

Technical Memo HPKB-COA-7:

**Additional Scenarios for the
COA Challenge Problem
(Version 2.1.1)**

April 13, 1999

**ALPHATECH, Inc
Burlington, Massachusetts**

0. INTRODUCTION7

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Change Log:

Version 2.1.1 - April 13, 1999 - fixed miscellaneous typos and made changes suggested by participants at the April 7-9 meeting. Specifically:

- Fixed typos in section 0
- Removed note from section 2.1.1.3; this info will appear in forthcoming TM-10.
- Section 2.3, Blue COA 1 - specify enemy unit in close battle statement. Change "...block <NamedRedUnit> along AA in order to cause enemy forces..." to "...block <NamedRedUnit> along AA in order to cause <NamedRedUnit>..."
- Section 2.3 - fixed some minor typos in the simplified Blue COA statements.
- Scenario 2 Blue COAs (both original and simplified) - SE3 defends **in** BP7, not **vicinity** BP7.
- Scenario 2 Blue COAs - when there is no reserve, remove the words "No Reserve" and leave the reserve statement blank.
- Section 2.4 - move note explaining RCP to section 1.3.
- Section 3.2 - fix minor typos in Blue COA end state statements.

0. Introduction

This document defines additional scenarios for the HPKB COA Challenge Problem to supplement scenario 1, provided in the *HPKB Course of Action Challenge Problem Specification* (also known as “the CP Spec”). The current release, version 2.1, contains materials for two additional scenarios (scenarios 2 and 3), described in Sections 2 and 3 of this document. It also updates and extends scenario 1, to bring it in conformance with scenarios 2 and 3. The main changes since version 2.0 are as follows:

- Simplified Blue courses of action have been developed for all scenarios, in which the objects of tactical tasks are restricted to specific enemy units (e.g. “REDMECHANIZEDREGIMENT1”), as opposed to descriptions of classes of enemy units (e.g., “enemy forces in zone”).
 - For scenario 1, additional COA-specific planning assumptions regarding the behavior of the Red reserve must be imposed so that the simplified Blue COAs make sense. The next release of this memo will propagate the effects of this simplification through the relative combat power analyses and the sample questions and answers.
 - For scenario 2, three specific versions of each Blue COA are provided, corresponding to each Red COA against which it might be war-gamed.
 - For scenario 3, no simplifications to the Blue COAs are required, because the objects of all tactical tasks are already specific units.

The next release of this memo will also provide simplified versions of the Red courses of action.

- The planning assumptions underpinning RCP analysis have been systematized and formalized. Some of these planning assumptions should be thought of as additional CP inputs. Only very minor extensions to the input grammars are required to accommodate these new inputs. The remaining assumptions apply to all scenarios and are provided informally as knowledge fragments. Section 0.1 discusses planning assumptions in greater detail.
- The products of mission analysis for scenario 1 have been updated to incorporate extensions introduced during the construction of scenarios 2 and 3.
- Scenario 1 has been extended to include a section on relative combat power (RCP) analysis.

Throughout this document changes from the CP spec or version 2.0 are highlighted or shaded.

0.1 Planning Assumptions Underpinning Relative Combat Power Analysis

Planning assumptions underpinning RCP analyses fall into two categories:

1. Unit equivalents for RCP. In the current release of this memo, the unit equivalents employed in scenario 2 and 3 are based on tables provided by the COAA program, and are listed in knowledge fragment KF 611.1. In contrast, the unit equivalents for scenario 1 are based upon CGSC planning guidelines, and are listed in section 1.3. For the next release of this memo, we intend to rework the scenario 1 analyses to employ the COAA values. We anticipate that this will have at most a minor impact on the current RCP values, and a negligible impact on the sample questions and answers.
2. Specific planning assumptions that hold for a single scenario, or for a particular Blue course of action considered in opposition to a particular Red course of action. These assumptions should be treated as additional CP inputs. They are needed to compute reliable assessments of relative combat power. Assumptions like these might be introduced during war gaming. Doctrine dictates that such assumptions must be explicitly recorded during the COA analysis phase of the MDMP and then presented to the commander during the decision briefing.¹ By providing these assumptions in the input, we drastically simplify the reasoning that HPKB systems must perform to arrive at acceptable assessments of relative combat power. We also create a conduit by which human planners interacting with the system can communicate their own particular assumptions and biases regarding how each course of action will play out.

The planning assumptions that hold for an entire scenario concern the behavior of adjacent units. These additional inputs are listed at the start of each RCP section (in sections 1.3.1, 2.3.1, and 3.3.1), and conform to a small extension to the input grammars.

The remaining specific planning assumptions all concern details of the conduct or the outcome of the critical events that are used to organize the relative combat power analysis. In other words, they are assumptions about the “execution trace” of the Blue course of action.² (The decomposition of the course of action into a particular collection of critical events also amounts to further planning assumptions of this kind.) To accommodate these assumptions regarding plan execution, we have slightly extended the input grammars to accommodate the following:

- Labeled descriptions of a subset critical events. These descriptions include tasks for both maneuver units and artillery.
- Temporal ordering relations among these critical events (described in accordance with Allen's taxonomy of interval relations).

¹ Refer to chapter 5 of FM 100-5.

² For a definition of critical events the reader is referred to the interactive knowledge document.

- Ad hoc assumptions regarding the outcomes of these critical events (currently limited to force attrition). *It is hoped that technology developers will replace ad hoc assumptions regarding force attrition with a principled theory.*

These additional input assumptions are provided immediately preceding the RCP tables in the sections on RCP analysis and immediately following the informal descriptions of COA execution traces (e.g. in the middle of section 3.3.3.1). They are divided into two groups: assumptions that introduce critical events, and assumption regarding outcomes of critical events.

The remainder of this document is structured as follows. Section 1 contains the updates to scenario 1. It includes only new materials and materials that have changed. Sections 2 and 3 present scenarios 2 and 3 in their entirety.

1. Scenario 1

1.1 Products of mission analysis for scenario 1

1.1.1 G2/S2 (Intelligence)

1.1.1.1 Enemy Combat Power

Using the grammar for assets available, we can describe the forces that the G2 or S2 will array in describing the enemy's courses of action:

```
Red unit is a tank division (REDMECHDIVISION 1), consisting of [  
  [2 of mechanized infantry regiment (REDMECHREGIMENT1,  
    REDMECHREGIMENT2) equipped with BTR-60, consisting of  
    [2 of mechanized infantry battalions, equipped with BTR-60  
    1 of tank battalion, equipped with T-64  
    1 of artillery battalion equipped with 122mm SP (in direct support)]]  
  [1 of tank regiment (REDTANKREGIMENT1) equipped with T-64, consisting of  
    [2 of tank battalions, equipped with T-64  
    1 of artillery battalion equipped with 122mm SP (in direct support of  
    REDTANKREGIMENT1)]]  
  [1 of tank battalion (REDTANKBATTALION1) equipped with T-64]  
  [1 of division artillery group (REDARTILLERYGROUP), consisting of  
    [2 of artillery battalion equipped with 152mm SP  
    1 of artillery battalion equipped with 122mm MRL]]  
]
```

1.1.2 G3/S3 (Operations)

1.1.2.1 Current combat power

```
Blue unit is a mechanized infantry division (BLUEDIVISION1) consisting of [  
  [2 of mechanized infantry brigade consisting of  
    [2 of mechanized infantry battalions equipped with M2  
    1 of tank battalion equipped with M1A2  
    1 of artillery battalion equipped with 155 SP (in direct support)]]  
  [An armor brigade consisting of  
    [2 of armor battalions equipped with M1A2  
    1 of mechanized infantry battalion equipped with M2  
    1 of artillery battalion equipped with 155 SP (in direct support)]]  
  [An armor battalion task force consisting of  
    [3 of armor companies equipped with M1A2  
    1 of mechanized infantry company equipped with M2]]  
  [1 of Armored Cavalry Squadron consisting of  
    [3 of armored cavalry troops equipped with M3 and M1A2  
    2 of air cavalry troops equipped with OH58D KW]]  
  [1 of Aviation Brigade including
```

[1 of Attack Helicopter Battalion equipped with AH-64]]
[1 of division artillery brigade, including
[2 of MLRS Battery (in general support of BLUEDIVISION1)]]
]

1.1.2.2 Mission of Adjacent Units

To the south, BLUEDIVISION2 conducts operations.

1.1.2.3 Mission and intent one up:

Mission:

10th (US) Corps attacks to destroy Belligerian Guard forces in vicinity South Town 13 0600 Aug XX in order to defeat enemy ability to sustain combat operations in AO GOLD.

Intent:

The intent is to disrupt enemy ability to sustain combat operations in AO GOLD. First destroy Belligerian Guard in vicinity South Town east of Muddy River. A mechanized division (BLUEDIVISION1) attacks to fix enemy forces in the north in order to cause enemy forces to counterattack in the north, then an armor division (BLUEDIVISION2) performs river crossing across Muddy River and destroys Belligerian Guard forces in vicinity South Town.

1.1.2.4 Specified or implied tasks

- Seize OBJ SLAM in order to protect boundary between BLUEDIVISION1 and BLUEDIVISION2 (Corps Main Effort) and then retain OBJ SLAM
- Prevent enemy forces from penetrate our boundary to the south
- Prevent REDMECHDIVISION1 from gaining access to the area to the south and to the west of river town
- Screen our boundary to the north
- Prevent REDTANKBATTALION1 and REDTANKREGIMENT1 enemy forces from interfering with seize OBJ SLAM
- Protect class III and ability to resupply class III

1.1.2.5 Essential tasks

- Seize OBJ SLAM in order to protect boundary between BLUEDIVISION1 and BLUEDIVISION2 (Corps Main Effort).
- Prevent enemy forces from penetrating our boundary to the south

1.1.3 Products from the commander

1.1.3.1 Approved mission statement

A mechanized division attacks to seize OBJ SLAM 130400 Aug XX in order to protect the boundary between BLUEDIVISION1 and BLUEDIVISION2 (Corps Main Effort).

1.1.3.2 Commander's intent

The intent is to seize OBJ SLAM as rapidly as possible and then retain OBJ SLAM.

Prevent enemy forces from moving in the division area of operations until Main Effort completes seize OBJ SLAM, and prevent the tank regiment east of Muddy River from counterattacking across Muddy River and moving across the north boundary of BLUEDIVISION2 (Corps Main Effort).

1.2 Simplified Friendly COAs

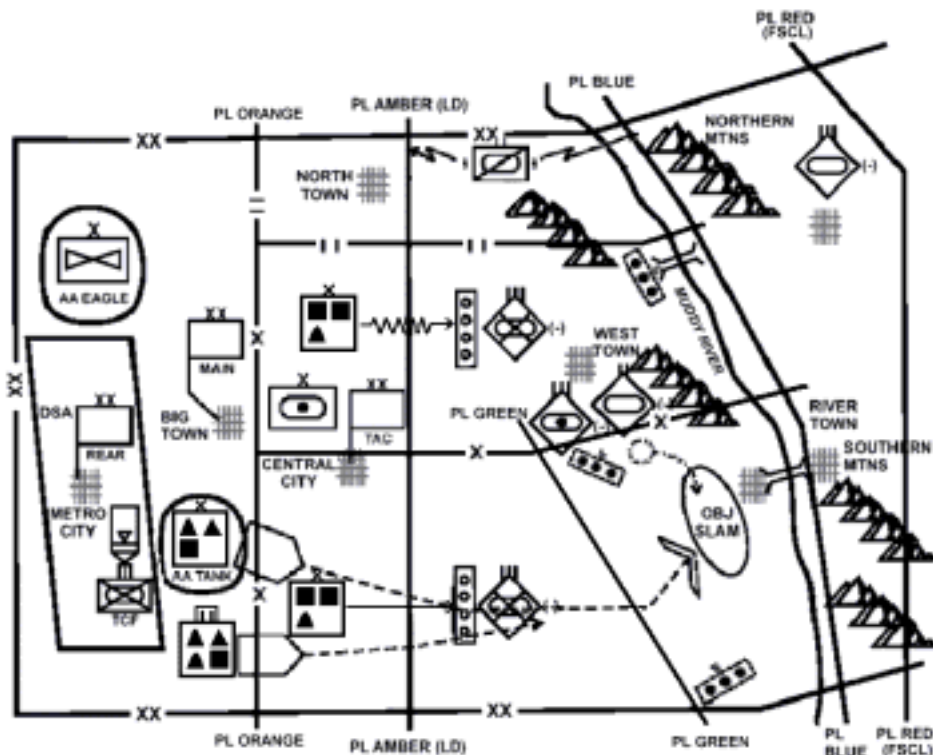
The courses of action described here are all based on the original blue COAs. These COAs, however, have been simplified in that every task now refers to a specific Red unit. We only provide Blue COAs as they would play out against Red's most probable COA. In the tables showing the elements of the COA statements for the variant courses of action, items modified from the base COAs have generally been highlighted in order to emphasize what has changed. Deletions from the base COA are depicted in a strikethrough font (for example, "~~these words are deleted from the base COA~~"); additions and modifications are shown with yellow highlighting (for example, "these words are either modified from or added to the original COA")

1.2.1 COA 1.1

Simplifying Assumption:

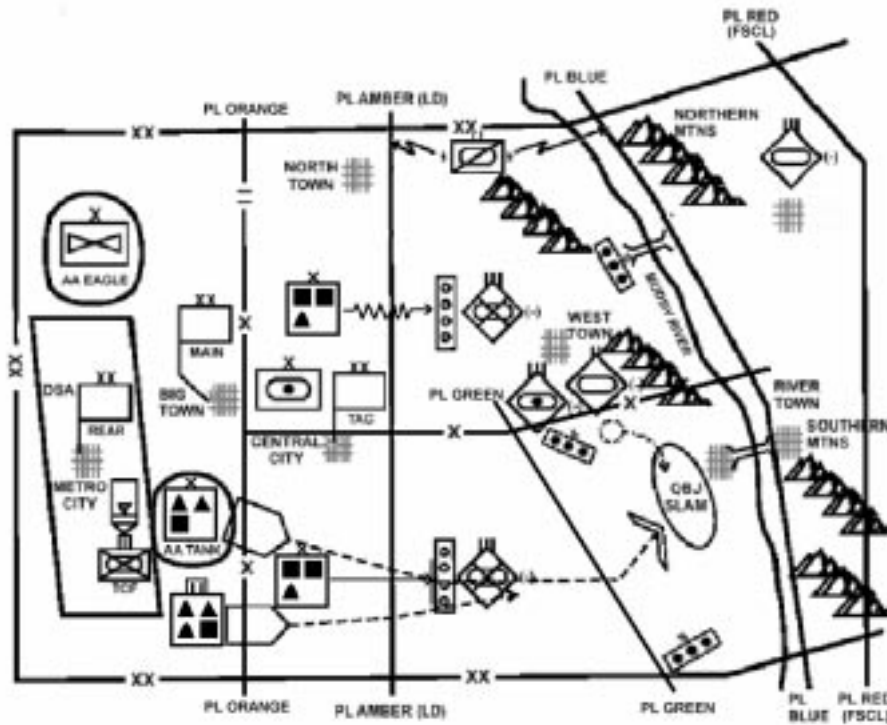
REDTANKBATTALION1 reinforces REDMECHREGIMENT1.

1.2.1.1 Base COA (Variant 1.1.0)

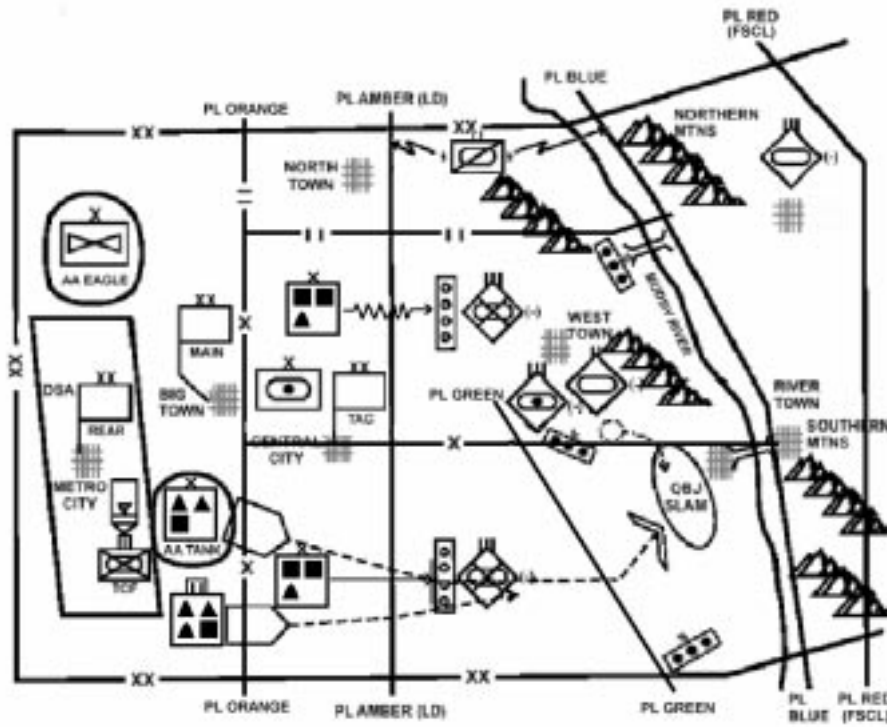


Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)</p>
<p><u>Close</u> A mechanized brigade (Supporting Effort 1) attacks in the north to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the area of operations of Supporting Effort 1 in order to prevent REDMECHREGIMENT1 and REDTANKBATTALION1 from interfering with Main Effort.</p> <p>A mechanized brigade (Supporting Effort 2) attacks in the south to penetrate REDMECHREGIMENT2 vicinity PL AMBER in order to enable Main Effort to conduct forward passage of lines and seize OBJ SLAM.</p> <p>An armor brigade (Main Effort) conducts forward passage of lines through Supporting Effort 2 then attacks to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN.</p>
<p><u>Reserve</u> The reserve, an armor task force, follows Supporting Effort 2 and be prepared to contain REDMECHREGIMENT2 in order to prevent REDMECHREGIMENT2 from interfering with forward passage of lines through Supporting Effort 2 by Main Effort and if not engaged in operations west of PL GREEN, follows Main Effort and be prepared to block REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to enable Supporting Effort 1 to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the security zone</p>
<p><u>Deep</u> Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with Main Effort and Supporting Effort 2, then interdict REDTANKBATTALION1 in order to prevent REDTANKBATTALION1 from interfering with Main Effort and interdict REDTANKREGIMENT1 to prevent REDTANKREGIMENT1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable Supporting Effort 2 to penetrate REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Risk</u></p>
<p><u>End State</u></p>

1.2.1.2 Variant 1.1.1



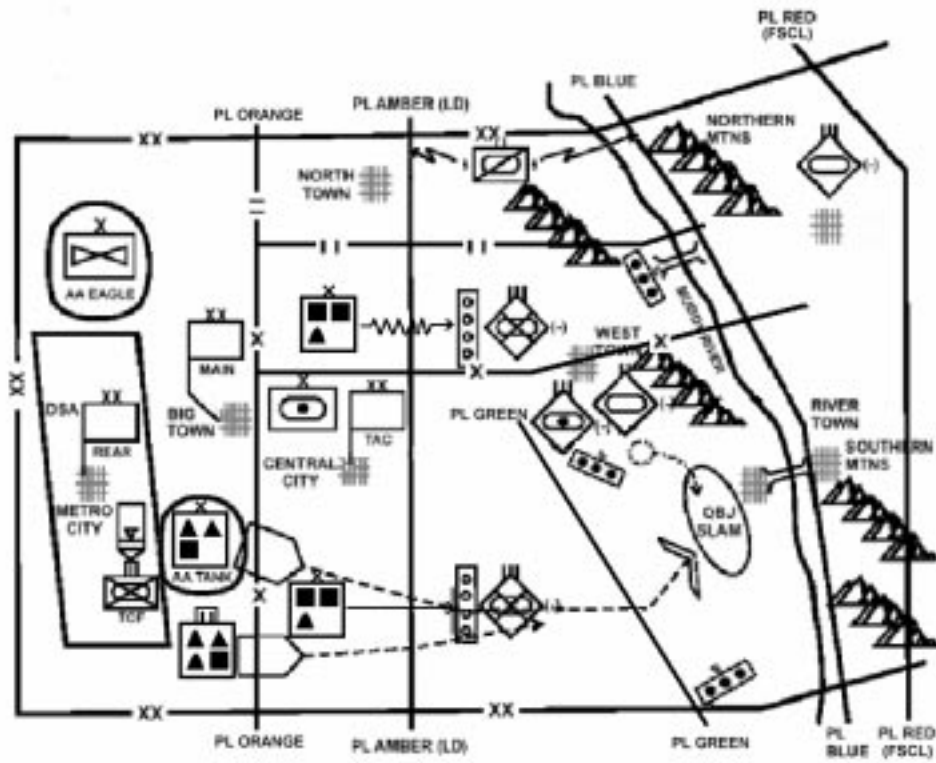
1.2.1.3 Variant 1.1.2



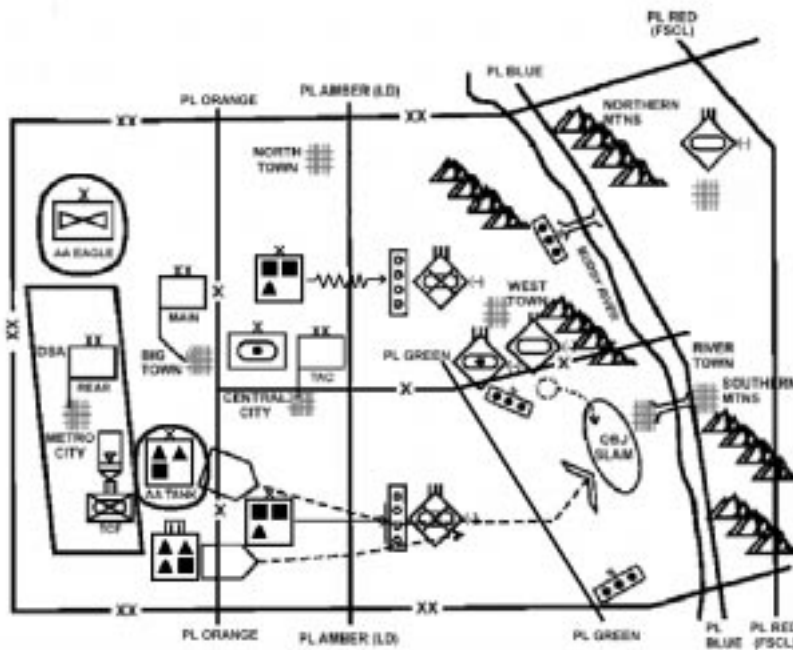
1.2.1.4 Variant 1.1.3

Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)</p>
<p><u>Close</u> A mechanized brigade (Supporting Effort 1) attacks in the north to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the area of operations of Supporting Effort 1 in order to prevent REDMECHREGIMENT1 and REDTANKBATTALION1 from interfering with Main Effort.</p> <p>A mechanized brigade (Supporting Effort 2) attacks in the south to penetrate REDMECHREGIMENT2 vicinity PL AMBER in order to enable Main Effort to conduct forward passage of lines and seize OBJ SLAM.</p> <p>An armor brigade (Main Effort) conducts forward passage of lines through Supporting Effort 2 then attacks to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN.</p>
<p><u>Reserve</u> The reserve, an armor task force, follows Supporting Effort 2 and be prepared to contain REDMECHREGIMENT2 in order to prevent REDMECHREGIMENT2 from interfering with forward passage of lines through Supporting Effort 2 by Main Effort and if not engaged in operations west of PL GREEN, follows Main Effort and be prepared to REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to enable Supporting Effort 1 to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the security zone</p>
<p><u>Deep</u> Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with Main Effort and Supporting Effort 2 then interdict REDTANKBATTALION1 in order to prevent REDTANKBATTALION1 from interfering with Main Effort and interdict REDTANKREGIMENT1 to prevent REDTANKREGIMENT1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable Supporting Effort 2 to penetrate REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Risk</u></p>
<p><u>End State</u></p>

