy mission that determines the overall success. This may include hub and spoke activities, forward rail movement and convoy control on designated routes, and coordination of availability and safety of routes within the area of operations.[1]

4.1.2 Tracking Convoy Movement.

1. Tracking the convoy movement is critical to ensuring commanders have situational awareness of its progress and can make necessary decisions for the safe passage of convoys along designated routes. Reporting procedures must be established between the convoy commander and subordinate convoy elements (packets) and the Convoy Commander's headquarters and/ or Movement Control. The ability to track convoys varies from nation to nation. Some nations may use automated tracking systems that provide convoy movement status. Refer to Chapter 3 for a discussion on blue force situational awareness. At a minimum, a reporting procedure should be established between the Convoy Commander and subordinate convoy elements and movement control centre or the convoy organization's headquarters. Another method is to use designated manned or unmanned check points along the route which are reported to the responsible headquarters upon arrival at the point.

2. **Start Point (SP).** The SP should be located at a sufficient distance from the staging area to facilitate establishing the convoy interval. Unnecessary communications should be limited once units reach the SP. Each element leader with radio communication should contact the Convoy Commander and report SP crossing. The Convoy Commander begins monitoring and control of vehicle dispersion, convoy speed, element leader actions, and available aviation.

3. **Check Point (CP).** Check points or specific passing points are pre-designated locations along the convoy route and may be manned or unmanned. Check points are usually designated at specific geographic locations such as intersections, overpasses, bridges, phase lines, boundaries (divisional, multinational etc.), or likely enemy contact locations, as provided by the higher headquarters or Movement Control. During early phases of an operation, check points may be manned for security and route control purposes. Upon arrival at designated check points, the subordinate convoy elements report to the Convoy Commander. The Convoy Commander provides a situation report to higher headquarters.

4. **Release Point (RP).** The RP is the end of the convoy route and terminates at a specific location such as an operating base. The Convoy Commander reports arrival at the release point to higher headquarters. The Convoy Commander's higher headquarters is responsible for notifying the movement control element of the convoy's arrival. The release point is not the end of the mission. Here the Convoy Commander must coordinate numerous support and security activities, request instructions from higher as required and plan and coordinate the next mission.

4.1.3 Actions at Boundary Crossings.

In land warfare, a line by which areas of responsibility are designated between adjacent units/formations are defined as boundaries. Boundary crossing should be considered a check point on a convoy route. The Convoy Commander's higher headquarters is responsible for contacting the regulating headquarters of the convoy's boundary crossing. This is to establish contact with coalition forces movement control/regulating team responsible for regulating/coordinating movement in the area of operations. Alliance forces are responsible for providing security and logistic support to convoys passing through their AOO in accordance with existing agreements and operation plans.

4.1.4 Rerouting/ Diverting Convoys.

Movement control centre or regulating headquarters may reroute convoys due to traffic congestion, enemy contact, weather and route conditions, and civil unrest. When the movement control/ regulating headquarters direct the necessity to reroute a convoy, the Convoy Commander will reroute convoy in accordance with the operations plan or orders from higher headquarters. If the Convoy Commander is forced to reroute the convoy, he should use a emergency/alternative route (preplanned or identified in situation) and ask for permission by his higher headquarter. If the situation demands an immediate deviation from the planned route, it has to be reported as soon as possible through higher headquarters to regulating headquarters.

4.1.5 Convoy Halts.

1. A convoy halt is a temporary suspension of progress of the convoy. Convoy halts may be planned (rest) and unplanned (eg., ambush, break downs) halts. In the event of an unplanned halt the Convoy Commander contacts higher headquarters and establishes security. Convoy halts should occur only if there is no alternative and only long enough to complete the situation assessment. During halts, convoy personnel should assume a defensive posture. A stationary convoy is an inviting target. Security at halts will be covered under convoy force protection.

2. During short halts, drivers remain in the vehicle with the engine running. Remaining crew members should dismount only if required by the mission to do so. For long halts, all vehicle crew members, with the exception of drivers and gunners, should dismount and assume perimeter security.

4.1.6 Convoy Force Protection.

Everyone is responsible for force protection during convoy operations. Successful execution of convoy operations requires an active force protection posture both internal to the convoy and from external support.

1. **Situational Awareness.** In the operational environment, convoy personnel must exercise a heightened sense of awareness of their surroundings. This includes the environment itself and activities of people in the environment. Situational awareness is defined as the knowledge of the immediate environment, based on the factors of mission, enemy, time, terrain and weather, troops available, and civilian considerations. It is importance to analyze the operational environment as the convoy progresses. All soldiers should learn as much as possible about the environment's indigenous culture to better differentiate between things regarded as suspicious versus routine activities common to the local culture

versus signs that may indicate an impending attack.

2. **Internal Force Protection Measures.** All soldiers in the convoy should scan the roadway ahead and to each side for suspicious activity, and respond according to the unit SOP or Convoy Commander's guidance. Drivers should scan 9 to 1 o'clock and assistant drivers/vehicle commanders should scan 11 to 3 o'clock. (Twelve o'clock is the front center of the vehicle.) Turret gunners, especially those assigned to security or escort forces, scan 360 degrees. The rear security element should place particular emphasis on monitoring the area to the rear of the convoy.

3. Although camouflage has little value to the Convoy Commander, it can mislead, deceive, or confuse the enemy as to the convoy's purpose, cargo, or projected route. Every effort should be made to cover and/or conceal all cargo. This will enhance convoy survivability by denying the enemy valuable intelligence which would assist him in planning and conducting an attack.

4. Maintaining discipline is one of the most important factors in convoy protection. To maintain convoy discipline, commanders should ensure vehicle interval is established and maintained during movement. A well-disciplined convoy with proper intervals is less likely to be attacked than a poorly organized convoy with irregular intervals. A well-disciplined convoy can react more effectively to any given contingency. It can also help in coercing the enemy to yield the attack in favor of a weaker target.

5. **Obstacles.** Convoys may encounter various types of obstacles on the road, including military disabled vehicles. The enemy frequently employs obstacles in order to channel the convoy into an ambush and/or IED or mine attack. Convoy personnel should always assume that an ambush is imminent when encountering an obstacle. Nations should establish SOPs and battle drills for encountering and by-passing obstacles.

