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ARI Research Note 92-69

Combat Maneuver Training Center Data in the ARI Combat Training Center Archive, March 1992

G. David Hardy, Jr.

U.S. Army Research Institute

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July 1992



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Research Institute for the Behavioral and Social Sciences**

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Combat Maneuver Training Center Data in the ARI Combat
Training Center Archive, March 1992

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ARI Research Note 92-69

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This report presents the results of the first step in a four-step effort to assess and improve the utility of Combat Maneuver Training Center (CMTC) data in the U.S. Army Research Institute Combat Training Center Archive. The objective of this effort is to integrate the CMTC data into the body of data remotely accessed by the Combat Operations Research Facility. The report surveys the materials in the CMTC databank and describes the materials by content, media, and format. Finally, the report summarizes steps under way and projected to enhance the utility of the data.

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COMBAT MANEUVER TRAINING CENTER DATA IN THE ARI COMBAT TRAINING
CENTER ARCHIVE, MARCH 1992

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COMBAT MANEUVER TRAINING CENTER DATA
IN THE
ARI COMBAT TRAINING CENTER ARCHIVE
MARCH 1992

Introduction

By the terms of the referenced Memorandum of Agreement (MOA), reference 1, AR 11-33, reference 2, and AR 350-50, reference 3, ARI has established and is maintaining a research archive to support development of unit performance measurement systems and methods for performance analysis and interpretation. The ARI-CTC Archive is made up of databases for the storage and retrieval of data from each of the tactical Combat Training Centers (CTCs): National Training Center (NTC), Ft Irwin, CA; Joint Readiness Training Center (JRTC), Ft Chaffee, AR; and Combat Maneuver Training Center (CMTC), Hohenfels, Germany. In support of this activity, ARI carries out an extensive research program to enhance the utility of the data and to ensure their availability both to the CTCs and to the analyst community.

Efforts under Task 3414, Analysis of CTC Performance, Work Unit 3414HO1, Recommendations for Improving Data Collection, seek to assess and improve the utility of CMTC data in the ARI CTC Archive, with the objective of integrating the CMTC data into the body of data remotely accessed by the Combat Operations Research Facility (CORF). The Study Outline at Appendix A calls out a four-step approach: in Step One, describing the CMTC data presently available in the Archive; in Step Two, assessing their utility and determining requirements for upgrading; in Step Three, designing the procedures for accessing them through the CORF; and in Step Four, conducting an analysis of an identified critical issue to demonstrate the utility of the data and to test the strengths and weaknesses of the system.

This document reports the findings of Step One: the contents of the CMTC database, identifying materials available by rotation, and describing those materials by contents, by media, and by formats. Materials were surveyed by inspection and by consultation with contractor personnel responsible for the design and administration of the Archive databases.

CMTC Database Contents

Overview

In general, CMTC data are organized in the database by rotation and density. As of this date, the data from eighty-nine CMTC rotations have been archived. Appendix B contains a list of

these eighty-nine rotations by densities¹. Data from rotations in FY 89 are found in Take Home Packages and AAR Video tapes. Data from rotations from FY 90 on are found stored in

- Take Home Packages (THPs);
- MTP checklists, by which the units evaluate their own performance (may or may not be bound with THPs);
- VHS tapes of After Action Reviews (AARs);
- Communications tapes of tactical traffic; and
- A variety of materials which may be judged appropriate for inclusion on a by-rotation basis, e.g., commo cuts prepared to make a point in an AAR.

Specific data that are available from rotations at all three CTCs have been entered into a checklist found at Appendix D.

Data Available by Fiscal Year

Materials from the twenty-two rotations from FY 89 were forwarded to the Archive without accompanying bills of lading and in no standardized rotation "package". These materials are considered not to represent a significant source of data because the quantities of data for each rotation are small (in bulk, they are less than half the size of the data that are available by rotation starting in FY 90), and the data are limited in scope (they consist only of THPs and AAR video tapes).

With rotation 90-1, the materials took on a more standardized format and the Archive began to receive the same materials "package" for each rotation; the Archivists began to know what to expect. In addition shipments were routinely accompanied by itemized bills of lading.

In September of 1991, funding was exhausted for maintenance of the Archive, and processing of newly arriving materials was discontinued. Archiving activities will be renewed where they left off upon completion of ongoing administrative actions taken to restore funding.

¹A "density" is a "set" of battalion task force rotations that a brigade's elements go through in a continuous field exercise during that brigade's scheduled training period at the CMTC (see Appendix C).

Data Available by Rotation

The Table at Appendix E identifies the CMTC materials that have been processed into the ARI-CTC Archive from the beginning of FY 1990 to date. The table is constructed using the entire checklist from Appendix D to give the reader a notion of the kind and the extent of the CMTC data that are presently available, compared with the kinds and extents that are available also from NTC and JRTC. It is to be noted that an indication that a particular item of data is available for a particular rotation means that at least one record of those data is available for that rotation. Certain data types, including THPs and Commo Tapes are discussed at greater length below.

Take Home Packages (THPs)

A representative schedule of rotations in a brigade density appears at Appendix C. A THP is prepared for each battalion task force, each support battalion, each brigade hq, and each supporting field artillery element in a density. The format of a typical THP for a maneuver element is contained in Appendix F.

From Appendix E and the discussion above, it is noted that the THP for the maneuver unit (TF) is available for every rotation in the Archive. Though not documented in Appendix E, it can be stated that THPs are archived from all elements identified above, for all densities in the Archive.

Communications Tapes

Tactical commo tapes are available for every rotation from the first rotation of density 90-3 on. Radio nets are recorded, traffic or no, in 24-hr blocks; thus there are 3-to-4-times as many CMTC as NTC tapes received per rotation.

There is no key in the Archive to indicate which commo nets are on which of forty tape tracks. Furthermore, a listener is unable to identify the communicators, because the CEOIs are not available.

