

Operational Graphics

Standard Frame Shapes

Reference: ADP 1-02.2, Chapter 1, Table 1-1.
Standard identities and physical domain frame shapes

Standard Identities / Physical Domain	Friendly	Assumed Friend	Hostile	Suspect	Neutral	Unknown	Pending
Land unit							
Land and sea surface equipment							
Air equipment (in flight)							
Air equipment (in space)							
Activity							
Installation							
Sea subsurface equipment							

Table 1-2. Friendly frame status examples in present, planned, or suspected status

Domain / Status	Space Equipment	Air Equipment	Land Unit	Land Equipment and Sea Surface	Land Installation	Sea Subsurface Equipment	Activity or Event
Present or confirmed position							
Anticipated, planned, or suspected position							

Status depicts whether an object exists at the location identified (status is “present” or “confirmed”), will in the future reside at that location (status is “planned” or “anticipated”), or is thought to reside at that location (“suspected”).

Operational Graphics Main Unit Icons

Reference: ADP 1-02.2, Chapter 2, Table 2-7. Main icons for units



**Air Defense
Artillery**



**Air and
Missile Defense**



(ANGLICO)



Anti-Armor



Armored



Armored Cavalry



Rotary-Wing AVN



Fixed-Wing AVN



Cavalry



CBRN



CBRNE



Combined Arms



Engineer



Field Artillery



Infantry



**Information
Operations**



Maintenance



**Maneuver
Enhancement**



Medical



**Military
Intelligence**



Military Police



Ordnance



**Psychological
Operations**



Quartermaster



**Sea, Air, Land
(SEALs)**



Signal



Special Forces



**Special
Ops Forces**



Support



Sustainment



Surveillance



Transportation

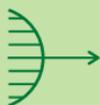
Custom Icon Key



Operational Graphics Tactical Mission Tasks

Reference: ADP 1-02.2, Chapter 6, Table 6-1 Tactical mission task symbols

Tactical mission task graphics are for use in course of action sketches, synchronization matrices, and maneuver sketches. They do not replace any part of the operation order. Tactical mission task symbols are sized to accommodate the scale of the display or map being used.