6. **Ambush.** Reports of an ambush or evidence of an ambush must be immediately reported / forwarded to the Convoy Commander. Convoys should maintain movement when ambushed or take appropriate actions to defend when forced to stop, attacked by sniper, indirect fire, air, or CBRN. An attack may be initiated by small arms fire, an IED, or insurgents throwing rocks at the convoy to distract gunners. In any case, the convoy should increase its speed, return fire and do not stop unless forced or if a vehicle becomes disabled. Vehicles to the rear of the kill zone increase speed and transit the kill zone unless forced to stop. If a vehicle is disabled, the entire convoy stops beyond the kill zone. No vehicles should stop in the kill zone. Convoy personnel must return fire aggressively. For detailed discussion on reacting to an ambush, see Annex C.

7. Protection vehicles caught in the kill zone position themselves between the enemy and task vehicles. They aggressively return fire until the threat is neutralized or all other vehicles and personnel clear the kill zone at which time they resume their original positions in the convoy. Protection vehicles engaging the enemy from the kill zone should not block the road.

8. **Improvised Explosive Devices.** Convoys react to suspected and exploded IEDs by taking mounted evasive action to avoid destructive effects. Suspected IED emplacement information must be relayed immediately to follow-on convoy elements, and convoy status notified to higher headquarters. Casualties must be promptly evacuated for treatment. IEDs often initiate an ambush and convoy personnel should always expect an ambush immediately after an IED attack. See AJP-3.15 - Allied Joint Doctrine for Countering Improvised Explosive Devices (C-IED) and WTI IED Lexicon (4th Edition October 2012) for more information.

4.1.7 Request for Support.

If the convoy's organic ability is insufficient to suppress or counter a threat, a request for support must be made immediately. The call should be in accordance with the operations order and standing operating procedures.

4.1.8 Consolidation and Reorganization.

1. After breaking contact, the convoy must move to the nearest rally point in an orderly fashion to consolidate and reorganize. These actions, like all others, should be well- rehearsed prior to crossing the start point. Consolidation and reorganization is a critical phase in any combat operation and must be carried out immediately following any contact with the enemy. During consolidation and reorganization the Convoy Commander evaluates losses, treats and evacuates wounded, conducts hasty repairs, consolidates and redistributes assets, and prepares to continue the mission. After finishing the assessment the Convoy Commander reports the state of the convoy to higher headquarters.

2. One of the key elements in consolidation and reorganization is rapid treatment and evacuation of the wounded. Once security is established, this should be Convoy Commander's first priority. Another element in reestablishing convoy operations is vehicle recovery and battle damage assessment and repair. The Convoy Commander, based on the assessments of drivers and maintenance personnel, must determine whether a given vehicle with its cargo can or should be immediately repaired, towed, or left behind. The recovery team is always accompanied by a protection vehicle.

3. It is critical to complete consolidation and reorganization as quickly as possible and continue the mission. A convoy that is not moving is highly vulnerable. Any delay in the release point may create other delays along the route.

4.1.9 Post Convoy Operations Activities.

1. Post convoy operations allows convoy personnel to quickly recover for the next mission (or returning to original destination) while providing information to personnel conducting tactical operations. A common tactic, used by the enemy is to launch mortar attacks on the arriving convoy. The host unit may provide support at the convoy's final destination. As a minimum, the Convoy Commander must be prepared to augment security at the destination. The ultimate responsibility for security rests with the Convoy Commander until the vehicles are safely parked inside the base.

2. Post movement, individual and crew-mission responsibilities. Post movement responsibilities closely resemble the duties during convoy preparation including equipment accountability, inspections, and preventive maintenance checks and services on vehicles and equipment. Convoy leadership responsibilities focus on conducting after action reviews, while higher unit-level responsibilities focus on sharing debrief information from the unit's operations and intelligence sections. Chapter 5 will provide a detailed discussion of post convoy operations.

CHAPTER 5 - CONCLUDING AND ASSESSING CONVOY OPERATIONS

5.1.1 Introduction.

1. The proper conduct of post-mission operations allows a convoy team to quickly recover for the next mission while providing information to other personnel conducting convoy operations and provides higher headquarters with an overall threat picture. This chapter covers the actions taken and the conclusion of convoy operations. It also covers the assessment procedures for developing lessons learned during the operation.

2. Individual and crew post-movement responsibilities closely resemble the duties during convoy preparation, to include equipment accountability, inspections, and preventive maintenance checks. Convoy leadership responsibilities focus on conducting after action reviews, while higher unit-level responsibilities focus on sharing debrief information. The concluding steps in Convoy Operations are essential to ensure

a. A proper reconditioning of forces, vehicles and equipment in to pre-combat condition;

b. Ensure the After Actions Review is correctly accomplished in order to develop more effective convoy procedures.

5.1.2 Post Convoy Operations.

1. Commanders, at every level, collect information about the state of personnel, vehicles, equipment and fill out end of mission reports, according to unit SOP. Leaders should inspect the maintenance conditions of their equipment and report any unscheduled maintenance required (vehicle, equipment, weapon system employed in the operation) at the end of the activity. Maintenance activity may include the following;

a. Maintenance of weapons, night vision equipment.

b. Service and clean unit equipment and personal gear.

c. Refuel vehicles for next mission or return trip.

d. Ensure proper shut down of for all communications and counter IED systems.

5.1.3 After Action Reviews/Assessment.

1. An after action reviews/assessment analyzes the whole operation, along with all its phases and every operational function, focusing attention on the consistency between planning and conduct, in order to:

a. Detect processes/phases/actions that need to be changed/improved (Lessons Learned LL[1]).

[1] LL is broadly used to describe people, things and activities related to the act of learning from experience to achieve improvements. The idea of LL in an organization is that through a formal approach to learning, individuals and the organization can reduce the risk of repeating mistakes and improve the chance that successes are repeated. In the military context, this

b. Suggest corresponding modifications required to fill the identified gap.

c. Formalize and adopt the corrective measures through their implementation in the NATO/national doctrines Lessons Identified (LI).

2. **Informal After Action Review/Assessment.** Usually conducted at platoon level and below to provide immediate feedback to soldiers, leaders, and units. Its purpose is to cover what they did, learn how to do it better, and the importance of the roles they play in unit-task accomplishment. Gathering information while it is still fresh in soldiers' minds is a significant strength of informal after action review/assessment. The most significant difference between informal after action review/assessment and formal after action review/assessment is that they require fewer resources. Company and battalion levels, leaders may conduct informal after action review/assessment when resources, including time, are unavailable. Informal after action review/assessment use the standard after action review/assessment format. Leaders may use informal after action review/assessment to:

a. Evaluate performance against the Army standard (or unit standard if there is no published Army standard).

b. Identify their strengths and weaknesses.

c. Decide how to improve their performance.

