Handbook

No. 03-6 MAR 03

Tactics, Techniques, and Procedures

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Unless otherwise stated, whenever the masculine or feminine gender is used, both are intended.

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SECTION I

A Training Scenario - Protecting Crucial Convoys

by CPT Dean J. Dominique, Senior Transportation/DISCOM (FWD) O/C, CSS Division, JRTC OPS GRP

No kidding, there I was, knee deep in sand, conducting a tactical convoy at the National Training Center. The temperature was rising and the supplies were moving. Out ahead of the convoy, the "Rat Patrol" searched for the infamous opposing force (OPFOR). The Rat Patrol spotted a lone BRDM waiting to attack my convoy. By using the terrain to mask its movements, the Rat Patrol with a lone SAW gunner was able to tactically maneuver to a covered position and engage the OPFOR at my command. The intent was to provide an element of surprise and suppressive fire until the gun truck could maneuver to a better position to fire upon the lone bandit. However, the BRDM quickly withdrew under the hail of 5.56mm. This then allowed the convoy to pass on to its destination unimpeded. Across the country at the JRTC, a Rat Patrol out ahead of a LOGPAC convoy spotted civilians on the battlefield during the low intensity conflict phase. The "civilians" were actually OPFOR and they had set up a hasty roadblock in restrictive terrain. A quick look at the setup and it was apparent to the Rat Patrol leader that a convoy ambush at that site would be deadly effective. He called it in immediately and backtracked. Thanks to the early warning, the convoy was able to herringbone and take up defensive positions several kilometers away from what eventually became an ambush site. That remains the best way to defeat any ambush: ***d*on't get caught in the kill zone!**

The ambush is set. As you wait for your target, you go over every detail again and again. Although this is supposed to be an "easy target," you still want make sure nothing is left to chance. The mission: interdict a logistics convoy to deny the enemy much-needed supplies. Intelligence states that the supply convoys pass this same route twice a day at fairly regular intervals. The command and control (C2) element is usually leading with minimal, if any, security.

Out of the corner of your eye, you see a flash of light in the distance. The convoy is slowly lumbering into the kill zone. A smile comes across your face as you notice what looks like the command vehicle leading the way. You activate the command-detonated mine on the lead vehicle, thereby killing the convoy commander along with his communications. The machine guns open up and destroy the targets in priority order; supplies, troops, and equipment. As your soldiers sweep the kill zone, you reflect back on your intelligence brief. An easy target was right. Supplies, troops and equipment are all destroyed. Mission complete.

Logistics convoys are inviting targets for an enemy force. They include large lumbering vehicles loaded with supplies essential to the troops on the front lines. Those supplies run the gamut from MREs to mortar rounds. Taking out the convoy means that the maneuver units will not only go hungry but will also risk running out of ammunition.

Even better, the typical convoy is a soft target. In a perfect world, MPs or perhaps infantry escorts every convoy. But the world is rarely perfect, especially on the battlefield. Such support is often not available because of other priorities. This leaves convoys to their own devices. That does not mean that they have to be unprotected. Unless of course, the convoy commander chooses to ignore the risks that he will suffer enemy attack. The enemy—especially the OPFOR here at the Joint Readiness Training Center (JRTC)—will certainly not ignore such tempting targets. By interdicting these supplies, the enemy can dramatically reduce the combat power they face with the application of minimal force against a poorly prepared convoy. Many BLUFOR units have gone hungry or run out of critical items because a small OPFOR team snapped up a LOGPAC convoy out in the box.

So how do you—the convoy commander who has just been handed a mission sans escort—prevent such a calamity? Finger-crossing is not an effective TTP. Setting up a "Rat Patrol" is. Simply put, a Rat Patrol is an advance security element that precedes a convoy in the absence of an MP or other escort to scout the route, provide overarch, and possibly prevent the convoy from being destroyed. The fundamentals of a well-executed Rat Patrol are organization, training, planning, pre-combat checks, and rehearsals.

ORGANIZATION

One technique for setting up the Rat Patrol is to reserve two HMMWVs with two to three heavily armed soldiers per vehicle. These vehicles are not to replace the gun truck or vice versa. They should be used them together as a complimentary force. The wise convoy commander uses the same soldiers for these Rat Patrols. The troops get better at the missions and don't have to be trained each time someone orders up a convoy. Better performance means increased survivability for the convoys and the Rat Patrols. These patrols need to be well equipped. At a minimum, that includes a functioning automatic weapon (read test-fired), communications (also tested), binoculars, compass, and map with graphics. If possible, mechanics should remove the HMMWV's windshields along with doors and vehicle top to maximize observation and minimize signature due to light reflection. When running multiple convoys, rotating personnel is crucial. Demands for multiple convoys may mean that Rat Patrols are single-ship missions. When that happens, use the most experienced and rehearsed team.

TRAINING

Obviously a CSS unit is not going to have the luxury of setting up an internal scout course. But that does not mean that convoy commanders cannot polish the basic soldier skills involved in such missions. Rat Patrol leaders must be well trained on mounted land navigation as well as call-for-fire skills. The team members need to understand that their mission is scouting and, on occasion, breaking contact with an enemy. That means the team must establish battle drills for mounted and dismounted reconnaissance, reaction to contact, and breaking contact. It also means that the team

members are qualified on their weapons and OPFOR (or real-world enemy) identification and tactics.

PLANNING

The Rat Patrol team leaders must have a comprehensive understanding of the route, the enemy, and the terrain along the route (METT-T). Each Rat Patrol must know the enemy's capabilities and potential ambush sites. This begins with a detailed consultation with the S2. If possible, named areas of interest (NAIs) should be developed along with en-route targets. The team members must understand the commander's intent for the Rat Patrol as well. Again, the Rat Patrol members must recognize that they are not normally a fighting force and must not become decisively engaged. If they spot the enemy first, they should stay out of weapons range and call back with a systematic SALUTE report. If they are spotted, they should return fire and move back while informing the convoy. Again, the Rat Patrol should not be used as a fighting force, but as a reconnaissance element.

PCC/REHEARSAL

Prior to departing, the team leaders must inspect all personnel, weapons, and equipment for serviceability and accountability. A "single-shot" machine gun will do little to deter a determined enemy bent on killing. Communication must be established with the convoy commander as well as the gun truck to coordinate fires. Internal SOPs and checklists should be developed for PCC/PCIs and actions on contact. Rehearsals are then conducted with all key elements. In case of a time crunch, focus on actions on contact first. Instructions must be unambiguous and all actions rehearsed between the convoy commander, the Rat Patrol, gun truck, and higher headquarters.

EXECUTION

The Rat Patrol moves tactically ahead of the convoy in a bounding overarch. Points can be designated on the map to which each element can bound forward. The Rat Patrol teams should alternately move ahead of the convoy to reconnoiter possible ambush sites and stop short of inter-visibility lines (IV lines) to provide eyes and ears for the convoy commander. This can keep large convoys from rolling into a roadblock or bottleneck. The Rat Patrol does not need to travel precisely on the route trekked by the convoy. Conversely, they should use the terrain to their full advantage to mask movement while trying to locate the enemy first.

In conclusion, a properly executed Rat Patrol can save lives and ensure that the soldiers on the front lines have the supplies needed to close with and destroy the enemy. If the convoy in the beginning of the article had organized, planned, rehearsed and executed a Rat Patrol, the convoy could have been saved. The convoy could have been directed to use an alternate route, had increased security placed along that route, or rained artillery on the ambush to clear the route. The supplies may arrive late, but the convoy's troops will arrive alive.

Rat Patrols work!

SECTION II

Convoy Planning and Preparation Procedures and Tips

This section contains useful information that augments doctrinal guidelines to support convoy operational planning and execution. It provides a quick reference on methods, procedures and TTP for the proper conduct of convoys. It focuses on planning and preparing convoy operations.

There are important planning considerations that should be included in unit standing operation procedures (SOPs). The following subject areas assist convoy commanders and non-commissioned officers (NCOs) in the planning process.

Unit Standing Operating Procedure (SOP). A complete SOP facilitates planning. At company level, SOPs should conform to the next higher headquarters. At a minimum, the SOP should cover the following subjects:

- **Duties of the convoy commander and other convoy control personnel.**
- **Convoy organization.**
- **Weapons and ammunition to be carried.**
- **Hardening of vehicles.**
- **Protective equipment to be worn.**
- **Preparation of convoy vehicles; for example, information on tarpaulins, tailgates, and windshields.**
- **Counterambush actions.**
- **Operations security measures.**
- **Immediate action drills.**
- **Actions during scheduled halts.**
- **Maintenance and recovery of disabled vehicles.**
- **Refueling and rest halts.**
- **Communications.**
- **Actions at the release point.**
- **Reporting.**

Command Responsibilities. The commander of the moving unit is responsible for the mechanical condition of his vehicles. Leaders must inspect all vehicles according to appropriate TMs before departing for the mission. **Convoy commanders should also ensure that:**

- **Additional fuel, water, and lubricants are provided for en-route requirements.**
- **Loads are inspected.**
- **Tarpaulin, troop safety straps, and end curtains are provided when required.**
- **Vehicles are hardened when required.**
- **Columns are identified with appropriate markings.**
- **Weapons are inspected.**

Marshaling or Assembly Area Inspection Teams. A technique for large unit movements is to establish marshaling area or assembly area inspection points. As convoys are ready to depart, they proceed to the inspection point for final checks and driver briefings. Unit-level maintenance personnel may be available to assist unit leadership in correcting last-minute minor deficiencies. Trucks with major problems will be returned to the parent unit and replaced with serviceable vehicles.

Hardening Vehicles. Cover the cargo bed of troop-carrying vehicles with at least a double interlocking layer of sandbags. Cover the cab floor of all vehicles with a double layer of sandbags under the driver's seat. Take care not to hamper pedal movement or hamper the driver's access to them. As an additional precaution, place a heavy rubber or fiber mat over the sandbags to reduce danger from fragments such as sharpened stones, sand, and metal parts of the vehicle. This also prolongs the life of sandbags. Sandbags may also be placed on the fuel tank, fenders, and hood. See Appendix O (page 16) for more information on vehicle hardening.

When contemplating hardening vehicles for escort and/or gun truck duty, *use one escort/gun truck for every eight task vehicles.* Prior approval from higher headquarters must be received before task vehicles are converted into escort/gun trucks.

Convoy Identification. Identify each column with a blue flag on the lead vehicle and a green flag on the rear vehicle. Mount flags on the left of the vehicles, either front or rear. Position flags so they do not interfere with driver vision or functional components of the vehicle. When movement is at night, the lead vehicle shows a blue light and the rear vehicle a green light. The vehicle of the convoy commander and the march unit commanders must display a white and black diagonal flag on the left front bumper. This flag is divided diagonally from the lower left corner to the upper right corner with the upper left triangle white and the lower right triangle black. Trail party vehicles carry an international orange safety flag. State and local police or MP escort vehicles do not display convoy identification flags. See Figure II-1 for illustrations of flags and flag placement.

The convoy movement order includes a convoy clearance number (CCN) which identifies the convoy during its entire movement. The CCN is placed on both sides of each vehicle in the convoy and, if possible, on the front and back of each vehicle (see Figure II-2). It is also placed on the top of the hood of the lead and rear vehicles of each march unit.

Final Preparation. Final convoy preparation includes organizing the convoy, briefing personnel, and inspecting individual equipment and vehicles. Convoy personnel are usually briefed after the vehicles are lined up. After the convoy commander's briefing, personnel are returned to the control of the march unit commanders who give final instructions. Leaders make final inspections of loads to ensure that they are properly secured and that vehicles are ready to move.

Night Convoys. Although night convoys are extremely vulnerable to ambush and sniper fire, CSS doctrine requires that the preponderance of resupply operations be conducted during hours of darkness. Units must be trained in techniques for night convoys, night loading and off-loading, and night refueling. Heed the following guidelines for night convoys:

- **Keep night convoys small.**
- **Use roads that drivers know.**
- **Make maximum use of night-vision devices.**
- **Rehearse movements.**
- **Conduct leader reconnaissance.**

Plan night moves in the same manner as daylight moves. However, night moves take longer and there is greater chance for mistakes, injury, and fratricide. When planning a night move, determine if the convoy will operate in an area that requires blackout drive. The area commander will make this decision.

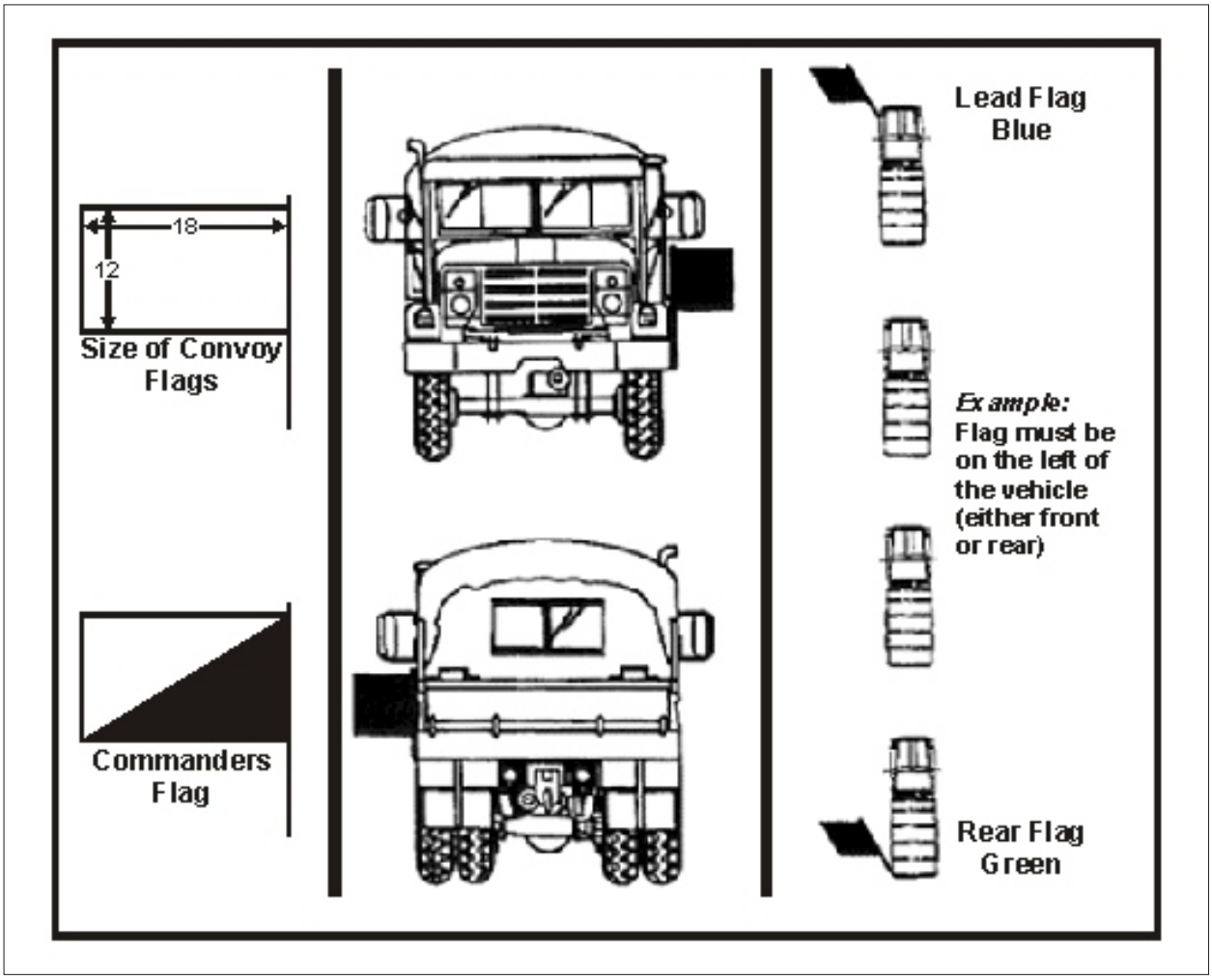


Figure II-1. Flag placement on a vehicle.

