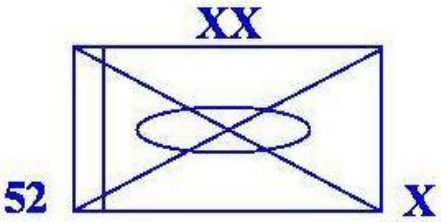
U.S. ARMY SERGEANTS MAJOR ACADEMY (BSNCOC)
W125 OCT 2010
GRAPHICS AND OVERLAYS

STUDENT HANDOUT 2

SH-2 IS A STUDENT WORKBOOK CONTAINING 35 PAGES TO ENHANCE YOUR KNOWLEDGE OF FM 1-02, SEP 04.

GRAPHICS AND OVERLAYS
WORKBOOK



DEVELOPED FOR USE BY THE BATTLE STAFF NONCOMMISSIONED OFFICER COURSE. PROPONENT FOR THIS PROGRAM IS THE U.S. ARMY SERGEANTS MAJOR ACADEMY. RECOMMENDED CHANGES SHOULD BE SENT DIRECTLY TO: COMMANDANT USASMA ATTN: ATSS-BC, BLDG. 11291 BIGGS FIELD, FT. BLISS, TX 79918-8002. POC: BATTLE STAFF DEVELOPMENT CELL (DSN) 621-8475

SH 2-1

OPERATIONAL SYMBOLS AND OVERLAY GRAPHICS

INSTRUCTIONS

This workbook is based on FM 1-02, Operational Terms and Graphics, dated September 2004. It will provide you with a working knowledge to identify and construct operational symbols and graphics.

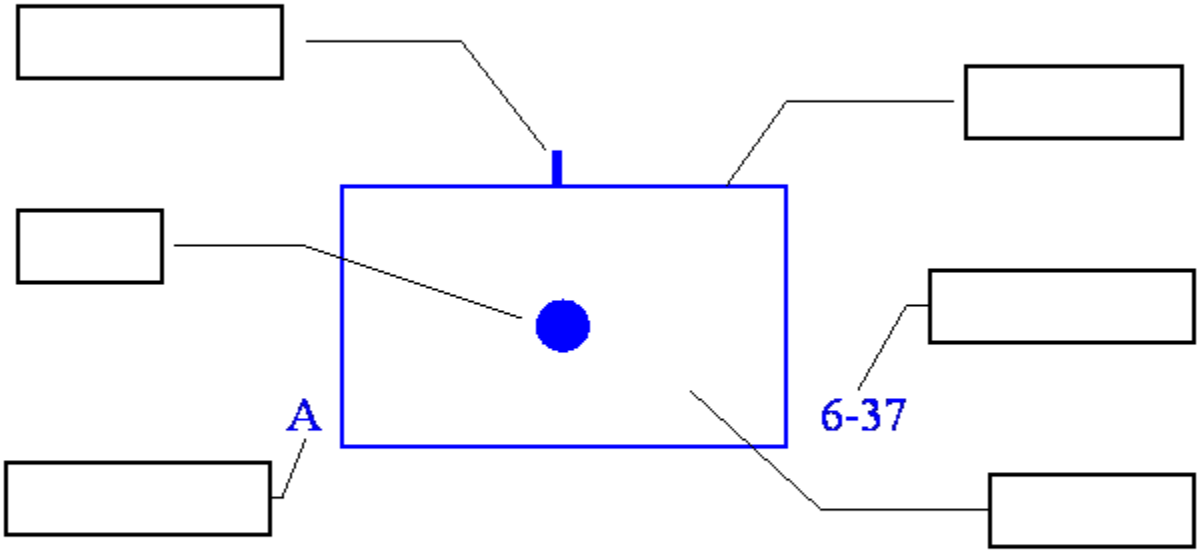
You must take your time as you complete this workbook. Otherwise, you'll learn very little from carelessly answering the questions or drawing the symbols. As you progress, your speed, accuracy, and neatness will improve.

Before you begin the workbook, open FM 1-02. There are Nine chapters and four appendixes. If you have a question concerning a term or abbreviation, look in either of the first two chapters. In Chapter 1, Operational Terms, many of the entries include a cross-reference at the end of the definition that gives you a page number in the filed manual that shows the applicable symbol for the term. Also, most of the symbols throughout the field manual have a cross reference to the page in Chapter 1 that explains or defines the term associated with the symbol. In the electronic version, clicking on the cross reference takes you directly to the pertinent page.

You should complete this workbook before the beginning of the Graphics and Overlays block of instruction.

Your goal upon completion of this workbook should be a better understanding of FM 1-02 and how it can be used to provide you with the information you need to replicate any graphic symbol on an overlay. You will need this knowledge to successfully complete the Graphics and Overlays Examination.

Identify the components of a military symbol **Reference page** _____



SH 2-3

Indicate the affiliation in the left hand column.

Reference page _____

Dimension → / Affiliation ↓	Land			Sea Surface	Sub Surface	Air & Space	Unknown
	Units	Equipment	Instal-lations				
							N/A
	?	?	?	?	?	?	N/A
							N/A
	?	?	?	?	?	?	N/A
							N/A
							U
	?	?	?	?	?	?	U ?

SH 2-4

Reference page _____

Indicate the status.

Status	Friendly			Hostile	Neutral	Unknown
	Unit	Equipment	Installation			

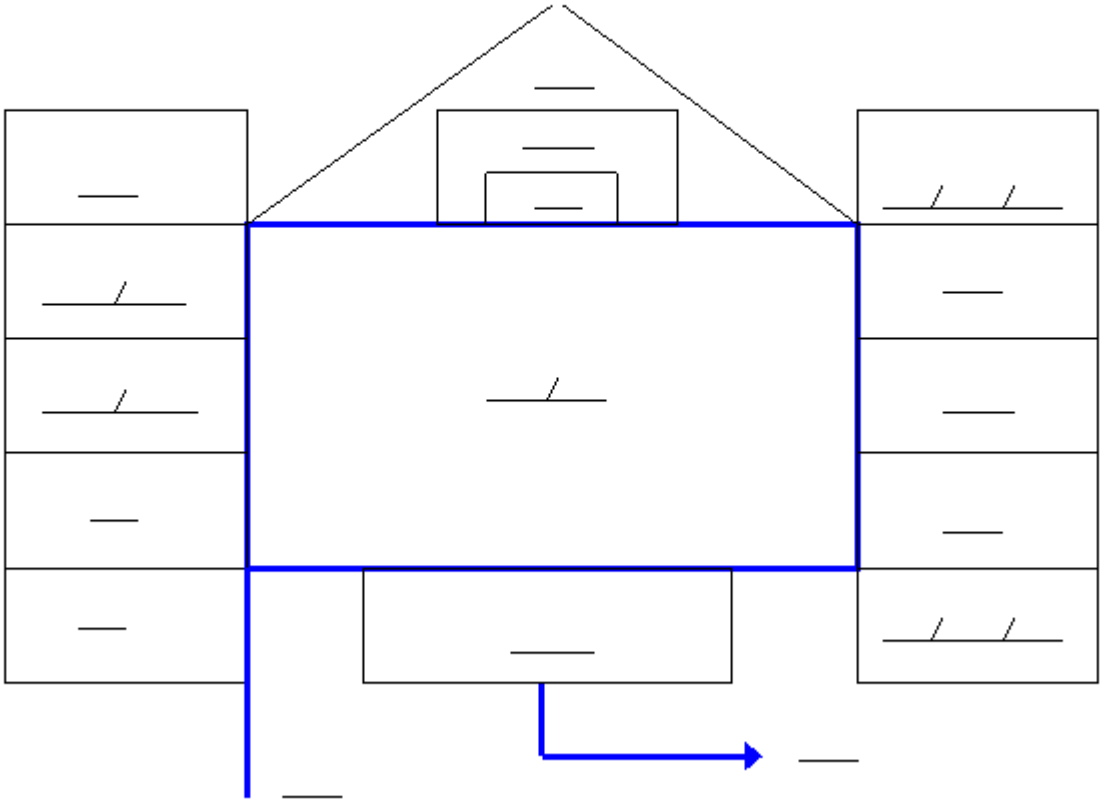
SH 2-5

Reference page _____

Indicate the color defaults for unit symbols

Affiliation	***Hand-Drawn***	***Computer-Generated***
Friend, Assumed Friend		
Hostile, Suspect		
Neutral		
Unknown, Pending		

Fill in the unit symbol modifier fields. Reference Page _____



SH 2-7

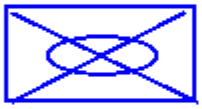
- Field A, Basic branch or functional symbol (table 5-3, page 5-6) that can include capability modifiers (table 5-4, page 5-26).

Identify the Branch and functional symbols.

_____

_____

_____



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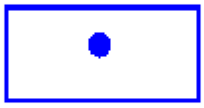

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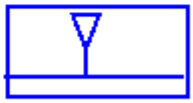
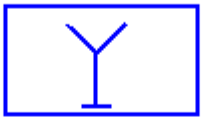


_____

SH 2-9

Name these mobility indicators.

_____



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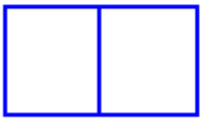

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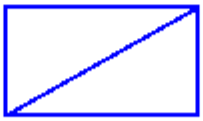
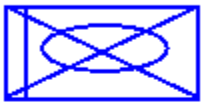


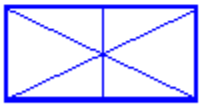
_____

_____

SH 2-10

Name these units:



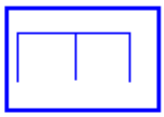


SH 2-11

Name these units.

_____

_____



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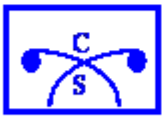

_____

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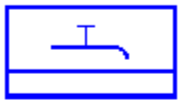
SH 2-12

Identify these units.