Ambush



Contain



Follow and Assume



Support by Fire



Attack by Fire



Counterattack



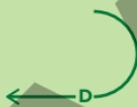
Follow and Support



Secure



Breach



Delay



Interdict



Retain



Bypass



Destroy



Isolate



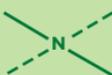
Seize



Canalize



Disrupt



Neutralize



Retirement



Clear



Fix



Occupy



Withdraw



Cover



Guard



Screen

Sector Sketch Preparation

Reference: ATP 3-21.8, Appendix B, page B-29; Sector Sketches

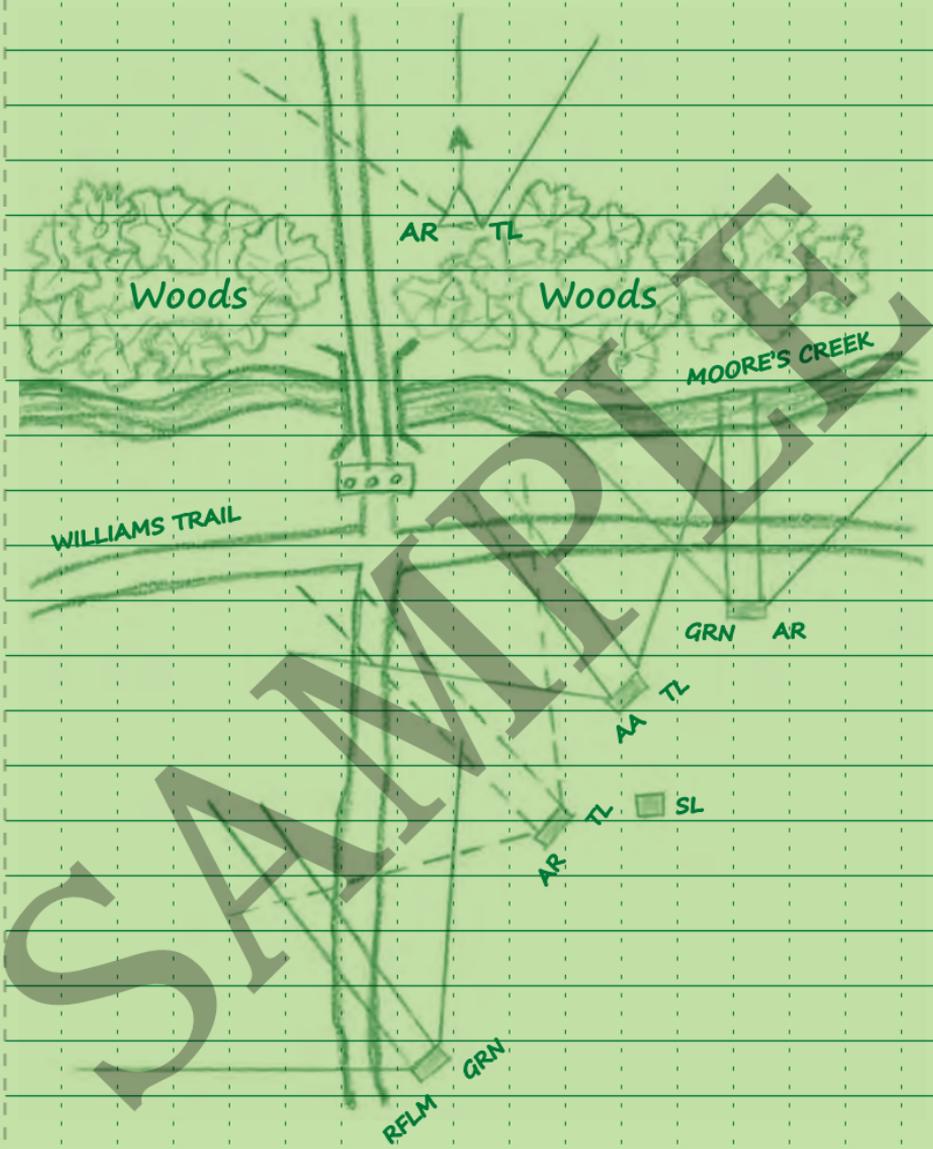
Squad Sector Sketch

The squad leaders and section leaders make two copies of their sector sketches; one copy goes to the platoon leader, the other remains at the position. The squad leaders and section leaders draw sector sketches as close to scale as possible, showing—

- Main terrain features in the area of operation and the range to each.
- Each primary position.
- Engagement area or primary and secondary sectors of fire covering each position.
- M240B machine gun final protective line or principle direction of fire.
- M249 SAW final protective lines or principle direction of fire.
- Type of weapon in each position.
- Reference points and TRPs in the area of operation.
- Observation post locations.
- Dead space.
- Obstacles.
- Maximum engagement lines for all BFV weapon systems.
- Maximum engagement lines for Javelin (if applicable) and AT4s.
- Indirect fire targets.

Sector Sketch Example

Reference: ATP 3-21.8, Appendix B, Figure B-10. Squad Sector Sketch



LEGEND:

AA - ANTI ARMOR

AR - AUTOMATIC RIFLEMAN

GRN - GRENADEIER

RFLM - RIFLEMAN

SL - SQUAD LEADER

TL - TEAM LEADER

Scale: 1 square = 10M

Standard Range Card Preparation

Reference: TC 3-21.75, Page 6-22, Automatic Weapon Range Card 6-36

Prepare two copies of the Range Card: A copy is kept with the vehicle or weapons position, and the other given to the section leader for his sketch.

TO PREPARE A STANDARD RANGE CARD:

- Orient the card so both the primary and secondary sectors of fire (if assigned) can fit on it.
- Draw a sketch of terrain to the front of your position. Include any dead space, natural, and man-made features that could be targets or target reference points.
- Draw the Maximum Engagement Line (if assigned).
- Draw your position at the bottom of the sketch. Do not put in the weapon symbol at this time.
- Fill in the marginal data to include:
 - Gun number (or squad).
 - Unit (only platoon and company) and date time group.
 - Weapon system.
 - Magnetic north arrow.
- Annotate the 8-digit grid of the gun position -OR-
- Determine the location of your gun position in relation to a prominent terrain feature, such as a hilltop, road junction, or building within 1,000 meters of the gun position. Determine the distance from the terrain feature to the gun position using pace count, plotting on a map, or GPS.
- Sketch in the terrain feature on the card in the lower left or right hand corner (whichever is closest to its actual direction on the ground) and identify it. Connect the sketch of the position and the terrain feature with a barbed line from the feature to the gun.
- Write in the distance in meters (above the barbed line). Write in the azimuth in degrees from the feature to the gun (below the barbed line).
- Annotate left and right limits in the data section at the bottom.
- Annotate targets and target reference points in the data section at bottom. Data for elevation and deflection is read from the traversing bar and T&E mechanism.
- Annotate FPL or PDF in the data section at bottom (if assigned).
- Draw weapon symbol at gun position.