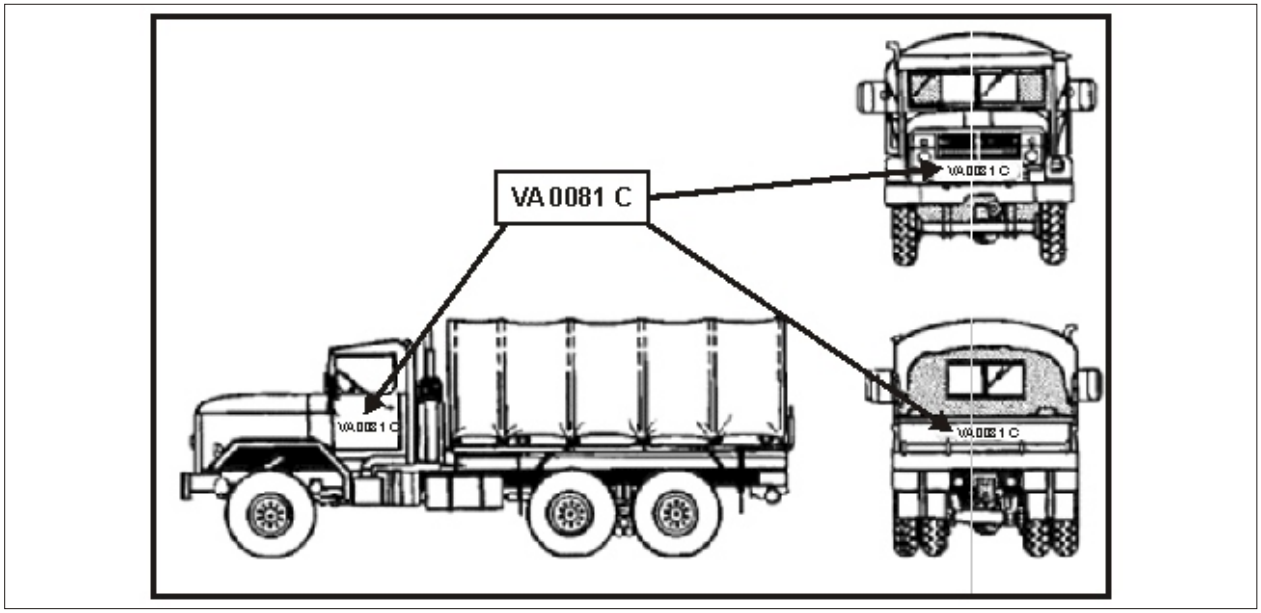


Figure II-2. Placement of convoy clearance number.

A **harbor area** is a space set aside for normal halts, traffic control, and emergency congestion relief. Harbor areas are used to:

- **Hold vehicles at both ends of a crossing or defile.**
- **Make changes in density, especially at first or last light.**
- **Contain spillovers in serious delays (likely to be caused by enemy air attack or its results).**
- **Allow columns to rest and carry out maintenance and decontamination.**
- **Allow elements to change position in column if there is a change in priorities.**
- **Only the minimum number of headings should be used. Include any information common to two or more movement numbers under the general data paragraphs.**
- **Since the table may be issued to personnel concerned with traffic control, security must be remembered. It may not be desirable to include dates or locations.**
- **If the table is issued by itself, not as an annex to a more detailed order, the table must be signed or authenticated in the normal way.**
- **Critical point is defined as "a selected point along a route used for reference in giving instructions."** Critical points include start points, release points, and

other points along a route where interference with movement may occur or where timing is critical.

- **The movement number identifies a column or element of column during the whole of the movement.** This chapter contains extracts from convoy-related field manuals.

APPENDIX A - CONVOY PLANNING TOOLS

All too often, convoys are treated as administrative moves instead of the combat operations they are. **THERE IS NO SUCH THING AS AN ADMINISTRATIVE MOVE IN A COMBAT ZONE!** Tactical convoys are combat operations and must be treated as such. They require additional planning and coordination beyond normal line-haul operation. The probability for running into enemy contact is greater and, therefore, more detailed preparation is necessary. What follows is a framework to assist with the planning and execution of a tactical convoy. It is not an all-inclusive list, but it will give the convoy commander a checklist to successfully complete the mission. The outline that follows is based on experiences with tactical convoys at the National Training Center and the Joint Readiness Training Center.

TACTICAL CONVOY OUTLINE

1. **Receive the mission.**

2. **Designate a Convoy Commander and Assistant Convoy Commander.** By dividing the roles and responsibilities of a convoy between two personnel, more can be done in less time with a highly effective outcome. Generally, the convoy commander should handle the administrative portions (officer business) while the assistant convoy commander concentrates on staging, inspection, and rehearsals (NCO business). But the Convoy Commander remains responsible for all preparations.

3. **Convoy Commander determines timeline based on mission, enemy, troops available, terrain and time available (METT-T).** A six-hour leadtime for any mission will allow proper planning for a tactical convoy. Experience and SOPs will accelerate tactical convoy preparation, especially when time is short.

4. **Convoy Execution Matrix.** A one-page matrix that contains the following will ensure each driver has enough information needed to complete the mission even if he is the sole survivor. The convoy commander should prepare the matrix.

a. Mission.

b. Frequencies/Points of Contact.

c. Timeline.

d. Detailed Strip Map.

e. Enemy Situation.

f. Checkpoints, Release Points, Rally Point.

g. Additional information needed to complete the mission.

h. Manifest-personnel, supplies, sensitive items. The assistant convoy commander completes the manifest and forwards to higher.

5. **Route Reconnaissance.**

a. Map reconnaissance at a minimum. This is a not an option.

b. Route reconnaissance most preferred.

c. Prepare strip map. A good strip map will allow drivers to complete the mission without the use of a map. Include SP/RP, main route, alternate route, critical points, checkpoints, distance between checkpoints, north orientation, and major terrain features.

6. **Determine Named Areas of Interest (NAI) and forward to S2.** In addition to route reconnaissance, determining NAIs along a route will enhance the convoy commander's vision of the battlefield. For example, an NAI may be established at restrictive terrain along the route that may be favorable to an enemy ambush. By establishing the enemy's course of action, the convoy can be redirected to a safer route.

7. **Coordination.**

a. Confirm radio frequency, call sign, and signals.

b. Link-up points.

c. Link-up procedures.

d. Battle hand-off procedures.

e. Information transfer procedures.

8. **Stage/Pre-Combat Checks (PCCs).** PCCs are the Assistant Convoy Commander's responsibility. Early staging of vehicles allows the Assistant Convoy Commander to conduct PCCs while verifying manifest data.

a. Line up all vehicles in order of march.

b. Conduct individual PCCs.

c. Conduct vehicle/equipment PCC.

d. Mechanic assists with vehicle PCC.

e. Harden vehicles.

f. Confirm manifest.

g. Test Fire Gun truck/Rat Patrol at a minimum.

9. **Gun Truck.** A gun truck will provide the convoy with much needed firepower to deter and/or destroy an enemy threat. Many times the enemy will choose not to attack a well-armed convoy.

a. Placed where it can best provide needed firepower.

b. Must have communication to be effective.

c. One per eight vehicles is recommended.

d. Hardened.

e. Test fire prior to departure.

f. Thoroughly briefed/rehearsed.

10. **Rat Patrol.** A Rat Patrol is an advance security element that can be used in lieu of, or in conjunction with, a convoy escort. Its purpose is to drive ahead of the convoy as a reconnaissance element to provide the convoy with information on the route and enemy situation.

a. One or more HMMWVs with top, door and windows removed.

b. Crew-served weapon or Squad Automatic Weapon (SAW) at minimum.

c. Binoculars.

d. Communication.

e. Thoroughly briefed/rehearsed on route/movement technique.

f. Should not be convoy gun truck.

11. **OPSEC.** Throughout each phase of planning, preparation and execution, every effort must be made to maintain operational security (OPSEC) to deny intelligence to the enemy.

a. Camouflage trucks, windows, and headlights.

b. Use night moves.

c. Use proper radio techniques.

d. Cover unit information.

e. Cover cargo.

f. No names/information on windshields.

g. Destroy convoy execution matrix and radio fill if captured.

12. **Coordination.** When coordinating with the receiving unit, adjacent unit, escort and reaction forces, ensure the following:

a. Confirm radio frequency, call sign, and signals.

b. Link-up points.

c. Link-up procedures.

d. Battle hand-off procedures.

e. Information transfer procedures.

f. Availability of materials handling equipment (MHE).

g. Refuel sites.

h. Procedures for remaining overnight (RON).

13. **Things to consider.** Other aspects to consider when planning a convoy.

a. Enroute recovery.

b. Ambulance/medical coverage. *Note:* Most ambulances have radio communications.

c. Disperse combat lifesavers throughout convoy.

d. Designate responsibilities such as aid and litter teams.

e. Rest plan for drivers.

f. Window screens to deflect grenades.

g. Supply guard to prevent pilferage.

h. MP, infantry or other escort.

I. Disperse commodities throughout the convoy — cross load!

j. Convoy signals.

k. Enroute targets (fire support).

l. Air cover (close air support).

m. Air guard.

n. Deception plan.

o. Closure report at destination and upon return.

14. **Briefings** - two hours prior to SP.

a. Tactical Brief - enemy/friendly situation update from S2.

b. Convoy Execution Matrix.

c. Safety Brief — use Risk Management and Risk Reduction.

d. Battle Drills.

(1) Air Attack.

(2) Artillery.

(3) Far Ambush.

(4) Near Ambush.

(5) Near Ambush/Road Blocked.

(6) Minefield.

(7) Unplanned Halt.

(8) Use of floating rally points.

(9) Herringbones.

15. **Rehearsals.**

a. Battle Drills. What is expected of everyone? Who does what in each situation?

b. Routes. A technique is to paint routes and terrain features on a large piece of canvas. This allows the “sand table” to be moved. It also allows drivers to “walk” the route prior to departure.

c. CASEVAC. What happens if casualties are sustained? Are the aid and litter teams designated, and do they know what to do?

d. Communication. To include audio, visual, and radio. Redundant means of communication is a must. What is the plan if primary communication goes down?

e. Rat Patrol/Gun truck. Are roles and responsibilities understood?

16. **Conduct Convoy.**

a. Mechanic available prior to SP in case of vehicle problems.

b. Vehicles started one-half hour prior to SP.

c. Call in SP, CP, RP, and significant activities to higher. Know frequencies and call signs of adjacent units in case of emergency.

d. Close the loop with destination. Let headquarters know the convoy has arrived at its destination and inform them when departing.

e. The S3 must be integrated into the convoy process. Once the convoy is on the road, it is now a moving piece on the battlefield that must be tracked by the S3 shop as though it were a combat patrol.

17. **Debrief upon return to S2.** Drivers are one of the best sources of intelligence about the battlefield. By ensuring that all drivers are debriefed after each convoy, the S2 can ensure the next convoy traveling that route has all the proper and current intelligence.

18. **Summation:** The bottom line is that a convoy has all the preparation requirements of any detached tactical operation. Plan, prepare, rehearse and execute convoys the same way an infantry squad rehearses a patrol!

APPENDIX B - SAMPLE CONVOY PCI CHECKLIST

INDIVIDUAL CHECKLIST	RUCK SACK (as needed for mission)
___Weapon	____Sleeping Bag
___ Kevlar	____one set BDUs
___LBE w/two canteens (topped off)	____two T-shirts
___First Aid Pouch w/dressing	____two pr underwear
___Ammo pouches w/basic load	____two pr socks (blk/grn)
___Flashlight w/batteries	____Polypro top/bottom
___I.D. tags	____Cold Weather boots
__Military ID card	____Personal hygiene kit
__MRE	____Gore-Tex top/bottom
__Civilian Driver's License	____Wet weather gear
__MOPP Gear	____Cold weather gloves
__Combat Lifesaver Kit	____Polypro glove insert
__Mission Brief	____MREs, three each
__OVM Keys	
__AAA Card	
VEHICLE CHECKLIST	**LEADER CHECKLIST**
___Completed 5988E (before PMCS)	___Binoculars
___Current Vehicle dispatch	___Radio check (internal, command, A&L)
___Truck topped off	___Convoy Movement Order
___Additional package products	___Map of sector with current graphics
___VS-17 panel	___Strip Map
___Extra fuel can	___Sensitive items/personnel list
___Class I basic load (MREs and water)	___Combat Lifesaver w/kit

___Radio check (if applicable)	___Current situation brief
___BII complete	___Risk Assessment
___Snow chains w/tie down	___GPS (operational)
___Tow Bar	___Vehicle and Personnel manifest
___All cargo secured	
___Road Guard Belt	
___Flashlight	
___Map	
___Warning triangles	
___Fire extinguisher	

APPENDIX C - SAMPLE ARRIVAL/DEPARTURE REPORT

	A	B - DEPARTURE	C- ARRIVAL
LINE 1	UNIT		
LINE 2	MISSION/CONVOY NO.		
LINE 3	OFFICER		
LINE 4	NCO		
LINE 5	ENLISTED		
LINE 6	PERSONNEL ACCOUNTED FOR		

NUMBER OF VEHICLE TYPE

LINE 7	TRUCK, TRACKER/PLS		
LINE 8	TRUCK, 5-TON		
LINE 9	HMMWV		
LINE 10	OTHER VEHICLES		
LINE 11	TRAILER (S7P/PLS)		
LINE 12	OTHER TRAILERS		
LINE 13	M1077 (FLATRACK)		
LINE 14	TANKER, FUEL		
LINE 15	WRECKER		
LINE 16	TRUCK, MAINT CONTACT		
LINE 17	CRANE		
LINE 18	FORKLIFT		
LINE 19	IFTE		
LINE 20	SHOWER SYSTEM		
LINE 21	LAUNDRY TRAILER		
LINE 22	EQUIPMENT ACCOUNTED FOR		

SENSITIVE ITEMS

LINE 23	M16A2		
LINE 24	M203		
LINE 25	M249 (SAW)		
LINE 26	M60		
LINE 27	M2		
LINE 28	MK 19		
LINE 29	ANCD		
LINE 30	PLGR		
LINE 31	NVG		
LINE 32	SENSITIVE ITEMS ACCOUNTED FOR		