_____

_____



_____

_____

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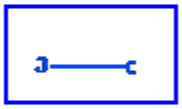
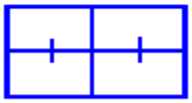


_____



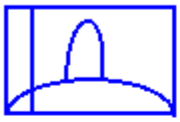
_____

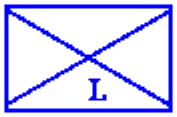
_____

_____

SH 2-13

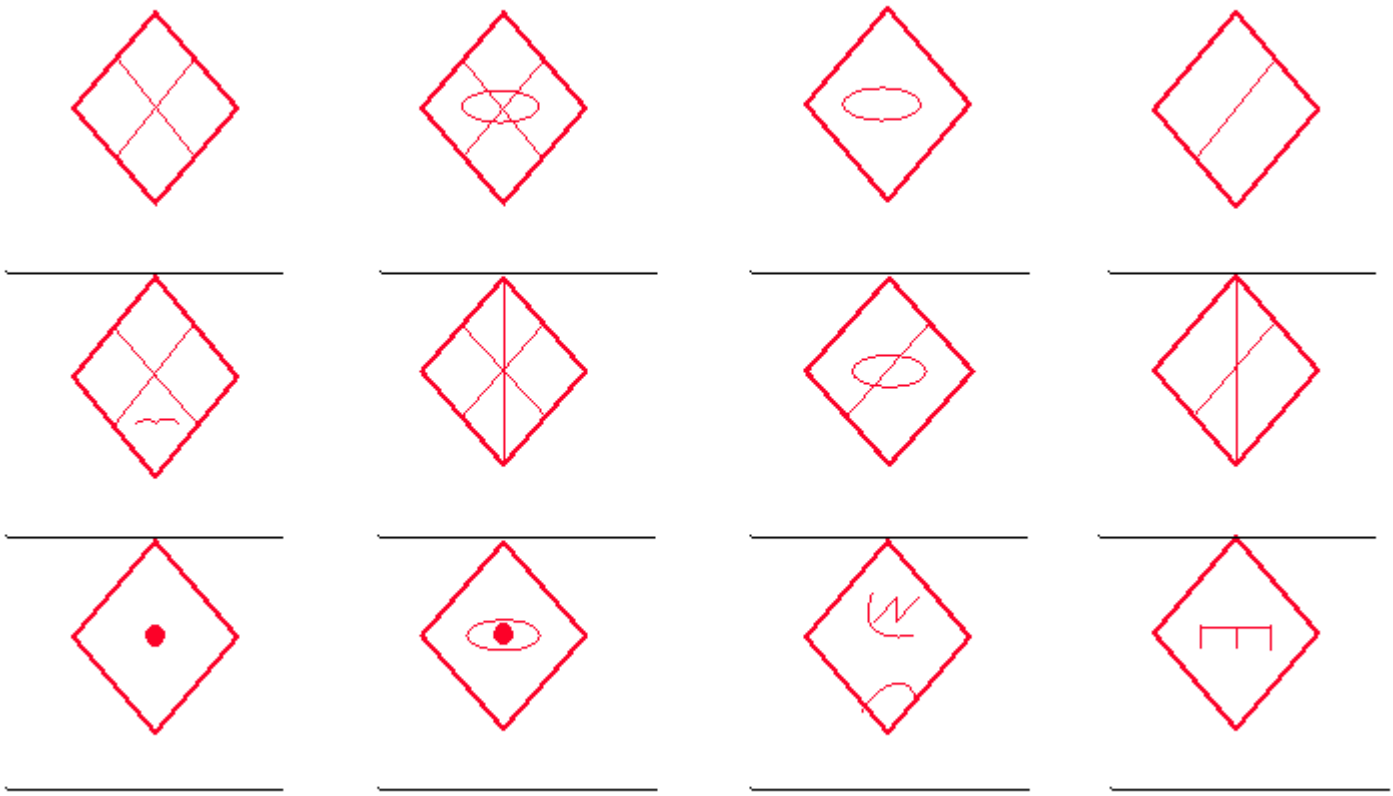
Identify these units.





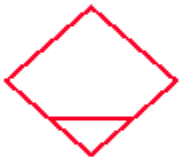
SH 2-14

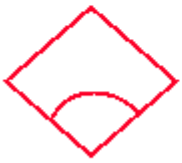
Identify the following units..



SH 2-15

Identify the following units.:





SH 2-16

- Field B, Echelon: A symbol modifier that denotes the size of a unit.

We use the following symbols to show the size of units below Company level. These sizes are:

∅	Represents a _____
●	Represents a _____
● ●	Represents a _____
● ● ●	Represents a _____

We use vertical lines to represent the size of units from Company to Regimental/Group level. These sizes are:

|	Represents a _____
| |	Represents a _____
| | |	Represents a _____

What is the reference page in FM 1-02? _____

SH 2-18

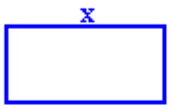
We use X's to represent the size of Brigade thru _____ Units.

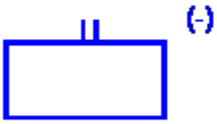
Annotate below which unit size is depicted:

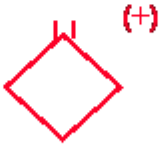
SYMBOL	UNIT SIZE
X	_____
XX	_____
XXX	_____
XXXX	_____
XXXXX	_____
XXXXXX	_____

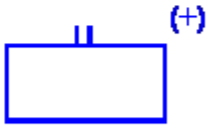
SH 2-19

Indicate the unit size.









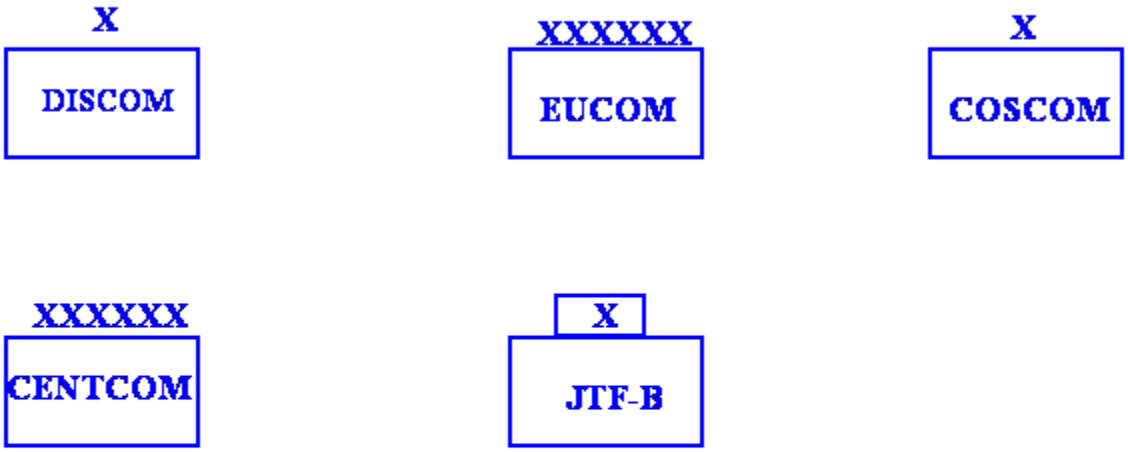
SH 2-20

Draw the correct field Alpha, Bravo, Delta, and Tango entries for the symbols below:

1st Plt Airborne IN	Company Team A, Air Assault IN	1st Section Bicycle Equipped IN	Company-sized Medical Treatment Facility
1-79 IN (M) (B)	2-66 IN Mountain	Recon Platoon	3rd Squad, 1st Plt, A Co 7-10 ACR
ADA Team	A Battery SP Artillery	TF 1-4 Armor	GSR Team

SH 2-21

Field AA, Named commands.



SH 2-22

What do the following symbols represent and what is the reference page in FM 1-02? _____

Answers:

_____ _____ _____ _____

_____ _____ _____ _____

SH 2-23

Add the graphic modifier to designate the unit as a headquarters

Add the graphic modifier used to designate the offset location of the unit

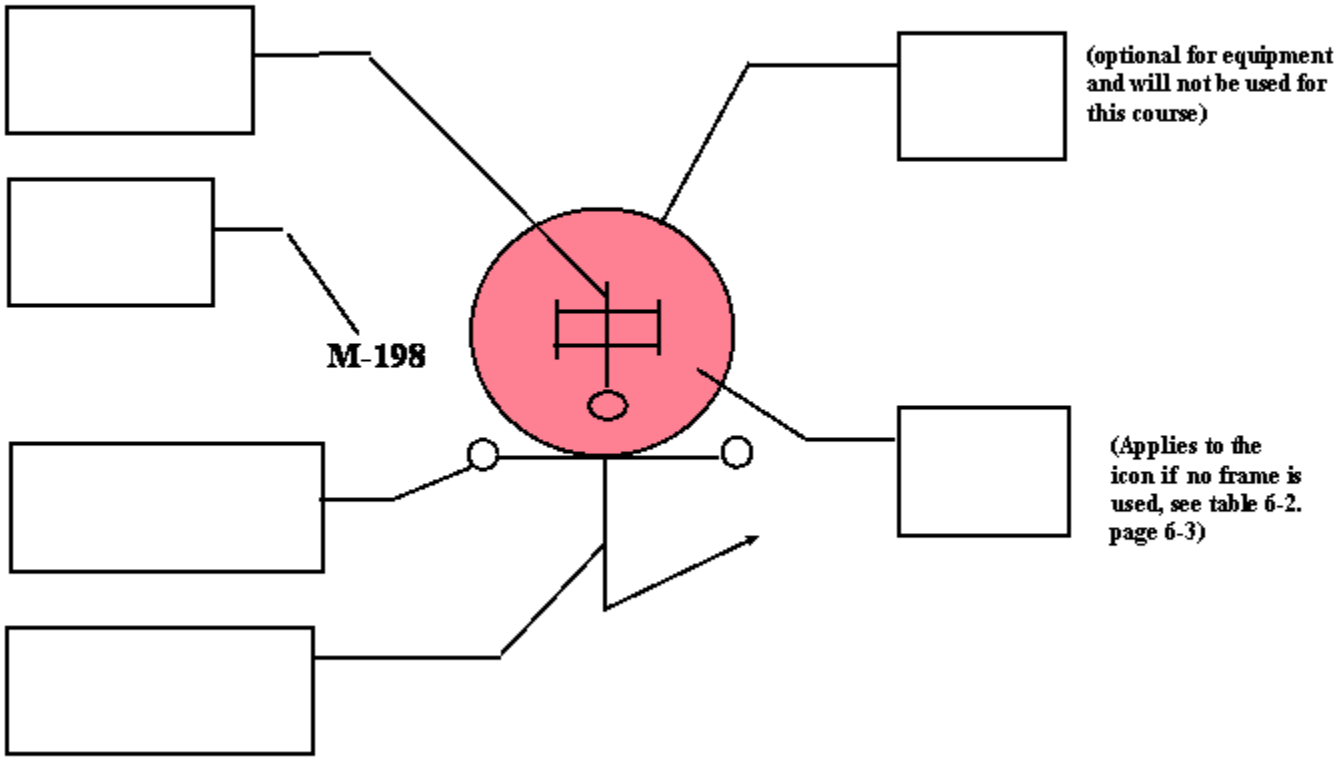
Add the graphic modifier to designate the direction of movement of the headquarters

Add the graphic modifier to designate the direction of movement of the unit

SH 2-24

Annotate the equipment symbol components.