Range Card Preparation Example

SQD 4
 PLT 3
 CO A

For use of this form see ATP 3-21.8; the proponent agency is TRADOC.
 May be used for all types of direct fire weapons.

↑
 MAGNETIC
 NORTH



16 14 12 10 8 6 4 2 2 4 6 8 10 12 14 16
 DATA SECTION

POSITION ID. 16S GA 0655 8363 DATE 19 Jan 2017 1422 HRS

WEAPON M240B EACH CIRCLE EQUALS METERS 200

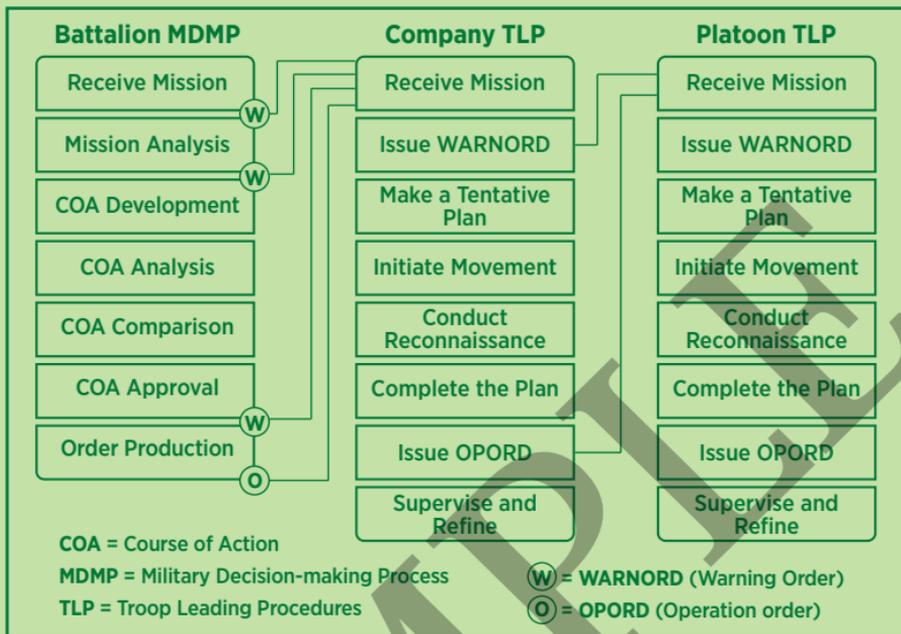
NO.	DIRECTION / DEFLECTION	ELEVATION	RANGE	AMMO	DESCRIPTION
1	317°/5617M	0°M	1800M	7.62	Left limit. 75M Left of farthest left intersection
2	37°/657M	+5°M	1800M	7.62	Right limit. Approx 800M Right of RP6
3	L 330°	+10°M	1450M	7.62	Farthest left "T" intersection
4	L 312°	+5°M	1050M	7.62	Farthest Left bridge
5	L 355°	-5°M	850M	7.62	Bridge at the roughly 12 o'clock position
6	R 5°	+10°M	1250M	7.62	Curve past bridge at roughly 12 o'clock pos.