TIME/DATE GROUP INFORMATION

LINE 33	DTG OFARRIVAL/DEPART FROM HOME BASE		
LINE 34	DTG OF ARRIVAL/DEPART FROM SUPPORTED UNIT		
LINE 35	REMARKS		

APPENDIX D

CONVOY EXECUTION MATRIX

CONVOY #_____ CONVOY CDR ASST CONVOY CDR

MISSION	TIME PERIOD	CHALLENGE	PASSWORD

COMMAND & CONTROL

WHO	CALL SIGN 24/48	FREQ 24/48	MSRT	NAME/UNIT
CONVOY CDR				
ASST CONVOY CDR				
COMPANY TOC				
BN TOC				
UNIT POC				
CONVOY ESCORT				
MEDEVAC				
GUN TRUCK				
RANGE CONTROL				
SPARE				
SPARE				

TIMES AND LOCATIONS

WHAT	WHERE	WHEN	WPN STATUS	MOPP STATUS	ADA STAT
STAGE					
PCI					
CONVOY CDR BRIEF					
SP					
RP/LINK-UP POINT					

CHECK POINTS

CP #	LOCATION	DISTANCE	ROAD COND	ENEMY SITUATION

STRIP MAP

CONVOY EXECUTION MATRIX (PAGE 2)

VEHICLES IN ORDER OF MARCH (This form filled out by Assistant Convoy Commander)

OOM#	TRK #	TRLR #	F/R #	SUPPLIES	NAMES	SENSITIVE ITEMS

TOTALS

WEATHER DATA

DATE	% ILLUM	SUNRISE/ SET	MOONRISE/ SET	NVG START/ STOP	CONDITIONS

RISK FACTOR _____ REVIEWER _____

APPENDIX E - CONVOY RISK MANAGEMENT FACTORS

Mission: _____ **CONVOY CDR** _____ **ASST CONVOY CDR**

(Circle one in each category)

PLANNING

	Preparation Time		
Guidance	**Optimum**	**Adequate**	**Minimal**
Hey You	3	4	5
FRAGO	2	3	4
OPORD	1	2	3

Score _____

MISSION CONTROL

	Type of Convoy		
Task Organization	**Nontactical/ Garrison**	**Day Tactical**	**Night Tactical**
OPCON	3	4	5
Attached	2	3	4
Organic	1	2	3

Score _____

SOLDIER ENDURANCE

	Length of Operation			
	1-2 hr	**3-5 hr**	**6-8 hr**	**9+hr**
Rest in last 24 hrs				
0-3 hrs	3	4	5	6
4-5 hrs	2	3	4	5

6+ hrs	1	2	3	4

Score _____

TRAFFICABILITY

	Road Type			
Terrain Type	**Improved**	**Unimproved**	**Trail**	**Cross Country**
Mountainous	3	4	5	6
Desert/Jungle	2	3	4	5
Flat/Rolling	1	2	3	4

Score _____

SOLDIER SKILLS

	Experience			
Task	**Experienced**	**Familiar**	**Not Experienced**	**OJT**
Complex	3	4	5	5
Routine	2	3	4	5
Simple	1	2	3	4

Score _____

VISIBILITY

	Weather/Light			
Terrain Type	**Clear/Day**	**Rain/Day**	**Snow/Dust/Day**	**Night**
Mountainous	3	4	5	5
Desert/Jungle	2	3	4	5
Flat/Rolling	1	2	3	4

Score _____

TOTAL _____

	0-12	**13-20**	**21-25**	**26+**
	Low Risk	Medium	High Risk	Very High
Approval Level:	SQD LDR	PLT LDR	CO CDR	BN CDR

NOTE: **IF 2 OR MORE AREAS ARE ASSIGNED RISK FACTORS OF 5 OR MORE, THE OVERALL RISK IS CONSIDERED "HIGH." ADD 3 POINTS TO THE TOTAL FOR HAZARDOUS OR SENSITIVE ITEMS CARGO.**

Approving Authority Signature _____ Date_____

Briefed by _____ Date _____

TC Initials _____ Driver Initials _____

This card is prepared by the Convoy CDR. Each truck will carry a copy in the dispatch book.

APPENDIX F

CONVOY RISK REDUCTION WORKSHEET				
Check all that apply	Hazard	Risk Level (Low, Med, High)	Control Measures	Residual Risk
	Adverse Terrain		Drivers training, convoy brief	
	Air Attack		Convoy defense, battle drills, harden vehicles, commo	
	Ambush		Convoy defense, battle drills, harden vehicles	
	Barricades		Convoy defense, rehearsals, battle drills, breach teams	
	Blackout Drive		Drivers training, convoy brief	
	Breakdown		PMCS, PCIs, Class II, SPO's (stripmap)	
	Exhaust Fumes		Enforce no sleep rule (TC's), PMCS, PCIs	
	Cargo (HAZMAT)		Training, PCIs	
	Civilians		Commo, Convoy briefs, training	
	Cold Weather		Cold weather training, PCIs	
	Communication		Training, commo personnel, PMCS, PCIs	
	Desert Environment		Training, convoy briefs	
	Disorientation		Convoy briefs, stripmap (SOP's), training (plugers, etc)	
	Driver Inexperience		Driver placement, training	
	Enemy ATK		Rehearsals, battle drills, convoy briefs, harden vehicles	
	Fratricide		VS-17 panels, on vehicles, markings, commo	
	Halt		Rehearsals, battle drills, convoy briefs	
	Heat		Water, rest halts, convoy brief (safety)	
	Heavy Rain		PMCS, drivers training, reduce speed	
	Limited Visibility		NVG's, chemlight markings, training	
	Long hauls		Drivers training, SOP's, rest halts, convoy briefs	
	Minefield		Rehearsals, battle drills	
	Mud		Recovery training, Drivers training (all wheel drive)	
	NBC Attack		Rehearsals, PCIs, recons, commo, training (NBC teams)	
	Recovery Operations		Training (with maint, self recovery-wench, toe-bar	
	Reduced Visibility		Intervals, chemlight markings, training	
	Roll Over		Drivers training, recovery, SOP's (seatbelts, kevlars)	
	Sleep Deprivation		Enforce sleep plan, rest stops, work rotations	
	Sniper Fire		Battle drills, convoy briefs, training	
	Snow/Ice		reduce speed, drivers training (use of CTIS)	
	Strong Winds		Reduce speed, drivers training, convoy briefs	
	Sudden halt		Intervals, training, battle drills (SOP's)	
	Sunlight		Clean windows, sunglasses	
	Fire		Fire extinguishers, evacuation drills	

Definitions:

High - Good chance of death or serious injury.

Med - May cause injury or possibly death.

Low - Little chance of death or injury.

APPENDIX G - PRE-CONVOY CHECKLIST

1. Manifest turned in _____

2. Risk Assessment turned in _____

3. Soldiers have sufficiently rested for the convoy _____

4. Vehicle PMCS done _____

5. Dispatch (with accident report, 2404(QAQC'd) dispatch signed by XO) in vehicle __

6. Frequency/Call sign sheet filled out in vehicle _____

7. UXO Spot Report sheet in vehicle _____

8. MEDEVAC request sheet in vehicle _____

9. Two-day supply of MREs and water in vehicle _____

10. All soldiers wearing proper uniform and protective gear* _____

11. All soldiers have ROE card and SFOR ID badge _____

12. Each vehicle in convoy has map with route and checkpoints _____

13. Convoy commander has operational PLGR _____

14. Commo checks done with S3 _____

15. Reviewed latest Intel Report on route and destination _____

16. Vehicles topped off_____

17. Combat lifesaver with bag (inventory bag) _____

18. Mine awareness card and mine probe _____

19. Radios are loaded with all frequencies, LTF, MEDEVAC, and Base Camps_____

20. S2 Intel brief _____

21. Interpreter (If wanted) _____

22. Convoy Cdr's Brief (Mission Statement, Risk Assessment, Brief Route)_____

23. Vehicle first aid kit and warning triangles complete BII_____

24. 2 ½-ton and larger vehicles have air tank valves closed _____

25. Route recon has been completed (map minimum) _____

***Uniform will comply with Force Protection changes; ensure you understand what the requirements are for uniform and protective gear before you leave Comanche.**

APPENDIX H – SAMPLE FORWARD SUPPORT BATTALION (FSB) CONVOY TACSOP

This chapter contains a sample light brigade FSB Convoy TACSOP.

General Tactical Convoy Operations

1. **Purpose:** This chapter describes standard procedures for tactical convoy operations under the command and control of the FSB.

2. **Definitions:**

a. **Convoy.** Six or more vehicles moving outside the BSA perimeter temporarily organized to operate as a column, with or without an escort and proceeding together under a single command or using the same route.

b. **Convoy Commander.** The officer or NCO in charge of a convoy operation. This will usually be a unit commander or XO.

c. **Serial Commander.** The officer or NCO in charge when a large convoy is divided into two or more serials for control purposes.

d. **March Unit Leader.** The officer or NCO in charge of a march unit, when serials are further divided into march units for control purposes.

e. **Truck Commander (TC).** The senior individual in any vehicle.

f. **Vehicle and Element Intervals.**

(1) *Open column:* Vehicles, in convoy or as single vehicles, maintaining a 100-meter interval during daylight and 40 meters at night.

(2) *Closed column:* Vehicles operating in closed column maintaining a 50-meter interval or an interval equal to twice the speedometer reading, but not less than 20 meters at the slowest speed.

g. **Speed Limits:** Do not exceed maximum speed limits. Enemy activity is the only reason to exceed maximum speed limits. Road conditions may dictate slower speeds.

3. **Responsibilities:**

a. The S2/3 section, FSB is responsible for:

(1) Debriefing each convoy commander after each mission.

(2) Advising the companies and convoy commanders of significant deviations to planned movements, enemy situation, alternate routes, ROE and specific instructions.

(3) Producing and providing company and convoy commanders with current operational and intelligence overlays.

(4) Coordinating combat support (i.e., fire support, MP support, route clearance) in advance of tactical convoy operations.

(5) Synchronizing convoy operations with Support Operations.

b. The Support Operations section, FSB, is responsible for:

(1) Exercising staff supervision over vehicle operations in support of logistics missions.

(2) Directing and coordinating daily operations to ensure an appropriate level of asset utilization, economy of operations, timely support to supported units, and maintenance of a sufficient readiness posture.

(3) Coordinating with movement control teams (MCTx) and the MCC on all military highway commitments.

(4) Coordinating with higher, lower, and adjacent headquarters for the proper employment of FSB vehicles.

(5) Synchronizing convoy mission support requirements with Bn S2/3.

c. Company Commanders are responsible for:

(1) Coordinating with the Support Operations section, FSB, significant deviations to planned movements.

(2) Ensuring their subordinate leaders perform Pre-Combat Inspections.

d. Convoy Commanders are responsible for:

(1) Taking all possible measures to guarantee the security and safety of convoy members and passengers first.

(2) Taking appropriate actions to safeguard cargo second.

(3) Developing and executing the convoy security plan.

(4) Conducting a thorough convoy briefing IAW convoy Briefing Card, this chapter.

(5) Taking necessary actions to ensure march discipline and convoy control.

(6) Issuing movement instructions; ensuring every vehicle has a strip map indicating all CPs, SP, and RP.

(7) Providing a closure report to Bn S2/3 or battle captain within one-half hour of closure.

(8) Rehearsing the convoy prior to movement, to include the visual signal and reaction system.

e. Security Team Commanders are responsible for:

(1) Taking directions from the convoy commander.

(2) Directing actions of security team against threat element.

(3) Ensuring safe passage of convoy equipment, personnel, and cargo.

(4) Conducting route reconnaissance in conjunction with the Convoy Commander and briefing the Convoy Commander of potential danger areas and recommending actions on contact. Confirming or denying intelligence brief.

(5) Understanding the visual/verbal signal system.

f. Vehicle TCs are responsible for:

(1) Providing overall command of vehicle and personnel.

(2) Directing movement of vehicle and dismounted personnel.

(3) Maintaining communications, both mounted and dismounted.

(4) Directing gunner's observation and fire.

(5) Ensuring maintenance and readiness of both vehicle and weapon system.

(6) Observing 10 o'clock and 3 o'clock.

(7) Understanding and utilizing verbal/visual signal system.

(8) Ensuring all soldiers know their sector of fire.

(9) Rehearsing crew-served weapons team in partner-assisted crew-served stand in the event of attack from rooftop or window.

g. Vehicle Drivers are responsible for:

(1) Vehicle maintenance and readiness.

(2) Special and emergency equipment, i.e., slave cables, snow chains, and tow bar.

(3) Proper maneuvering and location of vehicle.

(4) Ensuring level firing platform and line of sight for weapon system.

(5) Following TC's directives.

(6) Ensuring communications equipment is operational.

(7) Observing from 9 o'clock to 2 o'clock.

h. Vehicle Gunners are responsible for:

(1) Maintenance and readiness of their weapon system.

(2) Fires IAW TC directives.

(3) Accurate and effective fire.

(4) Reporting observations to the TC.

(5) Observing assigned sector IAW vehicle position in the convoy.

4. **Tactical Convoy Considerations:**

a. Every convoy will have, at a minimum, one primary and one alternate route. Convoys may also use multiple routes, one for each unit or march unit. When multiple routes are used, the alternate route will be one of the multiple routes. Each major route will have checkpoints at each major road intersection a start point (SP) and a release point (RP). Vehicles will travel in a march unit of at least three or more vehicles with radio communications capability; single vehicles are easy prey to the enemy.

b. Convoy Organization:

(1) Advance Guard:

(a) The FSB S3 or Battle Captain may use an advance guard to clear the route from the point of origin to the destination point. At a minimum, battalion S3 will make coordination with MPs for route reconnaissance.

(b) The advance guard will normally be a HMMWV or 5-ton with a crew-served weapon and four personnel. Armored vehicles are ideal for use as the advance guard and security. Consider an M-1 Abrams with a mine-clearing device for advance guard. The

advance guard will check out the primary and alternate routes. Military police may be used as the advance guard.

(c) Upon arrival at the destination point, the advance guard will contact the FSB S3 or battle captain. T he FSB S3 or battle captain may then use the advance guard vehicle to provide security along the route.

(2) March unit configuration will normally include five to seven vehicles with cargo and two to three escort vehicles. BSA establishment or relocation convoys may include four-eight march units of 15 - 20 vehicles each.

(a) As a minimum, the following items will be cross-loaded into each convoy:

1. One combat lifesaver with aid bag per two vehicles.

2. Means for vehicle self recovery, i.e., one tow bar, chains or wire rope per vehicle type in convoy.

3. Mine detector.

4. Fuel, water, and food.

(b) Convoy numbering system: Security vehicles are numbered front to rear with the advance guard as “1” and the trail as the number of security vehicles in the convoy. Main body vehicles, referred to as “Cargo” are numbered front to rear with the convoy commander in the first cargo vehicle as “Cargo 1.”