Reference page _____



SH 2-25

Graphic Control Measures

- Pages 7-1 through 7-71 of FM 1-02 concern graphic control measures.

Another step in Graphics is the posting of lateral boundaries between units. A boundary is a control measure normally drawn along identifiable terrain features and used to outline areas of tactical responsibility for subordinate units.

Lateral boundaries - are control measures that define the left and right limits of a unit's zone of action or sector. Together with rear and forward boundaries and a coordinating altitude, lateral boundaries define the area of operations for a commander. Label lateral boundaries to reflect available information to achieve clarity. Authorized abbreviations are provided in table 7-2, page 7-5. Figure 7-1, page 7-2 and table 7-1, page 7-3 define required fields for boundaries.

25 ID
XX
122 SIB (M)

LATERAL Boundary between 25th IN Div and 122d IN BDE (SEP) (M)

10 ID (M)
XX
25 ID (L)

LATERAL Boundary between 10th IN Div (M) and 25th IN Div (L)

TM A
B

LATERAL Boundary between Company Team A and Company B, TF 1-5 AR

TF 1-5 (AR)
3-15 IN (M)

LATERAL Boundary between TF 1-5 AR and 3-15 IN (M)

D
B

LATERAL Boundary between Company D and Company B

TF 1-5 (AR)
2 BDE (AR)

REAR Boundary between TF 1-5 AR and 2 BDE AR

SH 2-27

Label each boundary in accordance with the provided information. For this exercise, place the first unit to the north and the second unit to the south, consider the top of the page as north.

Rear Boundary between 1st BDE IN (M) and 3d IN Div (M) _____ _____

Lateral Boundary between X Corps (US) and 1st Armor Div (UK) _____ _____

Lateral Boundary between 52d IN Div (M) and 54th IN Div _____ _____

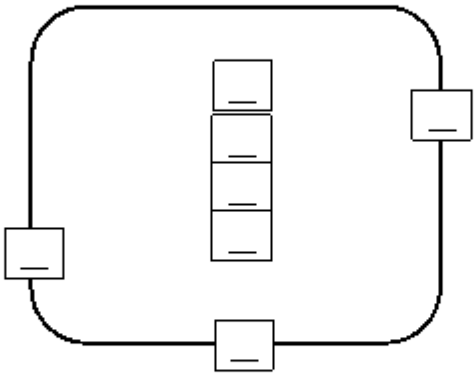
Rear Boundary between B Company and TF 1-79 IN (M) _____ _____

Lateral Boundary between Company Team F and Company Team B _____ _____

Rear Boundary between 3d BDE Mech and TF 1-4 Armor _____ _____

SH 2-28

List the reference page and identify the fields for an **Area**. Ref page:_____

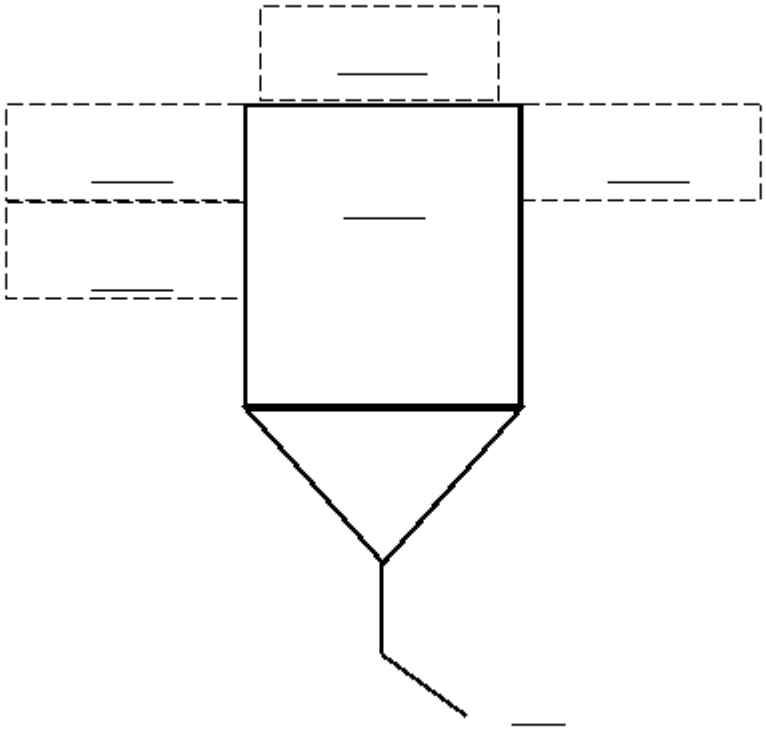


Identify the required alphanumeric characters for field Whiskey, (DTG).

_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____

SH 2-29

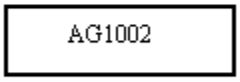
Identify the fields for a point.

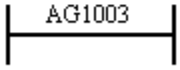


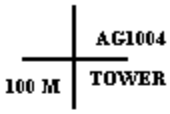
What is the reference page for the above information? _____

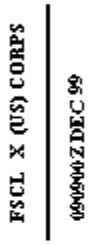
SH 2-30

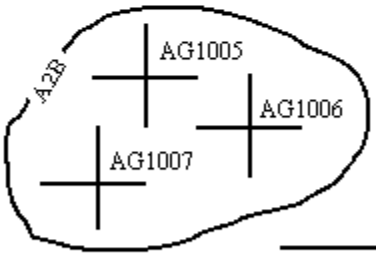
Identify the following symbology and reference page for each symbol.





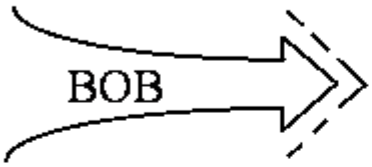


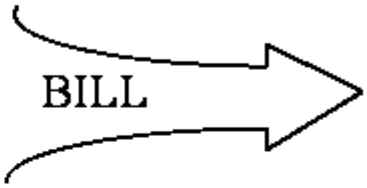


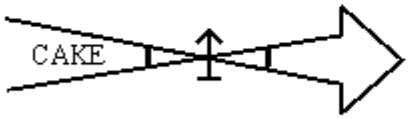


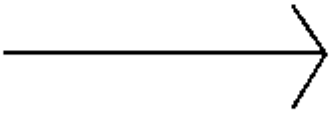
SH 2-31

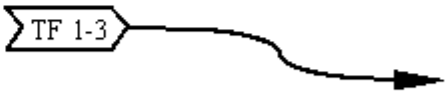
Identify the following symbols and the reference page for each.





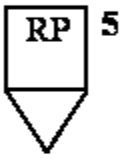


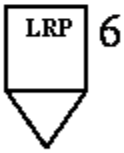




SH 2-32

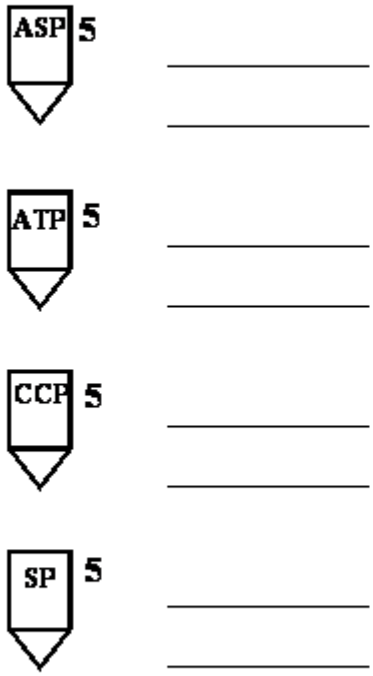
Identify the following symbols and the reference page for each.

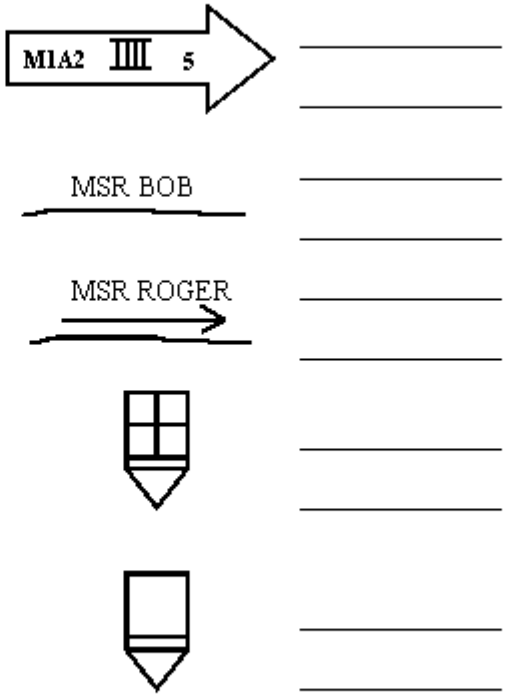




SH 2-33

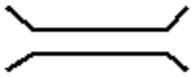
Identify the following CSS symbology and reference page using Chapter 7.:





SH 2-34

Identify the following Mobility and Survivability Symbology and the reference page as identified in Chapter 7. :



SH 2-35

Student Handout 3

Graphics and Overlays

Standing Operating Procedure

1. General

This document provides a standing operating procedure (SOP) for instructors and students of the Battle Staff Noncommissioned Officers Course lesson W125 Graphics and Overlays. It establishes specific rules for drawing graphics for practical exercises and exams of this lesson only. It provides a rubric that instructors will use for grading.

