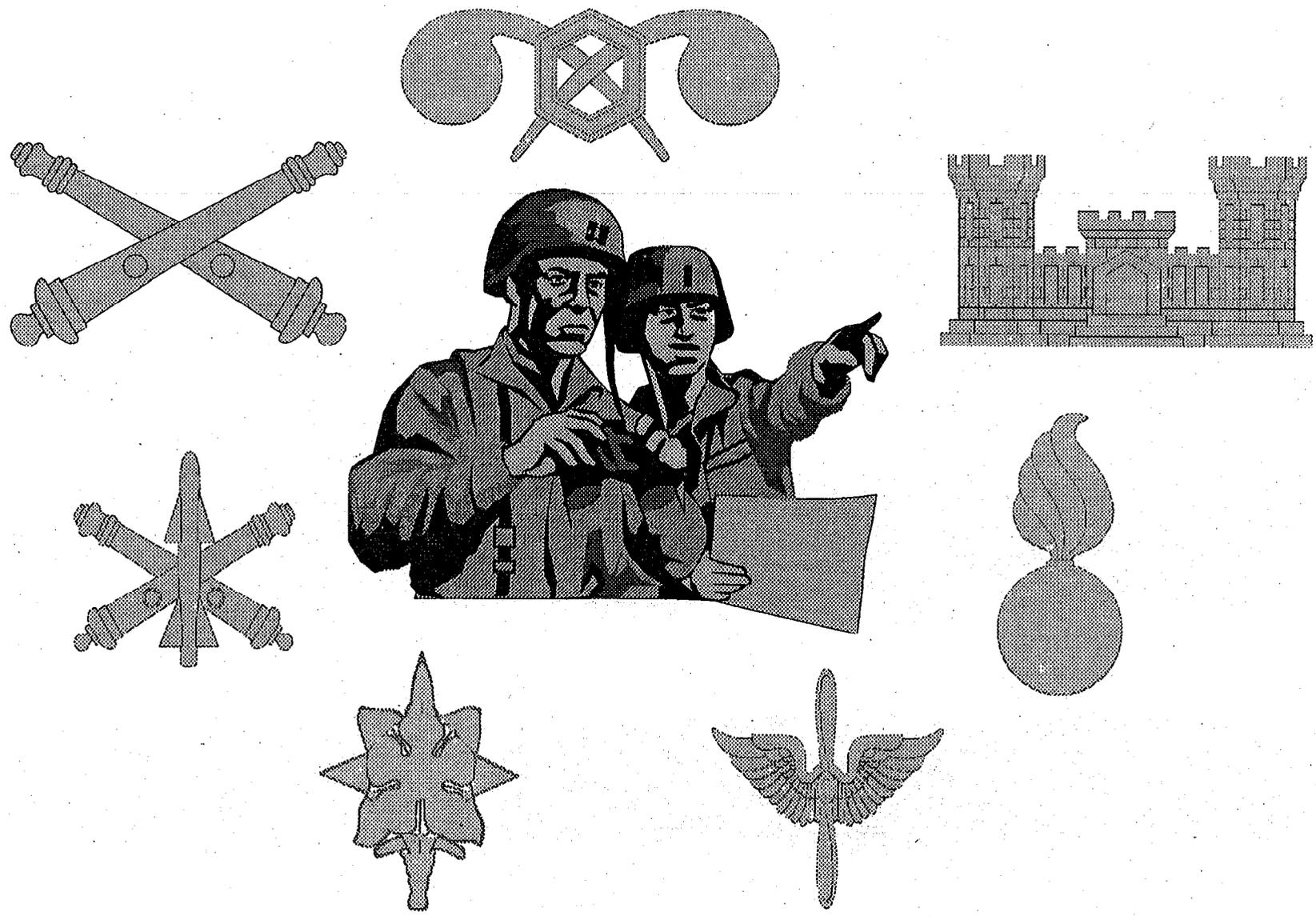


# BATTLE COMMAND HANDBOOK

FKSM-17-100-5-CS



**THE HOME OF MOUNTED WARFARE**

7 DECEMBER 1995

This **Handbook** is designed to assist **Leaders** in synchronization of battle effects in time, space and purpose. It provides useful planning factors and considerations for each combat function. The focus is at maneuver Task Force and Brigade level operations. Each of the BOS representatives in your unit should be able to provide more specific information. This handbook supercedes FKSM 17-100-5-CS dated January 1992.

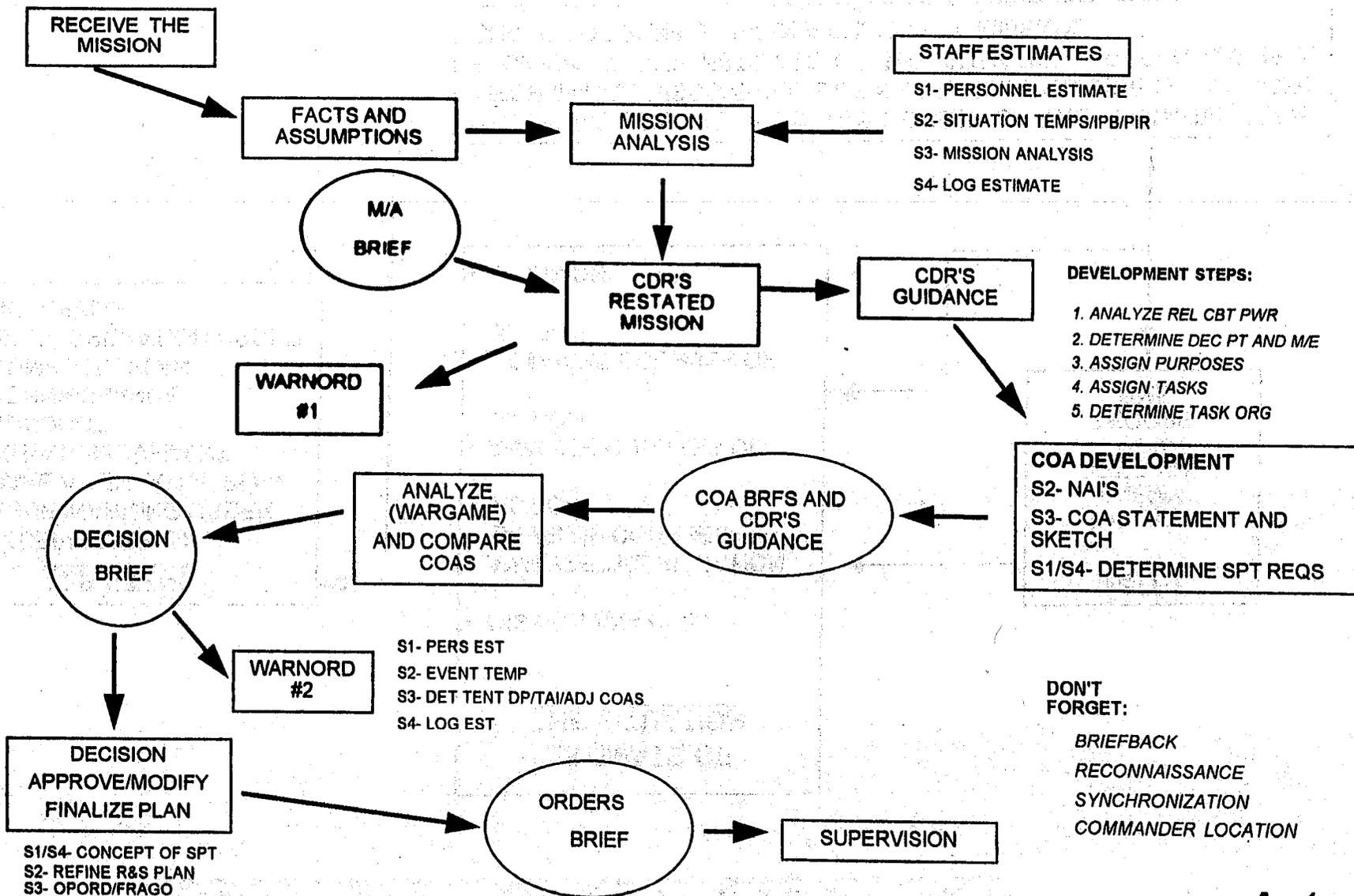
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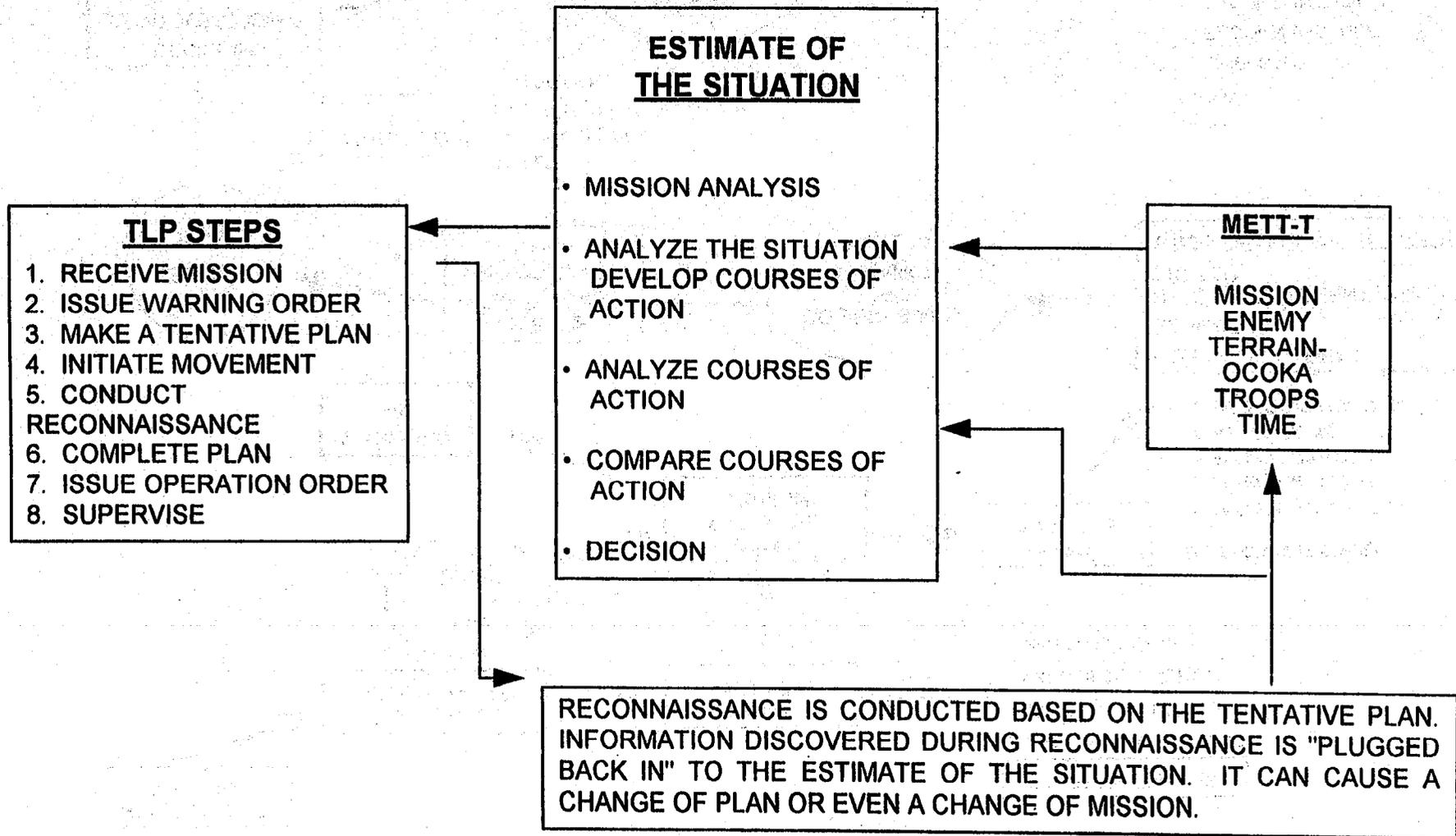
**BATTLE COMMAND**  
**(incl. Signal)**

**Section - A**

# THE DECISION-MAKING PROCESS



# TROOP LEADING PROCEDURES



# THE ESTIMATE PROCESS

A. ESTIMATE OF THE SITUATION  
(STEP 1) DETAILED MISSION ANALYSIS → M

## THE TROOP LEADING PROCEDURES

1. RECEIVE THE MISSION
2. ISSUE A WARNING ORDER
3. MAKE A TENTATIVE PLAN
4. INITIATE MOVEMENT
5. CONDUCT A RECONNAISSANCE
6. COMPLETE THE PLAN
7. ISSUE THE PLAN
8. SUPERVISE

- INTENT/PURPOSE 2 LEVELS UP
- SPECIFIED AND IMPLIED TASKS
- LIMITATIONS AND CONSTRAINTS
- MISSION ESSENTIAL TASK(S)
- RESULT IS RESTATED MISSION

(STEP 2) ANALYZE SITUATION AND DEVELOP OWN COURSE OF ACTION

- TERRIAN AND WEATHER
- ENEMY SITUATION
- OWN SITUATION (TROOPS AND TIME)

T  
E

## INTELLIGENCE PREPARATION OF THE BATTLEFIELD

1. DEFINE THE BATTLEFIELD ENVIRONMENT
2. DESCRIBE THE BATTLEFIELD'S EFFECTS
3. EVALUATE THE THREAT
4. DETERMINE THREAT COURSES OF ACTION

DEVELOP OWN COAS

(STEP 3) ANALYZE COURSES OF ACTION WARGAME

(STEP 4) COMPARE COURSES OF ACTION

(STEP 5) DECIDE ON A COURSE OF ACTION

BELT BOX AVENUE IN DEPTH

### COA DEVELOPMENT

1. DETERMINE DECISIVE POINT/FOCUS MAIN EFFORT
2. DETERMINE MAIN/SUPPORTING EFFORT PURPOSES
3. ASSIGN TASKS TO ACCOMPLISH PURPOSES
4. BUILD UNITS/TASK ORGANIZE TO ACCOMPLISH TASKS
5. DEVELOP CONCEPT STATEMENT/SKETCH

B. EXPAND SELECTED COURSES OF ACTION INTO A TENTATIVE PLAN

5 PARAGRAPH OPORD

# GUIDE TO THE ESTIMATE OF THE SITUATION

## 1. MISSION ANALYSIS.

A. MISSION AND INTENT OF COMMANDERS ONE AND TWO LEVELS UP.

B. SPECIFIED AND IMPLIED TASKS.

C. MISSION ESSENTIAL TASK(S).

D. CONSTRAINTS/LIMITATIONS (INCLUDE TIMES, SPACE, ASSETS, ROE, AND RISK).

E. RESTATED MISSION (WHO, WHAT, WHEN, WHERE, WHY)

## 2. SITUATION AND COURSES OF ACTION

A. CONSIDERATION AFFECTING POSSIBLE COA'S (LIST ASSUMPTIONS AND CONCLUSIONS DRAWN FROM RELATING THE FOLLOWING)

(1) CHARACTERISTICS OF THE AREA OF OPERATIONS AND INTEREST (WITH MODIFIED COMBINED OBSTACLE OVERLAY)

a. WEATHER

b. TERRAIN

c. OTHER PERTINENT FACTORS

(2) ENEMY SITUATION (WITH SITUATION/EVENT TEMPLATES)

a. DISPOSITION

b. COMPOSITION

c. STRENGTH

d. ACTIVITIES

e. WEAKNESSES

(3) OWN SITUATION (AS WITH ENEMY)

(4) RELATIVE COMBAT POWER

B. ENEMY CAPABILITIES (PCOAS) AND VULNERABILITIES TO THE FRIENDLY FORCE (WITH REFINED TEMPLATE AND INITIAL HVT AND TAI FOR DST).

C. OWN COURSES OF ACTION INCLUDES WHAT, WHEN, WHERE, HOW AND WHY CONCEPT SKETCH.

3. ANALYSIS OF COURSES OF ACTION (USE WARGAMING METHOD TO IDENTIFY ADVANTAGES AND DISADVANTAGES, REFINE COURSES OF ACTION, AND REFINE THE SIGNIFICANT FACTORS).

4. COMPARISON OF THE COURSES OF ACTION (USING SIGNIFICANT FACTORS, ADVANTAGES AND DISADVANTAGES, AND GENERAL CONSIDERATIONS).

5. DECISION, RESTATING REFINED COURSE OF ACTION (AS A CONCEPT OF OPERATION WITH INTENTIONS, MANEUVER, FIRES, AND OTHER CS).

# **COMMANDER'S PLANNING GUIDANCE**

## **(PRIOR TO COA DEVELOPMENT)**

- CONSIDERATIONS FOR PRIORITIES AND DESIRED EFFECTS OF FIRE SUPPORT SYSTEMS
- PLAN FOR USE OF TIME
- RECONNAISSANCE AND SECURITY PLAN
- TIMING OF OPERATION
- KEY TERRAIN
- FORCE PROTECTION GUIDANCE
- OPSEC CONSIDERATIONS
- CONSTRAINTS IMPOSED BY HIGHER
- POSTURE FOR SEQUELS
- GUIDANCE REGARDING RESERVES
- FORCES FORWARD OF LD/FEBA

# **AFTER COMMANDER MAKES DECISION**

## **(FM 101-5, CH.5; FM 7-20, CH 3)**

- COMMANDER'S CONCEPT/INTENT
- TASK ORGANIZATION (SPECIFIC UNITS TO TASKS)
- ADDITIONAL CONTROL MEASURES
- SCHEME OF FIRES
- COMMAND AND CONTROL PLAN
- CRITICAL CSS TASKS/CONSIDERATIONS
- SPECIAL INSTRUCTIONS FOR ATTACHED ELEMENTS OR CRITICAL PLANNING GUIDANCE FOR SYNCHRONIZATION OF REMAINING COMBAT FUNCTIONS

# **INTENT**

**(FM 7-20, CH2)**

**NO MORE THAN FIVE OR SIX SENTENCES WRITTEN BY THE COMMANDER**

- THE COMMANDER'S VISION OF THE OPERATION
- DESCRIBES/EXPANDS THE PURPOSE OF THE OPERATION
- DESCRIBES THE END STATE WITH RESPECT TO THE RELATIONSHIP BETWEEN THE FORCE, THE ENEMY, AND THE TERRAIN
- MAY INCLUDE HOW THE END STATE WILL FACILITATE FUTURE OPERATIONS
- IS NOT A SUMMARY OF THE CONCEPT OF THE OPERATION
- DOES NOT DESCRIBE SUBUNIT TASKS/PURPOSES
- DOES NOT MERELY REPEAT PURPOSES FROM MISSION STATEMENT

# **COA DEVELOPMENT**

**(FM 7-10)**

- DETERMINE THE DECISIVE POINT TO FOCUS COMBAT POWER
- DETERMINE RESULTS TO BE ACHIEVED AT THE DECISIVE POINTS TO ACCOMPLISH MISSION
- DETERMINE PURPOSES FOR MAIN AND SUPPORTING EFFORTS IN RELATIONSHIP TO THE DECISIVE POINT
- DETERMINE ESSENTIAL TASKS FOR THE MAIN AND SUPPORTING EFFORTS THAT ACHIEVE THESE PURPOSE
- TASK ORGANIZE FORCES TO ACCOMPLISH MISSIONS
- ASSIGN C2 ELEMENTS (HQ)
- ESTABLISH CONTROL MEASURES TO CLARIFY AND SUPPORT MISSION ACCOMPLISHMENT AND AID IN SYNCHRONIZATION
- PREPARE COA STATEMENT AND SKETCH

# WARNING ORDER SUGGESTED FORMAT

WARNING ORDERS GIVE SUBORDINATES ADVANCE NOTICE OF OPERATIONS THAT ARE TO COME. THIS GIVES THEM TIME TO PREPARE. THE ORDER SHOULD BE BRIEF BUT COMPLETE. A SAMPLE FORMAT FOLLOWS:

1. SITUATION.
  2. MISSION.
  3. GENERAL INSTRUCTIONS.
    - A. SPECIAL TEAMS OR TASK ORGANIZATION WITHIN THE COMPANY.
    - B. UNIFORM AND EQUIPMENT COMMON TO ALL
    - C. SPECIAL WEAPONS, AMMUNITION, OR EQUIPMENT.
    - D. THE TENTATIVE TIME SCHEDULE IS FORMED ON THE BASIS OF MISSION ANALYSIS. IT INCLUDES AT LEAST:
      - (1) EARLIEST TIME OF MOVE.
      - (2) TIME AND PLACE OF OPORD.
      - (3) PROBABLE EXECUTION TIME.
      - (4) INSPECTION TIMES.
      - (5) REHEARSAL TIMES AND ACTIONS TO BE REHEARSED (E.G. ACTIONS AT THE OBJECTIVE, SEARCHES, EPWs, OTHERS AS TIME ALLOWS).
    - E. ADDITIONAL GENERAL INSTRUCTIONS AS NEEDED OR BY SOP.
  4. SPECIAL INSTRUCTIONS.
    - A. TO SUBORDINATE LEADERS.
      - (1) XO
      - (2) 1SG
      - (3) FSO
      - (4) PLATOON LEADERS
      - (5) MORTAR SECTION SERGEANT
      - (6) ANTIARMOR SECTION SERGEANT
      - (7) RTO
      - (8) MEDIC
    - B. TO PERSONS HELPING PREPARE OPORD.
    - C. AS NEEDED OR BY SOP.
- ACKNOWLEDGE

# OPERATIONS ORDER

## TASK ORGANIZATION

### ORIENTATION TO GROUND (AO AND AOI)

#### 1: SITUATION

##### A. ENEMY SITUATION

- (1) COMPOSITION, DISPOSITION, AND STRENGTH
- (2) RECENT ACTIVITIES
- (3) CAPABILITIES
- (4) MOST PROBABLE COURSE OF ACTION, INCLUDE SKETCH OR OVERLAY TO CLARIFY.

##### B. FRIENDLY SITUATION.

- (1) MISSION AND CONCEPT FOR THE BATTALION
- (2) MISSION FOR UNIT ON LEFT.
- (3) MISSION FOR UNIT ON RIGHT.
- (4) MISSION FOR UNIT TO THE FRONT.
- (5) MISSION FOR UNIT TO THE REAR.
- (6) MISSION FOR THE BATTALION RESERVE.
- (7) MISSION FOR ANY UNITS SUPPORTING THE BATTALION IF THEY AFFECT THE COMPANY MISSION.

C. ATTACHMENTS AND DETACHMENTS. CHANGES TO THE TASK ORGANIZATION DURING THE OPERATION. FOR EXAMPLE, IF THE TASK ORGANIZATION CHANGES DURING THE CONSOLIDATION PHASE OF THE ATTACK, IT WOULD REFLECT HERE.

#### 2. MISSION.

THE MISSION ESSENTIAL TASK(S) AND PURPOSE(S). NORMALLY INCLUDES WHO, WHAT, WHEN, WHERE, AND WHY.

#### 3. EXECUTION.

A. CONCEPT OF THE OPERATION. THIS PARAGRAPH DESCRIBES HOW THE CO INTENDS TO ACCOMPLISH HIS MISSION. DESCRIBED IN TERMS OF IDENTIFYING THE MAIN EFFORT, AND SUPPORTING EFFORTS, DECISIVE POINT, FORM OF MANEUVER AND SIGNIFICANT FACTORS.

(1) MANEUVER. THE MANEUVER SUBPARAGRAPH SHOULD BE FOCUSED ON THE DECISIVE ACTION. AT THE COMPANY LEVEL, A MANEUVER PARAGRAPH THAT ASSIGNS THE TASKS TO EACH PLATOON AND OR SECTION AND IDENTIFIES THE MAIN EFFORT.

(2) FIRES. THE SUBPARAGRAPH DESCRIBES HOW FIRES SUPPORT MANEUVER. IT NORMALLY STATES THE PURPOSE TO BE ACHIEVED BY THE FIRES, THE PRIORITY OF FIRES FOR THE COMPANY, AND THE ALLOCATION OF ANY PRIORITY TARGETS. A TARGET LIST, FIRE SUPPORT EXECUTION MATRIX, OR TARGET OVERLAY MAY BE REFERENCED HERE.

# OPERATIONS ORDER (CONT)

(3) **ENGINEERING.** [1] PURPOSE OF ENGINEERS, [2] PRIORITY OF EFFORT (mobility, countermobility, survivability), [3] PRIORITY OF SUPPORT (by unit or by time), [4] FASCAM (purpose, type, duration, and execution authority), [5] OBSTACLE RESTRICTIONS.

B. TASKS TO MANEUVER UNITS (INCLUDE THE RESERVE) LISTED IN PRIORITY.

C. TASKS TO COMBAT SUPPORT UNITS.

D. COORDINATING INSTRUCTIONS. INSTRUCTIONS FOR MORE THAN ONE ELEMENT, MAY INCLUDE INSTRUCTIONS CONCERNING: TIMINGS, MOVEMENT INSTRUCTIONS, PIR, OEI, REPORTING TASKS, MOPP LEVEL, TROOP SAFETY AND OEG. ENGAGEMENT AND DISENGAGEMENT CRITERIA, FIRE CONTROL MEASURES, CONSOLIDATION AND REORGANIZATION, TERRORISM/COUNTERTERRORISM, ROE, CONTINGENCY PLANS ETC...

4. **SERVICE SUPPORT.**

THIS PARAGRAPH PROVIDES THE CRITICAL LOGISTICAL INFORMATION REQUIRED TO SUSTAIN THE COMPANY DURING THE OPERATION.

A. GENERAL. PROVIDES CURRENT AND FUTURE TRAINS LOCATIONS.

B. MATERIAL AND SERVICES. MAY HAVE A SEPARATE PARAGRAPH FOR EACH CLASS OF SUPPLY AS REQUIRED.

C. CASUALTY EVACUATION.

D. MISCELLANEOUS.

5. **COMMAND AND SIGNAL.**

A. **COMMAND.** THIS PARAGRAPH STATES WHERE THE C2 WILL FACILITATE AND KEY PERSONNEL WILL BE LOCATED DURING THE OPERATION AND ADJUSTMENTS TO THE UNIT SOP, SUCH AS CHANGE TO THE SUCCESSION OF COMMAND OR THE STANDARD WIRE PLAN.

B. **SIGNAL.** IT PROVIDES CRITICAL COMMUNICATIONS REQUIREMENTS SUCH AS RADIO LISTENING SILENCE IN EFFECT FORWARD OF THE LD. SIGNALS FOR SPECIFIC EVENTS OR ACTIONS. (EMERGENCY VISUAL SIGNALS FOR CRITICAL ACTIONS AND SOI INFORMATION.

ACKNOWLEDGE. USE THE MESSAGE REFERENCE NUMBER.

ANNEXES

A. INTELLIGENCE OVERLAYS

B. OPERATION OVERLAY/CONCEPT SKETCH

C. AS REQUIRED, SUCH AS ROAD MARCH, TRUCK MOVEMENT, AIR ASSAULT, AND RIVER CROSSING.

A-9

# BN/BDE SYNCHRONIZATION PLANNING MATRIX

| TIME  |                                      |                                 |       |  |  |  |
|---|--------------------------------------|---------------------------------|-------|--|--|--|
| ENEMY COA                                   |                                      |                                 |       |  |  |  |
| BATTLEFIELD<br><br>OPERATING<br><br>SYSTEMS | I<br>N<br>T<br>L                     | NAI                             |       |  |  |  |
|   |                                      | TAI                             |       |  |  |  |
|   |                                      | COL                             |       |  |  |  |
|   | M<br>A<br>N<br>E<br>U<br>V<br>E<br>R | SEC                             |       |  |  |  |
|   |                                      | MBA                             |       |  |  |  |
|   |                                      | RES                             |       |  |  |  |
|   |                                      | REAR                            |       |  |  |  |
|   |                                      | DEEP                            |       |  |  |  |
|   | F<br>I<br>R<br>E                     | S<br>U<br>P<br>P<br>O<br>R<br>T | MORT  |  |  |  |
|   |                                      |                                 | (DS)  |  |  |  |
|   |                                      |                                 | (R)   |  |  |  |
|   |                                      |                                 | AIR   |  |  |  |
|   | M<br>O<br>B                          | C<br>M<br>S<br>U<br>R<br>V      | EQUIP |  |  |  |
|   |                                      |                                 | PERS  |  |  |  |
|   | A<br>D<br>A                          | SGR                             |       |  |  |  |
|   |                                      | VUL                             |       |  |  |  |
|   | C2                                   | MAIN CP                         |       |  |  |  |
|   |                                      | CMD GP                          |       |  |  |  |
|   | C<br>S<br>S                          | ARM                             |       |  |  |  |
|   |                                      | FUEL                            |       |  |  |  |
| FIX   |                                      |                                 |       |  |  |  |
| DECEPTION                                   |                                      |                                 |       |  |  |  |
| DECISION<br>POINTS                          |                                      | CO                              |       |  |  |  |
|   |                                      | BN                              |       |  |  |  |
|   |                                      | BDE                             |       |  |  |  |
| KEY ACTIVITIES<br>AND<br>COMPUTATIONS       |                                      |                                 |       |  |  |  |

# EXAMPLE OF EXECUTION MATRIX

EXECUTION MATRIX: SHOWS THE MOST CRITICAL TASKS OR EVENTS IN MATRIX FORMAT. THE MATRIX IS USED TO HELP THE COMMANDER DURING THE CONDUCT OF THE MISSION AS WELL AS TO SUPPLEMENT THE OPERATION OVERLAY AND THE ORAL ORDER. THE EXECUTION MATRIX DOES NOT REPLACE THE MISSION-TYPE ORDER THAT THE COMMANDER GIVES HIS SUBORDINATE; IT ASSISTS THEIR UNDERSTANDING OF THE MISSION.

USEFUL VARIATIONS TO THE BASIC MATRIX INCLUDE INTEGRATING OPERATION SCHEDULES, BREVITY CODES, OR SIGNALS INTO THE MATRIX SO THAT A SERIES OF SYNCHRONIZED EVENTS CAN BE ORDERED BY SHORT RADIO COMMANDS OR SIGNALS. IN THE DEFENSE, A PRIORITY OF WORK AND DESIGNATED POSITIONS COULD BE ADDED. FINALLY, AN EXECUTION MATRIX IS AN EXCELLENT WAY TO PREPARE CONTINGENCY OR COUNTERATTACK PLANS.

PROMPTS FOR POSSIBLE ELEMENTS/PHASES TO BE ISSUED IN THE MATRIX ARE:

ELEMENTS: ORGANIC, ATTACHED, HEADQUARTERS, FIRE SUPPORT, ANTIARMOR, MORTARS.

PHASES: MOVEMENT TO LD, CROSSINGS, PHASE LINES, ASSAULT POSITION, ACTION ON OBJECTIVE, CONSOLIDATION, COUNTERATTACK, CONTINGENCY PLANS.

| PHASES<br>ELEMENTS   | AA TO LD                | PL BLUE       | ASSLT POSN                | ACTIONS ON<br>OBJECTIVE | CONSOLIDATE<br>REORGANIZATION | CONTINGENCY<br>PLAN 1 | CONTINGENCY<br>PLAN 2 |
|----------------------|-------------------------|---------------|---------------------------|-------------------------|-------------------------------|-----------------------|-----------------------|
| 1ST PLT              | ORDER OF MARCH:<br>2    | AXIS GOLD     | MOVE BREACH<br>TM FORWARD | BREACH<br>SUPPPORT      | 300-130<br>BP1                |                       |                       |
| 2ND PLT              | 3                       | AXIS LEAD     | TRP1-TRP2<br>SBF 2        |                         | 130-240<br>BP2                |                       |                       |
| 3RD PLT              | 4                       | AXIS LEAD     | TRP2-TRP3<br>SBF 1        | TRP3-TRP5<br>SBF1       | 240-300<br>BP3                |                       |                       |
| TANK PLT             | 1                       | AXIS GOLD     |                           | ASSAULT                 | RESERVE                       |                       |                       |
| ANTIARMOR<br>SECTION | 5                       | AXIS ROCK     | TRP4-TRP5<br>SBF 3        |                         | 100<br>BP4                    |                       |                       |
| MORTARS              | AZ OF LAY 1000<br>POSN1 | 1400<br>POSN2 | 1300<br>POSN3             | 1700<br>POSN3           | 3300<br>POSN4                 |                       |                       |
| FSO                  | CFL LD                  | CFL PL BLUE   | GRP A1C                   |                         | REGISTER FPF                  |                       |                       |
| HQ                   | XO WILL MAN PP1         | AXIS GOLD     | SBF3                      |                         | CP ON OBJECTIVE               |                       | A-11                  |

# COMMAND RELATIONSHIPS

**Organic** - TO&E or TDA.

**Assigned** - Placed in an organization on a permanent basis for its primary function. Controlled and administered by unit assigned to.

**Attached** - Placed in an organization on a temporary basis. Controlled by and logistically supported by unit attached to. UCMJ/Administrative normally retained by unit of assignment.

**Operational Control (OPCON)** - Unit provided to another commander to accomplish specific missions or tasks. Administrative and logistical support from assigned unit. OPCON does not include UCMJ, administrative or logistic responsibility.

# SUPPORT RELATIONSHIPS

**Direct Support (DS)** - A unit in DS is required to give priority of support to the supported unit. A unit in DS has no command relationship with the supported force.

**General Support (GS)** - Provide support to the total force.

**General Support Reinforcing (GSR)** - Primarily used with artillery units. Unit is required to support the force as a whole and to provide reinforcing fires to another artillery unit as a second priority.

## **SIGNAL PLANNING CONSIDERATIONS**

- Area of Operation: Desert, jungle, city, each will affect your communications.
- Organic Equipment: Range, compatibility within the task force or unit.
- Personnel: Adequate Signal soldiers assigned?
- Retrans: Employment
- Wire: Use when possible, more secure than radio

## **LEADER QUESTIONS**

Do I have redundant communications?

Do I have alternate means?