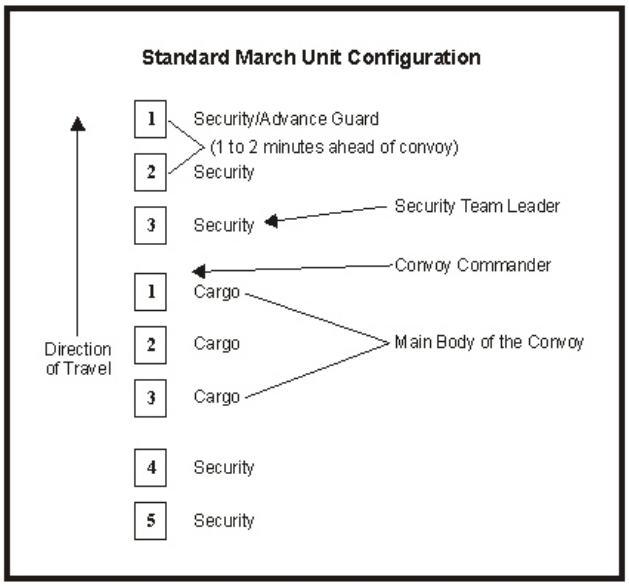


Figure II-3

(c) Convoy reporting system:

1. YELLOW - refers to a passive threat, e.g., road intersections, indigenous personnel.

2. RED - refers to an active threat, i.e., convoy is receiving fire.

3. CLOCK POSITION - refers to the direction of passive/active threat.

4. Call signs are numbers that indicate your location in the convoy (Figure II-3). Threat is reported by spotting vehicle, color code, and location, e.g., “Cargo 1, this is 2, Red 3” means the second security vehicle is informing the Convoy Commander in Cargo 1 that there is an active threat at his 3 o’clock position.

(d) Air Guards: Air guards will be established and positioned for each convoy. Each air guard will have a rehearsed, assigned sector of observation/fire. The senior occupant of each vehicle is responsible for ensuring that at least one air guard is assigned.

1. Air guard requirements for type vehicles are as follows:

Type Vehicle	Air Guard Requirement
M998/M1038	Yes
M1031	No
M997	No
LMTV/FMTV	Yes
Forklift	No
M936	No
M978N	No

2. Air guard will sit in the rear and observe skywards for air threat and the tops of buildings and upper floor windows in an urban environment. Canvas covers will be at least partially removed in cargo vehicles. Air guards will only fire in accordance with the ROE, in self defense, or on orders from the senior individual present.

(e) Communications: During the Convoy: Convoys will be conducted under strict radio discipline. This condition should remain in effect until enemy contact is made, to report checkpoints, serious accidents, and/or to request fire/close air support (CAS).

(f) Lights: Use of service drive lights per vocal order of local commander. Maximum use of night-vision devices will be in effect during hours of darkness..

(g) Speed and interval are as listed below, unless otherwise specified:

Road Surface	Visibility	Lights	Max speed (MPH)	Max Catch-up	Interval
Hard	Daylight	Low	35	40	100m
Hard	Night	Low	25	30	50m
Dirt	Daylight	Low	20	25	100m
Dirt	Night	BOD	15	20	50m

5. **Combat Support Considerations:**

a. Combat Support Assistance: When planning the convoy movement, the FSB S3 will request combat support assistance as follows:

(1) Indirect Fire Support:

(a) At a minimum, preplanned artillery targets, groups or series of targets along route and at the RP, will be coordinated with the FSO prior to movement.

(b) Coordinate communication channels for march units to call for fire. Emergency requests for fire support must go straight to the artillery control net, not through the FSB CMD Net.

(C) Brief all individuals on frequency/call signs for requesting artillery fire.

(d) Movement orders must include a Fire Support Annex. Convoy commander will coordinate indirect fire support through the BN S3/Battle Captain.

(2) Close Air Support:

(a) Preplanned requests for close air support will be routed through the FSO. The convoy commander will perform a radio check with the S3 prior to convoy departure.

(b) Immediate requests for close air support will be coordinated through the Bde S3.

(3) Aviation: Requests for aviation support will be requested by the FSB S3 to the Bde S3. Attack helicopter support should always be requested when the BSA is to displace for a considerable distance. The convoy commander will perform a radio check with aviation assets prior to convoy departure.

(4) Military Police: Military Police assistance will be coordinated by the FSB S3/Battle Captain through the Bde S3. MPs will be coordinated to conduct route reconnaissance

by the Bn S3/Battle Captain. The convoy commander will perform a radio check with MP assets prior to convoy departure.

(5) Engineer Support: Engineer support will be requested to reduce barriers encountered along the route.

6. **Actions on Enemy Contact:**

a. Enemy Air Attack:

(1) Lead vehicle of convoy march unit will make the decision to take cover off the road. The rest of the vehicles will follow. Vehicles will herringbone, if possible, and seek good overhead concealment. Signal for air attack is initiated by reporting “Bogy Drill, Bogy Drill” if communication is available, or short horn blasts if not . Convoy commander will immediately notify higher.

(2) Once the vehicles under attack have located positions off the road with good overhead concealment, all personnel will dismount, remove portable radios and all weapons, and take up defensive positions at least 40 feet away from the vehicle, and attempt to down the aircraft with a large volume of fire. March unit commanders will pass the “all clear” signal radio or verbally.

b. Indirect Fire Attack: When attacked by indirect fire, vehicles will continue moving at a faster rate and drive through the attack. Lead vehicle will signal the attack by calling “Artillery Drill, Artillery Drill” over the radio, although signals should not be necessary. Damaged vehicles will get off road to the opposite side of attack if ambushed. Trail vehicles will ensure that personnel left behind are picked up and their positions reported to the FSB Battle Captain/S3.

c. Sniper Fire: When attacked by sniper fire, vehicles will attempt to drive through. Radio signal is “Sniper, Sniper.” If sniper is spotted, place suppressive fire on sniper or use artillery/air support to suppress sniper.

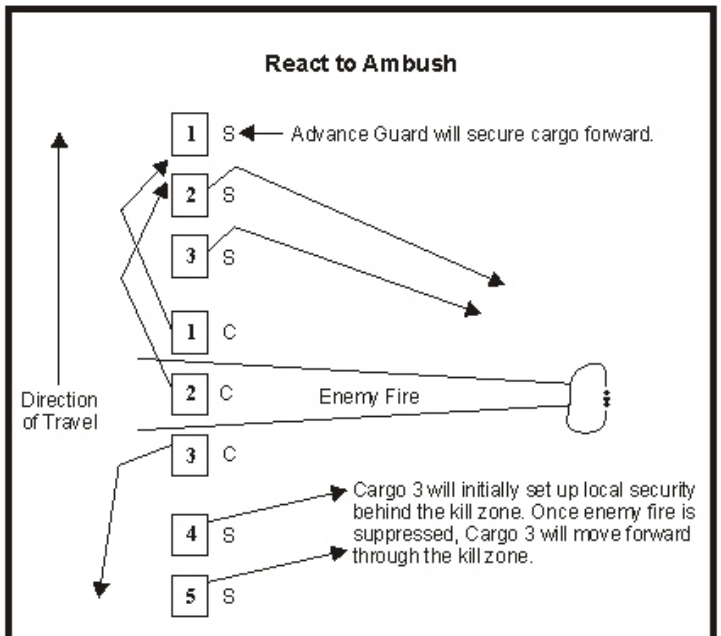


Figure II-4

d. Far Ambush (enemy is beyond 200 meters and their fire is not disabling):

(1) Element within the ambush returns fire to suppress ambush fires

(2) Attempt to call in indirect fire or close air support on enemy. Use Global Positioning System (GPS) whenever possible to determine grid coordinates.

(3) Speed up march unit to get out of the kill zone. If ambush fire is disabling, take action for a close ambush.

e. Close Ambush, road not blocked: The convoy commander will:

(1) Signal convoy's actions by calling "Road Warrior" over the radio.

(2) Direct personnel in front of and behind kill zone to halt outside of the kill zone. Dismount and assemble personnel on the opposite side of the road from the ambush fire. Personnel will provide local 360-degree security.

(3) If situation dictates, convoy personnel not in the kill zone will assemble and prepare to maneuver against flank of ambush on orders of senior leader. Convoy personnel will coordinate all intended actions with senior leader prior to execution of any attack or counterattack plans. Ensure no indirect friendly fire is impacting the objective while flanking the objective. This will ensure a coordinated effort.

(4) Convoy commander will report his situation to the FSB Battle Captain requesting support, changes in route or implementation of offensive maneuver against the ambush element.

(5) Do not pursue the enemy if he has broken contact.

f. Obstacle in the road (Figure II-5). Assume all obstacles are covered by direct, indirect fire and that it is booby-trapped. The lead vehicle will set up in a position to provide overarch on the obstacle. Personnel trained in mine-clearing techniques (Sappers, if available) will determine if obstacle is booby-trapped and/or negotiable. If unsuccessful, the lead vehicle will pull over on side of road. Convoy commander will:

(1) Direct remainder of convoy to halt and establish defensive perimeter around vehicles.

(2) Direct security team to maneuver against suspected enemy position.

(3) Remove injured personnel from the damaged vehicles, treat injuries, and evacuate to clearing station.

(4) Remove damaged vehicle from the road if passage is restricted on both sides.

(5) Report status to FSB Battle Captain and continue movement unless directed otherwise.

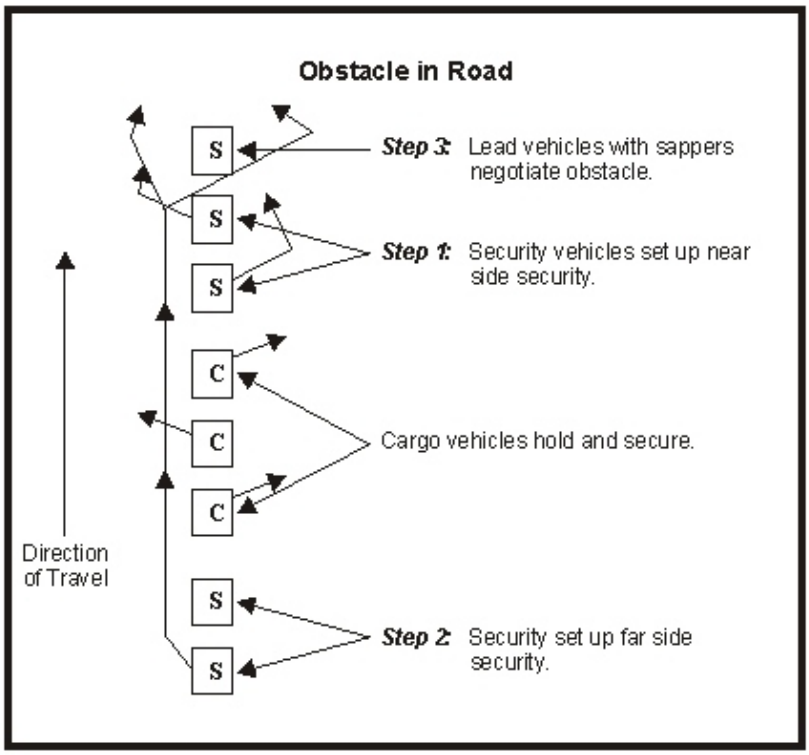


Figure II-5

g. Close Ambush, road blocked. Convoy commander will:

(1) Signal convoy's actions by calling "Ambush, Ambush" over the radio.

(2) Execute "Road Warrior" drill, except that the lead element is in contact and must destroy the ambush element. Priority is to get all personnel out of the kill zone.

(3) Remember the principle of:

(a) **SUPPRESS** - suppress enemy with high volume of fire from covered positions.

(b) **OBSCURE** - use smoke to conceal your movements.

(c) **SECURE** - secure both sides of the obstacle.

(d) **CLEAR** - clear the obstacle.

h. Spot Reports: March unit commanders will submit a spot report on all enemy activity encountered on convoy.

7. **Action for Disabled/Lost Vehicles:**

a. Vehicles that break down on a convoy will pull off the side of the road and report the problem to the convoy commander. If the disabled vehicle is blocking the road, then another vehicle will push it off the road. Attempt self-recovery with another vehicle if threat is minimal. Personnel from the disabled vehicle will mount other convoy vehicles and proceed with the convoy. Security team will guard the vehicle until a quick reaction force with recovery capabilities arrives. When possible, use GPS to give vehicle position. If downed vehicle is essential to convoy mission or security, convoy commander may halt convoy while vehicle is recovered.

b. Vehicles involved in accidents that immobilize the vehicle will be treated the same as disabled vehicles with one exception. Injured soldiers will be transported with the convoy and aid rendered.

c. Vehicles that become lost will report their situation to the convoy commander. Do not stop the vehicle. Keep driving in the same area until help arrives. Keep a log of direction and mileage. Convoy commander will request an aerial search.

d. March unit commanders will report the following information to FSB Battle Captain upon arrival at destination point:

(1) Convoy number.

(2) Status of missing vehicles, destroyed, broken down, lost detained.

(3) Status of missing personnel.

8. **Actions at New BSA Site:**

a. Each vehicle will follow appropriate quartering party representatives at the RP to designated vehicle site.

b. Report convoy closure to the FSB Battle Captain.

APPENDIX I -- Sample Operations Order

These listed items provide some key planning considerations for convoy movement.

Task Organization:

Convoy Element

Advanced Guard

Convoy Security

Rear Guard

1. **Situation**

a. Enemy

(1) Weather and effects.

(2) IPB danger areas, known natural and man-made obstacles.

b. Friendly

(1) Higher HQ.

(2) Elements supporting the convoy (ATK Helo, Armor, FA, ADA, MPs, ENs).

2. **Mission**

3. **Execution**

a. Route, SP, RP, Checkpoints.

b. OOM, location of all support and combat elements.

c. Alternate route.

d. Air corridors for evacuation and ATK air.

e. Convoy execution:

(1) Advanced Guard.

(2) Convoy.

(3) Rear Guard.

f. Actions on contact:

(1) Halts.

(2) Mines/obstacles.

(3) Ambush with obstacle.

(4) Ambush without obstacle.

(5) Indirect Artillery.

(6) Sniper Fire.

(7) Air Attack.

(8) Vehicle breakdown.

(9) Casualty Evacuation.

(10) Accidents.

g. Tasks to Subordinate Units.

h. Coordinating Instructions: ROE in effect, PIR, and IR.

4. **Service Support**

a. Classes of supply (I, III, IV, V, VIII).

b. Recovery.

c. Casualty Evacuation.

d. EPW handling.

5. **Command and Signal.**

a. Location of Convoy Commander.

b. Assumption of Command.

c. SOI Information.

APPENDIX J -- SAMPLE MARCH COLUMN CHECKLIST

*1. March commander supervises reaction to sniper fire.

a. Locates approximate location of sniper incident on map from march element reports.

b. Identifies whether area is a free fire zone or restricted fire zone.

c Authorizes return fire only if sniper(s) are located.

d. Directs march elements to increase march speed and interval between vehicles until they have cleared the area.

e. Provides instructions to follow-on march elements.

f. Forwards incident report to higher HQ staff element.