3. **Formal After Action Review/Assessment.** During formal after action review/assessment, the leader reviews key points and issues identified during the operation and reinforce learning that took place during the discussion. They are usually held at company level, and squad and platoon will present them prior to the execution of formal company and higher echelon after action review/assessment. This allows all levels of the unit to benefit from the experience, and provides leaders with observations to address during the formal after action review/assessment.

5.1.4 After-Action Review Planning and Execution Sequence.

To maximize the effectiveness, leaders should plan and rehearse before operations begin to ensure the allocation of time and resources to conduct after action review/assessment and reinforces its importance. The amount and level of detail leaders need during the planning and preparation process depends on the type of after action review/assessment they will conduct and available resources. The following steps lists the actions leaders should follow to ensure effective after action review/assessment.

a. Planning

(1) Identify when after action review/assessment will occur.

(2) Determine who will attend after action review/assessment.

(3) Review the after action review/assessment plan.

b. Preparation

(1) Review orders, mission essential tasklist [2], and doctrine.

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means reduced operational risk, lower cost and improved operational effectiveness. (NATO Lessons Learned Handbook - Second Edition, September 2011; and Bi-SC Directive Number 080-006 Lessons Learned, 10 Jul 2013, NATO/PfP UNCLASSIFIED)

[2] Mission Essential Task List.

(2) Organize observations.

(3) Prepare the after action review/assessment site.

(4) Conduct rehearsal.

c. Conduct

(1) Seek maximum participation.

(2) Maintain focus after action review/assessment objectives.

(3) Constantly review key points.

(4) Record key points.

(5) Follow up (using after action review/assessment results)

(6) Identify issues requiring action

(7) Fix the problem – retrain immediately, revise standing operating procedures as needed

(8) Use to assist in making commander's assessment.

5.1.5 Post Operations Mission Brief (Higher Headquarters)

The Convoy commander and assistant convoy commander should compile their debriefings after action review/assessment have been conducted at the convoy level. This procedure ensures all relevant information is captured from the entire convoy's perspective prior to debriefing at the higher headquarters level. National SOPs should establish the types of information higher headquarters require. Below are some possible debriefing points that may be included;

a. Size and composition of Convoy.

b. Pick up and drop off locations.

c. Route information such as start point to release point; main supply routes/alternate routes used.

d. Terrain observations include route issues.

e. Enemy observation and attitude of local populace.

f. Map corrections.

g. Front haul and/or back haul issues.

h. Strange activity or dangerous areas encountered.

i. Maintenance and safety issues.

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ANNEX A - CONVOY WARNING ORDER

A.1. **SITUATION:** General overview of enemy and friendly situation in the AOO. Friendly units to consider are those that might provide direct support to the convoy along its route.

A.2. **MISSION:** The mission statement is a clear, concise statement of the mission to be accomplished. The mission statement will state WHO, WHAT (the task), WHEN (SP time), WHERE (usually a designation with a route(s)), and WHY (the purpose). An example of a restated mission statement is: 1st Platoon moves Class III & V 210800C Dec 03 from Navistar to Scania on MSR Tampa in order to resupply 3BCT, 1st Armored Division.

A.3. **Task Organization:** This is a critical component of a good Convoy Warning Order. It is the initial convoy manifest (see Annex B for considerations for convoy organization and order of movement and manifest format).

A.4. **Initial Time Schedule:** Explanation and Format following the Convoy Warning Order Format.

A.5. **Special Instructions:** Guidance concerning pre-combat checks, pre-combat inspections, rehearsals and / or additional

A.6. **Service & Support:** Much of this information should be covered by a unit's standard operating procedures (SOPs). This section can be used for changes or additional information

Class I: (Rations & Water)

Class II: (MEDICAL)

Class III: (POL)

Class IV: (Construction material)

Class V: (Ammunition / Pyrotechnics)

Pyrotechnic Device	Number	Location

A.7. **Uniform and equipment common to all:**

Figure A-1 Warning Order Format

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ANNEX B - PRE-COMBAT CHECKS AND INSPECTIONS

This pre-combat checks and inspections checklist is a guide and is not all inclusive. Nations should refer to their standard operating procedures to and add or delete check points that may/may not apply. Items on the list below may also be modified based on the mission and enemy situation

LEADER CHECKLIST	
____ Binoculars	____ Sensitive items/personnel list
____ Radio check (internal, command, administrative, and logistics)	____ Combat lifesaver w/aid bag (date?)
____ Movement Tracking System operational (if available)	____ Current situation brief (intelligence)
____ Convoy order and execution matrix	____ Risk assessment signed by the commander
____ Signal Operating Instructions	____ GPS (programmed with appropriate mission information/extra batteries
____ Strip map with extra copies	____ Vehicle and personnel manifest
____ Map with current graphics	

Table B-1. Leader Checklist

	VEHICLE PRE-COMBAT INSPECTION	GO	NO-GO
1	**WEAPONS**		
	A. CLEANED, FUNCTION CHECKED AND LUBRICATED		
	B. SITE ALIGNMENT		
2	**AMMUNITION**		
	A. ROUNDS INSPECTED		
	B. ENSURE APPROPRIATE AMMUNITION LOAD ACCORDING TO UNIT SOP		
	C. IN PROPER POUCHES		
	D. MAGAZINES SERVICABLE		
3	**OPTICS/LIGHTS**		
	A. Weapons		
	B. Helmet MOUNTED		
	C. FRESH BATTERIES		
	D. EXTRA BATTERIES		
	E. ALL ITEMS FUNCTION CHECKED		
4	**COMMUNICATIONS**		
	A. FRESH BATTERIES		
	B. EXTRA BATTERIES		
	C. CORRECT CRYPTO FILLS		
	D. FUNCTION CHECKS		

	E. COMM CHECKS CONDUCTED		
5	**GEAR**		
	A. MISSION SPECIFIC GEAR		
	B. DAY PACK/ RUCK		
	C. SLEEPING GEAR		
	D. HYGIENE GEAR		
	E. RATIONS		
	F. CHANGE OF SOCKS, UTILITIES		
6	**PERSONAL PROTECTIVE EQUIPMENT**		
	A. FLAK JACKET W/ SAPI, SIDE SAPI, THROAT, NECK AND GROIN		
	B. APPROVED EYE/EAR PROTECTION		
	C. HELMET W/ SERVICABLE CHIN STRAP TIGHTENED		
	D. FIRST AID KIT COMPLETE VIA UNIT SOP		
7	**MARKING, as per Unit SOP**		
8	**REHEARSALS**		
	A. REHEARSALS CONDUCTED		
9	**WRITING GEAR**		
	A. COPIES OF ANY TARGET PACKAGES/ PIRs		
	B. COPIES OF BN SOP, CO SOP, AND BN REPORTS BOOK		
10	**MAPS/ SKETCH MAPS/COMPASS**		
11	**WATER/RATIONS**		
	A. CANTEENS/		
	B. EMERGENCY rations		
12	**IDENTIFICATION**		
	A. IDENTIFICATION TAGS		
	B. MILITARY ID CARD LEFT BREAST POCKET		
13	**WATCH**		
14	**NIGHT VISION GOGGLES**		
	OP CHECK		
15	**EW – PERSONAL JAMMERS**		
	A. FRESH BATTERIES		
	B. EXTRA BATTERIES		
	C. CORRECT PARAMETER FILLS		
	D. FUNCTION CHECKS		

