

APPENDIX D

Tactical Operations

MEDEVAC Request

1. Location of pick-up site.
2. Radio frequency, call sign, suffix.
3. Number of patients.
4. Special equipment required.
5. Number of patients by type of casualty (litter, walking wounded).
6. Security of pick-up site.
7. Method of marking of pick-up site.
8. Patient nationality and status.
9. NBC contamination (omit if NA).

Troop-leading Procedures

1. Receive the mission.
2. Issue the warning order.
3. Make tentative plan.
4. Conduct coordination.
5. Make a reconnaissance (map, physical).
6. Complete the plan.
7. Issue the order.
8. Inspect/supervise/refine.

Declination Diagrams

The declination diagram (usually located in the lower right margin of a map) graphically illustrates the relationships between grid north (symbolized by the letters GN), true north (symbolized by a star), and magnetic north (symbolized by a half arrowhead). Typical declination diagrams are shown in the figure D-1.

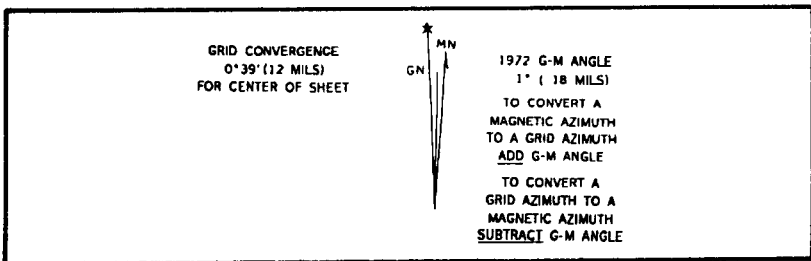


Figure D-1. Typical declination diagram.

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Of particular interest to the military user is the relationship of grid north to magnetic north, since this defines the relation of azimuth directions on the map (grid) to an Azimuth obtained with a compass (magnetic). This relationship (the GM angle), is expressed in degrees and minutes and accompanies the declination diagram. Some maps also contain a note for converting from grid to magnetic azimuth and from magnetic to grid azimuth as shown. When the note is not given, conversion must be determined based on the declination diagram.

NOTE: Declination diagrams and GM Angles vary from map to map. Users should exercise extreme care to insure that the proper conversions from grid to magnetic azimuth or magnetic to grid azimuth are used.

To convert a magnetic azimuth to a grid azimuth, subtract the GM angle.

To convert a magnetic azimuth to a grid azimuth, add the GM angle

To convert a grid azimuth to a magnetic azimuth, add the GM angle.

To convert a grid azimuth to a magnetic azimuth, subtract the GM angle.

Combat Preparations

Tactical Road Marches

Movement Order

Movement order of briefing should include as a minimum the following:

- Enemy and friendly situation.
- Destination.
- Start, critical, release, and rally points.
- Rate of march and catch up speed.
- Support (indirect, direct, and medical) and communications.
- Actions on contact.
- Order of march.
- Route/alternate route.
- Distance between vehicles (day -50 meters; night -25 meters).
- Departure time.
- Location of commander.
- Lead vehicle (security/reconnaissance).

Spot Report

1. Size
2. Activity
3. Location
4. Unit/Uniform
5. Time
6. Equipment

March security

Each vehicle must be assigned a sector of fire. Vehicle crew maintains a 360-degree observation and an air guard.

Halts

Security is first priority on any scheduled, unscheduled, or disabled vehicle halt.

Defense Planning Considerations


1. Establish Security (OP/Patrols/PEWs, M8)
2. Position Key Weapons:
 - a. Coordinate w/units on left and right
 - b. Establish FPF or PDF for MG.
 - c. Mutual support between MG.
 - d. Cover armor approaches with antiarmor systems.
 - e. Establish fire control measures.
3. Prepare Positions:
 - a. Check sectors of fire.
 - b. Check overhead cover and view
 - c. Position in depth and achieve support between positions.
 - d. Select/Prepare alternate and supplementary positions.
4. Integrate indirect fires, CAS and obstacles with direct and indirect fires.
5. Check commo and establish emergency signals.
6. Designate ammo, supply, PW, and casualty points.