# FM RADIOS SYSTEMS

## VRC-12 SERIES (46, 47, 48, 49)

| RT UNIT               | FREQUENCY (MHz)<br>COVERAGE                    | TUNING         | CHANNEL<br>SPACING | POWER OUTPUT<br>(WATTS)                                   | BATTERY<br>REQUIREMENTS |
|-----------------------|--|----------------|--------------------|---|-------------------------|
| RT-524                | 30-75-95                                       | DETENT         | 50 KHZ             | 35 (HIGH) 8 (LOW)   | ALL MANPACK:<br>BA-5590 |
| RT-246                | 30-75-95                                       | DETENT         | 50 KHZ             | 35 (HIGH) 8 (LOW)   |                         |
| RT-505<br>(PRC 25)    | 30-75-95                                       | DETENT         | 50 KHZ             | 2   |                         |
| RT-841<br>(PRC-77)    | 30-75-95-                                      | DETENT         | 50 KHZ             | 2   |                         |
| RT-1439               | 30-87-97.5                                     | DETENT         | 25 KHZ             | 32 uW (LOW)<br>160 mW (MED)<br>4 W (HIGH)<br>50 W (P AMP) |                         |
|                       | <b>RANGE (MILES)</b>                           | <b>SQUELCH</b> | <b>USING UNIT</b>  | <b>SECURITY EQUIP.</b>                                    |                         |
| RT-524                | 25 (HIGH) 5 (LOW)                              | NEW/OLD OFF    | ALL                | KY-8/KY-38/KY-57  |                         |
| RT-246                | 25 (HIGH) 5 (LOW)                              | NEW/OLD OFF    | ALL                | KY-8/KY-38/KY-57  |                         |
| RT-505<br>(PRC-25)    | 5  | NEW/OFF        | ALL                | NONE  |                         |
| RT-841<br>(PRC-77)    | 5  | NEW/OFF        | ALL                | KY-38/KY-57   |                         |
| RT-1439<br>(SINCGARS) | 2 (LOW)<br>2.5 (MED)<br>5 (HIGH)<br>22 (P AMP) | NEW/OFF        | ALL                | KY-57   |                         |
| PRC-126               |  |                |                    |   | BA-5588                 |

# HF RADIO SYSTEMS

| <b>CAPABILITY</b>                  | <b>AN/PRC-104</b>   | <b>AN/GRC-213</b>  |
|------------------------------------|---|--|
| <b>FREQUENCY RANGE</b>             | 20000 TO 299999 MHz IN 100 MHz INCREMENT<br>280000 POSSIBLE FREQUENCY SETTINGS  | 2 TO 299999 MHz IN 100 MHz INCREMENTS<br>280000 POSSIBLE FREQUENCY SETTINGS  |
| <b>OPERATING MODES</b>             | SINGLE SIDEBAND (selected USB or LSB)<br>VOICE/CW<br>DATA<br><br>RECEIVE ONLY VOICE AND DATA)<br><br>This will allow you to receive<br><br>You cannot transmit in these modes | SINGLE SIDEBAND (selectable USB or LSB)<br>VOICE/CW<br>DATA<br><br>RECEIVE ONLY (inhibits<br>transmission operation) |
| <b>RF OUTPUT POWER</b>             | 20 W (PEP)  | 20 W (PEP)   |
| <b>RF OUTPUT IMPEDANCE</b>         | 50 ohms, unbalanced. Output<br>protected to infinite VSWR   | 50 ohms, unbalanced. Output<br>protected to infinite VSWR.   |
| <b>ANTENNA TUNING</b>              | Automatic to 1.5:1 VSWR in<br>3 to 12 seconds   | Automatic to 1.5:1 VSWR in<br>3 to 12 seconds  |
| <b>POWER REQUIREMENTS</b>          | 20 0 to 32 0 V DC with Input at 3.5<br>amp (24 0 V DC) for transmit<br>(typical), 200 ma for receive (typical).   | 24 to 32 V AC, 26.5 V DC nominal   |
| <b>OPERATING TEMPERATURE RANGE</b> | -51°F (-46°C) TO +160°F (+71°C)   | -51°F (-46°C) to +160°F (+71°C)  |
| <b>MEAN TIME BEFORE FAILURE</b>    | 2500 Hours  | 2500 Hours   |
| <b>DIMENSIONS</b>                  | 12.5" X 10.5" X 2.75" (D X W X H)   | 12.5" X 6.12" X 8.63" (W X H X D)  |
| <b>WEIGHT</b>                      | 14 pounds including battery   | 50 pounds  |
| <b>ANTENNAS</b>                    |   | Whip, Slant wire, Dipole, NVIS   |

# SINGGARS

## PRC-87,88,89,90,91,92

|                           | NEEDED TRANSMIT DISTANCE | RF SWITCH POSITION      | POWER OUTPUT   | BATTERY REQUIREMENTS     |
|---------------------------|--------------------------|-------------------------|----------------|--------------------------|
| SINGGARS                  | 0-300 METERS             | LO (low)                | 500 micowatts  | All manpack:<br>BA 5590. |
| MANPACK, VEHICULAR RADIOS | 0.3-4 KILOMETERS         | M (medium)<br>HI (high) | 160 milliwatts |                          |
| VEHICULAR                 | 4-8 KILOMETERS           | PA (power amplifier)    | 4 watts        |                          |
|                           | 8-35 KILOMETERS          |                         | 50 watts       |                          |

## HF RADIO SYSTEM

### AN/GRC-193

| CAPABILITY                    |
|-------------------------------|
| FREQUENCY RANGE               |
| FREQUENCIES                   |
| FREQUENCY SPACING             |
| MODES OF OPERATION            |
| RF OUTPUT (POWER)             |
| DATA TRANSMISSION RATE TUNING |
| ANTENNA MATCHING              |

| DESCRIPTION  |
|--|
| 2,0000 TO 29,9999 MHz  |
| 280,000  |
| 100 Hz   |
| USB, DSB, VOICE, DATA, CW, AND TTY IN RECEIVE-TRANSMIT OR RECEIVE ONLY |
| 400 WATTS PEP  |
| 75 BAUD (100 WPM ON TT)  |
| FULLY AUTOMATIC (6 SECONDS) AFTER 1 MINUTE WARM-UP                     |
| AT-1011, AS-2259 (NVIS), DOUBLET, OR FIELD EXPEDIENT LONG WIRE         |

| CAPABILITY       |
|------------------|
| PRIMARY POWER    |
| CURRENT DRAIN    |
| IMMERSION        |
| REMOTE RADIO SET |
| REMOVING ANTENNA |
| SECURE EQUIPMENT |

| DESCRIPTION  |
|--|
| 26.5 V DC (STANDARD 60AMP SYSTEM ON M-151)               |
| 45 AMPS AT 400 WATTS: LESS THAN .05 AMPS IN RECEIVE ONLY |
| 3 FEET OF WATER FOR 4 HOURS                              |
| UP TO 2 MILES WITH THE AN/GRA-39B (MODIFIED)             |
| 200 FEET WITH THE TACTICAL ANTENNA SITING KIT RF-4032    |
| KG-84 (TTY)  |

# **INTELLIGENCE**

**Section - B**

# INTELLIGENCE PREPARATION OF THE BATTLEFIELD (IPB)

## IPB HAS FOUR STEPS:

1. DEFINE THE BATTLEFIELD ENVIRONMENT
2. EVALUATE THE BATTLEFIELD'S EFFECTS ON COAs
3. EVALUATE THE THREAT
4. DETERMINE THREAT COURSES OF ACTION

## HOW TO CONDUCT IPB

### **DEFINE THE BATTLEFIELD ENVIRONMENT**

- IDENTIFY SIGNIFICANT CHARACTERISTICS OF THE ENVIRONMENT
- IDENTIFY THE LIMITS OF THE AREA OF OPERATIONS
- ESTABLISH THE LIMITS OF THE AREA OF INTEREST
- IDENTIFY GAPS IN CURRENT INTELLIGENCE HOLDINGS
- IDENTIFY THE AMOUNT OF DETAIL REQUIRED AND FEASIBLE WITHIN THE TIME AVAILABLE FOR IPB
- COLLECT THE MATERIAL AND INTELLIGENCE REQUIRED TO CONDUCT THE REMAINDER OF IPB

### **EVALUATE THE BATTLEFIELD'S EFFECTS ON COAs - FOR FRIENDLY, AND ENEMY COAs EVALUATE THE EFFECTS OF:**

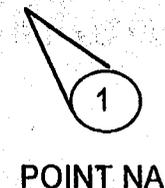
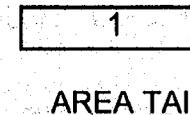
- TERRAIN
- WEATHER
- OTHER CHARACTERISTICS OF THE BATTLEFIELD

### **EVALUATE THE THREAT**

- IDENTIFY GAPS IN KNOWLEDGE OF THE THREAT AND INITIATE ACTION TO FILL THEM
- ACQUIRE RELEVANT INTELLIGENCE
- UPDATE THREAT MODELS
  - CONVERT THREAT DOCTRINE OR PATTERNS OF OPERATION TO GRAPHICS (DOCTRINAL TEMPLATES)
  - DESCRIBE IN WORDS THE THREAT'S TACTICS AND OPTIONS
  - IDENTIFY HIGH PAYOFF TARGETS

### **DETERMINE THREAT COURSES OF ACTION**

- IDENTIFY THE FULL SET OF RATIONAL COAs AVAILABLE TO THREAT FORCES
- CONSIDER WILDCARD COA's
- EVALUATE AND PRIORITIZE EACH COA
- DEVELOP EACH COA IN THE AMOUNT OF DETAIL TIME ALLOWS
- IDENTIFY INITIAL COLLECTION REQUIREMENTS



**NAI - A POINT OR AREA ALONG AA WHERE ACTIVITY WILL CONFIRM A COA**

**TAI - A ENGAGEMENT POINT ALONG A AA WHERE THE INTERDICTION OF THE ENEMY WILL DENY A PARTICULAR CAPABILITY**

**DP - IDENTIFY EVENTS, AREAS, AND POINTS WHERE TACTICAL DECISIONS ARE REQUIRED AND WHERE THESE DECISIONS MUST BE MADE**

# ESTABLISHING AND PRIORITIZING INTELLIGENCE REQUIREMENTS

DURING WARGAMING, YOUR S2/G2 DEVELOPS A SET OF INTELLIGENCE REQUIREMENTS (IRs) FOR EACH FRIENDLY COA. EACH IS LINED TO A SPECIFIC ENEMY ACTION THAT REQUIRES A FRIENDLY RESPONSE.

PRIORITY INTELLIGENCE REQUIREMENTS (PIR) ARE THOSE IR WHICH ARE CRITICAL TO THE ACCOMPLISHMENT OF YOUR MISSION ESSENTIAL TASKS. WARGAMING WILL DICTATE WHICH IRs WILL BECOME PIRs AS THE MISSION RUNS ITS COURSE.

AS FORCE COMMANDER YOU MUST ALWAYS SELECT OR APPROVE THE PIRs. SOME GUIDELINES TO FOLLOW ARE:

1. EVERY IR MUST BE SITUATIONALLY TEMPLATED AND WARGAMED.
2. THE COLLECTION MANAGER SHOULD NOT ACCEPT OR PROPOSE AN IR UNTIL HE FULLY UNDERSTANDS AND CAN TRACK THE FRIENDLY ACTION THE IR IS DESIGNED TO SUPPORT.
3. A PIR MUST BE ABLE TO BE COLLECTED AND YOU MUST UNDERSTAND HOW YOUR S2 INTENDS TO COLLECT TO SATISFY YOUR PIR.
4. YOU MUST RESTRICT YOUR PIR TO ONLY YOUR MOST CRITICAL REQUIREMENTS BECAUSE THERE ARE ONLY LIMITED COLLECTION ASSETS AVAILABLE.

## SUPPORT TO OPSEC

- Did the S2 and the S3 coordinate EEFI concerning desired OPSEC protective measures?
- Did the S2 estimate enemy capabilities for obtaining information about the TF?
- Did the S2 estimate enemy intelligence capabilities for determining TF operations?
- Did the TF use vehicle camouflage?
- Did the TF exercise light, noise, and trash discipline?
- Did the TF employ Electronic Protective measures including COMSEC and anti-jamming procedures

# EXAMPLE OF PIR

**MISSION:** 2D BDE ATKS IN ZONE AT 270430 MAY 94 TO DESTROY ENEMY FORCES ON OBJ KILL (WK2395). ESTABLISH HASTY DEFENSES ON OBJ KILL NLT 290600 MAY 94 TO STOP ATK OF THE 43D MRD. ON ORDER CONTINUE THE ATTACK IN ZONE TO SEIZE OBJ DEATH (WK4098).

## ANTICIPATED TIME

## PROPOSED PIR

|                 |   |
|-----------------|---|
| 230600 - 282130 | WILL THE ENEMY USE CHEMICAL AGENTS ON OUR RESERVE IN AA SMITH?  |
| 230600 - 270800 | WILL THE ENEMY DEFEND OBJ KILL USING A FORWARD SLOPE DEFENSE?   |
| 230600 - 270900 | WILL THE ENEMY RESERVE TANK BATTALION REACH PL BOB BEFORE 270900 MAY 94? (NOTE: PL BOB IS 3 KM PAST OBJ KILL) |
| 271000 - 302200 | WILL THE 43D MRD SEND ITS MAIN ATTACK ALONG AVENUE OF APPROACH 2?   |
| 271000 - 031200 | WHAT SIZE ENEMY FORCE IS DEFENDING OBJ DEATH?   |
| 291200 - 031200 | ARE THE BRIDGES OVER THE BODANGO RIVER INTACT?  |

(NOTE: THE BODANGO RIVER LIES BETWEEN OBJ KILL AND OBJ DEATH AND IS UNFORDABLE)

**NOTE:** There is no "set" of PIR useful in every situation. This is an example of the TYPES of PIR you should expect to see from your S2 for your approval. Because your intel needs will change over time, most PIR will only be important during certain times.

# TEMPLATE MATRIX

|   | COO | MCOO | DOCTRINAL<br>TEMPLATE | SITUATIONAL<br>TEMPLATE | EVENT<br>TEMPLATE | DECISION SUP-<br>PORT TEMPLATE |
|---|-----|------|-----------------------|-------------------------|-------------------|--------------------------------|
| OBSTACLES TO GROUND<br>MOVEMENT             | X   | X    |                       |                         |                   |                                |
| RESTRICTIVE-SEVERELY<br>RESTRICTIVE TERRAIN | X   | X    |                       |                         |                   |                                |
| OBJECTIVES                                  |     | X    |                       |                         |                   | X                              |
| AVENUES OF APPROACH<br>MOBILITY CORRIDORS   |     | X    |                       |                         | X                 | X                              |
| KEY TERRAIN                                 |     | X    |                       |                         |                   |                                |
| ALL UNITS (ENEMY)                           |     |      | X                     |                         |                   |                                |
| ENEMY UNITS ON<br>AVENUES OF APPROACH       |     |      |                       | X                       |                   |                                |
| TIME PHASE LINES                            |     |      |                       |                         | X                 | X                              |
| NAMED AREA<br>OF INTEREST                   |     |      |                       |                         | X                 |                                |
| TAI   |     |      |                       |                         |                   | X                              |
| DP  |     |      |                       |                         |                   | X                              |

# INTELLIGENCE INDICATORS

## **Offense:**

1. Concentration of enemy forces in forward assembly areas.
2. Increased air, ground, SIGINT reconnaissance. Removal of all clearing lanes through friendly obstacles. Movement of march columns forward in a first echelon division. Extensive artillery and aviation preparation. Concentration of fire on a narrow front. Movement support detachment operating forward of enemy assembly areas. Division forward CP up to 3 km from enemy FLOT. RAG located 1/2-4 kms from enemy FLOT, DAG located 4-6 kms from enemy FLOT.
3. Increase logistic and service activity.

## **Defense:**

1. Establishment of a security zone.
2. Preparation of primary company size strong points on key terrain.
3. Presence of obstacles, contaminated areas and minefield.
4. Division forward CP located 5-7 kms from enemy FLOT.
5. RAG located 4-10 kms from FLOT & DAG located 7-15 kms from enemy FLOT.
6. Preparation of alternate artillery positions.

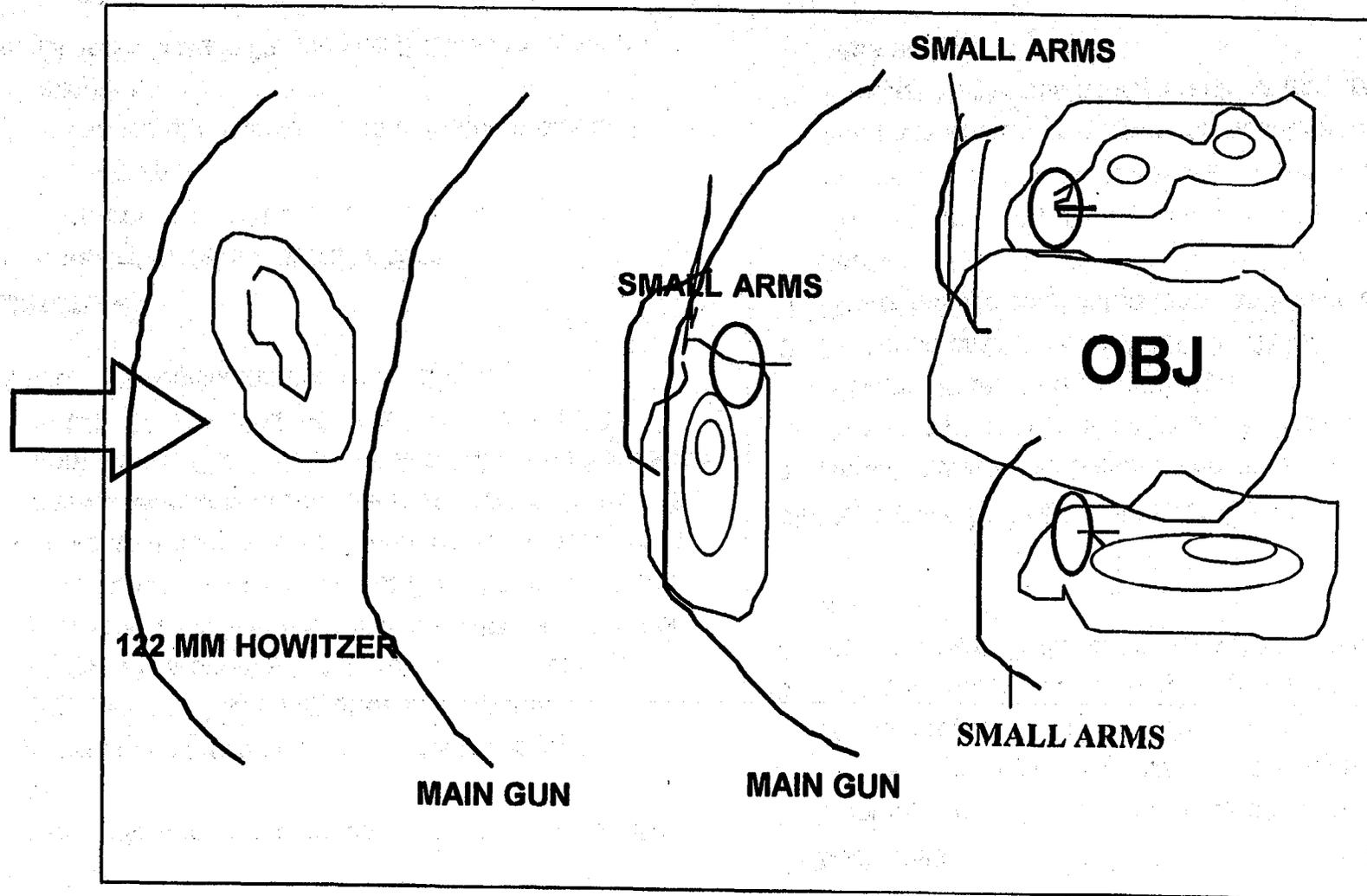
## **Withdrawal:**

1. Establishment of a covering force and rear guard.
2. Rear services withdrawn first; combat support second; combat forces withdrawn third.
3. Rearward movement of long range artillery.
4. Use of smoke, artillery, and aviation to cover withdrawal.

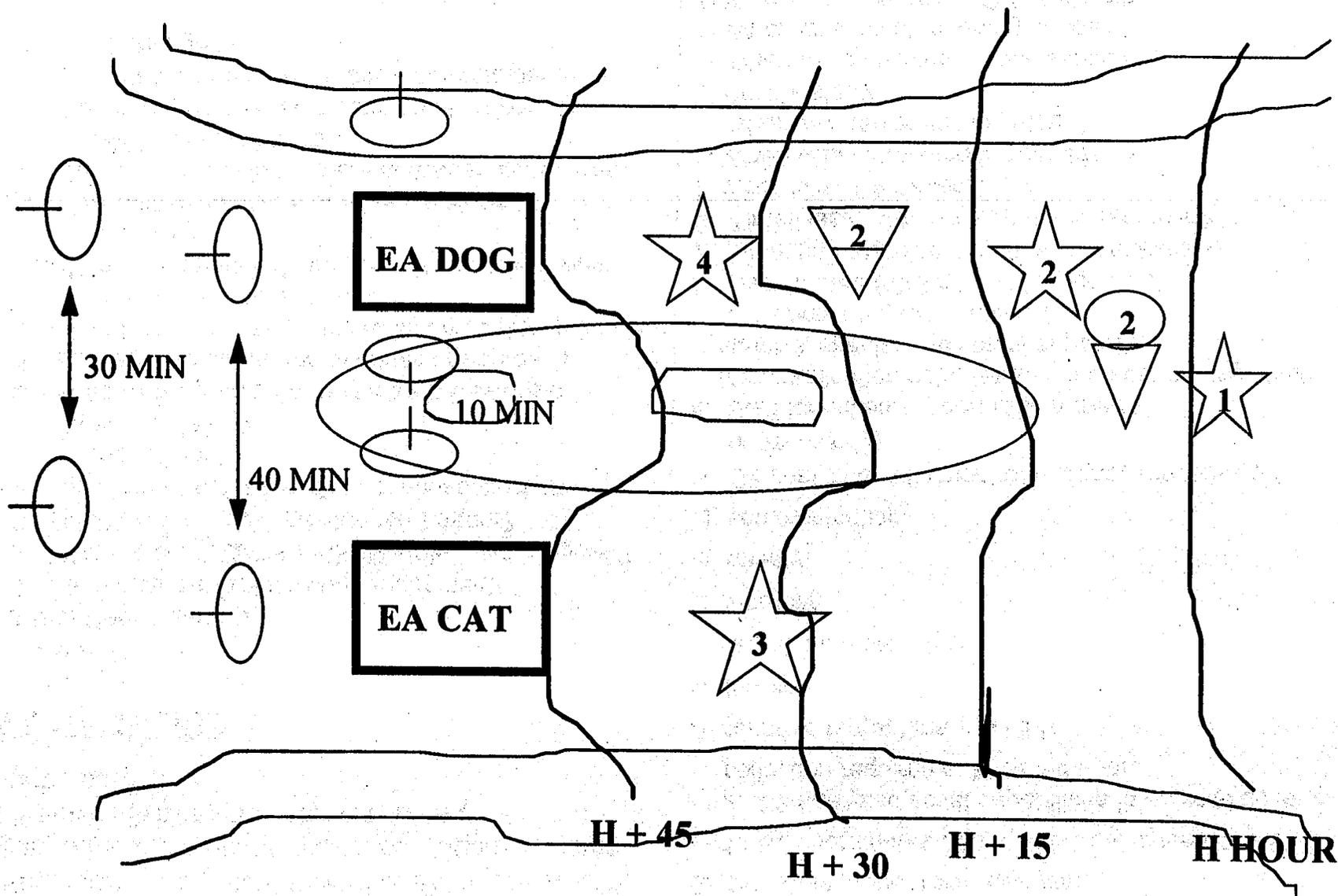
## **Weapons of Mass Destruction:**

1. Heavily guarded installation and convoys.
2. Presence of front level artillery (i.e. 203mm Gun or 240mm Mortar) in divisional area.
3. Presence of GROG/22-21/SCUD/SS23.
4. Use of missile associated terms on selected radio nets.
5. Sudden and energetic digging in enemy areas; movement of vehicles to reverse slopes; removal of antennas and other equipment mounted on vehicles.
6. Evacuation of civilians from route of movement, firing sites and storage areas.

# SITUATIONAL TEMPLATE



# DECISION SUPPORT TEMPLATE



# RECONNAISSANCE AND SURVEILLANCE PLANNING

**Reconnaissance:** Directed toward one or more specific targets without a requirement for continuous coverage.

**Surveillance:** Systematic observation on a continuous basis.

## **R&S CHECKLIST**

### **The Planning Phase:**

#### **A. Initial Requirements -**

1. Did higher provide tasking requirements?
2. Was the commanders PIR/IR stated and included?
3. Did the commander provide R&S intent?
4. Did the S2 brief the staff on enemy collection capabilities?
5. Other staff tasks?

#### **B. Specific Information Requirements Developed -**

1. S2 identified air/ground avenues of approach.
2. Situation/Event Templates reflect probable/ prioritized enemy courses of action.
3. NAIs developed in detail (what is expected, when, and where).
4. Collectable indicators at NAIs developed.
5. Specific information requirements developed from NAIs and indicators.
6. Reporting requirements developed for priority collection missions to allow commander time to change plan.

#### **C. Possible Collectors Analyzed:**

1. S2 coordinates with staff/S2/G2 to identify all.
2. S2 analyzed asset capabilities in order to develop collection requirements based upon:
  - range to target time available
  - terrain
  - target characteristics
  - weather
  - enemy
  - communications
3. S2 analyzed collection redundancy (necessary / unnecessary)
4. Staff identified support requirements (communication nets, retrans, fire support, logistical support, special equipment support).
5. S2 identified gaps in collection.
6. Backbriefed S3/Cdr on R & S concept.
7. Warning orders sent to appropriate assets.
8. Timeliness: When was mission received?
  - What is NLT for execution?
  - When was templating accomplished?
  - When was tentative plan made?
  - Backbriefed?
  - When were warning orders issued?
  - When was initial reporting needed?
  - Who was in charge of R & S planning?
  - Who was in charge of CR planning?

# THE PREPARATION PHASE

## A. Specific Collection Instructions:

1. What assets were used? What assets are available?

|         |           |          |
|---------|-----------|----------|
| Scouts  | Anti-tank | Infantry |
| GSRs    | Aviation  | Armor    |
| Patrols | Engineers | EW       |
| OPs     | Signal    | Others   |
| FOs     | Cavalry   |          |

2. Did the S2 provide detailed instruction to tasked assets? Did the instructions include:

Who is tasked?  
What to look for?  
When to look?  
Where to look?  
What you could expect to see?  
How to get there?  
Who to coordinate with?  
Reporting requirements?

3. Was the collection location appropriate?  
(concealment collectable)

4. Were there sufficient control measures included to control asset during mission?

5. Did the S2 request assistance from higher for the collection gaps identified?

6. Did the R & S plan cover all collection requirements?

7. Were assets overtasked?

## B. Coordination.

1. What is the format for the plan?  
(collection plan, overlay, matrix, etc.)

2. Were direct/indirect fires or jamming coordinated between staff and S2?

3. Additional equipment (special) planned for?

4. Communications nets established to meet reporting needs?

5. Commander/staff briefed on plan prior to execution?

6. Cdr/S3 approve final plan by CDR intent?

7. Assets know specified requirements (PIRs/IRs).

8. Plan disseminated to all involved or need to know?

9. Plan sent to higher?

## C. Assess Internal Coordination.

1. Equipment checked?

2. Internal procedures clarified?

3. Coordination between assets?

4. Mission rehearsed?

5. Was plan developed far enough in advance for assets to prepare/rehearse?

6. Plan developed in time for higher to review?

# THE EXECUTION PHASE:

## **A. Continuity of R&S&CR Operations -**

1. Did unit plan provide for operations when scout or other R&S assets are inoperable?
2. Did unit SOP provide for operations during briefings, debriefings, or rehearsals?
3. Are units/leaders cross trained to facilitate substitutions or replacement of scouts?

## **B. Assets/Units Response -**

1. Did assets depart/set up on time?
2. Did assets use cover, concealment, and camouflage?
3. Were assets able to observe enemy undetected?
4. Was low level deception used?
5. Were report requirements met?
6. Were enemy locations pinpointed?
7. Was the objective reconned?
8. Were obstacles identified/marked?
9. Were routes marked?
10. Was enemy recon located?
11. Were CR missions performed?
12. Did assets assist with S2 during attack?
13. Did assets assist with directing or controlling forces?
14. Was terrain reconned? (trafficability/reported)

## **C. Reporting -**

1. Reports timely, accurate and concise?
2. Assets debriefed?

# BN TF IEW OPNS CHECKLIST

This list represents measures for successful battalion task force intelligence operations.

- Did the S2 utilize the IPB process before combat operations began?
- Did the S2 use overlays, graphic displays, or templating techniques in depicting intelligence available to the commander?
- Did the S2 and the TF Cdr review OPFOR doctrine and tactics before combat operations began?
- Did the S2 provide company team commanders with PIRs/IRs needed by TF or higher headquarters?
- Did the S2 and S3 coordinate a patrol plan.
- Did the S2 coordinate with units to conduct patrols?
- Did the S2 include combat patrols in the collection plan?
- Did the S2 coordinate the patrols with the FSO & ENG?
- Did the S2 and S3 coordinate in planning scout operation?
- Did the S2 supervise scout operations?
- Did scout operations include fire support plans and recognition signals?
- Did the S2 coordinate with the fire support officer for information on the enemy?
- Did the S2 coordinate with adjacent and supporting units for information on the enemy?
- Did the S2 have a reconnaissance and surveillance plan?
- Did the S2 coordinate with the S3 concerning reconnaissance requirements?
- Did the S2 request CEWI support from higher HQ if needed?
- Did the S2 request aerial recon support through S2 channels?
- Did the S2 coordinate with the S1 on POW estimates
- Did the S2 ensure that POWs were processed properly
- Did the S2 coordinate with the S4 on the disposition of captured enemy material?
- Did the S2 seek technical intel assistance from higher HQ?
- Did the S2 and the intel system have the personal direction of the commander?

# COLLECTION REQUIREMENTS

## PLANNING OPERATION

- Did the S2 request doctrinal, situational, and event template support from higher headquarters?
- Did the TF Cdr and S2 conduct a ground or map reconnaissance before combat operations began?
- Did the S2 receive information or intelligence from Bde and adjacent units?
- Did the S2 receive PIRs and IRs from the Bde?
- Did the S2 receive combat information from patrols?
- Did the S2 debrief the patrols?
- Did the S2 receive patrol debriefing reports?
- Did the S2 receive enemy SPOTREPS from recon elements?
- Did the S2 receive SPOTREPS from company teams?
- Did the S2 receive a R&S plan?
- Did the R&S plan include all assets?
- Did the S2 ensure rapid dissemination of combat info?
- Did scouts conduct zone or area recon?
- Did scouts conduct security operations (screen or guard)?
- Did the S2 request and receive info gathered through ESM from BDE?
- Did the S2 request and receive weather info from BDE?
- Did the S2 R&S plan include OPs, GSRs, and REMBASS?
- Did the S2 advise the TF Cdr on employment of GSRs to support the scheme of maneuver?
- Did the S2 assign missions to the GSR section?

# COLLECTION REQUIREMENTS

## PLANNING OPERATION (CONTIN.)

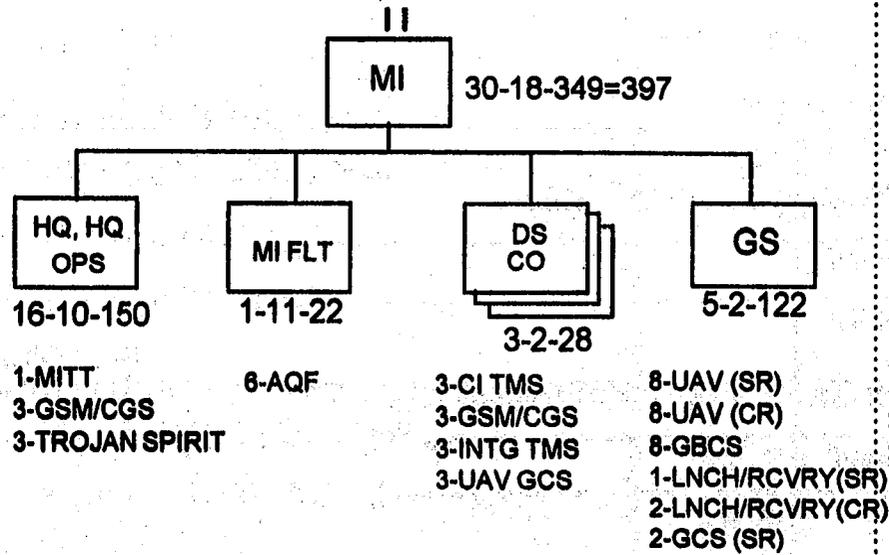
- Did the S2 ensure that the GSRs were provided security at all times?
- Did the S2 request REMS support from Bde?
- Did the S2 integrate REMS support with other surveillance means?
- Did the S2 designate areas to be covered by REMS?
- Did the REMS teams report exact locations of sensors?
- Did the S2 ensure REMS coverage of flanks, gaps, and avenues of approach?
- Did aerial recon reports provide information on a timely basis to support current combat operations?
- Did the S2 have a dedicated intel net?
- Did the S2 receive SPOTREP for enemy information in the proper format?
- Did the S2 **AGGRESSIVELY** seek useful processed intel and combat information from higher, subordinate, and adjacent units
- Did the S2 assign areas, methods of search and locations to the GSRs?
- Did the S2 receive reports from the GSR teams?
- Did GSR teams use messenger or wire to report information when possible?
- Did the S2 receive radar surveillance cards from the GSR teams?
- Did GSRs locate on dominating terrain overlooking the areas to be covered?
- Did GSRs locate near supported units?
- Did GSRs have covered and concealed routes to and from their positions?
- Did the S2 employ GSRs forward during offensive operations?
- Did the S2 employ GSRs in the main battle area during defensive operations?
- Did the S2 employ the GSRs in the covering force area (if applicable)?

# **INTELLIGENCE INFORMATION**

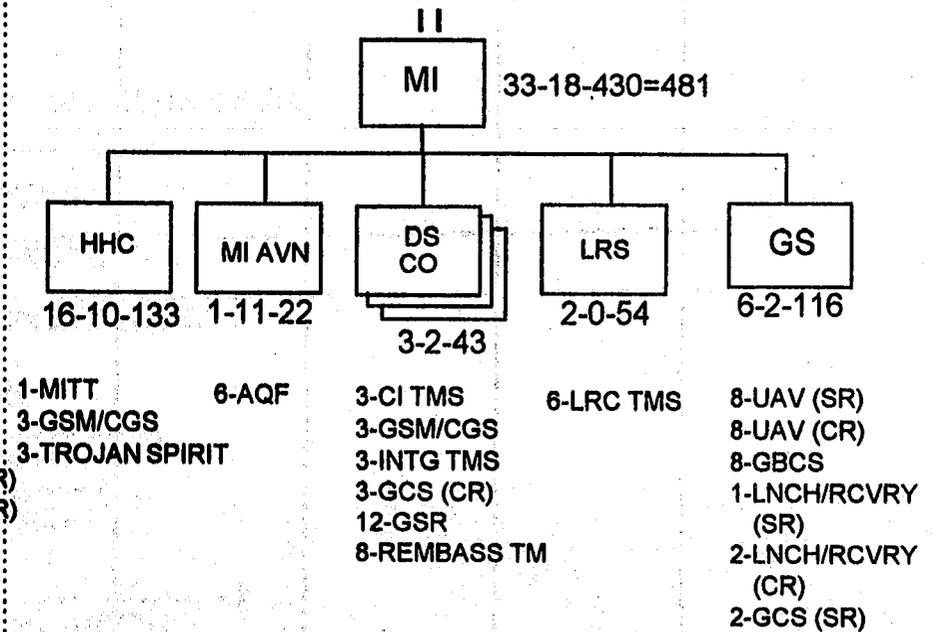
## **PROCESSING - EVALUATION - RECORDING**

- Did the S2 identify enemy activity and probable courses of enemy actions?
- Did the S2 ensure captured documents and equipment were tagged and evacuated to higher HQ?
- Did the S2 produce an intelligence estimate?
- Did the S2 provide the TF Cdr with an analysis of enemy strength and capabilities that could influence the TF mission?
- Did the S2 provide the Co/Tm Cdrs with PIRs and IRs needed by the TF or higher HQ?
- Did the S2 provide Bde with its EMS and ECM priorities?
- Did the S2 provide combat information to Bde and adjacent units?
- Did the S2 disseminate combat information from patrols to the TF staff and Bde?
- Did the S2 disseminate combat information to the Cdr, staff, subordinate and supporting units, and others as necessary?
- Did intelligence and combat information get to the TF and subordinate Cdrs in time to influence their planning strategies?