2. Unit takes action against sniper fire.

a. Reports sniper fire to march commander immediately upon contact.

b. Returns fire immediately that kills snipers or suppresses their fire (designated personnel only).

c. Increases column rate of march and vehicle interval.

*3. March commander supervises defense against ambush, road blocked or road not blocked.

a. Identifies location of ambush site on map with map overlay.

b. Directs march elements under attack to employ correct protective actions as prescribed in higher HQ movement order and TSOP.

c. Provides instructions on halt points and security requirements to all march elements.

d. Forwards initial incident report to higher HQ staff element.

e. Directs hardened vehicles with automatic fire capability into position to lay down concentrated fire on threat position(s).

f. Directs the march elements ahead and march element following to organize security teams to attack flanks of threat ambush party.

g. Maintains constant communications with all march elements engaging threat to immediately make adjustments to tactical situation.

h. Forwards subsequent SITREP reports to higher HQ staff element as situation changes.

I. Requests immediate CAS and/or indirect fire support from higher HQ staff element.

j. Directs use of pyrotechnics for signaling or marking areas.

k. Develops contingency plans to displace elements not under attack and withdraw elements under attack.

4. Unit defends against ground ambush (road not blocked).

a. Reports ambush to march commander immediately upon contact.

b. Identifies threat location(s).

c. Returns fire immediately that kills threat and suppresses their fire (non-driving personnel).

d. Stops vehicles (not in kill zone).

e. Increases rate of march until out of kill zone (vehicles in kill zone).

f. Keeps roadway clear by pushing disabled vehicles aside.

g. Organizes security element(s) of soldiers not in kill zone (senior member present).

h. Directs fire and maneuver of security elements to allow remaining vehicles to pass through kill zone (senior member present).

I. Forwards SITREP to march commander.

5. Unit defends against ground attack (road blocked).

a. Reports ambush to march commander immediately upon contact.

b. Dismounts vehicles on opposite side of direction of ambush.

c. Returns fire immediately which kills threat or suppresses their fire (soldiers in kill zone).

d. Takes up firing positions while awaiting orders (soldiers not in kill zone).

e. Organizes security element(s) of soldiers not in kill zone (senior member present).

f. Directs fire and maneuver of security elements to allow removal of road block (senior member present).

g. Forwards SITREP to march commander.

*6. March commander requests indirect fire support.

a. Requests fire support IAW instructions in the higher HQ movement order or TSOP.

b. Identifies grid direction to threat location.

c. Identifies threat target location using grid coordinates or shift from a known point.

d. Transmits call for fire in proper sequence.

e. Transmits fire adjustments information in proper sequence to the fire support element, if an “Adjust” fire mission.

f. Transmits “end of mission” and surveillance report if fire was sufficient.

*7. March commander requests CAS.

a. Verifies threat position(s).

b. Requests CAS by means prescribed in higher HQ movement order.

c. Supervises preparation of unit personnel for friendly strike.

d. Directs marking of friendly unit location(s) with prescribed colored smoke.

e. Communicates strike effectiveness to higher HQ staff element.

8. Unit employs passive defense measures against air attack.

a. Provides the prescribed signal to alert column.

b. Staggers vehicles to avoid linear patterns.

c. Drives vehicle in shadows or wood line.

d. Assumes firing positions.

e. Fires only upon command.

f. Reports all aircraft actions to higher HQ staff element.

9. Unit employs active defense measures against air attack.

a. Employs the prescribed signal to alert march elements.

b. Identifies threat aircraft visually.

c. Disperses vehicles to concealed locations.

d. Assumes firing positions.

e. Prepares crew-served weapons for firing.

f. Fires weapons at attacking aircraft only if fired upon or on command.

*10. March commander supervises reorganization after attack.

a. Identifies status of all personnel, equipment, and cargo through march element reports.

b. Coordinates requirements within march elements for load transfer, vehicle repairs, mortuary affairs, and medical transportation.

c. Requests emergency destruction authorization from higher HQ staff element for unrepairable items.

d. Forwards SITREP to higher HQ staff element.

11. Unit reorganizes after the attack.

a. Maintains 360-degree surveillance.

b. Treats casualties.

c. Reports casualties.

d. Requests air ambulance support through march commander.

e. Re-establishes chain of command, if necessary.

f. Secures landing zone, if air ambulance is required.

g. Transports casualties.

h. Performs mortuary affairs functions.

i. Assesses damage to vehicles and cargo to determine operability and repairability.

j. Performs BDAR for recoverable vehicles.

k. Removes critical items from unrecoverable vehicles.

l. Requests emergency destruction of vehicles and non-medical equipment from march commander.

m. Forwards SITREP to march commander.

n. Reorganizes march elements.

o. Resumes march.

NOTE: *Indicates a leader task.

NOTE: +Indicates a critical task.

APPENDIX K -- ADDITIONAL CONVOY CHECKLISTS

CONVOY COMMANDER'S CHECKLIST

1. Convoy commander brief (OPORD format).

2. Mission.

3. Current area intelligence.

4. Time schedule.

5. Route - Primary/Alternate.

6. Convoy speed (to include MOUT, rural, catch-up).

7. Convoy distance (to include MOUT, rural).

8. Emergency measures.

9. Chain of command.

10. Destination.

11. Type of formation (security team).

12. Call signs and frequencies:

a. MORTARS:

b. HELICOPTERS:

c. MPs:

d. CLOSE AIR SUPPORT:

13. Start point.

14. Checkpoints.

15. Release point.

16. Type of cargo (personnel/equipment).

17. Elect method of escort.

18. Conduct radio checks.

CONVOY REHEARSALS CHECKLIST

1. Assigned seating/sectors of fire for personnel.

2. Actions at halts.

3. React to contact.

4. Order of mounting and dismounting vehicles.

5. Counterambush actions.

6. Prearranged signals.

7. Actions of barrier breaching team/escort team at blocked ambush.

8. How to support barrier-breaching team with fire when breaching blockade.

ROUTE RECONNAISSANCE CHECKLIST

1. Which Route? (ID by name/CPs/Primary or Alternate)

2. Route Width? (c=traveled way, d=shoulder)

3. Single or Double flow? (wheeled or tracked)

4. Route Type? (X, Y, or Z)

5. Overhead Clearance? (lowest clearance)

6. Location/Description of Obstructions? (Bridges, roadblocks, slopes, curves)

7. Current Traffic/Where? (vehicle/pedestrian and grid)

8. General Road Conditions?

9. Time/Distance between Checkpoints?

10. Location Description of potential Ambush Sites? (Translates to Target Reference Points)

11. Location Description of Congested/Potentially Congested Areas?

12. Suitability for night/night-vision driving?

13. Reconnaissance Team Leader’s Overall Impression Remarks.

Appendix L -- Vehicle Hardening

As the nature of conflict changes, so does the threat to logistics units. War and certain other operations—especially peacekeeping or peacemaking—place renewed emphasis on convoy security and reinforce lessons learned in Vietnam. Current threats include the use of command-detonated and pressure-sensitive mines placed on, above, or along the shoulders of roads traveled by military vehicles and the ambushing of convoys and harassment with sniper fire. These methods of disrupting military operations are highly effective, cheap, require limited time and labor, are easy to coordinate, and can be accomplished by an unsophisticated enemy. To counter these threats, motor transport units may be provided with security forces and supporting arms firepower. Special vehicle-hardening techniques using sandbags and other improvised material have proved successful in protecting convoy personnel, equipment, and cargo. This appendix describes these techniques. Although effective, vehicle-hardening techniques must be tailored to fit the specific environment in which the motor transport units are operating.

Hardened Vehicles. A hardened vehicle is made less vulnerable to the effects of explosives and small arms fire by adding sandbags, armor plating, ballistic glass, and other protective devices. Hardening may make certain vehicle components and cargo less vulnerable. Its primary purpose, however, is to protect the truck's occupants. The protection afforded is significant and often means the difference between injury and death.

Sandbags. Sandbags are effective in reducing the effects of blasts, preventing fire from reaching the driver, and providing protection from small arms fire and fragmentation. Sandbags are usually readily available and do not permanently impair the flexibility of vehicles. Sandbags can easily be added or removed from the vehicle as the situation dictates. One drawback to using sandbags is that their weight limits the vehicle's capability to haul cargo.

Cab. Experience shows that using sandbags to harden vehicle cabs for protection against mine blasts saves lives (Figure II-6). Normally, the cabs of all vehicles subject to detonating mines are hardened. Certain cautions, however, must always be observed. Sandbags should be placed so that they:

- **Do not restrict the movement of foot pedals, levers, or controls.**
- **Do not interfere with the normal functions performed by the driver.**
- **Do not restrict driver vision.**

To reduce the sandblast effect when a mine is detonated near the vehicle, various materials may be placed on top of the floorboard sandbags (rubber mats, light metal

plates, plywood, or scraps of runway membrane material). Wetting down the sandbags is also effective, but contributes to deterioration of the metal.

To properly prepare the vehicle cab, double-stack sandbags under the passenger seat and on the cab floor. Stack the sandbags two high under the driver's seat; in some vehicles this may not be possible. Remove the tools from the basic issue item (BII) storage compartment and place them inside the bed. Place sandbags in the storage compartment to give the driver required protection. As an added precaution, place a heavy rubber or fiber mat over the sandbags. This reduces danger from fragments (stones, sand, and metal parts from the vehicle).

- **If the tools remain in the BII storage compartment and the vehicle detonates a mine, the tools may become secondary projectiles that can injure the driver.** Also, if sandbags cannot be placed under the passenger seat because batteries are located there, then stack the sandbags on the seat. Never place sandbags directly on the batteries.
- **The cab of a 5-ton M923 cargo truck needs about 14 to 20 sandbags, while a 2 1/2-ton truck requires about 12 to 18 sandbags.**

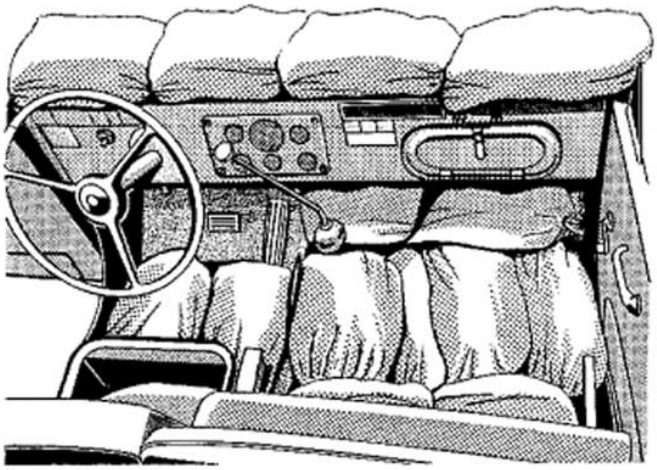


Figure II-6. Proper Placement of Sandbags in the Cab.

Cover side windows and the front windshield with wire mesh to protect personnel from rocks and grenades. The convoy commander will decide whether to have windshields removed, lowered, or left in place. If the windshield interferes with the use of weapons and blackout operations and must be lowered, place a single layer of sandbags under the windshield, lower the windshield onto the bags, place a second layer of sandbags over the windshield, and then cover both with canvas (Figure II-7). Placing sandbags under the windshield ensures that:

- **Constant vibrations of the vehicle do not damage the windshield.**
- **Sand is not blown into the driver's face.**

- **Glass will not shatter and injure the driver and passenger.**
- **Leaving the windshield in place protects against heavy and driving rain, incoming grenades, and decapitation of personnel from wire stretched across the road.**

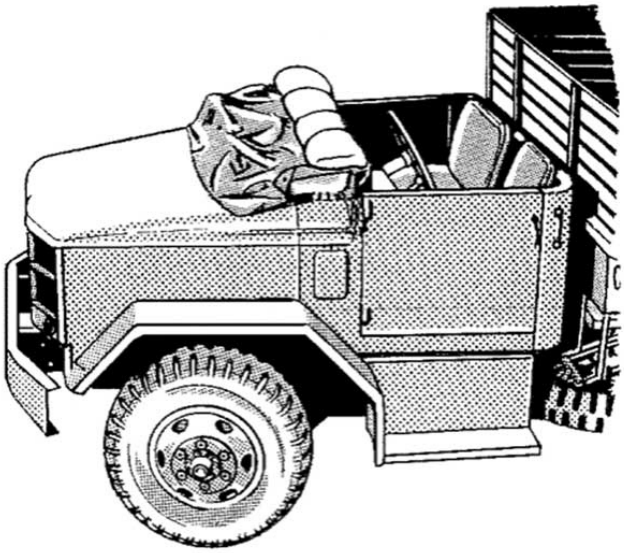


Figure II-7. Proper Placement of Sandbags under the Windshield.

Cargo Bed. Depending on the type of load, the cargo bed may or may not be hardened. For example, if troops are being transported, the bed needs to be hardened with a double layer of sandbags. The bags also need to be properly fitted to the contours of the vehicle. Stack the bags five high around the sides of the vehicle to add protection. To hold the sandbags in place, construct a support structure and place it inside the bed of the vehicle. This structure can be made by using four-by-fours on the corners and two-by-sixes in between (Figure II-8).

Caution must be taken to ensure that the sandbags do not exceed the allowable weight of the vehicle bed. Double-stacking the sandbags increases the possibility of exceeding the vehicle's payload capacity. The mission, coupled with the enemy threat, must determine the extent of hardening (single- or double-layer sandbags). The bottom line is to ensure soldier safety.

It takes about 226 sandbags (dry, weighing about 40 pounds each) to prepare the bed of a 5-ton, M923 cargo truck. Distribution is as follows: 86 on the floor bed (single layer); 5 high on each side (50 per side = 100 bags); 20 in the front; and 20 in the rear of the bed (Figure II-9).

Fuel Tanks. Protective plating around the fuel tank will lessen the damage to the fuel tank. It will also help to ensure that the fuel tank is not pierced, thus immobilizing the vehicle. This protective measure is especially critical when a vehicle is caught in the kill

zone of an ambush. An alternative solution to this problem is to hook up a 5-gallon can of fuel in a safe location for use as an auxiliary fuel tank. This will allow the vehicle to travel a safe distance outside the kill zone if all the fuel is drained from a damaged fuel tank.

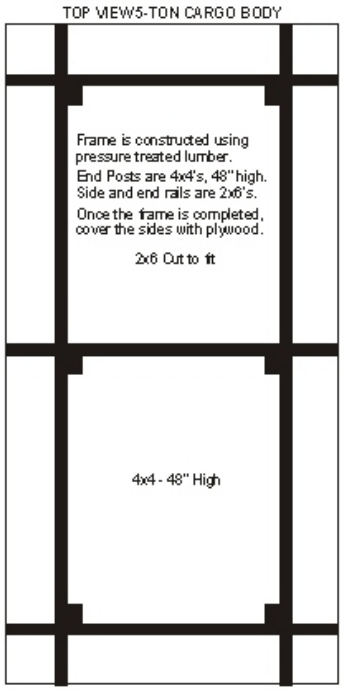


Figure II-8. Support Structure for the Bed of the Truck (cont).