2. Purpose

This SOP replicates the unit SOP in establishing specific rules geared toward the unit's particular mission and the commander's guidance. As a battle staff NCO would be required to adhere to written unit policies and procedures, the BSNCOC student will be required to adhere to this SOP.

3. Military Symbol Drawing Standards

a) Unit Symbols

1) Draw all friendly unit symbols in blue, including all text or graphic modifiers. Friendly unit symbol frames will conform to the dimensions of Label E, Table 1. Complete Fields A, B, and T for all friendly unit symbols. Fill in conditional fields AA, AH, D, E, F, Q, and S when the condition exists. Non-organic units displayed on the overlay require data in Field M. Non-USA units require field AC. Use block capital letters for all text.

2) Draw all enemy unit symbols in red, including all text or graphic modifiers. Enemy unit symbol frames will conform to the dimensions of Label K, Table 1. Complete Fields A, AC, B, and T for all enemy unit symbols when the information is known. Fill in conditional fields AA, AH, D, E, F, Q, and S when the condition exists. See FM 1-02, Table 5-2 for field descriptions.

3) Don't use field T for scout or mortar platoons. Any unit conducting a "Screen", "Guard", or "Cover" mission (except Scout Platoons and Mortar Platoons) will have field Tango filled in.

4) Staffs and extensions will not cross each other.

b) Equipment Symbols

1) Draw all friendly equipment symbols, including text and graphic modifiers, in blue. Text will not exceed one-third the size of the symbol.

2) Draw all enemy equipment symbols, including text and graphic modifiers, in red. Text will not exceed one-third the size of the symbol.

3) Equipment symbol dimensions will conform to Label G, Table 1.

4) Use size and range indicators for equipment only when the terms "Light/Medium/Heavy" or Short/Medium/Long" appear in the equipment name or description within the practical exercise or exam.

5) Field A is required. Use fields C, T, Q, R, T, and V when known. For field descriptions, refer to FM 1-02, Table 6-3.

c) Graphic Control Measures

1) Draw all friendly graphic control measures, including text or graphic modifiers, in black. Text will be easily readable, block capital letters or block numbers, and the size will not exceed 5 mm.

2) Draw all enemy graphic control measures, including text or graphic modifiers, in red. Text will be easily readable, block capital letters or block numbers, and the size will not exceed 5 mm.

3) Boundaries. Text will be easily readable, block capital letters or block numbers, and the size will not exceed 5 mm. For north-south boundaries, draw the echelon indicators perpendicular to the boundaries. For east-west boundaries, draw the echelon indicators parallel to the boundaries. Brigades that are from the same division that share a boundary, use only the brigade numbers (1, 2, etc.) to identify the boundary. The same applies to battalions (1, 2, etc.) and companies (A, B, etc.). Identify divisional boundaries using the Arabic numeral and the abbreviation from FM 1-02, Table 7-2. For Corps boundaries, use Roman numerals and the word “CORPS” in capital letters.

4) Phase Lines and Control Measures. The unique designation of the control measure will be on the enemy side of the line at both ends, following the curve or flow of the line. The date-time group will be stacked on the friendly side of the control measure on both ends. If the control measure is also a phase line, center the phase line name outside of the control measure on both ends written in the same direction. All phase line and control measure text must be readable left to right with the map turned to face the enemy direction. Enemy phase lines and control measures will be oriented to the friendly units. See Figures 7-6 and 7-7 of FM 1-02. In addition, to the above, FSCL, CFL, and RFL unique names will include the unit identification in field T. See FM 1-02, Table 7-12, page 7-36.

5) Fire Support Control Areas. Place the abbreviation for the area, the abbreviation of the owning unit, and the DTG for the control within the area boundaries. For NFA, draw diagonal lines northwest to southeast. The lines will not touch the text inside the area. See FM 1-02, Table 7-12, page 7-37.

6) Axis of Advance. The arrow of the axis of advance will conform to the dimensions of Label H, Table 1. The tip of the arrow will touch the objective. The arms of the axis will follow a slightly curved line to the beginning point of the attack. If the beginning point is a line of departure, (directions state, “Attack from sector”): the arms will end just shy of the line; the width of the arms will expand to include the entire sector just shy of the lateral boundary lines. If the beginning point is an area, (directions state attack from position or area): the lines will extend to just shy of touching the area, the width of the arms will be as wide as the area. Print the name of the axis, if provided, left to right within the axis in block capital letters not to exceed 5 mm high.

7) Direction of Attack. The arrow of the direction of attack will conform to the dimensions of Label H, Table 1. A direction of attack, if directed toward a specific objective, will touch the outline of the objective.

8) Points. Draw points to conform to the dimensions of Labels A and B, Table 1. Use Field A for the point name abbreviation or the appropriate symbol. Use field T on the upper right of the point for numbering the point (if provided) or identifying the owning unit. If you rotate the point, orient the labeling according to the rotation. If you use an extension for the location of the point, you may not rotate the point.

9) Mobility/Countermobility/Survivability. Obstacles: draw all obstacles in green. Use field N to designate all enemy obstacles. Obstacle effects: The bypass symbol arrows point toward the friendly unit performing the mission. All other obstacle effects symbols are oriented toward the enemy.

Graphics Template

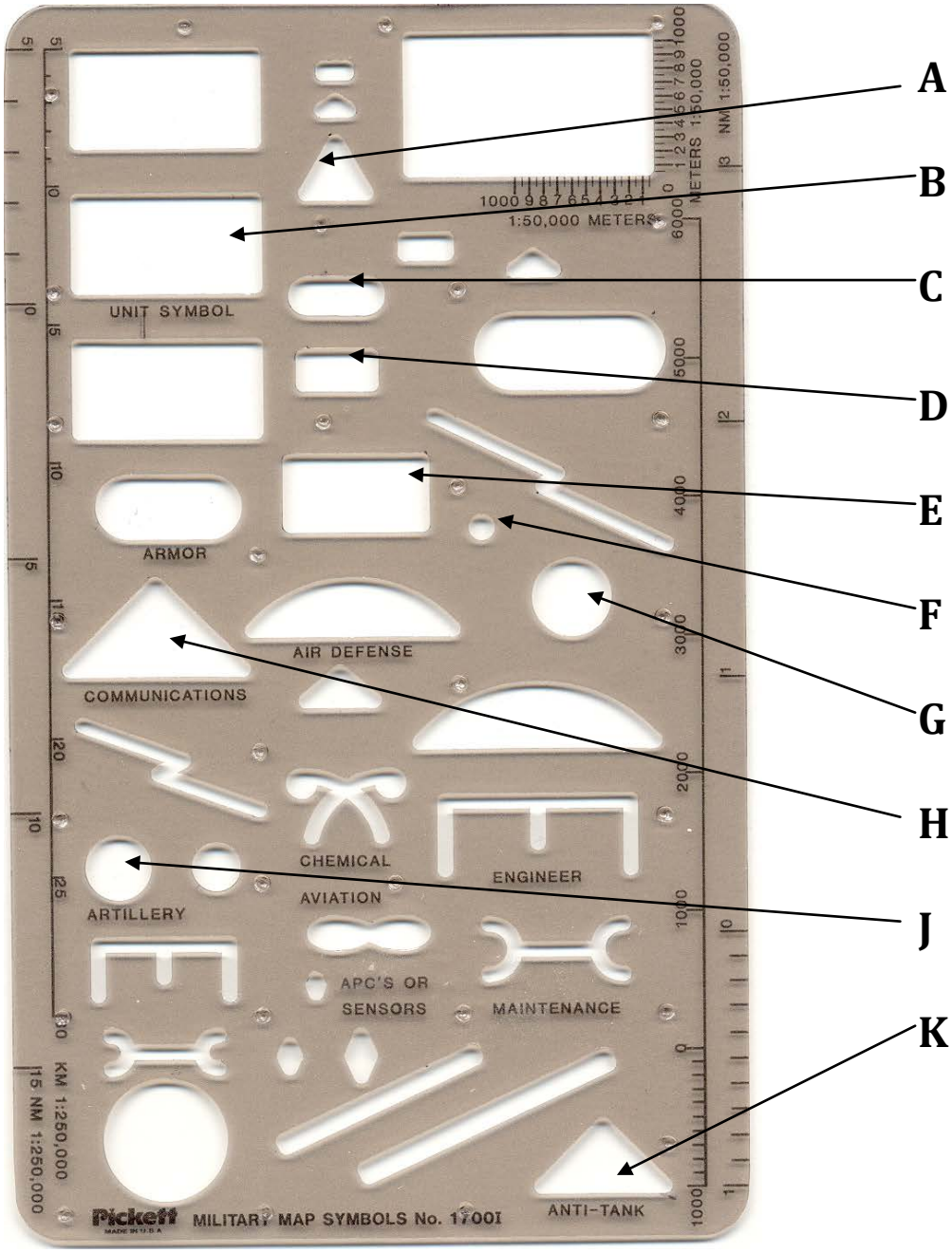
The student is not limited to a particular brand of template to use for drawing symbols. However, all symbols and lines that do not require the student to follow a terrain feature, object, or area, will be drawn with a template.

Table A, Standard Symbol Dimensions for Meters 1:50,000 Map Overlays, lists standard dimensions that the students will adhere to when drawing standard symbols. Figure 1, Military Map Symbols Template, identifies the areas of a military map symbols template that students may use to draw the symbols to the required dimensions.