While the technology exists for the random accessing of communications traffic, the Archive doesn't presently have this capability.

The bottom line is that at this time the commo tapes have very limited application compared with their potential, given CEOIs and a net-track correspondence index.

Overlays

While most of the overlays stored in the Archive are on transparencies, some are not. Furthermore, overlays are not all marked with the number of the rotation from which they come, but they can for the most part be tracked down.

Missions, by Rotation

Presently the Archive has no listing of CMTC missions by rotations, but the Training Research Automated Cataloging System (TRACS), which under development and is expected to be turned over to ARI in mid-June 1992, will provide the vehicle for producing one.

Digital THP Files (Diskettes)

Floppy disks of mission summaries were sent to the Archive for two rotations (90-1 and 90-2) and then discontinued.

Conclusions/Recommendations

Steps have been taken to correct a number of the situations unearthed above: liaison has been effected between ARI and USAREUR CALL to ensure that

- CEOIs and indexes of network by recording track be available for all commo tapes shipped to the Archive in the future;
- digital (diskette) format THP materials be sent routinely with Archive rotation packets;
- overlays be properly marked to facilitate handling; and
- such additional materials as are called out in the data checklist at Appendix D and are currently cited in Appendix E as unavailable be sent routinely with Archive rotation packets.

In addition, with the first visit of Chief, USAREUR CALL, to the ARI-CTC Archive, a precedent was set for ARI-CMTC exchange visits to maintain face-to-face liaison; to observe on-site activities, the better to coordinate acquisition, transfer, storage, and retrieval of the CMTC materials; and actively to participate in such mutually beneficial activities as Archive Workshops, study planning, and the like.

APPENDIX A
RESEARCH-BASED PERSONNEL AND TRAINING STUDIES AND ANALYSIS

STUDY OUTLINE

Task: Analysis of CTC Performance (3414)

Work Unit: Recommendations for Improving Data Collection (3414HO1)

Requirements: To assess and improve the utility of CMTC data in the ARI CTC Archive; to integrate the CMTC data into the body of data remotely accessed by CORF

Approach: Step One: survey the materials currently resident in the CMTC databank; identify materials available by rotation; describe materials by contents, by media, by formats; compare current data specs with CORF requirements. EDC: 2d Qtr FY92.

Step Two: assess the utility of the data in their present condition to support both the needs of the CMTC and the needs of the analysts; explore the use of the data, through near-real-time feedback, quick-response analyses, trend analyses, and the like, simultaneously to meet CALL and CMTC operational needs; determine requirements for improving data quality, completeness, and use-ability. EDC: 4th Qtr FY92.

Step Three: determine steps required to integrate the data into the CTC Archive and to make them accessible through the CORF; process such data as can be handled within resource constraints. EDC: 1st Qtr FY93.

Step Four: conduct an analysis of an identified critical issue to demonstrate the utility of the data and to further wring out the strengths and weaknesses of the database; prepare documentation to assist in subsequent construction of the Archive.
EDC: 2d Qtr FY93

Start Date: 2d Quarter FY92

Milestones: • Step One Report, CMTC Data in the CTC Archive, 31 Mar 92

- Step Two Report, Steps in Ensuring the Utility of Field Data for Analysis and Operational Use, 30 Sep 92
- Step Three Report, Recommended Steps for Processing CMTC Data for Inclusion in the Automated CTC Archive, 31 Dec 92
- Step Four Report, Handbook for the Receipt, Processing, and Integration of CMTC Data into the ARI CTC Archive, 31 Mar 93

Impact:

Results will (1) assist both in-house and out-house analysts to develop their study programs to take full advantage of archived data, and (2) enhance the timeliness and the value of the analyses for the operational CMTC. For the CMTC, they will provide opportunities to take advantage of capabilities for near-real-time feedback, quick-response analyses, trend analyses, and the like, to enhance their organizational training and training-feedback capabilities. For the Archive Manager, they will provide guidelines as to data requirements, will provide additional input to databank catalog and documentation efforts presently underway, will contribute to the development of procedures guides for data processing personnel, and will assist in the development of similar handbooks for the receipt of data from NTC and JRTC. Finally, to benefit both sets of users, they will identify requirements for improving data quality, completeness, and use-ability.

Performing Organization: Presidio of Monterey Field Unit
Training Research Laboratory

ARI POC: Mr David Hardy (408) 647-5482; (AV) 878-

APPENDIX B
CMTC ROTATIONS PROCESSED
March 1992

The rotations below are those from which data are archived presently in the ARI-CTC Archives. Materials received from rotations executed in FY 89 include only THPs and Video-taped AARs (see remarks in body of report). Completion of archiving of data from FY 91 and FY 92 awaits completion of administrative action.

89-01/1	90-03/2	91-01/1
89-01/2	90-03/3	91-01/2
89-01/3	90-03/4	91-01/3
89-02/1	90-04/1	91-02/1
89-02/2	90-04/2	91-02/2
89-03/1	90-04/3	91-02/3
89-03/2	90-05/1	91-03/1
89-03/3	90-05/2	91-03/2
89-03/4	90-05/3	91-03/3
89-04/1	90-05/4	91-03/4
89-04/2	90-06/1	91-04/1
89-04/3	90-06/2	91-04/2
89-06/1	90-06/3	91-04/3
89-06/2	90-07/1	91-04/4
89-06/3	90-07/2	91-05/1
89-06/4	90-07/3	91-05/2
89-07/1	90-08/1	91-05/3
89-07/2	90-08/2	91-06/1
89-07/3	90-08/3	91-06/2
89-08/1	90-08/4	91-06/3
89-08/2	90-09/1	91-07/1
89-08/3	90-09/2	91-07/2
-----	90-09/3	91-07/3
90-01/1	90-10/1	91-07/4
90-01/2	90-10/2	91-08
90-01/3	90-10/3	
90-01/4	90-11/1	
90-01/5	90-11/2	
90-01/6	90-11/3	
90-02/1	90-12/1	
90-02/2	90-12/2	
90-02/3	90-12/3	
90-03/1	-----	