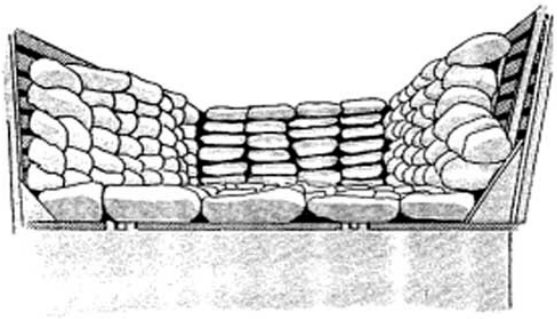


Figure II-9. Sandbagged 5-ton M923 Cargo Truck.

- **A 5-ton M923 cargo truck requires about five sandbags to provide top protection.** Consider placing protective plating around the sides and bottom of the fuel tank to increase protection.
- **Older vehicles in the Army inventory may still be operating on MOGAS.** If a tank filled with MOGAS is ruptured, the fuel may ignite and seriously burn operating personnel.
- **When putting sandbags or protective plating on or around the fuel tank, ensure that the hanger straps of the fuel tank do not crack or break.**

Gun Trucks. Logistical convoys cannot always depend on military police support or added firepower. To provide more firepower for a convoy, units developed the gun truck. The purposes of a hardened gun truck are to—

- **Provide a base of fire.**
- **Help counter enemy attacks.**
- **Increase survivability of the convoy.**

The gun truck is equipped with a crew-served weapons system, preferably in a protective position. In Vietnam, this principle worked well and provided convoys a means of self-defense.

Deploy the gun truck in the convoy where it can best provide the needed firepower. If adequate communications assets are available, they should be located with the gun truck and the convoy commander. This enables the convoy commander to call the gun truck forward when needed. (A predesignated signal is required to bring the gun truck forward and inform the crew-served weapon system personnel of the enemy location.) If communications assets are not adequate, pyrotechnics may be used to signal the gun truck to move forward.

The gun truck should not be pulled up right on top of the enemy location. The crew-served weapons on the gun truck can cover a significant distance. Therefore, the vehicle should be situated where it has a clear field of fire to engage the enemy with the maximum effective range of the weapon. If necessary, and if available, multiple gun trucks can be used. When using multiple gun trucks in a convoy, overlapping fields of fire greatly increases the convoy's chance of survival.

- **Based on availability, types of weapon systems, and size of the convoy, the placement and number of gun trucks may vary.** With company-size and larger convoys, a minimum of two gun trucks should be used to provide overlapping fire. One gun truck for every eight vehicles in the convoy is recommended.
- **Consider using the MK19 or M203 to penetrate prepared defensive positions since small arms fire may not be capable of destroying enemy positions.**

Ballistic Test Results. It is critical that the most protective material available be used to harden a vehicle. Ballistic tests show that sand is about twice as effective as clay in hardening vehicles. At a maximum velocity of 3,250 feet per second at a range of zero

feet, it takes about .6 feet of sand and 1.2 feet of clay to stop a 5.56-mm round. At a maximum velocity of 2,750 feet per second, it takes about .9 feet of sand or 1.7 feet of clay to stop a 7.62-mm round. Finally, at the maximum velocity, it takes about 1.4 feet of sand or 2.6 feet of clay to stop a 50-caliber round. Using the most protective substance could mean the difference between life and death for our most precious resource—our soldiers.

Camouflage and Concealment. Camouflage and concealment techniques can be used to make it more difficult for the enemy to spot the convoy. The type of cargo being transported can be disguised or concealed by a tarpaulin. Other effective measures include the following:

- **Camouflaging or covering shiny surfaces before convoy departure.**
- **Painting vehicles in a pattern to blend in with the terrain and break the outline.**
- **Training operators to look for other means of concealment to break the outline of the vehicle.**
- **Covering vehicle bumper markings.** The vehicle bumper markings can provide a great deal of intelligence information to the enemy.

Mines and Booby Traps. Forces engaging in ambush frequently use mines and booby traps. Command-detonated mines are often used to initiate an ambush. Mines may also be planted along the shoulder of the road to harass and interdict. A booby trap system may be used against personnel and equipment. Convoys have employed the following guidelines to effectively limit damage from mines:

- **Track the vehicle in front.**
- **Avoid driving on the shoulder of the road.**
- **Whenever possible, do not run over foreign objects on the road.**
- **Avoid potholes and fresh earth on the road.**
- **Watch local national traffic and the reactions of people on foot (they will often give away the location of any mines or booby traps).**
- **When possible, arrange for the engineers to sweep the road ahead before the convoy moves over it.**
- **Use a 2 1/2-ton or larger truck as the lead vehicle instead of a HMMWV. Hard vehicles, such as tanks, are useful in exploding small mines in front of the convoy.**
- **Harden vehicles.**
  - > *Use water in vehicle tires when there is a threat of mines exploding under the tires.*
  - > *Increase ground clearance distance between the point of explosion and the vehicle, if possible.*
- **Use the following personal safety measures:**
  - > *Wear protective equipment.*

> *Use safety belts.* Ensure seat belts are tight; otherwise, whiplash may occur during an explosion. Also, fasten the seat belt as low as possible on the stomach.
> *Use correct posture.* Keep the backbone straight and supported by a backrest (to better absorb shock) and place feet flat on the floor.
> *Slow the vehicle's speed to reduce the potential of accidents.* Adjust the speed based on the situation.
> *Disperse vehicles and maintain intervals.*

In Somalia, around Mogadishu, the Army experienced command-detonated mines of 30, 50, and 60 pounds. These devices were placed in one of the many potholes in the road and wired for command-detonation. To avoid such obstacles and/or minimize damage, implement the above techniques.

Some indicators that have proven effective in identifying the location of potential mines are:

- **Damaged vehicles.**
- **Signs of digging, holes in the road, potholes, concrete removal, or puddles.**
- **Boxes along the roadside.**
- **Wires on the road surface.**
- **Evidence of vegetation disturbance.**
- **Disturbances in previous tire tracks.**
- **Differences in plant growth, such as wilting or dead foliage.**
- **Irregularities in color or texture of the ground.**
- **Signs warning local populace.**

The enemy is likely to place mines on:

- **Frequently used roadways leading to and from construction sites.**
- **Brush and other traffic obstructions placed on roadways.**
- **Bridge bypasses.**
- **Obvious turnarounds and shoulders.**

SECTION III

Convoy Execution Procedures and Tips

The motor transport commander must ensure that his troops are trained in convoy defense techniques. The payoff is reduced vulnerability to hostile action and successful mission accomplishment. The damage a convoy incurs when attacked depends on the adequacy of convoy defense training. It also depends on the adequacy of the briefing that convoy personnel receive before the operation.

The convoy commander should remember that enemy pilots will seek out and try to surprise the convoy. They will fly at a low, terrain masking altitude. If they attack from higher than 350 meters, small arms fire will have no effect against them, but air defense weapons can be used against them effectively. Enemy pilots will also fly at high speed to make air defense weapons and small arms fire less effective.

Air Attack. The air threat varies from UAV, cruise missiles, and armed helicopters to high-performance aircraft. Convoys face the greatest danger of an air attack while moving along open roads or during halts where there is little or no overhead cover.

An air attack is a type of ambush. Accordingly, many of the procedures used during a ground ambush also apply to the air attack. For example, the convoy commander must:

- **Prescribe alarm signals.**
- **Give instructions for actions to take when under attack.**
- **Prescribe actions to take in the absence of orders.**
- **Ensure that defense procedures are rehearsed.**
- **Review the procedures with convoy personnel before the convoy moves out.**

Active Defense. The key to effective small arms fire against aircraft is volume. Put up a large volume of fire with small caliber weapons. Volume small arms fire comes from knowing the effectiveness of small arms fire on low-flying aircraft. Training ensures accuracy and builds confidence.

Firing Positions. Except for the prone position, the riflemen's basic firing stances stay the same (Figure III-1). Maximum use of cover and concealment is essential. A crew-served weapons gunner should fire from a protected position if possible.

Tips For Small Arms Defense.

- **Shoot any attacking aircraft or unauthorized UAV.**
- **Fire at the nose of an aircraft; fire at the fuselage of a hovering helicopter or slightly above the nose of a moving helicopter.**

- **Fire in volume—everybody shoots.**
- **Lead aircraft crossing your position (M-16 and M-60 machine gun lead jets the length of one football field).**
- **Take cover if time allows.**
- **Support your weapon if possible.**
- **Lie on your back if caught in the open.**
- **Aim mounted machine guns slightly above the aircraft nose for head-on targets.**
- **Control small arms fire so attacking aircraft flies throughout it.**

Passive Defense. For a logistical convoy, normally without significant air defense firepower, passive measures are most effective. The key is to prevent attacks by hostile aircraft.

Dispersion. The formation used by the convoy is a type of passive defense. Factors influencing selection of the best vehicle distance include:

- **Mission.**
- **Cover and concealment along the route.**
- **Length of the road march.**
- **Type of road surface.**
- **Types of vehicles.**
- **Nature of cargo.**
- **Enemy threat (ground and air).**
- **Available defense support.**
- **Small arms potential.**

Open column. Open column convoys generally maintain an 80- to 100-meter distance between vehicles. This formation offers an advantage of fewer vehicles damaged by air-to-ground rockets, cannons, or cluster bomb units. However, open columns make control more difficult for the convoy commander when it is necessary to give orders to stop, continue, disperse and seek concealment, or engage aircraft. The column may be more susceptible to attack. It is exposed for a longer period and, if attacked, its defense is less effective since its small arms fire is less concentrated.

Close column. Close columns maintain a distance of less than 80 meters between vehicles. This formation has none of the disadvantages noted for the open column formation. However, presenting a bunched-up target could be an over-riding disadvantage. Where an air attack is likely, it may be wise for the convoy commander to move close column convoys only at night.

Camouflage and Concealment. Camouflage and concealment techniques can make it more difficult for the enemy to spot the convoy. Not much can be done to change the shape of a vehicle moving down the road, but the type of cargo can be disguised or concealed by covering it with a tarpaulin. Bulk fuel transporters (tankers) are usually priority targets. Rigging tarps and bows over the cargo compartment conceals the

nature of the cargo from the enemy pilot. The following are other effective passive measures:

- **The operator should look for a bush, tree, or some other means of concealment to break the shape as seen from the air.**
- **Smooth surfaces and objects, such as windshields, headlights, and mirrors, will reflect light and attract the pilot's attention.** Camouflage or cover all shiny items before the convoy moves out.
- **If vehicles are not already painted in a pattern to blend with the terrain and to break the outline, mud can be used to achieve this effect.**

Air Guard Duties. Assign air guard duties to specific individuals throughout the convoy, and give each specific search areas. If the road march lasts more than an hour, soldiers should take shifts at air guard duty. Scanning for a long period dulls the ability to spot aircraft. Seeing the enemy first tips the odds in favor of the convoy, giving it time to react. See **FM 44-3, *Air Defense Artillery Employment, Chaparral/Vulcan,*** for search and scan procedures.

Communications Security (COMSEC). Today's communications equipment can be very useful for controlling convoys, but it can also help enemy pilots find you. Use the radio only when necessary and be brief.

Passive Reactions. When aircraft are spotted or early warning is received, the convoy commander has three options: stop in place, continue to march, or disperse quickly to concealed positions.

If the convoy commander chooses to halt the convoy, the vehicles simply pull to the shoulder of the road in a herringbone pattern. This technique has several advantages:

- **It is harder for the enemy pilot to see the convoy when it is halted than when it continues to move.**
- **It is easy to continue the march after the attack.**
- **The volume and density of organic weapons will be higher than if the convoy disperses.**
- **A disadvantage to this option is that a convoy stopped on the open road makes a good target and an enemy attack has a better chance of causing greater damage to the unit.**
- **The mission and/or terrain may dictate that the march continue.** If this is the case, convoy speed should be increased. Continuing the march offers the advantage of presenting a moving target, making it more difficult for the enemy to hit. However, detection is easier and volume and density of small arms fire are reduced.

A simple technique to disperse vehicles is to establish a method in the SOP that, in the event of an attack, odd-numbered vehicles go to the left and even-numbered vehicles go to the right. The key to dispersion is not to make two straight lines out of what was

one long line; the vehicles must be staggered (Figure 6-4). This should not be much of a problem if the drivers have been trained to go to trees, bushes, and folds in the ground that will give concealment. Once the convoy is dispersed, all personnel, except for vehicular-mounted weapon gunners, dismount and take up firing positions.

Advantages of this option are that it is more difficult for the enemy pilot to detect the vehicles and get multiple hits. However, this method has several disadvantages:

- **It is easier for the enemy pilot to spot the convoy as it begins to disperse.**
- **The volume and density of small arms fire are reduced.**
- **It takes longer to reorganize the convoy after the attack.**

Artillery or Indirect Fire. Enemy artillery units or indirect fire weapons may be used to destroy logistical convoys or to harass and interdict the forward movement of supplies and personnel.

Active Defense. Active defensive measures against artillery are extremely limited but must not be overlooked. Active measures include:

- **Directing counterbattery fire if the direction and approximate distance to the enemy artillery can be estimated.**
- **Directing small arms fire or artillery fires against the enemy forward observer (FO) if he can be located.**
- **Coordinating air strikes against the enemy artillery.**

Passive Defense. The formation in which the convoy moves can be a type of passive defense. See the discussion of open and closed convoys under Passive Defense for Air Attacks.

- **The convoy commander has three options when confronted with incoming artillery rounds: halt in place, continue to march, or disperse quickly to concealed positions.** Regardless of the option selected, the actions to be taken and the signal directing the action should be covered in the unit SOP. The primary consideration is the immediate departure from the impact area.
- **The convoy should only be halted when the artillery concentration is ahead of the convoy.** The convoy commander should look for an alternate route around the impact area and the convoy should remain prepared to move out rapidly.
- **The mission or terrain may require the convoy to continue.** If this is the case, increase speed and spread out to the maximum extent the terrain will allow. Casualties can be reduced by avoiding the impact area, increasing speed, wearing protective equipment, using the vehicle for protection, and increasing dispersion.

Sniper Fire. Take extreme caution when sniper fire is received to ensure that any return fire does not harm friendly troops or civilians in the area. The best actions are passive. Ensure all personnel wear Kevlar helmets and available body armor at all times. All vehicles should move through the area without stopping. Escort personnel

should notify the march element commander by giving a prearranged signal, like a smoke grenade thrown in the direction of fire, and attempt to locate and destroy the sniper by long-range fire if in a free-fire zone.