1.2.1.5 Variant 1.1.4

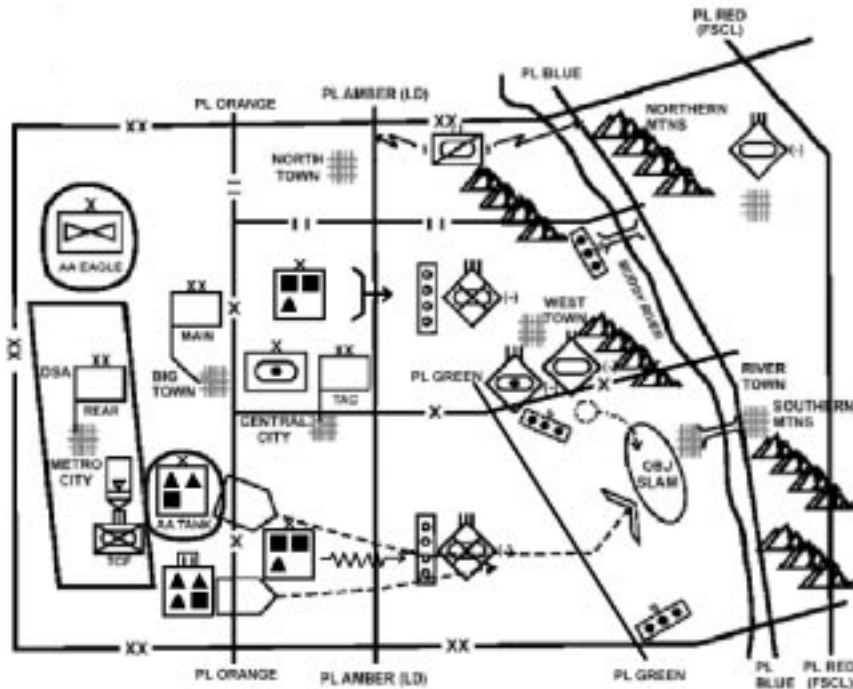


1.2.1.6 Variant 1.1.5



Statement	
<u>Mission</u>	A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)
<u>Close</u>	A mechanized brigade (Supporting Effort 1) attacks in the north to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the area of operations of Supporting Effort 1 in order to prevent REDMECHREGIMENT1 and REDTANKBATTALION1 from interfering with Main Effort. A mechanized brigade (Supporting Effort 2) attacks in the south to penetrate REDMECHREGIMENT2 vicinity PL AMBER in order to enable Main Effort to conduct forward passage of lines and seize OBJ SLAM. An armor brigade (Main Effort) conducts forward passage of lines through Supporting Effort 2 then attacks to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN.
<u>Reserve</u>	The reserve, an armor task force, follows Supporting Effort 2 and be prepared to contain REDMECHREGIMENT2 in order to prevent REDMECHREGIMENT2 from interfering with forward passage of lines through Supporting Effort 2 by Main Effort and if not engaged in operations west of PL GREEN, follows Main Effort and be prepared to block REDMECHREGIMENT1 in order to enable Main Effort to seize OBJ SLAM.
<u>Security</u>	In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to enable Supporting Effort 1 to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the security zone
<u>Deep</u>	Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with Main Effort and Supporting Effort 2 then interdict REDTANKBATTALION1 in order to prevent REDTANKBATTALION1 from interfering with Main Effort and interdict REDTANKREGIMENT1 to prevent REDTANKREGIMENT1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort
<u>Rear</u>	A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.
<u>Fires</u>	Fires will enable Supporting Effort 2 to penetrate REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Supporting Effort 2 and Main Effort
<u>Risk</u>	
<u>End State</u>	

1.2.1.7 Variant 1.1.6



Statement	
Mission	A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)
Close	A mechanized brigade (Supporting Effort 1) conducts attack by fire in the north in the area of operations of Supporting Effort 1 in order to prevent REDMECHREGIMENT1 and REDTANKBATTALION1 from interfering with Main Effort. A mechanized brigade (Supporting Effort 2) attacks in the south to fix REDMECHREGIMENT2 vicinity PL AMBER in order to enable Main Effort to conduct forward passage of lines and seize OBJ SLAM. An armor brigade (Main Effort) conducts forward passage of lines through Supporting Effort 2 then attacks to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN.
Reserve	The reserve, an armor task force, follows Supporting Effort 2 and be prepared to contain REDMECHREGIMENT2 in order to prevent REDMECHREGIMENT2 from interfering with forward passage of lines through Supporting Effort 2 by Main Effort and if not engaged in operations west of PL GREEN, follows Main Effort and be prepared to block REDMECHREGIMENT1 in order to enable Main Effort to seize OBJ SLAM.
Security	In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to enable Supporting Effort 1 to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the security zone
Deep	Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with Main Effort and Supporting Effort 2 then interdict REDTANKBATTALION1 in order to prevent REDTANKBATTALION1 from interfering with Main Effort and interdict REDTANKREGIMENT1 to prevent REDTANKREGIMENT1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort
Rear	A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.
Fires	Fires will enable Supporting Effort 2 to penetrate REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Supporting Effort 2 and Main Effort
Risk	
End State	

1.2.1.8 Variant 1.1.7

Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)</p>
<p><u>Close</u> A mechanized brigade (Supporting Effort 1) attacks in the north to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the area of operations of Supporting Effort 1 in order to prevent REDMECHREGIMENT1 and REDTANKBATTALION1 from interfering with Main Effort. A mechanized brigade (Supporting Effort 2) attacks in the south to penetrate REDMECHREGIMENT2 vicinity PL AMBER in order to enable Main Effort to conduct forward passage of lines and seize OBJ SLAM. An armor brigade (Main Effort) conducts forward passage of lines through Supporting Effort 2 then attacks to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN.</p>
<p><u>Reserve</u> The reserve, an armor task force, follows Supporting Effort 2 and be prepared to contain REDMECHREGIMENT2 in order to prevent REDMECHREGIMENT2 from interfering with forward passage of lines through Supporting Effort 2 by Main Effort and if not engaged in operations west of PL GREEN, follows Main Effort and be prepared to block REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to enable Supporting Effort 1 to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the security zone</p>
<p><u>Deep</u> Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with Main Effort and Supporting Effort 2 then interdict REDTANKBATTALION1 in order to prevent REDTANKBATTALION1 from interfering with Main Effort and interdict REDTANKREGIMENT1 to prevent REDTANKREGIMENT1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable Supporting Effort 2 to penetrate REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Risk</u></p>
<p><u>End State</u></p>

1.2.1.9 Variant 1.1.8

Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)</p>
<p><u>Close</u> A mechanized brigade (Supporting Effort 1) attacks in the north to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the area of operations of Supporting Effort 1 in order to prevent REDMECHREGIMENT1 and REDTANKBATTALION1 from interfering with Main Effort.</p> <p>A mechanized brigade (Supporting Effort 2) attacks in the south to penetrate REDMECHREGIMENT2 vicinity PL AMBER in order to enable Main Effort to conduct forward passage of lines and seize OBJ SLAM.</p> <p>An armor brigade (Main Effort) conducts forward passage of lines through Supporting Effort 2 then attacks to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN.</p>
<p><u>Reserve</u> The reserve, an armor task force, follows Supporting Effort 2 and be prepared to contain REDMECHREGIMENT2 in order to prevent REDMECHREGIMENT2 from interfering with forward passage of lines through Supporting Effort 2 by Main Effort and if not engaged in operations west of PL GREEN, follows Main Effort and be prepared to block REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to enable Supporting Effort 1 to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the security zone</p>
<p><u>Deep</u> Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with Main Effort and Supporting Effort 2 then interdict REDTANKBATTALION1 in order to prevent REDTANKBATTALION1 from interfering with Main Effort and interdict REDTANKREGIMENT1 to prevent REDTANKREGIMENT1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable Supporting Effort 2 to penetrate REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Risk</u></p>
<p><u>End State</u></p>

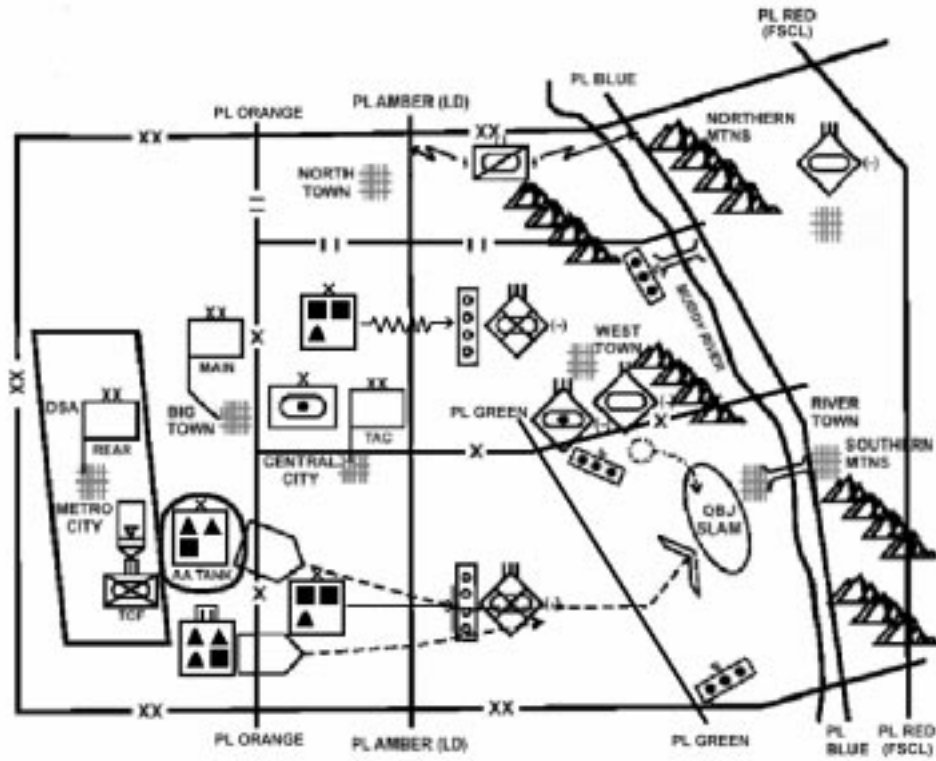
1.2.1.10 Variant 1.1.9

Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUE DIVISION 2 (Corps Main Effort)</p>
<p><u>Close</u> A mechanized brigade (Supporting Effort 1) attacks in the north to fix REDMECH REGIMENT 1 and REDTANK BATTALION 1 in the area of operations of Supporting Effort 1 in order to prevent REDMECH REGIMENT 1 and REDTANK BATTALION 1 from interfering with Main Effort.</p> <p>A mechanized brigade (Supporting Effort 2) attacks in the south to penetrate REDMECH REGIMENT 2 vicinity PL AMBER in order to enable Main Effort to conduct forward passage of lines and seize OBJ SLAM.</p> <p>An armor brigade (Main Effort) conducts forward passage of lines through Supporting Effort 2 then attacks to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECH DIVISION 1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN.</p>
<p><u>Reserve</u> The reserve, an armor task force, follows Supporting Effort 2 and be prepared to contain REDMECH REGIMENT 2 in order to prevent REDMECH REGIMENT 2 from interfering with forward passage of lines through Supporting Effort 2 by Main Effort and if not engaged in operations west of PL GREEN, follows Main Effort and be prepared to block REDTANK BATTALION 1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to enable Supporting Effort 1 to fix REDMECH REGIMENT 1 and REDTANK BATTALION 1 in the security zone</p>
<p><u>Deep</u> Deep operations will attrit REDARTILLERY REGIMENT 1 in order to prevent REDARTILLERY REGIMENT 1 from interfering with Main Effort and Supporting Effort 2 then interdict REDTANK BATTALION 1 in order to prevent REDTANK BATTALION 1 from interfering with Main Effort and interdict REDTANK REGIMENT 1 to prevent REDTANK REGIMENT 1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable Supporting Effort 2 to penetrate REDMECH REGIMENT 2 and prevent REDARTILLERY REGIMENT 1 from interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Risk</u></p>
<p><u>End State</u></p>

1.2.1.11 Variant 1.1.10

Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)</p>
<p><u>Close</u> A mechanized brigade (Supporting Effort 1) attacks in the north to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the area of operations of Supporting Effort 1 in order to prevent REDMECHREGIMENT1 and REDTANKBATTALION1 from interfering with Main Effort.</p> <p>A mechanized brigade (Supporting Effort 2) attacks in the south to penetrate REDMECHREGIMENT2 vicinity PL AMBER in order to enable Main Effort to conduct forward passage of lines and seize OBJ SLAM.</p> <p>An armor brigade (Main Effort) conducts forward passage of lines through Supporting Effort 2 then attacks to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN.</p>
<p><u>Reserve</u> The reserve, an armor task force, follows Supporting Effort 2 and be prepared to contain REDMECHREGIMENT2 in order to prevent REDMECHREGIMENT2 from interfering with forward passage of lines through Supporting Effort 2 by Main Effort and if not engaged in operations west of PL GREEN, follows Main Effort and be prepared to block REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to enable Supporting Effort 1 to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the security zone</p>
<p><u>Deep</u> Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with Main Effort and Supporting Effort 2 then interdict REDTANKBATTALION1 in order to prevent REDTANKBATTALION1 from interfering with Main Effort and interdict REDTANKREGIMENT1 to prevent REDTANKREGIMENT1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable Supporting Effort 2 to penetrate REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Risk</u></p>
<p><u>End State</u></p>

1.2.1.12 Variant 1.1.11



1.2.1.13 Variant 1.1.12

Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)</p>
<p><u>Close</u> A mechanized brigade (Supporting Effort 1) attacks in the north to stop REDMECHREGIMENT1 and REDTANKBATTALION1 in the area of operations of Supporting Effort 1 in order to prevent REDMECHREGIMENT1 and REDTANKBATTALION1 from interfering with Main Effort.</p> <p>A mechanized brigade (Supporting Effort 2) attacks in the south to punch through REDMECHREGIMENT2 vicinity PL AMBER in order to enable Main Effort to conduct forward passage of lines and seize OBJ SLAM.</p> <p>An armor brigade (Main Effort) conducts forward passage of lines through Supporting Effort 2 then attacks to hold the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN.</p>
<p><u>Reserve</u> The reserve, an armor task force, follows Supporting Effort 2 and be prepared to contain REDMECHREGIMENT2 in order to prevent REDMECHREGIMENT2 from interfering with forward passage of lines through Supporting Effort 2 by Main Effort and if not engaged in operations west of PL GREEN, follows Main Effort and be prepared to block REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to enable Supporting Effort 1 to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the security zone</p>
<p><u>Deep</u> Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with Main Effort and Supporting Effort 2 then interdict REDTANKBATTALION1 in order to prevent REDTANKBATTALION1 from interfering with Main Effort and interdict REDTANKREGIMENT1 to prevent REDTANKREGIMENT1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable Supporting Effort 2 to penetrate REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Risk</u></p>
<p><u>End State</u></p>

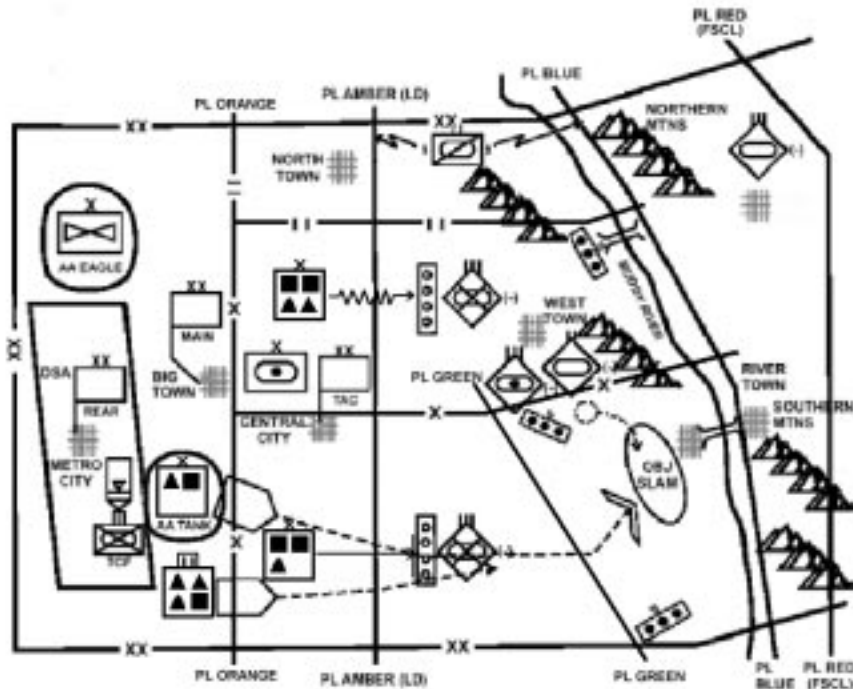
1.2.1.14 Variant 1.1.13

Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)</p>
<p><u>Close</u> A mechanized brigade (Supporting Effort 1) attacks in the north to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the area of operations of Supporting Effort 1 in order to prevent REDMECHREGIMENT1 and REDTANKBATTALION1 from interfering with Supporting Effort 3.</p> <p>A mechanized brigade (Supporting Effort 2) attacks in the south to penetrate REDMECHREGIMENT2 vicinity PL AMBER in order to enable Supporting Effort 3 to conduct forward passage of lines and seize OBJ SLAM.</p> <p>An armor brigade (Supporting Effort 3)(Main Effort) conducts forward passage of lines through Supporting Effort 2 then attacks to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN.</p>
<p><u>Reserve</u> The reserve, an armor task force, follows Supporting Effort 2 and be prepared to contain REDMECHREGIMENT2 in order to prevent REDMECHREGIMENT2 from interfering with forward passage of lines through Supporting Effort 2 by Supporting Effort 3 and if not engaged in operations west of PL GREEN, follows Supporting Effort 3 and be prepared to block REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to enable Supporting Effort 1 to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the security zone</p>
<p><u>Deep</u> Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with Supporting Effort 3 and Supporting Effort 2 then interdict REDTANKBATTALION1 in order to prevent REDTANKBATTALION1 from interfering with Supporting Effort 3 and interdict REDTANKREGIMENT1 to prevent REDTANKREGIMENT1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Supporting Effort 3</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable Supporting Effort 2 to penetrate REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Supporting Effort 2 and Supporting Effort 3</p>
<p><u>Risk</u></p>
<p><u>End State</u></p>

1.2.1.15 Variant 1.1.14

Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)</p>
<p><u>Close</u> A mechanized brigade (Supporting Effort 1) attacks in the north to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the area of operations of Supporting Effort 1 in order to prevent REDMECHREGIMENT1 and REDTANKBATTALION1 from interfering with Main Effort.</p> <p>A mechanized brigade (Main Effort) attacks in the south to penetrate REDMECHREGIMENT2 vicinity PL AMBER in order to enable Supporting Effort 2 to conduct forward passage of lines and seize OBJ SLAM.</p> <p>An armor brigade (Supporting Effort 2) conducts forward passage of lines through Supporting Effort 2 then attacks to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN.</p>
<p><u>Reserve</u> The reserve, an armor task force, follows Supporting Effort 2 and be prepared to contain REDMECHREGIMENT2 in order to prevent REDMECHREGIMENT2 from interfering with forward passage of lines through Supporting Effort 2 by Main Effort and if not engaged in operations west of PL GREEN, follows Main Effort and be prepared to block REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to enable Supporting Effort 1 to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the security zone</p>
<p><u>Deep</u> Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with Main Effort and Supporting Effort 2 then interdict REDTANKBATTALION1 in order to prevent REDTANKBATTALION1 from interfering with Main Effort and interdict REDTANKREGIMENT1 to prevent REDTANKREGIMENT1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable Supporting Effort 2 to penetrate REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Supporting Effort 2 and Main Effort</p>
<u>Risk</u>
<u>End State</u>