APPENDIX C
REPRESENTATIVE BRIGADE DENSITY SCHEDULE

<u>DENSITY/ROTATION</u>	<u>ELEMENT</u>	<u>TRNG DATES</u>
91-16/1	AR TF	5 - 12 Aug
91-16/2	IN TF	10 - 16 Aug
91-16/3	CAV TF	15 - 21 Aug
91-16	SPT BN	5 - 19 Aug
91-16	BDE HQ	4 - 23 Aug
91-16	FA	4 - 21 Aug

Note that three battalion task forces stagger their rotation start dates, the Armor TF starting on 5 Aug, the Infantry TF starting on 10 Aug, two days before the Armor TF finishes, and the Cav TF starting on 15 Aug, one day before the Infantry TF is out of the field. Note also that the Support Battalion, the Brigade HQ, and the FA Battalion support all three task forces. Every element receives a THP.

APPENDIX D
ARI-CTC ROTATIONAL DATA CHECKLIST

Exercise/Scenario Control Docs

BLACK BOOK #1 Orders, Plans

Adjacent Unit Orders (AUO)

Air Tasking Orders

Corps FRAGOs & WARNOs w/overlay(s)

Corps OPORD/PLAN w/overlay(s)

Division FRAGOs & WARNOs w/overlay(s)

Division OPORD/OPLAN w/overlay(s)

Hand-off Plan (Task Org)

Joint SOTF Supporting Plan

JTF Concept w/overlay(s)

JTF FRAGOs & WARNOs w/overlay(s)

JTF OPLAN

Maneuver Area Control Plan

Maneuver Area Control SOP

Master Training Plan

Mission Letter (SOF)

Msn Tskgs, FRAGOs, & Msn Ltr

Msn Tskgs (Civil Affairs)

Mission Taskings (LFX)

Mission Taskings (PSYOPS)

Mission Taskings (SOF)

Mission Taskings (SF)

Msn Tskg & Tgt Intel Pkg

Secty Assist Mstr Trng Plan

Secty Assist Msn Trng Plan

SOF Integration Plan

Target Folders

Theater E&E Plan

Unified Command OPLAN & Annexes

WARNOs (PSYOPS)

WARNOs (SF)

WARNOs (CA)

BLACK BOOK #2 Est/Analyses

Air Intel Summary & Reports

Area Study (w/Addenda)

Area Study Refinement for SF

Baseline PSYOPS Study

BLUEFOR Info Paper

Civil Affairs Concept

Daily Intel Summaries for AF

Division EW Estimate

Division Intel Estimate

Division IPB

Division SITREPs

Division INTSUM

Ground Sit/Acty Updates for AF

JTF Analysis of the AO

JTF AO Study

JTF EW Estimate

JTF Intel Estimate

JTF Intel Message

JTF INTSUM

MAAG INTSUM

MAAG OB

OPFOR OB

OPFOR Personalities' Dossiers

OPSUM

SAID

Unified Command EW Estimate (SOF)

Unified Command Intel Estimate (SOF)

Unified Command Intel Messages

Unified Command INTSUM

Unified Command Message

BLACK BOOK #3 Scenario Devt

Doctrinal Threat Template

Intel Script (CFA)

Maneuver Script (CFA)

Notional Area Coord Ctr Org

Notional Division Org

Notional Joint Svcs Actvty Org

Notional JTF Organization

Notional OPFOR Organization

Role Player Instr (Civilians on the Battlefield)

Role Player Instructions

Role Player Instructions/AUO

Role Player Instr (Terrorist Events)

Role Play Proced Manual

Rotational Intelligence

Rotational Intel (Convent'nl)

Rotational Intel (CPX)

Rotational Intel (SOF)

Rotational Intel Inputs

SOF Integ JRTC Baseln Scenario

Status of Indig Forces Msg

Threat Template

Unified Command Order of Battle

Reverse Plng Sequence (OPFOR)

BLACK BOOK #4 Opns Control
AAR Production Documents
AAR Schedule
Airlift Mission Schedules
Appendices to OPFOR TACSOPs
Area Coord Ctr Procedures
Control Plan for SF
EMCC/Incident Report Log
Exercise Control Ops Manual
Graphic Display History Log
LOI for CPX
Master Incident List
Master Incid Scenario List - SF
Minefield Records
Mission List
Non-tactical Admin Ctrl Plns
Operational Incident List
OPFOR Combat Instructions
OPFOR Mission Execution Book
Resource Req Doc (dft & final)
TAC ROE
Time/Event Schedule
Time/Event Schedule (SOF)
TAF Journals
Weather Effects on Operations
Weather Reports
Mission Schedule

Unit-Generated Data

BLUE BOOK #1 Bde Plans/Ords

Bde/Reg FRAGOs & WARNOs w/overlay(s)

Bde/Reg OPORDs/Plans w/overlay(s)

EDRE Call-up Msg

Mission Essential Task List

Unit SOP

BLUE BOOK #2 Bn Plans/Ords

FRAGOs & WARNOs w/overlay(s)

OPORDs/Plans w/overlay(s)

Company OPORDs

Company OPORDs (LFX)

Company OPORDs (LFX) (SOF)

March Orders w/overlay(s)

BLUE BOOK #3 Opns Control

CSS Reports

Contact Spot Repts (CS & Unit)

Division TACSOP

Locn repts (Frndly Unit Locn)

MILES Equipt Available List

OPFOR Logs

OPFOR OPLAN

OPFOR OPORDs

OPFOR OPSKED

OPFOR WARNOs

Troop List

Unit Logs (Daily Staff Journal, etc)