Table A. Standard Symbol Dimensions for Meters 1:50,000 Map Overlays

Figure 1 Label	Symbol	How Used	Dimensions
A	Point	Use two sides of the triangle to draw the base (anchor) of the point	10 mm isosceles triangle
B	Point	Use the short side of the rectangle to draw the parallel sides of the point.	14 mm length x 2
C	Armor icon	Use it to draw the armor icon inside of unit symbols.	14 mm wide, 6 mm high
D	Task Force	Use the short side of the rectangle to draw two parallel sides and top of the symbol	6 mm square without bottom.
E	Friendly Unit Frame	Use it to draw all friendly unit frames	20 mm x 11 mm
F	Artillery Ball Icon, Echelon symbol	Use it to draw the Artillery Ball Icon, must be filled. Use to draw the squad, section, and platoon echelon symbols, must be filled	3 mm diameter
G	Coordination Point, Air Control Point, Size limit for equipment symbols	Use it to draw the coordination point, must be finished with a cross in the middle. Use it to draw the air control point. Use it to control the size of equipment symbols. DO NOT draw a circle around the equipment.	11 mm diameter
H	Axis of Attack Symbol, Direction of Attack Symbol	Use it to draw the arrow of the main and supporting axis of advance. Use it to draw the direction of attack arrow.	Perpendicular lines, 27 mm at widest point, 19 mm length each side
J	GSR Symbol	Use it to draw the arc of the Ground Surveillance Radar icon. One-third of the circle forms the arc.	One-third of 9 mm diameter circle
K	Enemy Unit Frame	To draw the diamond, use the perpendicular sides of the triangle to draw the top half, flip it over and draw the bottom half.	9 mm square diamond

Figure 1, Military Map Symbols Template



Student Handout 4

Graphics and Overlays Quick Reference Checklist (Verified)

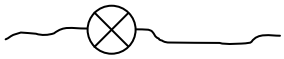
Assuming you plotted your grid coordinates correctly (plot twice and draw once) here are some tips on reviewing the rest of your work for correctness and completeness. This list should not be viewed as a comprehensive and/or all encompassing. Keep all notes, handouts, PEs, and references handy for more complete explanations. Recommend that you write the reference next to each of these graphics as you go through the W125 lesson for later purposes.

GENERAL RULES:

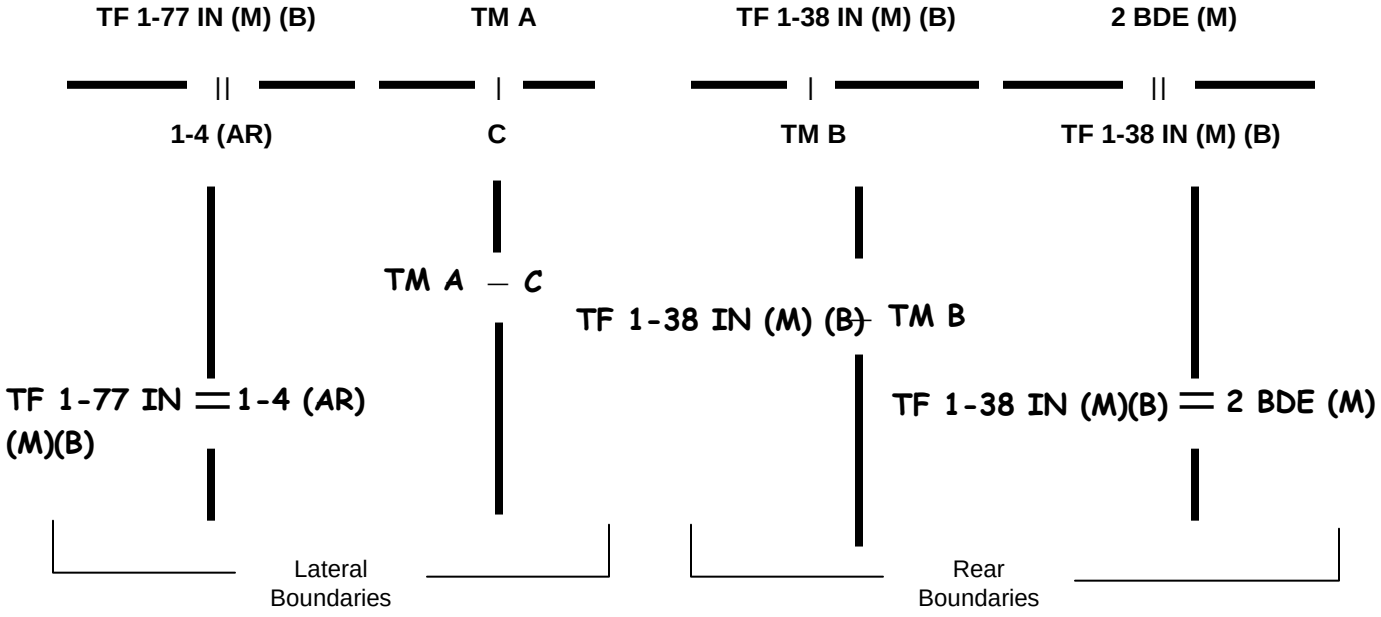
- ☑ Labels must be written in black, all CAPS, and will not touch anything.
- ☑ Size indicators (with the exception of PLATOONS and below) and TF/TM "dog houses" <u>must</u> touch unit designation frames.
- ☑ Do not make stray marks or leave reference marks (e.g. centerline marks for axis)
- ☑ Turn phase line names, LD/LC, and FEBA labels 90° so they can be read from the friendly point of view.
- ☑ Fire control measures (CFL, FSCL, etc.) will be written starting from one side and following the contour of the designated phase line with the measure identifier and unit on the enemy side of the line and the date time group(s) on the friendly. LDs and LD/LCs will be written in the same fashion with the identifier on the enemy side.
- ☑ Only plot and draw the graphics and measures given! Do not assume such things as FEBAs, coordination points and rear boundaries unless specifically listed in the directions.
- ☑ Proposed, planned, or on order unit graphics/areas are always drawn with dashed lines.

<u>SET UP:</u> Place the classification (all **CAPs**) at top and bottom, centered; Registration marks in correct positions* with numbers towards the outside.

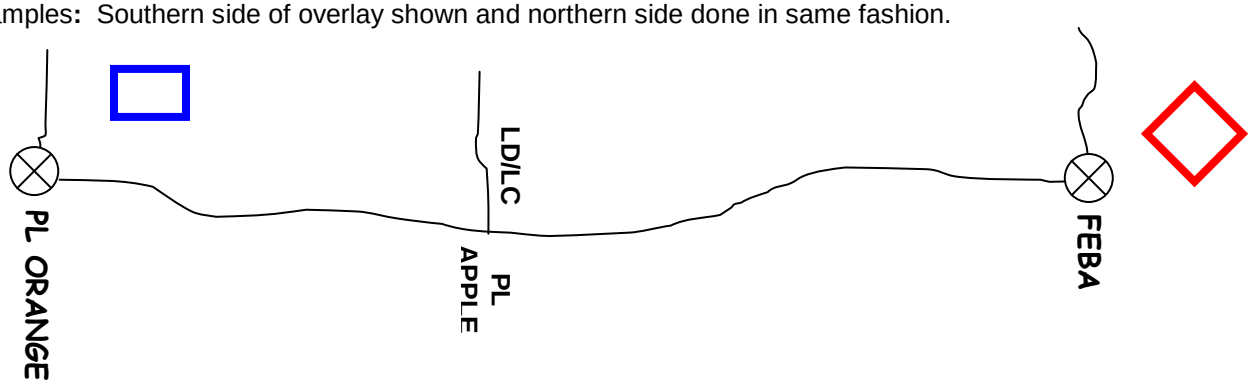
<u>COORDINATION POINTS:</u> Drawn in black, correct number of them*; with no boundaries or phase lines in contact with X portion graphic. Example:



<u>BOUNDARIES:</u> Drawn in black, correct number of them and labeled appropriately by type**. LATERAL Boundaries take on common size indicator (if under same command) or size indicator of common higher echelon of the two. REAR boundaries take on size indicator of the subordinate (lower) element. Labels must be readable from left to right while map/overlay is oriented north. Examples:



Examples**:** Southern side of overlay shown and northern side done in same fashion.

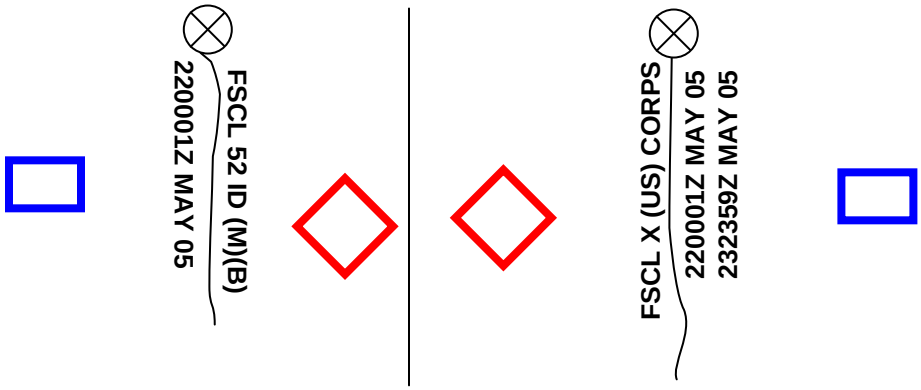


<u>Obstacles</u>: Draw all obstacles in green and if date is required write DTG in green also. If emplaced by enemy place **EN** on both sides of obstacle.

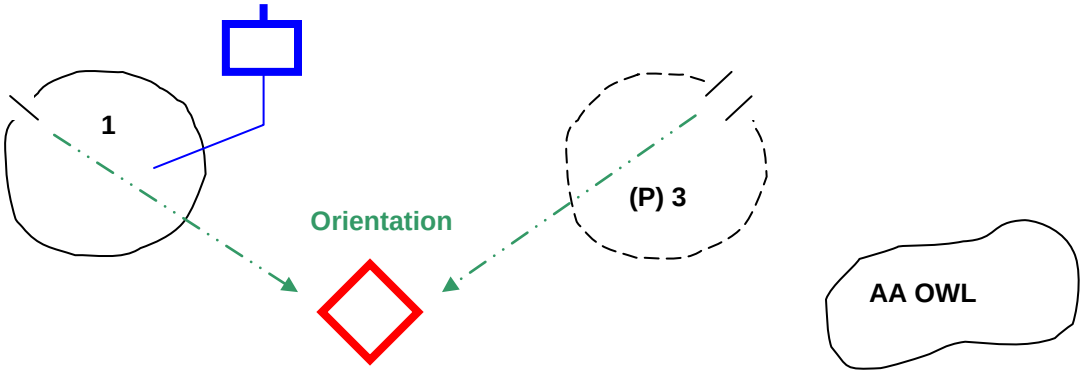
Example: **020900ZOCT10.**

<u>FIRE SUPPORT/CONTROL MEASURES:</u> Properly indicated** using complete DTGs.