1.2.1.16 Variant 1.1.15



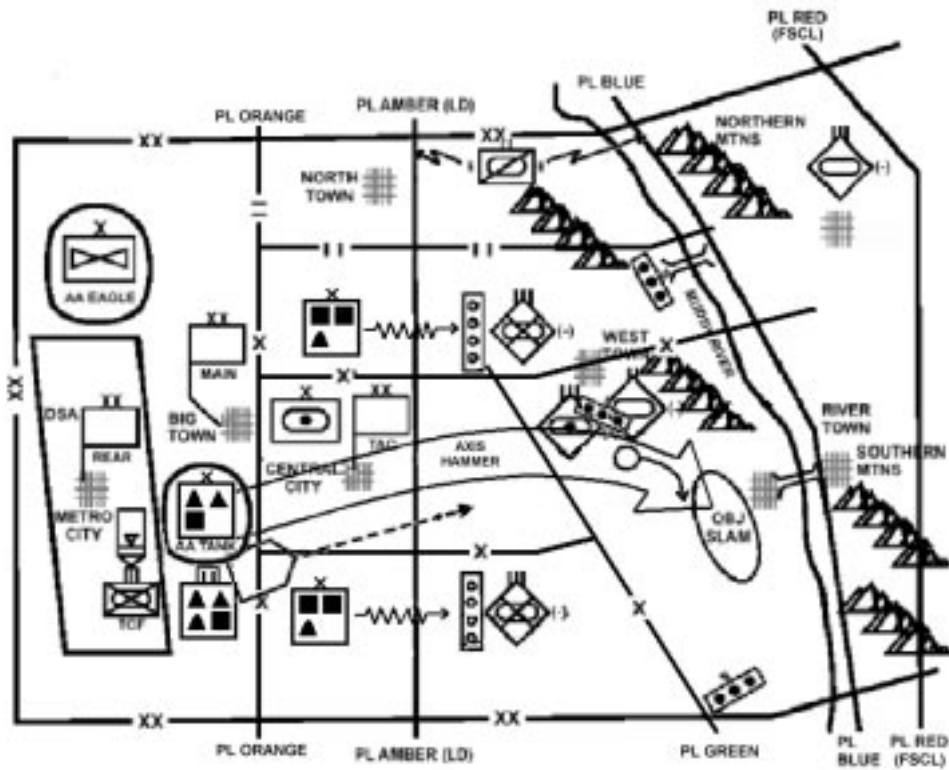
Statement
<p>Mission A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)</p>
<p>Close A balanced brigade (Supporting Effort 1) attacks in the north to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the area of operations of Supporting Effort 1 in order to prevent fix REDMECHREGIMENT1 and REDTANKBATTALION1 from interfering with Main Effort.</p> <p>A mechanized brigade (Supporting Effort 2) attacks in the south to penetrate REDMECHREGIMENT2 vicinity PL AMBER in order to enable Main Effort to conduct forward passage of lines and seize OBJ SLAM.</p> <p>An armor brigade (-) (Main Effort) conducts forward passage of lines through Supporting Effort 2 then attacks to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN.</p>
<p>Reserve The reserve, an armor task force, follows Supporting Effort 2 and be prepared to contain REDMECHREGIMENT2 in order to prevent REDMECHREGIMENT2 from interfering with forward passage of lines through Supporting Effort 2 by Main Effort and if not engaged in operations west of PL GREEN, follows Main Effort and be prepared to block REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p>Security In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to enable Supporting Effort 1 to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the security zone</p>
<p>Deep Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with Main Effort and Supporting Effort 2 then interdict REDTANKBATTALION1 in order to prevent REDTANKBATTALION1 from interfering with Main Effort and interdict REDTANKREGIMENT1 to prevent REDTANKREGIMENT1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort</p>
<p>Rear A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p>Fires Fires will enable Supporting Effort 2 to penetrate REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Supporting Effort 2 and Main Effort</p>
<p>Risk</p>
<p>End State</p>

1.2.2 COA 1.2

Simplifying Assumption:

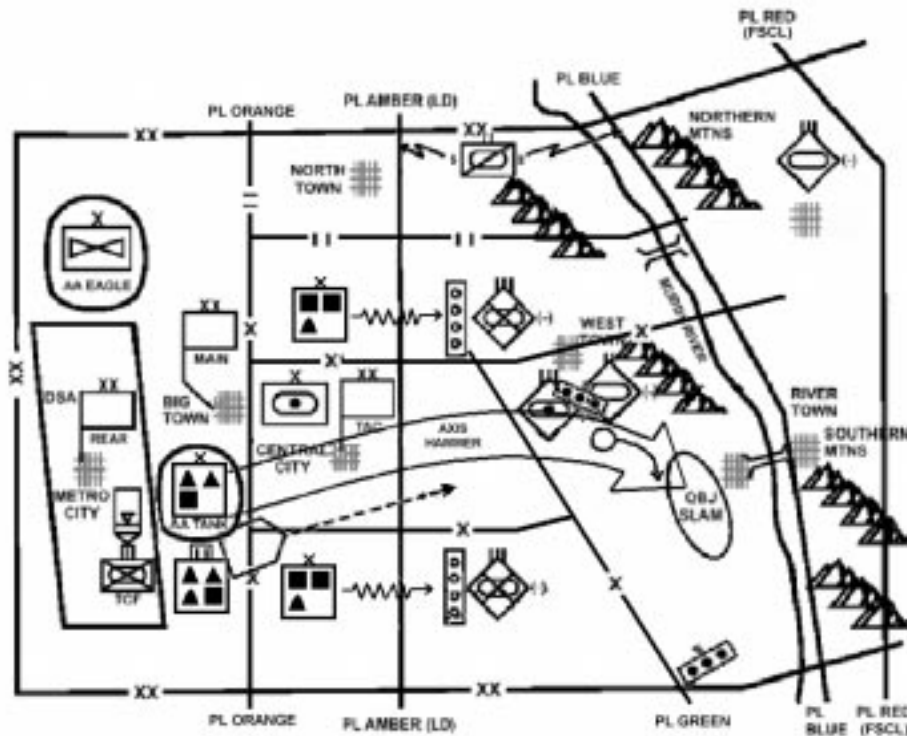
REDTANKBATTALION1 reinforces REDMECHREGIMENT1.

1.2.2.1 Base COA (Variant 1.2.0)



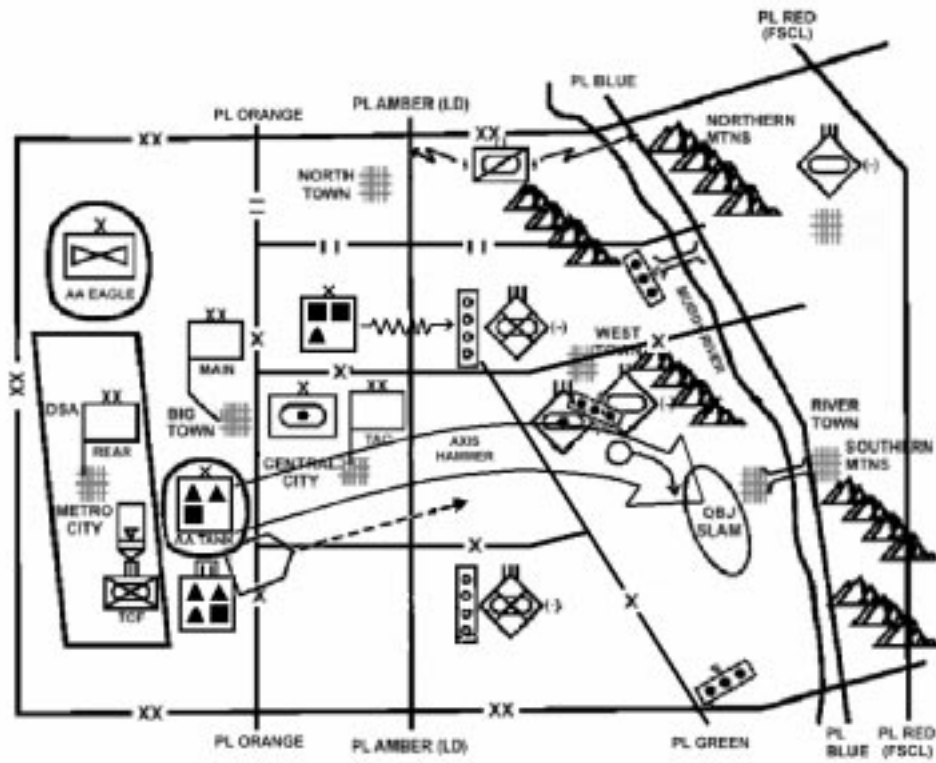
Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)</p>
<p><u>Close</u> An armor brigade (Main Effort) attacks on AXIS HAMMER to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN. A mechanized brigade (Supporting Effort 1) attacks in the north to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the area of operations of Supporting Effort 1 in order to prevent REDMECHREGIMENT1 and REDTANKBATTALION1 from interfering with Main Effort. A mechanized brigade (Supporting Effort 2) attacks in the south to fix REDMECHREGIMENT2 in the area of operations of Supporting Effort 2 in order to prevent REDMECHREGIMENT2 from interfering with Main Effort.</p>
<p><u>Reserve</u> The reserve, a mechanized task force, follows Main Effort and be prepared to block REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the division.</p>
<p><u>Deep</u> Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with Main Effort and Supporting Effort 2 then interdict REDTANKBATTALION1 in order to prevent REDTANKBATTALION1 from interfering with Main Effort and interdict REDTANKREGIMENT1 to prevent REDTANKREGIMENT1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable the division to fix REDMECHREGIMENT1, REDTANKBATTALION1 and REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Main Effort.</p>
<p><u>Risk</u> Risk is assumed in this course of action by conducting the main attack in terrain not suited for the operation and/or unit type.</p>
<p><u>End State</u></p>

1.2.2.2 Variant 1.2.1



Statement
<p>Mission A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)</p>
<p>Close An armor brigade (Main Effort) attacks on AXIS HAMMER to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN. A mechanized brigade (Supporting Effort 1) attacks in the north to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the area of operations of Supporting Effort 1 in order to prevent REDMECHREGIMENT1 and REDTANKBATTALION1 from interfering with Main Effort. A mechanized brigade (Supporting Effort 2) attacks in the south to fix REDMECHREGIMENT2 in the area of operations of Supporting Effort 2 in order to prevent REDMECHREGIMENT2 from interfering with Main Effort.</p>
<p>Reserve The reserve, a mechanized task force, follows Main Effort and be prepared to block REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p>Security In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the division.</p>
<p>Deep Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with Main Effort and Supporting Effort 2 then interdict REDTANKBATTALION1 in order to prevent REDTANKBATTALION1 from interfering with Main Effort and interdict REDTANKREGIMENT1 to prevent REDTANKREGIMENT1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort</p>
<p>Rear A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p>Fires Fires will enable the division to fix REDMECHREGIMENT1, REDTANKBATTALION1 and REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Main Effort.</p>
<p>Risk Risk is assumed in this course of action by conducting the main attack in terrain not suited for the operation and/or unit type.</p>
<p>End State</p>

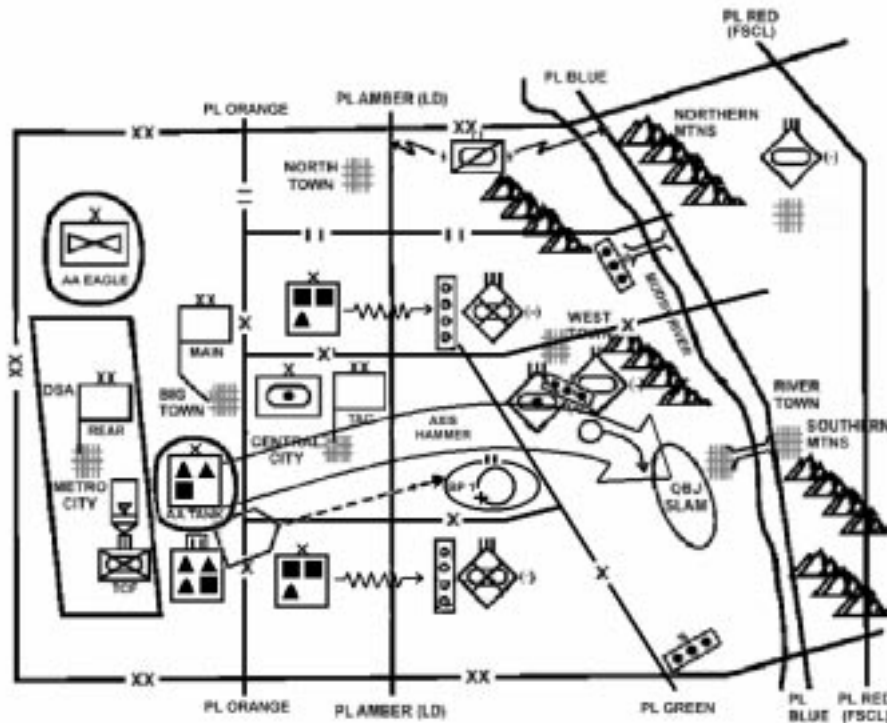
1.2.2.3 Variant 1.2.2



1.2.2.4 Variant 1.2.3

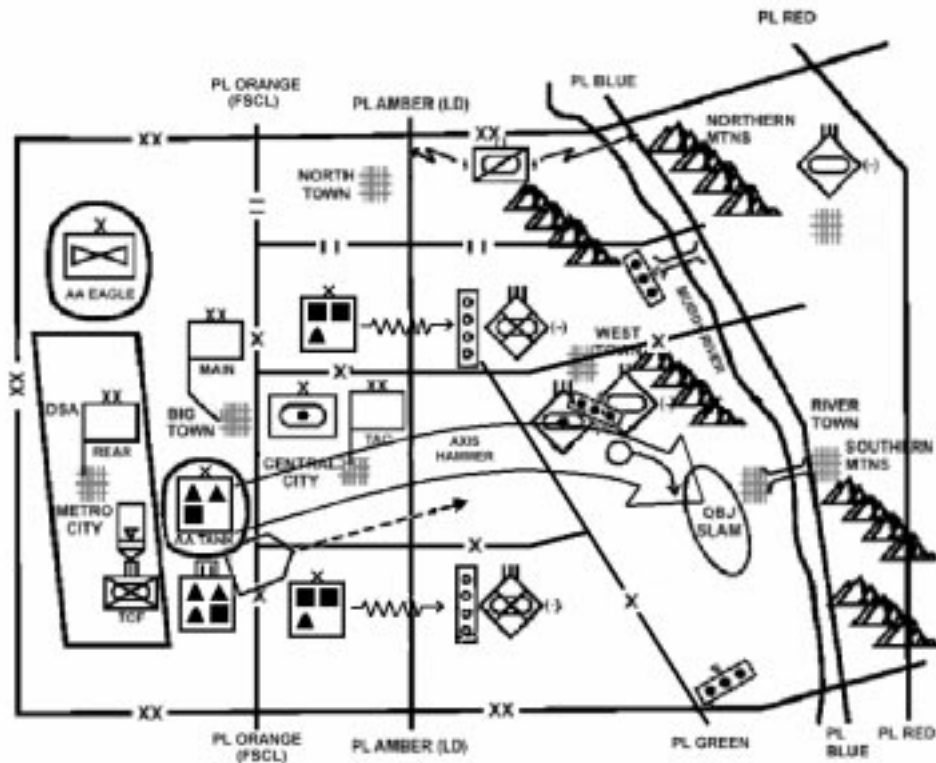
Statement
<u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)
<u>Close</u> An armor brigade (Main Effort) attacks on AXIS HAMMER to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN. A mechanized brigade (Supporting Effort 1) attacks in the north to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the area of operations of Supporting Effort 1 in order to prevent REDMECHREGIMENT1 and REDTANKBATTALION1 from interfering with Main Effort. A mechanized brigade (Supporting Effort 2) attacks in the south to fix REDMECHREGIMENT2 in the area of operations of Supporting Effort 2 in order to prevent REDMECHREGIMENT2 from interfering with Main Effort.
<u>Reserve</u> The reserve, a mechanized task force, follows Main Effort and be prepared to blocks REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.
<u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the division.
<u>Deep</u> Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with Main Effort and Supporting Effort 2 then interdict REDTANKBATTALION1 in order to prevent REDTANKBATTALION1 from interfering with Main Effort and interdict REDTANKREGIMENT1 to prevent REDTANKREGIMENT1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort
<u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.
<u>Fires</u> Fires will enable the division to fix REDMECHREGIMENT1, REDTANKBATTALION1 and REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Main Effort.
<u>Risk</u> Risk is assumed in this course of action by conducting the main attack in terrain not suited for the operation and/or unit type.
<u>End State</u>

1.2.2.5 Variant 1.2.4

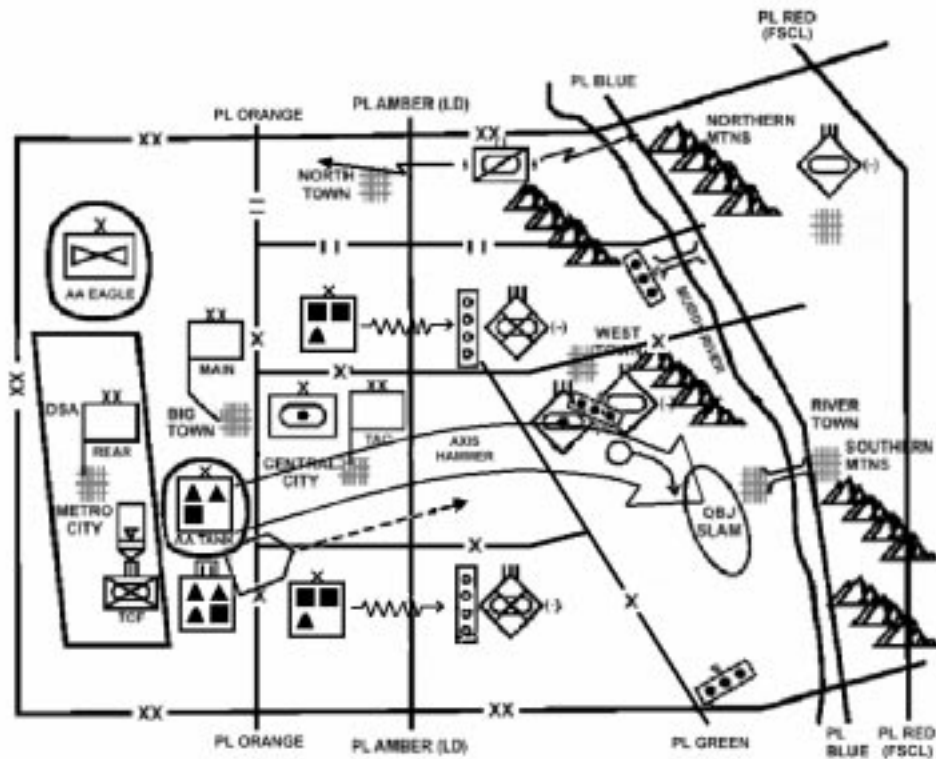


Statement
<p>Mission A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)</p>
<p>Close An armor brigade (Main Effort) attacks on AXIS HAMMER to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN. A mechanized brigade (Supporting Effort 1) attacks in the north to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the area of operations of Supporting Effort 1 in order to prevent REDMECHREGIMENT1 and REDTANKBATTALION1 from interfering with Main Effort. A mechanized brigade (Supporting Effort 2) attacks in the south to fix REDMECHREGIMENT2 in the area of operations of Supporting Effort 2 in order to prevent REDMECHREGIMENT2 from interfering with Main Effort.</p>
<p>Reserve The reserve, a mechanized task force, follows Main Effort and occupies BP 1 to prevent REDMECHREGIMENT2 from attacking the main effort from the south.</p>
<p>Security In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the division.</p>
<p>Deep Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with Main Effort and Supporting Effort 2 then interdict REDTANKBATTALION1 in order to prevent REDTANKBATTALION1 from interfering with Main Effort and interdict REDTANKREGIMENT1 to prevent REDTANKREGIMENT1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort</p>
<p>Rear A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p>Fires Fires will enable the division to fix REDMECHREGIMENT1, REDTANKBATTALION1 and REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Main Effort.</p>
<p>Risk Risk is assumed in this course of action by conducting the main attack in terrain not suited for the operation and/or unit type.</p>
<p>End State</p>