Unit Update Slides

Perf Data--Battle Outcome

GREEN BOOK #1 Opns Control
Unit Performance Data (T&EO)

GREEN BOOK #2 Data Doc'n
Data File Doct'n for T&EOs

Perf Feedback--Summary Data

RED BOOK #1 Opns Control
AAR Sheets
AAR Slides
BDA
Key Event Slides

RED BOOK #2 Opns Control
THP/Training AAR (Maneuver TF)
THP (Civil Affairs)
THP (PSYOPS)
THP (SOF)

RED BOOK #3 Opns Control
Tng Obs (for mult rotns)

MISC

AAR Tapes
AAR Tape Lists
CEOI
Commo Tapes (Lg reel)
Commo Tape Logs (Daily Commo Log Sheets)
Commo Tapes (Audiocassette)
Diskettes (3 1/2 inch)

Diskettes (5 1/4 inch)

35 mm Slides

Other

[illegible]

	90-01/1	90-01/2	90-01/3	90-01/4	90-01/5	90-01/6	90-02/1	90-02/2	90-02/3	90-03/1	90-03/2	90-03/3	90-03/4	90-04/1	90-04/2	90-04/3	90-05/1	90-05/2	90-05/3	90-05/4	90-06/1	90-06/2	90-06/3	90-07/1	90-07/2	90-07/3	90-08/1	90-08/2	90-08/3	90-08/4	90-09/1	90-09/2	90-09/3	90-10/1	90-10/2	90-10/3	90-11/1	90-11/2	90-11/3	90-12/1	90-12/2	90-12/3		
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TRP (PSYOPS)																																												
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CSS Reports																									
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THP/Training AAR (Maneuver TP)	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• • •
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Other																									

APPENDIX F
CONTENTS OF CMTC TAKE HOME PACKAGE (THP)

The CMTC THP is prepared for each Battalion Task Force taking part in a rotation. In addition, THPs may be prepared for separate elements, such as Brigade Hq and Support elements supporting one or more rotations in a density. The contents of a typical maneuver element THP include a great deal of performance and exercise data in a wide variety of formats--there are data contained in text paragraphs, in sentence format, in multiple-choice checklists of varying structures, in fill-in-the-blank response items, in overlays and diagrams, etc. The richness of the data, as well as the varieties of it, make their organization critical for the user. To help the potential user "track" the data in the THP, this Appendix describes the contents at four levels of detail, from a general, broad-brush summary statement of the contents at LEVEL I, through increasingly flesched-out statements at LEVELS II and III, to a complete, item-by-item, listing of the data in LEVEL IV.

At LEVEL I, the THP can be described as containing the following:

- Letter for the Task Force or element Commander, from CTC, subject: CMTC THP
- Mission Summaries, one per mission
- CSS AAR
- Final AAR
- Special Focus, if applicable

The materials that are available in each of these portions are identified in greater and greater detail in succeeding levels of description in this Appendix. For instance, the Mission Summary is outlined at LEVEL II on page F-2, at LEVEL III on pages F-4 thru F-6, and at LEVEL IV on pages F-7 thru F-16.

CONTENTS OF CMTC THP, LEVEL II

- Letter for the Task Force or element Commander, from CTC, subject: CMTC THP

- MISSION SUMMARY

(One per mission)

Identifiers: Rotation; Unit ID; Date; Mission

I. MISSION

A. General

1. Date of Exercise
2. Enemy Situation
3. Friendly Situation
4. Task Force Mission Statement
5. Task Force Commander's Concept of the Operation
 - a.
 - b. Intelligence
 - c. Maneuver
 - d. Fire Support
 - e. Air Defense
 - f. Mobility/Survivability
 - g. Combat Service Support
 - h. Command and Control

B. Synopsis of the Operation

1. Battle Summary
2. Results of the Force on Force Battle
 - a. Task Force Strengths and Losses
 - b. Enemy Strengths and Losses
 - c. Kill Ratio

II. Strengths/Weaknesses by Battlefield Operating System (BOS)

III. Attachments

Mission After Action Review Sheets (One per BOS)

Company OC Evaluation Sheets (One per Company-level OC)
Observations on strengths and weaknesses in BOSs
Comments

Division, Brigade, Task Force WARNOs, OPORDs, FRAGOs
w/Atch

Task Force AAR Briefing Charts/Slides

OPFOR OPORD
W/Atch

- CSS AAR. This section of the THP contains briefing charts from which was conducted the CSS AAR. The THP materials may be supplemented with overlays, commo cuts, and other materials that

were used in the AAR and are stored elsewhere in the Archive for this density/rotation. As the materials in this section are unique by rotation, this section is not covered in descriptions at succeeding levels.

- Final AAR. This section of the THP contains briefing charts from which was conducted the CSS AAR. The THP materials may be supplemented with overlays, commo cuts, and other materials that were used in the AAR and are stored elsewhere in the Archive for this density/rotation. As the materials in this section are unique by rotation, this section is not covered in descriptions at succeeding levels.
- Special Focus, if applicable. When, from time to time, extraordinary efforts be made to collect information on a rotation in addition to those data that are normally collected, or when the data receive extraordinary handling, e.g., to produce "roll-ups" of data bearing on one or another problem or issue that is not routinely addressed, the outputs of these steps may be included, with or without comment, in the THP.