Table B-2. Individual Pre-Combat Checklist

VEHICLE PRE-COMBAT INSPECTION CHECKLIST		GO	NO-GO
1	**VEHICLE SAFETY INSPECTION COMPLETE**		
2	**TRUCK TOPPED OFF (FUEL/FLUID)**		
3	**ADDITIONAL POL**		
4	**FIRE EXTINGUISHER OPERATIONAL**		
5	**EXTRA MRES/RATIONS**		
6	**GPS and Force tracking System CHECKED**		
7	**SPARE TIRE (AS Applicable) WITH TIE DOWN**		
8	**ALL CARGO SECURED**		
9	**TOW BAR / TOW CHAINS, LOCATIONS**		
10	**TOW STRAPS ATTACHED FOR HASTY RECOVERY**		
11	**VEHICLE TOOL BOX/PIONEER GEAR**		
12	**MAP WITH ROUTES AND CHECKPOINTS**		
13	**IIFF/ANTI FRATRICIDE MARKING**		
14	**AMMO LOADED AND STORED CORRECTLY**		
15	**EXTRA RADIO BATTERIES**		
16	**EXTRA WATER JUGS (FILLED)**		
17	**CREW-SERVED WEAPONS INSPECTED, FUNCTION CHECKED, LUBED W/ PROPER HEAD SPACE & TIMING**		
18	**PYRO / SMOKE LOADED & STORED CORRECTLY**		
19	**COMM PLAN / FILLS**		
20	**MECHANICAL BREACHING TOOLS**		
21	**HELICOPTER LANDING ZONE MARKING KIT**		
22	**EW / CREW GEAR OPERATIONAL (JAMMERS)**		
23	**SPOTLIGHTS, LOCATION, CHARGED, EXTRA BATTERIES**		
24	**DISABLED VEHICLE PLAN**		
25	**PRIVATE AND/OR COMMERCIAL MOBILE PHONES ARE SWITCHED OFF**		

Table B-3. Vehicle Pre-Combat Inspection Checklist

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ANNEX C - REACT TO AN AMBUSH

C.1. Introduction.

1. This Annex provides an example of possible responses against an ambush. It describes counter-ambush tactics, techniques and procedures described in Convoy Training (Chapter 2) and Convoy Specific Training (Chapter 3) when a convoy is ambushed.

2. Convoys may be composed of civil and military vehicles, a Convoy Commander vehicle with the proper communications means, a medical vehicle with medics or paramedics, and the escort vehicles. The escort commander is in charge of the protection vehicles/escort vehicles, and if attached the EOD or explosive ordnance disposal team vehicle. When required the Escort Commander may direct the EOD team to engage IEDs and other explosive hazards.

3. The annex describes general reactions against the ambush of the three main actors: the Convoy commander, the escort commander and the logistic convoy elements. Unit SOPs should be developed for specific threats, locations and situations.

C.2. Protection/Escort Vehicles.

These vehicles may be internal to the convoy unit or part of an external convoy escort element assigned to protect the convoy. They are considered to be, as a minimum, a vehicle with a top mounted automatic weapon capable of observation and fields of fire. The convoy escort commander controls protection vehicles in coordination with and under direction of the Convoy Commander.

C.3. Convoy procedures against ambushes when the road is not blocked (maintaining movement).

1. This type of ambush can be carried out by direct weapons fire, to rocket propelled grenade fire, indirect fires, and/or by using IEDs (C- IED reaction developed in Annex D).

2. The intent is to maintain movement and increase speed in order to reduce exposure and deny the enemy to effectively engage the logistic convoy elements.

3. While this action identifies basic procedures, the location of the contact within the convoy, the specific threat, and friendly casualties will require the Convoy Commander to make timely decisions and issue a rapid FRAGO to adjust this reaction.

4. The escort commander has operational control of the security element to fix and neutralize the hostile force by fire and maneuver. In the meantime, convoy elements escape from the kill zone.

C.4. Example of the Convoy Commander's Reactions.

a. Calls in close air support, available quick reaction force for that leg of the journey, and for Artillery support / Aviation support, if available.

b. Orders escort commander / protection vehicles to maintain front and rear security as the convoy continues movement through the kill/contact zone.

c. Commands the explosive ordnance disposal /explosive ordnance reconnaissance vehicle to be in the vanguard of the convoy until reaching the rally point.

d. Submits a request for medical evacuation (MEDEVAC) (See /Annex F), as soon as there is an indication of a serious casualty.

e. Starts the recovery of the disabled vehicle or submits a request for recovery when any convoy vehicle has been disabled by enemy fire or IEDs.

f. Submits size, activity, location, unit, time, and equipment reports to higher Commands.

g. The Convoy Commander must adapt to the situation, as different actions may be required based on disposition of convoy assets on either side of the contact zone.

C.5. Example of the Escort Commander's Reactions.

a. Commands protection vehicles to shift to the contact side of the convoy, halt and return fire (fix the enemy).

b. Repositions protection vehicle(s), using available cover and concealment and standoff range to increase the volume of fire in the kill/contact zone from multiple directions. The escort commander also identifies and direct target engagements of protection vehicle(s) (for example: Protection vehicle 1 engage RPG team, 3 o'clock, 200 meters).

c. Alerts the Convoy Commander that protection vehicles are maneuvering on the contact side to prevent possible fratricide.

d. If at all possible, should have a separate radio frequency to avoid unnecessary radio traffic during engagements; having two-net capability allowing him to communicate with the Convoy Commander.

e. When the convoy has cleared the kill/contact area, orders protection vehicles providing fire support left in place to break contact and move rapidly to the convoy rally point assuming their original positions.