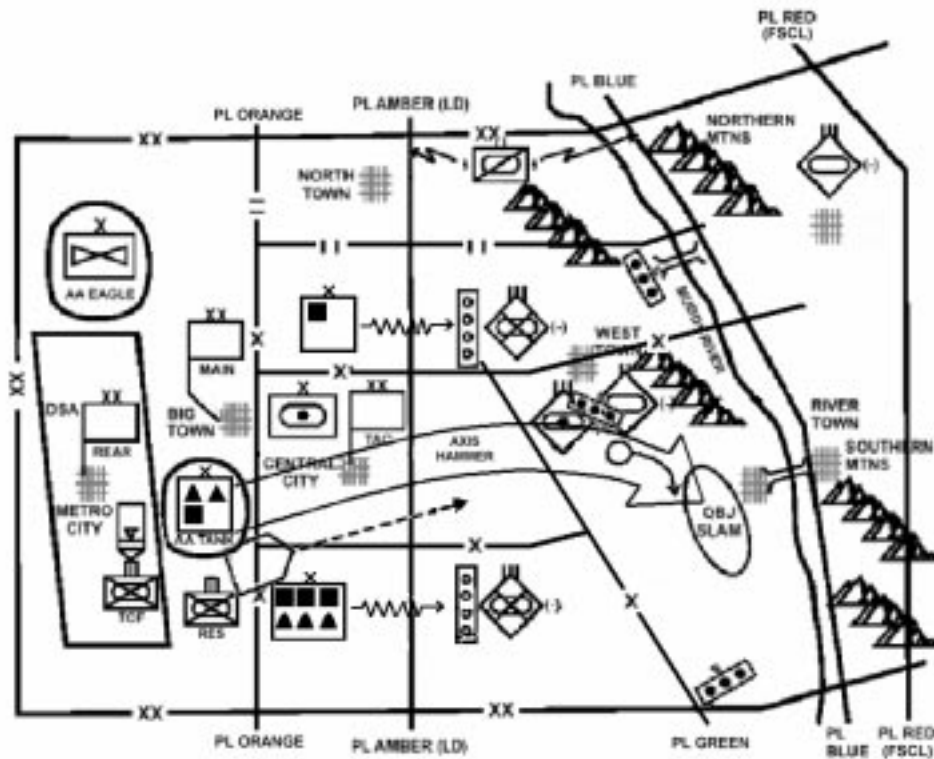
1.2.2.6 Variant 1.2.5



1.2.2.7 Variant 1.2.6

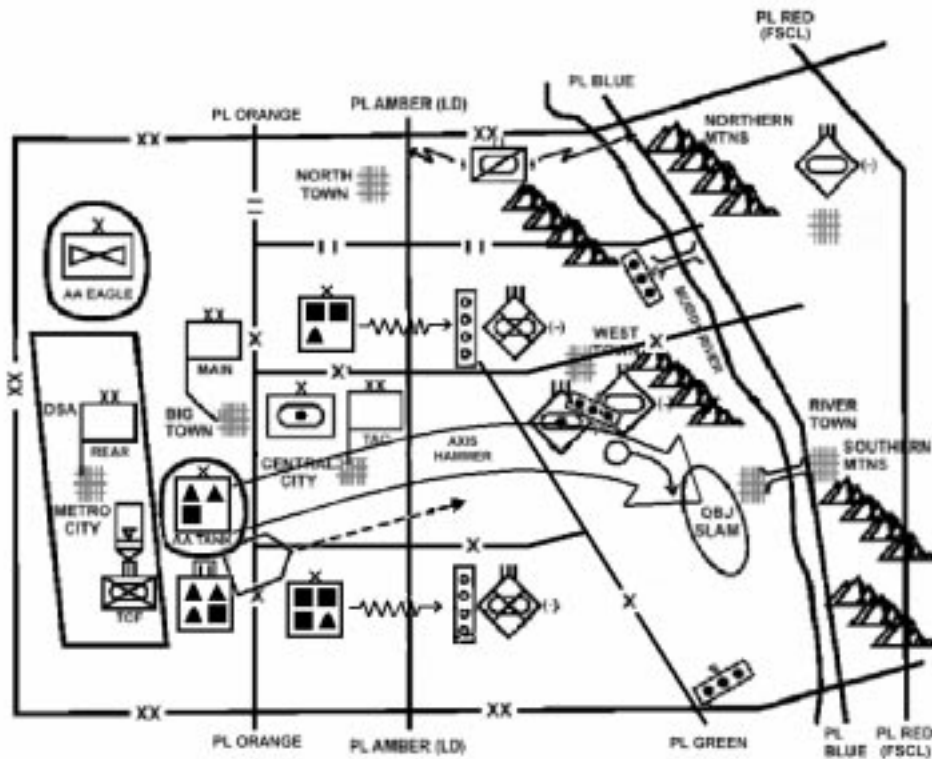


1.2.2.8 Variant 1.2.7



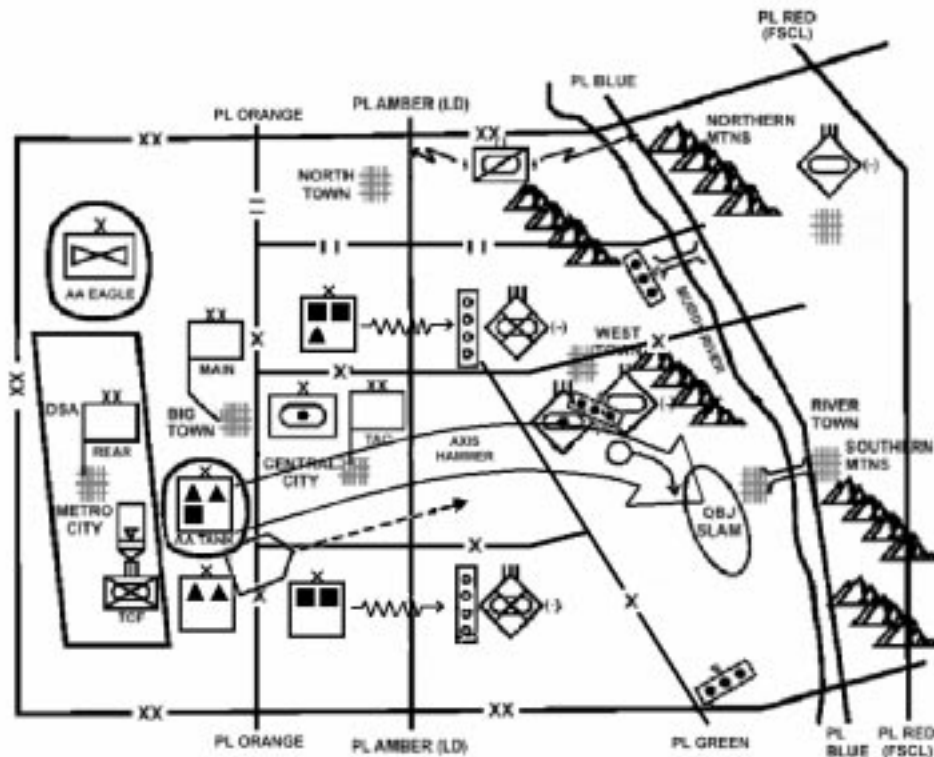
Statement	
Mission	A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)
Close	An armor brigade (Main Effort) attacks on AXIS HAMMER to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN. A mechanized brigade (-) (Supporting Effort 1) attacks in the north to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the area of operations of Supporting Effort 1 in order to prevent REDMECHREGIMENT1 and REDTANKBATTALION1 from interfering with Main Effort. A balanced brigade (+) (Supporting Effort 2) attacks in the south to fix REDMECHREGIMENT2 in the area of operations of Supporting Effort 2 in order to prevent REDMECHREGIMENT2 from interfering with Main Effort.
Reserve	The reserve, a mechanized infantry team, follows Main Effort and be prepared to block REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.
Security	In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the division.
Deep	Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with Main Effort and Supporting Effort 2 then interdict REDTANKBATTALION1 in order to prevent REDTANKBATTALION1 from interfering with Main Effort and interdict REDTANKREGIMENT1 to prevent REDTANKREGIMENT1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort
Rear	A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.
Fires	Fires will enable the division to fix REDMECHREGIMENT1, REDTANKBATTALION1 and REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Main Effort.
Risk	Risk is assumed in this course of action by conducting the main attack in terrain not suited for the operation and/or unit type.
End State	

1.2.2.9 Variant 1.2.8



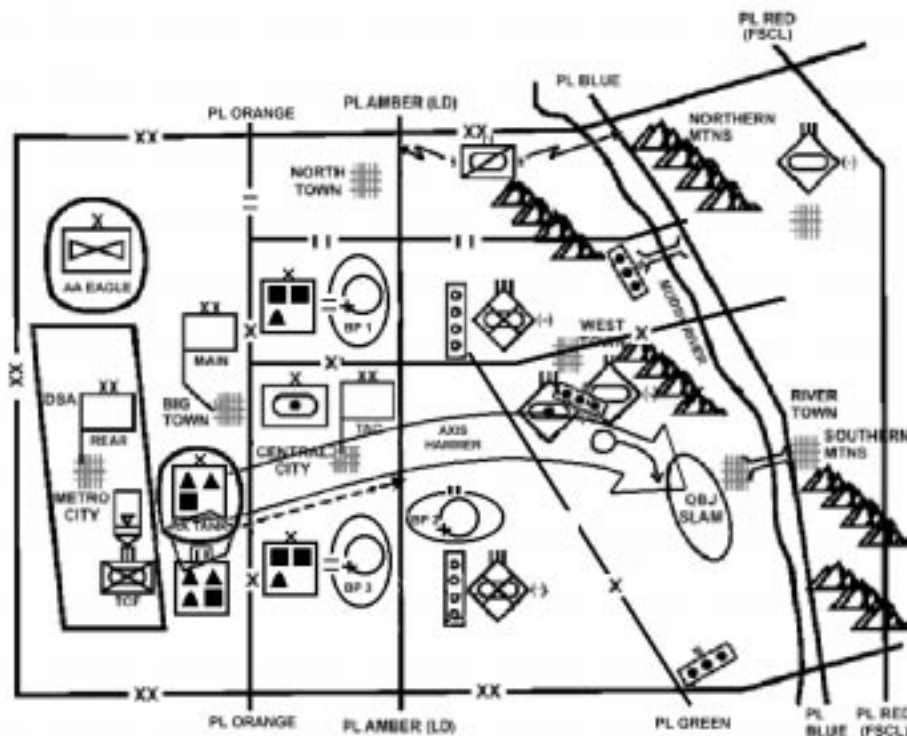
Statement	
<u>Mission</u>	A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUE DIVISION 2 (Corps Main Effort)
<u>Close</u>	An armor brigade (Main Effort) attacks on AXIS HAMMER to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECH DIVISION 1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN. A mechanized brigade (Supporting Effort 1) attacks in the north to fix REDMECH REGIMENT 1 and REDTANK BATTALION 1 in the area of operations of Supporting Effort 1 in order to prevent REDMECH REGIMENT 1 and REDTANK BATTALION 1 from interfering with Main Effort. A mechanized brigade (+) (Supporting Effort 2) attacks in the south to fix REDMECH REGIMENT 2 in the area of operations of Supporting Effort 2 in order to prevent REDMECH REGIMENT 2 from interfering with Main Effort.
<u>Reserve</u>	The reserve, a mechanized task force, follows Main Effort and be prepared to block REDTANK BATTALION 1 in order to enable Main Effort to seize OBJ SLAM.
<u>Security</u>	In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the division.
<u>Deep</u>	Deep operations will attrit REDARTILLERY REGIMENT 1 in order to prevent REDARTILLERY REGIMENT 1 from interfering with Main Effort and Supporting Effort 2 then interdict REDTANK BATTALION 1 in order to prevent REDTANK BATTALION 1 from interfering with Main Effort and interdict REDTANK REGIMENT 1 to prevent REDTANK REGIMENT 1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort
<u>Rear</u>	A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.
<u>Fires</u>	Fires will enable the division to fix REDMECH REGIMENT 1, REDTANK BATTALION 1 and REDMECH REGIMENT 2 and prevent REDARTILLERY REGIMENT 1 from interfering with Main Effort.
<u>Risk</u>	Risk is assumed in this course of action by conducting the main attack in terrain not suited for the operation and/or unit type.
<u>End State</u>	

1.2.2.10 Variant 1.2.9



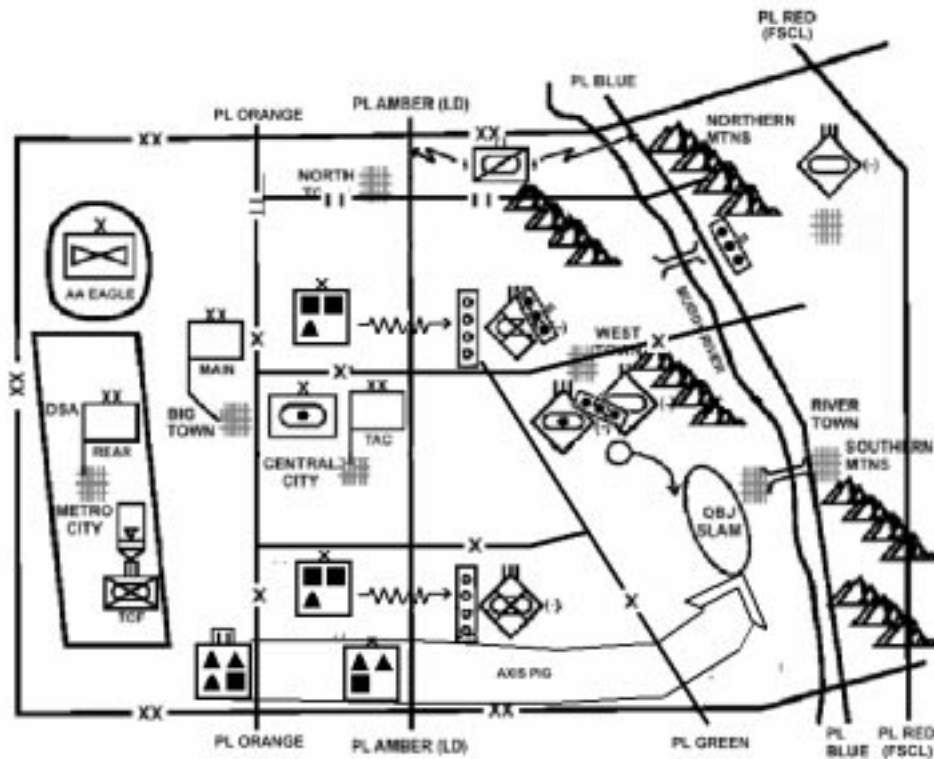
Statement
<p>Mission A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)</p>
<p>Close An armor brigade (Main Effort) attacks on AXIS HAMMER to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN. A mechanized brigade (Supporting Effort 1) attacks in the north to fix REDMECHREGIMENT1 and REDTANKBATTALION1 in the area of operations of Supporting Effort 1 in order to prevent REDMECHREGIMENT1 and REDTANKBATTALION1 from interfering with Main Effort. A mechanized brigade (-) (Supporting Effort 2) attacks in the south to fix REDMECHREGIMENT2 in the area of operations of Supporting Effort 2 in order to prevent REDMECHREGIMENT2 from interfering with Main Effort.</p>
<p>Reserve The reserve, an armor brigade (-), follows Main Effort and be prepared to block REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p>Security In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the division.</p>
<p>Deep Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with Main Effort and Supporting Effort 2 then interdict REDTANKBATTALION1 in order to prevent REDTANKBATTALION1 from interfering with Main Effort and interdict REDTANKREGIMENT1 to prevent REDTANKREGIMENT1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort</p>
<p>Rear A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p>Fires Fires will enable the division to fix REDMECHREGIMENT1, REDTANKBATTALION1 and REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Main Effort.</p>
<p>Risk Risk is assumed in this course of action by conducting the main attack in terrain not suited for the operation and/or unit type.</p>
<p>End State</p>

1.2.2.11 Variant 1.2.10



Statement	
Mission	A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUE DIVISION 2 (Corps Main Effort).
Close	An armor brigade (Main Effort) attacks on AXIS HAMMER to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECH DIVISION 1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN. A mechanized brigade (Supporting Effort 1) secures BP 1 in order to prevent REDMECH REGIMENT 1 and REDTANK BATTALION 1 from interfering with Main Effort on AA1. A mechanized brigade (Supporting Effort 2) secures BP 2 and BP 3 in order to prevent REDMECH REGIMENT 2 from interfering with Main Effort on AA2.
Reserve	The reserve, a mechanized task force, follows Main Effort and be prepared to block REDTANK BATTALION 1 in order to enable Main Effort to seize OBJ SLAM.
Security	In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the unit.
Deep	Deep operations will attrit REDARTILLERY REGIMENT 1 in order to prevent REDARTILLERY REGIMENT 1 from interfering with Main Effort and Supporting Effort 2 then interdict REDTANK BATTALION 1 in order to prevent REDTANK BATTALION 1 from interfering with Main Effort and interdict REDTANK REGIMENT 1 to prevent REDTANK REGIMENT 1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort.
Rear	A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.
Fires	Fires will enable the division to fix REDMECH REGIMENT 1, REDTANK BATTALION 1 and REDMECH REGIMENT 2 and prevent REDARTILLERY REGIMENT 1 from interfering with Main Effort.
Risk	Risk is assumed in this course of action by conducting the main attack in terrain not suited for the operation and/or unit type.
End State	

1.2.2.12 Variant 1.2.11



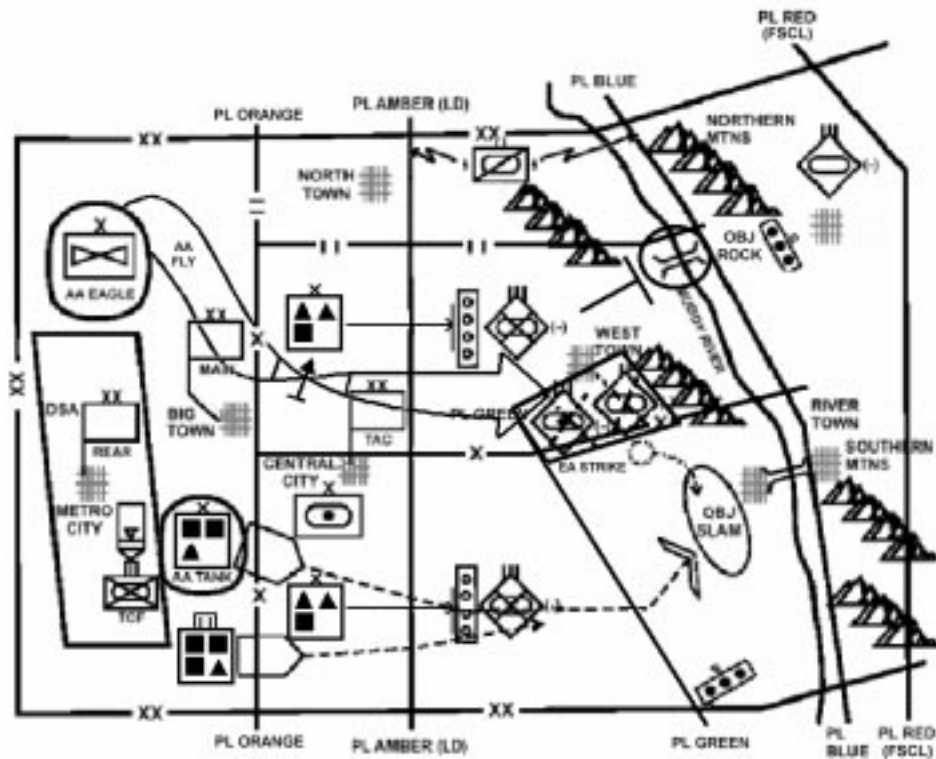
Statement
<p>Mission A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUE DIVISION 2 (Corps Main Effort)</p>
<p>Close An armor brigade (Main Effort) attacks on AXIS PIG to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECH DIVISION 1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN. A mechanized brigade (Supporting Effort 1) attacks in the north to fix REDMECH REGIMENT 1 and REDTANK BATTALION 1 in the area of operations of Supporting Effort 1 in order to prevent REDMECH REGIMENT 1 and REDTANK BATTALION 1 from interfering with Main Effort. A mechanized brigade (Supporting Effort 2) attacks in the south to fix REDMECH REGIMENT 2 in the area of operations of Supporting Effort 2 in order to prevent REDMECH REGIMENT 2 from interfering with Main Effort.</p>
<p>Reserve The reserve, a mechanized task force, follows Main Effort and be prepared to block REDTANK BATTALION 1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p>Security In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the unit.</p>
<p>Deep Deep operations will attrit REDARTILLERY REGIMENT 1 in order to prevent REDARTILLERY REGIMENT 1 from interfering with Main Effort and Supporting Effort 2 then interdict REDTANK BATTALION 1 in order to prevent REDTANK BATTALION 1 from interfering with Main Effort and interdict REDTANK REGIMENT 1 to prevent REDTANK REGIMENT 1 from moving west of PL BLUE and interfering with Supporting Effort 2 and Main Effort</p>
<p>Rear A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p>Fires Fires will enable the division to fix REDMECH REGIMENT 1, REDTANK BATTALION 1 and REDMECH REGIMENT 2 and prevent REDARTILLERY REGIMENT 1 from interfering with Main Effort.</p>
<p>Risk Risk is assumed in this course of action by conducting a deep envelopment of enemy forces to OBJ SLAM with a limited amount of maneuver space between REDMECH REGIMENT 2 and the southern division boundary.</p>
<p>End State</p>

1.2.3 COA 1.3

Simplifying Assumption:

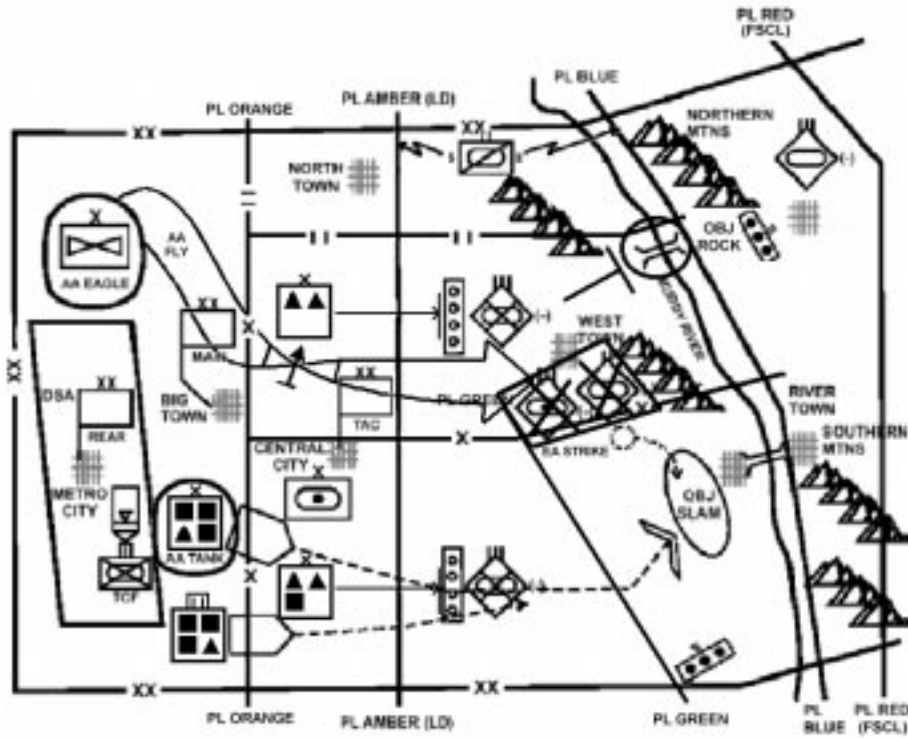
None

1.2.3.1 Base COA (Variant 1.3.0)



Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)</p>
<p><u>Close</u> An armor brigade (Supporting Effort 1) attacks in the north to penetrate REDMECHREGIMENT1 in the area of operations of Supporting Effort 1 and then blocks REDTANKREGIMENT1 vicinity OBJ ROCK in order to prevent REDTANKREGIMENT1 from interfering with Main Effort. An armor brigade (Supporting Effort 2) attacks in the south to penetrate REDMECHREGIMENT2 vicinity PL AMBER in order to enable Main Effort to conduct forward passage of lines and seize OBJ SLAM. A mechanized brigade (Main Effort) conducts forward passage of lines through Supporting Effort 2 then attacks to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN. Aviation brigade attacks to destroy REDARTILLERYBATTALION1 and REDTANKBATTALION1 in EA STRIKE in order to prevent the REDARTILLERYBATTALION1 and REDTANKBATTALION1 from interfering with Main Effort.</p>
<p><u>Reserve</u> The reserve, a mechanized task force, follows Supporting Effort 2 and be prepared to contain REDMECHREGIMENT2 in order to prevent REDMECHREGIMENT2 from interfering with forward passage of lines through Supporting Effort 2 by Main Effort and if not engaged in operations west of PL GREEN, follows Main Effort and be prepared to block REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the unit.</p>
<p><u>Deep</u> Deep operations will attrit enemy air defense assets vicinity EA STRIKE in order to prevent enemy forces from interfering with AVIATION BRIGADE, then will attrit REDTANKREGIMENT1 in order to prevent REDTANKREGIMENT1 from massing combat power west of PL BLUE and interfering with Main Effort</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable Supporting Effort 2 to penetrate REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Risk</u></p>
<p><u>End State</u> At the conclusion of this operation, the division will be arrayed in brigade zones, and the division will be prepared to conduct movement to contact to destroy enemy forces in zone.</p>

1.2.3.2 Variant 1.3.1



Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)</p>
<p><u>Close</u> An armor brigade (Supporting Effort 1) attacks in the north to penetrate REDMECHREGIMENT1 in the area of operations of Supporting Effort 1 and then blocks REDTANKREGIMENT1 vicinity OBJ ROCK in order to prevent REDTANKREGIMENT1 from interfering with Main Effort. An armor brigade (Supporting Effort 2) attacks in the south to penetrate REDMECHREGIMENT2 vicinity PL AMBER in order to enable Main Effort to conduct forward passage of lines and seize OBJ SLAM. A mechanized brigade (Main Effort) conducts forward passage of lines through Supporting Effort 2 then attacks to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN. Aviation brigade attacks to destroy REDARTILLERYBATTALION1 and REDTANKBATTALION1 in EA STRIKE in order to prevent the REDARTILLERYBATTALION1 and REDTANKBATTALION1 from interfering with Main Effort.</p>
<p><u>Reserve</u> The reserve, a mechanized task force, follows Supporting Effort 2 and be prepared to contain REDMECHREGIMENT2 in order to prevent REDMECHREGIMENT2 from interfering with forward passage of lines through Supporting Effort 2 by Main Effort and if not engaged in operations west of PL GREEN, follows Main Effort and be prepared to block REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the unit.</p>
<p><u>Deep</u> Deep operations will attrit enemy air defense assets vicinity EA STRIKE in order to prevent enemy forces from interfering with AVIATION BRIGADE, then will attrit REDTANKREGIMENT1 in order to prevent REDTANKREGIMENT1 from massing combat power west of PL BLUE and interfering with Main Effort</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable Supporting Effort 2 to penetrate REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Risk</u></p>
<p><u>End State</u> At the conclusion of this operation, the division will be arrayed in brigade zones, and the division will be prepared to conduct movement to contact to destroy enemy forces in zone.</p>