# MI BATTALION (HEAVY)



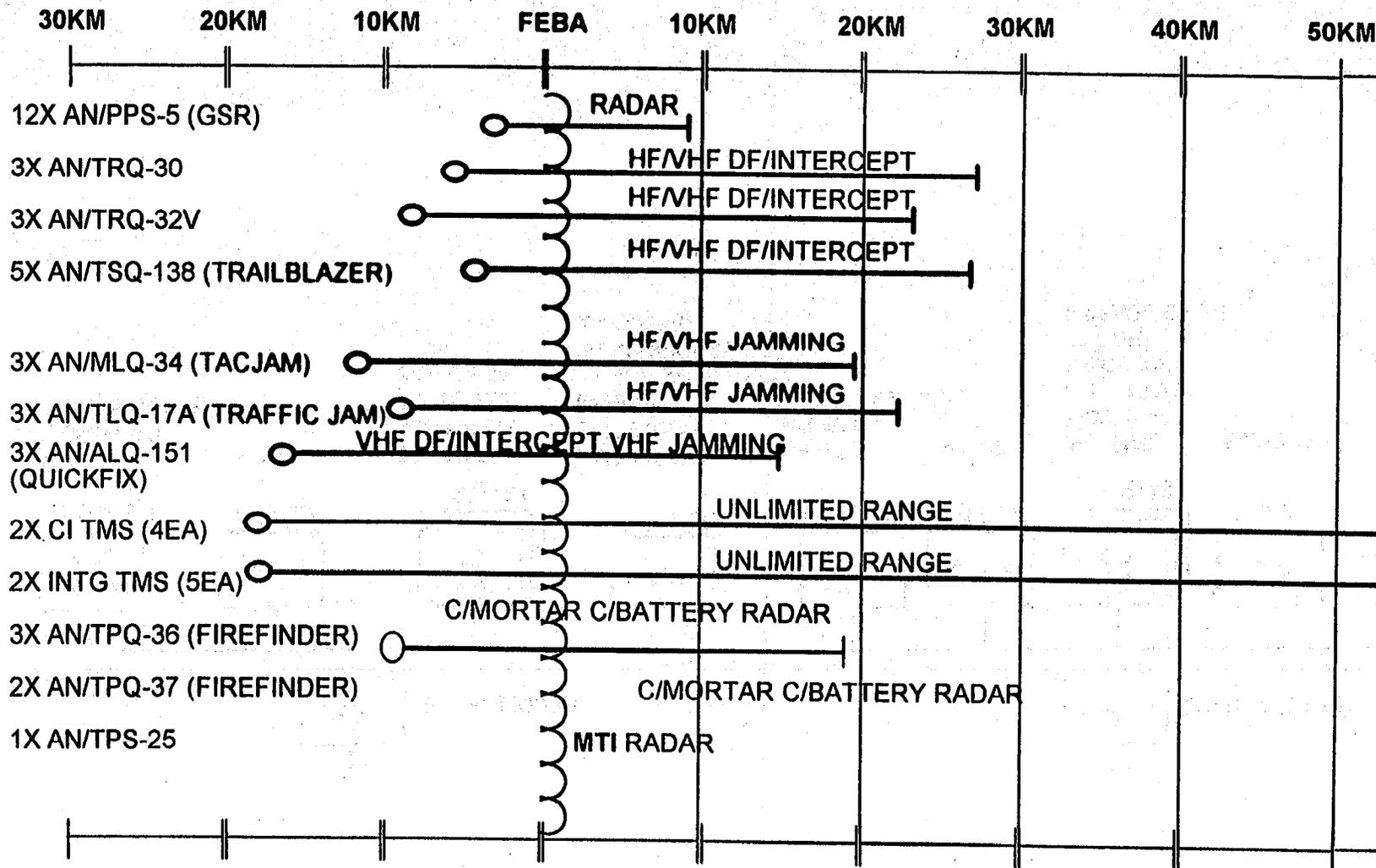
# MI BATTALION (LIGHT)



\* TO&Es Effective FY 95

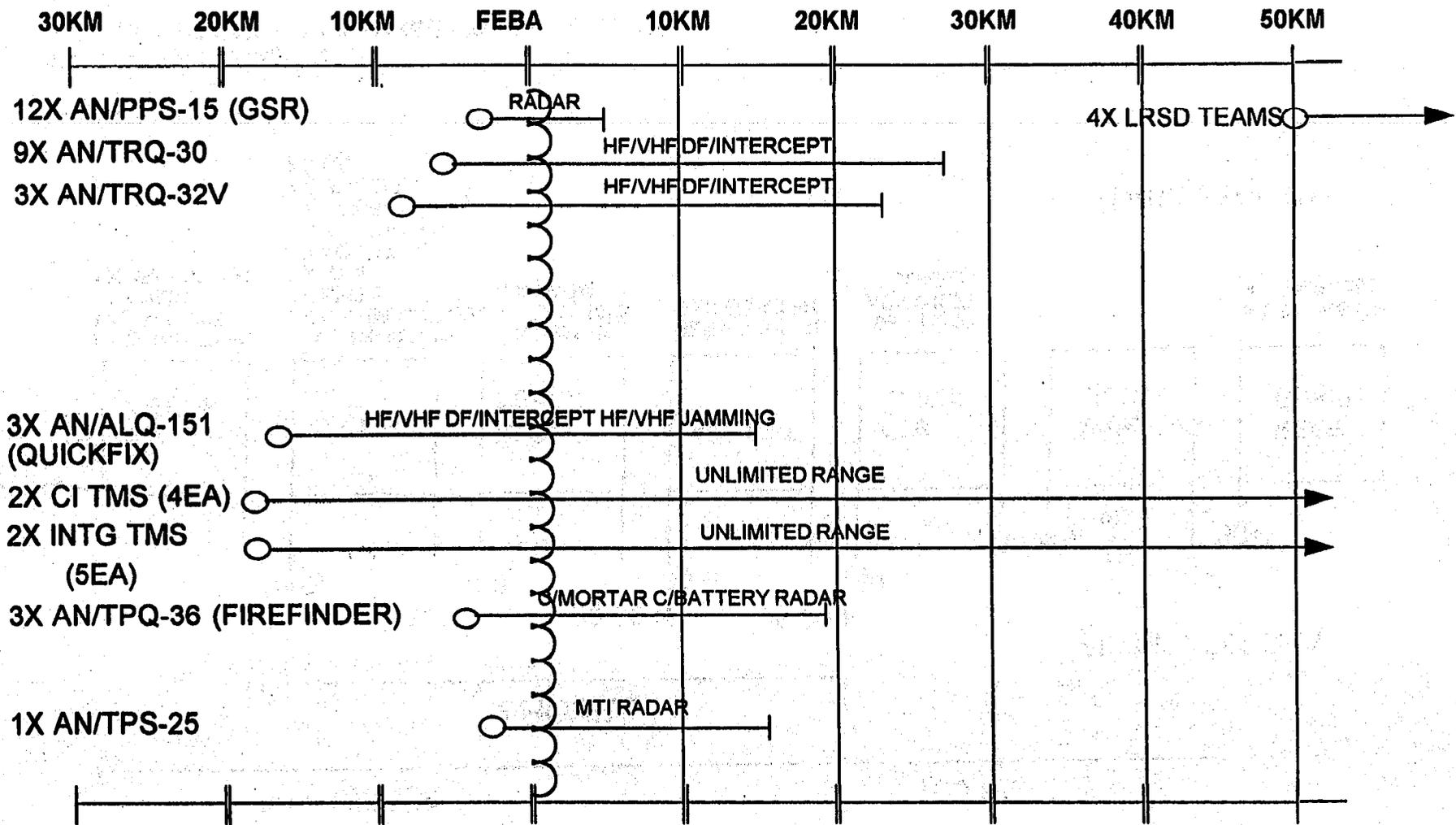
B-15

# HEAVY DIVISION IEW RESOURCES



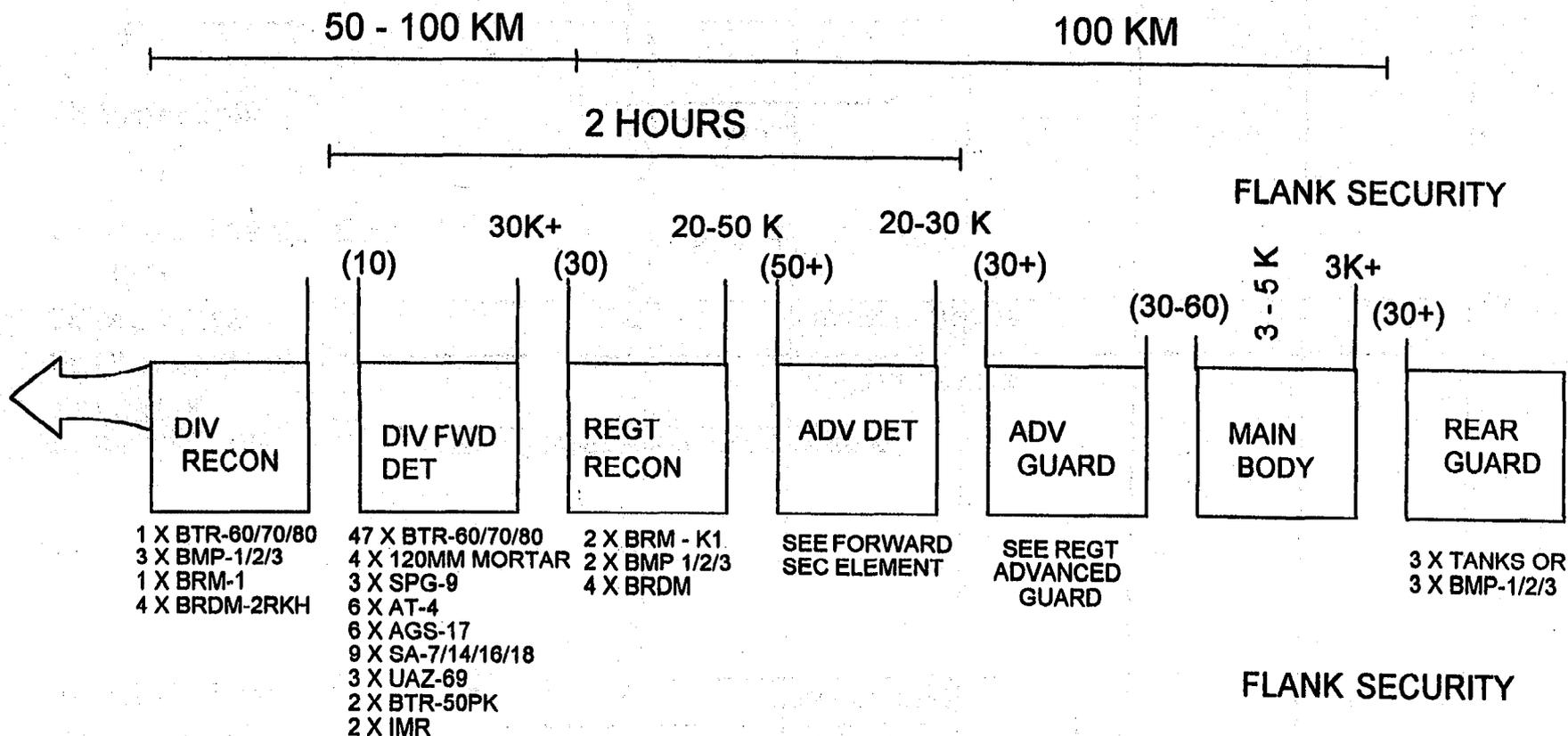
\* DOES NOT INCLUDE RESOURCES ORGANIC TO MANEUVER BRIGADES

# LIGHT DIVISION IEW RESOURCES



\* DOES NOT INCLUDE RESOURCES ORGANIC TO MANEUVER BRIGADES

# MRD MARCH FORMATION



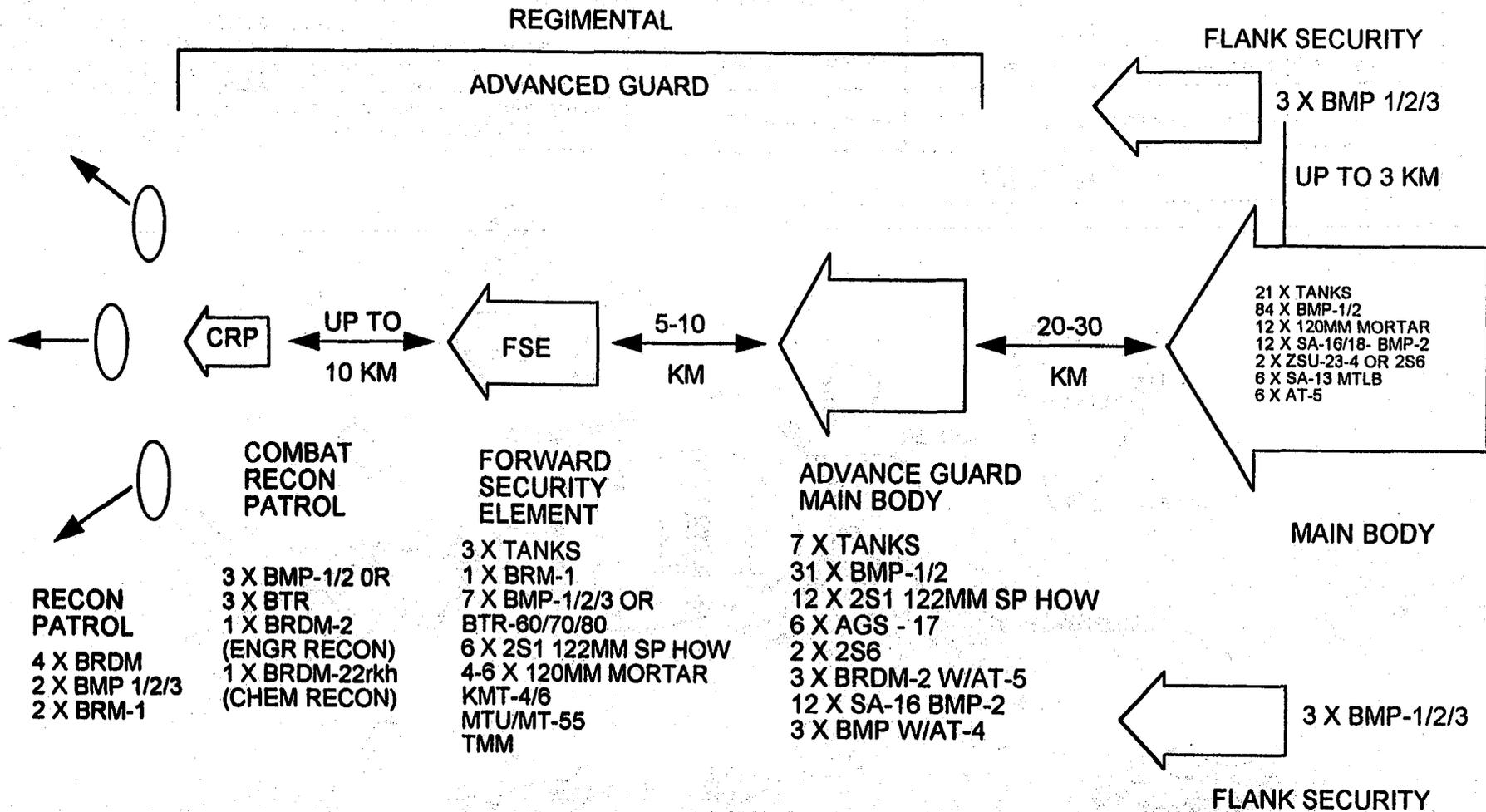
K = KILOMETERS

( ) = NUMBER EQUALS TIME  
MRD MAY TRAVEL UP TO THREE AXIS OF ADVANCE

\* = FLANK SECURITY IS PLATOON SIZED AND SUBORDINATE TO THE ADJACENT REGIMENT/COMBAT FORMATION.

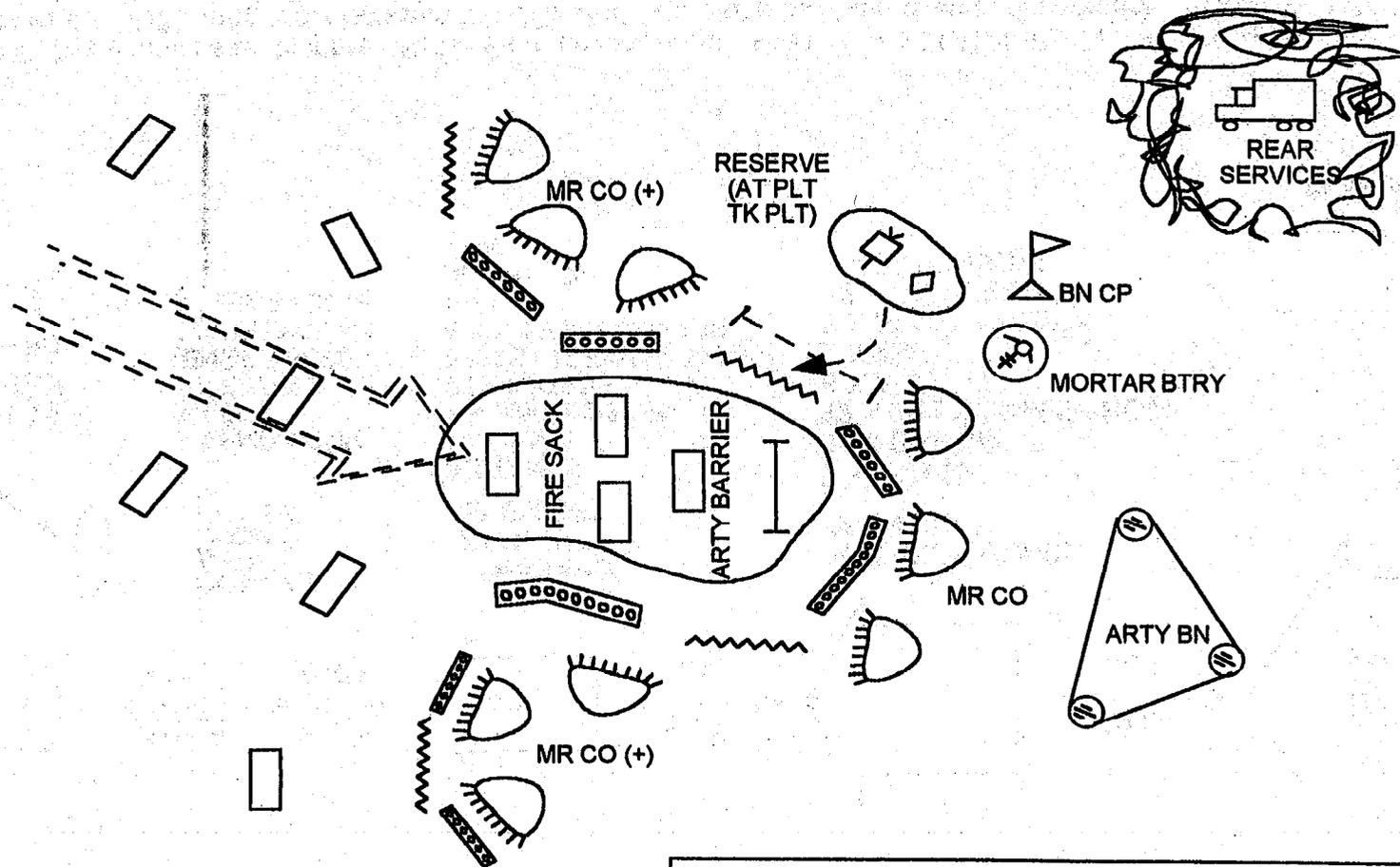
DIVISION FORWARD DETACHMENT MAY BE DEPLOYED BY THE DIVISION COMMANDER AND MAY TRAVEL ON IT'S OWN AXIS OF ADVANCE. IT MAY BE A MRB OR A T.R. WHICH COMES FROM THE MAIN BODY.

# MRR MARCH FORMATION



**NOTE:** There may be up to three CRP's in the forward area> The use of a FORWARD PATROL, (Composition the same as the CRP), may occur between the CRP and FSE along the main avenue of approach. FORWARD PATROL acts as security for the FSE.

# THREAT MRB DEFENSE



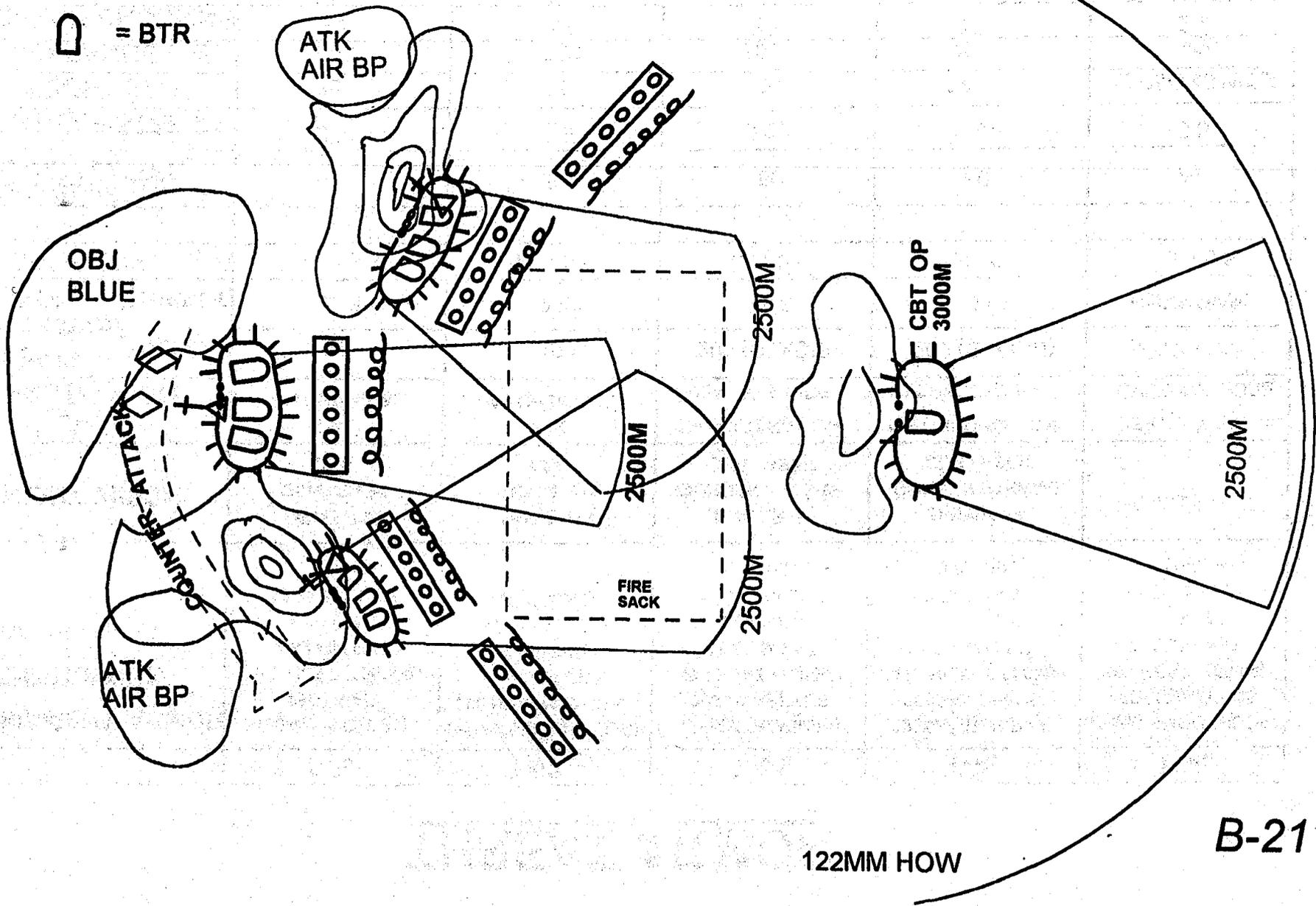
**NOTE:** A battalion usually defends in a single echelon, in an area 3 to 5 kilometers wide and up to 2 kilometers deep. When defending a narrow frontage or if greater depth is required, it may deploy in two echelons as above. Distance between echelons can be up to 500 meters in depth. Reserves are located behind the second echelon.

| LEGEND    |                                    |
|-----------|------------------------------------|
| Minefield | Preplanned artillery concentration |
| Barrier   | Probable enemy avenue of approach  |

# THREAT COMPANY DEFENSE

◇ = MED TANK

□ = BTR



# THREAT ARMOR

|  |          | T-55   | T-62   | T-64   | T-72   | T-80   |
|--|----------|--|--|--|--|--|
| <b>ARMAMENT ARMOR PENETRATION (MM) (RANGE)</b> |          | 100MM (DOIT 25)<br>280 HVAP<br>390 HEAT (1500M)<br>7.62 MM PKT<br>8 (1000M)<br>12.7MM DSHE<br>20 (1000M) | 115MM SMOOTHBORE<br>280 HVAP/450 HEAT<br>7.62 MM PKT<br>8 (1000M)<br>12.7MM DSHE<br>20 (1000M) | 125MM (RAPIRA3)<br>300 HVAPFSDS<br>475 HEAT (1500M)<br>7.62 MM PKT<br>8 (1000M)<br>12.7MM NSVT<br>20 (1000M) | 125MM (RAPIRA3)<br>300 HVAPFSDS<br>475 HEAT (1500M)<br>7.62 MM PKT<br>8 (1000M)<br>12.7MM NSVT<br>20 (1000M) | 125MM SMOOTHBORE<br>400+ HVAPFSDS<br>500 HEAT (1500M)<br>7.62 MM PKT<br>8 (1000M)<br>12.7MM NSVT<br>20 (1000M) |
| <b>NIGHT VISION</b>                            |          | DRIVER IR<br>GUNNER IR<br>CDR  | DRIVER IR<br>GUNNER IR<br>CDR  | DRIVER IR<br>GUNNER PASSIVE<br>CDR LASER   | DRIVER IR<br>GUNNER PASSIVE<br>CDR LASER   | IR (ALL)   |
| <b>CBR PROTECTION</b>                          |          | PAZ<br>NO CHEMICAL   | PAZ<br>NO CHEMICAL   | CBR FILTERATION<br>OVERPRESSURE  | CBR FILTERATION<br>OVERPRESSURE  | CBR FILTERATION<br>OVERPRESSURE  |
| <b>ARMOR PROTECTION (MM)</b>                   | (HULL)   | 99   | 102  | 200 (GLACIS)   | 200 (GLACIS)   | UNKNOWN  |
|  | (TURRET) | 203  | 242  | 275  | 275  | UNKNOWN  |
| <b>FORD/SNORKEL (M)</b>                        |          | 1.4 / 5.5  | 1.4 / 5.5  | 1.4 / 5.5  | 1.4 / 5.5  | 1.4 / 5.5  |
| <b>SPEED (KPH)<br/>LAND / WATER</b>            |          | 50   | 50   | 50   | 60   | 85   |
| <b>VERTICLE STEP (M)</b>                       |          | 0.8  | 0.8  | 0.91   | 0.91   | 0.8  |
| <b>WEIGHT (MT)</b>                             |          | 38   | 38   | 38   | 41   | 42 W/O 45 W/RA   |
| <b>ROAD RANGE (KM)</b>                         |          | 500  | 300  | 300  | 400  | 485  |
| <b>TRENCH CROSSING</b>                         |          | 2.7  | 2.7  | 2.7  | 2.7  | 2.7  |
| <b>GRADE (DEGREE)</b>                          |          | 30   | 30   | 30   | 30   | 30   |

# THREAT APC'S/IFV'S

|  | BMP  | BMP/2  | BTR-60/70/80  | BRDM-2  | BMP-3  |         |
|--|--|--|---|---|--|---------|
| <b>ARMAMENT ARMOR PENETRATION (MM) (RANGE)</b> | 73MM (2A28)<br>300 (800M)<br>AT-3 SAGGER<br>400 (3000 M)<br>7.62MM PKT<br>8 (500M) | 30MM<br>30 (1000M)<br>AT-5 SPANDREL<br>600 (4000M)<br>7.62MM PKT<br>8 (500M) | 14.5MM KPVT<br>20 (1000M)<br>7.62MM PKT<br>8 (500M) | 14.5MM KPVT<br>20 (1000M)<br>7.62MM PKT<br>8 (500M) | 100MM<br>30MM COAX<br>7.62MM PKT (3)<br>AT-10 MAIN GUN |         |
| <b>NIGHT VISION</b>                            | DRIVER IR<br>GUNNER PASSIVE<br>CDR PASSIVE   | DRIVER IR<br>GUNNER PASSIVE<br>CDR PASSIVE                                   | DRIVER IR<br>CDR IR                                 | DRIVER IR<br>CDR IR                                 | UNKNOWN  |         |
| <b>CBR PROTECTION</b>                          | CBR FILTRATION<br>OVERPRESSURE   | CBR FILTRATION<br>OVERPRESSURE   | CBR FILTRATION<br>OVERPRESSURE                      | CBR FILTRATION<br>OVERPRESSURE                      | CBR FILTRATION<br>OVERPRESSURE                         |         |
| <b>ARMOR PROTECTION (MM)</b>                   | (HULL)   | 19   | 19  | 9/10  | 14   | UNKNOWN |
|  | (TURRET)   | 23   | 23  | 7   | 7  | UNKNOWN |
| <b>CREW/PASSENGER</b>                          | 3/8  | 3/7  | 3/8   | 2-4/4   | 3/7 POSSIBLE   |         |
| <b>FORD/SNORKEL (M)</b>                        | AMPHIB   | AMPHIB   | AMPHIB  | AMPHIB  | AMPHIB   |         |
| <b>SPEED (KPH)<br/>LAND / WATER</b>            | 70/10  | 70/10  | 80/10   | 100/10  | 70/10  |         |
| <b>VERTICLE STEP (M)</b>                       | 0.8  | 0.8  | 0.4   | 0.4   | 0.8  |         |
| <b>WEIGHT (MT)</b>                             | 7.5  | 7.5  | 10.2 (11)   | 7.0   | 18.7   |         |
| <b>ROAD RANGE (KM)</b>                         | 320  | 320  | 500   | 750   | 600  |         |
| <b>TRENCH CROSSING</b>                         | 1.6  | 1.6  | 2   | 1/6   | 2.5  |         |
| <b>GRADE (DEGREE)</b>                          | 30   | 30   | 30  | 30  | 35   |         |

# THREAT ARTILLERY/MORTAR

| WPN SYSTEM   | RANGE               | CALIBER | AMMUNITION   | RATE OF FIRE | UNIT OF FIRE                | ORGANIZATION                    |
|--------------|---------------------|---------|--|--------------|-----------------------------|---------------------------------|
| D-30 HOW     | 15300               | 122MM   | HE, FRAG, HEAT<br>ILLUM, SMOKE                     | 7-8          | 80                          | HOW BATTALION<br>BTR (MRR)      |
| D-20 HOW     | 17300<br>22,000 RAP | 152MM   | HE, FRAG, HEAT<br>ILLUM, SMOKE,<br>NUKE, CHEM, RAP | 5            | 60                          | MRD<br>ARTY REG<br>MRD          |
| 2S1 SP HOW   | 15300               | 122MM   | HE, FRAG, HEAT<br>ILLUM, SMOKE<br>CHEM, RAP        | 5-8          | 80                          | HOW BATTALION<br>BMP (MRR)      |
| 2S3 SP HOW   | 17300<br>30,000 RAP | 152MM   | HE, FRAG, HEAT<br>ILLUM, SMOKE,<br>NUKE, CHEM, RAP | 4            | 60                          | ARTILLERY<br>REGIMENT<br>MRD/TD |
| 2S5 SP HOW   | 27000<br>35,000 RAP | 152MM   | HE, FRAG, HEAT<br>ILLUM, SMOKE,<br>NUKE, CHEM, RAP | 4            | --                          | FRONT/ARMY<br>GUN BN            |
| M1976 GUN    | 27000<br>35,000 RAP | 152MM   | HE, FRAG, NUKE                                     | ---          | 80                          | FRONT/ARMY<br>GUN BN            |
| BM-21 MRL    | 20500               | 122MM   | HE, FRAG, CHEM                                     | 40 (20 SEC)  | 120                         | ARTILLERY REG<br>OF MRD OR TD   |
| M1943 MORTAR | 5700                | 120MM   | HE, FRAG, CHEM<br>SMOKE, ILLUM                     | 9            | 80                          | MORTAR BATTERY<br>MRB           |
| SS-21        | 120 KM              | -----   | HE, CHEM, NUKE                                     | ---          | ONE MISSILE/<br>TEL VEHICLE | FROG REG<br>AT FRONT/ARMY       |

# THREAT ANTITANK GUNS/MISSILES

| WPNS SYSTEMS       | RPG-7             | RPG-18          | SPG-9          | AG3-17              | AT-2 SWATTER          | AT-3 SAGGER         | AT-4 SPIGOT        | AT-5 SPIRAL         | AT-6 SPANDREIS        | AT-7 SAXHORN | AT-8 SONGSTER | T-12                    | ASU-85  |
|--------------------|-------------------|-----------------|----------------|---------------------|-----------------------|---------------------|--------------------|---------------------|-----------------------|--------------|---------------|-------------------------|---|
| VEHICLE            | MAN PACK          | MAN PACK        | MAN PACK TRUCK | MAN PACK VEHICLE    | BMP HIP/HIND          | BMP HIP/HIND        | BTR                | BRDM HIP/HIND       | BRDM HIP/HIND         | MAN PACK     | T-64<br>T-80  | TOWED                   | VEHICLE   |
| RANGE (M)          | 300/500 (2)       | 200             | 1000           | 1730 MAX            | 500 MIN<br>3000 MAX   | 500 MIN<br>3000 MAX | 70 MIN<br>2000 MAX | 100 MIN<br>4000 MAX | 100 MIN<br>5000 MAX   | 1000 MAX     | 4000 MAX      | 2000                    | 15000 +   |
| CALIBER WARHEAD MM | 85/70 (1)<br>HEAT | 64<br>HEAT      | 73<br>HEAT     | 30<br>FRAG<br>HEAT  | 148<br>HEAT           | 120<br>HEAT         | 134<br>HEAT        | 150<br>HEAT         | 150<br>HEAT           | HEAT         | HEAT          | 100, HEAT<br>HVAPFSDS   | 85, HEAT,<br>FRAG, SMOKE<br>HVAP-T, APC-T, AP-T |
| UNIT OF FIRE RD'S  | 20                | 100 PER COMPANY | 80             | 89                  | BRDM 10<br>HIP/HIND 4 | BRDM 14<br>HIP/HIND | 4 LCHR<br>BTR BN   | BRDM<br>HIP/HIND 4  | BRDM 15<br>HIP/HIND 4 |              |               | 60 RDS<br>GUN           | 7-8 RDS MIN                                     |
| TIME OF FLIGHT     | 4.5 SEC<br>MAX    | 4-6 SEC<br>MAX  | 2.5 SEC<br>MAX | SLOW                | 23 SEC<br>RANGE       | 25 SEC<br>RANGE     | 11 SEC<br>RANGE    | 20 SEC<br>RANGE     | 11 SEC<br>RANGE       |              | SUPER-SONIC   | 9 SEC<br>RANGE          |   |
| PENETRATION (MM)   | 330               | 375             | 400            |                     | 500 +                 | 400 +               | 600                | 600                 | 600 +                 |              | 700-800       | 225 (SABOT)<br>400 HEAT | 100 HVAP-T<br>400 HEAT                          |
| FIRE CONTROL       | OPTICAL           | OPTICAL         | IR<br>PASSIVE  | TELESCOPIC<br>SIGHT | SACLOS<br>MCLOS       | MCLOS<br>SACLOS     | SACLOS             | SACLOS              | SACLOS                | SACLOS       | SACLOS        | IR                      | DIRECTFIRE<br>TELESCOPE<br>IR                   |

# THREAT HELICOPTERS

|                               | MI-2<br>HOPLITE                   | MI-6<br>HOOK | MI-8/17<br>HIP   | MI-24<br>HIND  | MI-26<br>HALO | MI-28<br>HAVOC                                    | KA-?<br>KOKUM           |
|-------------------------------|-----------------------------------|--------------|--|--|---------------|---|-------------------------|
| <b>MISSION</b>                | COMMAND/CONTROL<br>RECONNAISSANCE | TRANSPORT    | ATTACK<br>TRANSPORT<br>ECM   | ATTACK<br>TRANSPORT  | TRANSPORT     | ATTACK  | AIR TO AIR              |
| <b>ARMAMENT</b>               | 12.7MM MG<br>2X ROCKET PODS       | 12.7MM MG    | 12.7MM MG<br>6X ROCKET PODS<br>4X AT-2,3,6<br>4X 250 KG BOMBS<br>2X 500 KG BOMBS | 12.7MM MG<br>30MM CANNON<br>4X ROCKET POD<br>4X AT-2,3,6<br>4X 250 KG BOMBS<br>2X 500 KG BOMBS | NONE          | 30MM CANNON<br>ROCKET PODS<br>16X ATGM'S<br>AAM'S | 30MM<br>CANNON<br>AAM'S |
| <b>CREW</b>                   | 1                                 | 5            | 2  | 3  | 5             | 2   | 2                       |
| <b>PASSENGER</b>              | 6-8                               | 65           | 24   | 8-10   | 100 +         | NONE  | NONE                    |
| <b>SPEED (KM/H)</b>           | 210                               | 300          | 250  | 320  | 300           | 300   | 350                     |
| <b>COMBAT<br/>RADIUS (KM)</b> | 170                               | 300          | 200  | 160  | 370           | 240   | 250                     |

|                               | MIG-27<br>FLOGGER  | SU-17<br>FITTER   | SU-24<br>FENCER   | SU-25<br>FROGFOOT                                      |
|-------------------------------|--|---|---|--|
| <b>MISSION</b>                |  |   |   |  |
| <b>ARMAMENT</b>               | GROUND ATTACK  | GROUND ATTACK   | DEEP INTERDICTION   | GROUND ATTACK  |
| <b>CREW</b>                   | 30MM GATLING GUN<br>3,000 KG BOMBS<br>ASM'S<br>NUCLEAR WEAPONS | 2X 30MM GUNS<br>3,000 KG BOMBS<br>ASM'S<br>ROCKET PODS<br>NUCLEAR WEAPONS | 30MM GATLING GUNS<br>2,500 KG BOMBS<br>ASM'S<br>NUCLEAR WEAPONS | 2X 30MM GUNS<br>4,000 KG BOMBS<br>ROCKET PODS<br>AAM'S |
| <b>SPEED (KM/H)</b>           | 1  | 1   | 2   | 1  |
| <b>COMBAT<br/>RADIUS (KM)</b> | 980  | 1200  | 1250  | 475  |
|                               | 800  | 700   | 1800  | 550  |

B-26

# **MANEUVER (incl. AVIATION)**

**Section - C**

# ARMY OPERATIONS

## TENETS

- INITIATIVE
- AGILITY
- DEPTH
- SYNCHRONIZATION
- VERSATILITY

## CHARACTERISTICS OF THE OFFENSE

- SURPRISE
- CONCENTRATION
- TEMPO
- AUDACITY

## FORMS OF TACTICAL OFFENSE

- MOVEMENT TO CONTACT
- ATTACK
- EXPLOITATION
- PURSUIT

## CHARACTERISTICS OF DEFENSIVE OPERATION

- PREPARATION
- SECURITY
- DISRUPTION
- MASS AND CONCENTRATION
- FLEXIBILITY

## DEFENSIVE PATTERNS

- MOBILE DEFENSE
- AREA DEFENSE

# FIRE CONTROL TECHNIQUES

## □ DEFENSIVE FIRE PLANNING

- DIVIDING THE EA
- SECTOR
- CLOSEST TRP
- QUADRANTS
- ENEMY FORMATIONS
- CO/TM PATTERN FIRING
- TARGET ARRAY QUADRANT

## □ OFFENSIVE FIRE PLANNING

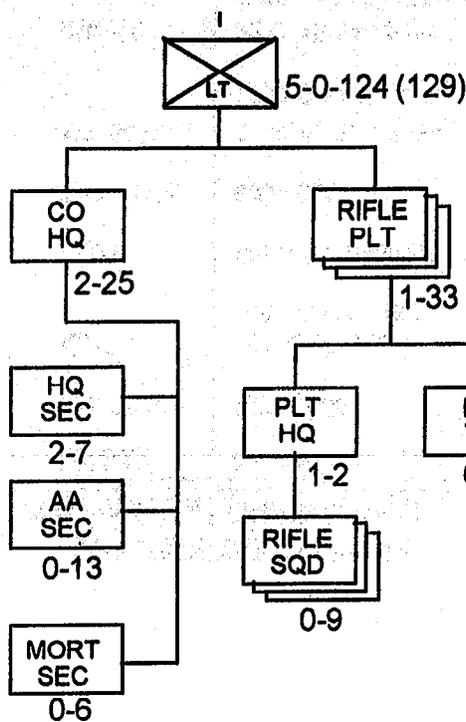
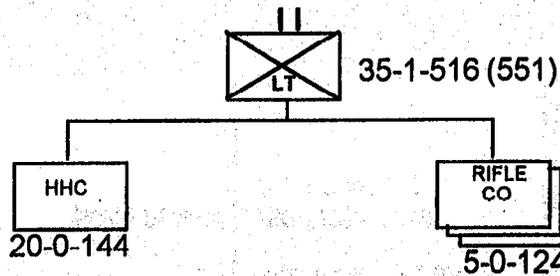
- SECTORS
- QUADRANT TRPs
- POINT TARGET TRPs
- CLOSEST TRP
- FIRE PATTERNS
- MOVING QUADRANTS
- STARBURST

# WEAPONS RANGES

| <u>MAX EFFECTIVE/PLANNING</u> |                                       | <u>MAX EFFECTIVE/PLANNING</u> |  | <u>MAX EFFECTIVE/PLANNING</u> |  |
|-------------------------------|---------------------------------------|-------------------------------|--|-------------------------------|--|
| <u>TYPE WEAPON</u>            | <u>RANGE (meters)</u>                 | <u>TYPE WEAPON</u>            | <u>RANGE (meters)</u>  | <u>TYPE WEAPON</u>            | <u>RANGE (meters)</u>  |
| M16A2                         | 580 / 400                             | M72A2 LAW                     | 200 STATIONARY / 200<br>165 MOVING / 165   | 4.2 IN MORTAR                 | 6840 HE / 6840MIN HE 770<br>5650 WP / 5650 MIN WP 920<br>5490 ILLUM / 5490 MIN ILLUM 400 |
| M240 SAW                      | 1000 / 600                            | M1136 AT4                     | 300 ALL / 300  | 120 MM MORTAR                 | 7200 (HE/WP) / 7200 MIN 200<br>7400 ILLUM / 7400   |
| M203                          | 350 AREA / 350<br>160 POINT / 160     | M47 DRAGON                    | 1000 / 800 (65 MIN)  | M1/M60 105 MM                 | 2800 / 2800  |
| M60                           | 1100 / 1100 (600 GRAZING)             | M242 25MM                     | 3000 HEIT / 3000<br>2000 APDS-T / 1700   | M1A1 120 MM                   | 2500/2500  |
| 7.62 COAX                     | 900 / 900                             | TOW 2                         | 3750 / 2700 (65 MIN)   |                               |  |
| M2 .50 CAL                    | 1830 AREA / 1830<br>1200 POINT / 1200 | 60 MM MORTAR                  | 3500 HE / 3500 MIN HE 75<br>(1300 MAX when hand held)<br>1630 WP / 1630 MIN WP 75<br>951 ILLUM / 951 MIN ILLUM 100 |                               |  |
| MK 19                         | 2212 AREA / 2212<br>1500 POINT / 1500 | 81 MM MORTAR                  | 5600 HE / 5600MIN HE 73<br>4800 WP / 4800 MIN WP 73<br>4500 ILLUM / 5490 MIN ILLUM 400                             |                               |  |
| M202 FLASH                    | 750 AREA / 750<br>200 POINT / 200     |                               |  |                               |  |