Examples: <u>1.</u> <u>2.</u>



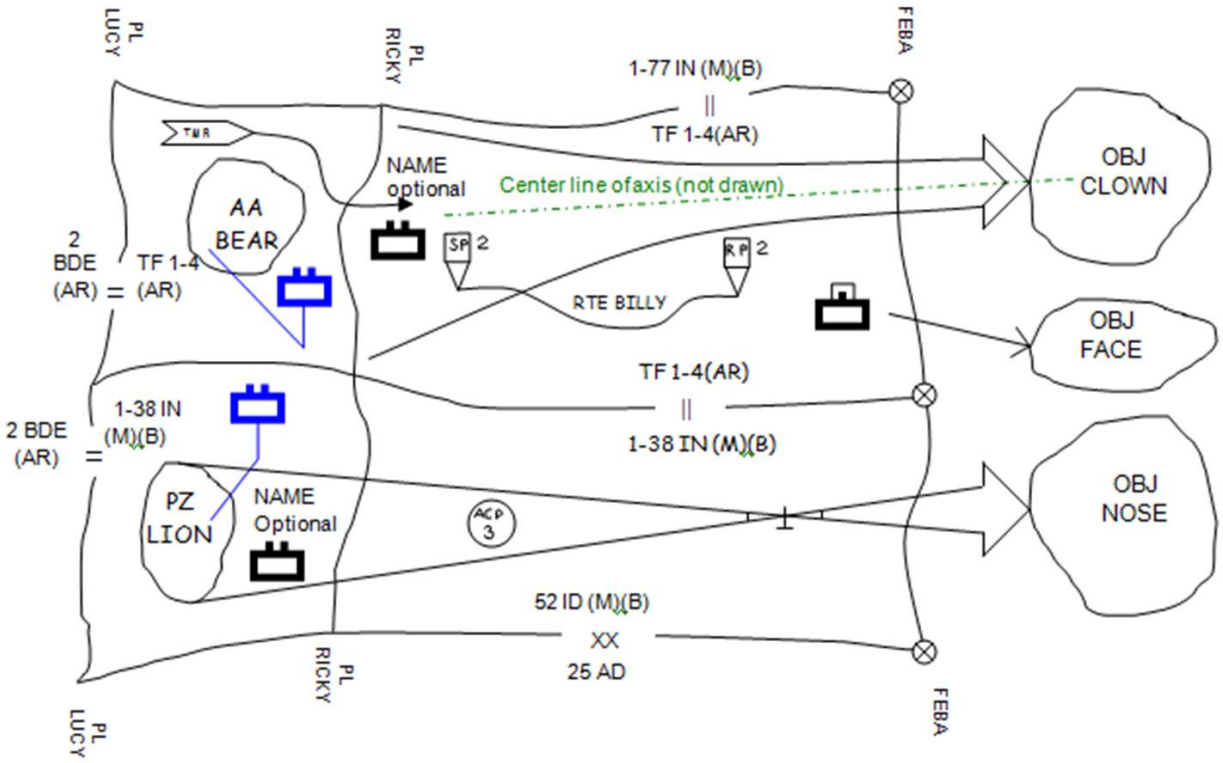
<u>AREAS:</u> Drawn in black, apply rounding technique; areas will not touch or cross boundaries or phase lines; label using distinctive indicator (e.g. ATK, PZ, AA, OBJ, etc.) along with name, number or letter; <u>exception</u>, do not indicate a battle position with "BP" use only its name, number or letter and correct size indicator; use **(P)** to indicate that a battle position is prepared; place size indicator on battle position's rear side, and orient it across the battle position, pointing in the direction of the position/location given*.



MOVEMENTS:

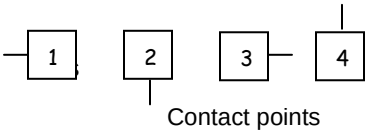
- Friendly drawn in black; enemy drawn in red.
- Main axis must be double-headed, use the correct symbol/stencil triangle.
- Axis of Advance (Ground).
    - tip of axis arrow must touch OBJ where given center line of axis intersects with OBJ
    - tails **will not touch** designated rear line of departure or departing phase line
    - tails **will touch** outer edges of designated departing areas (i.e. ATKs, LZs, PZs)
    - place designated unit icon (drawn in black or name) within the tail of the axis unless axis departs from an area (i.e. LZ, PZ, ATK) where unit icon is already located and no other unit is in the area
- Axis of Advance (aerial) same as ground with the following additions:
    - axis must encompass aviation control measures (e.g. ACPs)
    - indicate type of aircraft on axis**
- Supporting attack arrows must touch OBJ and come from direction of RPs
    - Place designated unit icon (drawn in black) at tail of arrow
- Follow on support mission routes must not touch any areas, the indicating arrow must cross into and terminate just within the appropriate axis of advance*
- Routes will be properly labeled along their paths, example: **RTE COWBOY**
- SPs and RPs will be placed at the beginning and end of routes. They may also have an extension. If an extension is used it will not follow the route or another road. Points must be properly labeled**.
- Unit symbol must be in the axis of advance the name is optional additional information. A feint must have the name and no unit symbol.

Example of movement graphics:

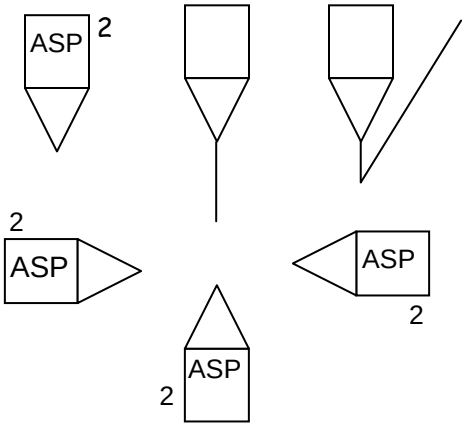


POINTS: Drawn in black, properly labeled**; contact points cannot be extended or staffed beyond the graphic itself but can be turned.

Examples of points:

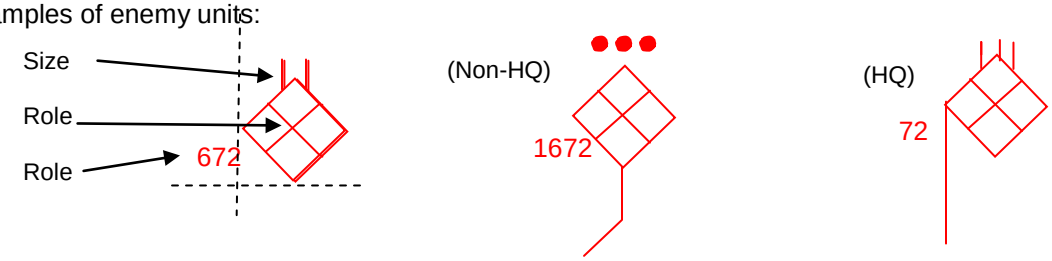


Note: <u>All other</u> points; careful to turn these types use extensions.



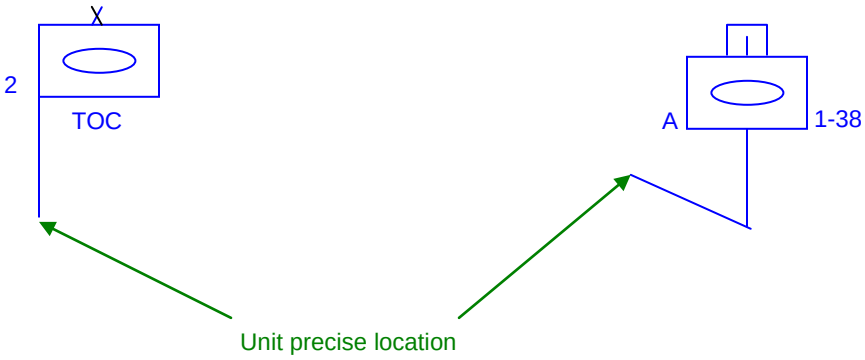
ENEMY UNITS: Drawn in red using the correct role and size indicator**, unit ID designation on bottom left side of graphic, even with bottom and not extending under left side.

Examples of enemy units:



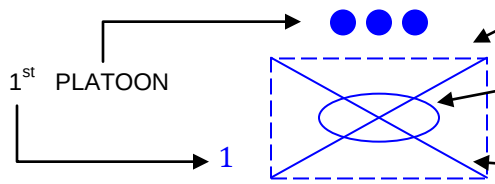
FRIENDLY UNITS: Drawn in blue, correct number/type as given*; ensure: correct size/role indicator, correct unit identification, and staff or extend appropriately. **All headquarters (CP) units must be staffed**.

Examples of friendly units:



FRIENDLY UNITS (cont.): Screen, guard and cover mission lightning arrows (bolts) must mirror each other and arrow tips must touch coordinating points, boundaries, or the corners made by boundaries and phase lines.