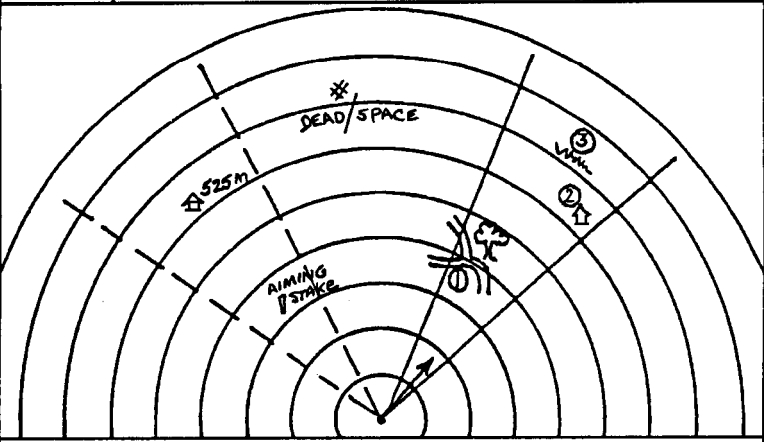
Table D-1. Maximum effective range in meters of weapons.

Type	Max EFF Range (m)
M16	460
M79/M203	560
M60mg	560
mg, 50 Cal	560
LAW	560
SAW	560
90-mm RCLR	560
106-mm RCLR	560
60-mm	560
81-mm	560
4.2-in.	560
TOW	560
TOW II	560
DRAGON	560
105-mm	560
105-mm Tank	560
120-mm Tank	560
25-mm BIFV	560
155-mm BIFV	560
M198	560
8-in How	560

STANDARD RANGE CARD
For use of this form see FM 7-41. The proponent agency is TMADDO

SQD 1ST
 PLT 1ST
 CO B

MAGNETIC NORTH 



DATA SECTION

POSITION IDENTIFICATION 6L08451038 DATE 4 JULY

WEAPON		EACH CIRCLE EQUALS METERS <u>100</u>			
NO.	DIRECTION/DEFLECTION	ELEVATION	RANGE	AMMO	DESCRIPTION
<u>1</u>	<u>L035</u>	<u>0/24</u>	<u>400</u>		<u>PDF (WOODED RJ)</u>
<u>2</u>	<u>R375</u>	<u>-50/15</u>	<u>625</u>		<u>BARN</u>
<u>3</u>	<u>R175</u>	<u>-50/40</u>	<u>725</u>		<u>HEBEROW</u>

REMARKS: ① TW 30/R17
② TW 3/L3
③ TW 7/R3

DA Form 5517-R Feb 88

Figure D-3. Example of completed DA Form 5517-R.