# LT INF BN

07015L000



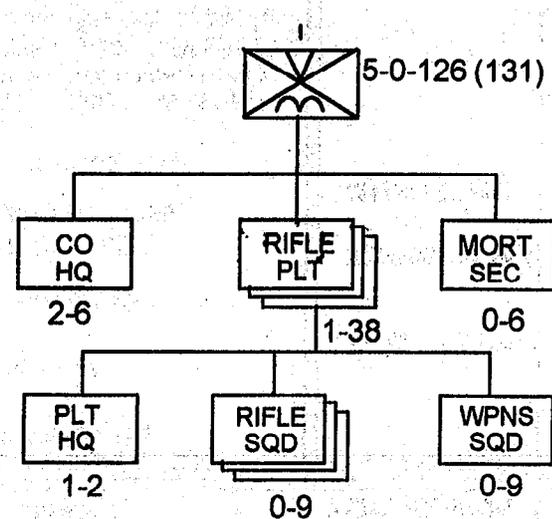
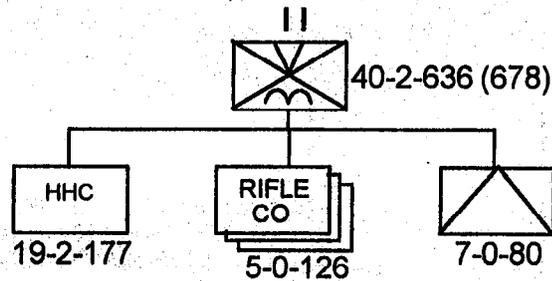
## LT CO

0 VEHICLES

- 6 AAWS-M
- 2 60MM MORT
- 18 AR (M249)
- 6 LMG (M60)
- 19 M203
- 11 9MM PISTOL
- 101 M16A2
- 24 AN/PAQ-4
- 39 AN/PVS-4
- 70 AN/PVS-7B
- 12 AN/PAS-7
- 8 AN/PRC-119
- 15 AN/PRC-126

# ABN/AASLT BN

07055L000



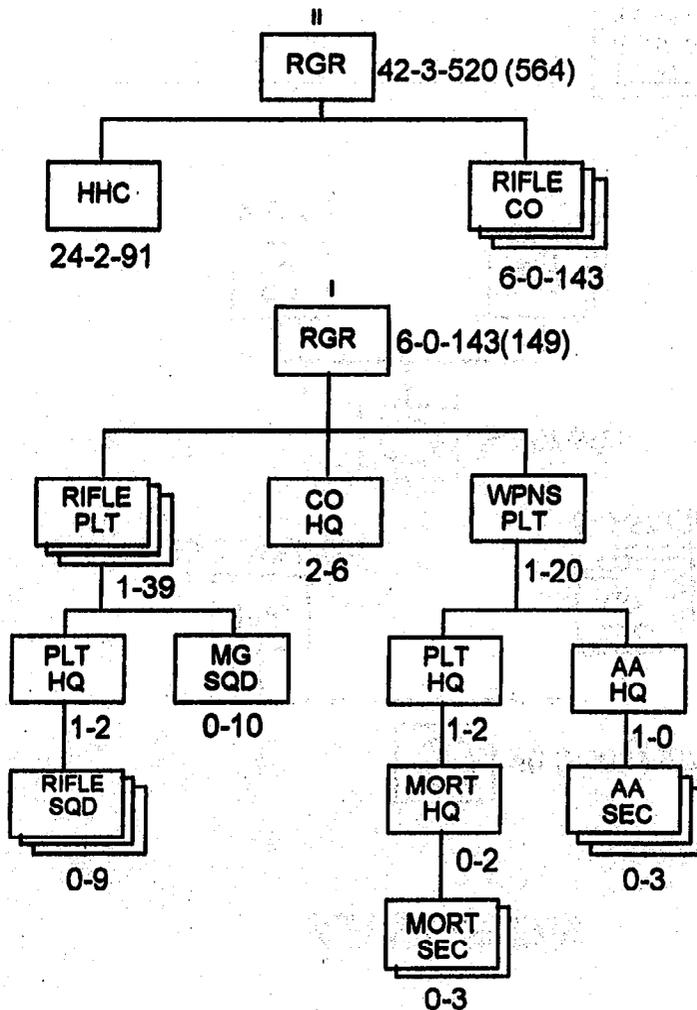
## ABN/AASLT CO

0 VEHICLES

- 6 AAWS-M
- 2 60MM MORT
- 18 AR (M249)
- 6 LMG (M60)
- 20 M203
- 11 9MM PISTOL
- 103 M16A2
- 27 AN/PAQ-4
- 3 AN/PVS-5
- 33 AN/PVS-4
- 59 AN/PVS-7B
- 4 AN/PAS-4
- 8 AN/PRC-119
- 15 AN/PRC-126

## RANGER BN

07085L000



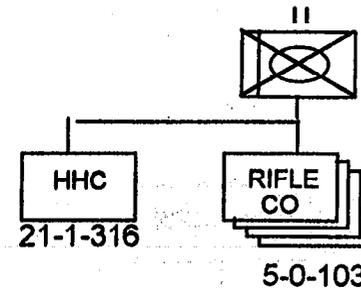
## RGR CO

0 VEHICLES

3 AAWS-M  
 6 90MM RR  
 2 STINGER  
 2 60MM MORT  
 18 AR (M249)  
 9 LMG (M60)  
 21 M203  
 17 9MM PISTOL  
 117 M16A2  
 8 M24 SNIPER  
 32 AN.PAQ-4  
 9 AN/TVS-5  
 29 AN/PVS-4  
 84 AN/PVS-7B  
 3 AN/PAS-7  
 1 AN/PSC-3  
 5 AN/PRC-104A  
 10 AN/PRC-119  
 16 AN/PRC-126

## MECH BN (BFV)

07245L500



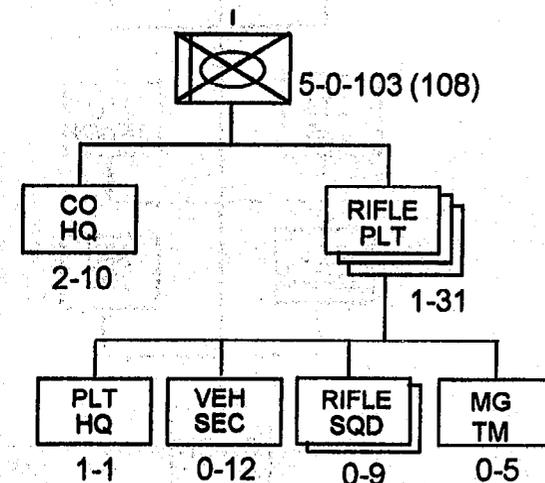
46-1-782 (829)

## BFV CO

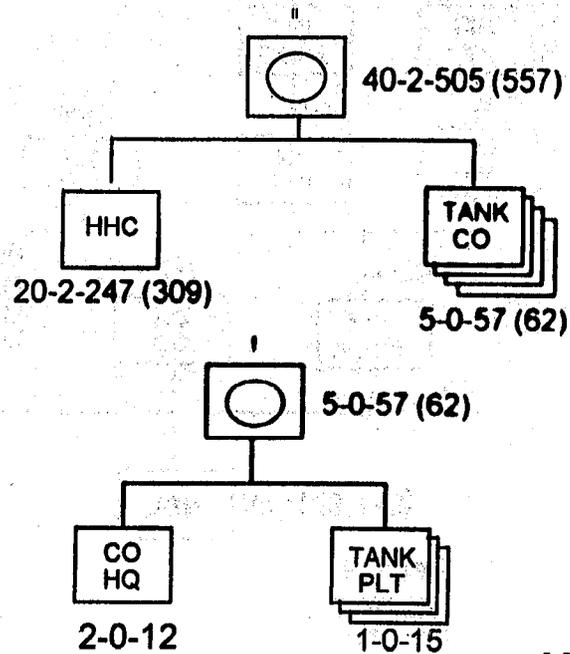
14 IFV-A3  
 1 M113A3  
 1 HMMWV-C  
 2 LMTV

1 WATER TRLR  
 3 STINGRAY  
 9 AAWS-M  
 1 .50 CAL M2  
 1 40MM GMM  
 18 AR (M249)  
 6 LMG (M60)  
 18 M203  
 1 9MM PISTOL  
 76 M-16A2  
 1 M-24 SNIPER  
 23 AN/PAQ-4  
 2 AN/TVS-5  
 20 AN/PVS-4  
 65 AN/PVS-7B  
 3 AN/PAS-7  
 1 AN/UAS-11  
 11 AN/PVS-6

6 AN/VRC-87  
 1 AN/VRC-90  
 6 AN/VRC-91  
 3 AN/VRC-92  
 5 AN/PRC-119  
 12 AN/PRC-126



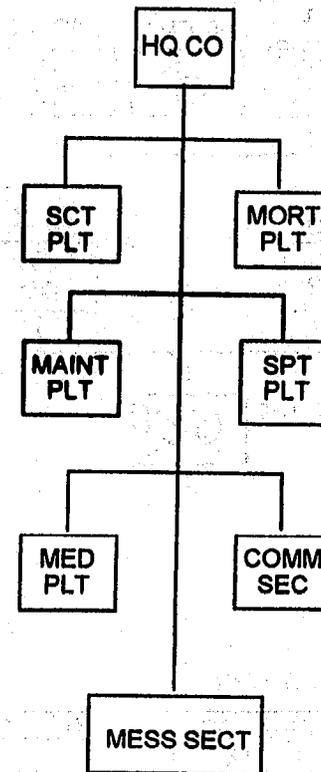
## ARMOR BN



## AR BN ASSETS

|                  |
|------------------|
| 58 M1A1          |
| 6 MORTAR (120MM) |
| 11 M113          |
| 10 HMMWV (SCTS)  |
| 15 HEMTT CGO     |
| 16 HEMTT FUEL    |
| 8 AMBULANCE M113 |
| 7 M88            |

## KEY ELEMENTS OF HQ CO



# HELICOPTER CHARACTERISTICS

|  | <u>AH-1</u> | <u>AH-64</u> | <u>OH-58C</u> | <u>OH-58D</u> | <u>UH-1</u> | <u>UH-60</u> | <u>CH-47D</u> |
|--|-------------|--------------|---------------|---------------|-------------|--------------|---------------|
| 1. Cruise airspeed (kts)                           | 120         | 140          | 100           | 100           | 100         | 140          | 140           |
| 2. Flight time (hr + min)<br>(Less 30 min reserve) | 2+00        | 2+00         | 2+00          | 2+00          | 2+00        | 2+00         | 2+00          |
| 3. Troop seats                                     | -           | -            | 2             | -             | 7           | 13           | 33            |
| 4. Cargo Hook Limitations<br>(lbs)                 | -           | -            | -             | -             | 4000        | 8000         | 28000         |
| 5. Weapons   |             |              |               |               |             |              |               |
| a. 7.62mm (wpns)                                   | -           | -            | -             | -             | 2           | 2            | 2             |
| b. 20mm (rds)                                      | 750         | -            | -             | -             | -           | -            | -             |
| c. 30mm (rds)                                      | -           | 1200         | -             | -             | -           | -            | -             |
| d. 2.75" (rds)                                     | 76          | 76           | -             | -             | -           | -            | -             |
| e. TOW (rds)                                       | 8           | -            | -             | -             | -           | -            | -             |
| f. Hellfire (rds)                                  | -           | 16           | -             | -             | -           | -            | -             |
| 8. Day sight power (max)                           | x13         | x126         | -             | x126          | -           | -            | -             |
| 9. Night sight power (max)                         | -           | x36          | -             | x36           | -           | -            | -             |
| 10. Rotor start/stop wind                          | 40          | 45           | 45            | 45            | 30          | 45           | 30            |

DATA IS COMPUTED AT STANDARD SEA LEVEL CONDITIONS. ACTUAL DATA WILL VARY WITH DENSITY ALTITUDE, TEMPERATURE, SOP, AND UNIT MISSION.

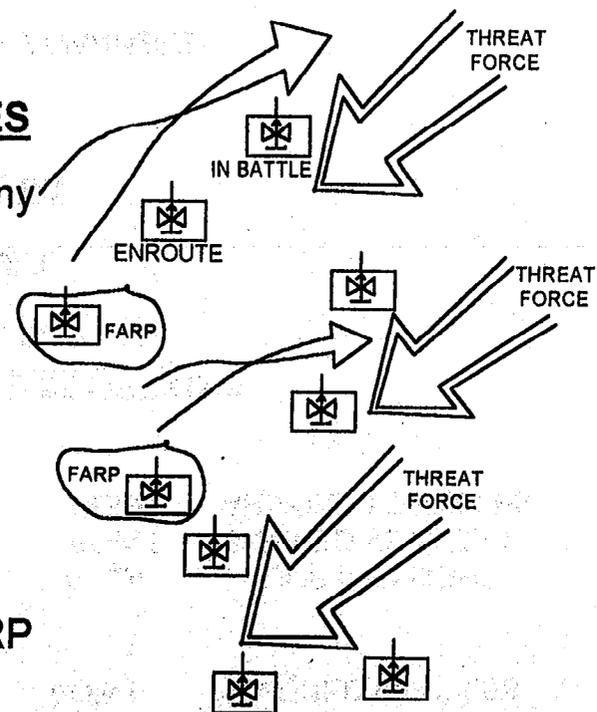
# ATKHB MISSION STATEMENT

| <b>DESIRED RESULTS</b>     | <b>DESCRIPTION</b>                          | <b>RISK</b>    |
|----------------------------|---|----------------|
| <b>Destroy</b>             | Kill > 70% of enemy force                   | High           |
| <b>Reduce by Attrition</b> | Kill > 30% but < 70%                        | Medium to High |
| <b>Interdict</b>           | Disrupt or delay C2, maneuver fire support  | Low to Medium  |
| <b>Block</b>               | Dominate an avenue of approach by fire      | Medium to High |
| <b>Overwatch</b>           | Hasty attacks to permit grd or air maneuver | Low to Medium  |

The ATKHB is most effective against massed, moving targets and least effective against enemy forces that are in prepared, well-camouflaged positions. Without the support of ground maneuver forces, the ATKHB can not conduct missions that require the occupation of terrain. However, they can deny the enemy terrain for a limited time by dominating it with direct and indirect fires. Fire support suppresses enemy air defenses, causes armored vehicles to "button up", and multiplies the combat effectiveness of the ATKHB.

# ATTACK HELICOPTER BATTALION EMPLOYMENT TECHNIQUES

| <u>METHOD</u>                 | <u>ADVANTAGES</u>  | <u>DISADVANTAGES</u>  |
|-------------------------------|--|---|
| <b>1. Continuous Attack</b>   | <ul style="list-style-type: none"> <li>* Exerts constant pressure on the enemy</li> <li>* The most flexible technique</li> <li>* Efficient FARP operation (20/30 minutes/company)</li> </ul> | <ul style="list-style-type: none"> <li>* Only one company in contact</li> </ul>   |
| <b>2. Phased Employment</b>   | <ul style="list-style-type: none"> <li>* Increased pressure on the enemy</li> <li>* May exert constant pressure on the enemy</li> </ul>  | <ul style="list-style-type: none"> <li>* Lengthened FARP times</li> <li>* Difficult to maintain for extended periods</li> </ul>                               |
| <b>3. Maximum Destruction</b> | <ul style="list-style-type: none"> <li>* Maintain pressure on the enemy</li> <li>* Massed firepower over a wide area</li> </ul>  | <ul style="list-style-type: none"> <li>* Does not exert constant pressure on the enemy</li> <li>* FARP time is increased (60-80 minutes/battalion)</li> </ul> |



# ATTACK HELICOPTER WEAPON SYSTEMS DATA

| <u>WEAPON</u>              | <u>MIN RANGE</u> | <u>MAX EFF RANGE</u> | <u>MAX RANGE</u> | <u>TYPE ROUNDS</u> | <u>BURST RADIUS</u> | <u>POINT/ AREA</u> | <u>TYPE TARGET</u>                |
|----------------------------|------------------|----------------------|------------------|--------------------|---------------------|--------------------|-----------------------------------|
| <b><u>AH-1S COBRA</u></b>  |                  |                      |                  |                    |                     |                    |                                   |
| 20MM                       |                  | 2000M                | 3000M            | HEI/API            | 2M                  | AREA               | TROOPS AND LIGHT SKINNED VEHICLES |
| TOW                        | 500M             | 3750M                | 3750M            |                    |                     | POINT              | ARMORED VEHICLES                  |
| <b><u>AH-64 APACHE</u></b> |                  |                      |                  |                    |                     |                    |                                   |
| 30MM                       |                  | 3000M                | 4000M            | HEDP               | 4M                  | AREA               | TROOPS AND LIGHT SKINNED VEHICLES |
| HELLFIRE                   | 1000M            | 5500M                | 8000M            |                    |                     | POINT              | ARMORED VEHICLES                  |
| <b><u>OH-58D (KW)</u></b>  |                  |                      |                  |                    |                     |                    |                                   |
| .50 CAL                    |                  | 2000M                |                  | HEI/AP             |                     | AREA               | TROOP AND LIGHT SKINNED VEHICLES  |
| STINGER                    | 500M             | 5000M                |                  |                    |                     | POINT              | ARMORED VEHICLES                  |
| HELLFIRE                   | 1000M            | 5500M                | 8000M            |                    |                     | POINT              | ARMORED VEHICLES                  |

## 2.75 FFAR OPTIONS AH-1, AH-64 & OH58D (KW)

| <u>TYPE</u> | <u>MAX EFF RANGE</u> | <u>BURST</u> | <u>FUZE OPTIONS*</u> |
|-------------|----------------------|--------------|----------------------|
| 10 LB HE    | 10,600M              | 10M          | P, SQ, D, FP         |
| ILLUM       | 3500M                | 1 SQ KM      | *SET                 |
| WP, HC      | 3000M                |              | V, SQ                |
| MPSM        | 10,600M              | 20M          | V                    |

\* P=PROXIMITY, D=DELAY, SQ=SUPER QUICK, FP=FOREST PENETRATION, V=VARIABLE

# AIR ASSAULT OPERATIONS

- GROUND TACTICAL PLAN
- LANDING PLAN
  - LOCATION CRITICAL TO GROUND TACTICAL PLAN
  - SEQUENCING OF TROOPS
- AIR MOVEMENT PLAN
  - BASIS OF TIMING (H-HR)
  - AIRSPACE COMMAND AND CONTROL
- LOADING PLAN
  - SELF-SUFFICIENCY OF LOADS
  - TACTICAL INTEGRITY
  - TACTICAL CROSS-LOADING
- STAGING PLAN
  - UNITS P.Z. POSTURE PRIOR TO A/C ARRIVAL
  - AIR MOVEMENT TABLE

# UNIQUE ASPECTS OF AIR ASSAULT OPERATIONS

## **PLANNING:**

- C2 PLANNED ONE LEVEL UP
- TIME
- FIVE PLANNING PHASES (POSSIBLY MORE)
- AIRSPACE MANAGEMENT
- AIR MISSION BRIEF

## **SUPPRESSION OF ENEMY AIR DEFENSE (SEAD)**

## **COMMUNICATION NETS:**

- AIR ASSAULT TASK FORCE COMMAND NET
- COMBAT AVIATION NET
- AIR BATTLE NET
- FIRE SUPPORT NET
- AVIATION INTERNAL NET

# **AIR ASSAULT PROBLEMS AND CHALLENGES**

**SYNCHRONIZATION OF FORCES**

**A2C2**

**LIMITED MOBILITY ON GROUND**

**COMMUNICATIONS**

**LIMITED COMBAT POWER**

**WEATHER**

**AUSTERE CS/CSS**

**SEAD**

**AMB (Air Mission Brief)**

**TRAINING OF SOLDIERS**

# AVIATION BRIGADE COMBAT ORGANIZATIONS

## ARMORED

ONE ATKHB (AH-64) \*  
8-AH-64

ONE GS BATTALION  
ONE AHC (15 UH-60)  
ONE CMD Co  
OH-58 PLT (6)  
EH-60 PLT (3)  
CMD PLT (6 UH-1)

ONE CAV SQD  
THREE GRD TRP  
TWO AIR TRP

4-AH-1 and  
6-OH-58C per TRP  
8 OH-58D (KW) per TRP

\* OCONUS HAS TWO ATKHB

## LIGHT

ONE ATKHB (AH-1)  
7-AH-1 and  
4-OH-58C per Co  
or 8-OH-58D (KW) per Co

ONE GS BATTALION  
TWO AHC (15 UH-60)  
ONE CMD Co  
OH-58 PLT (6)  
EH-60 PLT (3)  
CMD PLT (6 UH-1)

ONE CAV SQD  
ONE GND TRP  
TWO AIR TRP

4-AH-1 and  
6-OH-58C per TRP  
8 OH-58D (KW) per TRP

## AIRBORNE

ONE ATKHB  
8 OH-58D (KW) per Co

ONE GS BATTALION  
TWO AHC (15 UH-60)  
ONE CMD Co  
OH-58 PLT (6)  
EH-60 PLT (3)  
CMD PLT (6 UH-1)

ONE CAV SQD  
ONE GND TRP  
THREE AIR TRP

8 OH-58D (KW)  
per Troop  
AHT (8 UH-60)

## AIR ASSAULT

FOUR ATKHB (AH-64)  
8-AH-64

THREE AHB (UH-60)  
30 UH-60  
PER AHB  
ONE MED LIFT BN  
48 CH-47D

ONE GS BN  
OH-58C Co  
(15)  
EH-60 PLT (3)  
GS Co (30 UH-1)

ONE CAV SQD (3 Trps)  
8 OH-58D (KW) per troop  
AHT (10 UH-60)

C-14

# CONSOLIDATED OPERATIONAL DEFINITIONS AND TASK LIST

**TASK:** A CLEARLY DEFINED, MEASURABLE ACTIVITY ACCOMPLISHED BY INDIVIDUALS AND ORGANIZATIONS. TASKS ARE SPECIFIC ACTIVITIES WHICH CONTRIBUTE TO THE ACCOMPLISHMENT OF ENCOMPASSING MISSIONS OR OTHER REQUIREMENTS. (FM 25-100) A TASK SHOULD BE DEFINABLE, ATTAINABLE, AND DECISIVE.

**OPERATION:** A MILITARY ACTION, OR ADMINISTRATIVE MILITARY MISSION; THE PROCESS OF CARRYING ON COMBAT, INCLUDING MOVEMENT, SUPPLY, ATTACK, DEFENSE, AND MANEUVERS NEEDED TO GAIN THE OBJECTIVES OF ANY BATTLE OR CAMPAIGN. (FM 101-5)

**MISSION:** THE PRIMARY TASK ASSIGNED TO AN INDIVIDUAL, UNIT, OR FORCE. IT USUALLY CONTAINS THE ELEMENTS OF WHO, WHAT (TASK), WHEN, WHERE, AND THE REASON (PURPOSE), BUT SELDOM SPECIFIES HOW. (FM 101-5-1) AS A MINIMUM, A MISSION STATEMENT MUST INCLUDE A TASK AND A PURPOSE. (FM 101-5, PG 5-6)

**ATTRITION (ATTRIT):** THE REDUCTION IN THE EFFECTIVENESS OF A FORCE CAUSED BY THE LOSS OF PERSONNEL OR MATERIEL (JCS PUB 1-02) COMMENT: A FORCE ASSIGNED THE TASK OF "ATTRIT" SHOULD NORMALLY BE ASSIGNED THE DEGREE OF SUCCESS TO BE ACHIEVED IN SUPPORT OF ITS PURPOSE.

**BLOCK:** DENY THE ENEMY ACCESS TO A GIVEN AREA OR PREVENT ENEMY ADVANCE IN A GIVEN DIRECTION. IT MAY BE FOR A SPECIFIED TIME. UNITS MAY HAVE TO RETAIN TERRAIN AND ACCEPT DECISIVE ENGAGEMENT. (FM 101-5-1) COMMENT: A FORCE ASSIGNED THE TASK OF "BLOCK" SHOULD NORMALLY BE ASSIGNED THE DEGREE OF SUCCESS TO BE ACHIEVED AND/OR A SPECIFIED TIME FRAME IN SUPPORT OF ITS PURPOSE.

# CONSOLIDATED OPERATIONAL DEFINITIONS AND TASK LIST cont.

**BREACH(ING):** THE EMPLOYMENT OF ANY MEANS TO SECURE PASSAGE THROUGH AN ENEMY MINEFIELD OR FORTIFICATION. (JCS PUB 1-02)

**BYPASS:** A TACTICAL TASK WHICH INVOLVES MANEUVERING AROUND AN OBSTACLE, POSITION, OR ENEMY FORCE TO MAINTAIN THE MOMENTUM OF ADVANCE. BYPASSED OBSTACLES AND ENEMY FORCES ARE REPORTED TO HIGHER HQ.

**CANALIZE:** TO RESTRICT OPERATIONS TO A NARROW ZONE BY USE OF EXISTING OR REINFORCING OBSTACLES OR BY DIRECT OR INDIRECT FIRES. (FM 101-5-1)

**CLEAR (ENEMY IN ZONE):** A REQUIREMENT TO ELIMINATE ORGANIZED RESISTANCE IN AN ASSIGNED ZONE BY DESTROYING, CAPTURING, OR FORCING THE WITHDRAWAL OF ENEMY FORCES THAT COULD INTERFERE WITH THE UNIT'S ABILITY TO ACCOMPLISH ITS MISSION (FM 101-5-1).

**CONTAIN:** TO STOP, HOLD, OR SURROUND THE FORCES OF THE ENEMY OR TO CAUSE THE ENEMY TO CENTER ACTIVITY ON A GIVEN FRONT AND TO PREVENT HIS WITHDRAWING ANY PART OF HIS FORCES FOR USE ELSEWHERE. (JCS PUB 1-02)  
**COMMENT:** THE MEANING OF "CENTER ACTIVITY" EQUATES TO FOCUSING THE MAJORITY OF THE ENEMY'S COMBAT POWER AT A CERTAIN LOCATION OR FOR A SPECIFIC TIME FRAME.

**ATTACK BY FIRE:** FIRES EMPLOYED TO DESTROY THE ENEMY FROM A DISTANCE, NORMALLY USED WHEN THE MISSION DOES NOT DICTATE OR SUPPORT OCCUPATION OF THE OBJECTIVE. NORMALLY GIVEN TO THE SUPPORTING ELEMENT DURING THE OFFENSIVE AND AS A COUNTERATTACK OPTION FOR THE RESERVE DURING DEFENSIVE OPERATIONS.

# **CONSOLIDATED OPERATIONAL DEFINITIONS** **AND TASK LIST cont.**

**DEFEAT:** A TACTICAL TASK TO EITHER DISRUPT OR NULLIFY THE ENEMY FORCE COMMANDER'S PLAN AND SUBDUE HIS WILL TO FIGHT SO HE IS UNWILLING OR UNABLE TO FURTHER PURSUE HIS ADOPTED COURSE OF ACTION.

**DELAY:** TO TRADE SPACE FOR TIME, INFLICT MAXIMUM DAMAGE ON THE ENEMY FORCE, AND PRESERVE THE FORCE WITHIN THE LIMITS ESTABLISHED BY THE COMMANDER. IN DELAY OPERATIONS, THE DESTRUCTION OF THE ENEMY FORCE IS SECONDARY TO SLOWING HIS ADVANCE TO GAIN TIME. (FM 101-5-1) COMMENT: "DELAY" MAY ALSO BE USED AS AN OPERATION FOR LARGER UNITS.

**DESTROY:** THE EFFECTS OF APPLIED COMBAT POWER SUCH THAT IT RENDERS THE CONDITION OF A TARGET SO DAMAGED THAT IT CANNOT FUNCTION AS INTENDED NOR BE RESTORED TO A USABLE CONDITION. (JCS PUB 1-02) COMMENT: THE DEGREE OF "DESTRUCTION" CAN BE SPECIFIED TO A FORCE ASSIGNED THIS TASK IN RELATIONSHIP TO ITS PURPOSE. A TARGET CAN BE PERSONNEL, EQUIPMENT, MATERIAL, TERRAIN, OR AN INTANGIBLE SUCH AS MORALE OR WILLINGNESS TO FIGHT.

**ISOLATE:** A TACTICAL TASK GIVEN TO A UNIT TO SEAL OFF (BOTH PHYSICALLY AND PSYCHOLOGICALLY) AN ENEMY FROM ITS SOURCE OF SUPPORT, TO DENY AN ENEMY FREEDOM OF MOVEMENT, PREVENT AN ENEMY UNIT FROM HAVING CONTACT WITH OTHER ENEMY FORCES. AN ENEMY MUST NOT BE ALLOWED SANCTUARY WITHIN ITS PRESENT POSITION.

**OCCUPY:** TACTICAL TASK IN WHICH A FORCE MOVES ONTO AN OBJECTIVE, KEY TERRIAN, OR OTHER MANMADE OR NATURAL TERRIAN AREA WITHOUT OPPOSITION AND CONTROLS THAT ENTIRE AREA.

# CONSOLIDATED OPERATIONAL DEFINITIONS AND TASK LIST cont.

**DISRUPT:** TO COUNTER THE ENEMY'S INITIATIVE AND SYNCHRONIZATION, PREVENTING HIM FROM CONCENTRATING OVERWHELMING COMBAT POWER AGAINST A FRIENDLY FORCE. (FM 100-5) COMMENT: A FORCE ASSIGNED THAT TASK OF "DISRUPT" SHOULD NORMALLY BE ASSIGNED THE DEGREE OF SUCCESS TO BE ACHIEVED AND/OR THE DURATION OF THE "DISRUPTION" IN RELATIONSHIP TO ITS PURPOSE.

**FIX:** ACTIONS TAKEN TO PREVENT THE ENEMY FROM MOVING ANY PART OF HIS FORCES FROM A SPECIFIC LOCATION AND/OR A SPECIFIC PERIOD OF TIME BY HOLDING OR SURROUNDING THEM TO PREVENT THEIR WITHDRAWAL FOR USE ELSEWHERE. (FM 101-5-1)

**GUARD:** A TASK ASSIGNED TO A UNIT/FORCE THAT ACCOMPLISHES ALL THE TASKS OF A SCREENING FORCE. ADDITIONALLY, A GUARD FORCE PREVENTS ENEMY GROUND OBSERVATION OF AND DIRECT FIRE AGAINST THE MAIN BODY, A GUARD FORCE RECONNOITERS, ATTACKS, DEFENDS, AND DELAYS AS NECESSARY TO ACCOMPLISH ITS MISSION. A GUARD FORCE NORMALLY OPERATES WITHIN THE RANGE OF THE MAIN BODY INDIRECT FIRE WEAPONS. (FM 101-5-1) COMMENT: "GUARD IS ONE OF THE TASKS IN SECURITY FORCE OPERATIONS."

**INTERDICTION:** TO PREVENT OR HINDER BY ANY MEANS ENEMY USE OF ANY AREA OR ROUTE. (JCS PUB 1-02). COMMENT: A FORCE ASSIGNED THE TASK OF "INTERDICTION" SHOULD NORMALLY BE ASSIGNED THE DEGREE OF SUCCESS TO BE ACHIEVED AND/OR THE DURATION OF THE "INTERDICTION" IN RELATIONSHIP TO ITS PURPOSE.

# CONSOLIDATED OPERATIONAL DEFINITIONS AND TASK LIST cont.

**NEUTRALIZE:** TO RENDER INEFFECTIVE OR UNUSABLE. (JCS PUB 1-02) COMMENT: A FORCE ASSIGNED THE TASK OF "NEUTRALIZE" WILL NORMALLY BE ASSIGNED A SPECIFIC TIME FRAME OR DEGREE OF NEUTRALIZATION TO BE ACHIEVED IN RELATIONSHIP TO ITS PURPOSE.

**RETAIN:** TO HOLD OR KEEP IN POSSESSION. TO KEEP IN A FIXED STATE OR CONDITION (WEBSTER'S NEW WORLD DICTIONARY, SECOND EDITION). COMMENT: A FORCE ASSIGNED THE TASK TO "RETAIN" MAY BE REQUIRED TO OCCUPY AND HOLD A TERRAIN FEATURE TO ENSURE IT IS FREE OF ENEMY OCCUPATION OR USE FOR A SPECIFIED PERIOD OF TIME. THIS TASK IS NORMALLY ASSOCIATED WITH DEFENSIVE OPERATIONS. (THERE IS NO MILITARY U.S. ARMY DOCTRINAL DEFINITION FOR THIS TASK).

**SCREEN:** A TASK ASSIGNED TO A UNIT/FORCE THAT MAINTAINS SURVEILLANCE, PROVIDES EARLY WARNING TO THE MAIN BODY, IMPEDES AND HARASSES THE ENEMY WITH SUPPORTING INDIRECT FIRES, AND DESTROYS ENEMY RECONNAISSANCE ELEMENTS WITHIN ITS CAPABILITIES. (FM 101-5-1) COMMENT: "SCREEN" IS ONE OF THE TASKS IN SECURITY FORCE OPERATIONS.

**SECURE:** TO GAIN POSSESSION OF A POSITION OR TERRAIN FEATURE WITH OR WITHOUT FORCE, AND TO MAKE SUCH DISPOSITION AS WILL PREVENT, AS FAR AS POSSIBLE, ITS DESTRUCTION OR LOSS BY ENEMY ACTION. (JCS PUB 1-02) COMMENT: A FORCE ASSIGNED THE TASK TO "SECURE" DOES NOT ALWAYS HAVE TO OCCUPY TERRAIN IN ORDER TO SECURE IT.

# CONSOLIDATED OPERATIONAL DEFINITIONS AND TASK LIST cont.

**SEIZE:** TO CLEAR A DESIGNATED AREA AND OBTAIN CONTROL OF IT (FM 101-5-1).  
COMMENT: UNITS ASSIGNED THE TASK OF "SEIZE" WILL USUALLY HAVE TO GAIN PHYSICAL POSSESSION OF A TERRAIN FEATURE FROM AN ENEMY FORCE.

**SUPPRESS (SUPPRESSION):** DIRECT OR INDIRECT FIRES, ELECTRONIC COUNTERMEASURES (ECM), OR SMOKE BROUGHT TO BEAR ON ENEMY PERSONNEL, WEAPONS, OR EQUIPMENT TO PREVENT EFFECTIVE FIRE ON FRIENDLY FORCE. (FM 101-5-1) COMMENT: A FORCE ASSIGNED THE TASK OF SUPPRESS WILL NORMALLY BE ASSIGNED A SPECIFIC TIME FRAME OR THE DESIRED EFFECTS OF THE "SUPPRESSION" IN RELATIONSHIP TO ITS PURPOSE.

**RUPTURE:** TO CREATE A GAP IN ENEMY DEFENSE POSITIONS QUICKLY.

**SUPPORT BY FIRE:** TACTICAL TASK IN WHICH A MANEUVER ELEMENT MOVES TO A POSITION ON THE BATTLEFIELD WHERE IT CAN ENGAGE THE ENEMY BY DIRECT FIRE. THE MANEUVER ELEMENT DOES NOT ATTEMPT TO MANEUVER TO CAPTURE ENEMY FORCES OF TERRIAN.

**WITHDRAWAL OPERATION:** TACTICAL TASK WHERE A FORCE IN CONTACT PLANS TO DESENGAGE FROM THE ENEMY AND MOVE IN A DIRECTION AWAY FORM THE ENEMY.

NOTE: ABOVE LIST IS NOT ALL INCLUSIVE.

# **FIRE SUPPORT**

**Section - D**

# TACTICAL MISSIONS / INHERENT RESPONSIBILITIES: FA

| <b>INHERENT RESPONSIBILITIES</b>                   |  |  |  |  |                      |  |  |                              |
|--|--|--|--|--|----------------------|--|--|------------------------------|
| AN FA UNIT WITH A MISSION OF:                      |  | 1. Answers calls for fire in priority from:                  | 2. Has as its zone of fire:  | 3. Furnishes fire support team (FIST/FSS)**:                       | 4. Furnishes LO:     | 5. Establishes commo with:                         | 6. Positioned by:  | 7. Has its fires planned by: |
| <b>M<br/>I<br/>S<br/>S<br/>I<br/>O<br/>N<br/>S</b> | <b>DIRECT SUPPORT (DS)</b>               | 1. Supported unit.<br>2. Own observers.*<br>3. Force FA HQ.  | Zone of action of supported unit.  | Provides temporary replacements for casualty losses as required.** | No requirement.      | FIST chiefs, FSOs, and supported maneuver unit HQ. | DS FA commander or as ordered by Force FA HQ.            | Develops own fire plans.     |
|  | <b>REINFORCING (R)</b>                   | 1. Reinforced FA.<br>2. Own observers.*<br>3. Force FA HQ.   | Zone of fire of reinforced FA.   | No requirement.  | To reinforced FA HQ. | Reinforced FA HQ.                                  | Reinforced FA or as ordered by Force FA HQ.              | Reinforced FA HQ.            |
|  | <b>GENERAL SUPPORT REINFORCING (GSR)</b> | 1. Force FA HQ.<br>2. Reinforced unit.<br>3. Own observers.* | Zone of action of supported unit to include zone of fire of reinforced FA. | No requirement.  | To reinforced FA HQ. | Reinforced FA HQ.                                  | Force FA HQ or reinforced FA if approved by Force FA HQ. | Force FA HQ.                 |
|  | <b>GENERAL SUPPORT (GS)</b>              | 1. Force FA HQ.<br>2. Own observers.*                        | Zone of action of supported unit.  | No requirement.  | No requirement.      | No requirement.                                    | Force FA HQ.   | Force FA HQ.                 |

\* Includes all target acquisition means not deployed w/ supported unit (e.g. radar, FA aerial observer, and survey parties)  
 \*\* A fire support section (FSS) for each maneuver BDE/BN/CAV SQDN and one fire support team (FIST) with each maneuver company or ground cavalry troop are trained and deployed by FA units so authorized by TOE. After deployment, FISTs and FSSs remain w/ supported maneuver unit throughout the conflict.