- **Prevent convoy personnel from random firing by designating personnel to return fire.** Do not return fire in a no-fire zone.
- **The convoy commander may order additional fire or supporting forces into the area to destroy, capture, or drive off the sniper.** Convoy personnel should be aware that a heavy volume of fire is frequently used by the enemy to slow down a convoy before an ambush.
- **Remember all details so the incident can be reported to higher headquarters.**

Ambush. This paragraph provides guidance in developing and employing counterambush tactics and techniques. The very nature of an ambush—a surprise attack from a concealed position—places an ambushed unit at a disadvantage. Combat situations may prevent a convoy from taking all the measures necessary to avoid being ambushed. Therefore, a convoy must take all possible measures to reduce its vulnerability. These are passive measures supplemented by active measures taken to destroy or escape from an ambush. For information on the types of ambushes, see **FM 21-75, *Combat Skills of the Soldier.***

No single defensive measure, or combination of measures, will prevent or effectively counter all ambushes in a situation. The effectiveness of counterambush measures is directly related to the state of training of troops and the leadership ability of the leaders.

The best defense is to avoid being ambushed. Take the following actions to avoid an ambush:

- **Select the best route for your convoy.**
- **Make a map reconnaissance.**
- **Make a ground reconnaissance.**
- **Make an aerial reconnaissance.**
- **Obtain current intelligence information.**
- **Use operation security to deny the enemy beforehand knowledge of the convoy.**
- **Do not present a profitable target.**
- **Never schedule routine times or routes.**

Take the following actions to reduce the effectiveness of ambushes:

- **Harden vehicles.**
- **Cover loads.**
- **Space prime targets throughout the convoy.**
- **Wear protective clothing.**
- **Use assistant drivers.**

- **Carry troops and supplies.**
- **Use prearranged signals to warn the convoy of an ambush.**
- **Use escort vehicles (military police, tanks, armored vehicles) or gun trucks.**
- **Thoroughly brief all convoy personnel on immediate action drills.**
- **Practice immediate action drills.**
- **Maintain the interval between vehicles.**
- **Move through the kill zone, if possible.**
- **Stop short of the ambush.**
- **Do not block the road.**
- **Rapidly respond to orders.**
- **Aggressively return fire.**
- **Counterattack with escort vehicles.**
- **Call for artillery support.**
- **Call in tactical air (TACAIR) support.**
- **Call for the Reserve force.**

In the event of ambush during night convoy operations under blackout drive, turn on service drive lights and increase speed to clear the ambush area. Be aware that drivers wearing night-vision goggles will be temporarily blinded when the service drive is turned on.

Road Not Blocked. Guerrillas are seldom able to contain an entire convoy in a single kill zone. This is because of the extensive road space occupied by even a platoon-size convoy and because security or lack of available forces may limit the size of the ambushing force. More often, a part of a convoy is ambushed—either the head, tail, or a section of the main body. That part of the convoy that is in the kill zone and receiving fire must exit the kill zone as quickly as possible if the road to the front is open. Vehicles disabled by enemy fire are left behind or, if blocking the road, pushed out of the way by following vehicles. Armored escort vehicles must not block convoy vehicles by halting in the traveled portion of the road to return fire.

Vehicles that have not entered the kill zone must not attempt to do so. They should stop and personnel should dismount, take up a good defensive position, and await instructions. Since escort vehicles may have left the road to attempt to overrun a hostile position, elements of the convoy should not fire on suspected enemy positions without coordinating with the escort forces.

Other actions that convoy personnel can take to neutralize the ambush force include:

- **Call for artillery fire on enemy positions.**
- **Call for gunship or TACAIR or Army Aviation fire on enemy positions.**
- **Direct gun trucks and other vehicles mounted with weapons to lay down a heavy volume of fire on the ambush force.**
- **Call for reaction forces.**
- **Direct all nondriving personnel to place a heavy volume of fire on enemy forces as rapidly as possible as vehicles move out of the kill zone.**

- **Vehicles must keep their distance to reduce the number of vehicles in the kill zone.**

A motor transport convoy with a limited escort is seldom able to defeat a hostile force and should not attempt to do so. When part of the convoy is isolated in the kill zone, vehicles that have not entered the ambush area must not attempt to do so. They should stop; personnel should dismount, take up a good defensive position, and await instructions until supporting forces have cleared the ambush. Normally, a transport unit will not deploy to attack a hostile force unless it is necessary to prevent destruction of the convoy element. It relies on supporting air, artillery, escorts, and reaction forces.

Road Blocked. When an element of a convoy is halted in the kill zone and is unable to proceed because of disabled vehicles, a damaged bridge, or other obstacle, personnel will dismount, take cover, and return a maximum volume of fire on enemy positions. When dismounting, exit the vehicle away from the direction of enemy fire. Security/escort troops from vehicles that have passed through the ambush area dismount and lay down a base of fire on the ambush position. Reaction forces should be called in as soon as the ambush attack is launched. When a security escort is provided and a combat emergency arises, the escort commander has operational control of the security element to attack and neutralize the hostile force. Normally, the security force will take action to neutralize the ambush while the convoy escapes from the kill zone. In an ambush situation, immediate reaction and aggressive leadership are essential to limit casualties and damage to vehicles, cargo, and personnel. If immediate air or artillery support is available, personnel will be restricted to a specified distance from the road to avoid casualties from friendly fire. In this situation, personnel in the kill zone establish a base of fire, while others take up defensive positions away from their vehicles and wait while supporting fire is called in on the enemy positions. Fire in the kill zone may be from only one side of the road with a small holding force on the opposite side. To contain the convoy element in the kill zone, mines and booby traps are frequently placed on the holding force side. The security escort must take care in assaulting the main ambush force as mines and booby traps are commonly used to protect its flanks.

When the enemy is dislodged, the road must be cleared and convoy movement resumed as soon as possible. Wounded personnel are evacuated using the fastest possible mode. When disabled vehicles cannot be towed, their cargo should be distributed among other vehicles if time permits. When it is not feasible to evacuate vehicles and/or cargo, they will be destroyed upon order from the convoy commander. If at all possible, radios and other critical items will be recovered before the vehicles are destroyed. Under no circumstances will they be allowed to fall into enemy hands.

Mines and Booby Traps. Mines and booby traps are frequently part of an ambush. Command-detonated mines are often used to start an ambush. Mines will also be planted along the shoulder of the road for harassment and interdiction. A booby trap system may be used against personnel in vehicles and could consist of hand grenades.

Claymore mines or artillery shells may be suspended from trees and command-detonated when a vehicle passes.

The following guidelines have proven effective in decreasing damage by mines in convoy operations:

- **Track the vehicle in front.**
- **Avoid driving on the shoulder of the road.**
- **Whenever possible, do not run over foreign objects, brush, or grass in the road.**
- **Avoid fresh earth in the road.**
- **Watch local national traffic and the reactions of people on foot. (They will frequently give away the location of any mines or booby traps.)**
- **When possible, arrange for the engineers to sweep the road immediately before the convoy is scheduled to move over it.**
- **Use heavy vehicles, such as tanks, to explode small mines when deployed in front of the convoy.**
- **Harden vehicles.**
- **Wear protective equipment.**

Figure III-1

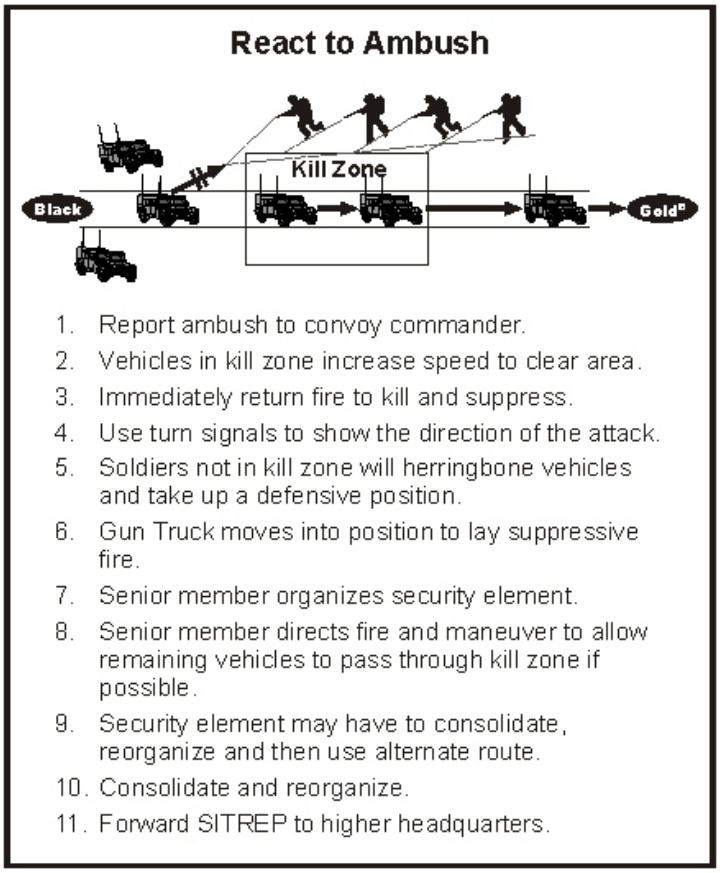
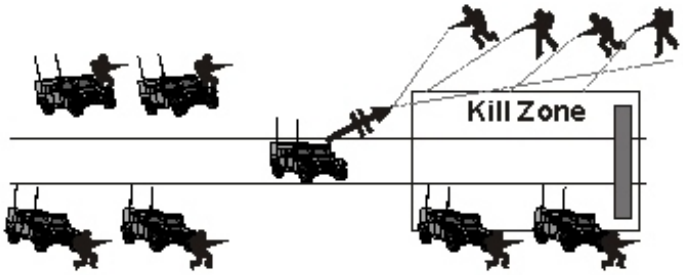


Figure III-2

React to Ambush–Road Blocked



1. Report ambush to convoy commander.
2. Vehicles in kill zone increase speed to clear area.
3. Immediately return fire to kill and suppress.
4. Use turn signals to show the direction of the attack.
5. Soldiers not in kill zone will herringbone vehicles and take up a defensive position.
6. Gun Truck moves into position to lay suppressive fire.
7. Senior member organizes security element.
8. Senior member directs fire and maneuver to allow remaining vehicles to pass through kill zone if possible.
9. Security element may have to consolidate, reorganize and then use alternate route.
10. Consolidate and reorganize.
11. Forward SITREP to higher headquarters.

Figure III-3

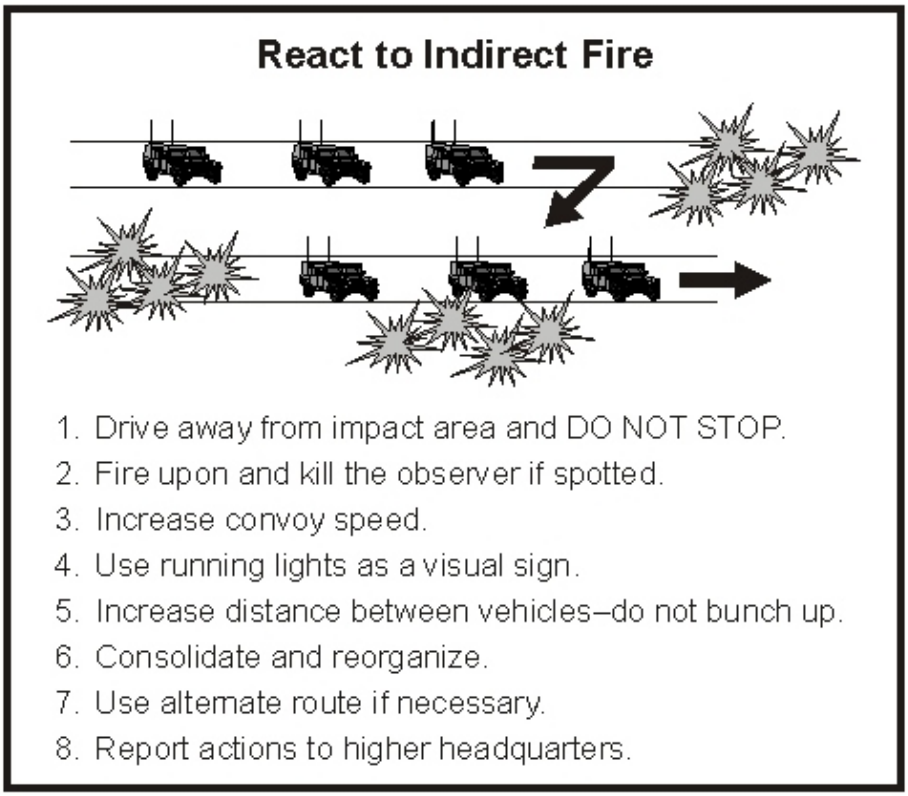


Figure III-4

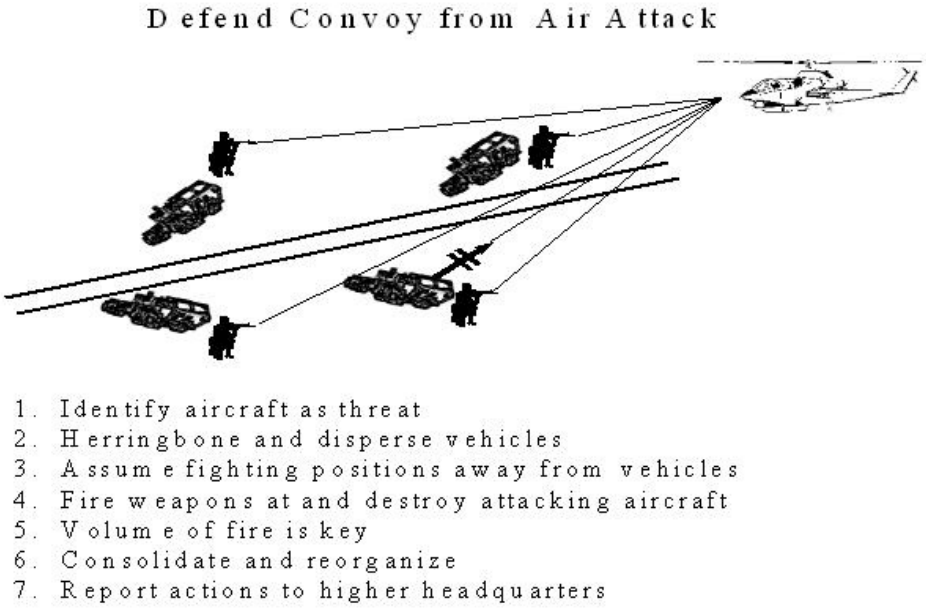
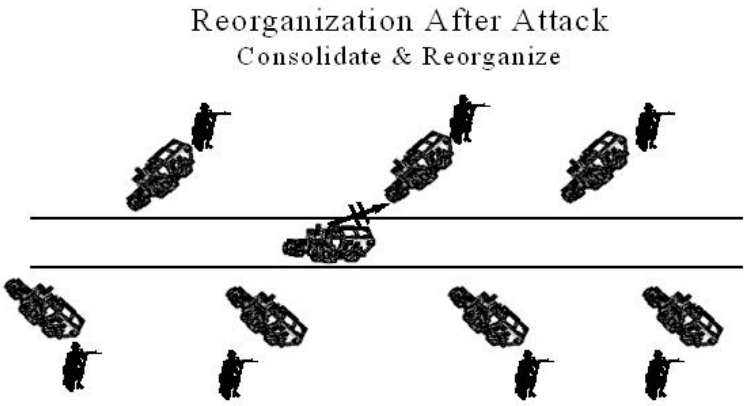


Figure III-5



1. Herringbone and maintain 360 degree security
2. Treat casualties
3. Request MEDEVAC
   a. Secure landing zone
   b. Evacuate all casualties
4. Reestablish chain of command if necessary
5. Assess damage to vehicles and cargo
   a. Crossload critical cargo
   b. Request destruction of vehicles and equipment if necessary from higher HQ.
6. Reorganize and resume convoy using alternate route if necessary.