CONTENTS OF CMTC THP, LEVEL III

- Letter for the Task Force or element Commander, from CTC,
subject: CMTC THP
- MISSION SUMMARY
(One per mission)
Identifiers: Rotation; Unit ID; Date; Mission

I. MISSION

A. General

1. Date of Exercise
2. Enemy Situation
3. Friendly Situation
 - a. Higher
 - b. Left Flank
 - c. Right Flank
 - d. Reserve Rear
4. Task Force Mission Statement
5. Task Force Commander's Concept of the Operation
 - a.
 - b. Intelligence:
 - (•) Contents of the Intelligence Preparation of the Battlefield (IPB) developed by the Task Force S2
 - (1) Contents of the Terrain Analysis
 - (2) Contents of the Decision Support Template
 - (3) Contents of the Situational Template
 - (•) Nine unnumbered items on intelligence, including R&S planning; additional assets used; assignments of NAIs, patrol routes, and OPs; net used for C² of R&S assets; dissemination of current enemy situation
 - c. Maneuver
 - (1) Task Force Commander's Intent: (from the OPORD)
 - (2) Graphic control measures incorporated into S3's scheme of maneuver
 - (•) Three unnumbered items on whether or not the unit develops a DST, uses an Execution Matrix in the OPORD and addresses Link-Up time in the OPORD
 - d. Fire Support
 - (1) Whether the FSO produces a fire support plan and whether or not it includes
 - (a) a target list
 - (b) graphics
 - (c) an execution matrix
 - (2) Types of targets the plan contains
 - (3) Whether or not preparation fire is planned and for how long.
 - (4) Initial & on-order priority of artillery fires
 - (5) Initial and on-order priority of mortar fires
 - (6) Whether or not priority targets are assigned
 - (7) FSCMs that are included in the plan

- (8) Whether or not a rehearsal is planned and who participates in it
- (9) To whom the Fire Support plan is disseminated
- (10) To whom the Fire Support graphics are disseminated
- e. Air Defense
 - (•) Fifteen unnumbered items on air defense, including ADA assets available, task organization, AD portions of TF OPORD, AD Weapons Control Status
- f. Mobility/Survivability
 - (•) Twelve unnumbered items on mobility/survivability, including Engr assets available, Engr portions of TF OPORD, Class IV and V assets available, obstacles planned to support offense/defense
- g. Combat Service Support
 - (•) Two unnumbered items on CSS plans and the OPORD
 - (•) Seventeen unnumbered items on CSS sites/routes
 - (•) Four unnumbered items on Classes of Supply
 - (•) Seven unnumbered items on CSS Command and Control
- h. Command and Control
 - (•) Eleven unnumbered items on command and control, including commo nets, TF mode of operation, commo sections of TF OPORD, locations of TF Cdr and staff
- B. Synopsis of the Operation
 - 1. Battle Summary
 - 2. Results of the Force on Force Battle
 - a. Task Force Strengths and Losses
 - b. Enemy Strengths and Losses
 - c. Kill Ratio

II. Strengths/Weaknesses by Battlefield Operating System (BOS)

- A. Intelligence
 - 1. Strengths:
 - 2. Weaknesses:
- B. Maneuver
 - 1. Strengths:
 - 2. Weaknesses:
- C. Fire Support
 - 1. Strengths:
 - 2. Weaknesses:
- D. Air Defense
 - 1. Strengths:
 - 2. Weaknesses:
- E. Mobility/Survivability
 - 1. Strengths:
 - 2. Weaknesses:
- F. Combat Service Support
 - 1. Strengths:
 - 2. Weaknesses:
- G. Command and Control
 - 1. Strengths:
 - 2. Weaknesses:
- H. Soldier Skills

1. Strengths:
 2. Weaknesses:
- I. Safety
1. Strengths:
 2. Weaknesses:

III. Attachments

Mission After Action Review Sheets

(One per BOS)

Identifiers: Unit; Operation; Date; O/C; BOS
Comments & Recommendations

Company OC Evaluation Sheets

Identifiers: Unit; Mission

Task Organization

Mission Summary (Mission Statement of Unit)

Observations on strengths and weaknesses in

- a. INTELLIGENCE
- b. MANEUVER
- c. FIRE SUPPORT
- d. AIR DEFENSE
- e. MS (NBC)
- f. CSS
- g. C² and

Comments

Division FRAGO

Appl, Annex C (OPNS Overlay), etc

Brigade FRAGOs

Annex B

Overlays

Brigade Warning Order

W/Annexes

OPORD

W/Annexes

Task Force AAR Briefing Charts/Slides

OPFOR OPORD

Annex B

Scheduling Worksheets

FA Movement Plan

Ammunition Expenditure

Overlay, Enemy fire support graphics

Overlay, Enemy operations graphics

CONTENTS OF CMTC THP, LEVEL IV

- Letter for the Task Force or element Commander, from CTC, subject: CMTC THP

• MISSION SUMMARY

(One per mission)

Identifiers: Rotation; Unit ID; Date; Mission

I. MISSION: Mission Title

A. General.

1. Date of Exercise: Date
2. Enemy Situation: Paragraph
3. Friendly Situation
 - a. Higher: Paragraph
 - b. Left Flank: Short Paragr
 - c. Right Flank: Short Paragr
 - d. Reserve Rear: Short Paragr
4. Task Force Mission Statement: Paragraph
5. Task Force Commander's Concept of the Operation
 - a. Paragraph
 - b. Intelligence:
 - (•) Contents of the Intelligence Preparation of the Battlefield (IPB) developed by the Task Force S2
 - (1) Terrain Analysis: Multiple-Choice/fill in the blank (#)
 - Key Terrain
 - Decisive Terrain
 - MRC Avenues of Approach
 - Time Lines
 - Factors of OCOKA
 - MRB Avenues of Approach
 - (2) Decision Support Template: Multiple-Choice/fill in the blank (#)
 - NAIs
 - TAIs
 - PIR Issues
 - Time Lines
 - (3) Situational Template: Multiple-Choice/fill in the blank (#)
 - MRP Positions
 - MRC Positions
 - MRC COPs
 - Regimental COPs
 - AT Positions
 - Obstacles
 - Fire Sacks
 - Egress Routes
 - Reserve Positions
 - ADA Positions
 - (•) An R & S plan is/is not developed and NAIs are/are not assigned for confirmation to the scouts.