REMARKS

} { = Bridge  = Creek

U.S. Army Troop Leading Procedures

Reference: ATP 3-21.8, Appendix A, page A-2, Figure A-1 Parallel planning



U.S.M.C. Six Troop Leading Steps (BAMCIS)

Reference: Tactical Planning B2B2367, page 8, Six Troop Leading Steps

BAMCIS	
B egin Planning	Execute the tactical thought process: METT-TC>EMCLOA>EXP>SOM>FSP>Tasks
A rrange for Reconnaissance	Plan reconnaissance to answer remaining questions about the enemy and terrain, choose the method to validate assumptions and the tentative SOM, and determine the coposition of the reconnaissance patrol.
M ake Reconnaissance	Conduct the reconnaissance to get "Eyes on the Enemy"
C omplete the Plan	Revisit the tactical thought process with information collected during reconnaissance: METT-TC>EMCLOA>EXP>SOM>FSP>Tasks
I ssue the Order	Effectively communicate the plan over the terrain model.
S upervise	Supervise subordinates' execution of orders through completion of the mission.

Acronym

METT-TC

Definition or Identification

Mission, Enemy, Terrain and weather, Troops and support available, Time/space/logistics, Civil considerations

EMLCOA

Enemy's Most Likely Course of Action

EXP

EXploitation Plan of the enemy's vulnerability

SOM

Scheme of Maneuver

FSP

Fire Support Plan

CBRN 1 Report

Reference: FM 6-99, Appendix A, Page A-48, A-49, Table A-31.

Report Number: C010

GENERAL INSTRUCTIONS: Use to provide the observer's initial report giving basic data on a chemical, biological, or nuclear attack.

1. **Date and Time** DTG
2. **Unit** unit making report
3. **Event** type of incident: NUCLEAR, BIOLOGICAL, or CHEMICAL
 - A — CBRN strike serial number
 - B — location of the observer and the direction of the attack
 - D — DTG of detonation of beginning of attack or detonation and the end of the event
 - F — UTM or six-digit grid coordinate with MGRS grid zone designator of attack and code used to represent if reported location of attack is actual or estimated
 - G — means of delivery and quantity
 - H — type of burst, biological or chemical agent, and persistency
 - I — release information on biological or chemical agent attacks
 - IR — release of sampling information on radiological incidents
 - J — time in seconds denoting flash-to-bang DTG of nuclear attack
 - L — nuclear burst angular cloud width measured at five minutes after detonation
 - M — stabilized cloud measurement at H+10 minutes of nuclear burst cloud
 - MR — description and status of chemical, biological, radiological incidents
 - T — terrain, topography, and vegetation description
 - Y — downwind direction and wind speed
 - Z — measured weather conditions
4. **Time** DTG of observation
5. **Narrative** free text for additional information required for report clarification
6. **Authentication** report authentication

CNRN 1 Report Acronym and Abbreviation Key

CBRN	—	Chemical, Biological, Radiological, and Nuclear
DTG	—	Date-Time Group
MGRS	—	Military Grid Reference System
UTM	—	Universal Transverse Mercator

9-line IED / UXO REPORT

Line 1.	Date Time Group Discovered.		
	DD	HH	MMM YEAR
Line 2.	Reporting Activity: Unit Identification Code and location (grid of UXO).		
	UIC	8 DIGIT GRID	LOCATION
	DETAILS		
Line 3.	Contact Method: Radio Freq / Call Sign, POC, Phone Number.		
	FREQ	CALL SIGN	POC PH. #
Line 4.	Type/Number of Ordnance: Dropped, Projected, Placed, or Thrown. Describe Item Details (Without approaching-due to potential tripwire) Size, shape, color, and condition (intact or leaking). Hazard Area.		
	DROPPED <input type="checkbox"/>	# of UXO	HAZARD AREA
	PROJECTED <input type="checkbox"/>		
	PLACED <input type="checkbox"/>	DETAILS	
	THROWN <input type="checkbox"/>		
Line 5.	NBC Contamination: Known or suspected, report type of agent.		
	YES <input type="checkbox"/>	AGENT	DETAILS
	NO <input type="checkbox"/>		
Line 6.	Resources Threatened: Report any assets that are threatened.		
	EQUIPMENT	FACILITY	OTHER
Line 7.	Impact on Mission. Current tactical situation. Does UXO affect status?		
Line 8.	Protective Measures: Measures taken to protect personnel/equipment.		
Line 9.	Recommended Priority: Response by EOD technicians or engineers.		
IMMEDIATE	Stops the unit's maneuver and mission capability, or threatens critical assets vital to the mission.		
INDIRECT	Slows the unit's maneuver and mission capability, or threaten critical assets important to the mission.		
MINOR	Reduces the unit's maneuver and mission capability, or threatens noncritical assets of value.		
NO THREAT	Has little or no affect on the unit's capabilities or assets.		