Figure III-6

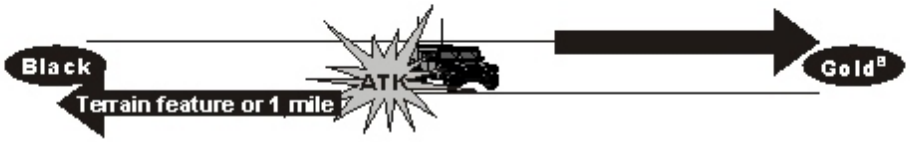
React to Minefield/Boobytrap

1. Follow the tracks of the vehicle in front.
2. Use ground guides if possible.
3. Avoid driving on the shoulder of the road.
4. Do not run over foreign objects.
5. Watch reaction of local nationals.
6. Have engineers sweep the road.
7. Harden vehicles.
8. Wear protective equipment.

Figure III-7

Reorganization After Attack

Floating Rally Points



1. Floating rally points will be used for consolidation and reorganization.
2. Rally point Gold is located 1 mile ahead on the far side of an easily identifiable terrain feature if possible.
3. Rally point Black is located 1 mile back on the far side of an easily identifiable terrain feature if possible.
4. Rally point Black will only be used when forward progress is impossible. Convoy will then use an alternate route.

APPENDIX A -- Sample Tactical Road March Checklist

*1. March commander initiates convoy.

a. Directs lead vehicle to cross SP at specified time.

b. Verifies vehicles have crossed the SP.

c. Forwards SP crossing report to higher HQ staff element when unit elements have crossed the SP.

*2. March commander reports convoy information to higher HQ staff element.

a. Forwards checkpoint(s) clearance report as checkpoints are crossed.

b. Reports all ground sightings that conflict with maps and map overlays.

c. Forwards en-route NBC information.

d. Reports all threat sightings using SALUTE format.

e. Employs correct SOI/SSI codes in all transmissions.

*3. March commander enforces march discipline.

a. Assumes position(s) along march route that provides command presence at points of decision for reaction to changing tactical situation.

b. Enforces all movement policies defined in the TSOP and movement order with emphasis on formation, distances, speeds, passing procedures, and halts.

c. Adjusts formation distances and speed consistent with NBC, terrain, and light conditions.

d. Enforces security measures, with emphasis on air guards' surveillance, manning of automatic weapons, and concealment of critical cargo.

e. Communicates to unit leaders and operators, by radio or proper visual signals, any violations of march discipline, security procedures, or changes to current orders.

f. Enforces COMSEC measures, including radio silence periods IAW the movement order and SOI/SSI.

4. Unit employs march discipline.

a. Maintains designated march speed specified in movement order or as prescribed by the march commander.

b. Maintains proper vehicle interval as specified in movement order or as adjusted by the march commander.

c. Adjusts formation distances and speed consistent with NBC, terrain, and light conditions.

d. Dons eye protection goggles if driver or passenger is in a vehicle without cover or when windshield is lowered.

e. Crosses all checkpoints as scheduled.

f. Reacts correctly to march commander's arm/hand signals.

g. Maintains ground and air surveillance that covers 360 degrees until movement is completed.

5. Unit conducts scheduled halt(s).

a. Stops column at prescribed time and location.

b. Moves vehicles off road to positions that provide overhead cover while maintaining the prescribed interval between vehicles.

c. Occupies hasty defensive positions with 360-degree protective coverage (passengers).

d. Reports scheduled halt to the battalion CP.

e. Performs during-operation PMCS on vehicles (operators).

f. Inspects vehicle loads for safety and security.

g. Begins departure at specified time in the movement order.

h. Reports resumption of march to higher HQ staff element.

6. Unit conducts unscheduled halt(s).

a. Alerts march column with prescribed arm/hand signal.

b. Reports halt and circumstances immediately to higher HQ staff element.

c. Moves vehicles off the road while maintaining the prescribed interval between vehicles.

d. Occupies hasty fighting position with 360-degree protective coverage.

e. Resumes march as soon as reason for halt is rectified.

f. Reports resumption of march to higher HQ staff element.

7. Trail party recovers disabled vehicle.

a. Posts guard to maintain surveillance until recovery operation is completed.

b. Inspects disabled vehicle for reparability.

c. Repairs disabled vehicle, when possible.

d. Tows disabled vehicle to applicable maintenance facility.

e. Reports vehicle status to march commander.

8. Unit conducts a night convoy.

a. Briefs drivers on night conditions.

b. Provides visual adjustment period if march began during daylight.

c. Prepares vehicles for blackout conditions IAW the TSOP.

d. Maintains prescribed interval between vehicles.

e. Wears night-vision goggles (selected personnel).

f. Wears regular eye protection goggles (all other personnel).

g. Employs ground guides during poor visibility periods.

9. Unit conducts convoy through an urban area.

a. Verifies all weight, height, and width restrictions along route of march.

b. Employs close column formation.

c. Obeys traffic control directions unless escorted by military or host-nation police.

d. Employs directional guides at all critical intersections.

*10. March commander monitors unit crossing RP.

a. Verifies that lead vehicle has crossed RP at specified time.

b. Verifies that vehicles that have crossed RP.

c. Forwards SITREP to higher HQ staff element.

NOTE * Indicates a leader task.

APPENDIX B -- Sample Convoy Intervals and Speeds

1. The interval on MSRs during normal conditions is 2 seconds between vehicles; during inclement weather conditions and while transporting Hazardous materials, the interval is 3 seconds; and while on the autobahn, the interval is 6 seconds.

2. For all LTF convoys, the guidance is as follows:

ROUTE	SPEED	TIME INTERVAL	INTERVAL DISTANCE
MSR	35 mph	6 sec	30 meters
Built-up areas	25 mph	3 sec	20 meters

Note:* **If vehicles fall behind, lead vehicle will slow down so others can catch up.

3. Some guidelines to keep in mind:

a. All vehicles must have visual contact with the vehicle to their front and rear.

b. Don't let more than two civilian vehicles between your vehicle and the vehicle in front of you.

c. When in built-up areas, close in as much as possible to the vehicle in front of you and don't let civilians get between the vehicles.

d. Situational awareness is imperative.

e. Mirror strikes are a reality.

f. Should your convoy encounter a civilian accident and no emergency response teams are in sight, contact the TOC via FM prior to rendering any aid. The TOC will contact the appropriate agencies and provide any guidance required.

APPENDIX C -- Sample Convoy Accident Procedures

TTP for accidents involving military equipment and personnel:

- **Establish local security/traffic control.**
- **Assess damage to personnel, vehicles, and load.**
- **Determine location (8-digit grid), use PLGR or DTTS.**
- **Report any information to higher via DTTS FM, if Comanche Base cannot be contacted.**
- **Contact the nearest SFOR Base Camp, and provide:**
  - > *Status of personnel.*
  - > *MEDEVAC request (if needed).*
  - > *Status of vehicles.*
  - > *Location.*
  - > *Current situation.*
  - > *Recovery assistance (if needed), state type of equipment and type of damage.*
  - > *Complete accident form in duplicate/use cameras to record accident if available.*
  - > *Follow instructions from higher.*

TTP for Unexploded Ordnance (UXO) Spot Report

When mines, explosives or other UXO are found, report them immediately to the LTF TOC using the following format:

LINE 1. DATE/TIME group discovered.

LINE 2. Reporting Unit and grid location and area of operation of UXO.

LINE 3. Method of Contacting Over Watching Unit (Radio freq/Call Sign/Telephone No.).

LINE 4. Type of munitions (dropped, projected, placed, or thrown).

LINE 5. NBC Contamination.

LINE 6. Resources Threatened.

LINE 7. Impact on Mission.

LINE 8. Protective Measures Taken.

LINE 9. Recommended Priority (immediate, indirect, minor, or no threat).

2. Marking UXO.

a. If **SAFE** to do so, mark area using marking tape, engineer tape, candy striped tape, mine signs or whatever means are available to keep SFOR soldiers or local nationals out of the area.

b. *NOTE:* **DO NOT ENTER** an uncleared area to mark a mine or UXO. Place marking in the closest cleared area (i.e., if mine or UXO is off the side of the road, place marking on the edge of the road).

3. Protective Measures: Build a barricade far enough away from the UXO so that it cannot fall on it.

Spot Report

- **WHO (Unit or Personnel Involved in the Incidents).**
- **WHAT (Detailed Description of the Incident).**
- **WHERE (Grid and Location Where the Incident Took Place).**
- **WHEN (Date and Time).**
- **ACTIONS ALREADY TAKEN BY UNIT.**

APPENDIX D -- CONVOY ACTION ON CONTACT

1. **React to Bosnia Police Checkpoint.**

a. Continue to move if possible, and submit SALT-Y report to BN S3.

b. If blocked, stop, inspect IPTF checkpoint authorization if possible, tell police you are proceeding, proceed and report to Bn S3.

2. **React to EAF Checkpoint.**

a. EAF forces are not authorized to establish checkpoints. Continue to move if possible, and submit SALT-W report to the Bn S3. Video-record event if possible.

b. If blocked, maintain local security, report to Bn S3 and, if possible, the nearest base camp and request that a combat patrol come and remove the checkpoint. **DO NOT** attempt to remove the checkpoint.

3. **React to Observed Civil Disturbance Not Blocking Route.**

a. Proceed slowly and observe. Video-record event if possible.

b. Report information using Civil Disturbance /Demonstration Feeder Report.

(1) Number of people.

(2) Gender makeup (mostly men?; children present).

(3) Are they moving by vehicle/foot?

(4) General attitude of people.

(5) Is there a key speaker/instigator and what is his message?

(6) Are signs banners present and what is the message?

(7) Is the media on site and who do they represent?

(8) Are there weapons present?

(9) Who else is present (e.g. IPTF, SFOR)?

(10) Are demonstrators from the area or some other location?

(11) How did the people know about the gathering/demonstration?

(12) What are the people's stated objectives?

4. **React to Potential Opposing Force (POF) Blocking Route – Unarmed.**

a. Stop as far from the POF as possible. **DO NOT** attempt to bypass POF by leaving the road. Request bypass route on hardstand roads if one appears available.

b. Report to Bn S3 and nearest base camp if possible using Feeder Report items above. Video-record event if possible.

c. Maintain security. Do not allow the POF to search the convoy. Use ROE.

d. Attempt to determine POF's grievance and report to higher.

e. If possible, attempt to gain clearance to pass. **DO NOT** attempt to force POF to disperse. Await arrival of combat patrol.

5. **React to Potential Opposing Force (POF) Blocking Route - Armed.**

a. Stop as far from POF as possible. **DO NOT** attempt to bypass POF by leaving the road. Request bypass route on hardstand roads if one appears available. If no bypass is available, back off to create space between convoy and POF if necessary.

b. Report to Bn S3 and nearest base camp if possible using the Feeder Report items above. Video-record event if possible.

c. Maintain security, do not allow the POF to search the convoy. Use ROE.

d. **DO NOT** attempt to force the POF to disperse or confiscate weapons. Await arrival of combat patrol.

APPENDIX E – Convoy Operational Considerations

A brief review of OPSEC requirements provides factors that impact on convoy movements.

Operational Environment (extracted from **FM 55-30, *Army Motor Transport Operations):***

Operations Security. There are four steps in the OPSEC planning sequence:

- **Determine enemy capabilities for obtaining information about motor transport operations.**
- **Determine what information obtained by the enemy can compromise the operation.**
- **Determine which actions the motor transport units planned before an operation, if known and analyzed by the enemy, would give the enemy the information he needs.**
- **Determine what protective measures are necessary and where they must be implemented to maximize operations security.**

Operations security measures include:

- **Countersurveillance.**
- **Signal security.**
- **Physical security.**
- **Information security.**

Counter-surveillance. Counter-surveillance includes all active or passive measures taken to prevent threat forces from seeing your area, equipment, and movements. Counter-surveillance techniques include—

- **Camouflaging and toning down trucks, including the headlights and windshields, when they are not moving.**
- **Moving at night or during periods of reduced visibility using blackout lights.**
- **Using terrain as concealment.**
- **Maintaining noise, litter, and light discipline.**

Signal Security. Signal security is the use of communications and electronics security techniques to prevent the disclosure of operational information. It includes the use of communications codes, secure voice equipment, and proper positioning of antennas. Techniques for motor transport units include:

- **Keeping radio transmissions short.**
- **Maintaining signal silence whenever possible.**
- **Using wire communications when possible.**

- **Using low power in radios.**

Physical Security. Physical security is the use of security forces, barriers, dispersal, concealment, and camouflage to deny enemy access to facilities, areas, equipment, materiel, and personnel. Physical security protects operational information or activities. Some practical techniques include:

- **Employing security elements to the front and rear and, when required, to the flanks of convoys.**
- **Using listening and observation posts when in garrison and operations areas.**
- **Identifying avenues of approach and covering them with fields of fire.**
- **Employing obstacles that impede the enemy.**
- **Using challenge and passwords.**
- **Using early warning devices.**

Information Security. Information security is the control of written, verbal, and graphic information to prevent the disclosure of operational information. To ensure information security:

- **Never post information out in the open, such as on a vehicle windshield.**
- **Do not allow local civilians without clearances into work and assembly areas.**
- **Handle all classified and sensitive documents properly.**

APPENDIX F – Convoy MEDEVAC Request

LINE	INFORMATION
1.	GRID LOCATION OF PICK-UP SITE.
2.	RADIO FREQUENCY AND CALL SIGN.
3.	NUMBER OF PATIENTS BY PRECEDENCE. A=URGENT, B=URGENT-SURGICAL, C=PRIORITY, D=ROUTINE, E=CONVENIENCE
4.	SPECIAL EQUIPMENT NEEDED. A=NONE, B=HOIST, C=EXTRACTION EQUIPMENT, D=VENTILATOR
5.	NUMBER OF PATIENTS BY TYPE: LITTER OR AMBULATORY.
6.	NUMBER AND TYPE OF WOUND, INJURY, OR ILLNESS.
7.	METHOD OF MARKING PICK-UP SITE. A=PANEL, B=PYRO, C=SMOKE, D=NONE, E=OTHER
8.	PATIENT NATIONALITY AND STATUS. A=U.S. MILITARY, B=U.S. CIVILIAN, C=NON-U.S. MILITARY, D=EPW
9.	NBC CONTAMINATION (WARTIME) N=NUCLEAR, B=BIOLOGICAL, C=CHEMICAL OR TERRAIN DESCRIPTION (PEACETIME)