C.6. Example of the Convoy Element's Reactions

a. Observe 360 degrees to detect any threat from a different direction. Additionally maintain situational awareness within the convoy (shooters) to avoid firing in the vicinity of any convoy escort elements which may be halted.

b. Place suppressive fire on the threat using individual weapon.

c. Activate turn signal (or most dangerous contact when engaged from both sides) only while the contact/threat is in each vehicle's sector.

d. (Drivers specifically) must remain focused on the vehicle to their front and rear as those vehicles may be unaware that contact has occurred.

e. (Drivers specifically) also maintain interval and be ready to execute sudden maneuvers if vehicles to the front are forced to stop.

f. Push out of the way vehicles disabled by enemy fire that are blocking the road.

g. With casualties maintain momentum and activate four-way flashers. If possible, the uninjured occupant notifies the Convoy Commander using communication systems.

h. In the event of ambush during night convoy operations under blackout drive, (drivers specifically) turn on service lights and increase speed to clear the ambush area

i. Report contact on internal communication(s), identifying truck number (first vehicle is Truck 1, second is Truck 2, etc.), type of contact, and clock direction.

j. Upon breaking contact, (all vehicles) proceed to rally point, “forward.” or “rear”, and conduct consolidation and reorganization actions.

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ANNEX D - REACT TO AN IMPROVISED EXPLOSIVE DEVICE

D.1. Introduction.

1. This Annex provides tactics, techniques and procedures for immediate response to a suspected IED, an IED detonation, and to a Vehicle-Born Improvised Explosive Device (VBIED). The intent of the reactions is to safeguard the convoy while ensuring the continuation of the convoy movement. Convoy commanders must decide after consideration of the scope and impact of an IED threat and the overall situation whether to pause the whole convoy OP, detach elements of the convoy to handle the situation while continuing movement or request additional forces and resume his movement immediately. Unexploded ordnance should be treated in the same manner as an IED.

2. An IED attack against a convoy should be expected at all times. Most mission environments show specific patterns of conditions with an increased IED activity (time of day, weather conditions, etc.) that should be considered while planning and conducting operations. Since logistic convoys are vulnerable, employment of IED has become one of the insurgency's preferred methods of attack. IEDs provide the insurgents with a standoff capability to initiate an attack and then quickly escape the area.

3. The Escort Commander is in charge of security elements and, when attached, can employ the Explosive Ordnance Disposal (EOD) or an explosive ordnance reconnaissance team. When required the escort commander may request the EOD team, to handle IED.

D.2. Reacting to suspected IED prior to detonation.

1. The location of the IED within the convoy and its specific threat to the mission will require the Convoy Commander to make timely decisions and, according to the IED/IEDs threat, issue a rapid FRAGO to adjust this reaction.

2. The Escort Commander has operational control of the security element to initiate "render safe procedures" that will neutralize the IED threat and secure the site. If at all possible, the escort commander should have a separate radio frequency to avoid unnecessary radio traffic during the IED neutralization. Having a two-net capability allows the Escort Commander to communicate with the Convoy Commander.

D.3. The Convoy Commander's reactions

1. If there is safe standoff distance between the convoy and suspected IED, the Convoy Commander orders the entire convoy to increase speed to safely pass IED. Then the Convoy Commander commands the vanguard of the convoy to find a turnaround point or a route to control follow-on traffic.

2. When a part of the convoy is behind the safe standoff distance of the IED, the Convoy Commander directs the convoy at the forefront to increase speed and rally a safe distance ahead. The Convoy Commander directs the blocked portion of the convoy to carry out the five Cs" (Confirm, Check, Clear, Cordon, and Control).

a. **Confirm and report:** The first convoy vehicle to identify an IED should initiate the signal, (in accordance with SOP) indicating contact and use the convoy

designated IED marking system. The nearest convoy vehicle (outside of 100 m from the IED) with a radio must transmit the location of the IED. The Convoy Commander confirms the presence of an IED.

b. **Check.** Convoy elements remain still and alert until a 25 to 50 m sweep on each side of the road to locate IED materials/equipment. If terrain or obstacles prevent making the area sweep, stationary direct fire shooters from convoy elements closest to the IED provide cover/overwatch while selected personnel make a dismounted sweep 25 to 50 m out to locate any IED materials. Detonation of a second IED may be imminent if located prior to being activated.

c. **Clear.** All truck leaders must take immediate action to halt or reposition vehicles a safe distance away from the IED site.

d. **Cordon.** Convoy elements follow instructions to cordon the area establishing positions to prevent vehicles and foot traffic from approaching the IED.

e. **Control.** A control element should be formed to establish an entry control point to the cordoned area and regulate access. The control element assists the escort element by observing 360 degrees to detect any threat from the IED direction. Once the IED has been neutralized and the site is safe, control elements continue to the designated rally point.

3. When the convoy safely by-passes the IED site, the Convoy Commander orders the Escort Commander to carry out “the five Cs” safe procedure and to confirm/deny the IED existence as a soon as possible. If the IED is confirmed, the Convoy Commander orders the Escort Commander to immediately implement “the five Cs” procedure and the IED is reported to the higher command and requests for support made to the available EOD unit. Additionally, a report on the Movement Control frequency should be given to warn other convoys in the area with the information. Once the IED has been neutralized the Convoy Commander orders the convoy to move to the designated rally point.

D.4. The Escort Commander’s reactions.

1. The escort commander requests an EOD team, if available, to confirm the IED existence. If EOD team is not a part of the convoy the convoy commander will instruct the escort commander to conduct 5-20 sweeps until the EOD team arrives to neutralize the IED. Once confirmed, the escort commander commands the EOD Team to detonate or neutralize the IED. The escort commander orders to check for secondary devices that may be around any area where the convoy would set up a perimeter.

2. The escort commander orders either the lead or trail escort protection vehicle to conduct a 25 to 50 m sweep on each side of the road to locate IED materials/equipment (detonation cord, receivers, or transmitters) that may lead to other IEDs flanking the convoy (gunners stay in vehicles unexposed until the 25 to 50 m sweep is initiated) .

3. If escort soldiers suspect an IED while performing 5-20 and 25-50 meters searches of their positions, they should act like it could detonate at any moment, even if the suspected IED turns out to be a false alarm. They never should touch any suspected IED item or attempt to do the job of EOD technical experts.

4. The escort commander orders to Clear the area: The convoy evacuate to a safe distance from the suspected IED (the safe distance is determined by the tactical situation), but not always the same distance and not in a recognizable pattern.

5. The escort commander orders to Cordon the area: Escort soldiers establish blocking positions around the area to prevent vehicle and foot traffic from approaching the IED.