- (.) (Number of) NAIs assigned for observation.
- (.) Information/no information on Patrol route assignments.
- (.) OPs are assigned to: Element
- (.) GSR positions are/are not identified by the Task Force S2
- (.) Additional assets used in the R & S plan include: Multiple-Choice
 - (.) G/VLLD
 - (.) Adjacent Unit
 - (.) Army Aviation
 - (.) REM
 - (.) Air Force
- (.) The net used for command and control of the Reconnaissance and Surveillance assets is: Fill in
- (.) The S2 does/does not disseminate the current enemy situation.
- (.) The S2s IPB and R & S products do/do not support the Commander's intent as well as the scheme of maneuver

c. Maneuver

- (1) Task Force Commander's Intent: (from the operations order) Paragraph
- (2) The S3 develops a scheme of maneuver that incorporates the following graphic control measures: Offensive: Multiple-Choice
 - (.) TAA
 - (.) SP
 - (.) RP
 - (.) Route
 - (.) Axis
 - (.) Coord Points
 - (.) Passage Points
 - (.) Phase Lines
 - (.) Check Points
 - (.) TF Boundaries
 - (.) CO Boundaries
 - (.) Line of Departure
 - (.) TF Objective
 - (.) Contact Points
 - (.) CO/TM Objective
 - (.) TOC Location
 - (.) Supporting Atk
 - (.) FEBA/FLOT
 - (.) Air Axis
 - (.) ATK Positions
 - (.) Limit of Advance
 - (.) Spt by Fire Pos
 - (.) TRPs
 - (.) CBT TNS Location
 - (.) Main Attack
- (.) The unit does/does not develop a Decision Support

Template.

- (•) The unit ~~does/does not~~ utilize an Execution Matrix as part of its OPORD.
- (•) Task Organization Link-up Time ~~is/is not~~ addressed in the Task Force OPORD.

d. Fire Support

- (1) The FSO produces a fire support plan (Y/N)
 - A. The plan includes a target list (Y/N)
 - B. The plan includes graphics (Y/N)
 - C. The plan includes an execution matrix (Y/N)
- (2) The plan contains the following targets:
~~Fill in the blank (#)~~
 - (•) Single Targets
 - (•) Smoke Targets
 - (•) Illumination Targets
 - (•) Copperhead Targets
 - (•) Groups
 - (•) Series
 - (•) CAS Targets
 - (•) FPFs
 - (•) Priority Targets
 - (•) FASCAM
- (3) A preparation fire ~~is/is not~~ planned.
 - (•) The preparation duration is (minutes): ~~Fill in~~
- (4) Priority of Arty fires is initially to: ~~Fill in~~
 - (•) On order priority changes to: ~~Fill in~~
- (5) Priority of Mrtr fires is initially to: ~~Fill in~~
 - (•) On order priority changes to: ~~Fill in~~
- (6) Priority targets ~~are/are not~~ assigned.
- (7) The following FSCMs are included in the plan:
~~Multiple-Choice~~
 - (•) Initial CFL
 - (•) O/O CFLs
 - (•) NFA
 - (•) ACAs
 - (•) RFLs
- (8) A rehearsal ~~is/is not~~ planned
The following participate: ~~Multiple-Choice~~
 - (•) TF FSO
 - (•) CO FISTS
 - (•) Mortar PLT REP
 - (•) Maneuver CO CDRs
- (9) The Fire Support plan is disseminated to:
~~Multiple-Choice~~
 - (•) SCT PLT LDR
 - (•) DS ARTY BN
 - (•) Mortar PLT LDR
 - (•) BDE FSO
 - (•) FIST CO/TM ALPHA
 - (•) FIST CO/TM BRAVO
 - (•) FIST CO/TM CHARLIE
 - (•) FIST CO/TM DELTA

- (.) FIST CO/TM
- (.) FIST CO/TM
- (10) The Fire Support graphics are disseminated to:
 - Multiple-Choice
 - (.) SCT PLT LDR
 - (.) DS ARTY BN
 - (.) Mortar PLT LDR
 - (.) BDE FSO
 - (.) FIST CO/TM ALPHA
 - (.) FIST CO/TM BRAVO
 - (.) FIST CO/TM CHARLIE
 - (.) FIST CO/TM DELTA
 - (.) FIST CO/TM
 - (.) FIST CO/TM
- e. Air Defense
 - (.) The following ADA assets are available to the force:
 Multiple-Choice/Fill in the blanks (#)
 - (.) STINGER TEAMS
 - (.) CHAPARRALS
 - (.) VULCANS
 - (.) FAARS
 - (.) The ADA asset support relationship to the Task Force is: Fill in the blank
 - (.) The Task Organization is: Fill in the blanks
 - (.) The ADA Task Organization does/does not support the Task Force scheme of maneuver.
 - (.) A Threat air avenue of approach analysis is/is not addressed in the Operations Order.
 - (.) AD early warning is/is not addressed in the Task Force Operations Order/SOP.
 - (.) Deployment of the FAAR is/is not addressed in the Task Force Operations Order/SOP.
 - (.) Passive AD measures are/are not addressed in the Task Force Operations Order/SOP.
 - (.) AAFAD is/is not addressed in the Task Force Operations Order/SOP.
 - (.) The AD graphics are/are not included in the Task Force Operations Order/SOP.
 - (.) The AD warning is/is not included in the Task Force Operations Order/SOP.
 - (.) The AD warning is: Fill in as of: Fill in
 - (.) The AD Weapons Control Status is/is not addressed in the Task Force Operations Order/SOP.
 - (.) The AD Wpns Contrl Status is: Fill in as of: Fill
 - (.) The AD plan does/does not support the Task Force Commander's intent for the operation.
- f. Mobility/Survivability
 - (.) The following Engineer assets are available to the Task Force: Multiple-Choice/Fill in the blanks
 - (.) DOZERS
 - (.) ACES