# **COMMANDER'S GUIDANCE FOR FIRE SUPPORT**

## **PURPOSE, PRIORITY, ALLOCATION, AND RESTRICTIONS**

- ADDRESS EACH FIRE SUPPORT SYSTEM AVAILABLE
- DRIVES "TOP DOWN" FIRE PLANNING

## **SPECIFIC**

- WHAT (TYPES OF TARGET(S) AND DESIRED EFFECTS)
- WHEN TO ATTACK
- WHERE TO MASS (MINIMUM LEVEL OF SUPPORT)
- WHY
- COUNTERFIRE PRIORITIES
- SPECIAL MUNITIONS RESTRICTIONS (DPICM, FASCAM)
- WHO IS RESPONSIBLE (OBSERVATION PLAN)

# BN/TF FIRE SUPPORT ORDERS BRIEF

## ESSENTIAL ELEMENTS

- UNDERSTAND AND ARTICULATE CDR'S GUIDANCE FOR EACH FS ASSET (PRIORITY OF THE TYPES OF TARGETS AND GUIDANCE AS TO THE EFFECTS DESIRED/REQUIRED)
- PROVIDE PURPOSE, PRIORITY, ALLOCATION, AND RESTRICTION OF ASSETS AVAILABLE (FIELD ARTILLERY, MORTARS AND NGF, CAS IF AVAILABLE)
- COLT EMPLOYMENT, POSITIONING, TARGET PRIORITIES, AND SECURITY
- CO/TM RESPONSIBILITIES FOR TARGETS/TARGET EXECUTION (PRIMARY AND BACK-UP RESPONSIBILITIES)--**OBSERVATION PLAN**
- CLEARANCE OF FIRES (POSITIVE CONTROL)
- COORDINATING INSTRUCTIONS (TARGET REFINEMENTS, PLANNING CUT-OFF TIMES, ORGANIZATION OF FIST TEAMS IF NON-STANDARD)
- SEAD PLAN
- FIRE SUPPORT COORDINATION MEASURES (INCLUDE ON-ORDER MEASURES)

# **BN/TF FIRE SUPPORT ORDERS BRIEF**

## **ESSENTIAL ELEMENTS (continued)**

- AMMUNITION FIRING RESTRICTIONS (USE OF ILLUMINATION, SMOKE, DPICM, OR AMOUNT OF AMMO TO BE FIRED/SAVED)
- CRITICAL COMMO CALL SIGNS AND FREQUENCIES NOT INCLUDED IN SOI (CO AND BN EXTRACTS)
- REHEARSAL INSTRUCTIONS

### **ESSENTIAL ELEMENTS FOR ARTILLERY:**

- FA MISSION STATEMENT (TASK AND PURPOSE)
- ORGANIZATION FOR COMBAT (DS, R, GSR FA UNITS AVAILABLE)
- FA LOCATIONS (CURRENT AND PROPOSED)
- FA RANGES (DEPICTED AS RANGE FANS AND BASED UPON PREVAILING PROPELLENT CHG)
- FA AMMO STATUS (EXPRESSED IN BN VOLLEYS FOR HE/ICM, NUMBER OF FASCAM MINEFIELD, NUMBER OF CPHD, MINUTES OF SMOKE AND ILLUM )
- FA PRIORITY OF FIRES AND ALLOCATION OF FA TGTS TO PLAN (PRIORITY TGTS, FPFs, PREPLANNED)

# **BN/TF FIRE SUPPORT ORDERS BRIEF** **ESSENTIAL ELEMENTS (continued)**

## **ESSENTIAL ELEMENTS FOR MORTARS:**

- MORTAR MISSION STATEMENT--PURPOSE AND PRIORITY OF FIRES
- MORTAR TUBES AND AMMO AVAILABLE
- MORTAR MOVEMENT/ OCCUPATION (PLT, SEC, ETC)
- MORTAR POSITIONS AND RANGE FANS
- MORTAR AMMO PRE-POSITIONING/RESUPPLY PLAN
- MORTAR AMMO STATUS (EXPRESSED IN NUMBER OF VOLLEYS FOR HE, NUMBER OF MINUTES OF WP AND ILLUM)
- ALLOCATION OF MORTAR TGTS TO PLAN ( FPF, PRIORTIY TGTS, PREPLANNED)

# **COMPANY COMMANDER'S RESPONSIBILITY** **IN TOP DOWN FIRE PLANNING (continued)**

- UNDERSTAND HIGHER COMMANDER'S GUIDANCE FOR FIRE SUPPORT
- INTEGRATE COMPANY MORTARS (IF AVAILABLE)
- CONFIRM/REFINE TARGET LOCATIONS
- ESTABLISH/VALIDATE TRIGGER POINTS/LINES FOR ENGAGEMENT
- ASSIGN TARGET RESPONSIBILITIES
- POSITION FORWARD OBSERVATION ASSETS
- CHECK COMMUNICATIONS
- REHEARSE FIRE SUPPORT PLAN WITH MANEUVER PLAN
- VALIDATE FIRE SUPPORT WARNING ORDER
- CHECK TERRAIN SKETCHES
- NOMINATE TARGETS IF AUTHORIZED

# FIRE SUPPORT DUTIES AND RESPONSIBILITIES

## BATTALION/TF FIRE SUPPORT OFFICER

- Coordinates with the TF S2 and S3 for the development of the HVT's and HPT's.
- Recommends FSCM's to support the BN/TF mission.
- Participates in the TF tactical decision-making process and wargaming.
- Modifies the HPTL and commanders attack guidance to meet the commanders overall intent.
- Plans targets that facilitate rapid engagement by both trained and untrained observers.
- Trains the TF leadership and soldiers on the call for and adjust fire.
- Responsible for training and evaluating the mortars (Optional).
- Participates in the BDE and TF combined arms rehearsals.
- Participates in the BDE FS rehearsal.
- Ensures CO/TM FSO's participate in the combined arms rehearsal.
- Plans mortar fires and recommends mortar positions, along with the mortar platoon leader, to the S3 to support the scheme of maneuver.
- Coordinates fires across boundaries.
- Keeps the commander informed on mortar and artillery ammunition and tube status before, during, and after the battle.
- Coordinates requests for additional fires.

## FIRE SUPPORT DUTIES AND RESPONSIBILITIES

### BATTALION/TF FIRE SUPPORT OFFICER (CONTINUED)

- Trains CO/TM FSO's and FSE's.
- Allocates targets and CFZ's down to the CO/TM and nominates both refined and original targets and CFZ's to the BDE FSO for inclusion into the BDE fire plan.

### COMPANY/TEAM COMMANDER

- Owner of the Co/TM fire plan.
- Ensures assigned targets are refined, observed, rehearsed and fired IAW the commanders scheme of fires.
- Is responsible for positioning FS personnel, to include associated equipment, where they can best initiate and execute the fire plan.
- Ensures the FSO attends all combined arms rehearsals and participates in the BDE and TF FS rehearsal.
- Responsible for training the FSO.

### COMPANY FIRE SUPPORT OFFICER

- Refines BDE and TF targets assigned to the CO/TM by adjusting the grid on the basis of ground truth and the commanders guidance.
- Plans fires in support of the Co/TM mission.
- Briefs the fire portion of the CO/TM OPORD.
- Recommends the positioning of the FISTV and all observers assigned or attached.
- Participates in the BDE, TF, and CO FS and combined arms rehearsals.

## **FSO OPORD/REHEARSAL BRIEF**

- COMMANDER'S GUIDANCE
- ACTIONS TO OCCUR
- ATTACK GUIDANCE
- ASSETS AVAILABLE
- PRIORITIES OF FIRE
- ALLOCATIONS
- PRIMARY/ALTERNATE TARGET RESPONSIBILITIES
- OBSERVATION PLAN
- RADAR PLAN
- POSSIBLE REACTIONS TO ENEMY INITIATIVES
- CONTROL MEASURES
- SIGNIFICANT EVENTS THAT ARE TO OCCUR IN  
RELATION TO TIME OR PHASES OF AN OPERATION

# OFFENSIVE FIRE PLANNING CONSIDERATIONS

## MOVEMENT TO CONTACT

- ° Plan targets on the basis of the S2 IPB product. Potential targets include known or suspected enemy locations, likely engagement areas (EA) where you expect contact and targets in support of future missions. In the absence of known, suspected, and likely enemy locations, targets are planned along the route of march. This keeps supporting artillery within range as the unit moves to contact.
- ° Ensure immediately responsive fire are provided initially to the lead element and then to the lead company as contact develops. This is done by assigning POF initially to the security force, then to the advanced guard.
- ° Make your mortar platoon DS to the advanced guard Co./Tm. to provide immediately available fire support upon contact. This provides the advanced guard commander with responsive fire support when contact is made.
- ° Ensure effective positioning of FO's, FIST's, and COLT's, if attached. Consider using the Plt FO's to augment the scouts. Your scouts may at times have the best view of the battlefield.
- ° Use your reserve Co./Tm FIST's to augment flank security elements to get additional eyes forward. Care must be taken to leave the losing unit with some means of calling for fire.
- ° Ensure that artillery and mortar movements are synchronized with the OPTEMPO of the maneuver force and the FS requirements of the fire plan. This may require the supporting artillery or mortars to move directly behind the lead Co./TM.
- ° Plan fires and smoke to support possible breaching operations.
- ° Maximize the use of Priority targets along the axis of advance. Ensure though, that these Priority targets are triggered only when needed otherwise you may lose the use of platoon or battery at any given time.
- ° Ensure the CFL is kept forward of the lead element to protect the force but close enough to allow responsive engagement of targets. Ensure that RFA's and NFA's are used effectively as well. Activate a RFL is needed.
- ° Establish a CFZ around the templated meeting engagement area. This will prioritize those units that effect you immediately on contact.

# OFFENSIVE FIRE PLANNING CONSIDERATIONS

## HASTY ATTACK

- A simple and rapidly produced FS plan is essential to effectively integrating all FS assets.
- Artillery should be positioned as far forward in the march column as the fire plan dictates. Treat the artillery battalion as one of your maneuver elements, and articulate their task and purpose in the tasks to subordinate units paragraph of the Order.
- Once the maneuver force transitions to the hasty attack, the tactical MSN of the mortars may change if they are were in a DS role to the advanced guard.
- The primary role of FS support should be suppressing direct fire systems affecting maneuver.

## DELIBERATE ATTACK

- Synchronize the FS plan with the S2's R&S plan. It is imperative that targets are either confirmed or denied before execution. Failure to confirm target locations before LD could significantly reduce the effectiveness of the FS system.
- Weight the benefits versus the drawbacks of shooting a prep. Loss of surprise, ammunition expenditures, counterfire threat, and number of significant targets are all factored into the decision to shoot a prep. Strive for eyes on target. The key to a prep is to time it with the arrival of the maneuver forces just as the prep is shifted or curtailed. Synchronizing your arrival with the end of the prep allows you to take advantage of the shock effect and confusion created by the prep. A simple method signifying the end of the prep is to have the last round of the prep be an air burst smoke or WP round.
- Pre-position ammunition in firing positions to reduce Class V resupply problems.
- Plan fires to support breaching operations. Consider making your mortars DS to the supporting force.
- Designate POF to the supporting force in their SBF position. They are the most stable force and best position to refine targets if necessary and prep the objective.

# OFFENSIVE FIRE PLANNING CONSIDERATIONS

## DELIBERATE ATTACK (Continued)

- Enforce target refinement cutoff times. This allows time for computation of data, dissemination, and rehearsal of the plan. Failure to refine targets will result in a fire plan based solely on templates and best guesses.
- Articulate the number of elements of size of elements you want engaged during each phase of the operation (engagement criteria). Specify the effects of attack S/N/D) in terms of the enemy target types (attack criteria) as well as express them in terms of the end state of the target (targeting objectives; divert, delay, limit, disrupt, isolated, damage, destroy). This determines the use of different types and units to fire, as well as the ammo mix and number.
- When determining FSCM's, consider minimum safe distances (danger close) for each weapon system. Ideally, you would shift fires from an objective at the last possible moment. This is particularly true when dealing w/ light forces and their diverse array of company and battalion mortars.
- Plan fires to augment your deception plan. Indirect fires are ideal for interrupting the enemy's time line and decision-making process. Although harassment and interdiction fires have been deleted from artillery terminology, the thought process behind them has not. An occasional round will make enemy engineers stop digging, and seek cover. An illumination round along a likely avenues for division or regimental recon will make them stop and seek concealment. The bottom line is to interrupt the enemy commander's decision-making process early and deep.

## EXPLOITATION AND/ OR PURSUIT

- Use indirect fires to neutralize and fix bypassed pockets of resistance until follow-on friendly forces can deal with them. However, this may disrupt OPTEMPO by preventing the indirect shooters from moving forward.
- Plan fires to support hasty attacks. Consider the use of CAS and attack helicopters, which are well suited for exploitation. A bypassed enemy platoon may not pose a threat to a maneuver platoon, but is a artilleryman's nightmare.
- Establish FSCM's between exploiting and converging forces.

# OFFENSIVE FIRE PLANNING CONSIDERATIONS

## EXPLOITATION AND/ OR PURSUIT(Continued)

- ° Facilitate clearance of fires by keeping the FSO advised of the FLOT.
- ° Consider the use of FASCAM to delay or fix the enemy. Ensure that the FSO considers the loss of maneuver space, time, and risks without the artillery units support.

# DEFENSIVE FIRE PLANNING CONSIDERATIONS

## MOBILE DEFENSE

- ° If your BDE is designated as a striking force, consider retaining your habitual DS battalion. This keeps artillery from being held in reserve. The striking force is a committed and requires DS artillery support.
- ° Ensure that FSCM's are planned for each phase of the defense. Particular attention should be given to FSCM's when a striking force, CAS, or Army aviation are employed.
- ° Position FS assets to support commitment of a striking force. This may require additional security to enhance survivability.

## AREA DEFENSE

- ° Consider HPT's for each phase of the defense. Targets during the counterrecon phase will differ significantly from those of the MBA.
- ° Designate engagement criteria for each phase. The enemy formations, size, type, will defer between counterrecon and the MBA.
- ° Plan fires to support the counterrecon fight. Consider this as a separate phase for planning fires.

# DEFENSIVE FIRE PLANNING CONSIDERATIONS

## AREA DEFENSE

- Consider allocating engineer assets to dig in your DS artillery and mortars.
- Plan the CFL close to your forward elements to allow rapid engagement of enemy units.
- Consider the use of NFA's , RFA's, or CFZ's around your scouts, COLT's and FO positions in the forward areas.
- When emplacing FSCM's, consider the minimum safe distance (danger close) of each weapon system.

**SECURITY ZONE** Some specific FS considerations include the following:

- Augment your security zone with additional observers. They can come from attachments such as COLT's or from within, such as a reserve.
- Ensure a FSC net is established and disseminated. Consider a quick fire or dedicated CFF net.
- Plan fires to neutralize or destroy enemy's recon effort. Copperhead is ideal for this situation. It limits the guns exposed to counterfire.
- Anticipate the enemy prep and enclosure the radar is cueing . This will initiate the counterfire battle before he intended to begin.
- Place CFZ's around areas noted in the following slide.
- Ensure there is not a problem with indirect coverage for the covering force.

**MAIN BATTLE AREA** Some specific FS considerations include the following:

- Your DS battalion and your mortar platoon is limited on the number of platoon through battalion mass missions capable of being shot. Ammunition on-hand drives targeting ,so don't over plan.
- Designate where you want your indirect fires to mass. We do this either by determining a range to (N/S) grid line or a decisive point

# DEFENSIVE FIRE PLANNING CONSIDERATIONS

## AREA DEFENSE

- ° Prioritize the obstacles that will be covered by indirect fire. A DS battalion cannot cover every obstacle in the brigade sector.
- ° Ensure your FSO develops a fire plan, which as a minimum addresses the following:
  - Ensures that all the fire supporters are positioned where they can best execute the fire plan. This may or may not require the TF or CO/TM FSO with the commander.
  - Each target has a purpose, location, trigger, shooter/backup shooter, communications structure, rehearsed, and allocated assets.
  - Ensures allocation of targets, priority targets, and CFZ's.
  - Takes into consideration limited visibility.
  - Coordinates with the S2 to ensure collection assets are assigned observation responsibility for applicable NAI's and TAI's.
- ° The maneuver commander, not the FSO, is responsible for executing targets in the order. Therefore, the commander is responsible to ensure the target is refined, observed, rehearsed, and executed IAW the plan.
- ° Remember, target refinement is critical. On the basis of the actual terrain, the Co./Tm commanders and the FSO's must ensure target locations satisfy the intended purpose of the target.
- ° Ensure ACA's and air corridors don't overfly artillery or mortar positions.
- ° Assist the engineer with evaluating the advantages and disadvantages of firing FASCAM during different phases of the operation. Firing FASCAM during the MBA fight will affect your ability to fire other, possibly more critical missions.
- ° Copperhead and FASCAM must be priority missions and must be treated as such. They must be thoroughly planned and deliberately executed.. Ideal copperhead targets are engineer vehicles, ADA systems, bunkers and bridges.

# RETROGRADE OPERATIONS

## DELAY

- May require the forward positioning of observers to facilitate deep fires. The FSO must have a plan for observer's security and withdrawal to prevent them from being cut off and destroyed.
- Use copperhead to destroy C3 and engineer vehicles to disrupt and delay the enemy's movement.
- Positioning mortars and artillery in depth, ensures continuous fire support.
- Plan fires to support possible counterattacks.
- Plan smoke to cover the movement of maneuver forces.

## WITHDRAWAL

- Mass fires to allow disengagement of friendly forces. This means that all available assets must support the withdrawing forces. Leave maximum feasible number of firing units forward. Establish disengagement criteria for them and rehearse it.
- Augment the withdrawing forces with additional observers.
- Use CAS and smoke to counter enemy attempts to disrupt the withdrawal.
- 

## PASSAGE OF LINES

### FORWARD PASSAGE OF LINES

- Smoke is used to obscure enemy positions of screen friendly movement. Inherent to this is identifying additional ammunition requirements for both arty and mortars.
- The FSE of the passing force sends a liaison officer to the FSE of the stationary force.

# RETROGRADE OPERATIONS

## PASSAGE OF LINES (Continued..)

- The CFL is positioned forward of the lead elements and continually updated. The FSO must know the position of the lead elements.
- Fire support assets should be positioned near the passage point but not so they interfere with the stationary force. Priority of positioning should go to the passing force but must be coordinated by the LNO sent to the stationary force.
- Fire support requirements should be identified after completion of the passage of lines.
- Place CFZ's around the passage points. It is the responsibility of the unit that determines where the PP's are.

## REARWARD PASSAGE OF LINES

- Use smoke to conceal movement through the passage points.
- Plan fires to disengage forces.
- Plan fires to support the deception plan.
- Ensure counterfire is planned and controlled by the stationary force.
- Position the stationary force's FS assets to provide continuous support until the passage is complete.
- Ensure positions are away from the passage points.
- Ensure the FSE of the stationary force sends a liaison officer to the FSE of the passing force.

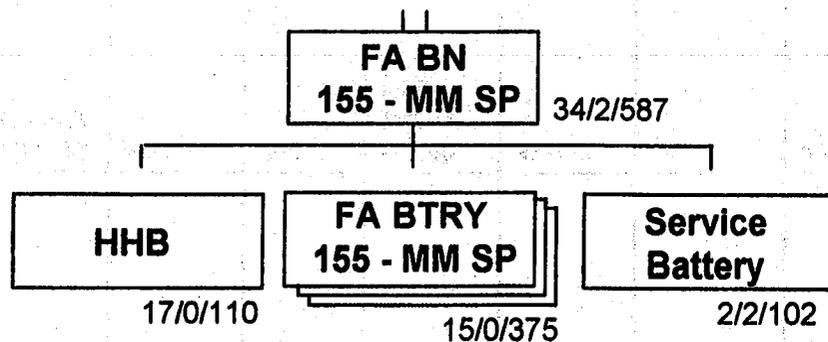
## OPERATIONS OTHER THAN WAR

- The rules of engagement (ROE) must clearly specify when the use of FS is appropriate and justified. For example, collateral damage caused by FS assets may warrant their use only on a case-by-case basis.

# OPERATIONS OTHER THAN WAR

- Clearance of fires is infinitely more complicated when operating in urban areas and foreign countries. Normal FS coordinating measures (such as CFL's and FSCL's) may not apply during operations such as peace enforcement and peacekeeping operations.
- Firefinder radar's are key components to detecting and neutralizing belligerent indirect fire assets. Protection of these radars and associated equipment becomes paramount.
- Use of non-lethal rounds, such as liter, are effective in showing force without causing damage or destruction.
- Use of Censor Zones is crucial in the protection of our indirect fire assets. Because the battlefield is non-linear, and there is a high probability of having indirect assets firing towards the radar while it is cueing, CZ's need to be established around them in order to ignore their missions.
- Radars need to be elevated above equipment and personnel level because the threat of radiation sickness. Anything within 141 meters of the radar antenna is susceptible to radiation sickness if exposed continuously.
- Radars, based on the threat, can radiate 24 hours a day, 7 days a week but, care must be taken in the maintenance of the system

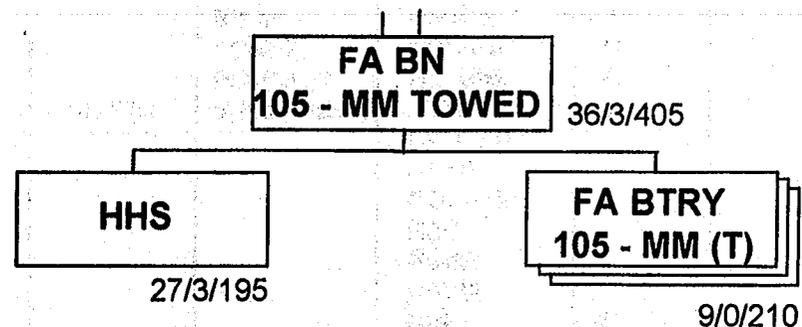
## DS FA BATTALION FOR MECH/ARMOR DIVISIONS



### MAJOR EQUIPMENT

|  |    |
|--|----|
| Howitzer, medium, Self Propelled, 155 mm | 24 |
| Carrier, Cargo                           | 24 |
| Carrier, CP                              | 9  |

## DS FA BATTALION FOR LIGHT DIVISIONS



### MAJOR EQUIPMENT

|                                 |    |
|---------------------------------|----|
| Howitzer, medium, Towed, 105 mm | 18 |
| HMMWVs                          | 18 |
| Q-36 Counter Battery Radar      | 1  |

# CHARACTERISTICS OF US FIELD ARTILLERY WEAPONS

D-20

| WEAPON                 | RDS ON VEH | RDS BULK LOADED | RANGE (METERS)         | WEIGHT (POUNDS) | TIME TO EMPLACE (MIN) | MAX RATE OF FIRE NO RDS/GUN 1ST 3 MIN | SUSTAINED FIRE RDS PER MIN/ GUN | NO OF WEAPONS PER UNIT                    | AMMUNITION   |                              |
|------------------------|------------|-----------------|------------------------|-----------------|-----------------------|---------------------------------------|---------------------------------|---|--|------------------------------|
|                        |            |                 |                        |                 |                       |                                       |                                 |   | TYPES  | FUSES                        |
| 105MM HOW TOWED L119   | 40         | 150             | 14,600                 | 4,100           | 3                     | 6 RDS/MIN                             | 3 RDS/MIN                       | LT INF 18                                 | WP<br>HE<br>HEAT-T<br>CML<br>ILLUM<br>SMOKE<br>ICM<br>APERS<br>HEP-T                       | MT<br>PD<br>VT<br>MTSQ       |
| 105MM HOW TOWED M101A1 | 40         | 150             | 11,000                 |                 | 3                     | 10 RDS/MIN                            | 3 RDS/MIN                       | AIRBORNE & AIRMOBILE BN 18                |  |                              |
| 105MM HOW TOWED M102   | 40         | 150             | 11,500                 | 3,170           | 3                     | 10 RDS,MIN                            | 3 RDS/MIN                       |   |  |                              |
| 155MM HOW TOWED M114A2 | 28         | 161             | 14,600<br>19,300 (RAP) | 12,700          | 5                     | 4 RDS/MIN                             | 1 RD/MIN                        | INF DIV BN 18<br>CORPS BN 18              | FASCAM<br>HE,WP<br>CML<br>DP-ICM<br>RAP<br>ADAM<br>RAAM<br>NUC<br>COPPER-HEAD<br>HC, ILLUM | PD<br>CP<br>MTSQ<br>VT<br>MT |
| 155MM HOW SP M109A2/A3 | 28/36      | 206             | 18,100<br>24,000 (RAP) | 53,940          | 1                     | 4 RDS/MIN                             | 1 RD/MIN                        | ARMD&MECH DIV BN 24<br>CORPS BN 24        | ILLUM<br>HC, RAP<br>NUC HE<br>DP-ICM<br>ADAM<br>RAAM,CML<br>COPPER-HEAD                    | CP<br>PD<br>MT<br>VT<br>MTSQ |
| 155MM HOW TOWED M198   | TBA        | TBA             | 24,000<br>30,000 (RAP) | 15,800          | 5                     | 4 RDS/MIN                             | 1 RD/MIN                        | CORPS BN 24<br>INF DIV 24<br>LT INF DIV 8 | HE, RAP<br>DP-ICM<br>ADAM<br>RAAM<br>NUC,HC,WP<br>COPPER-HEAD                              | CP<br>PD<br>VT<br>MTSQ<br>MT |

## CHARACTERISTICS OF US FIELD ARTILLERY WEAPONS (cont)

| WEAPON              | RDS ON VEH | RDS BULK LOADED | RANGE (METERS)         | WEIGHT (POUNDS) | TIME TO EMPLACE (MIN) | MAX RATE OF FIRE NO RDS/GUN 1ST 3 MIN | SUSTAINED FIRE RDS PER MIN/ GUN | NO OF WEAPONS PER UNIT                 | AMMUNITION                        |   |
|---------------------|------------|-----------------|------------------------|-----------------|-----------------------|---------------------------------------|---------------------------------|--|-----------------------------------|---|
|                     |            |                 |                        |                 |                       |                                       |                                 |  | TYPES                             | FUSES   |
| 203MM HOW SP M110A2 | 2          | 138             | 23,000<br>29,000 (RAP) | 62,500          | 2                     | 4.5                                   | 1 RD/MIN                        | CORPS BN 24                            | DP-ICM<br>HE<br>NUC<br>CML<br>RAP | CP<br>MT<br>VT<br>MSTQ<br>CP,PD                     |
| MLRS                | 12         | 96              | 30 KM                  | 54,000          |                       | N/A                                   | N/A                             | 9 SPL/BTRY AR/MECH,INF DIV 27 CORPS BN | M-77<br>DP-ICM                    | REMOTEL<br>SETTABLE<br>ELECT-<br>RONIC<br>TIME FUSE |

### ARTILLERY EFFECTS DEFINITIONS

**SUPPRESSION:**

- LIMITS FREEDOM OF ENEMY TO MOVE/SHOOT
- ENABLES FRIENDLIES TO SHOOT MORE EFFECTIVELY
- EFFECTS LAST ONLY AS LONG AS FIRES CONTINUE
- ATGM GUNNERS CAN RECOVER IN 15 TO 60 SECONDS

**NEUTRALIZATION:**

- TAKES TARGET OUT OF THE BATTLE TEMPORARILY
- ENEMY BECOMES EFFECTIVE AGAIN AFTER REPLACING CASUALTIES AND EQUIPMENT
- NORMALLY 10% CASUALTIES NEUTRALIZE AN ENEMY

**DESTRUCTION:**

- TAKES TARGET OUT OF THE BATTLE PERMANENTLY
- REQUIRES DIRECT HITS ON HARD TARGETS
- NORMALLY 30% CASUALTIES DESTROY AN ENEMY

**NOTES : DESTRUCTION OF TANK/BMP/DUG IN TARGETS REQUIRES AN ENORMOUS AMMUNITION EXPENDITURE WHICH VARIES WITH THE WEAPON SYSTEM AND MUNITION. COPPERHEAD IS EFFECTIVE AGAINST SUCH TARGETS.**

## CHARACTERISTICS OF US MORTARS

| WEAPON                   | RDS ON VEH | RDS BULK LOADED | RANGE (EFFECTIVE) |                | WEIGHT (LBS) | TIME TO EMPLACE (MIN) | RATE OF FIRE (RDS/MIN) | AMMO                      | NO OF WPNS PER UNIT               |
|--------------------------|------------|-----------------|-------------------|----------------|--------------|-----------------------|------------------------|---------------------------|-----------------------------------|
|                          |            |                 | MIN               | MAX            |              |                       |                        |                           |                                   |
| 81MM<br>M29<br>M125A1    | 115        | 41              | 70                | 4750           | 97           | 7                     | 5 SUSTAINED<br>30 MAX  | HE<br>WP<br>ILLUM         | 3 PER CO<br>H SERIES              |
| 4.2inch<br>M30<br>M106A1 | 88         | 101             | 770               | 6800           | 672          | 7                     | 3 SUSTAINED<br>18 MAX  | HE, WP<br>ILLUM<br>CS     | 6/TK/MECH BN                      |
| *81MM<br>M252            | 115        | 41              | 100               | 5750           | 87           | 5                     | 15 SUSTAINED<br>30 MAX | HE<br>WP<br>ILLUM         | 4 PER LT INF BN<br>(L-SERIES TOE) |
| M224<br>60MM             |            |                 | 50                | 3500<br>**1000 | 45           | 3                     | 15 SUSTAINED<br>30 MAX | HE, WP<br>ILLUM<br>CS, HC | 2 PER INF CO                      |
| M121<br>120MM<br>M1064   | 69         |                 | 200               | 7200           | 317          |                       | 4 SUSTAINED<br>16 MAX  | HE,WP<br>ILUMM            |                                   |

\* 81MM MORTAR REPLACES 81MM MORTAR IN LT INF BN IN DISMOUNTED ROLE.

MECH-TANK BN USES 4.2inch MORTAR IN MOVEMENT ROLE.

\*\*MAXIMUM EFFECTIVE RANGE HAND-HELD MODEL.

## SUMMARY OF HEAVY MORTAR PLATOON EMPLOYMENT OPTIONS

| EMPLOYMENT OPTION  | ADVANTAGES  | DISADVANTAGES   |
|--|---|---|
| <b>PLATOON :</b><br><b>INTACT</b><br><b>(1 LOCATION)</b><br><br><b>SEPARATED</b><br><b>(2 LOCATIONS)</b> | <ul style="list-style-type: none"> <li>- MASSING OF FIRES SIMPLIFIED</li> <li>- MORE RESPONSIVE</li> <li>- ENHANCED COMMAND AND CONTROL</li> <li>- EASE OF LOGISTICS</li> <li>- FDC CAN OPERATE 24 HOURS</li> </ul> | <ul style="list-style-type: none"> <li>- PLATOON MORE VULNERABLE TO COUNTERFIRE</li> <li>- POSITIONING LIMITED BY TERRAIN</li> </ul>  |
|  | <ul style="list-style-type: none"> <li>- INCREASED SURVIVABILITY</li> <li>- LESS RESTRICTED BY TERRAIN</li> </ul>   | <ul style="list-style-type: none"> <li>- COMMAND AND CONTROL REQUIRES MORE EFFORT</li> <li>- POSSIBLE INCREASE IN RADIO TRAFFIC</li> <li>- MASSING OF FIRES REQUIRES MORE EFFORT</li> <li>- LOGISTICS REQUIRES MORE EFFORT</li> </ul>               |
| <b>SECTIONS :</b>  | <ul style="list-style-type: none"> <li>- INCREASED SURVIVABILITY</li> <li>- CAN COVER LARGE FRONT</li> </ul>  | <ul style="list-style-type: none"> <li>- DECREASED EFFECTS ON TARGET (FEWER ROUNDS PER VOLLEY)</li> <li>- COMMAND AND CONTROL MORE DIFFICULT</li> <li>- MASSING OF FIRES MORE DIFFICULT</li> <li>- LOGISTICS MORE DIFFICULT</li> </ul>              |
| <b>SQUADS :</b>  | <ul style="list-style-type: none"> <li>- GREATEST SURVIVABILITY</li> <li>- COVER EVEN LARGER FRONT</li> </ul>   | <ul style="list-style-type: none"> <li>- DECREASED EFFECTS ON TARGETS</li> <li>- LOGISTICS SUPPORT PLACED ON SUPPORTED ELEMENT</li> <li>- MASSING OF FIRES EXTREMELY DIFFICULT</li> <li>- NOT ENOUGH FDC PERSONNEL TO GO WITH EACH SQUAD</li> </ul> |

## PLANNING TIME FACTORS

| ACTIVITIES | 60MM MORT | 81MM MORT | 107MM MORT | 105MM HOW | 155MM HOW |
|------------|-----------|-----------|------------|-----------|-----------|
| OCCUPATION | 1:30 MIN  | 4:30 MIN  | 6:00 MIN   | 6:00 MIN  | 8:00 MIN  |
| HIPSHOOT   | 2:00 MIN  | 2:00 MIN  | 5:00 MIN   | 11:00 MIN | 11:00 MIN |
| BN/PLT FFE | 1:00 MIN  | 1:00 MIN  | 2:00 MIN   | 1:35 MIN  | 1:35 MIN  |
| PRI TGT    | :30 MIN   | :30 MIN   | :30 MIN    | :25 MIN   | :25 MIN   |
| IMM SUP    | :30 MIN   | :30 MIN   | :30 MIN    | :40 MIN   | :40 MIN   |
| IMM SMK    | :30 MIN   | :30 MIN   | :30 MIN    | :40 MIN   | :40 MIN   |
| QUICK SMK  | ?         | ?         | 3:00 MIN   | 5:25 MIN  | 5:25 MIN  |
| LOW ADJUST | N/A       | N/A       | N/A        | 4:35 MIN  | 4:35 MIN  |
| HI ADJUST  | ?         | ?         | 4:00 MIN   | 5:45 MIN  | 5:45 MIN  |
| COPPERHEAD | N/A       | N/A       | N/A        | N/A       | 2:30 MIN  |
| FASCAM     | N/A       | N/A       | N/A        | N/A       | 15+ MIN   |
| FPF        | :30 MIN   | :30 MIN   | :30 MIN    | :25 MIN   | :25 MIN   |

? = COHERENT DATA NOT AVAILABLE AT PRINT TIME  
 N/A = NOT APPLICABLE

## FPF SIZES

| <u>WEAPON SYSTEM</u> | <u># OF TUBES</u> | <u>FPF SIZE</u> |
|----------------------|-------------------|-----------------|
| 60MM                 | 2                 | 60 X 30         |
| 81MM                 | 4                 | 140 X 35        |
| 107MM                | 6                 | 240 X 40        |
| 120MM                | 6                 | 420 X 70        |
| 105MM                | 6                 | 210 X 35        |
| 155MM                | 8                 | 400 X 50        |

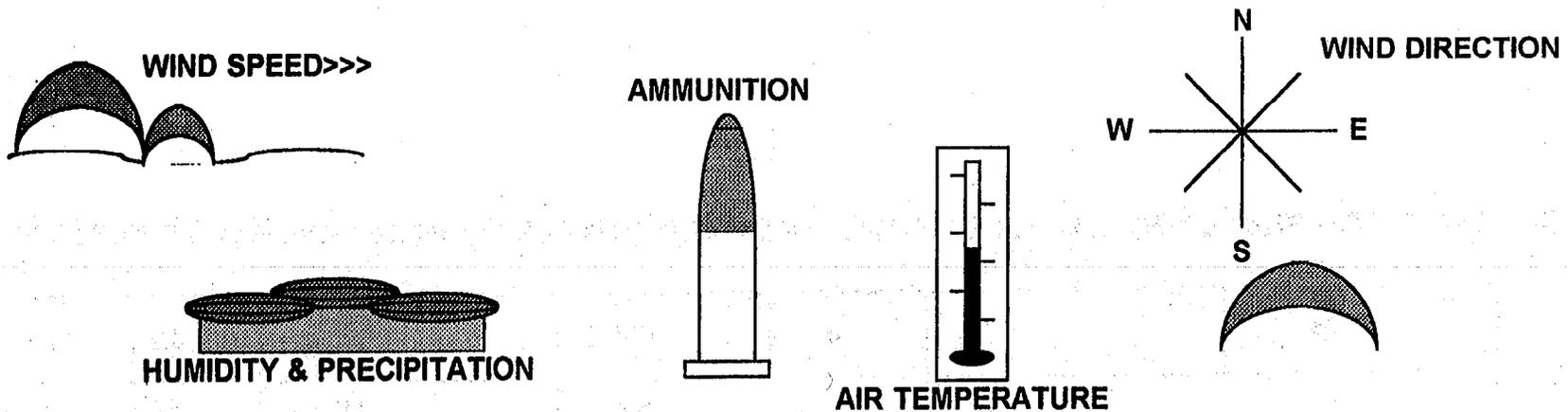
# FIELD ARTILLERY SMOKE PLANNING FACTORS