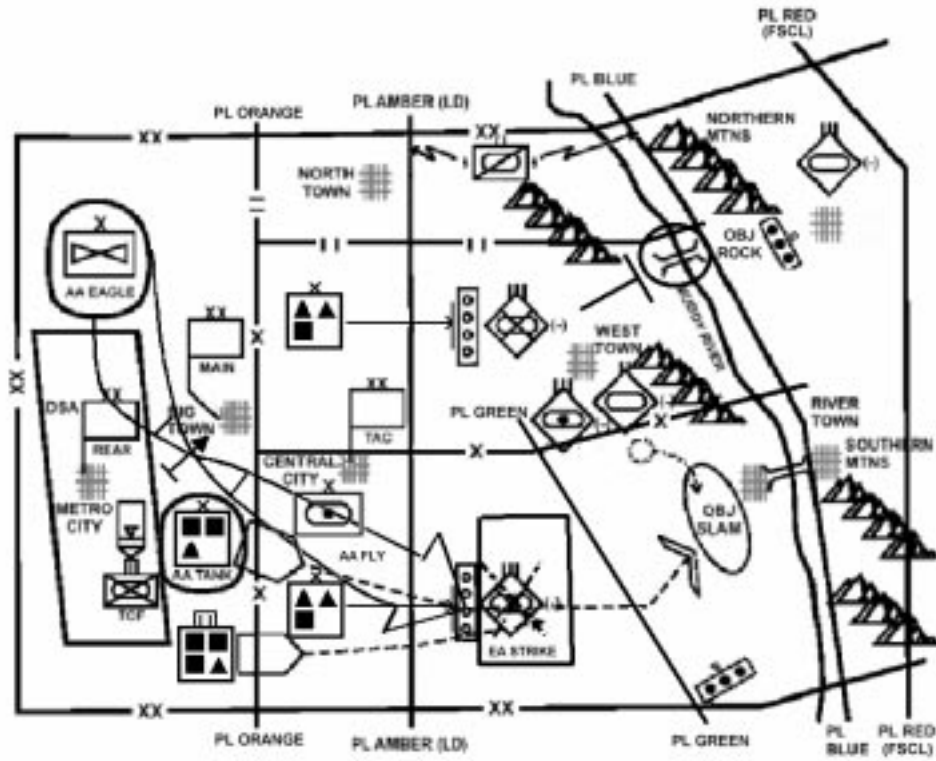
1.2.3.3 Variant 1.3.2

Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUE DIVISION 2 (Corps Main Effort)</p>
<p><u>Close</u> An armor brigade (Supporting Effort 1) attacks in the north to penetrate REDMECH REGIMENT 1 in the area of operations of Supporting Effort 1 and then blocks REDTANK REGIMENT 1 vicinity OBJ ROCK in order to prevent REDTANK REGIMENT 1 from interfering with Main Effort. An armor brigade (Supporting Effort 2) attacks in the south to penetrate REDMECH REGIMENT 2 vicinity PL AMBER in order to enable Main Effort to conduct forward passage of lines and seize OBJ SLAM. A mechanized brigade (Main Effort) conducts forward passage of lines through Supporting Effort 2 then attacks to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECH DIVISION 1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN. Aviation brigade attacks to destroy REDARTILLERY BATTALION 1 and REDTANK BATTALION 1 in EA STRIKE in order to prevent the REDARTILLERY BATTALION 1 and REDTANK BATTALION 1 from interfering with Main Effort.</p>
<p><u>Reserve</u> The reserve, a mechanized task force, follows Supporting Effort 2 and be prepared to contain REDMECH REGIMENT 2 in order to prevent REDMECH REGIMENT 2 from interfering with forward passage of lines through Supporting Effort 2 by Main Effort and if not engaged in operations west of PL GREEN, follows Main Effort and be prepared to block REDTANK BATTALION 1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the unit.</p>
<p><u>Deep</u> Deep operations will attrit enemy air defense assets vicinity EA STRIKE in order to prevent enemy forces from interfering with AVIATION BRIGADE, then will attrit REDTANK REGIMENT 1 in order to prevent REDTANK REGIMENT 1 from massing combat power west of PL BLUE and interfering with Main Effort</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable Supporting Effort 2 to penetrate REDMECH REGIMENT 2 and prevent REDARTILLERY REGIMENT 1 from interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Risk</u></p>
<p><u>End State</u> At the conclusion of this operation, the division will be arrayed in brigade zones, and the division will be prepared to conduct movement to contact to destroy enemy forces in zone.</p>

1.2.3.4 Variant 1.3.3

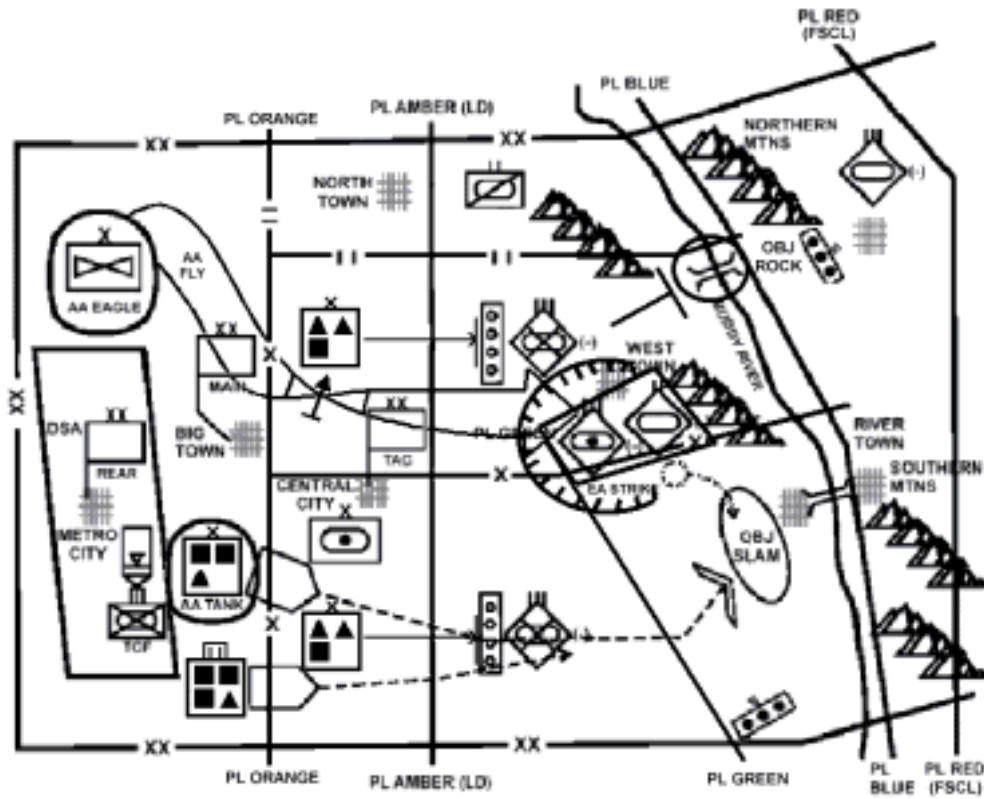
Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)</p>
<p><u>Close</u> An armor brigade (Supporting Effort 1) attacks in the north to penetrate REDMECHREGIMENT1 in the area of operations of Supporting Effort 1 and then blocks REDTANKREGIMENT1 vicinity OBJ ROCK in order to prevent REDTANKREGIMENT1 from interfering with Main Effort. An armor brigade (Supporting Effort 2) attacks in the south to penetrate REDMECHREGIMENT2 vicinity PL AMBER in order to enable Main Effort to conduct forward passage of lines and seize OBJ SLAM. A mechanized brigade (Main Effort) conducts forward passage of lines through Supporting Effort 2 then attacks to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN. Aviation brigade attacks to destroy REDARTILLERYBATTALION1 and REDTANKBATTALION1 in EA STRIKE in order to prevent the REDARTILLERYBATTALION1 and REDTANKBATTALION1 from interfering with Main Effort.</p>
<p><u>Reserve</u> The reserve, a mechanized task force, follows Supporting Effort 2 and be prepared to contain REDMECHREGIMENT2 in order to prevent REDMECHREGIMENT2 from interfering with forward passage of lines through Supporting Effort 2 by Main Effort and if not engaged in operations west of PL GREEN, follows Main Effort and be prepared to block REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the unit.</p>
<p><u>Deep</u> Deep operations will attrit enemy air defense assets vicinity EA STRIKE in order to prevent enemy forces from interfering with AVIATION BRIGADE, then will attrit REDTANKREGIMENT1 in order to prevent REDTANKREGIMENT1 from massing combat power west of PL BLUE and interfering with Main Effort</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable Supporting Effort 2 to penetrate REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Risk</u></p>
<p><u>End State</u> At the conclusion of this operation, the division will be arrayed in brigade zones, and the division will be prepared to conduct movement to contact to destroy enemy forces in zone.</p>

1.2.3.5 Variant 1.3.4



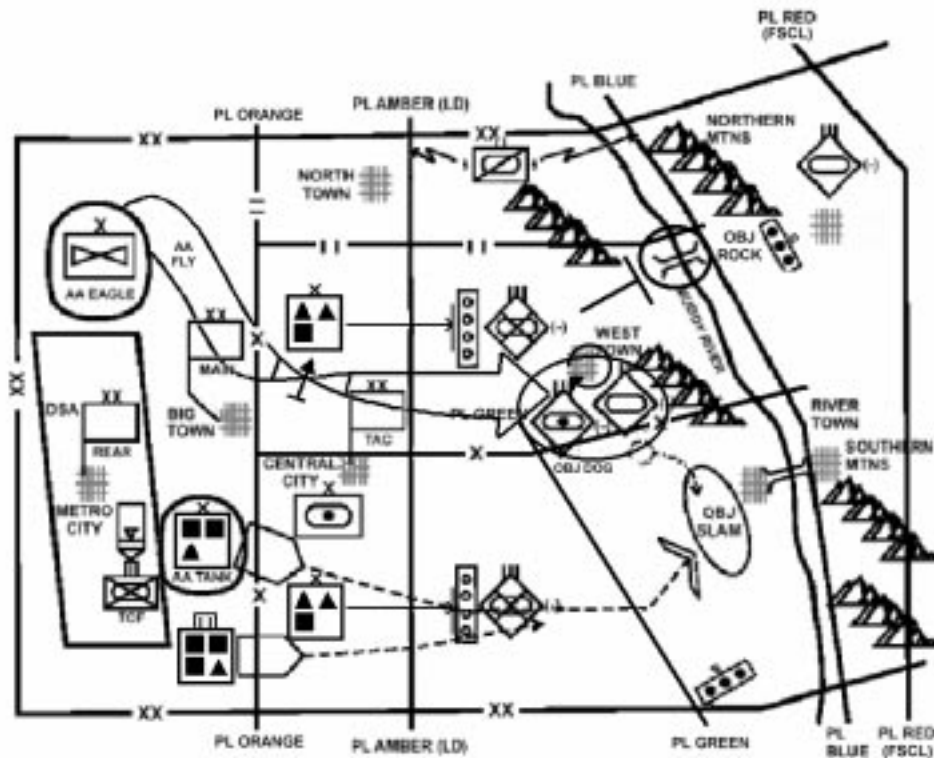
Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)</p>
<p><u>Close</u> An armor brigade (Supporting Effort 1) attacks in the north to penetrate REDMECHREGIMENT1 in the area of operations of Supporting Effort 1 and then blocks REDTANKREGIMENT1 vicinity OBJ ROCK in order to prevent REDTANKREGIMENT1 from interfering with Main Effort. An armor brigade (Supporting Effort 2) attacks in the south to penetrate REDMECHREGIMENT2 vicinity PL AMBER in order to enable Main Effort to conduct forward passage of lines and seize OBJ SLAM. A mechanized brigade (Main Effort) conducts forward passage of lines through Supporting Effort 2 then attacks to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN. Aviation brigade attacks to destroy REDARTILLERYBATTALION1 and REDTANKBATTALION1 in EA STRIKE in order to prevent REDARTILLERYBATTALION1 and REDTANKBATTALION1 from interfering with Main Effort.</p>
<p><u>Reserve</u> The reserve, a mechanized task force, follows Supporting Effort 2 and be prepared to contain REDMECHREGIMENT2 in order to prevent REDMECHREGIMENT2 from interfering with forward passage of lines through Supporting Effort 2 by Main Effort and if not engaged in operations west of PL GREEN, follows Main Effort and be prepared to block REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the unit.</p>
<p><u>Deep</u> Deep operations will attrit enemy air defense assets vicinity EA STRIKE in order to prevent enemy forces from interfering with AVIATION BRIGADE, then will attrit REDTANKREGIMENT1 in order to prevent REDTANKREGIMENT1 from massing combat power west of PL BLUE and interfering with Main Effort</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable Supporting Effort 2 to penetrate REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Risk</u></p>
<p><u>End State</u> At the conclusion of this operation, the division will be arrayed in brigade zones, and the division will be prepared to conduct movement to contact to destroy enemy forces in zone.</p>

1.2.3.6 Variant 1.3.5



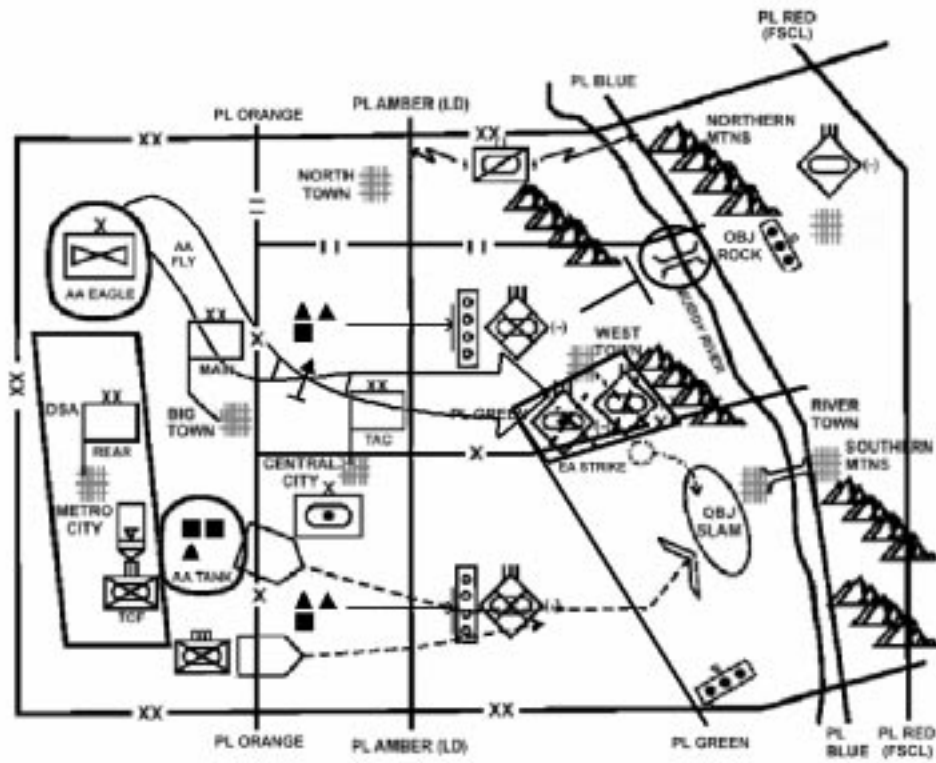
Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)</p>
<p><u>Close</u> An armor brigade (Supporting Effort 1) attacks in the north to penetrate REDMECHREGIMENT1 in the area of operations of Supporting Effort 1 and then blocks REDTANKREGIMENT1 vicinity OBJ ROCK in order to prevent REDTANKREGIMENT1 from interfering with Main Effort. An armor brigade (Supporting Effort 2) attacks in the south to penetrate REDMECHREGIMENT2 vicinity PL AMBER in order to enable Main Effort to conduct forward passage of lines and seize OBJ SLAM. A mechanized brigade (Main Effort) conducts forward passage of lines through Supporting Effort 2 then attacks to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN. Aviation brigade attacks to contain REDTANKBATTALION1 and REDARTILLERYREGIMENT1 in EA STRIKE in order to prevent REDTANKBATTALION1 and REDARTILLERYREGIMENT1 from interfering with Main Effort.</p>
<p><u>Reserve</u> The reserve, a mechanized task force, follows Supporting Effort 2 and be prepared to contain REDMECHREGIMENT2 in order to prevent REDMECHREGIMENT2 from interfering with forward passage of lines through Supporting Effort 2 by Main Effort and if not engaged in operations west of PL GREEN, follows Main Effort and be prepared to block REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) destroys enemy forces in order to protect the north boundary of the unit.</p>
<p><u>Deep</u> Deep operations will attrit enemy air defense assets vicinity EA STRIKE in order to prevent enemy forces from interfering with AVIATION BRIGADE, then will attrit REDTANKREGIMENT1 in order to prevent REDTANKREGIMENT1 from massing combat power west of PL BLUE and interfering with Main Effort</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable Supporting Effort 2 to penetrate REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Supporting Effort 2 and Main Effort</p>
<p><u>Risk</u></p>
<p><u>End State</u> At the conclusion of this operation, the division will be arrayed in brigade zones, and the division will be prepared to conduct movement to contact to destroy enemy forces in zone.</p>

1.2.3.7 Variant 1.3.6



Statement
<p>Mission A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort)</p>
<p>Close An armor brigade (Supporting Effort 1) attacks in the north to penetrate REDMECHREGIMENT1 in the area of operations of Supporting Effort 1 and then blocks REDTANKREGIMENT1 vicinity OBJ ROCK in order to prevent REDTANKREGIMENT1 from interfering with Main Effort. An armor brigade (Supporting Effort 2) attacks in the south to penetrate REDMECHREGIMENT2 vicinity PL AMBER in order to enable Main Effort to conduct forward passage of lines and seize OBJ SLAM. A mechanized brigade (Main Effort) conducts forward passage of lines through Supporting Effort 2 then attacks to seize the terrain vicinity of OBJ SLAM in order to prevent REDMECHDIVISION1 from gaining access to the area south of RIVER TOWN and west of RIVER TOWN. Aviation brigade attacks to secure OBJ DOG in order to prevent REDTANKBATTALION1 and REDARTILLERYREGIMENT1 from interfering with Main Effort.</p>
<p>Reserve The reserve, a mechanized task force, follows Supporting Effort 2 and be prepared to contain REDMECHREGIMENT2 in order to prevent REDMECHREGIMENT2 from interfering with forward passage of lines through Supporting Effort 2 by Main Effort and if not engaged in operations west of PL GREEN, follows Main Effort and be prepared to block REDTANKBATTALION1 in order to enable Main Effort to seize OBJ SLAM.</p>
<p>Security In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the unit.</p>
<p>Deep Deep operations will attrit enemy air defense assets vicinity EA STRIKE in order to prevent enemy forces from interfering with AVIATION BRIGADE, then will attrit REDTANKREGIMENT1 in order to prevent REDTANKREGIMENT1 from massing combat power west of PL BLUE and interfering with Main Effort</p>
<p>Rear A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p>Fires Fires will enable Supporting Effort 2 to penetrate REDMECHREGIMENT2 and prevent REDARTILLERYREGIMENT1 from interfering with Supporting Effort 2 and Main Effort</p>
<p>Risk</p>
<p>End State At the conclusion of this operation, the division will be arrayed in brigade zones, and the division will be prepared to conduct movement to contact to destroy enemy forces in zone.</p>

1.2.3.8 Variant 1.3.7

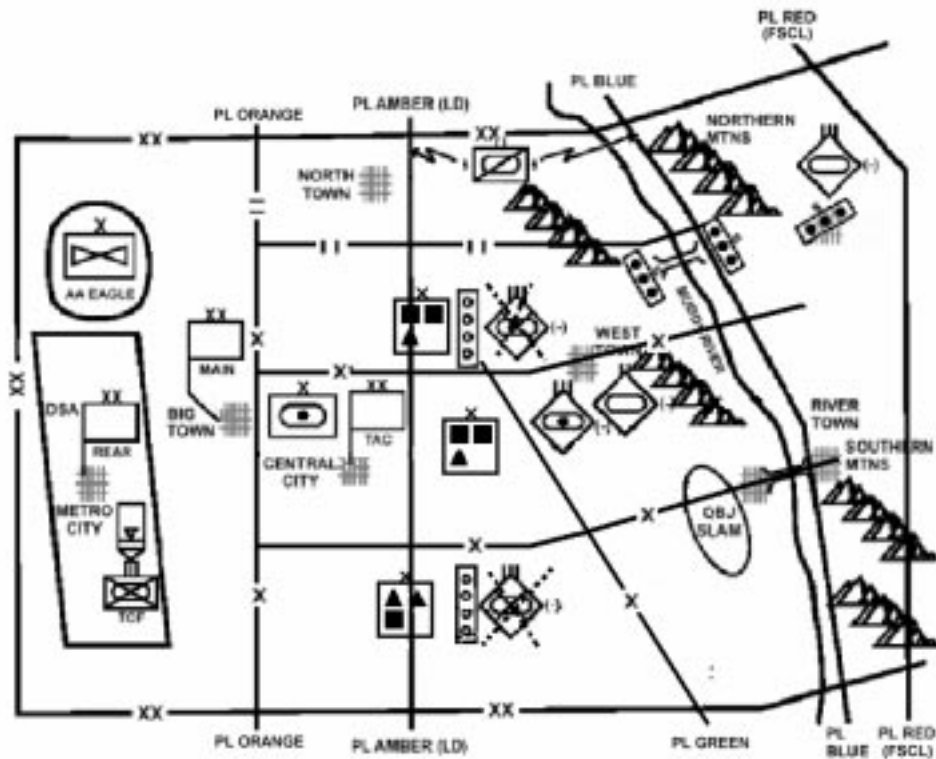


1.2.4 COA 1.4

Simplifying Assumption:

None

1.2.4.1 Base COA (Variant 1.4.0)



Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort).</p>
<p><u>Close</u> An armor brigade (Main Effort) attacks to destroy REDMECHREGIMENT2 in the south in order to prevent REDMECHREGIMENT2 from moving out of the division area of operations. A mechanized brigade (Supporting Effort 1) attacks in the north to destroy REDMECHREGIMENT1 in zone in order to prevent REDMECHREGIMENT1 from moving out of the division area of operations. A mechanized brigade (Supporting Effort 2) attacks in the center to destroy REDTANKBATTALION1 in zone in order to prevent REDTANKBATTALION1 from moving out of the division area of operations.</p>
<p><u>Reserve</u> The reserve, an aviation brigade, be prepared to destroy enemy forces withdrawing from the main battle area and be prepared to destroy REDTANKREGIMENT1 at PL BLUE.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the unit.</p>
<p><u>Deep</u> Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with attacks by the division, and interdict REDTANKREGIMENT1 in order to prevent REDTANKREGIMENT1 from interfering with operations by the division.</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable the division to fix REDMECHREGIMENT1, REDMECHREGIMENT2, and REDTANKBATTALION1 and prevent REDARTILLERYREGIMENT1 from interfering with the attack. FASCAM minefields will block REDTANKREGIMENT1 in order to prevent REDTANKREGIMENT1 from conducting river crossing operations across Muddy River.</p>
<p><u>Risk</u> Risk is assumed in this course of action by attacking to destroy the enemy mech regiments with an insufficient force ratio.</p>
<p><u>End State</u> At the conclusion of this operation, the division will defend in sector along PL AMBER, and the division will be prepared to defeat enemy counterattacks.</p>

1.2.4.2 Variant 1.4.1

Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUE DIVISION 2 (Corps Main Effort).</p>
<p><u>Close</u> An armor brigade (Main Effort) attacks to destroy REDMECHREGIMENT 2 in the south in order to prevent REDMECHREGIMENT 2 from moving out of the division area of operations. A mechanized brigade (Supporting Effort 1) attacks in the north to destroy REDMECHREGIMENT 1 in zone in order to prevent REDMECHREGIMENT 1 from moving out of the division area of operations. A mechanized brigade (Supporting Effort 2) attacks in the center to destroy REDTANKBATTALION 1 in zone in order to prevent REDTANKBATTALION 1 from moving out of the division area of operations.</p>
<p><u>Reserve</u> The reserve, an aviation brigade, be prepared to destroy enemy forces withdrawing from the main battle area and be prepared to destroy REDTANKREGIMENT 1 at PL BLUE.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the unit.</p>
<p><u>Deep</u> Deep operations will attrit REDARTILLERYREGIMENT 1 in order to prevent REDARTILLERYREGIMENT 1 from interfering with attacks by the division, and interdict REDTANKREGIMENT 1 in order to prevent REDTANKREGIMENT 1 from interfering with operations by the division.</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable the division to fix REDMECHREGIMENT 1, REDMECHREGIMENT 2, and REDTANKBATTALION 1 and prevent REDARTILLERYREGIMENT 1 from interfering with the attack. FASCAM minefields will block REDTANKREGIMENT 1 in order to prevent REDTANKREGIMENT 1 from conducting river crossing operations across Muddy River.</p>
<p><u>Risk</u> Risk is assumed in this course of action by attacking to destroy the enemy mech regiments with an insufficient force ratio.</p>
<p><u>End State</u> At the conclusion of this operation, the division will defend in sector along PL AMBER, and the division will be prepared to defeat enemy counterattacks.</p>

1.2.4.3 Variant 1.4.2

Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort).</p>
<p><u>Close</u> An armor brigade (Main Effort) attacks to destroy REDMECHREGIMENT2 in the south in order to prevent REDMECHREGIMENT2 from moving out of the division area of operations. A mechanized brigade (Supporting Effort 1) attacks in the north to destroy REDMECHREGIMENT1 in zone in order to prevent REDMECHREGIMENT1 from moving out of the division area of operations. A mechanized brigade (Supporting Effort 2) attacks in the center to destroy REDTANKBATTALION1 in zone in order to prevent REDTANKBATTALION1 from moving out of the division area of operations.</p>
<p><u>Reserve</u> The reserve, an aviation brigade, be prepared to destroy enemy forces withdrawing from the main battle area and be prepared to destroy REDTANKREGIMENT1 at PL BLUE.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the unit.</p>
<p><u>Deep</u> Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with attacks by the division, and interdict REDTANKREGIMENT1 in order to prevent REDTANKREGIMENT1 from interfering with operations by the division.</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable the division to fix REDMECHREGIMENT1, REDMECHREGIMENT2, and REDTANKBATTALION1 and prevent REDARTILLERYREGIMENT1 from interfering with the attack. FASCAM minefields will block REDTANKREGIMENT1 in order to prevent REDTANKREGIMENT1 from conducting river crossing operations across Muddy River.</p>
<p><u>Risk</u> Risk is assumed in this course of action by attacking to destroy the enemy mech regiments with an insufficient force ratio, and by not designating a reserve.</p>
<p><u>End State</u> At the conclusion of this operation, the division will defend in sector along PL AMBER, prepared to defeat enemy counterattacks.</p>

1.2.4.4 Variant 1.4.3

Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort).</p>
<p><u>Close</u> A mechanized brigade (Supporting Effort 1) attacks in the north to destroy REDMECHREGIMENT1 in zone in order to prevent REDMECHREGIMENT1 from moving out of the division area of operations. A mechanized brigade (Supporting Effort 2) attacks in the center to destroy REDTANKBATTALION1 in zone in order to prevent REDTANKBATTALION1 from moving out of the division area of operations. An armor brigade (Supporting Effort 3) attacks to destroy REDMECHREGIMENT2 in the south in order to prevent REDMECHREGIMENT2 from moving out of the division area of operations.</p>
<p><u>Reserve</u> The reserve, an aviation brigade, be prepared to destroy enemy forces withdrawing from the main battle area and be prepared to destroy REDTANKREGIMENT1 at PL BLUE.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the unit.</p>
<p><u>Deep</u> Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with attacks by the division, and interdict REDTANKREGIMENT1 in order to prevent REDTANKREGIMENT1 from interfering with operations by the division.</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable the division to fix REDMECHREGIMENT1, REDMECHREGIMENT2, and REDTANKBATTALION1 and prevent REDARTILLERYREGIMENT1 from interfering with the attack. FASCAM minefields will block REDTANKREGIMENT1 from conducting river crossing operations across Muddy River.</p>
<p><u>Risk</u> Risk is assumed in this course of action by attacking to destroy the enemy mech regiments with an insufficient force ratio.</p>
<p><u>End State</u> At the conclusion of this operation, the division will defend in sector along PL AMBER, and the division will be prepared to defeat enemy counterattacks.</p>

1.2.4.5 Variant 1.4.4

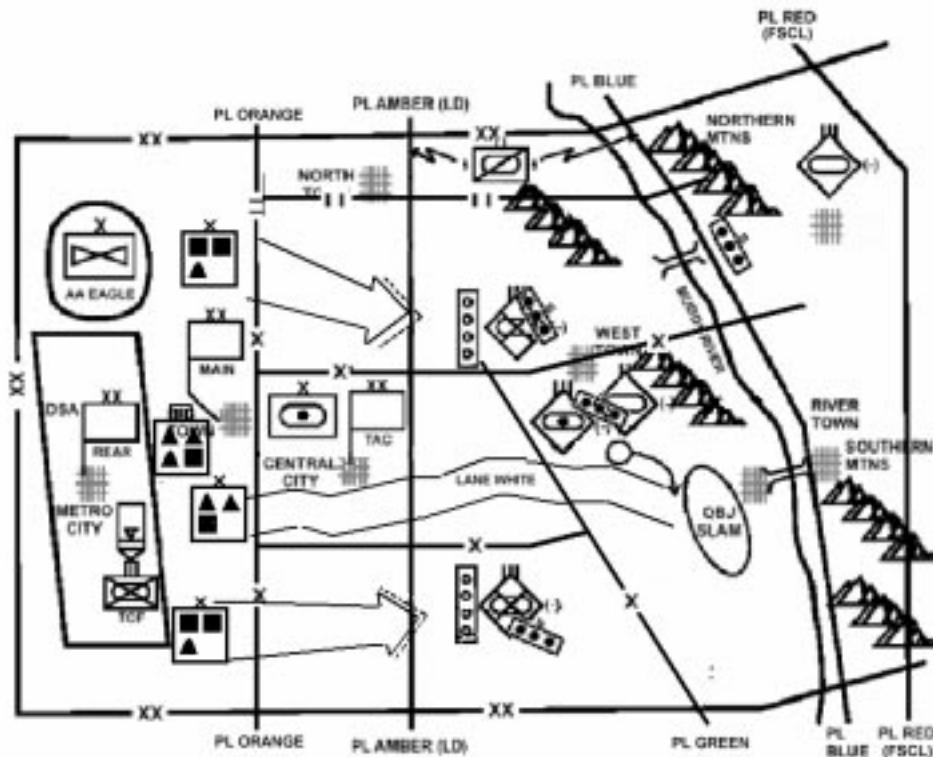
Statement
<p><u>Mission</u> A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort).</p>
<p><u>Close</u> An armor brigade (Main Effort) attacks to destroy REDMECHREGIMENT2 in the south in order to prevent REDMECHREGIMENT2 from moving out of the division area of operations. A mechanized brigade (Supporting Effort 1) attacks in the north to destroy REDMECHREGIMENT1 in zone in order to prevent REDMECHREGIMENT1 from moving out of the division area of operations. If REDTANKBATTALION1 or REDARTILLERYREGIMENT1 are detected by reconnaissance, a mechanized brigade (Supporting Effort 2) attacks in the center to destroy REDTANKBATTALION1 in zone in order to prevent REDTANKBATTALION1 from moving out of the division area of operations. If REDTANKBATTALION1 and REDARTILLERYREGIMENT1 are not detected, Supporting Effort 2 conducts movement to contact to destroy REDTANKBATTALION1 in zone.</p>
<p><u>Reserve</u> The reserve, an aviation brigade, be prepared to destroy enemy forces withdrawing from the main battle area and be prepared to destroy REDTANKREGIMENT1 at PL BLUE.</p>
<p><u>Security</u> In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the unit.</p>
<p><u>Deep</u> Deep operations will attrit REDARTILLERYREGIMENT1 in order to prevent REDARTILLERYREGIMENT1 from interfering with attacks by the division, and interdict REDTANKREGIMENT1 in order to prevent REDTANKREGIMENT1 from interfering with operations by the division.</p>
<p><u>Rear</u> A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p><u>Fires</u> Fires will enable the division to fix REDMECHREGIMENT1, REDMECHREGIMENT2, and REDTANKBATTALION1 and prevent REDARTILLERYREGIMENT1 from interfering with the attack. FASCAM minefields will block REDTANKREGIMENT1 from conducting river crossing operations across Muddy River.</p>
<p><u>Risk</u> Risk is assumed in this course of action by attacking to destroy the enemy mech regiments with an insufficient force ratio.</p>
<p><u>End State</u> At the conclusion of this operation, the division will defend in sector along PL AMBER, and the division will be prepared to defeat enemy counterattacks.</p>

1.2.5 COA 1.5

Simplifying Assumption:

None

1.2.5.1 Base COA (Variant 1.5.0)

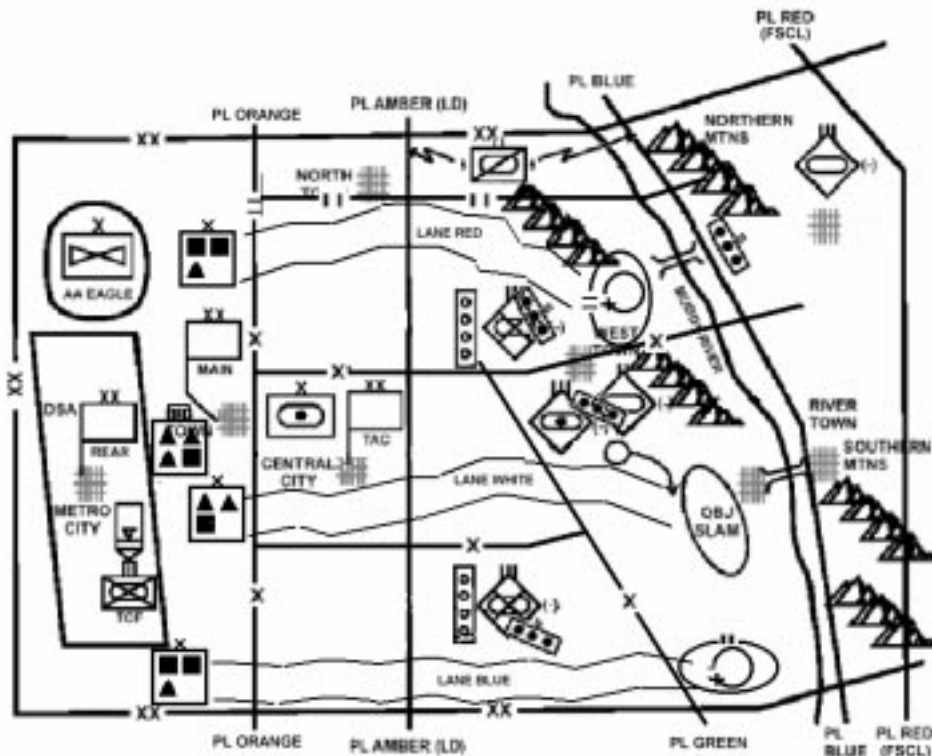


Statement
<p>Mission A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort).</p>
<p>Close An armor brigade (Main Effort) infiltrates on LANE WHITE to seize OBJ SLAM in order to protect the north boundary of BLUEDIVISION2 (Corps Main Effort). A mechanized brigade (Supporting Effort 1) conducts a feint in the north to prevent the enemy from discovering the main effort. A mechanized brigade (Supporting Effort 2) conducts a feint in the south to prevent the enemy from discovering the main effort.</p>
<p>Reserve The reserve, a mechanized task force, be prepared to block REDTANKBATTALION1 in order to prevent the enemy from massing combat power on the main effort.</p>
<p>Security In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the unit.</p>
<p>Deep Deep operations will attrit enemy forces throughout the division area of operations in order to prevent detection of the main effort.</p>
<p>Rear A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p>Fires Fires will prevent detection of the main effort. FASCAM minefields will fix enemy forces to prevent them from massing combat power on the main effort.</p>
<p>Risk Risk is assumed in this course of action by conducting an operation not ideally suited for this type of unit.</p>

Additional Scenarios for the COA Challenge Problem, v2.1.1

<p><u>End State</u> At the conclusion of this operation, the division will defend at OBJ SLAM and PL AMBER, prepared to defeat enemy counterattacks.</p>
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1.2.5.2 Variant 1.5.1



Statement
<p>Mission A mechanized division attacks to seize OBJ SLAM 130400 Aug in order to protect the north boundary of BLUE DIVISION 2 (Corps Main Effort).</p>
<p>Close An armor brigade (Main Effort) infiltrates on LANE WHITE to seize OBJ SLAM in order to protect the north boundary of BLUE DIVISION 2 (Corps Main Effort). A mechanized brigade (Supporting Effort 1) infiltrates on LANE BLUE to occupy BP 2 in order to prevent REDMECHREGIMENT2 from bypassing the main effort on AA3. A mechanized brigade (Supporting Effort 2) infiltrates on LANE RED to occupy BP 1 in order to prevent REDMECHREGIMENT1 and REDTANKBATTALION1 from massing combat power on the main effort from AA6.</p>
<p>Reserve The reserve, a mechanized task force, be prepared to block REDTANKBATTALION1 in order to prevent the enemy from massing combat power on the main effort.</p>
<p>Security In the security zone, a cavalry squadron (Security Force) screens the north boundary of the division in order to protect the north boundary of the unit.</p>
<p>Deep Deep operations will attrit enemy forces throughout the division area of operations in order to conceal and support the infiltrations.</p>
<p>Rear A mechanized infantry team (TCF) responds to threats in the rear area with priority to level III threats against the Class III supply point in order to ensure the ability to resupply Class III.</p>
<p>Fires Fires will prevent detection of the main effort. FASCAM minefields will fix enemy forces to prevent them from massing combat power on the main effort.</p>
<p>Risk Risk is assumed in this course of action by conducting a type of operation not ideally suited for this type of unit.</p>
<p>End State At the conclusion of this operation, the division will defend at OBJ SLAM and PL BLUE, and the division will be prepared to defeat enemy counterattacks.</p>

1.3 Relative Combat Power Analysis

The purpose of this section is to provide a single source reference for the relative combat power analysis, force ratio calculations, and related assumptions that guided course of action development. This material is used in answering many of the sample questions and answers and in justifying those answers. The analysis contained here and the assumptions that guide that analysis are intended as a justification for course of action development. While the same data and assumptions are used in explanations to the sample questions and answers provided with the scenario, these are not necessarily the same assumptions that must guide course of action analysis or war gaming. Reasoning systems might very well explain answers based on other data and assumptions.

The following values have been used in this relative combat power analysis. Note that they differ from the values in the COAA table. We will update this analysis to use the values in the COAA tables in the near future. We expect that the values will change very little and the conclusions of the analysis will not change at all.

- For RCP analysis, a RED BTR-60 battalion in this scenario is considered the baseline unit, (assigned a RCP value of 1). Relative to this unit type, the unit equivalent (UE) values of the other maneuver forces in this scenario are as follows:
 - Blue M2 battalion = 2
 - Blue M1A2 battalion = 3.15
 - Blue cavalry squadron = 1.5
 - Blue ATKHB = 4
 - Red T-64 battalion = 1.5
- The following UE values are assigned to fire support assets in this scenario:
 - Blue 155 (SP) battalion = 2.0
 - Blue MLRS Battery = 2.0
 - Red 152 SP Battalion = 2
 - Red 122 SP Battalion = 1
 - Red MRL battery = 1

1.3.1 Scenario RCP Inputs

REDTANKREGIMENT1 will not interfere with offensive operations by
BLUEDIVISION1.

1.3.2 Overall RCP and force ratio analysis for Blue and Red forces

Overall RCP Comparison³							
Maneuver							
M1A2 bn	3.15	5	15.75	T-64 bn	1.5	3	4.5
M2 bn	2	5	10	BTR-60 bn	1	4	4
Cav Sqdn	1.5	1	1.5				
ATKHB	4	1	4				
<i>Total Maneuver</i>			31.25				8.5
<i>Ratio (Maneuver)</i>			2.7				1
Fire support							
M198 155mm bn	3	2	6	2S1 122mm bn	1	2	2
MLRS btry	2	2	4 ⁴	2S3 152mm bn	2	2	4
<i>Total Fire Support</i>			10				6
<i>Ratio (FS)</i>			1.6				1
<i>Total (overall)</i>			41.25				14.5
<i>Ratio (overall)</i>			2.84				1

1.3.3 Local RCP and force ratio analysis by course of action

1.3.3.1 Blue COA 1

A mechanized infantry division attacks to seize OBJ SLAM to protect the northern flank of the corps main effort. A mechanized-heavy brigade (SE1) attacks in the north to fix enemy forces in zone. At the same time, a mechanized-heavy brigade in the south (SE2) penetrates enemy forces vicinity PL AMBER. Following the penetration, an armor-heavy brigade (ME) attacks through the penetration and assumes the main effort. SE1 continues to fix enemy forces in the north, and SE2 continues to improve the penetration site in the south, eliminating enemy resistance. The main effort attacks to seize OBJ SLAM. Upon seizure of OBJ SLAM, the main effort conducts a hasty defense in order to prevent any enemy forces from attacking south on AA3 to penetrate the division southern boundary.

³ This comparison only takes into account the forces in the BLUE zone. RED TANK RGT 1 is not accounted for here, as it is not part of the RED COA and not of immediate concern to BLUE. It becomes relevant IF the RED higher HQ commits this force (Probably a RED Army reserve) to reinforce red forces in the BLUE zone)

⁴ It's important to know that the MLRS batteries are there, but these belong to the division, and should not be counted toward the brigade's overall combat power. The force ratio for fire support takes the MLRS into account, because the division normally uses MLRS heavily in a counterbattery role, and this will indirectly benefit the brigade's fire support fight. The overall force ratio analysis, however, does not take this number into consideration. Only the forces under the immediate control of the brigade are considered for that purpose.

1.3.3.1.1 Local RCP comparisons, COA1, Red COA1

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 1 fixes REDMECHREGIMENT1

CE2: Supporting Effort 2 penetrates REDMECHREGIMENT2

CE3: Main Effort conducts hasty defense against REDTANKBATTALION1

CE4: Main Effort conducts hasty defense against REDTANKREGIMENT1

CE1 starts CE2

CE1 overlaps CE3

CE2 before CE3

CE3 equals CE4

COA Specific RCP Outputs:

CE1: SE1 fixes REDMECHREGIMENT1							
M1A2 bn	3.15	1	3.15	T-64 bn	1.5	1	1.5
M2 bn	2	2	4	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>Totals</i>			9.15				4.5
<i>Ratio</i>			2.0				1
CE2: SE2 penetrates REDMECHREGIMENT2							
M1A2 bn	3.15	1	3.15	T-64 bn	1.5	1	1.5
M2 bn	2	2	4	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>Totals</i>			9.15				4.5
<i>Ratio</i>			2.0				1
CE3: ME conducts hasty defense against REDTANKBATTALION1							
M1A2 bn	3.15	2	6.3	T-64 bn	1.5	1	1.5
M2 bn	2	1	2				
M198 155mm bn	2	1	2				
<i>Totals</i>			10.3				1.5
<i>Ratio</i>			6.9				1
CE4: ME conducts hasty defense against REDTANKREGIMENT1							
M1A2 bn	3.15	2	6.3	T-64 bn	1.5	2	3
M2 bn	2	1	2				
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>Totals</i>			10.3				4
<i>Ratio</i>			2.6				1

1.3.3.1.2 Local RCP comparisons, COA1, Red COA2

Against RED COA 2, we assume that BLUE will continue the intent to fix enemy forces in the north, and must attack to defeat the enemy forces vic OBJ SLAM. Both SE2 and the ME will conduct this attack (a branch plan will be necessary to detail this contingency). Time will also be a critical concern because the RED forces in the south

have ample time to move south on AA3 before BLUE makes contact. For this reason, we could further assume that BLUE commits the ATKHB to fix enemy forces in the south until the blue attack. This explains the viability of the timing of the COA. We will assume a modest 10% attrition of red forces as a result of this operation.

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 1 fixes REDMECHREGIMENT1

CE2: Supporting Effort 2 and Main Effort defeat REDMECHREGIMENT2 and REDTANKBATTALION1

CE3: Supporting Effort 2 and Main Effort conduct hasty defense against REDTANKREGIMENT1

CE1 starts CE2

CE1 overlaps CE3

CE2 before or meets CE3

Attrition Assumptions:

Blue aviation brigade attrits REDMECHREGIMENT2 and REDTANKBATTALION1 to 90%.