6. The escort commander takes control the area and maintains visual (binoculars/scopes) observation on the IED to ensure no tampering occurs. Immediately report any people observed straying dangerously close to the IED to the Escort Commander. Once the threat is cleared the escort commander informs the Convoy Commander and the convoy moves to the rally point.

D.5. Simple IED attack without affecting any Convoy element.

In the event of an attack the Convoy Commander orders the convoy to increase speed and designates a safe standoff rally point. Once the whole convoy has arrived at the rally point, the Convoy Commander reports the incident to higher Command as well as to the Movement Control Element. In the meantime, the escort commander commands to perform “the 5 Cs” procedure to the escort trucks.

D.6. Simple IED attack resulting in severely damaged Convoy element(s)

In this specific case, it is not considered any immediate convoy fighting reaction, only to implement “the 5 Cs” procedure.

1. The Convoy Commander’s Reactions.

   a. Orders the convoy to get out of the kill zone fast and stop.

   b. Orders the escort commander to implement “the five Cs” procedure.

   c. Submits size, activity, location, unit, time, and equipment report to higher Command as well as to the movement control element.

   d. Submits a request for medical evacuation (MEDEVAC) and directs the escort commander to look for and set up helicopter landing zone.

   e. Submits a request for the recovery of the disable vehicle(s).

   f. Orders the escort commander to preserve the scene of the incident for the incoming Weapons Intelligence Team and incoming support and assistance elements

2. The Escort Commander’s Reactions.

   a. Implements the five Cs procedure through the escort trucks.

   b. Orders one of the escort vehicles (the farthest from the IED/the closest to a flat area) to set up a temporary helicopter landing zone for incoming MEDEVACs.

   c. Once received the order to resume the movement, orders the escort trucks to assume their original positions in the convoy.

D.7. Complex IED attacks: IEDs combined with ambush.

This IED attack is generally followed by small arms ambush or rocket propelled grenade attack from one or both sides of the convoy. Complex IEDs attacks can be deemed as the typical ambush, so the reaction procedures for an ambush as discussed in Annex C should be implemented, in addition to the protective measures of an IED environment (risk of other possible IEDs as discussed in this annex.

D.8. Reacting to vehicle-born improvised explosive device (VBIED)

1. Any sort of vehicle can be used in a VBIED attack, ranging from bicycles to large trucks that allow enemies to follow and/or board the convoy on the move. VBIEDs with suicide drivers will initially attempt to enter convoy formations on the move. This proved ineffective due to convoy speed and intervals. One technique is to target stationary convoys.

2. Vehicles rapidly approaching convoys that have the characteristics of VBIEDs and fail to slow down or maintain a safe distance represent a credible hostile intent.

3. Main response to VBIEDs should come from the convoy escort elements.

D.9. Convoy Escort elements preventive security procedures to avoid VBIED attacks

1. Establish an exclusion zone by displaying warning signs in the native language, Warning signs should be visible at least 50 meters away.

2. Use non-lethal means such as flash/bang grenades or signal flares as warning devices for vehicles getting too close in accordance with current national rules of engagement.

3. If suspicious vehicles ignore these warnings and close within 50 m, escort elements may engage the target in accordance with the national rules of engagement.

4. If the VBIED eventually succeeds and the IED detonates resulting in one/more than one severely damaged convoy element(s), convoy escort elements implement reaction described in this para D.4.

5. If upon detonation of the VBIED(s), it is followed by enemy fire (complex ambush), designate escort protection vehicles to establish suppressive fire on enemy locations.

6. According to the Convoy commander’s orders, escort the convoy’s movement to safest rally point after necessary casualty evacuation (Annex C).

ANNEX E - SAFETY

E.1. Introduction

Awareness, knowledge and commitment to operational safety is every person's best protection for joint forces. The purpose of this annex is to establish a doctrinal standard of safety for convoy operations. The follow are a list of factors that must be considered prior to the conduct of any convoy and should be included in the Convoy commander brief:

E.1.1. INDIVIDUAL/PERSONAL SAFETY FACTORS

a. Enforcing speed restrictions.

b. Enforcing use of restraint devices and Personal Protective Equipment including seat belts, body armor, and CBRN equipment.

c. Assisting the driver in identifying road hazards.

d. Ensuring drivers keep the proper distance interval between vehicles.

e. Ensuring drivers are trained in accident avoidance, hands-on skills improvement, and local area hazards.

f. Pair inexperienced operators with experienced operators.

g. Don't drive too fast for the road and weather conditions.

E.2. Vehicle Control Factors (Understand your vehicle capabilities!!)

E.2.1. Rollovers. Learn the individual vehicle Technical Manuals and be familiar with safety messages that address rollovers for each specific vehicle in your inventory.

a. Conduct rollover drills

b. Conduct egress training.

c. Conduct vehicle unloading battle drills

E.2.2. Vehicle Center of Gravity. The height of a vehicle's center of gravity and the length of the wheelbase determine the vehicle's stability. This is also applicable to contractor vehicles in accordance with the figures below.

E.2.3. Load Security. Improperly secured loads can change a vehicle's center of gravity and its stability. Bulk tank trucks are inherently less secure because fluids can surge when trucks brake or go around curves, thereby altering the center of gravity. Also, a vehicle loaded with containers will have a higher center of gravity. Additionally, it is important that payloads are secured as closely as possible to the lateral centerline of the truck or trailer bed. If the payload is not centered properly, the vehicle stability will not be equivalent when turning to both the right and left (see figures below).

E.2.4. Radius of Curves and Slope of Roadways. These are important because they generate a centrifugal force that acts sideways on the vehicle, thereby decreasing vehicle stability.

E.2.5. Vehicle Speed. As the vehicle's speed increases, the centrifugal force, or sideways force increases. Faster speeds also result in decreased driver response times. Speed is the factor over which the driver can exercise the most control. When maneuvering through curves or sudden traffic situations, a vehicle with a high center of gravity can easily turn over. Speed is even more important when the movement of liquid cargo is "in phase" with the vehicle's maneuver. If the liquid is on one side during the first curve, then shifts to the other side during the next curve, the liquid is positioned to shift back to the first side with four times the side force it had during the initial curve. Sudden vehicle maneuvers are especially risky because the combination of speed and load shift makes the vehicle unstable. This is probably the most important factor contributing to vehicle instability because it magnifies problems presented by the first three factors.

E.2.6. Trailer Towing. Vehicles towing trailers are much more prone to roll over, especially in curves and during sudden steering maneuvers, as a result of the exaggerated motion of the trailer.