Example unit icon
with explanation



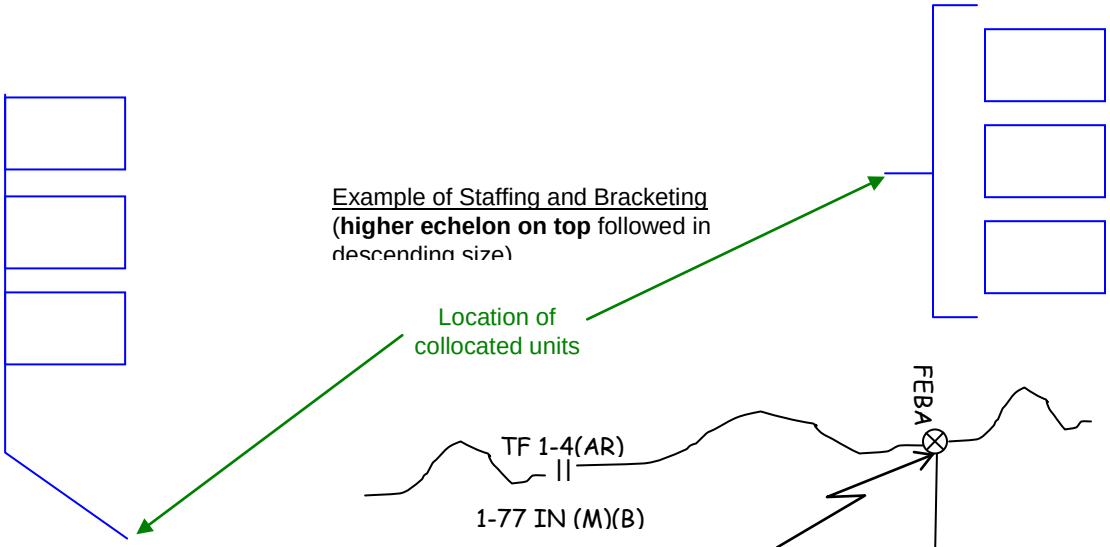
Planned, proposed, or on order unit location. (Note corners are solid.)

Track

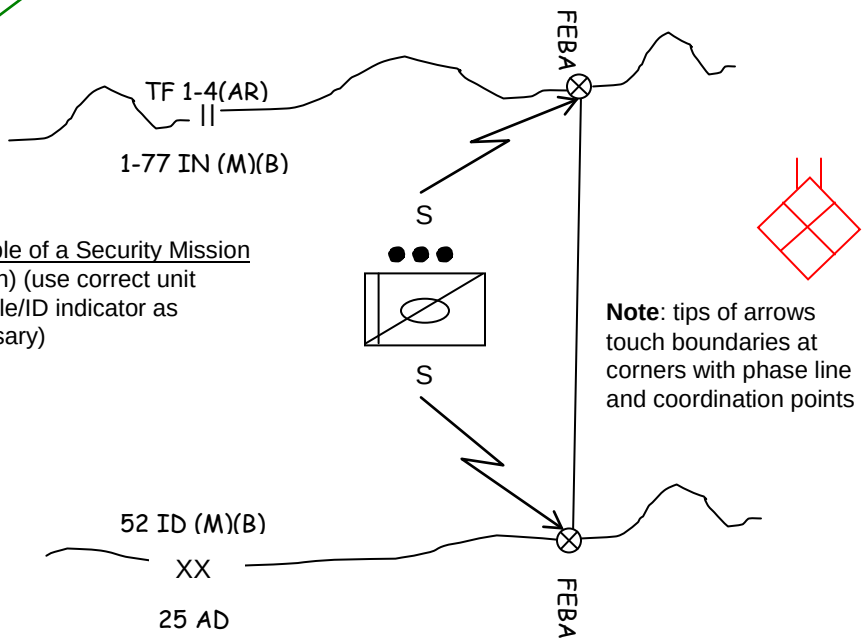
Mechanized

Infantry

Example of Staffing and Bracketing
(**higher echelon on top** followed in descending size)



Example of a Security Mission
(screen) (use correct unit size/role/ID indicator as necessary)

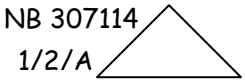


Note: tips of arrows touch boundaries at corners with phase line and coordination points

Example of an OP

Must give grid if offset.

Designate unit down from higher echelon's boundary area.



Cannot be extended

Explanation: This OP is 1st Sqd, 2nd Plt, Co A, 1-79 IN (M)(B) in 1-79 IN (M)(B)'s area.

Student Handout 5

Doctrinal Update 1-08, 28 March 2008

Pages 2, 3, 5, 9 and 10

The purpose for this handout is to provide the student with information regarding certain and permanent changes to FM 1-02, dated 21 September w/C1, dated 2 February 2010 and ADRP 6-0, dated 14 Sep 2011 that may or may not have been added to the current FMs. Additionally, support certain discussions during this lesson (W125). Below list significant changes to terms and graphics to FM 1-02 (highlighted in the handout).

Page SH5-2:

Under Chapter 3--

Rescinds support operations and establishes civil support operations conducted only the United States and its territories; add “civil” the term support operations and add note to indicate “only in the U.S. and its territories” in FM 102, page 1-179.

Page SH-5-2 and 5-3:

Under Chapter 4--

Rescinds the tenets of operations; line out complete first sentence in FM 1-02, page D-1 (Introduction paragraph).

Under Chapter 5--

Rescinds the terms deep, close and rear areas; line out these terms and definitions in FM 1-02, Chapter 1.

Under major changes to terms prescribed in FM 3-0, page SH-5-4, Table 4 “Rescinded Army Definitions:

Supports the changes to combat service support and combat support in FM 1-02; corrections in the FM will take place in the class room with the instructor.

Under Symbols for Modular Units and New Capabilities pages SH-5-5 and SH-5-6; points out the new/modified symbols based on the new modular unit and new capabilities that will be demonstrated in class during this lesson. Additionally, how to design wire diagrams.

NOTE:

FM 1-02 will not be republished in paper. It can be accessed at the following link:
<https://akocomm.us.army.mil/usapa/doctrine/DR_pubs/dr_aa/pdf/fm1_0.pdf>

2. **Chapter 1** replaces the dimensions of the operational environment with the variables established in JP 3-0 (political, military, economic, social, information, infrastructure) plus physical environment and time (PMESII-PT). Together, these make up the **operational variables**. The factors of a specific situation bounded by assignment of a mission remain mission, enemy, terrain and weather, troops and support available, time available, civil considerations (METT-TC). Together, these are called the **mission variables**.

3. **Chapter 2** makes the following changes:
   - Establishes the **spectrum of conflict** as a way to describe the level of violence in an operational environment.
   - Establishes **operational themes** as a means to describe the character of the predominant major operation within a land force commander's area of operations. The operational themes also provide a framework for categorizing the various types of operations described in joint doctrine.

4. **Chapter 3** makes the following changes:
   - States the Army's **operational concept** (full spectrum operations) and describes its place in doctrine. The operational concept is—

     Army forces combine offensive, defensive, and stability or civil support operations simultaneously as part of an interdependent joint force to seize, retain, and exploit the initiative, accepting prudent risk to create opportunities to achieve decisive results. They employ synchronized action—lethal and nonlethal—proportional to the mission and informed by a thorough understanding of all variables of the operational environment. Mission command that conveys intent and an appreciation of all aspects of the situation guides the adaptive use of Army forces.

   Note: The wording of the operational concept is different from the wording published in Doctrine Update 1-07 and contained in staffing drafts of FM 3-0.

   - Describes the Army's role in homeland security.
   - Changes the approach to **stability operations**. Stability operations are considered coequal with offensive and defensive operations. They are now discussed in terms of five tactical tasks.
   - Rescinds **support operations** as a type of operation. Establishes **civil support operations** as an element of full spectrum operations conducted only in the United States and its territories.

5. **Chapter 4** makes the following changes:
   - Replaces the **battlefield operating systems** with the **warfighting functions** (movement and maneuver, intelligence, fires, sustainment, command and control, and protection).

   Note: FMI 5-0.1 (2006) established the warfighting functions. FM 3-0 redesignates *fire support* as ***fires***. FM 3-0 also discusses the warfighting functions in the order the corresponding task areas appear in the *Universal Joint Task List*.

   - Retains the fundamental of **combat power**. There are now eight **elements of combat power**: the six warfighting functions tied together by leadership and information.

   Note: FM 3-0 adds *information* as an element of combat power. FMI 5-0.1 (2006) established seven elements of combat power: the six warfighting functions tied together by leadership.

   - Rescinds the *tenets of operations*. The warfighting functions and elements of combat power perform the function of this fundamental.

6. **Chapter 5** makes the following changes:
   - Adopts the joint definition of **command** established in JP 1.
   - Adds *understand* to battle command (described in FM 3-0 [2001] as visualize, describe, direct, assess, and lead).
   - Rescinds the *operational framework* construct, including its subordinate constructs of *battlespace* and *battlefield organization*. (**Area of operations** is retained.) Retains **decisive**, **shaping**, and **sus-**

taining operations (formerly the purpose-based *battlefield organization*) and **main effort** as ways commanders describe subordinates' actions in the concept of operations.

- Prescribes the term **unassigned area** to designate areas between noncontiguous areas of operations or beyond contiguous areas of operations. The higher headquarters is responsible for controlling unassigned areas in its area of operations.
- Rescinds the terms *deep, close*, and *rear areas*. Uses **close combat** to describe operations in what used to be called the close area.
- Eliminates *linear* and *nonlinear* as ways to describe the array of forces on the ground. Army doctrine now describes force arrays as occupying either contiguous or noncontiguous areas of operations.
- Replaces the term *criteria of success* with the joint terms **measure of effectiveness** and **measure of performance**.

7. **Chapter 6** makes the following changes:
   - Introduces **problem framing** as fundamental to operational art.
   - Incorporates **risk** as an element of operational design.
   - Prescribes the terms **defeat mechanism** and **stability mechanism**. Establishes individual defeat and stability mechanisms.
   - Prescribes the term **line of effort** to replace the term *logical line of operations*.

8. **Chapter 7** makes the following changes:
   - Adds **knowledge management** as a contributor to information superiority.
   - Describes how Army forces use the five information tasks listed in table 1 to shape the operational environment. (This table supersedes the one disseminated in Doctrine Developers Update 1-07.)

Table 1. Army information tasks

Task	*Information Engagement*	*Command and Control Warfare*	*Information Protection*	*Operations Security*	*Military Deception*
Intended Effects	• Inform and educate internal and external publics • Influence the behavior of target audiences	• Degrade, disrupt, destroy, and exploit enemy command and control	• Protect friendly computer networks and communication means	• Deny vital intelligence on friendly forces to hostile collection	• Confuse enemy decision-makers
Capabilities	• Leader and Soldier engagement • Public affairs • Psychological operations • Combat camera • Strategic communication and defense support to public diplomacy	• Physical attack • Electronic attack • Electronic warfare support • Computer network attack • Computer network exploitation	• Information assurance • Computer network defense • Electronic protection	• Operations security • Physical security • Counterintelligence	• Military deception

9. **Chapter 8** describes the strategic and operational reach (formerly known as strategic responsiveness) that have been developed since FM 3-0 (2001) was published. (This chapter was included as an appendix in the staffing drafts of FM 3-0 [2008].)