- (.) SEEs
- (.) M113s
- (.) MICLICs
- (.) GEMMs
- (.) The Engineer asset support relationship to the Task Force is: Fill in
- (.) The Engineer Task Organization is: Fill in up to 6 lines
- (.) The Task Organization does/does not support the Task Force scheme of maneuver.
- (.) A Threat Engineer capabilities analysis is/is not addressed in the Task Force Operations Order.
- (.) A terrain analysis and enemy avenue of approach is/is not addressed in the Task Force Operations Order.
- (.) The Engineer priority of effort is/is not addressed in the Task Force Operations Order.
- (.) The Engineer priority of effort is: Fill in
- (.) The positioning of Engineer assets does/does not support the priority of effort.
- (.) The following Class IV and V are available to the Task Force Engineers: Multiple-Choice/Fill in the blanks (#)
 - (.) Wire
 - (.) Mines
 - (.) Pickets
 - (.) Demo
- (.) The following obstacles are planned to deny the enemy access to the Task Force flanks during the offense: Multiple-Choice
 - (.) FASCAM
 - (.) GEMMS
 - (.) ABATIS
 - (.) HASTY WIRE/MINES
 - (.) PREP OF POINT TARGETS (ROADS/BRIDGES)
- (.) The following obstacles are planned to support the defensive operation: Multiple-Choice
 - (.) FASCAM
 - (.) GEMMS
 - (.) ABATIS
 - (.) TANK DITCH
 - (.) LOG CRIB
 - (.) HASTY WIRE/MINE
 - (.) COMPLEX WIRE/MINE
 - (.) POINT TARGET
- g. Combat Service Support
 - (.) The logistics plan does/does not support the Task Force scheme of maneuver.
 - (.) Medical evacuation is/is not addressed in the OPORD.
 - (.) CSS sites/routes
 - (.) BAS primary locat'n identified (Yes/No/Is)

- (.) BAS alternate locat'n identified (Yes/No/Is)
- (.) Casualty Collection Point (Yes/No/Is)
- (.) AXP alternate location (Yes/No/Is)
- (.) GRREG location identified (Yes/No/Is)
- (.) DECON site location identified (Yes/No/Is)
- (.) CBT TNS primary locat'n identified (Yes/No/Is)
- (.) CBT TNS alt locat'n identified (Yes/No/Is)
- (.) FLD TNS primary locat'n identified (Yes/No/Is)
- (.) FLD TNS alt locat'n identified (Yes/No/Is)
- (.) LRP locations planned (Yes/No/Is)
- (.) LOGPAC (addressed) (Yes/No/Is)
- (.) UMCP primary location identified (Yes/No/Is)
- (.) UMCP alternate locat'n identified (Yes/No/Is)
- (.) MCP location identified (Yes/No/Is)
- (.) MSR (primary route identified) (Yes/No/Is)
- (.) MSR (alternate route identified) (Yes/No/Is)
- (.) Classes of Supply
 - (.) Ration cycle (identified) (Yes/No/Is)
 - (.) What is the cycle? M - M - T (Yes/No/Is)
 - (.) Emergency Class III in CBT TNS? (Yes/No/Is)
 - (.) Emergency Class VI in CBT TNS? (Yes/No/Is)
- (.) CSS Command and Control
 - (.) Is logistics staff officer involved in order preparation? (Yes/No)
 - (.) Does a logistics staff officer attend the OPORD briefing? (Yes/No)
 - (.) Is the CSS Annex disseminated? (Yes/No)
 - (.) Are the CSS graphics disseminated? (Yes/No)
 - (.) Are operations graphics provided to the CSS elements? (Yes/No)
 - (.) Is a Task Force logistics SOP on hand? (Yes/No)
 - (.) Is the RSS external SOP on hand? (Yes/No)
- h. Command and Control
 - (.) The Task Force operates on the following communication nets:
 - (.) TF COMMAND (Yes/No)
 - (.) ALTERNATE COMMAND (Yes/No)
 - (.) COMPANY NETS # Fill in (Yes/No)
 - (.) PLATOON NETS # Fill in (Yes/No)
 - (.) O&I NET (Yes/No)
 - (.) TF FIRE SUPPORT (Yes/No)
 - (.) TF ENGINEER (Yes/No)
 - (.) The Task Force does/does not operate in the secure mode as determined in the Task Force Operations Order/SOP.
 - (.) The TOC primary and jump locations are/are not addressed in the Task Force Operations Order/SOP.
 - (.) The TOC/TAC displacement rehearsals are/are not planned in the Task Force Operations Order/SOP.
 - (.) TOC displacement is: Fill in oriented.
 - (.) The TAC location is/is not addressed in the Task Force Operations Order/SOP

- (.) TAC displacement is: Fill in oriented.
- (.) Routes for TOC/TAC displacement are/are not addressed in the Task Force Operations Order/SOP
- (.) The Task Force Commander is located: Fill in
- (.) The Task Force Exec Officer is located: Fill in
- (.) The Task Force S3 is located: Fill in

B. Synopsis of the Operation

1. Battle Summary: Paragraphs
2. Results of the Force on Force Battle
 - a. Task Force Strengths and Losses:
Table listing, by vehicle type (M1A1, M2, M3, M113, MORTAR, VULCAN, ATK HELO, OH-58): Fill in # operational, Fill in # destroyed, Fill in # remaining; and listing, for personnel, Fill in # KIA, Fill in # WIA, Fill in # RTD
 - b. Enemy Strengths and Losses:
Table listing, by vehicle type (T80, BMP, ZSU 23-4, MTLB, BRDM, SP122, HIND): Fill in # operational, Fill in # destroyed, Fill in # remaining; and listing, for personnel, Fill in # KIA
 - c. Kill Ratio (Task Force : Enemy Forces)=
 - (1) Fill in X : Fill in Y
 - (2) Fill in X/Y : 1.00