E.2.7. Vehicle Condition and Preparation. It is critical that the vehicle be in good operating condition before starting your mission, with particular attention paid to the tires condition and air pressure. Properly performed Preventive Maintenance Checks and Services is the best way to control this potential hazard.

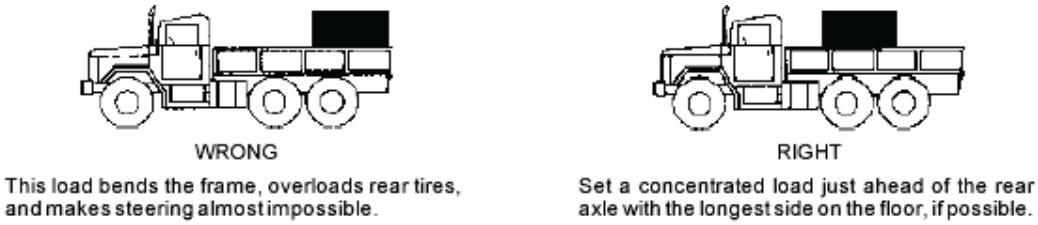

Figure E-1. Load Distribution

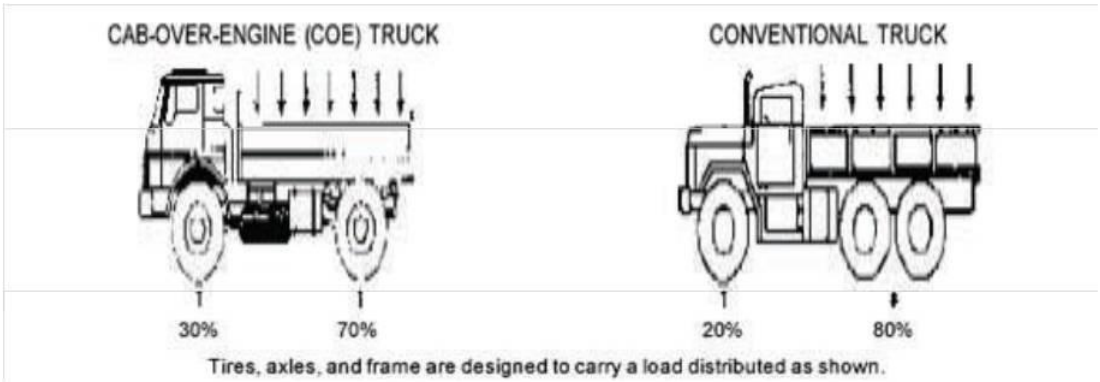

Figure E-2. Center of Gravity

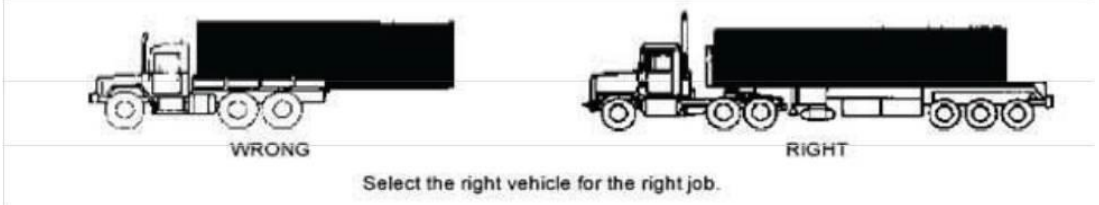

Figure E-3. Selecting a Vehicle for the Load

E.2.8. Environmental and Awareness Factors

a. Don't drive too fast for the road and weather conditions.

b. Dust

c. Civilian Vehicles

d. Obstacles

e. Vehicles following your convoy for a long distance and then pulling off the side of the road.

f. Dead animals along the roadways.

g. Wires lying out in plain sight.

h. Freshly dug holes or pavement patching on or alongside the road.

i. New dirt, rock or gravel piles.

j. Obstacles in the roadway used to channel the convoy.

k. Personnel on overpasses.

l. Signals with flares, civilian city/building lights flashing as convoy approaches.

m. People taping ordinary activities or military movement.

E.3. Convoy Risk Assessment.

Risk mitigation directly contributes to the safety of a convoy mission. The below checklist provides a working reference for a Convoy commander to reduce risk and assist in achieving a safe convoy mission:

CONVOY RISK REDUCTION WORKSHEET				
Check all that	**Hazard**	**Risk Level (Low,Med,High)**	**Risk mitigation / Control Measures**	**Residual Risk**
	Adverse Terrain		**Drivers training, convoy brief**	
	Air Attack		**Convoy defense, battle drills, harden vehicles**	
	Ambush		**Convoy defense, battle drills, harden vehicles**	
	Barricades		**Convoy defense, battle drills, harden vehicles,**	
	Blackout Drive		**Driver training, convoy brief**	
	Breakdown		**PMCS, PCIs, class II, strip maps**	

	Exhaust Fumes		Enforce no sleep rule (Vehicle Commander), PMCS, PCIs	
	Cargo (HAZMAT)		Training, PCIs	
	Civilians		Commo, convoy briefs, training	
	Cold Weather		Cold weather training, PCIs	
	Desert Environment		Training, convoy briefs	
	Disorientation		Convoy briefs, strip maps, training	
	Driver Inexperience		Driver placement, training	
	Enemy Attack		Rehearsals, battle drills, convoy briefs, harden	
	Fratricide		panels, on vehicle, battlespace geometry,	
	Halt		Rehearsals, battle drills	
	Heat		Water, rest halts, convoy briefs (safety)	
	Heavy Rain		PMCS, driver training, reduce speed	
	Limited Visibility		Night Vision Goggles, chem.- light markings,	
	Long Hauls		Driver's training, SOPs, rest halts, convoy briefs	
	Minefield		Rehearsals, battle drills	
	Mud		Recovery Training, driver's training	
	CBRN attack		Rehearsals, PCIs, recons, commo, training (CBRN Teams)	
	Recovery Operations		Training in maintenance, selfrecovery, tow bar handling	
	Reduced Visibility		Intervals, chemlight markings, training	
	Roll Over		Driver's training, recovery, SOPs,	
	Sleep Deprivation		Enforce sleep plan, rest stops, work rotations	
	Sniper Fire		Battle drills, convoy briefs, training	
	Snow/Ice		reduce speed, drivers training	
	Strong Winds		Reduce speed, driver's training,	
	Sudden Halt		Intervals, training, battle drills SOP.	