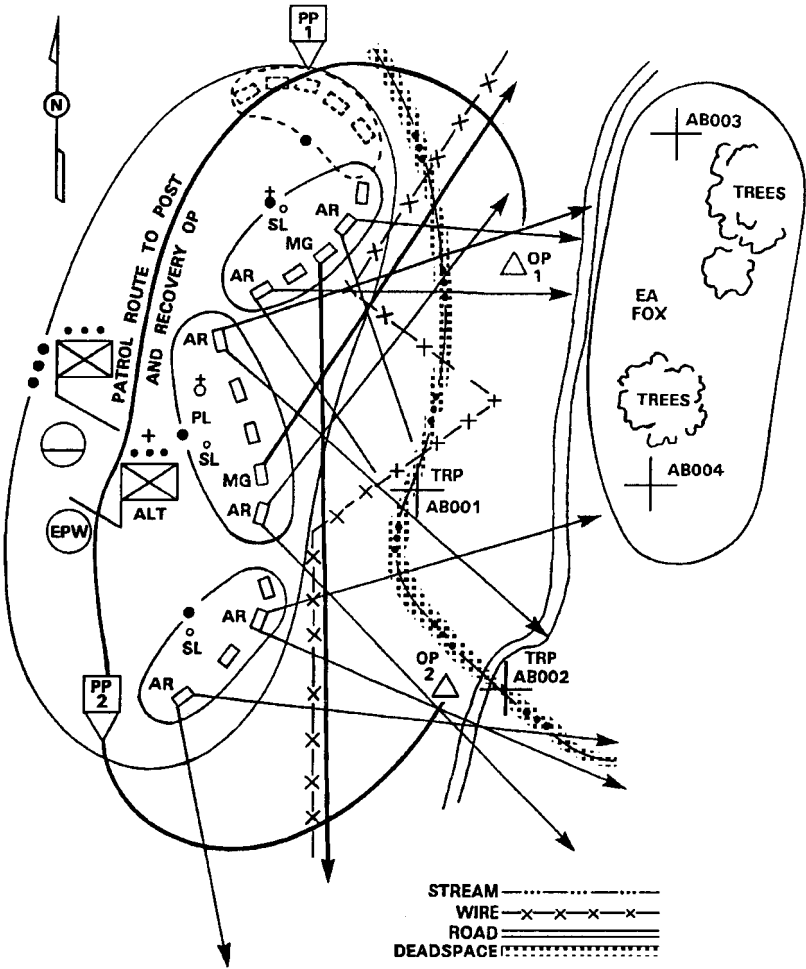


Figure D-4. Example of a platoon sector sketch.

Table D-2. Final Protective Fires.

60-mm	70m (W) 30m (D)
81-mm	100m (W) 35m (D)
4.2 in	200m (W) 35m (D)
105-mm	200m (W) 30m (D)
155-mm (Plt)	200m (W) 50m (D)
(Btry)	400m (W) 50m (D)

Bivouac and Assembly Areas

Area must be organized to provide a continuous 360-degree perimeter security. When any element leaves the perimeter, either shrink the perimeter or redistribute the perimeter responsibilities. Crew-served weapons are the basis for the unit defense. Individual weapons provide security for the crew-served weapons and must have overlapping sectors of fire.

Section characteristics are:

- Concealment.
- Cover from direct and indirect fire.
- Defendable terrain.
- Drainage and a surface that will support vehicles.
- Exits and entrances, and adequate internal roads or trails.
- Space for dispersion of vehicles, personnel, and equipment.
- Suitable landing site nearby for supporting helicopters.

Quartering party responsibilities are:

- Reconnoiters the area.
- Checks the area for NBC hazards.
- Checks the area for obstacles and mines, then marks or removes them.
- Marks platoon and squad sectors.
- Selects a command post location.
- Selects a company trains location.
- Provides guides for the incoming unit(s) to accomplish immediate occupation.

Recommended priority of work:

- Post local security (LP/OP).
- Position crew-served weapons (combat engineer vehicle (CEV), antitank (AT) weapons, and machine guns) and chemical alarms.
- Assign individual fighting positions.
- Clear fields of fire, prepare range cards and camouflage vehicles.
- Prepare hasty fighting positions.
- Install/change to land line communication.
- Emplace obstacles and mines.
- Construct primary fighting positions.

- Prepare alternate and supplementary fighting positions.
- Stockpile ammunition, food, and water.

Recommend actions at the bivouac and assembly area are

- Reorganization.
- Weapons check.
- Maintenance.
- Distribution of supplies.
- Rest and personal hygiene.
- Consumption of rations.

Fire Support Procedures and Characteristics

Call for Fire Elements

Identification

Call signs.

Warning order

Type mission, adjust fire, fire for effect, immediate suppression. Method of target location: grid, polar, shift from known point.

Target location

Grid: six-digit grid (degrees (roils, or cardinal directions) direction

Polar: direction (degrees, roils, or cardinal directions) distance vertical correction (fire direction center must know observer location)

Shift: right/left from known point

add/drop from known point

vertical correct from known point

(fire direction center must have known point)

Target description

Size, number, type, degree of protection, status.

Method of engagement (optional)

Ammunition/fuze desired, sheaf corrections, high angle, danger close.

Method of fire and control (optional)

At my command, time on target, request splash.

Adjustments

The adjustments that may be needed to obtain round on target arc spotting, lateral, and range.

Spotting

Is where round lands in relation to target, such as short or long and number of roils right or left of target. Example of spottings: short 40 right or long 50 left.

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Lateral correction (right/left)

Adjust the lateral shift from impact to observer target (OT) line in meters. Corrections of 20 meters or less will be ignored until firing for effect.

$W = Rm$ W = Lateral shift correction in meters

m = mils between burst and target

R = OT factor = $\frac{\text{target range}}{1,000}$ (to nearest 1,000 meters)

NOTE: If target range is less than 1,000 meters, round to nearest 100 meters.

Range correction (up/down)

Mechanical time fuze only. Initial range shift correction is used to bracket target (Table D-3).