COA SPECIFIC RCP Outputs:

CE1: SE1 fixes REDMECHREGIMENT1							
M1A2 bn	3.15	1	3.15	T-64 bn	1.5	1	1.5
M2 bn	2	2	4	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>Totals</i>			9.15				4.5
<i>Ratio</i>			2.0				1
CE2: ME and SE2 attack to defeat REDMECHREGIMENT2 and REDTANKBATTALION1							
M1A2 bn	3.15	3	9.45	T-64 bn	1.5	2	3
M2 bn	2	3	6	BTR-60 bn	1	2	2
M198 155mm bn	2	2	4	2S1 122mm bn	1	1	1
<i>Totals</i>			19.45	(attritted 10% by ATKHB)			5.4
<i>Ratio</i>			3.6				1
CE3: ME and SE2 conduct hasty defense against REDTANKREGIMENT1							
ME + SE2 from above			19.45	T-64 bn	1.5	2	3
attritted to 80%			(x .8)				
				2S1 122mm bn	1	1	1
<i>Totals</i>			15.56				4
<i>Ratio</i>			3.9				1

1.3.3.1.3 Local RCP comparisons, COA1, Red COA3

Against RED COA 3, we assume that BLUE will continue the intent to fix enemy forces in the north, and must attack to defeat the enemy forces vic OBJ SLAM. Both SE2 and the ME will conduct this attack (a branch plan will be necessary to detail this contingency). Time will also be a critical concern because the RED forces in the south have ample time to move south on AA3 before BLUE makes contact. For this reason, we could further assume that BLUE commits the ATKHB to fix enemy forces in the south until the blue attack. This explains the viability of the timing of the COA. We will assume a modest 10% attrition of red forces as a result of this operation. In addition, RED TANK RGT 1 will attempt to attack into the EA before the BLUE forces have completed the seizure of OBJ SLAM. We will assume that the ATKHB will defeat RED TANK RGT 1 attempts to cross MUDDY RIVER until the seizure of OBJ SLAM is complete. We will assume a modest 10% attrition of red forces as a result of this operation.

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 1 fixes REDMECHREGIMENT1
 CE2: Supporting Effort 2 and Main Effort defeat REDMECHREGIMENT2 and REDTANKBATTALION1
 CE3: Supporting Effort 2 and Main Effort conduct hasty defense against REDTANKREGIMENT1
 CE1 starts CE2
 CE1 overlaps CE3
 CE2 before or meets CE3

Attrition Assumptions:

Blue aviation brigade attrits REDMECHREGIMENT2 and REDTANKBATTALION1 to 90%
 Blue aviation brigade attrits REDTANKREGIMENT1 to 90%

COA Specific RCP Outputs:

SE1 fixes REDMECHREGIMENT1							
M1A2 bn	3.15	1	3.15	T-64 bn	1.5	1	1.5
M2 bn	2	2	4	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>TOTALS</i>			9.15				4.5
<i>Ratio</i>			2.0				1
ME and SE2 attack to defeat REDMECHREGIMENT2 and REDTANKBATTALION1							
M1A2 bn	3.15	3	9.45	T-64 bn	1.5	2	3
M2 bn	2	3	6	BTR-60 bn	1	2	2
M198 155mm bn	2	2	4	2S1 122mm bn	1	1	1
<i>TOTALS</i>			19.45	(attritted 10% by ATKHB)			5.4
<i>Ratio</i>			3.6				1

ME and SE2 conduct hasty defense against REDTANKREGIMENT1							
ME + SE2 from above			19.45	T-64 bn	1.5	2	3
(attritted to 80%)			(x .8)				
				2S1 122mm bn	1	1	1
<i>TOTALS</i>			15.56				4
<i>Ratio</i>			3.9				1

1.3.3.2 Blue COA 2

A mechanized infantry division attacks to seize OBJ SLAM to protect the northern flank of the corps main effort. A mechanized brigade (SE1) attacks in the north to fix enemy forces in zone. At the same time, a mechanized brigade in the south (SE2) attacks to fix enemy forces in the south. An armor brigade (ME) attacks on AXIS HAMMER to seize OBJ SLAM. Upon seizure of OBJ SLAM, the main effort conducts a hasty defense in order to prevent any enemy forces from attacking south on AA3 to penetrate the division southern boundary.

1.3.3.2.1 Local RCP comparisons, COA2, Red COA1

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 1 fixes REDMECHREGIMENT1
 CE2: Supporting Effort 2 fixes REDMECHREGIMENT2
 CE3: Main Effort conducts hasty defense against REDTANKBATTALION1
 CE4: Main Effort conducts hasty defense against REDTANKREGIMENT1
 CE1 starts CE2
 CE1 overlaps CE3
 CE2 overlaps CE3
 CE3 equals CE4

COA Specific RCP Outputs:

CE1: SE1 fixes REDMECHREGIMENT1							
M1A2 bn	3.15	1	3.15	T-64 bn	1.5	1	1.5
M2 bn	2	2	4	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>TOTALS</i>			9.15				4.5
<i>Ratio</i>			2.0				1
CE2: SE2 fixes REDMECHREGIMENT2							
M1A2 bn	3.15	1	3.15	T-64 bn	1.5	1	1.5
M2 bn	2	2	4	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>TOTALS</i>			9.15				4.5
<i>Ratio</i>			2.0				1
CE3: ME conducts hasty defense against REDTANKBATTALION1							

M1A2 bn	3.15	2	6.3	T-64 bn	1.5	1	1.5
M2 bn	2	1	2				
M198 155mm bn	2	1	2				
TOTALS			10.3				1.5
Ratio			6.9				1
CE4: ME conducts hasty defense against REDTANKREGIMENT1							
M1A2 bn	3.15	2	6.3	T-64 bn	1.5	2	3
M2 bn	2	1	2				
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
TOTALS			10.3				4
Ratio			2.6				1

1.3.3.2.2 Local RCP comparisons, COA2, Red COA2

Against RED COA 2, we assume that BLUE will continue the intent to fix enemy forces in the north, and must attack to defeat the enemy forces vic OBJ SLAM. Both SE2 and the ME will conduct this attack (a branch plan will be necessary to detail this contingency). Time will also be a critical concern because the RED forces in the south have ample time to move south on AA3 before BLUE makes contact. For this reason, we could further assume that BLUE commits the ATKHB to fix enemy forces in the south until the blue attack. This explains the viability of the timing of the COA. We will assume a modest 10% attrition of red forces as a result of this operation.

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 1 fixes REDMECHREGIMENT1

CE2: Supporting Effort 2 and Main Effort defeat REDMECHREGIMENT2 and REDTANKBATTALION1

CE3: Supporting Effort 2 and Main Effort conduct hasty defense against REDTANKREGIMENT1

CE1 starts CE2

CE1 overlaps CE3

CE2 before or meets CE3

Attrition Assumptions:

Blue aviation brigade attrits REDMECHREGIMENT2 and REDTANKBATTALION1 to 90%

COA Specific RCP Outputs:

SE1 fixes REDMECHREGIMENT1							
M1A2 bn	3.15	1	3.15	T-64 bn	1.5	1	1.5
M2 bn	2	2	4	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
TOTALS			9.15				4.5
Ratio			2.0				1

ME and SE2 attack to defeat REDMECHREGIMENT2 and REDTANKBATTALION1							
M1A2 bn	3.15	3	9.45	T-64 bn	1.5	2	3
M2 bn	2	3	6	BTR-60 bn	1	2	2
M198 155mm bn	2	2	4	2S1 122mm bn	1	1	1
<i>TOTALS</i>			19.45	(attritted 10% by ATKHB)			5.4
<i>Ratio</i>			3.6				1
ME and SE2 conduct hasty defense against REDTANKREGIMENT1							
ME + SE2 from above			19.45	T-64 bn	1.5	2	3
attritted to 80%			(x .8)				
				2S1 122mm bn	1	1	1
<i>TOTALS</i>			15.56				4
<i>Ratio</i>			3.9				1

1.3.3.2.3 Local RCP comparisons, COA2, Red COA3

Against RED COA 3, we assume that BLUE will continue the intent to fix enemy forces in the north, and must attack to defeat the enemy forces vic OBJ SLAM. Both SE2 and the ME will conduct this attack (a branch plan will be necessary to detail this contingency). Time will also be a critical concern because the RED forces in the south have ample time to move south on AA3 before BLUE makes contact. For this reason, we could further assume that BLUE commits the ATKHB to fix enemy forces in the south until the blue attack. This explains the viability of the timing of the COA. We will assume a modest 10% attrition of red forces as a result of this operation. In addition, RED TANK RGT 1 will attempt to attack into the EA before the BLUE forces have completed the seizure of OBJ SLAM. We will assume that the ATKHB will defeat RED TANK RGT 1 attempts to cross MUDDY RIVER until the seizure of OBJ SLAM is complete. We will assume a modest 10% attrition of red forces as a result of this operation.

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 1 fixes REDMECHREGIMENT1

CE2: Supporting Effort 2 and Main Effort defeat REDMECHREGIMENT2 and REDTANKBATTALION1

CE3: Supporting Effort 2 and Main Effort conduct hasty defense against REDTANKREGIMENT1

CE1 starts CE2

CE1 overlaps CE3

CE2 before or meets CE3

Attrition Assumptions:

Blue aviation brigade attrits REDMECHREGIMENT2 and REDTANKBATTALION1 to 90%

Blue aviation brigade attrits REDTANKREGIMENT1 to 90%

COA Specific RCP Outputs:

SE1 fixes REDMECHREGIMENT1							
M1A2 bn	3.15	1	3.15	T-64 bn	1.5	1	1.5
M2 bn	2	2	4	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>TOTALS</i>			9.15				4.5
<i>Ratio</i>			2.0				1
ME and SE2 attack to defeat REDMECHREGIMENT2 and REDTANKBATTALION1							
M1A2 bn	3.15	3	9.45	T-64 bn	1.5	2	3
M2 bn	2	3	6	BTR-60 bn	1	2	2
M198 155mm bn	2	2	4	2S1 122mm bn	1	1	1
<i>TOTALS</i>			19.45	(attritted 10% by ATKHB)			5.4
<i>Ratio</i>			3.6				1
ME and SE2 conduct hasty defense against REDTANKREGIMENT1							
ME + SE2 from above			19.45	T-64 bn	1.5	2	3
(attritted to 80%)			(x .8)				
				2S1 122mm bn	1	1	1
<i>TOTALS</i>			15.56				4
<i>Ratio</i>			3.9				1

1.3.3.3 Blue COA 3

A mechanized infantry division attacks to seize OBJ SLAM to protect the northern flank of the corps main effort. An armor brigade (SE1) attacks in the north to penetrate enemy forces in zone. At the same time, an armor-heavy brigade in the south (SE2) penetrates enemy forces in zone, and the aviation brigade attacks to destroy enemy forces in EA STRIKE. Following the penetrations, an armor brigade (ME) attacks through the southern penetration to seize OBJ SLAM. SE1 attacks through the northern penetration and seizes OBJ ROCK. Upon seizure of OBJ SLAM, the main effort conducts a hasty defense in order to prevent any enemy forces from attacking south on AA3 to penetrate the division southern boundary. Upon seizure of OBJ ROCK, SE1 conducts a hasty defense in order to prevent any enemy forces from crossing MUDDY RIVER vicinity OBJ ROCK.

1.3.3.3.1 Local RCP comparisons, COA3, Red COA1**COA Specific RCP Inputs:***Critical Events:*

CE1: Supporting Effort 1 penetrates REDMECHREGIMENT1

CE2: Supporting Effort 2 penetrates REDMECHREGIMENT2

CE3: Supporting Effort 1 blocks REDTANKREGIMENT1

CE4: Main Effort conducts hasty defense against REDTANKBATTALION1

CE5: Main Effort conducts hasty defense against REDTANKREGIMENT1

CE1 starts CE2

CE1 before or meets CE3

CE2 before CE4

CE3 overlaps CE4

CE4 equals CE5

Attrition Assumptions:

During CE1 REDMECHREGIMENT1 attrits Supporting Effort 1 to 80%

During CE3 Supporting Effort 1 attrits REDTANKREGIMENT1 by 0%

COA Specific RCP Outputs:

SE1 penetrates REDMECHREGIMENT1							
M1A2 bn	3.15	2	6.3	T-64 bn	1.5	1	1.5
M2 bn	2	1	2	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>TOTALS</i>			10.3				4.5
<i>Ratio</i>			2.3				1
SE2 penetrates REDMECHREGIMENT2							
M1A2 bn	3.15	2	6.3	T-64 bn	1.5	1	1.5
M2 bn	2	1	2	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>TOTALS</i>			10.3				4.5
<i>Ratio</i>			2.3				1
SE1 (attritted to 80%) blocks REDTANKREGIMENT1							
M1A2 bn	3.15	2	6.3	T-64 bn	1.5	2	3
M2 bn	2	1	2				
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>TOTALS</i>			8.24 ⁵				4
<i>Ratio</i>			2				1
ME conducts hasty defense against REDTANKBATTALION1							
M1A2 bn	3.15	2	6.3	T-64 bn	1.5	1	1.5
M2 bn	2	1	2				
M198 155mm bn	2	1	2				
<i>TOTALS</i>			10.3				1.5
<i>Ratio</i>			6.9				1
ME conducts hasty defense against REDTANKREGIMENT1⁶							
M1A2 bn	3.15	2	6.3	T-64 bn	1.5	2	3
M2 bn	2	1	2				
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>TOTALS</i>			10.3				4.5

⁵ Attritted to 80% during penetration

⁶ Computed with the assumption that SE1 does not make contact with RED TANK RGT 1 at all prior to this engagement.

<i>Ratio</i>			2.2				1
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1.3.3.3.2 Local RCP comparisons, COA3, Red COA2

Against RED COA 2, we assume that BLUE will continue the intent to block enemy forces at OBJ ROCK, but will not seize the OBJ, and choose to fix forces in the vicinity, and block any attempt of RED TANK RGT 1 to attack south on AA3. A branch plan should detail this contingency. In the south, both SE2 and the ME will attack to defeat the enemy forces vic OBJ SLAM (a branch plan will be necessary to detail this contingency). Time will also be a critical concern because the RED forces in the south have ample time to move south on AA3 before BLUE makes contact. For this reason, we could further assume that BLUE commits the ATKHB to fix enemy forces in the south until the blue attack. This explains the viability of the timing of the COA. We will assume a modest 10% attrition of red forces as a result of this operation.

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 1 penetrates REDMECHREGIMENT1

CE2: Supporting Effort 1 blocks REDMECHREGIMENT1 and REDTANKREGIMENT1

CE3: Supporting Effort 2 and Main Effort defeat REDMECHREGIMENT2 and REDTANKBATTALION1

CE4: Supporting Effort 2 and Main Effort conduct hasty defense against REDTANKREGIMENT1

CE1 starts CE3

CE1 before or meets CE2

CE2 overlaps CE4

CE3 before or meets CE4

Attrition Assumptions:

During CE1 Supporting Effort 1 attrits REDMECHREGIMENT1 to 90%

During CE1 REDMECHREGIMENT1 attrits Supporting Effort 1 to 90%

During CE2 Supporting Effort 1 attrits REDTANKREGIMENT by 0%

Blue aviation brigade attrits REDMECHREGIMENT2 and REDTANKBATTALION1 to 90%

COA Specific RCP Outputs:

SE1 fixes REDMECHREGIMENT1							
M1A2 bn	3.15	2	6.3	T-64 bn	1.5	1	1.5
M2 bn	2	1	2	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
TOTALS			10.3				4.5

<i>Ratio</i>			2.3				1
SE1⁷ blocks REDMECHREGIMENT1⁸ and REDTANKREGIMENT1							
M1A2 bn	3.15	2	6.3	Red MR1			4.05
M2 bn	2	1	2	Red TR1			4
M198 155mm bn	2	1	2				
<i>TOTALS</i>			9.27				8.05
<i>Ratio</i>			1.2				1
ME and SE2 attack to defeat REDMECHREGIMENT2 and REDTANKBATTALION1							
M1A2 bn	3.15	3	9.45	T-64 bn	1.5	2	3
M2 bn	2	3	6	BTR-60 bn	1	2	2
M198 155mm bn	2	2	4	2S1 122mm bn	1	1	1
<i>TOTALS</i>			19.45	(attritted 10% by ATKHB)			5.4
<i>Ratio</i>			3.6				1
ME and SE2 conduct hasty defense against REDTANKREGIMENT1⁹							
ME + SE2 from above			19.45	T-64 bn	1.5	2	3
attritted to 80%			(x .8)				
				2S1 122mm bn	1	1	1
<i>TOTALS</i>			15.56				4
<i>Ratio</i>			3.5				1

1.3.3.3.3 Local RCP comparisons, COA3, Red COA3

Against RED COA 3, we assume that BLUE will continue the intent to block enemy forces at OBJ ROCK, but will not seize the OBJ, and choose to fix forces in the vicinity, and block any attempt of RED TANK RGT 1 to attack south on AA3. A branch plan should detail this contingency. In the south, both SE2 and the ME will attack to defeat the enemy forces vic OBJ SLAM (a branch plan will be necessary to detail this contingency). Time will also be a critical concern because the RED forces in the south have ample time to move south on AA3 before BLUE makes contact. For this reason, we could further assume that BLUE commits the ATKHB to fix enemy forces in the south until the blue attack. This explains the viability of the timing of the COA. We will assume a modest 10% attrition of red forces as a result of this operation. In addition, RED TANK RGT 1 will attempt to attack into the EA before the BLUE forces have completed the seizure of OBJ SLAM. We will assume that the ATKHB will defeat RED TANK RGT 1 attempts to cross MUDDY RIVER until the seizure of OBJ SLAM is complete. We will assume a modest 10% attrition of red forces as a result of this operation.

COA Specific RCP Inputs:

Critical Events:

⁷ attritted to 90% by fixing operation

⁸ attritted to 90% by fixing operation

⁹ It is assumed that RED TANK RGT 1 does not have contact with any blue forces prior to this.

CE1: Supporting Effort 1 penetrates REDMECHREGIMENT1

CE2: Supporting Effort 1 blocks REDMECHREGIMENT1 and REDTANKREGIMENT1

CE3: Supporting Effort 2 and Main Effort defeat REDMECHREGIMENT2 and REDTANKBATTALION1

CE4: Supporting Effort 2 and Main Effort conduct hasty defense against REDTANKREGIMENT1

CE1 starts CE3

CE1 before or meets CE2

CE2 overlaps CE4

CE3 before or meets CE4

Attrition Assumptions:

During CE1 Supporting Effort 1 attrits REDMECHREGIMENT1 to 90%

During CE1 REDMECHREGIMENT1 attrits Supporting Effort 1 to 90%

During CE2 Supporting Effort 1 attrits REDTANKREGIMENT by 0%

Blue aviation brigade attrits REDMECHREGIMENT2 and REDTANKBATTALION1 to 90%

Blue aviation brigade attrits REDTANKREGIMENT1 to 90%

COA Specific RCP Outputs:

SE1 fixes REDMECHREGIMENT1							
M1A2 bn	3.15	2	6.3	T-64 bn	1.5	1	1.5
M2 bn	2	1	2	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>TOTALS</i>			10.3				4.5
<i>Ratio</i>			2.3				1
SE1¹⁰ blocks REDMECHREGIMENT2¹¹ and REDTANKBATTALION1							
M1A2 bn	3.15	2	6.3	Red MR1			4.05
M2 bn	2	1	2	Red TR1			4
M198 155mm bn	2	1	2				
<i>TOTALS</i>			9.27				8.05
<i>Ratio</i>			1.2				1
ME and SE2 attack to defeat enemy forces vic OBJ SLAM							
M1A2 bn	3.15	3	9.45	T-64 bn	1.5	2	3
M2 bn	2	3	6	BTR-60 bn	1	2	2
M198 155mm bn	2	2	4	2S1 122mm bn	1	1	1
<i>TOTALS</i>			19.45	(attritted 10% by ATKHB)			5.4
<i>Ratio</i>			3.6				1
ME and SE2 conduct hasty defense against REDTANKREGIMENT1¹²							

¹⁰ In the event that the RED counterattack goes this way -- attritted to 90% by fixing operation

¹¹ attritted to 90% by fixing operation

ME + SE2 from above			19.45	T-64 bn	1.5	2	3
attritted to 80%			(x .8)				
				2S1 122mm bn	1	1	1
TOTALS			15.56				4
Ratio			3.5				1

1.3.3.4 Blue COA 4

A mechanized infantry division attacks to seize OBJ SLAM to protect the northern flank of the corps main effort. An armor-heavy brigade (ME) attacks in the south to destroy enemy forces in zone in order to prevent enemy forces in the south from moving out of the division area of operations. At the same time, a mech-heavy brigade in the center (SE2) attacks to destroy enemy forces in zone, and a mech-heavy brigade in the north (SE1) attacks to destroy enemy forces in zone.

1.3.3.4.1 Local RCP comparisons, COA4, Red COA1

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 1 destroys REDMECHREGIMENT1

CE2: Supporting Effort 2 destroys REDTANKBATTALION1 and REDARTILLERYREGIMENT1

CE3: Main Effort destroys REDMECHREGIMENT2

CE1 starts CE2

CE2 starts CE3

COA Specific RCP Outputs:

SE1 destroys REDMECHREGIMENT1							
M1A2 bn	3.15	1	3.15	T-64 bn	1.5	1	1.5
M2 bn	2	2	4	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
TOTALS			9.15				4.5
Ratio			2.0				1
SE2 destroys REDTANKBATTALION1 and REDARTILLERYREGIMENT1¹³							
M1A2 bn	3.15	1	3.15	T-64 bn	1.5	1	1.5
M2 bn	2	2	4	Arty Rgt	1	1	1
M198 155mm bn	2	1	2				
TOTALS			9.15				2.5
Ratio			3.7				1

¹² In the event that the RED counterattack goes this way. It is assumed that RED TANK RGT 1 does not have contact with any blue forces prior to this.

¹³ Because an ARTY RGT's combat power is for long-range artillery fires and not maneuver combat power, it is given a UE of 1 for his engagement.

ME destroys REDMECHREGIMENT2							
M1A2 bn	3.15	2	6.3	T-64 bn	1.5	1	1.5
M2 bn	2	1	2	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>TOTALS</i>			10.3				4.5
<i>Ratio</i>			2.2				1

1.3.3.4.2 Local RCP comparisons, COA4, Red COA2

Against RED COA 2, we assume that the BLUE scheme of maneuver will be unchanged from that against RED COA 1, and that the center blue unit will engage the tank battalion only.

COA Specific RCP Inputs:*Critical Events:*

CE1: Supporting Effort 1 destroys REDMECHREGIMENT1
 CE2: Supporting Effort 2 destroys REDTANKBATTALION1
 CE3: Main Effort destroys REDMECHREGIMENT2
 CE1 starts CE2
 CE2 starts CE3

COA Specific RCP Outputs:

SE1 destroys REDMECHREGIMENT1							
M1A2 bn	3.15	1	3.15	T-64 bn	1.5	1	1.5
M2 bn	2	2	4	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>TOTALS</i>			9.15				4.5
<i>Ratio</i>			2.0				1
SE2 destroys REDTANKBATTALION1							
M1A2 bn	3.15	1	3.15	T-64 bn	1.5	1	1.5
M2 bn	2	2	4				
M198 155mm bn	2	1	2				
<i>TOTALS</i>			9.15				1.5
<i>Ratio</i>			6.1				1
ME destroys REDMECHREGIMENT2							
M1A2 bn	3.15	2	6.3	T-64 bn	1.5	1	1.5
M2 bn	2	1	2	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>TOTALS</i>			10.3				4.5
<i>Ratio</i>			2.2				1

1.3.3.4.3 Local RCP comparisons, COA4, Red COA3

Against RED COA 3, we assume that the BLUE scheme of maneuver will be unchanged from that against RED COA 1.