	Sunlight		**Sunlight Clean windows, ballistic**	
	Fire		**Fire extinguishers, evacuation drills**	
	IED attack		**Battle Drills, driver's training, ballistic glasses,**	

DEFINITIONS
CBRN – chemical, biological, radiological, and nuclear
HAZMAT – hazardous materials
HIGH- GOOD CHANCE OF DEATH OR SERIOUS INJURY
IED – improvised explosive device
MED-MAY CAUSE INJURY OR POSSIBLE DEATH
LOW-LITTLE CHANCE OF DEATH OR INJURY
PCI - pre-combat inspection
PMCS - preventive maintenance, checks, and services
PPE – personal protective equipment
SOP – standing operating procedures

Table E-1. Convoy Risk Assessment Worksheet

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ANNEX F - NINE LINE MEDEVAC REQUEST

Annex F is the NATO 9 LINE MEDEVAC request form. A copy of this should be located near each radio set in the convoy for quick access and accurate information to be passed to the responding medical units. This format is presented as a guide to request casualty or medical evacuations (see ATP-97 for additional information), local SOPs would take precedence.

PREFIX	DESCRIPTION / NOTES	MESSAGE CONTENT		
1	**Call Sign To / From**	_____This is_____		
	Warning Order	MEDEVAC		
2	**Location**			
	GRID of Pick-Up Zone			
3	**Number of Patients / Priority**	P1 = P2 = P3 =		
	PRIORITY1. (P1) Urgent. To be hospitalised within 60 minutes	PRIORITY2. (P2) To be hospitalised within 4 hours		PRIORITY3. To be hospitalised within 24 hours (R2/R3)
4	**Special Equipment Required**			
	None, hoist, ventilator, extraction device.			
5	**Patients / Type**	S = W = E = 0 =		
	S (Stretcher),	W (Walking),	E (Escort),	O (Other, give details)
6	**Security at Pick-up Zone**			
	N (No enemy),	P (Possible enemy)	E (Enemy in area)	X (Hot, armed escort required)
7	**Pick-up Zone Marking Method**			
	How is the pick up zone marked smoke including colour, light including colour, etc			
8	**Patients By Nationality / Status**			

	A NATO military = B NATO civilian = C Non NATO military = D Non NATO civilian = E Detainee, POW = F Embedded Interpreter = G Civ Cav caused by FF = H Child = **NOTE** POW = Prisoner Of War, FF = friendly Forces, Civ Cav = civilian Casualties	
9	**Tactical Considerations and other information**	
	Give details of any changes to the tactical situation and any other relevant information	

Figure F-1. 9 Line MEDEVAC Request

LIST OF ACRONYMS AND ABBREVIATIONS

AOO	area of operations
CBRN	chemical, biological, radiological, nuclear
ECM	electronic counter measures (AAP-15
EOD	explosive ordnance disposal (AAP-15)
FRAGO	fragmentary order (AAP-15)
IED	improvised explosive device
IFP	internal force protection (AAP-15)
ISTAR	intelligence, surveillance, target acquisition and reconnaissance
MEDEVAC	medical evacuation (AAP-15)
SOP	standing operating procedures (AAP-15)
STANAG	standardization agreement (AAP-15)
SP	start point (AAP-15)
VBIED	vehicle borne improvised explosive device (AAP-15)

GLOSSARY

Terms and definitions from AAP-6 are in italics

casualty *With regard to the personnel system, a person who is lost to an organization by reason of having been declared dead, wounded, injured, diseased, detained, captured or missing.* (AAP-6)

convoy[2] *A group of vehicles organized for the purpose of control and orderly movement with or without escort protection.* (AAP-6)

convoy escort *An escort to protect a convoy of vehicles from being scattered, destroyed or captured.* (AAP-6)

convoy route *The specific route assigned to each convoy by the appropriate routing authority.* (AAP-6)

escort[1] *In land operations, (a) unit(s) or element(s) assigned to accompany and protect one or several other units or elements.*AAP-6)

improvised explosive device *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. NOTE: It may incorporate military stores, but is normally devised from non-military components.* (AAP-6)

logistics *The science of planning and carrying out the movement and maintenance of forces. In its most comprehensive sense, the aspects of military operations which deal with: a. design and development, acquisition, storage, movement, distribution, maintenance, evacuation, and disposal of materiel; b. transport of personnel; c. acquisition or construction, maintenance, operation, and disposition of facilities; d. acquisition or furnishing of services; and e. medical and health service support. (AAP-6)*

mission *A clear, concise statement of the task of the command and its purpose.* (AAP-6)

movement control[1] *The planning, routing, scheduling and control of personnel and cargo movements over lines of communication.* (AAP-6)

movement order *An order issued by a commander covering the details for the movement of a unit, personnel and/or materiel.* (AAP-6)

operation order *A directive, usually formal, issued by a commander to subordinate commanders for the purpose of effecting the coordinated execution of an operation*. (AAP-6)

operation plan *A plan for a single or series of connected operations to be carried out simultaneously or in succession. It is usually based upon stated assumptions and is the form of directive employed by higher authority to permit subordinate commanders to prepare supporting plans and orders. The designation "plan" is usually used instead of "order" in preparing for operations well in advance. An operation plan may be put*

into effect at a prescribed time, or on signal, and then becomes the operation order. (AAP-6)

packet *In land convoy movements, a small number of vehicles that moves as part of a convoy.* (AAP-6)

reconnaissance *A mission undertaken to obtain, by visual observation or other detection methods, information about the activities and resources of an enemy or potential enemy, or to secure data concerning the meteorological, hydro graphic, or geographic characteristics of a particular area.* (AAP-6)

recovery[4] *In battlefield maintenance, the extrication of an abandoned, disabled or immobilized vehicle and, if necessary, its removal to a maintenance point.* (AAP-6)

release point[1] *In road movements, a well-defined point on a route at which the elements composing a column return under the authority of their respective commanders, each one of these elements continuing its movement towards its own appropriate destination.* (AAP-6)

rendezvous point *A given location at which to regroup before, during or after an operation at a specified time or in a specified situation.* (AAP-6)

rules of engagement *Directives issued by competent military authority which specify the circumstances and limitations under which forces will initiate and/or continue combat engagement with other forces encountered.* (AAP-6)

start point A well defined point on a route at which a movement of vehicles begins to be under the control of the commander of this movement. Notes: 1. It is at this point that a column is formed by the successive passing, at an appointed time, of each of its elements. 2. In addition to the principal start point of a column, there may be secondary start points for its different elements. (AAP-6)

support *The action of a force, or portion thereof, which aids, protects, complements, or sustains any other force.* (AAP-6).

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