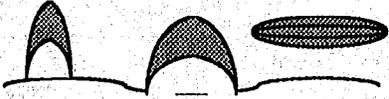
|                                 | WIDTH (METERS) |     |     |     |     |      |      |      |      |      |      |      |
|---------------------------------|----------------|-----|-----|-----|-----|------|------|------|------|------|------|------|
|                                 | 500            | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 2000 |
| <b>NO OF GUNS</b>               | 4              | 6   | 8   | 10  | 12  | 14   | 16   | 18   | 20   | 22   | 24   | 34   |
| <b>FIRING PLTS</b>              | 1              | 2   | 2   | 3   | 3   | 4    | 4    | 5    | 5    | 6    | 6    | 9    |
| <b>FIRING BTRYS</b>             | 1              | 1   | 1   | 2   | 2   | 2    | 2    | 3    | 3    | 3    | 3    | 5    |
| <b>TOTAL RDS<br/>IN MINUTES</b> |                |     |     |     |     |      |      |      |      |      |      |      |
| <b>4</b>                        | 6              | 12  | 16  | 20  | 24  | 28   | 32   | 36   | 40   | 44   | 48   | 68   |
| <b>5</b>                        | 12             | 18  | 24  | 30  | 36  | 42   | 48   | 54   | 60   | 70   | 76   | 106  |
| <b>6</b>                        | 16             | 24  | 32  | 40  | 48  | 56   | 64   | 72   | 80   | 88   | 96   | 136  |
| <b>7</b>                        | 20             | 30  | 40  | 50  | 60  | 70   | 80   | 90   | 100  | 110  | 120  | 170  |
| <b>8</b>                        | 24             | 36  | 48  | 60  | 72  | 84   | 96   | 108  | 120  | 132  | 144  | 204  |
| <b>9</b>                        | 28             | 42  | 56  | 70  | 84  | 98   | 112  | 126  | 140  | 154  | 168  | 238  |
| <b>10</b>                       | 32             | 48  | 64  | 80  | 96  | 112  | 128  | 144  | 160  | 176  | 192  | 272  |
| <b>11</b>                       | 36             | 54  | 72  | 90  | 108 | 126  | 144  | 162  | 180  | 208  | 226  | 316  |
| <b>12</b>                       | 40             | 60  | 80  | 100 | 120 | 140  | 160  | 180  | 200  | 220  | 240  | 340  |
| <b>13</b>                       | 44             | 66  | 88  | 110 | 132 | 154  | 176  | 198  | 220  | 242  | 264  | 374  |
| <b>14</b>                       | 48             | 72  | 96  | 120 | 144 | 168  | 192  | 216  | 240  | 264  | 288  | 408  |
| <b>15</b>                       | 52             | 78  | 104 | 130 | 156 | 182  | 208  | 234  | 260  | 286  | 312  | 442  |

**NOTES :**

1. INITIAL BUILDUP TIME IS 1 TO 1 1/2 MINUTES
2. BASED ON AVERAGE WINDSPEED OF 10 KNOTS/HOUR
3. BASED ON CROSSWIND : DOUBLE FIGURES FOR HEAD OR TAIL WIND
4. BASED ON RATE OF FIRE OF 1 ROUND PER MINUTE
5. BASED ON 3 X 8 M109 J=SERIES TOE

# FACTORS AFFECTING SMOKE EMPLOYMENT



| SMOKE CONDITION (TEMPERATURE GRADIENT) | TIME OF DAY WEATHER CONDITIONS  | EXPECTED SMOKE BEHAVIOR AS THE SMOKE DRIFTS DOWNWIND (WIND DIRECTION >>>)   |
|--|---|---|
| <b>IDEAL (INVERSION)</b>               | <ol style="list-style-type: none"> <li>1. NIGHT - UNTIL 1 HOUR AFTER SUNRISE.</li> <li>2. WIND SPEED LESS THAN 5 KNOTS.</li> <li>3. SKY COVER LESS THAN 30 PERCENT.</li> </ol> ALL THREE CONDITIONS MUST BE MET.    |  <p><b>STABLE CONDITION - IDEAL FOR SMOKE EMPLOYMENT.</b></p>        |
| <b>FAVORABLE</b>                       | THIS CONDITION OCCURS MOST OFTEN 1 TO 2 HOURS BEFORE AND AFTER SUNRISE AND WHEN THE WIND SPEED IS 5 KNOTS OR MORE AND/OR THE SKY COVER IS 30 PERCENT OR MORE.   |  <p><b>NEUTRAL CONDITION - FAVORABLE FOR SMOKE EMPLOYMENT.</b></p> |
| <b>MARGINAL (LAPSE)</b>                | <ol style="list-style-type: none"> <li>1. DAY - BEGINNING 2 HOURS AFTER SUNRISE.</li> <li>2. WIND SPEED LESS THAN 5 KNOTS.</li> <li>3. SKY COVER LESS THAN 30 PERCENT.</li> </ol> ALL THREE CONDITIONS MUST BE MET. |  <p><b>UNSTABLE CONDITION - MARGINAL FOR SMOKE EMPLOYMENT.</b></p> |

## PLANNING DATA FOR SMOKE

| DELIVERY SYSTEM | TYPE ROUND | TIME TO BUILD EFFECTIVE SMOKE | AVERAGE BURNING TIME | AVERAGE OBSCURATION LENGTH (METERS) PER ROUND |            |           |
|-----------------|------------|-------------------------------|----------------------|---|------------|-----------|
|                 |            |                               |                      | WIND DIRECTION:                               |            |           |
|                 |            |                               |                      | CROSS   | QUARTERING | HEAD/TAIL |
| 155 MM          | WP         | 1/2 MIN                       | 1 - 1 1/2 MIN        | 150   | 75         | 50        |
|                 | HC         | 1 - 1 1/2 MIN                 | 4 MIN                | 350   | 250        | 75        |
| 105 MM          | WP         | 1/2 MIN                       | 1 - 1 1/2 MIN        | 75  | 60         | 50        |
|                 | HC         | 1 - 1 1/2 MIN                 | 3 MIN                | 250   | 175        | 50        |
| 107 MM          | WP         | 1/2 MIN                       | 1 MIN                | 200   | 80         | 40        |
| 60 MM           | WP         | 1/2 MIN                       | 1 MIN                | 75  | 50         | 40        |
| 81 MM           | WP         | 1/2 MIN                       | 1 MIN                | 100   | 60         | 40        |

NOTE : ALL ROUNDS ARE FIRED AS STANDARD MISSIONS WITH PARALLEL SHEAFS UNDER FAVORABLE CONDITIONS.

# RADAR CAPABILITIES

|                   | AN/TPQ 36  | AN/TPQ 37        |
|-------------------|--|------------------|
| RANGE             |  |                  |
| ARTILLERY/MORTARS | 12000 METERS                                       | 30000 METERS     |
| ROCKETS           | 24000 METERS                                       | 50000 METERS     |
| AZIMUTH OF SEARCH | 1600 MILS( 6400 MILS IN<br>(EXTENDED AZIMUTH MODE) | 1600 MILS        |
| ACCURACY          | ACCURATE FOR FFE                                   | ACCURATE FOR FFE |
| EMPLACEMENT TIME  | 10-20 MIN  | 20-30 MIN        |
| ZONES CAPABLE     | 9 ZONES  | 9 ZONES          |

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AN/TPQ 36 radars are typically attached to the maneuver brigades DS artillery battalion. The TA manager for the radar is either the DS battalion S2 or the BDE FSE. He is responsible for the development and issuing the radar deployment order (RDO). The radar can provide important, timely and otherwise unavailable combat information to the DS S2 and the BDE FSE. Radar employment must be integrated into the intelligence collection plan developed by the BDE S2.

The radar must be cueing/radiating in order for it to acquire the round. The term cueing is the process designated to prompt the radar operator to radiate. Radars can be scheduled to cue when units anticipate a vulnerability to enemy indirect fires such as a river crossing, a breaching operation, or an expected enemy preparation. Radars also can be cued by authorized cueing agents, which is referred to as command cueing. Examples of cueing agents are the BDE/TF/CO FSE's and the DS artillery battalion S2/3.

# RADAR ZONES

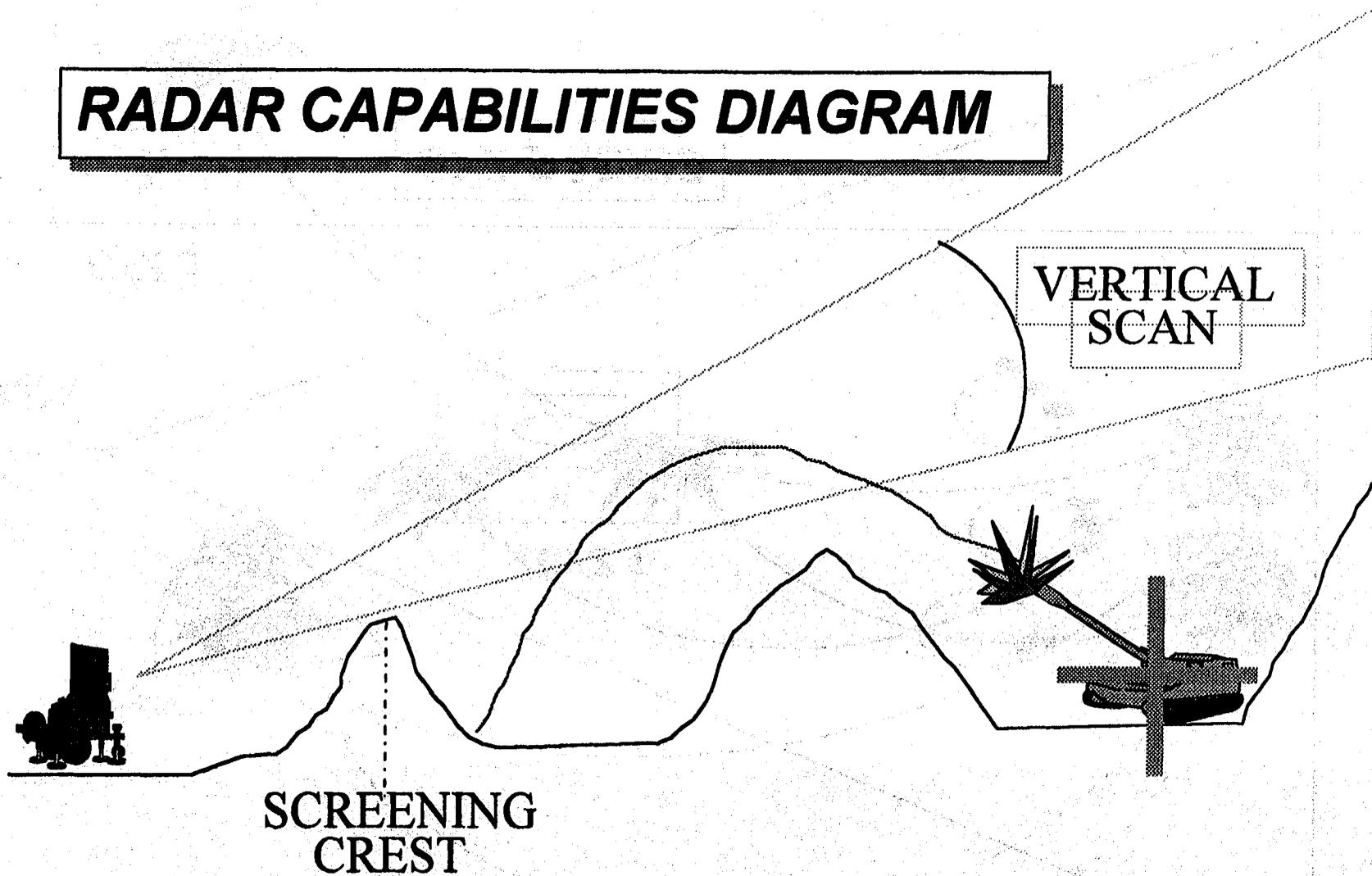
**CRITICAL FRIENDLY ZONES (CFZ)** is an area, usually in friendly territory, which the combined arms commander cannot afford indirect rounds, lethal or non-lethal, impacting his mission. When the radar predicts that a round is going to impact inside a CFZ (impact predict), the location of the weapon firing into the CFZ, the location of the weapon firing into the CFZ is immediately generated as a Priority I call for fire. Examples of CFZ's are on the following pages.

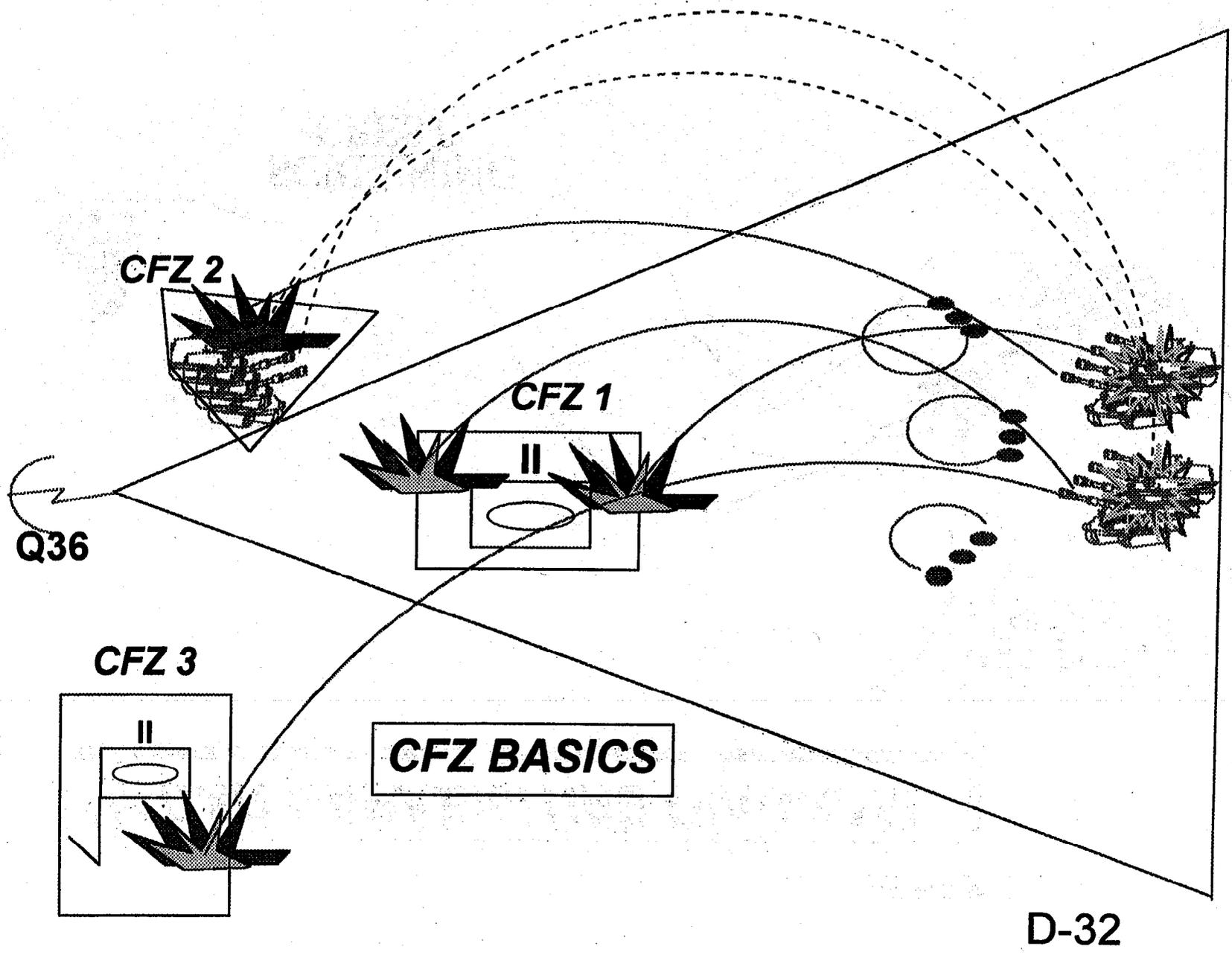
**CALL FOR FIRE ZONE (CFFZ)** is a zone established around known or suspected enemy indirect fire weapon system locations. The target will automatically generate a priority II CFF, and is only superseded in precedence by a CFZ.

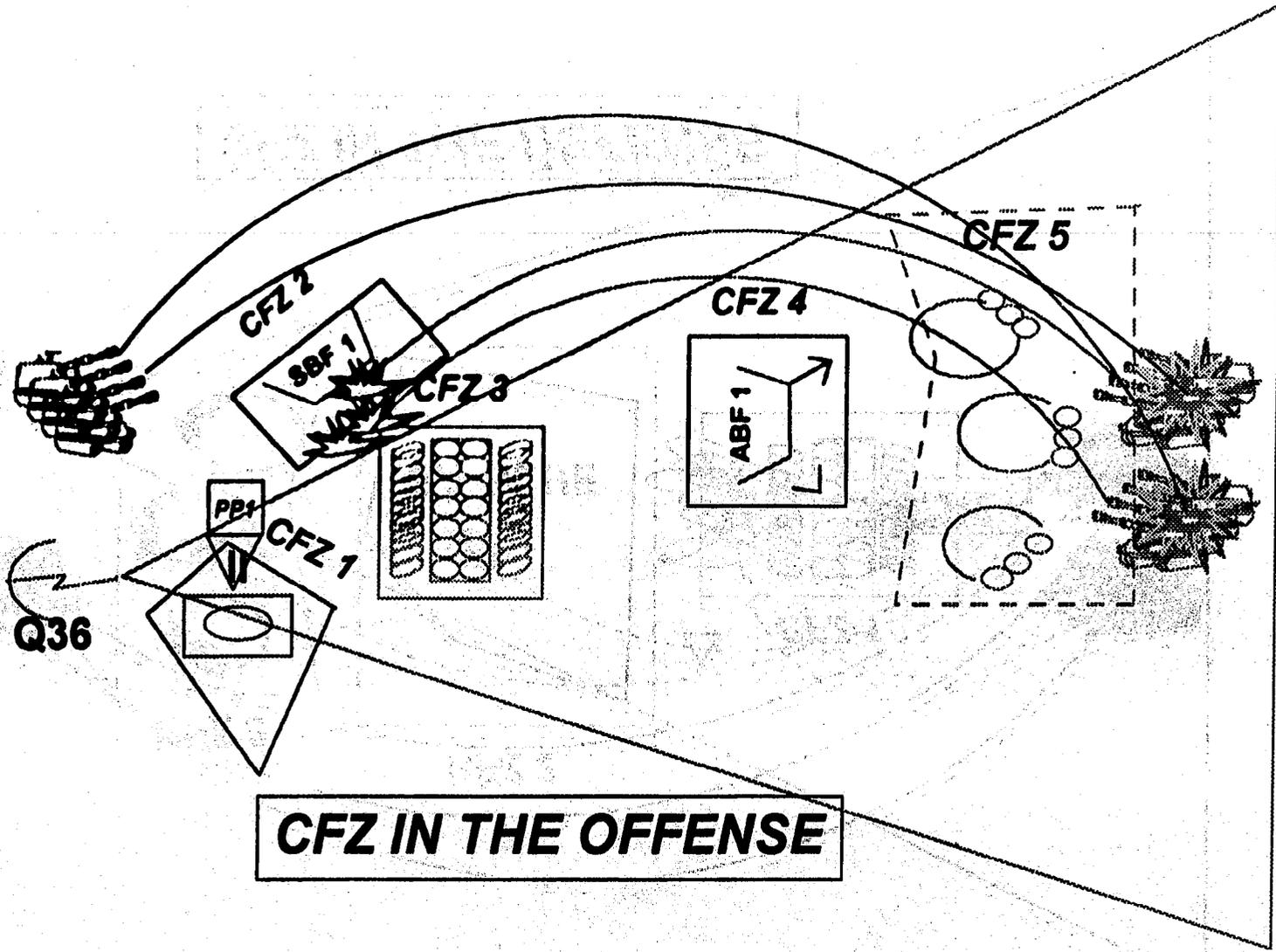
**ARTILLERY TARGET INTELLIGENCE ZONE (ATI)** is a zone that is established around an area that the combined arms commander simply wishes to monitor for activity. A acquisition from this zone does not immediately generate a Call for fire. These targets can be stored for future fire planning. An example of when a ATI zone is effective is around known or suspected enemy artillery locations beyond the range capabilities our artillery.

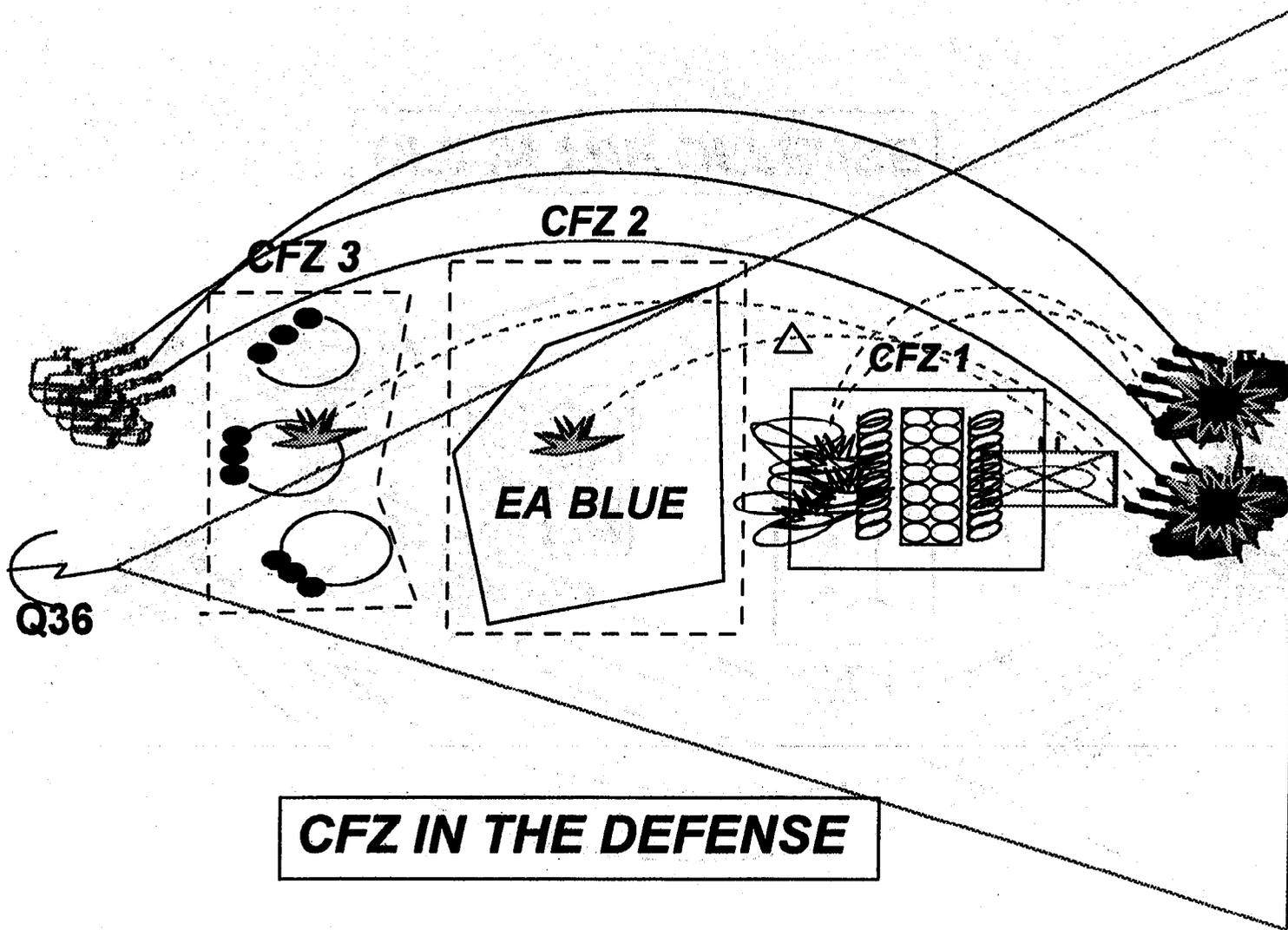
**CENSOR ZONE (CZ)** is a zone that is placed around a friendly indirect firing system which when acquired, is ignored as a hostile. A CZ is placed around a friendly artillery or mortar unit that is deployed in such a position that it may fire towards the radar and hence be classified as a hostile target. An example of when to use a CZ is around a friendly artillery or mortar unit located close to an irregularly shaped FLOT or forward of the battle area. Another example is during Operations Other Than War where typically the battlefield is non-linear or 360 degrees (6400 mils).

# **RADAR CAPABILITIES DIAGRAM**









**CFZ IN THE DEFENSE**

# FIRE SUPPORT COORDINATION MEASURES

(ALL GRAPHICS ARE IN BLACK)

## BOUNDRIES

BOTH PERMISSIVE AND  
RESTRICTIVE

## PERMISSIVE MEASURES

### FIRE SPT COORD LINE:

CORPS OR DIV LINE BEYOND WHICH ALL FIRES  
MAY BE FIRED WITH COORDINATION. FAILURE  
TO COORDINATE DOES NOT PRECLUDE EN-  
GAGEMENT.

FSCCL 2nd CORPS  
EFF 010530 Z JUN 94

### COORDINATED FIRE LINE:

DIV OR BDE LINE BEYOND WHICH SURFACE  
TO SURFACE FIRES MAY BE FIRED W/O  
COORDINATION

-- CFL 9TH IN RGT -----  
EFF 301245AUG64

### FREE FIRE AREA:

CORPS OR DIV AREA WHERE ALL FIRES MAY BE  
DELIVERED W/O COORDINATION

FFA  
7TH ID  
EFF 110001FEB94-  
130001FEB94

# FIRE SUPPORT COORDINATION

## MEASURES(continued)

(ALL GRAPHICS ARE IN BLACK)

### RESTRICTIVE MEASURES

#### RESTRICTIVE FIRE LINE:

BN OR HIGHER. LINE BETWEEN TWO CONVERGING FORCES ACROSS WHICH NO FIRES (DIRECT/INDIRECT) OR THEIR EFFECTS MAY CROSS W/O COORDINATION W/ ESTABLISHING HQs

RFL 2/9 IN

151200DEC 96

#### RESTRICTIVE FIRE AREA:

BN OR HIGHER. AREA INTO WHICH SPECIFIC CONSTRAINTS ON FIRES CANNOT BE EXCEEDED W/O COORDINATION W/ ESTABLISHING HQs

RFA

1/9 IN

EFF 201800AUG95

NO DPICM

#### NO FIRE AREA:

DIV OR HIGHER. AREA INTO WHICH NO FIRES OR THEIR EFFECTS MAY BE DELIVERED W/O COORDINATION W/ ESTABLISHING HQs

NFA

3D INF DIV

EFF 091200JUN94

D-36

# FIRE SUPPORT COORDINATION MEASURES

(continued)

(ALL GRAPHICS ARE IN BLACK)

## RESTRICTIVE MEASURES (continued)

### AIRSPACE COORDINATION AREA:

**FORMAL -- ESTABLISHED BY BDE OR HIGHER  
THREE DIMENSIONAL BLOCK  
OF AIRSPACE THAT PROVIDES LATERAL AND  
ALTITUDE SEPARATION BETWEEN AIRCRAFT  
AND OTHER FIRE SUPPORT ASSETS.**

ACA  
4 MECH DIV  
MIN ALT: 400  
MAX ALT: 2700  
EFF 080600-080610 JUL94

**INFORMAL -- PREFERRED METHOD. ESTABLISHED  
USING LATERAL, ALTITUDE, OR TIME SEPARATION  
OR ANY COMBINATION. NORMALLY NOT DEPICTED  
ON A MAP OR OVERLAY**

# FIRE SUPPORT EXECUTION MATRIX

- ASSIGNS SPECIFIC FS RESPONSIBILITIES TO CO/TM CDR'S.
- GRAPHICALLY DISPLAYS HOW THE FIRE SUPPORT PLAN SUPPORTS MANEUVER PLAN--SYNCHRONIZES FIRE SUPPORT WITH MANEUVER.
- IDENTIFIES WHO HAS BEEN ALLOCATED PRIORITY OF FIRES, PRIORITY TARGETS (AND WHEN THEY HAVE BOTH), AND FIRE SUPPORT COORDINATION MEASURES.
- ASSIGNS TARGET EXECUTION RESPONSIBILITY -- OBSERVATION PLAN
- WHEN APPROVED, THE FSEM BECOMES THE PRIMARY EXECUTION TOOL

# **AIR DEFENSE**

**Section - E**

# COMMANDER'S GUIDANCE FOR AIR DEFENSE

- *TASK, PURPOSE, AND PRIORITY*
  - ADDRESS EACH ADA SYSTEM AVAILABLE
  - ESTABLISH AIR DEFENSE PRIORITIES FOR EACH PHASE OF THE OPERATION USING CRITICALITY, VULNERABILITY, RECOUPERABILITY, AND THREAT
  
- *SPECIFIC*
  - WHERE TO MASS, WHERE TO ACCEPT RISK
  - USE OF ADA SYSTEMS IN THE GROUND ROLE
  - ALLOCATION OF ADA ASSETS(DS/GS)
  - SPECIAL MISSIONS(STINGER AMBUSH)

# ADA STANDARD TACTICAL MISSIONS

| QUESTION   | DIRECT SUPPORT   | GENERAL SUPPORT   | REINFORCING  | GENERAL SUPPORT REINFORCING   |
|--|--|---|--|---|
| WHO ESTABLISHES ADA PRIORITIES?                            | THE SUPPORTED CDR  | THE ADA CDR ASSIGNING THE SUPPORT RELATIONSHIP, BASED ON THE SUPPORTED CDR's PRIORITIES | THE SUPPORTED CDR THROUGH THE REINFORCED ADA CDR                           | (1) THE SUPPORTED CDR<br>(2) THE SUPPORTED CDR THROUGH THE REINFORCED ADA CDR |
| WHO POSITIONS ADA FIRE UNITS?                              | ADA FIRE UNIT CDRs WITH APPROVAL OF THE LOCAL GROUND CDR | THE ADA FIRE UNIT CDRS IN COORDINATION WITH LOCAL GROUND CDR                            | ADA FIRE UNIT CDRS WITH APPROVAL OF THE REINFORCED ADA CDR & LOCAL GRD CDR | THE ADA FIRE UNIT CDR IN COORDINATION WITH LOCAL GRD CDR & REINFORCED ADA CDR |
| WHO COORDINATES TERRAIN ON WHICH ADA UNITS WILL POSITION ? | THE DS ADA CDR (APPROVED BY THE SUPPORTED CDR)           | THE CDR ASSIGNING THE SUPPORT RELATIONSHIP  | THE REINFORCED ADA CDR WITH THE SUPPORTED CDR                              | THE CDR ASSIGNING THE MISSION WITH THE SUPPORTED CDR & ADA CDR                |
| WITH WHOM SHOULD LIASON BE ESTABLISHED?                    | SUPPORTED UNIT   | WITH SUPPORTED UNIT   | WITH SUPPORTED UNIT BUT INCLUDING REINFORCED ADA CDR                       | WITH SUPPORTED UNIT BUT INCLUDING ® ADA CDR                                   |
| WITH WHOM SHOULD COMMUNICATIONS BE ESTABLISHED?            | SUPPORTED UNIT   | WITH SUPPORTED UNIT   | WITH SUPPORTED UNIT INCLUDING REINFORCED ADA CDR                           |   |

# AIR DEFENSE EMPLOYMENT CONSIDERATIONS

## OFFENSE

- IDENTIFY LIKELY AIR AVENUES OF APPROACH AND ENGAGEMENT AREAS
- ESTABLISH ADA PRIORITIES (MANEUVER UNITS, C2, ETC.)
- INTEGRATE ADA INTO SCHEME OF MANEUVER
- AVENGER AND STINGER PROVIDE OVERWATCH
- MONITOR ARMY AIRSPACE COMMAND AND CONTROL
- CONDUCT ACTIVE/PASSIVE AIR DEFENSE
- MONITOR/DISSEMINATE EARLY WARNING

## DEFENSE

- IDENTIFY LIKELY AIR AVENUES OF APPROACH AND ENGAGEMENT AREAS
- ESTABLISH ADA PRIORITIES (C/ATTK FORCE; CL III, IV, V; ETC)
- AREA -VS- POINT DEFENSE
- DEDICATE PART OF SURVIVABILITY EFFORT TO ADA ASSETS
- BSFVs MAY AUGMENT GROUND FIRES IF NO AIR THREAT
- MONITOR ARMY AIRSPACE COMMAND AND CONTROL
- CONDUCT PASSIVE/ACTIVE AIR DEFENSE
- MONITOR/DISSEMINATE EARLY WARNING

# AIR DEFENSE PRIORITIZATION

## AIR DEFENSE PRIORITIES ARE ESTABLISHED BY:

1. EVALUATING METT-T (AERIAL IPB CRITICAL)
2. COMMANDER'S SCHEME OF MANEUVER
3. COMMANDER'S INTENT

## ... AND APPLYING THE FOUR ADA PLANNING FACTORS:

1. THREAT...THE ASSET/UNIT THE COMMANDER DETERMINES TO BE AN ENEMY AIR PRIORITY.
2. CRITICALITY...THE ASSET/UNIT THE COMMANDER DETERMINES HE MUST HAVE TO ACCOMPLISH THE MISSION
3. VULNERABILITY...THE ASSET/UNIT THE COMMANDER DETERMINES TO BE MOST SUSCEPTIBLE TO AIR ATTACK
4. RECOUPERABILITY...THE ASSET/UNIT THE COMMANDER DETERMINES LEAST CAPABLE OF RECOVERING FROM AN AIR ATTACK

## WEAPONS CONTROL STATUS

FREE- FIRE AT ANY AIRCRAFT NOT POSITIVELY IDENTIFIED AS FRIENDLY

TIGHT- FIRE ONLY AT AIRCRAFT POSITIVELY IDENTIFIED AS HOSTILE

HOLD- FIRE ONLY IN SELF DEFENSE

## AIR DEFENSE WARNINGS

The following Air Defense Warnings are used to alert friendly units of the probability of enemy air attack in the Corps Area of Operation:

- **ADW RED** - AIR OR MISSILE ATTACK IMMINENT OR IN PROGRESS
- **ADW YELLOW** - AIR OR MISSILE ATTACK PROBABLE
- **ADW WHITE** - AIR OR MISSILE ATTACK NOT LIKELY

The following Local Air Defense Warnings are designed to allow the local maneuver commander the authority to increase/ decrease warning to alert a particular unit, several units or area of the battlefield:

- **DYNAMITE** - AERIAL TARGETS ARE INBOUND ATTACK IN PROGRESS.
- **LOOKOUT** - AERIAL TARGETS MAY BE IN THE AREA OF INTEREST BUT ARE NOT THREATENING
- **SNOWMAN** - NO THREATENING AERIAL TARGETS ARE IN THE AREA.

# COMBINED ARMS FOR AIR DEFENSE

PASSIVE AIR DEFENSE - MEASURES TAKEN TO AVOID DETECTION OR MINIMIZE THE EFFECTS OF HOSTILE AIR ACTION (CAMOUFLAGE, COVER, CONCEALMENT, DISPERSION).

ACTIVE AIR DEFENSE MEASURES- DIRECT ACTION TAKEN TO DESTROY OR REDUCE THE EFFECTIVENESS OF ENEMY AIR ATTACK.