Game Plan and 9 Line CAS Brief

Reference: ATP 3-09.30, Chapter 4 page 4-14, Figure 4-4 CAS 9-Line.

Do not transmit the numbers. Units of measure are standard unless briefed. Lines 4, 6, and any restrictions are mandatory readbacks. The Joint Terminal Attack Controller (JTAC) may request an additional feedback.

JTAC: “ _____, advise when ready for game plan.”

JTAC: “Type (1, 2, 3) control (method of attack, effects desired or ordnance interval). Advise when ready for 9-Line.”

1. IP / BP: “ _____ ”

2. Heading: “ _____ degrees magnetic, initial point or battle position-to-target ”

Offset: “ _____ left or right, when requested ”

3. Distance: “ _____ initial point-to-target in nautical miles, battle position-to-target in meters ”

4. Target elevation: “ _____ in feet, mean sea level ”

5. Target description: “ _____ ”

6. Target location: “ _____ latitude and longitude, or grid coordinates, or offsets, or visual ”

7. Type mark / terminal guidance: “ _____ description of the mark, if laser handoff, call of sign lasing platform and code ”

8. Location of friendlies: “ _____ from target, cardinal direction and distance in meters ”

Position marked by: “ _____ ”

9. “Egress _____ ”

Remarks / *restrictions:

- Laser to target line (LTL) / pointer target line (PTL)
- Desired type and number of ordnance or weapons effects (if not previously coordinated).
- Surface-to-air threat, location, and type of SEAD.
- Additional remarks (e.g., gun-to-target line, weather, hazards, friendly marks).
- Additional calls requested.
- *Final attack headings or attack direction.
- *Airspace coordination areas (ACAs).
- *Danger close and initials (if applicable).
- *Time over target (TOT) / time to target (TTT).
- *Post launch abort restrictions (if applicable).
- IP — initial point
- BP — battle position

Note: For off axis weapons, the weapons final attack heading may differ from the aircraft heading at the time of release. The aircrew should inform JTAC when this occurs and ensure weapon final attack headings comply with given restrictions.

Spot Report (SPOTREP)

Reference: FM 6-99, Appendix A, Page A-196, Table A-138.

Report Number: S055

GENERAL INSTRUCTIONS:

Use to report intelligence or status regarding events that could have an immediate and significant effect on current and future operations.

This is the initial means for reporting troops in contact and event information.

-
1. Date and Time _____ DTG
 2. Unit _____ unit making report
 3. Size _____ size of detected element
 4. Activity _____ detected element unit, organization, or facility
 5. Location _____ UTM or grid coordinate with MGRS grid zone designator of detected element activity or event
 6. Unit _____ detected element unit, organization, or facility
 7. Time _____ DTG of observation
 8. Equipment _____ equipment of element observed
 9. Assessment _____ apparent reason or purpose of the activity observed
 10. Narrative _____ free text for additional information required for report clarification
 11. Authentication _____ report authentication
-

Spot Report Acronym and Abbreviation Key

DTG	—	Date-Time Group
MGRS	—	Military Grid Reference System
UTM	—	Universal Transverse Mercator

Basic Management Plan for Care Under Fire

1. Return fire and take cover.
2. Direct or expect casualty to remain engaged as a combatant if appropriate.
3. Direct casualty to move to cover and apply self-aid if able.
4. Try to keep the casualty from sustaining additional wounds.
5. Casualties should be extricated from burning vehicles or buildings and moved to places of relative safety. Do what is necessary to stop the burning process.
6. Stop life-threatening external hemorrhage if tactically feasible:
 - a. Direct casualty to control hemorrhage by self-aid if able.
 - b. Use a CoTCCC-recommended limb tourniquet for hemorrhage that is anatomically amenable to tourniquet use.
 - c. Apply the limb tourniquet over the uniform clearly proximal to the bleeding site(s). If the site of the life-threatening bleeding is not readily apparent, place the tourniquet "high and tight" (as proximal as possible) on the injured limb and move the casualty to cover.
7. Airway management is generally best deferred until the Tactical Field Care phase.