10. **Appendix A** adds the following joint principles of operations to the principles of war: **perseverance, legitimacy,** and **restraint**.

11. **Appendix B** discusses administrative control (ADCON) and how it applies to tailored and task-organized Army forces. It also explains how headquarters share administrative control.

12. **Appendix C** describes the modular organizations developed since FM 3-0 (2001) was published.

Table 4. Rescinded Army definitions

agility[1]	combat service support[2]	logical lines of operations[4]	protection (Army)[5]
assigned forces[1]	combat support[2]	offensive information operations (Army)	rear area
asymmetry[1]	deep area	operational fires[1]	subordinates' initiative[6]
battlefield organization	defensive information operations (Army)	operational framework	support operations[7]
battlespace	force protection (Army)[3]	operational picture	versatility[1]
close area			
combat arms			

Notes:

[1] Army doctrine will follow joint definitions and common English usage.

[2] Army doctrine will not use this term; joint doctrine will continue to use this term.

[3] Activities incorporated into the protection warfighting function. The Army will NOT use the joint term. See FM 3-10, when published.

[4] Replaced by lines of effort.

[5] Replaced by protection warfighting function. The Army will use the joint definition of protection. See FM 3-10, when published.

[6] Replaced by individual initiative.

[7] Replaced by civil support operations.

USING THE ACRONYM JIIM

14. While FM 3-0 does not use the acronym JIIM, this acronym has been approved for use in Army field manuals. To use it correctly you must understand the context in which it is appropriate. JIIM is an acronym for *joint, interagency, intergovernmental, and multinational*. It is used to describe the categories of organizations with which Army forces operate. Frequently it is used in the context of "the JIIM environment." But note that the acronym does NOT include contractors, nongovernmental organizations (NGOs), and private organizations of any kind. Nor do Army forces conduct "JIIM operations." Army forces, and indeed joint forces, conduct unified action: *The synchronization, coordination, and/or integration of the activities of governmental and nongovernmental entities with military operations to achieve unity of effort*. JIIM is used only as shorthand for a specific set of organizations with which Army forces interact. It represents neither the interaction itself nor a type of operation.

USING ALLIED, COALITION, AND MULTINATIONAL

15. The terms *allied*, *coalition*, and *multinational* are frequently misused.

Allied refers only to formal organizations established by treaties (alliances), for example, the North Atlantic Treaty Organization (NATO). They are permanent, standing organizations.

Coalition refers to ad hoc groupings of nations for a specific task. However, coalitions can include allies (members of an alliance) as well as other countries with which the United States has no formal treaties.

Multinational is an umbrella term that can include both *allied* and *coalition*. It is usually the correct term for anything dealing with multiple international military partners. *Multinational* has replaced the older term of *combined* in almost all usages except within NATO.

Combined and *multinational* both mean the same thing, but *combined* is used today in U.S. Army doctrine only as an adjective for multinational headquarters, such as in *combined joint task force* (CJTF).

FMI 5-0.1 CHANGE PUBLISHED

16. FMI 5-0.1 was produced as an interim manual while FM 3-0 was being developed. The FMI was due to expire on 31 March 2008. Originally CADD planned to let it expire because much of the material it addresses is covered in FM 3-0 (2008). The new FM 3-0 does not, however, go into detail on command post operations and organizing command posts into integrating and functional cells. Neither does it address the rapid decisionmaking and synchronization process. Therefore, a change to FMI 5-0.1 was published on 25 May 2008. The change rescinds doctrine that FM 3-0 has superseded while retaining doctrine FM 3-0 does not address and updating the glossary. This change also removes the expiration date, making FMI 5-0.1 a permanent publication. (The DA policy change making FMIs permanent publications is discussed below.) The remaining material in FMI 5-0.1 will be superseded by FM 5-0, which is being revised and is projected for publication during fiscal year 2009.

Symbols for Modular Units and New Capabilities

37. Army transformation has created new types of organizations (such as combined arms units) and new units within existing functions (such as combat camera within the Signal Corps). Some of these units have required developing new symbols (icons). (See figure 1.)

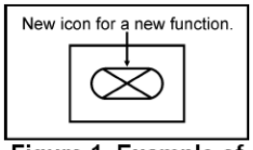


Figure 1. Example of a new unit type

38. In contrast, new units within existing functions have allowed the use of existing symbols with modifiers added to portray new capabilities. (See figure 2.) (FM 1-02, figure 4-1, identifies components of military symbols.)

39. Draw unit symbols in accordance with FM 1-02. The only exceptions to that are the symbols that are shown in table 5. These symbols can be found in FMI 3-01.1, *The Modular Force*.

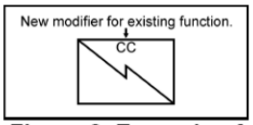


Figure 2. Example of a new unit capability

40. When representing unorthodox units, select the most appropriate symbol contained in FM 1-02. Avoid using any symbols or combinations and modifications of symbols that differ from those in FM 1-02. If, after searching doctrinal icons and modifiers, it is necessary to create a new symbol, explain the symbol in an accompanying legend. Computer-generated systems will have difficulty in passing nonstandard symbols. Therefore, units should limit their use of nondoctrinal symbols to the minimum extent possible.

Table 5. Modular Force Symbols by Function

Function	*Friendly symbol*	*Function*	*Friendly symbol*
Combined Arms		Sustainment	SUST
Headquarters or Headquarters Element		Brigade Special Troops Battalion	BSTB
Maneuver Enhancement		Brigade Support Battalion	BSB
Surveillance		Battlefield Surveillance Brigade	X

Colors of Unit Symbols

41. The only authorized colors and affiliation frame shapes for unit symbols are—

- Blue for friendly in a rectangular shaped frame.
- Red for hostile in a diamond shaped frame.
- Green for neutral in a square shaped frame.
- Yellow for unknown in a quatrefoil (similar to a clover leaf) shaped frame.

42. Avoid using any other colors to show affiliation. If a critical requirement exists to differentiate units of the same affiliation with means other than unit designators and country indicators, use different shades of the appropriate color (for example, different shades of blue for friendly units). However, information systems used to support command and control normally display only the base colors, and the different shades must be manually input into the system when used. Therefore, the best way to differentiate between organizations is with unit designators and country indicators.

43. Do not use branch colors with unit symbols on operational displays. They conflict with colors showing affiliation.

Including Symbols in Figures

44. Figures 3 and 4 show two styles of wiring diagrams. Figure 3 includes frames containing the nomenclatures of the elements portrayed. Figure 4 uses unit symbols to show this information. Both styles are acceptable. However, do not mix the two styles in a single figure. Doing this is confusing. Readers may think that frames containing unit nomenclatures are authorized symbols. In addition, make all frames in a figure the same size.

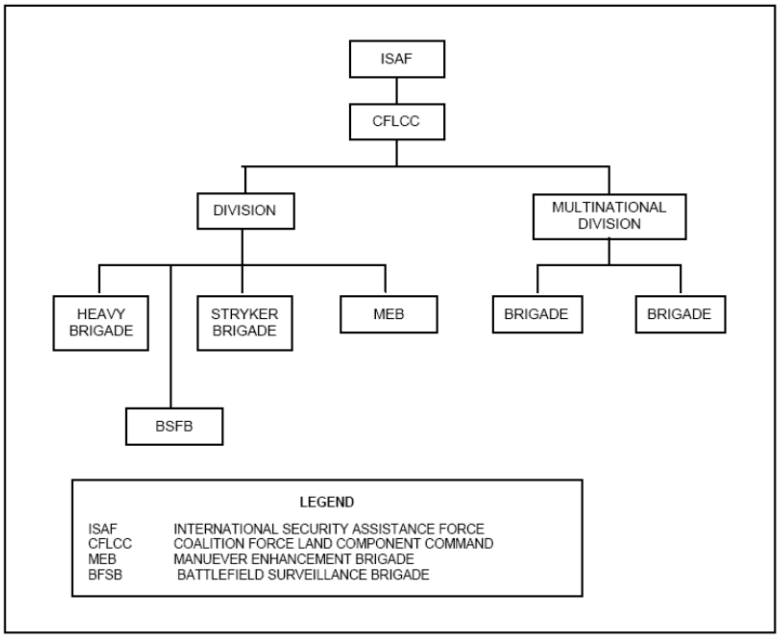


Figure 3. Example wiring diagram without military symbols.

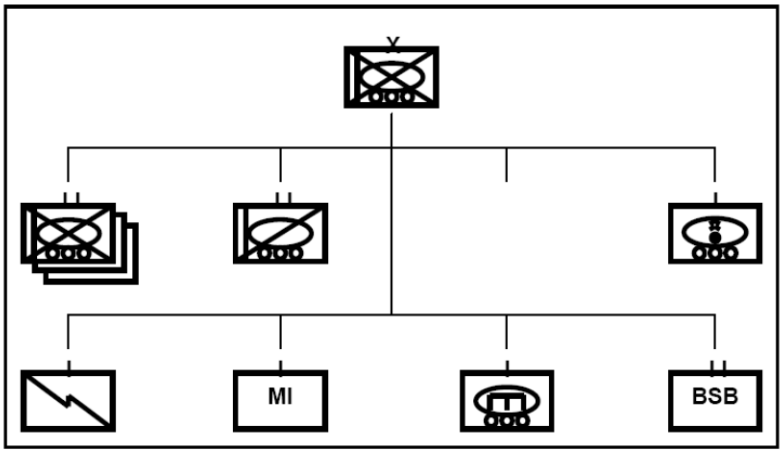


Figure 4. Example wiring diagram using military symbols.

45. Follow the same rule when creating figures to illustrate tactics, techniques, or procedures (for example, a sketch map). Use graphic control measures in accordance with FM 1-02 and proponent publications for the