## FOOTBALL FIELD TECHNIQUE

BASIC RULE: MASS ALL AVAILABLE FIRE IN FRONT OF THE AIRCRAFT

| <u>TARGET</u> | <u>PROFILE</u>  | <u>AIMPOINT</u>                          |
|---------------|-----------------|--|
| HELO          | CROSSING        | 1/2 FOOTBALL FIELD IN FRONT OF NOSE      |
| HELO          | DIRECTLY AT YOU | SLIGHTLY ABOVE THE HELICOPTER BODY       |
| HELO          | HOVERING        | SLIGHTLY ABOVE THE HELICOPTER BODY       |
| JET           | CROSSING        | TWO FOOTBALL FIELDS IN FRONT OF THE NOSE |
| JET           | DIRECTLY AT YOU | SLIGHTLY ABOVE THE FRONT OF THE NOSE     |
| JET           | OVERHEAD        | TWO FOOTBALL FIELDS IN FRONT OF THE NOSE |

E-6

# FAAD SYSTEM CAPABILITIES

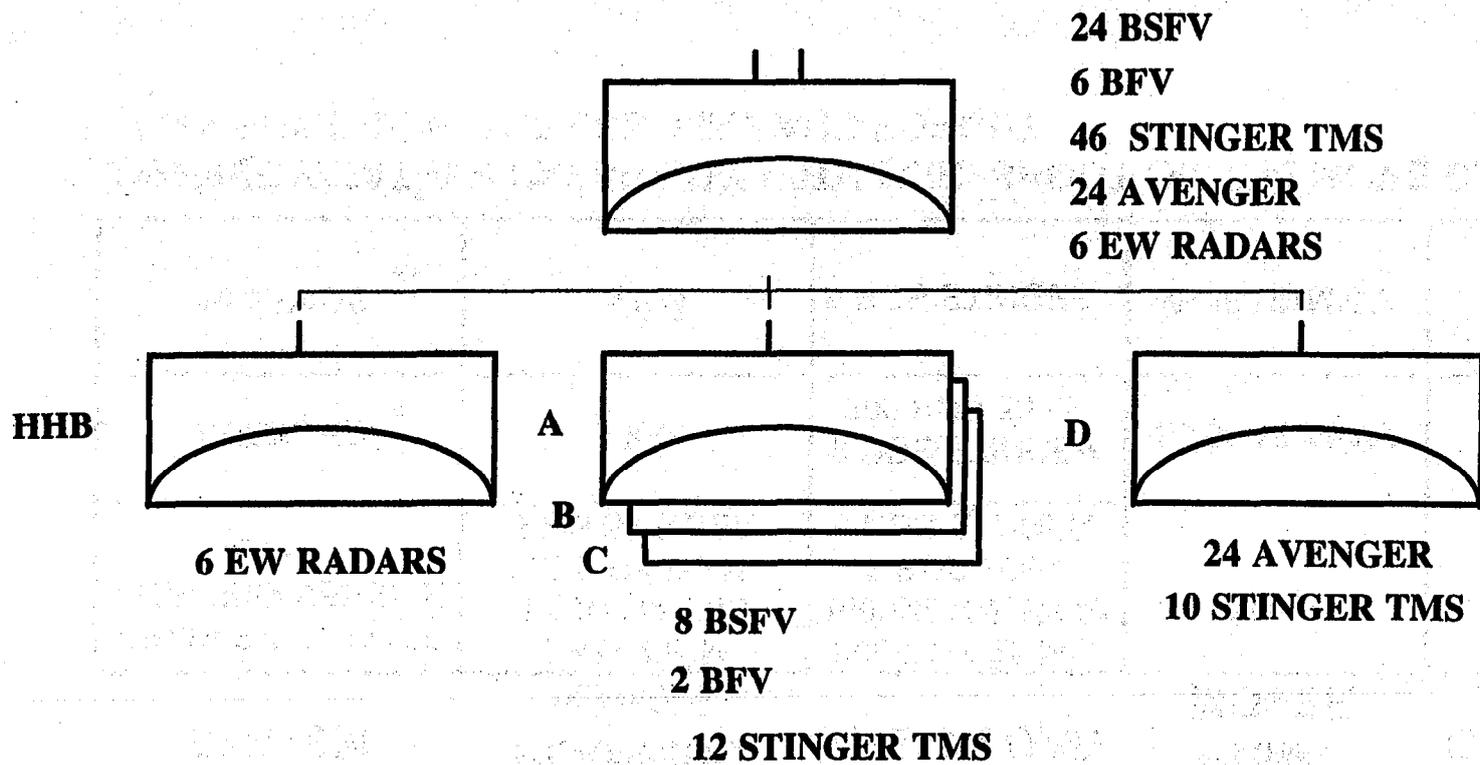
| SYSTEM  | PLANNING RANGE   | BASIC LOAD  | PRIME MOVER | CREW |
|---|--|---|-------------|------|
| BRADLEY STINGER<br>FIGHTING VEHICLE<br>(BSFV) | 2 KM 25MM<br>1.1 KM M240C<br>3.75 KM TOW<br>5 KM STINGER | 900 RDS 25 MM<br>4400RDS 7.62MM<br>5 RDS TOW<br>6 RDS STINGER | M2A2        | 5    |
| AVENGER *                                     | 5 KM   | 8 RDS STINGER<br>200 RDS 50 cal                               | M998 HMMWV  | 2    |
| MANPADS ***                                   | 5 KM   | 6 RDS STINGER   | M998 HMMWV  | 2    |

\* ADVERSE WEATHER CAPABILITY WITH FLIR, SHOOT ON THE MOVE CAPABILITY

\*\*\* MAN PORTABLE, 34.5 LBS, FIRE AND FORGET

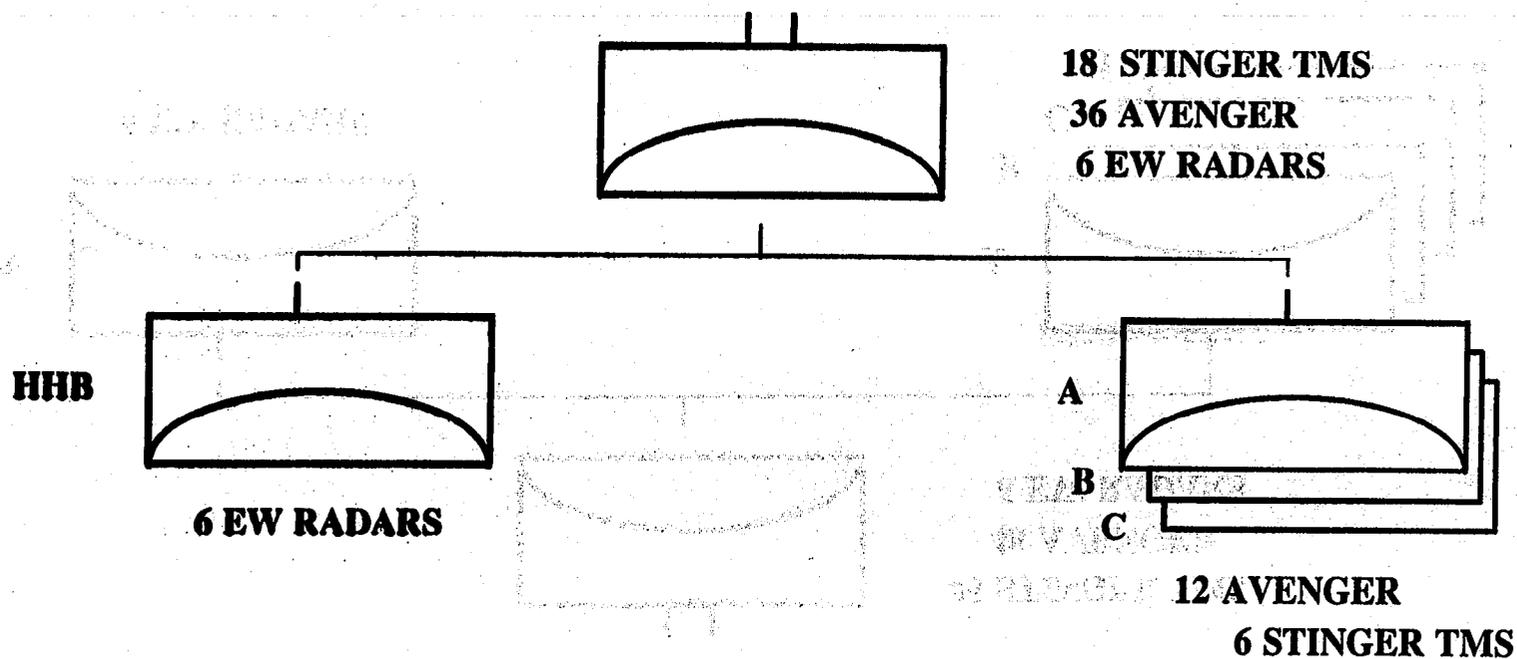
**HEAVY DIVISION**

**ADA BATTALION**



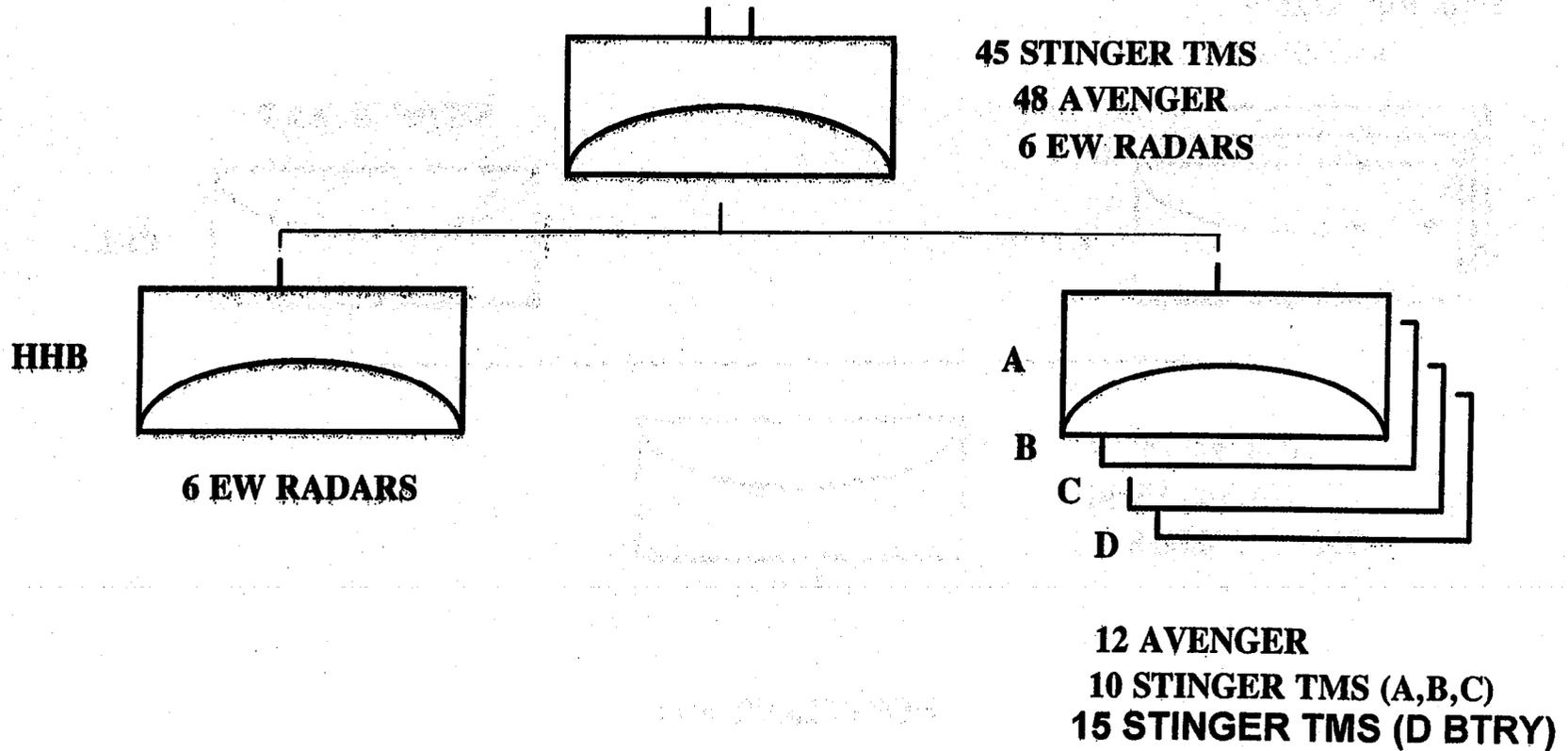
**LIGHT DIVISION**

**ADA BATTALION**



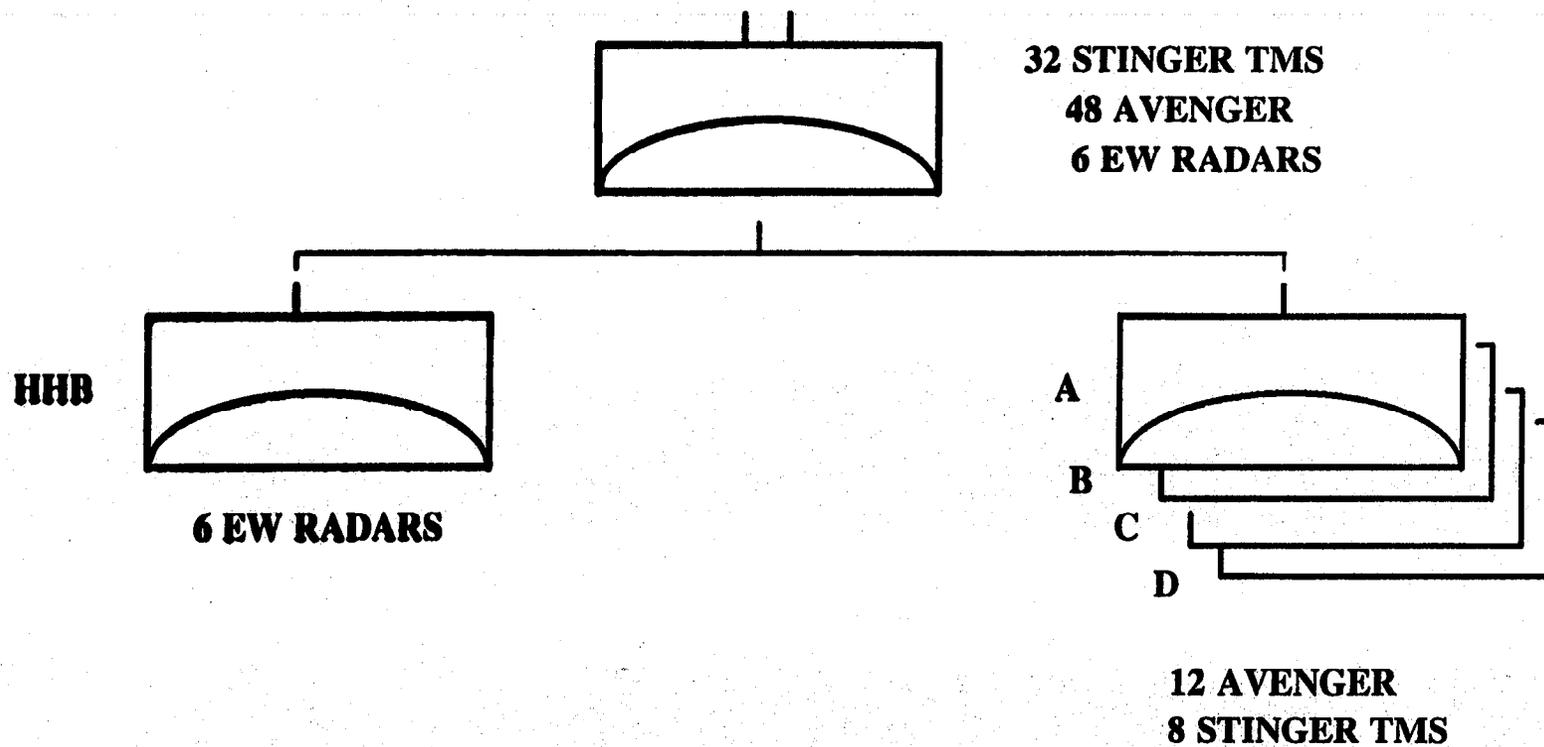
**AASLT DIVISION**

**ADA BATTALION**



**AIRBORNE DIVISION**

**ADA BATTALION**



# **MOBILITY AND SURVIVABILITY (incl. NBC)**

**Section - F**

# **COMMANDERS GUIDANCE**

## **MOBILITY/SURVIVABILITY OPERATIONS**

### **ENGINEER:**

- Intent for engineer effort - state priorities of effort & support
- Intent for obstacle effects (Disrupt, Fix, Turn, Block)
- Intent for survivability assets - level and priorities (by system)
- Identify mobility requirements
- Include the Engineer in guidance to the S-3 and the Company Commanders

### **SMOKE:**

- Give location and duration of smoke mission
- Define type of smoke required
- Establish visibility requirements
- Determine direction of attack

### **NBC:**

- Identify threats and vulnerabilities
- Establish equipment requirements
- Provide OEG/MOPP level recommendations
- Set decontamination priorities

# MOBILITY PLANNING CONSIDERATIONS

## **INTELLIGENCE:**

- Analyze AA's, MC's
- Template obstacles
- Integrate engineer PIR and IR in R & S plans
- Use engineers for recon of terrain, obstacles

## **MANEUVER:**

- Identify Support, Assault, and Breach forces
- Identify critical breach assets

## **FIRE SUPPORT:**

- Plan Suppression, Obscuration fires for breach
- Plan employment of scatterable mine systems
- Cover emplaced obstacles with indirect fire
- Trigger points on DST for FASCAM

## **MOB/COUNTERMOB/SURVIVABILITY:**

- ID clear purpose and priorities
- Standardize breach lane markings & lane hand-off
- Plan for transition to defense

## **AIR DEFENSE:**

- Identify & cover breach points

## **COMBAT SERVICE SUPPORT:**

- Confirm lane marking supplies
- Plan critical breach & FASCAM munitions resupply
- Plan forward stockpiling for defensive opns

## **COMMAND AND CONTROL:**

- Provide intent for FASCAM systems and obstacles
- Plan use of pyrotechnics at breach site
- Synchronize thru REHEARSALS

### Types of Breaching

**In-Stride  
Deliberate  
Assault  
Covert**

# COUNTERMOBILITY / SURVIVABILITY PLANNING CONSIDERATIONS

## **INTELLIGENCE:**

- Analyze AA's, MC's
- ID enemy breaching effort
- Engineer PIR and IR in R & S plans
- Engineers for recon of terrain, obstacles

## **MANEUVER:**

- Plan work site security, target turnover needs
- Identify EAs early and integrate fires & obstacles
- Use Intent, belts and groups to focus effort

## **FIRE SUPPORT:**

- Cover obstacles with indirect fire
- Coordinate ADAM/RAAM FASCAM
- Trigger points on DST for FASCAM

## **MOB/COUNTERMOB/SURVIVABILITY :**

- ID clear purpose and priorities
- ID lane markings & hand-off
- Plan transition to offense
- Specify level of survivability

## **AIR DEFENSE:**

- Identify & cover obstacle work site and material stockage points

## **COMBAT SERVICE SUPPORT:**

- Plan critical CL IV/V & FASCAM munitions resupply
- Plan forward stockpiling
- Use Standard Obstacle Packages for efficient opns
- Ensure maintenance priority for key equipment

## **COMMAND AND CONTROL:**

- Provide intent for obstacle groups or belts
- Synchronize defensive opns thru rehearsals

# BREACH TENETS

## **INTELLIGENCE (CONDUCT IPB)**

- TEMPLATE OBSTACLES, FIRE SACKS, BP's
- ID PIR, DEVELOP R&S PLAN, ID WEAK POINTS/BYPASS
- CONFIRM TEMPLATES

## **FUNDAMENTALS OF THE BREACH (SOSR) ID # LANES, TYPE BREACH (IN-STRIDE, DELIBERATE, COVERT, ASSAULT)**

- SUPPRESS** - SUPPRESSION OF ENEMY DIRECT/INDIRECT FIRES THAT CAN INFLUENCE THE BREACH SITE. MUST HAVE A 3:1 RELATIVE FIREPOWER
- OBSCURE** - ANYTHING TO RESTRICT THE ENEMY'S VISIBILITY OF THE BREACH SITE. ASSETS, CONTROL, TIMING, EFFECTS
- SECURE** - THE BREACH SITE BY FORCE OR BY FIRE TO PREVENT A COUNTER ATTACK
- REDUCE** - CREATE LANE THROUGH THE OBSTACLE THEN MARK THE LANE

## **ORGANIZATION FOR THE BREACH**

- SUPPORT FORCE** - SUPPRESS, OBSCURE, SECURE BREACH SITE BY FIRE
- BREACH FORCE** - CREATE LANES, MARK BREACH SITE, GUIDE, SECURE LANE BY FORCE
- ASSAULT FORCE** - ATTACK THRU LANES, SECURE FAR SIDE OF THE OBSTACLE OR OBJECTIVE

## **MASS**

- ENSURE 50% REDUNDANCY IN BREACH ASSETS
- INSURE 3:1 RATIO FOR SUPPRESSIVE FIRES

## **SYNCHRONIZATION**

- REHEARSE
- VERIFY: CONTROL MEASURES, SIGNALS, TRIGGER POINT, TIMING, SUBUNIT INSTRUCTIONS

# ENGINEER PARAGRAPH REQUIREMENTS

1. **PURPOSE** - General description of what the Engineers will be doing

2. **PRIORITY OF EFFORT**

- Prioritize by Mobility / Countermobility / Survivability
- May be broken down into "Priority of Equipment Effort" and "Priority of Sapper Effort"

3. **PRIORITY OF WORK**

- May be broken down into "Priority of Equipment Work" and "Priority of Sapper Work"
- Prioritize by Units, BPs, Weapons or Time

4. **SCATTERABLE MINE GUIDANCE**

- Purpose
- Delegation of Authority
- Duration (Long vs. Short)
- Restrictions

5. **OBSTACLE RESTRICTIONS** - Counterattack Routes, Reserve Obstacle. Authority

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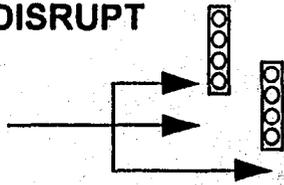
**TASKS TO SUB-UNITS and COORDINATING INSTRUCTIONS Considerations:**

MARKING BREACHES/LANES  
LANE CLOSURE  
BLADE ASSETS CONTROL  
POSITIONING BARRIER MATERIAL

TARGET TURNOVER  
OBSTACLES SECURITY  
LABOR SUPPORT TO ENGRs  
ALLOCATION OF EQUIPMENT

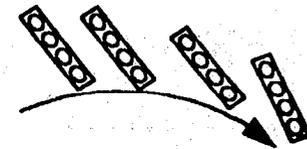
# OBSTACLE INTENT GRAPHICS

## DISRUPT



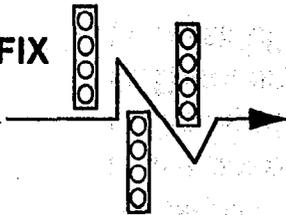
**PURPOSE:** Break up enemy's formation, interrupt his timing, cause premature commitment of breach assets, piecemeal his attack  
**FOCUS OF FIRES:** Massed indirect fires with obstacles to attack only a portion of the enemy's formation  
**LOCATION:** Forward of EA's

## TURN



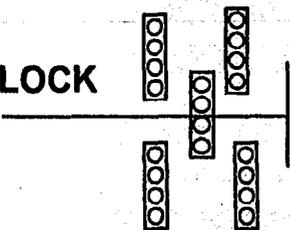
**PURPOSE:** Force an enemy formation into an avenue of approach or EA  
**FOCUS OF FIRES:** Coerce the enemy by massed fires and orientation of the obstacle. Anchored into no-go terrain or a battle position.  
**LOCATION:** Placed on mobility corridor or avenue of approach.

## FIX



**PURPOSE:** To slow an attacker within an EA to destroy him using direct and indirect fires.  
**FOCUS OF FIRES:** Obstacles and fires are in depth to complete the enemy's destruction within the specified areas.  
**LOCATION:** Within EA's.

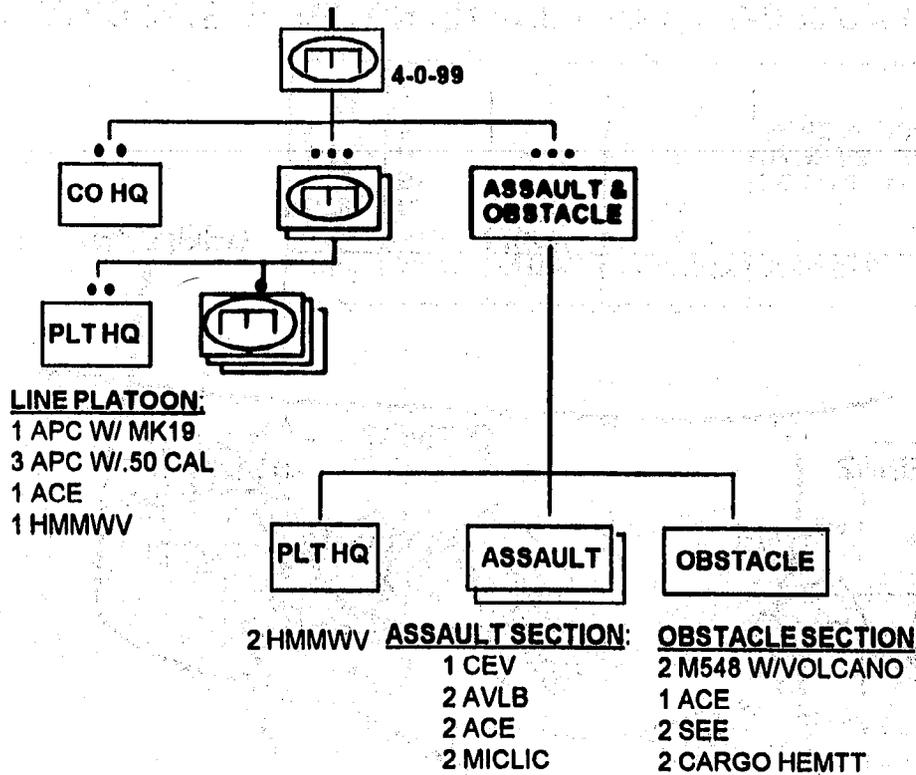
## BLOCK



**PURPOSE:** Stop an attacker's advance. Closes or denies access to an AA to enemy maneuver  
**FOCUS OF FIRES:** Massed interlocking fires across entire AA. Designed to prevent any attempt to breach across entire front.  
**LOCATION:** Critical points in the battle.

# MECHANIZED ENGINEER COMPANY

(1 per Task Force)

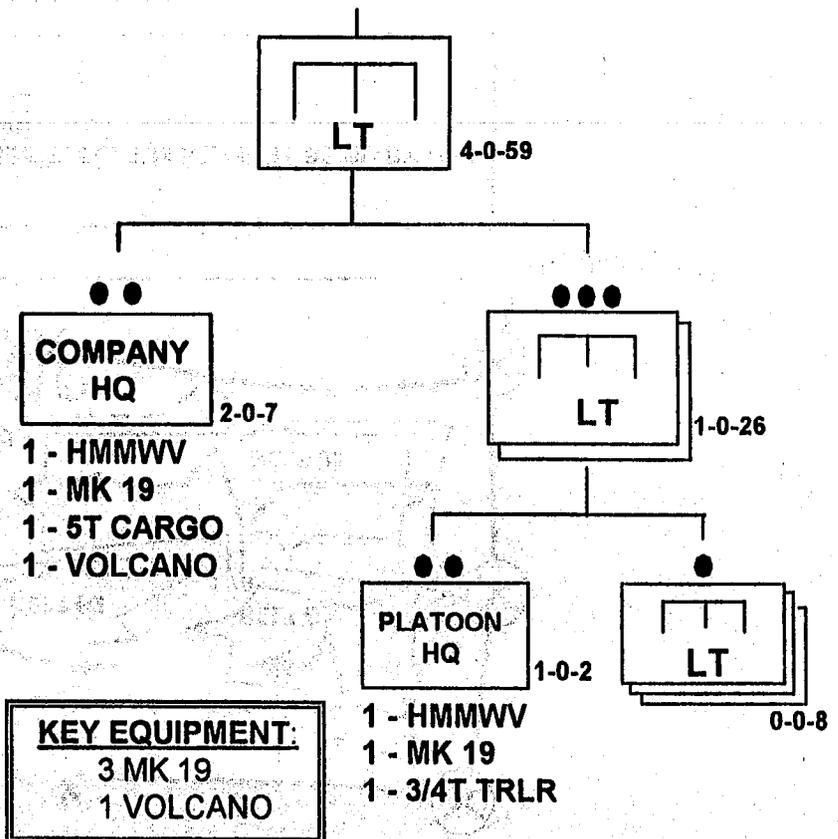


## KEY EQUIPMENT RECAP:

7 ACE  
 2 CEV  
 4 AVLB  
 4 MICLIC  
 2 VOLCANO  
 2 SEE

# LIGHT ENGINEER COMPANY

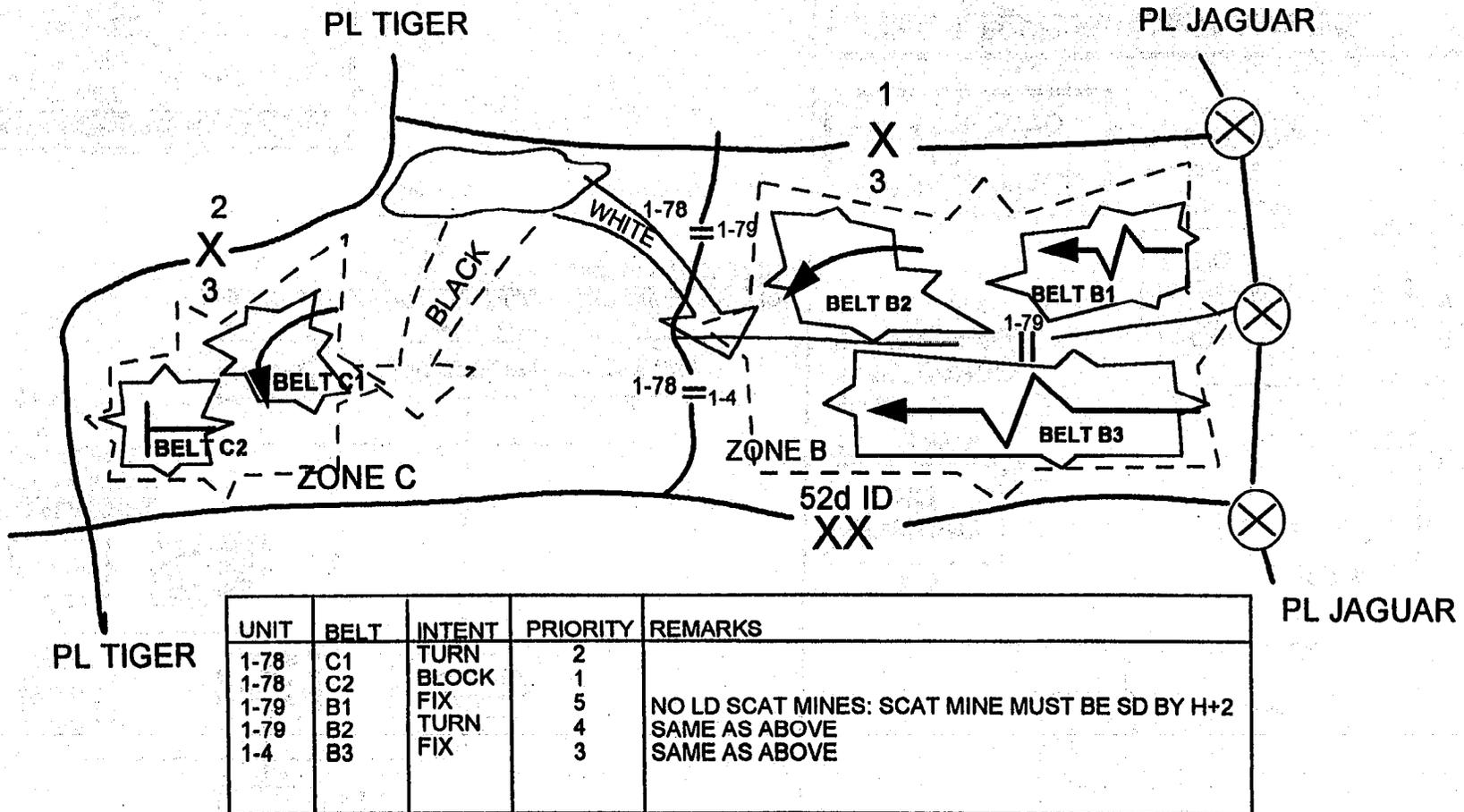
(1 per Light Brigade)



## TYPICAL EQUIPMENT SLICE from HHC:

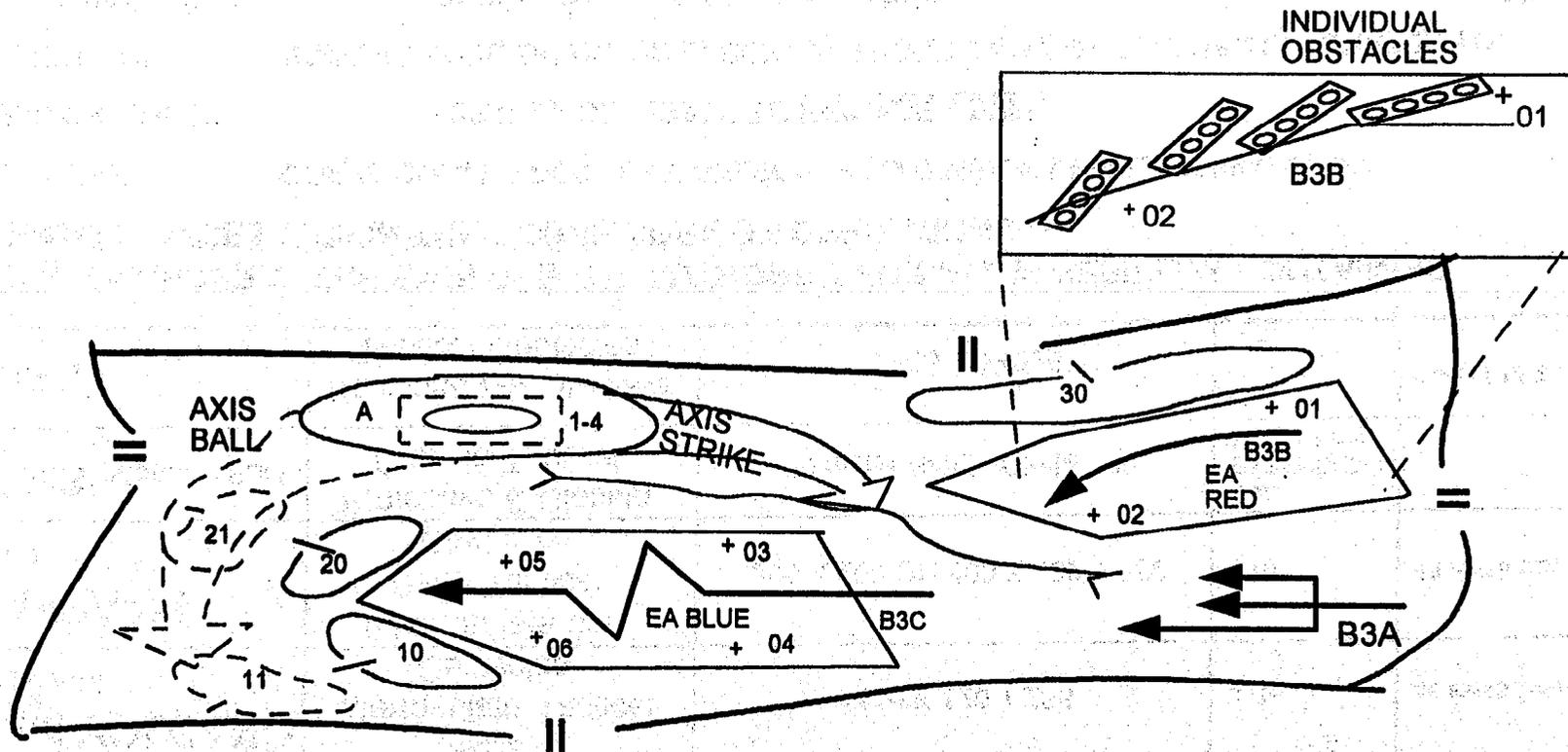
3 D-5 Dozers  
 9 SEE  
 1 Contact Team

# OBSTACLE BELTS



- ALLOCATE BASED ON BN AND LARGER MOBILITY CORRIDORS
- OBSTACLE EFFECTS TARGET THREAT REGIMENTS
- INTEGRATION WITH INDIRECT FIRES IS CRITICAL
- FACILITATES THRU-PUT OF OBSTACLE MATERIAL TO CLASS IV/V SUPPLY POINTS

# OBSTACLE GROUPS



| UNIT/BP     | GROUP (1052) | INTENT  | PRIORITY | REMARKS                                  |
|-------------|--------------|---------|----------|--|
| CO A/SCREEN | B3A          | DISRUPT | 3        | ALL GROUPS RESTRICTED                    |
| TM B/BP 30  | B3B          | TURN    | 1        | - NO LONG DURATION SCAT MINES            |
| TM D/BP 10  | B3C          | FIX     | 2        | - SHORT DURATION MUST BE EMPLACED BY H+3 |

- TASK FORCE ALLOCATE PLATOONS BASED ON COMPANY AND LARGER MOBILITY CORRIDORS
- OBSTACLE GROUPS DIRECTLY TARGET THREAT BATTALION TO ATTACK THE REGIMENT MANEUVER
- GROUPS COMBINE INDIVIDUAL TACTICAL OBSTACLES TO ACCOMPLISH A SINGLE EFFECT
- GROUP EFFECTS INTEGRATE WITH THE DIRECT FIRE ORGANIZATION OF THE ENGAGEMENT AREA(S)

# FASCAM SYSTEMS

| SYSTEM                           | EMPLOYMENT                               | SIZE (meters)<br>FRONT X DEPTH + SAFETY ZONE | DURATION                       |                |
|----------------------------------|--|--|--------------------------------|----------------|
|                                  |  |  | SHORT                          | LONG           |
| GATOR<br>(Air Force Delivered)   | Deep Interdiction                        | 650 X 200 + 275 (ALL SIDES)                  | 4 Hr                           | 48 Hr/15 Day   |
| AIR VOLCANO<br>(UH-60)           | Intermediate and Deep Tactical Obstacles | 1110 X 120 + 235                             | 4 Hr                           | 48 Hr/15 Day   |
| Ground VOLCANO<br>(M-548, 5-ton) | Near and Intermediate Tactical Obstacles | 1110 X 120 + 235                             | 4 Hr                           | 48 Hr/15 Day   |
| ADAM/RAAM<br>(Artillery)         | Intermediate and Deep Tactical Obstacles | 200 X 200 OR 400 X 400 + 860                 | 4 Hr                           | 48 Hr/15 Day   |
| MOPMS (Modular Pack)             | Protective & Closing Gaps in Tactical    | 70 meter Semi - Circle +20                   | 4 Hr<br>EXTENDED UP TO 3 TIMES |                |
| GEMSS                            | Near and Intermediate Tactical Obstacles | 1250 x 60 +235                               |                                | 5 Day / 15 Day |

**CORPS COMMANDER IS THE EMPLOYMENT AUTHORITY FOR ALL MINEFIELDS CONTAINING SCATTERABLE MINES WITHIN THE CORPS AREA OF OPERATIONS**

**LONG DURATION**

**(24 HOURS OR MORE)**

**SHORT DURATION**

**(LESS THAN 24 HOURS)**

**CORPS COMMANDER - MAY DELEGATE TO DIVISION LEVEL. DIVISION MAY**

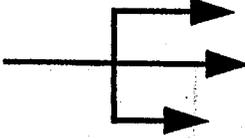
**FURTHER DELEGATE TO BRIGADE LEVEL**

**SAME AS LONG DURATION EXCEPT AUTHORITY MAY BE FURTHER DELEGATED TO**

**BATTALION OR TASK FORCE LEVEL**

**F-10**

# STANDARD MINEFIELD PLANNING FACTORS

| STANDARD ROW MINEFIELD | <br>DISRUPT | <br>TURN | <br>FIX | <br>BLOCK |
|------------------------|--|--|--|--|
| REQUIRED FRONTAGE      | AA/2   | AA   | AA   | AA/3   |
| STANDARD FRONTAGE (M)  | 250  | 500  | 250  | 500  |
| DEPTH (M)              | 100  | 300  | 120  | 320  |
| LINEAR DENSITY         | .5   | 1.0  | .4   | 1.1  |
| AT w/TILT ROD (ROWS)   | 1  | 4  | 1  | 4  |
| AT PRESSURE (ROWS)     | 2  | 2  | 2  | 2  |
| # of AT w/TILT ROD     | 42   | 336  | 63   | 378  |
| # of AT PRESSURE       | 84   | 168  | 84   | 168  |
| ENGR PLT HOURS         | 1.5  | 3.5  | 1.5  | 5.0  |

NOTE: All planning is based on the width of the enemy Avenue of Approach (AA)

# OBSTACLE PLANNING FACTORS

| OBSTACLE              | DIMENSIONS      | EFFORT                      | BILL of MATERIALS (BOM)  |
|-----------------------|-----------------|-----------------------------|--|
| ROAD CRATER           | 12 m WIDE ROAD  | 1 Sgd HR<br>(2 Hrs w/mines) | 1 Roll of DET CORD (M456)<br>5 40 lbs. SHAPE CHG (M421)<br>5 40 lbs. CRATER CHG (M039)<br>60 1lb Blocks of TNT (M032)<br>1 Box Non-Electric Caps (M131)<br>1 Box Fuse Igniters (M760)<br>1 Roll Time Fuse (M670) |
| TRIPLE STD CONCERTINA | 100 m Section   | 1 Sgd HR                    | 50 Long Pickets<br>4 Short Pickets<br>1 Reel Brab Wire<br>20 Rolls Concertina  |
| NON-STD ROADBLOCK     | 15 m wide X 11m | 1 Sgd HR                    | 30 Long Pickets<br>22 Short Pickets<br>4 Reel Brab Wire<br>11 Rolls Concertina<br>1 Roll Tie Wire  |

# ENGINEER BRIEF CHECKLIST

## DEFENSE

- Enemy Breaching Capabilities
- Engineer Task Organization
- Purpose of Engineer Work
- Priority of Effort (Equip & Sappers)
- Priority of Support/Work (Equip & Sappers)
- FASCAM
- Scheme of Obstacle Overlay
- Current CM Status, Materials, Time & Manpower Constraints
- Mobility Requirements
- Coordinating Instructions:
  - Obstacle Security Plan
  - Survivability Support
- Engineer Timeline
- Unresolved Issues

## OFFENSE

- Enemy Situation
- Enemy Obstacle Intel
  - Intel Collection Effort
  - Scout/Engineer Recon
- Engineer Task Organization
- Purpose of Engineering
- Scheme of Engineer Operations
- Mob/CM/Surv Actions from LD to Obj.
- Breach Equip Status
- Actions at Obstacles (detailed) [in-stride, deliberate, assault, covert]
- Countermob to support Attack
  - Situational Obstacles
  - FASCAM
- Service Support Issues
- Unresolved Issues

# NBC PLANNING CONSIDERATIONS

## INTELLIGENCE:

- NBC THREAT INDICATED ON SIT TEMP
- PIR's INCLUDE CAPABILITY & INTENT OF ENEMY NUCLEAR, BIOLOGICAL, & CHEMICAL SYSTEMS
- DOES THE INTEL COLLECTION PLAN INCLUDE:
  - NBC RECONNAISSANCE
  - TEMPLATED AREAS
- NBC ASSUMPTIONS CONCERNING USE:
  - DENY/RESTRICT KEY TERRAIN
  - CAUSE CASUALTIES IN FORWARD AREAS
  - USED ON TRAINS TO CREATE CSS BURDEN
- IS CHEMICAL DETECTION EQUIP DEPLOYED?