Range deviation

Distance (meters) to Target	Change
Less than 1,000	+/- 100 meters
1,000 to 1,999	+/- 200 meters
2,000 or greater	+/- 400 meters

Target location examples

Grid Coordinates

"F6A15, THIS IS F6A27..... Call signs of the fire direction center (FDC) and observer.

ADJUST FIRE, OVER..... Warning to alert the firing unit.

"GRID 135246, OVER."..... Normally, a six-digit grid is best.

"2 MACHINE GUNS FIRING..... Description of the target.

VT IN EFFECT, OVER"..... Adjustment is conducted with fuze quick.
Fuze variable time (VT) will be used in fire for effect.

"DIRECTION 1650, OVER. Must be sent before or with first correction.

Polar Coordinates

" F6A15, THIS IS F6A27..... Call signs of the FDC and observer.

FIRE FOR EFFECT, POLAR, OVER..... Warning to alert the firing unit.

"DIRECTION 0250..... Direction from the observer to the target.

- DISTANCE 3500, OVER."..... Distance from the observer to the target.
- "25 INFANTRYMEN IN OPEN..... Description of the target.
- ICM, AT MY COMMAND, OVER."..... Improved capabilities missile (ICM) rounds will be used. The observer will command FIRE at the appropriate time after the FDC informs the observer that the firing unit is READY.

NOTE: Direction must be given before any subsequent corrections when adjusting fires

Shift From A Known Point

- "F6A1, THIS IS F 6A..... Call signs of the FDC and observer.
- FIRE FOR EFFECT, SHIFT
- BG43, OVER. "..... Warning to alert the firing unit.
- "DIRECTION 5470..... Direction from the observer to the target.
- LEFT 400,OVER. "..... The target is located 400 meters to the left of BG43 and at the same range. (Lateral shift or range changes can be omitted when not needed.)
- "25 INFANTRYMEN IN SHALLOW Description of the target.
- FOXHOLES, VT IN EFFECT, OVER. "..... Airbursts are most effective against protected personnel without overhead cover.

**Fratricide Risk Assessment Matrix
Example of Unit Defense Perimeter TACSOP**

- A. Upon arrival to new site, ALL personnel:
 - (1) Position mission-essential vehicles for easy access to main avenue of approach.
 - (2) Drape camouflage over all vehicles.
 - (3) Prepare hasty fighting positions.
 - Range cards
 - Fields of tire
 - Concealment
 - Berms
 - Choose M60 positions
 - Choose primary line of tire
 - (4) Choose secondary positions.
 - (5) Run TA-1 wire to M60/Forward dismount point.

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B. If no enemy action is imminent, reduce security to 1/4, and:

- (6) Improve vehicle camouflage.
- (7) Download vehicles.
- (8) Prepare biouvac:
 - CP first
 - 292 and PRC-77
 - Tentage
 - Camo systems
 - Latrine site
 - Garbage site
 - Concertina wire
 - Hasty minefield
- (9) Perform daily PMCS on ALL equipment.
- (10) Prepare duty rosters.
- (11) Improve fighting positions:
 - Overhead cover
 - Concealment
 - Early warning devices
 - Pyrotechnics

What can a commander expect from his chemical staff?

TOC OPERATION CHECKLIST

- | Section I: Mission requirements. | YES | NO |
|---|------------|-----------|
| 1. All radios (AM/FM) are operational and manned by qualified personnel. | _____ | _____ |
| 2. Situation map is posted with the current operation(s) and updated with significant developments. | _____ | _____ |
| 3. The Staff Duty Journal (DA Form 1594) is opened as soon as TOC is operational, and all significant developments are entered on the form. | _____ | _____ |
|
 | | |
| Section II: Additional requirements that improve efficiency and survivability. | | |
| 4. Telephone nets are opened. | _____ | _____ |
| 5. Planning map and/or planning overlays are available to the commander. | _____ | _____ |
| 6. TOC personnel are assigned defensive sectors, and hasty defensive positions are prepared. | _____ | _____ |
| 7. Access to TOC is controlled (e.g., concertina and sentries positioned and ID badges used). | _____ | _____ |
| 8. TOC duty shifts are designated. | _____ | _____ |
| 9. Vehicles, equipment, and positions are camouflaged. | _____ | _____ |
| 10. Facilities are blacked out. | _____ | _____ |
| 11. Generators are sandbagged. | _____ | _____ |
| 12. Fighting positions are improved. | _____ | _____ |