II. Strengths/Weaknesses by Battlefield Operating System (BOS)

- A. Intelligence
 1. Strengths: Blivits
 2. Weaknesses: Blivits
- B. Maneuver
 1. Strengths: Blivits
 2. Weaknesses: Blivits
- C. Fire Support
 1. Strengths: Blivits
 2. Weaknesses: Blivits
- D. Air Defense
 1. Strengths: Blivits
 2. Weaknesses: Blivits
- E. Mobility/Survivability
 1. Strengths: Blivits
 2. Weaknesses: Blivits
- F. Combat Service Support
 1. Strengths: Blivits
 2. Weaknesses: Blivits
- G. Command and Control
 1. Strengths: Blivits
 2. Weaknesses: Blivits
- H. Soldier Skills
 1. Strengths: Blivits
 2. Weaknesses: Blivits
- I. Safety
 1. Strengths: Blivits
 2. Weaknesses: Blivits

III. Attachments

Mission After Action Review Sheets

(One per BOS)

UNIT: Unit ID

OPERATION: Mission

DATE: Date

O/C: O/C Name

Battlefield Operating System: Choose one

- INTEL
- MNVR
- FS
- AIR DEF
- M/CMOB/SURV
- NBC
- CSS
- C²

Comments & Recommendations (include references):

Paragraphs, sometimes organized around

- PLAN
- PREPARE
- EXECUTE

Company OC Evaluation Sheets

UNIT: Unit ID

MISSION: Mission

TASK ORGANIZATION: In words or in diagrams

MISSION SUMMARY (MISSION STATEMENT OF UNIT):

In blivits or short sentence(s)

OBSERVATIONS (BULLET COMMENTS ADDRESSING PLAN, PREP, AND EXECUTION) blivits indicating strengths and weaknesses in

- a. INTELLIGENCE
- b. MANEUVER
- c. FIRE SUPPORT
- d. AIR DEFENSE
- e. MS (NBC)
- f. CSS
- g. C² and

COMMENTS Sentences

DIVISION FRAGO *TYPED*

APP1, ANNEX C (OPNS OVERLAY)

BRIGADE FRAGO

ANNEX B (INTEL)
OVERLAYS

BRIGADE FRAGO 2 *MS*

BRIGADE WARNING ORDER *TYPED*

Annex A Execution Matrix
 ANNEX B (INTELLIGENCE) TO OPERATION WARLORD 6-91
 Annex D (Fire Support)
 CDR'S INTENT FOR FIRE SUPPORT
 Attack Guidance Matrix
 TARGET LIST WORKSHEET
 SCHEDULING WORKSHEET
 ANNEX E (ENGINEER MATRIX)
 ANNEX (AIR DEFENSE MATRIX)
 ANNEX G (CHEMICAL MATRIX)
 ANNEX H (SERVICE SUPPORT MATRIX)
 APPENDIX 1 TO ANNEX H
 ANNEX I (Civilian Military Operations)
 ANNEX K (Command, Control, Communications Matrix)
 ANNEX M (Military Police Matrix)
 APPENDIX 1 TO ANNEX N
 OVERLAY

OPORD

Annex B - Intell
 Annex D - CSS
 FRAGO TO ANNEX E (ENGINEER) TO OPORD
 APPX 1 (TARGET LIST) TO ANNEX E...
 APPX 2 (TARGET LIST) TO ANNEX E...
 NBC ANNEX
 TARGET LIST WORKSHEETS
 SCHEDULING WORKSHEET
 FIRE SUPPORT MATRIX
 OVERLAYS

TF AAR BRIEFING CHARTS

MISSION/TASK ORGANIZATION
 BLUEFOR COMBAT POWER
 AS OF 0640
 AS OF 0800
 AS OF 0830
 0845
 0910
 0930
 OPFOR MISSION
 TROOPS AVAILABLE
 OPFOR OVERVIEW
 OPFOR CASUALTIES
 BLUEFOR COMBAT POWER LOSSES
 PREPARATION
 TACTICAL ROAD MARCH
 MEETING ENGAGEMENT
 ELEMENTS OF MARCH FORMATION
 "OFFICERS CAN NEVER...PROFESSION"
 MANEUVER
 FIRE SUPPORT EXECUTION
 FIRE SUPPORT AMMUNITION FIRED

FIRE SUPPORT MISSION INTENSITY
FIRE SUPPORT BATTLE DAMAGE ASSESSMENT
FIRE SUPPORT TARGET TYPES
FIRE SUPPORT
AIR DEFENSE
KEY ISSUES
INTELLIGENCE
MOBILITY/SURVIVABILITY
COMBAT SERVICE SUPPORT
COMMAND AND CONTROL
SOLDIER SKILLS
SAFETY

AMMO STATUS AS OF LD MINUS 30 MIN (DATE)/RETURNED TO FLD TRNS
FROM LOGPAC

OPFOR OPERATIONS ORDER *TYPED*
ANNEX B

SCHEDULING WORKSHEETS
FA MOVEMENT PLAN
AMMUNITION EXPENDITURE
SCHEDULING WORKSHEET
OVERLAY, ENEMY FIRE SUPPORT GRAPHICS
OVERLAY, ENEMY OPERATIONS GRAPHICS

APPENDIX G
REFERENCES

1. Memorandum of Agreement (MOA) between the Combined Arms Command - Training (CAC-TNG) and the U.S. Army Research Institute (ARI), 23 January 1992.
2. AR 11-33, Army Lessons Learned Program: System Development and Application.
3. AR 350-50, Combat Training Center Program.