## MANEUVER:

DOES THE TACTICAL PLAN CONSIDER:

- CASUALTIES FROM NBC WEAPONS IF MOPP LEVEL IS NOT RAISED
- CASUALTIES FROM ENEMY FIRES / HEAT STRESS IF MOPP LEVEL IS RAISED
- DEGRADATION ON OPERATIONS:
  - FEWER ENEMY TARGETS DESTROYED
  - ATTACKS TAKE TWICE AS LONG
  - DIRECT FIRE WEAPONS ENGAGE AT SHORTER RANGES
  - RISK OF FRATRICIDE INCREASES
- USE OF SMOKE/OBSCURANTS TO ENHANCE POSITION

## AIR DEFENSE:

- USE SMOKE TO DENY AIRSPACE
- IS SMOKE OBSCURING FRIENDLY ADA?

## M/CM/S:

- PLANNED MARCH ROUTES AVOID CONTAMINATION
- PLAN TO BREACH CONTAMINATED AREA
- SMOKE USED TO DEFEAT ENEMY RECON, SURVEILLANCE, & TARGET ACQUISITION SYSTEMS
- GUIDANCE ON ACCEPTABLE LEVELS OF RISK:
  - OPERATIONAL EXPOSURE GUIDANCE
  - MOPP ANALYSIS
  - AUTOMATIC MASKING CRITERIA

## FIRE SUPPORT:

- NBC CAPABLE UNITS ARE HIGH PAYOFF TARGETS
- FIRES ARE LESS RESPONSIVE WHEN CREWS ARE IN MOPP 3 OR 4
- CALLS FOR INDIRECT FIRES INCREASE
- DOES INDIRECT SMOKE SUPPORT GENERATED SMOKE?

## COMMAND AND CONTROL:

- PSYCHOLOGICAL DEGRADATION OF MOPP 4:
  - KEEP THE PLAN SIMPLE
  - REHEARSE & SYNCH THE PLAN IN MOPP 4
- PHYSIOLOGICAL DEGRADATION OF MOPP:
  - WORK TO REST PLAN
  - COMMAND DRINKING & FEEDING PLAN
- WHAT NET WILL BE USED FOR NBC TRAFFIC

# TYPES OF DECONTAMINATION

| TYPE        | BEST START TIME*    | PERFORMED BY                               | TECH / EQUIP   | TIME                        | GAINS MADE                              |
|-------------|---------------------|--|--|-----------------------------|---|
| IMMEDIATE   | BEFORE 1 MINUTE     | INDIVIDUAL                                 | SKIN DECON   | 2-3 MIN                     | SURVIVAL                                |
|             | WITHIN 15 MINUTES   | INDIVIDUAL OR CREW                         | PERSONAL WIPEDOWN<br>-M258A1/M291/M295<br><br>OPERATORS SPRAYDOWN<br>-M11 OR M13 DAP | 5 MIN                       | STOPS AGENT FROM PENETRATING            |
| OPERATIONAL | PRIOR TO 24 HOURS   | UNIT                                       | MOPP GEAR EXCHANGE   | 45 MIN                      | -POSSIBLE TEMPORARY RELIEF FROM MOPP IV |
|             |                     | BN CREW OR DECON SQUAD                     | VEHICLE WASHDOWN<br>-M12A1 PDDE<br>-M17 LDS  | 5 MIN / VEH                 | -LIMIT AGENT SPREAD                     |
| THOROUGH    | WHEN MISSION ALLOWS | UNIT                                       | DETAILED TROOP DECON   | # SOLDIERS X 3 MIN + 50 MIN | PROBABLE LONG TERM                      |
|             |                     | DECON PLT & UNIT AUGMENTEES (17 PERSONNEL) | DETAILED EQUIPMENT DECON<br>-M12A1 PDDE<br>-M17 LDS<br>-65 GPM                       | # VEH X 10 MIN + 90 MIN     | MOPP REDUCTION WITH MINIMAL RISK        |

\* THE TECHNIQUES BECOME INCREASINGLY LESS EFFECTIVE THE LONGER THEY ARE DELAYED

# SMOKE USAGE

## DEFINE SMOKE SUPPORT REQUIREMENTS TO INCLUDE:

- INTENT, LOCATION, & SIZE OF SMOKE TARGET
- TIME/DURATION OF EFFECTIVE SMOKE TO BE ON TARGET
- SECURITY OF SMOKE ASSETS
- IMMEDIATE SUPPORT/ RESUPPLY AVAILABLE FOR MISSION
- PREPARATION OF SMOKE ANNEX FOR OPORD

## TYPES OF SMOKE MISSIONS:

- SCREENING SMOKE -- PLACED ON FRIENDLY FORCES OR BETWEEN FRIENDLY AND ENEMY FORCES TO PREVENT ENEMY OBSERVATION / TARGET ACQUISITION
  - HAZE -- VEHICLE ID POSSIBLE FROM 50 TO 100 METERS
  - BLANKET -- VEHICLE ID POSSIBLE FROM 0 TO 50 METERS
  - CURTAIN -- DENSE VERTICAL COLUMN OF SMOKE
- OBSCURING SMOKE -- PLACED ON ENEMY TO DEGRADE HIS CAPABILITIES
- MARKING SMOKE -- USED FOR BATTLEFIELD COMMUNICATION AND COMMAND & CONTROL

## SMOKE COVERAGE WITH SMOKE GENERATORS:

- BLANKET -- 1 HOUR WITH BASIC LOAD
- HAZE -- < 3 HOURS WITH BASIC LOAD
- CURTAIN -- < 3 HOURS WITH BASIC LOAD
- BASIC LOAD --
  - FOG OIL -- 120 GALLON -- GENERATORS BURN 50 GAL PER HOUR
  - MOGAS -- 10 GALLON -- GENERATORS BURN 3 GAL PER HOUR

# TYPES OF SMOKE

| <u>MISSION:</u>     | <u>DEFENSE</u>  |                        | <u>OFFENSE</u>  |                        |
|---------------------|-----------------|------------------------|-----------------|------------------------|
|                     | <u>PRIMARY:</u> | <u>ALT:</u>            | <u>PRIMARY:</u> | <u>ALT:</u>            |
| OBSCURE OBJECTIVE   | AS, MS          |                        | AS, MS, SR      | SP                     |
| CONCEAL OBSTACLES   | SP, SG          | AS, MS, SR, V          | SP, SG          | V                      |
| CONCEAL MOVEMENT    | SP, SG          | AS, MS, SHG, GL, V     | SP, SG          | AS, MS, SHG, SR, SG, V |
| BLIND RECON         | AS, MS, SR      | SHG, GL                | AS, MS, SR      | SHG, GL                |
| HIDE VEH FROM ATGM  | GL, V           | SG                     | GL, V           | SP, SG, SHG            |
| SCREEN BRIDGING OPS | SP, SG          | AS, MS, SHG, SR, GL, V |                 |                        |
| SEGREGATE ENEMY     | AS, MS          | GL                     | AS, MS          | SR, V                  |
| SUPPORT DECEPTION   | SP, SG          | AS, MS, V              | SG              | MS, SP, V              |
| SILHOUETTE ENEMY    | MS              | SP, SG, SHG, GL        | SG,             | SP                     |
| ISOLATE ENEMY AVN   | AS              | MS, SP, SG             | AS              | MS, SP, SG             |
| SCREEN FACILITIES   |                 |                        | SG              | SP                     |

KEY: ARTILLERY SMOKE (AS), MORTAR SMOKE (MS), SMOKE POTS (SP), SMOKE GENERATORS (SG), SMOKE HAND GRENADES (SHG), SMOKE ROCKETS (SR), GRENADE LAUNCHERS (GL), VEES (V)

# SMOKE OPERATIONS

## CHEMICAL UNIT SMOKE RESOURCES

| TYPE OF UNIT              | # OF SMOKE PLTS | # GENERATORS / PLT | # POINT SOURCES / PLT |
|---------------------------|-----------------|--------------------|-----------------------|
| MOTORIZED SMOKE           | 2               | 24                 | 12 OR 24*             |
| MECHANIZED SMOKE          | 3               | 14                 | 7**                   |
| HEAVY DIV CHEMICAL COMPAY | 1               | 12                 | 7**                   |
| SMOKE / DECON COMPANY     | 4***            | 12                 | 6****                 |

\*12 Point sources w/ 2 generators mounted on each HMMWV: 24 points if dismantled

\*\*7 point sources w/ 2 generators mounted on each M113: Not dismantlable

\*\*\*Can perform either smoke generation or decontamination

\*\*\*\*6 point sources w/ 2 generators mounted on each HMMWV: Not dismantlable

## SMOKE PLT COVERAGE CAPABLAITIES (BASED ON 5-10 KMPH WIND SPEED)

|            | # of Generators | # of Point Sources | Average Cloud Parameters |            |                 |             |
|------------|-----------------|--------------------|--------------------------|------------|-----------------|-------------|
|            |                 |                    | Crosswind Width*         |            | Downwind Depth* |             |
|            |                 |                    | Haze                     | Blanket    | Haze            | Blanket     |
| Stationary | 24              | 24                 | 1 to 3.4                 | .5 to 1.7  | .65 to 10       | .65 to 10   |
| Smoke      | 24              | 12                 | .5 to 1.7                | .3 to .9   | .65 to 10       | .65 to 10   |
|            | 12              | 6                  | .3 to .9                 | .15 to .5  | .65 to 10       | .65 to 10   |
| Mobile     | 12              | 6                  | .55 to 1.4               | .5 to 1.2  | .15 to 3.6      | .05 to 1.4  |
| Smoke      | 14              | 7                  | .5 to 1.5                | .55 to 1.3 | .15 to 3.6      | .05 to 1.45 |

\*All Distances in Kilometers

# **LOGISTICS**

**Section - G**

# **OPORD PARAGRAPH 4:** **SERVICE SUPPORT ANNEX**

## **A. GENERAL:**

- SOP(S) APPLICABLE
- OVERLAY
  - BN- COMPANY REAR TO FIELD TRAINS
  - BDE- BSA TO DSA

## **B. MATERIAL AND SERVICES: PROVIDES CHANGES TO EXISTING SOPS AND/OR PREVIOUS ORDERS:**

### **1) SUPPLY:**

- A) CLASS I-SUBSISTENCE**
- B) CLASS II-OCIE, TOOLS, TENTS AND ADMIN SUPPLIES**
- C) CLASS III-POL**
- D) CLASS IV - CONSTRUCTION/BARRIER MATERIAL**
- Coordinated Delivery Point (Manned)
- Forecasted Supply
- Quantity Consistant With Time Available

# OPORD PARAGRAPH 4

## SERVICE SUPPORT ANNEX(CONTINUED)

### E) CLASS V- AMMO (PLANNING CONSIDERATIONS)

**THREAT COMPOSITION**

EQUIPMENT TYPE(S)  
ANTICIPATED FORCE

**THREAT INTENT**

PROBABLE COA  
MAIN EFFORT

**TERRAIN**

**AMMUNITION AVAILABILITY**

CSR vs. RSR  
Transportability

**FM 101-10-1/2 VOLUME 2**

Table 2-16-Div. Breakout

Table 2-17-ARTY Rounds

Table 2-18-Antitank Rounds

Table 2-19-Ammunition Rounds per Weapon per day, by  
level of operation.

# OPORD PARAGRAPH

## SERVICE SUPPORT ANNEX(CONTINUED)

F) CLASS VI- PERSONAL DEMAND ITEMS

G) CLASS VII- MAJOR END ITEMS

CCIL

ORF

H) CLASS VIII- MEDICAL SUPPLIES

I) CLASS IX-REPAIR PARTS

CCIL

CRITICAL SHORTAGES

J) CLASS X-NON MILITARY AID SUPPLIES

### 2. TRANSPORTATION:

ROAD/BRIDGE CLASSIFICATION

EXTERNAL SUPPORT

ROUTE PRIORITY

### 3. SERVICES. (WATER, SHOWERS,GREGG):

AVAILABILITY, LOCATION, AND USE.

### 4. LABOR:

AVAILABILITY AND ANY RESTRICTIONS ON EMPLOYMENT.

# OPORD PARAGRAPH 4

## SERVICE SUPPORT ANNEX(CONTINUED)

### 5. MAINTENANCE:

EQUIPMENT PRIORITIES  
UNIT PRIORITIES  
CHANGES TO REPAIR TIME LIMITS OR  
CANNIBALIZATION POLICIES  
BDAR

### C. MEDICAL EVACUATION AND HOSPITALIZATION:

- EVACUATION ROUTES (OVERLAY)
- METHODOLOGY
  - GROUND AND AIR
  - AMBULANCE TRANSFER POINTS
- AID STATION/HOSPITAL LOCATIONS
- COMBAT LIFESAVERS

### D. PERSONNEL:

- CRITICAL SHORTAGES
- REPLACEMENT DISTRIBUTION
- EPW CONCERNS
- OFF LIMITS AREAS
- SAFETY

# COMMANDER'S GUIDANCE FOR CSS OPERATIONS

## **S-1:**

- GIVE INTENT FOR PERSONNEL OPERATIONS
- DIRECT PERSONNEL CROSS LEVELING, IF NECESSARY
- FOCUS REPLACEMENT OPERATIONS ON MAIN EFFORT

## **S-4:**

- STATE PRIORITY OF SUPPORT BY UNIT TO FOCUS CSS ON MAIN EFFORT
- DIRECT CROSS LEVELING OF SHORTAGES
- SPECIFY BASIC LOADS (EXPRESSED IN DOS) OF CRITICAL SUPPLIES THAT WILL DIRECTLY IMPACT ON THE MISSION
- GIVE INTENT FOR CSS OPERATIONS

## **BMO:**

- STATE PRIORITY OF MAINT BY UNIT AND WEAPONS SYSTEM TO FOCUS MAINTENANCE ON MAIN EFFORT
- STIPULATE MAINT EVAC TIMES
- GIVE GUIDANCE ON BDAR AND CONTROLLED SUBSTITUTION

## **MED PLT LDR:**

- GIVE INTENT FOR HEALTH SERVICE SUPPORT
- DIRECT INTERNAL EVACUATION TIMES
- CONSIDER SPLIT (BAS) OPERATIONS

# OFFENSIVE OPNS

## **Supply:**

- Increased consumption of Class III and V.
- Use of pre-planned push packages.
- Begin to echelon critical supplies/services forward.
- Be flexible. Use unit distribution if necessary.
- Refuel (ROM) prior to crossing LD.

## **Maintenance:**

- Well defined priority of support.
- Evacuation plan.

## **Medical :**

- High casualty and evacuation requirements.
- Jump aid station. Consider Bn AXP's

## **Other:**

- Planning for adequate communications between tactical and CSS units.

# DEFENSIVE OPERATIONS

## **Supply:**

- High class IV and V usage. Cache class V.
- Preposition stocks of essential supplies in defense positions in the forward MBA.
- Plan for increased demand for obstacle/fortification materials. Push forward based on preliminary estimates.
- Plan for increased demand of decontaminants and MOPP gear.
- Resupply during periods of limited visibility.

## **Maintenance:**

- BDAR teams placed well forward.
- MST and unit maint personnel forward.

## **Medical:**

- Well coordinated evacuation plan.

## **Other:**

- Be able to facilitate a rapid transition to the Offense.

# HEAVY BRIGADE/ LIGHT BATTALION CSS CONSIDERATIONS

**Gaining/losing support opns must coordinate support.**

## **Class I**

- Mess team from parent battalion.
- 11 personnel and one 5-ton truck w/M149A1.
- Water resupply is critical.

## **Class III**

- Supply point distribution in field trains.
- Fuel distribution is 5-gallon cans.
- Support platoon has two 500-gallon blivets.

## **CLASS V**

- Light uses 60MM and 81MM.

## **MEDICAL**

- Evacuation in the light battalion uses 4 HMMWV ambulances.
- FSB should augment with M113 from Med Co at BAS
- AXP's reduce turn around time.

## **TRANSPORTATION**

- Transportation is critical and must be closely managed.
- Must maintain high OR rate on vehicles.
- OPCON trans should be carefully commanded and controlled.

# LIGHT BRIGADE/HEAVY COMPANY CSS CONSIDERATIONS

- Heavy forces require more material than light forces.
- Close coordination between Hvy Co and BDE 4/FSB is critical for CSS.
- Increased consumption of CI III P&B, V, and IX will require throughput from corps units to FSB.
- Heavy company should be prepared to assist in resupply of light units during mobile situations.

## Possible Augmentation:

Medical Evac Tm (M113)

Maintenance Tm (Tool Truck, PLL Truck, 2 M88s M113)

Support Section (2-Cargos, 2-Fuelers and Mess Tm)

DS Maint Contact Tm (automotive/ armament tm with  
ASL slice, 5k tanker)

## Provided by:

Parent Hvy Bn

Parent Hvy Bn

Parent Hvy Bn

Parent Hvy Bn

# LIGHT BATTALION/HEAVY PLATOON CSS CONSIDERATIONS

- Normally an OPCON relationship.
- Close coordination between Hvy Plt and Light Bn S4 is critical for CSS.
- Increased consumption of CI III P&B, V and IX will require throughput to Cbt trns .
- Heavy platoon must assist in LOGPAC operations in support of itself.
- Medical support must be coordinated.

## Possible Augmentation:

**HMMWV for C2**

**Maintenance Tm (Tool Truck with parts trl, M88s)**

**Ammo Section (1 Cargo HEMTT)**

**Fuel Section (1 Fuel HEMMT)**

**Supply Section (5 Ton truck with M149A1)**

## Provided by:

**Parent Hvy Bn/Co**

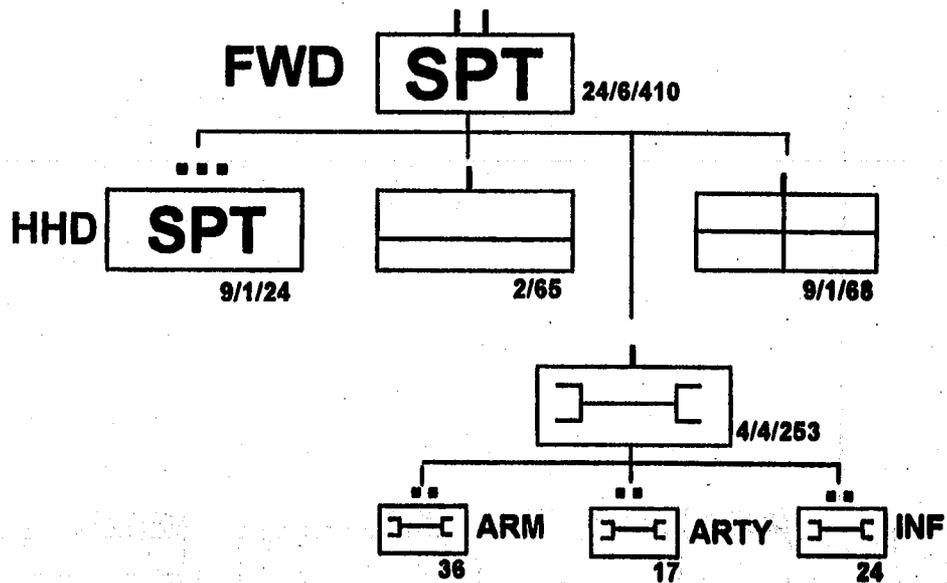
**Parent Hvy Bn/Co**

**Parent Hvy Bn**

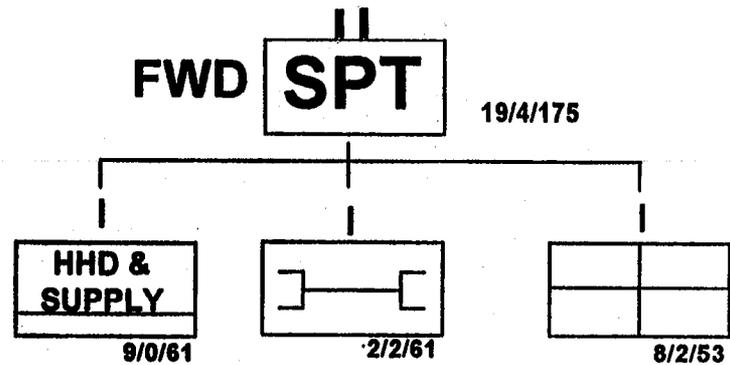
**Parent Hvy Bn**

**Parent Hvy Bn**

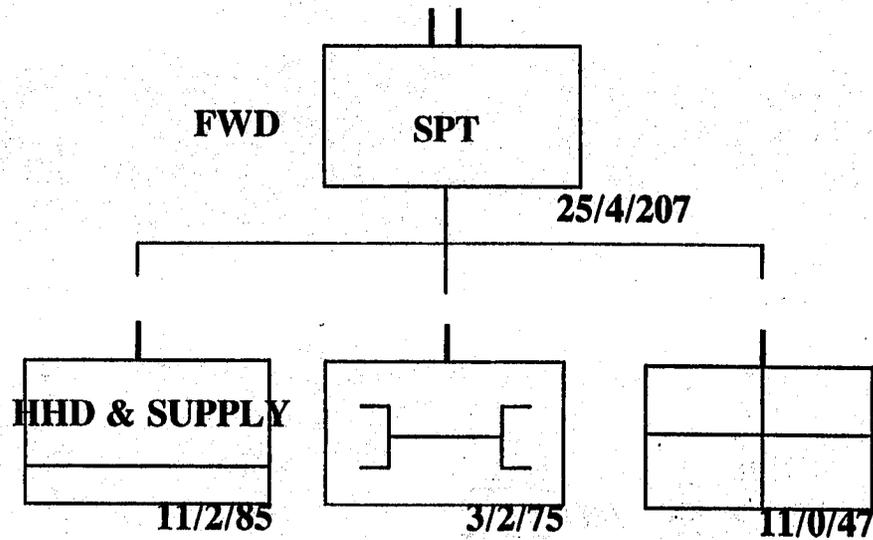
# FSB HEAVY DIVISION



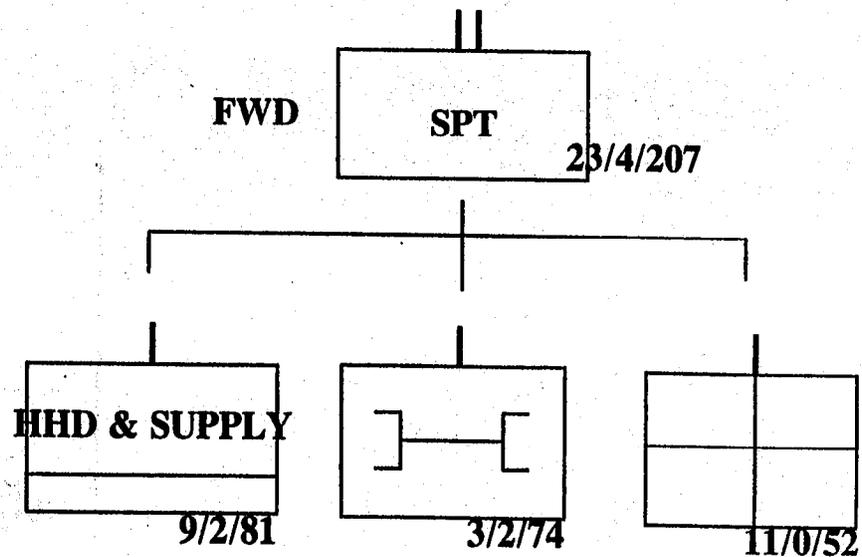
# FSB LIGHT DIVISION



# FSB AIR ASSAULT DIVISION



# FSB AIRBORNE DIVISION



# CSS EXECUTION MATRIX

LOGPAC SITE    DATE    RATION CYCLE    TIME    WINDOW

SUPPLY ROUTES

FLD TRNS

---

EVACUATION ROUTES

---

CBT TRNS

---

CSS REHEARSAL

| ELEMENT/<br>EVENT | FAS | MAS | CBT TRNS | AXP | ADJ MED<br>UNIT(GRID) | EMER<br>EVENT | CL I | CL III | CL V | CAS EVAC |  | AMBULANCE<br>ASSIGNMENT |
|-------------------|-----|-----|----------|-----|-----------------------|---------------|------|--------|------|----------|--|-------------------------|
|                   |     |     |          |     |                       | SCOUTS        |      |        |      |          |  | H                       |
|                   |     |     |          |     |                       | MORTARS       |      |        |      |          |  | H                       |
|                   |     |     |          |     |                       | ENGINEER      |      |        |      |          |  | H                       |
|                   |     |     |          |     |                       | VULCAN        |      |        |      |          |  | H                       |
|                   |     |     |          |     |                       | STINGERS      |      |        |      |          |  | H                       |
|                   |     |     |          |     |                       | TOWPLT        |      |        |      |          |  | H                       |
|                   |     |     |          |     |                       | TOC           |      |        |      |          |  | C                       |
|                   |     |     |          |     |                       |               |      |        |      |          |  | C                       |
|                   |     |     |          |     |                       |               |      |        |      |          |  |                         |
|                   |     |     |          |     |                       |               |      |        |      |          |  |                         |

### LOGISTICS CHECKPOINTS

| CP | GRID | CP | GRID | CP | GRID |
|----|------|----|------|----|------|
|    |      |    |      |    |      |
|    |      |    |      |    |      |
|    |      |    |      |    |      |

### ADJACENT / SUPPORTING MEDICAL UNITS:

UNIT - FREQ. - CALL SIGN

### DECONTAMINATION

| TEMPLATED<br>AGENT | LINKUP<br>SITE | DECON<br>SITE | DRTY<br>ROUTE |
|--------------------|----------------|---------------|---------------|
|                    |                |               |               |

CSS CONCEPT OF SUPPORT :



# **OPERATIONS OTHER THAN WAR**

**Section - H**

# OPERATIONS OTHER THAN WAR PRINCIPLES

**PERSEVERANCE** - PREPARE FOR THE MEASURED, PROTRACTED APPLICATION OF MILITARY CAPABILITY IN SUPPORT OF STRATEGIC AIMS.

**RESTRAINT AND ROE** - APPLY APPROPRIATE MILITARY CAPABILITY PRUDENTLY.

**SECURITY** - NEVER PERMIT HOSTILE FACTIONS TO ACQUIRE AN UNEXPECTED ADVANTAGE

**OBJECTIVE**- DIRECT EVERY MILITARY OPERATION TOWARD A CLEARLY DEFINED, DECISIVE, AND ATTAINABLE OBJECTIVE

**UNITY OF EFFORT** - SEEK UNITY OF EFFORT TOWARD EVERY OBJECTIVE.

**LEGITIMACY** - SUSTAIN THE WILLING ACCEPTANCE BY THE PEOPLE OF THE RIGHT OF THE GOVERNMENT TO GOVERN OR OF A GROUP OR AGENCY TO MAKE AND CARRY OUT DECISIONS.

FM 100-5 (JUN 93)

H-1

# OPERATIONS OTHER THAN WAR UNIQUE CONSIDERATIONS

## **RULES OF ENGAGEMENT:**

- PRESCRIBED BY HIGHER HEADQUARTERS*
- GUIDELINES THAT REQUIRE JUDGMENT*
- MAY CHANGE FREQUENTLY*
- MUST BE UNDERSTOOD BY ALL SOLDIERS - TRAIN USING ROE DILEMMAS AND VIGNETTES (TC 7-98-1)*

## **POLITICAL DOMINANCE:**

- MILITARY FORCES HELP ACHIEVE POLITICAL GOALS*

## **OTHER AGENCIES:**

- JOINT AND COMBINED OPERATIONS*
- CIVILIAN AGENCY INTERACTION*
- EXTENSIVE LIAISON REQUIREMENT*

# OPERATIONS OTHER THAN WAR UNIQUE CONSIDERATIONS

## **INTELLIGENCE PREPARATION OF THE BATTLEFIELD (IPB)**

- DIFFICULTY IN IDENTIFYING THE THREAT
- LACK OF A THREAT DATA BASE
- SEE FM 34-130, CH. 6 FOR SPECIFIC IPB CONSIDERATIONS
- FOR EACH OOTW ACTIVITIES

## **FORCE SUSTAINMENT:**

- EXTREMELY AUSTERE ENVIRONMENT
- LACK OF HOST NATION SUPPORT
- MULTIPLE THREATS

## **MEDIA INVOLVEMENT:**

- POTENTIAL FOR HIGH VISIBILITY INCIDENTS
- TELL YOUR STORY OR SOMEONE ELSE WILL
- BE HONEST; AVOID SAYING NO COMMENT
- ANSWER ONE QUESTION AT A TIME - THINK!
- AVOID JARGON
- DO NOT SPEAK FOR ANYONE ELSE, THEY MAY NOT AGREE WITH
- WHAT YOU SAY

# OPERATIONS OTHER THAN WAR UNIQUE CONSIDERATIONS

## **INDIVIDUAL/UNIT TRAINING:**

- OFTEN DEFERRED*
- LACK OF FAMILIARITY WITH T, T, P*
- LACK OF LANGUAGE CAPABILITY*
- STRESS SOLDIER DISCIPLINE AND APPEARANCE*
- BASIC SKILLS ARE STILL EMPLOYED (i.e. first aid, reporting).*

## **ADAPTABILITY :**

- EXISTING T, T, P CAN BE MODIFIED TO FIT CURRENT ENVIRONMENT*
- SOME NEW T, T, P MAY NEED TO BE DEVELOPED*
- TC 7-98-1 PROVIDES SCENARIOS FOR CERTAIN TASKS.*

# OPERATIONS OTHER THAN WAR **ACTIVITIES**

**NATION ASSISTANCE:** It is the principal peacetime activity designed to support the host nation's efforts to promote development, ideally through the use of host-nation resources. The goals are to promote long-term stability, develop sound and responsive democratic institutions, develop supportive infrastructure, promote strong free-market economics, and provide an environment that allows for orderly political change and economic progress.

**SECURITY ASSISTANCE:** It is a dynamic activity during peacetime consisting of the groups of programs authorized by the Foreign Assistance Act of 1961 (amended), the Arms Export Act of 1976(amended) ad other related statues. Through security assistance programs, the U.S. provides defense materiel, military training, and defense-related services by grants, loan, credit, or cash sales to further our national policies and objectives.

**SHOW OF FORCE:** This is a mission carried out to demonstrate U.S. resolve in which U.S. forces deploy to defuse a situation that may be detrimental to U.S. interest or national objectives. Shows of force lend credibility to nation's commitments, increase regional influence, and demonstrate resolve.

# OPERATIONS OTHER THAN WAR **ACTIVITIES**

**HUMANITARIAN ASSISTANCE AND DISASTER RELIEF:** This activity provides emergency relief to victims of natural or man-made disasters when initiated in response to domestic, foreign government or international agency requests for immediate help and rehabilitation. Disaster-relief operations include activities such as refugee assistance, food programs, medical treatment and care, restoration of law and order, damage and capabilities assessment, and damage control (to include environmental cleanup or other programs such as fire fighting).

**SUPPORT TO COUNTER DRUG OPERATIONS:** Military efforts support and complement, rather than replace, the counterdrug efforts of other U.S. agencies, the states, and cooperating foreign governments. The commitment of military resources will always remain consistent with our national values and legal framework. Army participation in counterdrug operations will normally be in support of law enforcement agencies.

**PEACEKEEPING OPERATIONS:** These operations support diplomatic efforts to maintain peace in areas of potential conflict. They stabilize conflict between two belligerent nations and, as such, require the consent of all parties involved in the dispute. The U.S. may participate in peacekeeping operations when requested by the UN, regional affiliations of nations, in cooperation with other unaffiliated countries, or unilaterally. The peacekeeping force deters violent acts by its physical presence at violence-prone locations

# OPERATIONS OTHER THAN WAR **ACTIVITIES**

**COMBATting TERRORISM:** the department of defense fulfills a supporting role to the department of state, department of justice, and department of transportation to combat terrorism. there are two major subcomponents of combatting terrorism: antiterrorism and counterterrorism. During peacetime, the Army combats terrorism primarily through antiterrorism - passive defensive measures to minimize vulnerability to terrorism. Antiterrorism complements counterterrorism, which is the full range of offensive measures taken to prevent, deter, and respond to terrorism. Counterterrorism is an activity occurring in conflict and war: antiterrorism occurs across the full scope of Army operations.

**ATTACKS AND RAIDS:** The Army conducts attack and raids to create situations that permit the seizing and maintaining of political and military initiative. Normally, the U.S. executes attack and raids to achieve specific objectives other than gaining or holding terrain. Attacks by conventional ground, air, or special operations forces acting independently or in concert are used to damage and destroy high-value target to demonstrate U.S. capability and resolve to achieve a favorable result. Raids are usually small-scale operation involving swift penetration of hostile territory to secure information, temporarily seize and objective or destroy a target. Raids are followed by a rapid, preplanned withdrawal. These operations also occur in war.

**SUPPORT TO DOMESTIC CIVIL AUTHORITY:** When appropriate governmental authority directs the armed forces to assist in domestic emergencies within the continental u.s., the army has primary responsibility. army support disaster relief, humanitarian assistance, counterdrug, antiterrorism, and similar operations.

# OPERATIONS OTHER THAN WAR **ACTIVITIES**

**PEACE ENFORCEMENT:** This is a military operation in support of diplomatic efforts to restore peace between hostile factions which may not be consenting to intervention, and may be engaged in combat activities. Peace enforcement implies the use of force or its threat to coerce hostile factions to cease and desist from violent actions. Units conducting peace enforcement, therefore, cannot maintain their objective neutrality in every instance. They must be prepared at all times to apply elements of combat power to restore order, separate warring factions, and return the environment to conditions more conducive to civil order and discipline.

**NONCOMBATANT EVACUATION OPERATIONS (NEOs):** These operations relocate threatened civilian noncombatants from locations in a foreign country of host nation. They may involve U.S. citizens whose lives are in danger, selected host-nation citizens or third-country nationals.

## **SUPPORT FOR INSURGENCIES AND COUNTERINSURGENCIES:**

At the direction of the National Command Authority, U.S. military forces may assist either insurgent movements or host-nations' governments opposing an insurgency. In both cases, the military instrument of U.S. national power predominantly supports political, economic, and informational objectives.

**ARMS CONTROL:** It focuses on promoting strategic military stability.

# OPERATIONS OTHER THAN WAR **TRAINING** **CONSIDERATIONS**

- MINE AWARENESS**
- ESTABLISHING AND CONTROLLING CHECKPOINTS**
- RULES OF ENGAGEMENT (ROE)**
- ROUTE RECONNAISSANCE**
- VEHICULAR SURVIVAL**
- PERSONAL AWARENESS**