The Management Care Plan for Tactical Field Care

begins with disarming any casualty with an altered mental status. Armed casualties pose a significant risk to others in their unit if they employ their weapons inappropriately. In the combat setting, altered mental status may be caused by traumatic brain injury, shock, or medications. Then, the **MARCH** algorithm is used.

M - Massive Hemorrhage Assessment.

A - Airway Assessment.

R - Respiratory Trauma Assessment.

C - Circulatory Assessment.

H - Head Trauma Assessment and Hypothermia Assessment.

All care rendered will be documented on the TCCC* Casualty Card before the casualty is evacuated to the next level of care. Don't forget to communicate as much as possible to the casualty.

Tactical Evacuation (TACEVAC) - Casualties are transported to a higher level of care. TACEVAC care encompasses both medical evacuation (MEDEVAC) and casualty evacuation (CASEVAC) as defined in Joint Publication 4-02.

MEDEVAC REQUEST FORM

GTA 08-O 1-004

EVACUATION REQUEST MESSAGE

LINE	ITEM	
1	Location of Pickup Site.	
2	Radio Frequency, Call Sign, Suffix.	
3	Number of Patients by Precedence.	
4	Special Equipment.	
5	Number of Patients by Type.	
6	Security of Pickup Site (Wartime).	
6	Number and type of Wound, Injury, Illness (Peacetime).	
7	Method of Marking Pickup Site.	
8	Patient Nationality and Status.	
9	NBC Contamination (Wartime).	
9	Terrain Description (Peacetime).	

Reference: FM 8-10-6, Medical Evacuation in a Theater of Operations, pages 7-7 through 7-9.

LINE ITEM	EXPLANATION
1. Location of Pickup Site.	Encrypt grid coordinates. When using <i>DRYAD Numeral Cipher</i> , the same SET line will be used to encrypt grid zone letters and coordinates. To preclude misunderstanding, a statement is made that grid zone letters are included in the message (unless unit SOP specifies its use at all times).
2. Radio Frequency, Call Sign, Suffix.	Encrypt the frequency of the radio at the pickup site, not a relay frequency. The call sign (and suffix if used) of person to be contacted at the pickup site may be transmitted in the clear.
3. Number of Patients by Precedence.	Report only applicable info & encrypt brevity codes. A = Urgent, B = Urgent-Surg, C = Priority, D = Routine, E = Convenience. (If 2 or more categories reported in same request, insert the word "break" btwn. each category.)
4. Special Equipment.	Encrypt applicable brevity codes. A = None, B = Hoist, C = Extraction equipment, D = Ventilator.
5. Number of Patients by Type.	Report only applicable information and encrypt brevity code. If requesting MEDEVAC for both types, insert the word "break" between the litter entry and ambulatory entry: L + # of Pnt - Litter, A + # of Pnt - Ambul (sitting).
6. Security of Pickup Site (Wartime).	N = No enemy troops in area, P = Possibly enemy troops in area (approach with caution), E = Enemy troops in area (approach with caution), X = Enemy troops in area (armed escort required).
6. Number and type of Wound, Injury, Illness (Peacetime).	Specific information regarding patient wounds by type (gunshot or shrapnel). Report serious bleeding, along with patient blood type, if known.
7. Method of Marking Pickup Site.	Encrypt the brevity codes. A = Panels, B = Pyrotechnic signal, C = Smoke Signal, D = None, E = Other.
8. Patient Nationality and Status.	Number of patients in each category need not be transmitted. Encrypt only applicable brevity codes. A = US military, B = US civilian, C = Non-US mil, D = Non-US civilian, E = EPW.
9. NBC Contamination (Wartime).	Include this line only when applicable. Encrypt the applicable brevity codes. N = nuclear, B = biological, C = chemical
9. Terrain Description (Peacetime).	Include details of terrain features in and around proposed landing site. If possible, describe the relationship of site to a prominent terrain feature (lake, mountain, tower).

Reference: FM 8-10-6, *Medical Evacuation in a Theater of Operations*, pages 7-7 through 7-9.

Call for Fire Flowchart

Reference: ATP 3-09.30, Chapter 4, page 4-9, Figure 4-2