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 1 destroys REDMECHREGIMENT1

CE2: Supporting Effort 2 destroys REDTANKBATTALION1 and REDARTILLERYREGIMENT1

CE3: Main Effort destroys REDMECHREGIMENT2

CE1 starts CE2

CE2 starts CE3

COA Specific RCP Outputs:

SE1 destroys REDMECHREGIMENT1							
M1A2 bn	3.15	1	3.15	T-64 bn	1.5	1	1.5
M2 bn	2	2	4	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>TOTALS</i>			9.15				4.5
<i>Ratio</i>			2.0				1
SE2 destroys REDTANKBATTALION1 and REDARTILLERYREGIMENT1¹⁴							
M1A2 bn	3.15	1	3.15	T-64 bn	1.5	1	1.5
M2 bn	2	2	4	Arty Rgt	1	1	1
M198 155mm bn	2	1	2				
<i>TOTALS</i>			9.15				2.5
<i>Ratio</i>			3.7				1
ME destroys REDMECHREGIMENT2							
M1A2 bn	3.15	2	6.3	T-64 bn	1.5	1	1.5
M2 bn	2	1	2	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>TOTALS</i>			10.3				4.5
<i>Ratio</i>			2.2				1

1.3.3.5 Blue COA 5

1.3.3.5.1 Local RCP comparisons, COA5, Red COA1

A mechanized infantry division attacks to seize OBJ SLAM to protect the northern flank of the corps main effort. An armor-heavy brigade (ME) infiltrates on LANE WHITE to seize OBJ SLAM in order to protect the north boundary of the corps main effort. At the same time, a mech-heavy brigade in the north (SE2) conducts a feint to prevent the

¹⁴ Because an ARTY RGT's combat power is for long-range artillery fires and not maneuver combat power, it is given a UE of 1 for his engagement.

enemy from discovering the main effort, and a mech-heavy brigade in the south (SE2) conducts a feint to prevent the enemy from discovering the main effort.

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 1 conducts feint against REDMECHREGIMENT1
 CE2: Supporting Effort 2 conducts feint against REDMECHREGIMENT2
 CE3: Main Effort conducts hasty defense against REDTANKBATTALION1
 CE4: Main Effort conducts hasty defense against REDTANKREGIMENT1
 CE1 starts CE2
 CE1 and CE2 overlap CE3
 CE3 equals CE4

COA Specific RCP Outputs:

SE1 conducts feint against REDMECHREGIMENT1							
M1A2 bn	3.15	1	3.15	T-64 bn	1.5	1	1.5
M2 bn	2	2	4	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>TOTALS</i>			9.15				4.5
<i>Ratio</i>			2.0				1
SE2 conducts feint against REDMECHREGIMENT2							
M1A2 bn	3.15	1	3.15	T-64 bn	1.5	1	1.5
M2 bn	2	2	4	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>TOTALS</i>			9.15				4.5
<i>Ratio</i>			2.0				1
ME conducts hasty defense against REDTANKBATTALION1							
M1A2 bn	3.15	2	6.3	T-64 bn	1.5	1	1.5
M2 bn	2	1	2				
M198 155mm bn	2	1	2				
<i>TOTALS</i>			10.3				1.5
<i>Ratio</i>			6.9				1
ME conducts hasty defense against REDTANKREGIMENT1							
M1A2 bn	3.15	2	6.3	T-64 bn	1.5	2	3
M2 bn	2	1	2				
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>TOTALS</i>			10.3				4
<i>Ratio</i>			2.6				1

1.3.3.5.2 Local RCP comparisons, COA5, Red COA2

Against RED COA 2, we assume that BLUE will continue the intent to conduct a feint against enemy forces in the north, and must attack to defeat the enemy forces vic OBJ SLAM. Both SE2 and the ME will conduct this attack (a branch plan will be necessary to

detail this contingency). Time will also be a critical concern because the RED forces in the south have ample time to move south on AA3 before BLUE makes contact. For this reason, we could further assume that BLUE commits the ATKHB to fix enemy forces in the south until the blue attack. This explains the viability of the timing of the COA. We will assume a modest 10% attrition of red forces as a result of this operation.

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 1 conducts feint against REDMECHREGIMENT1

CE2: Supporting Effort 2 and Main Effort defeat REDMECHREGIMENT2 and REDTANKBATTALION1

CE3: Supporting Effort 2 and Main Effort conducts hasty defense against REDTANKREGIMENT1

CE1 starts CE2

CE2 before or meets CE3

Attrition Assumptions:

Blue aviation brigade attrits REDMECHREGIMENT2 and REDTANKBATTALION1 to 90%.

COA Specific RCP Outputs:

SE1 conducts a feint against REDMECHREGIMENT1							
M1A2 bn	3.15	1	3.15	T-64 bn	1.5	1	1.5
M2 bn	2	2	4	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>TOTALS</i>			9.15				4.5
<i>Ratio</i>			2.0				1
ME and SE2 attack to defeat REDMECHREGIMENT2 and REDTANKBATTALION1							
M1A2 bn	3.15	3	9.45	T-64 bn	1.5	2	3
M2 bn	2	3	6	BTR-60 bn	1	2	2
M198 155mm bn	2	2	4	2S1 122mm bn	1	1	1
<i>TOTALS</i>			19.45	(attritted 10% by ATKHB)			5.4
<i>Ratio</i>			3.6				1
ME and SE2 conduct hasty defense against REDTANKREGIMENT1							
ME + SE2 from above			19.45	T-64 bn	1.5	2	3
attritted to 80%			(x .8)				
				2S1 122mm bn	1	1	1
<i>TOTALS</i>			15.56				4
<i>Ratio</i>			3.9				1

1.3.3.5.3 Local RCP comparisons, COA5, Red COA3

Against RED COA 3, we assume that BLUE will continue the intent to conduct a feint against enemy forces in the north, and must attack to defeat the enemy forces vic OBJ

SLAM. Both SE2 and the ME will conduct this attack (a branch plan will be necessary to detail this contingency). Time will also be a critical concern because the RED forces in the south have ample time to move south on AA3 before BLUE makes contact. For this reason, we could further assume that BLUE commits the ATKHB to fix enemy forces in the south until the blue attack. This explains the viability of the timing of the COA. We will assume a modest 10% attrition of red forces as a result of this operation. In addition, RED TANK RGT 1 will attempt to attack into the EA before the BLUE forces have completed the seizure of OBJ SLAM. We will assume that the ATKHB will defeat RED TANK RGT 1 attempts to cross MUDDY RIVER until the seizure of OBJ SLAM is complete. We will assume a modest 10% attrition of red forces as a result of this operation.

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 1 conducts feint against REDMECHREGIMENT1

CE2: Supporting Effort 2 and Main Effort defeat REDMECHREGIMENT2 and REDTANKBATTALION1

CE3: Supporting Effort 2 and Main Effort conducts hasty defense against REDTANKREGIMENT1

CE1 starts CE2

CE2 before or meets CE3

Attrition Assumptions:

Blue aviation brigade attrits REDMECHREGIMENT2 and REDTANKBATTALION1 to 90%.

Blue aviation brigade attrits REDTANKREGIMENT1 to 90%.

COA Specific RCP Outputs:

SE1 conducts a feint against REDMECHREGIMENT1							
M1A2 bn	3.15	1	3.15	T-64 bn	1.5	1	1.5
M2 bn	2	2	4	BTR-60 bn	1	2	2
M198 155mm bn	2	1	2	2S1 122mm bn	1	1	1
<i>TOTALS</i>			9.15				4.5
<i>Ratio</i>			2.0				1
ME and SE2 attack to defeat REDMECHREGIMENT2 and REDTANKBATTALION1							
M1A2 bn	3.15	3	9.45	T-64 bn	1.5	2	3
M2 bn	2	3	6	BTR-60 bn	1	2	2
M198 155mm bn	2	2	4	2S1 122mm bn	1	1	1
<i>TOTALS</i>			19.45	(attritted 10% by ATKHB)			5.4
<i>Ratio</i>			3.6				1
ME and SE2 conduct hasty defense against REDTANKREGIMENT1							
ME + SE2 from above			19.45	T-64 bn	1.5	2	3
attritted to 80%			(x .8)				

Additional Scenarios for the COA Challenge Problem, v2.1.1

				2S1 122mm bn	1	1	1
<i>TOTALS</i>			15.56				4
<i>Ratio</i>			3.9				1

2. Scenario 2

2.1 *Products of Mission Analysis*

2.1.1 G2/S2 (Intelligence)

2.1.1.1 *Battlefield environment*

Hilltops and roads (dashed lines) are noted within the area of operations for the defending brigade.

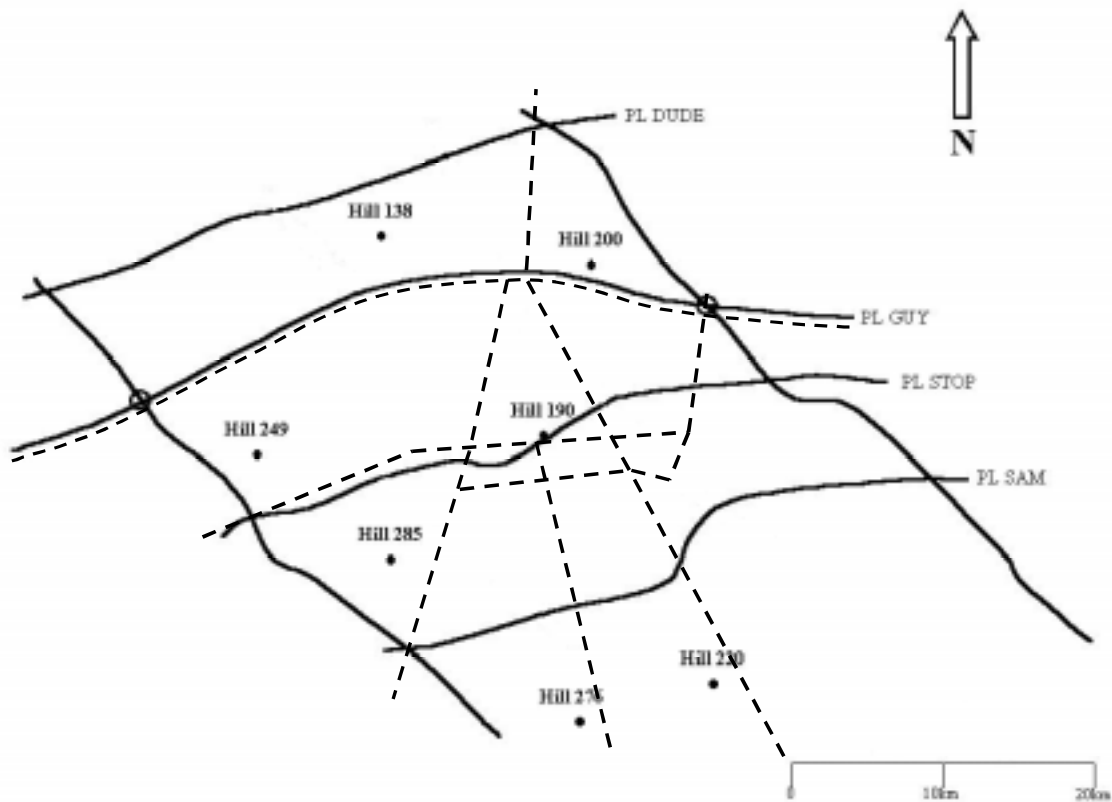


Figure 1. Area of Operations

2.1.1.2 Battlefield effects

2.1.1.2.1 Combined Obstacle Overlay

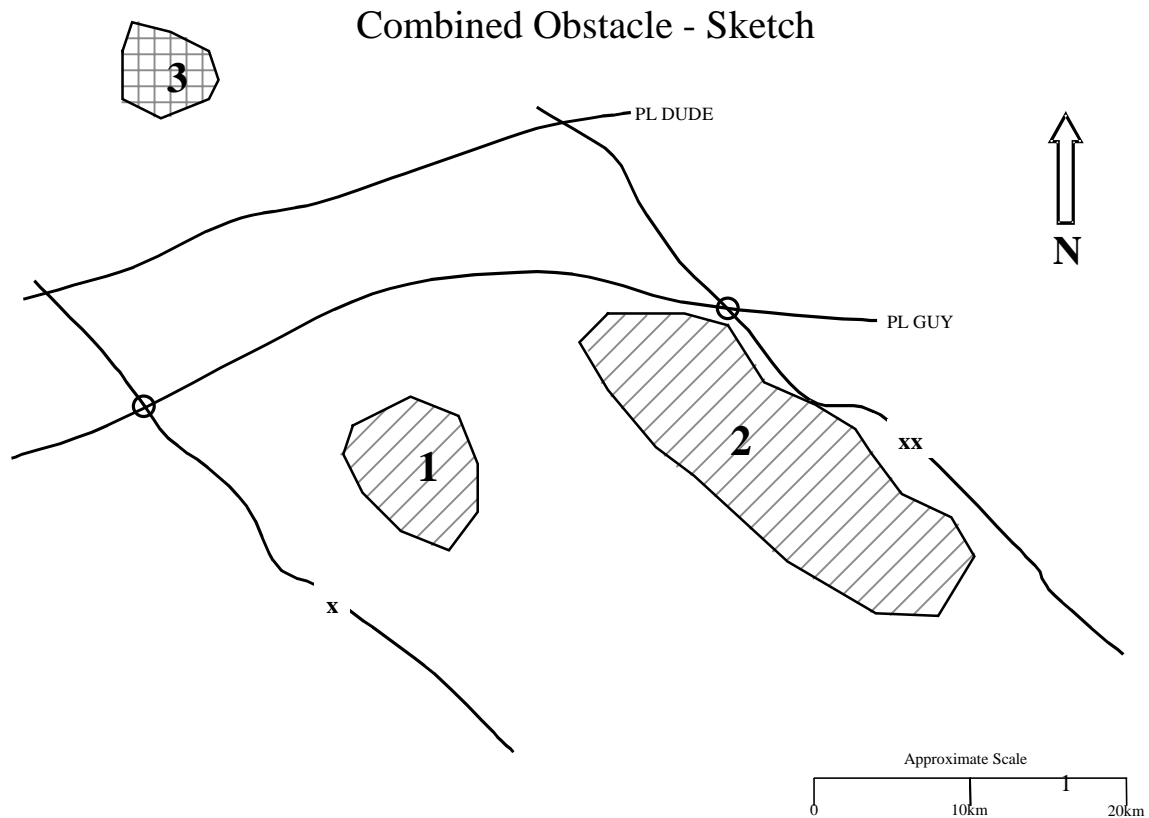


Figure 2. Combined Obstacle Overlay

Note: The following text is explanatory in nature and does not need to be represented in developer systems.

1 and 2 – Vehicular traffic is restricted in area with Sand Dunes
3 – (Sabkhat) Vehicular traffic is impossible for tracked vehicles. Light wheeled vehicles only when dry.

2.1.1.2.2 Avenues Of Approach

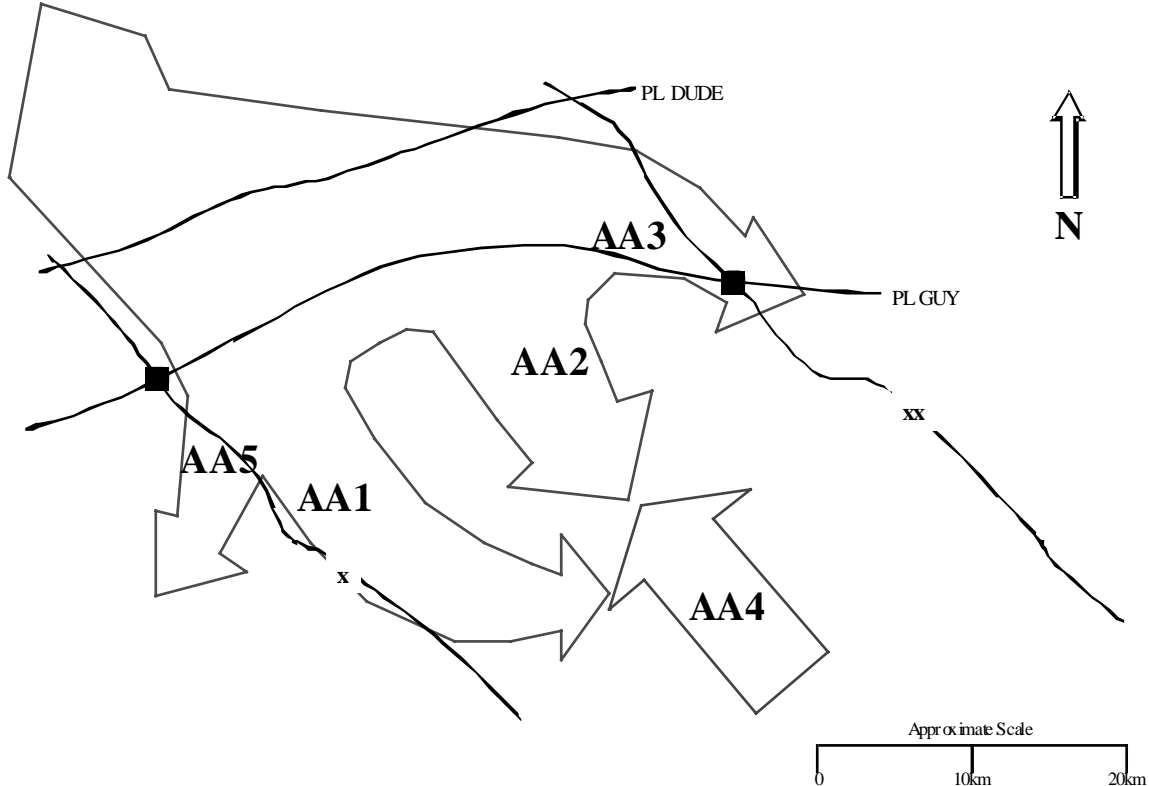


Figure 3. Avenues of Approach

AA1 is a Division sized avenue of approach and is currently excellent for military operations.

AA2 is a Regiment sized avenue of approach and is currently excellent for military operations.

AA3 is a Division sized avenue of approach and is currently excellent for military operations.

AA4 is a Brigade sized avenue of approach and is currently excellent for military operations.

AA5 is a Division sized avenue of approach and is currently excellent for military operations.

2.1.1.2.3 Mobility Corridors

In this case, no mobility corridors exist that further augment the understanding of mobility in the battlefield area.

2.1.1.2.4 Infiltration Lanes

No terrain in the area of operations is particularly suited for infiltration. This terrain is generally flat, and lacks any significant vegetation. This makes it unlikely that a large mechanized force could conduct an infiltration anywhere in the AO. Platoon-sized mechanized forces and light infantry forces can conduct successful infiltrations in areas not observed by opposing forces.

2.1.1.2.5 Key Terrain

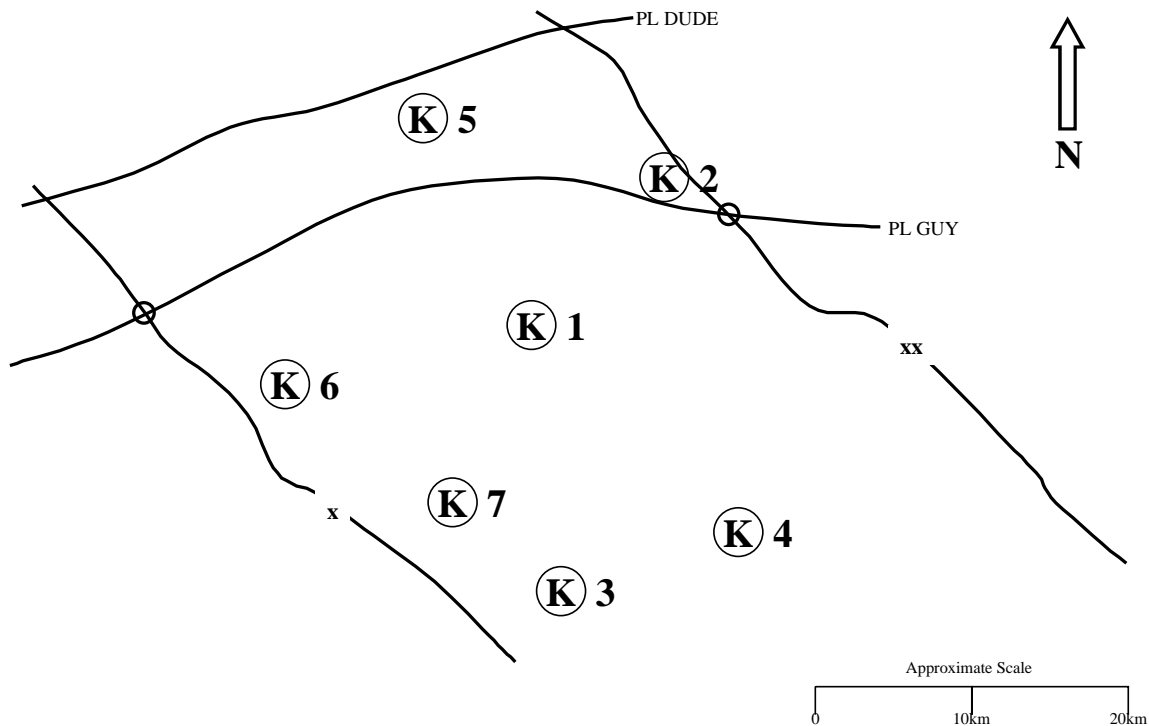


Figure 4. Key Terrain

K1, a hilltop (Hill 190), is key terrain because controlling it allows its owner the ability to control AA2.

K2, a hilltop (Hill 200), is key terrain because controlling it allows its owner the ability to control AA3 and the road to AL JUBAL.

K3, a hilltop (Hill 276), is key terrain because controlling it allows its owner the ability to control AA3.

K4, a hilltop (Hill 220), is key terrain because controlling it allows its owner the ability to control AA4.

K5, a hilltop (Hill 138), is key terrain because controlling it allows its owner the ability to observe enemy forces and engage enemy forces in AA3.

K6, a hilltop (Hill 249), is key terrain because controlling it allows its owner the ability to observe enemy forces and engage enemy forces in AA1.

K7, a hilltop (Hill 285), is key terrain because controlling it allows its owner the ability to observe enemy forces and engage enemy forces in AA1 and AA2.

2.1.1.2.6 Engagement Areas

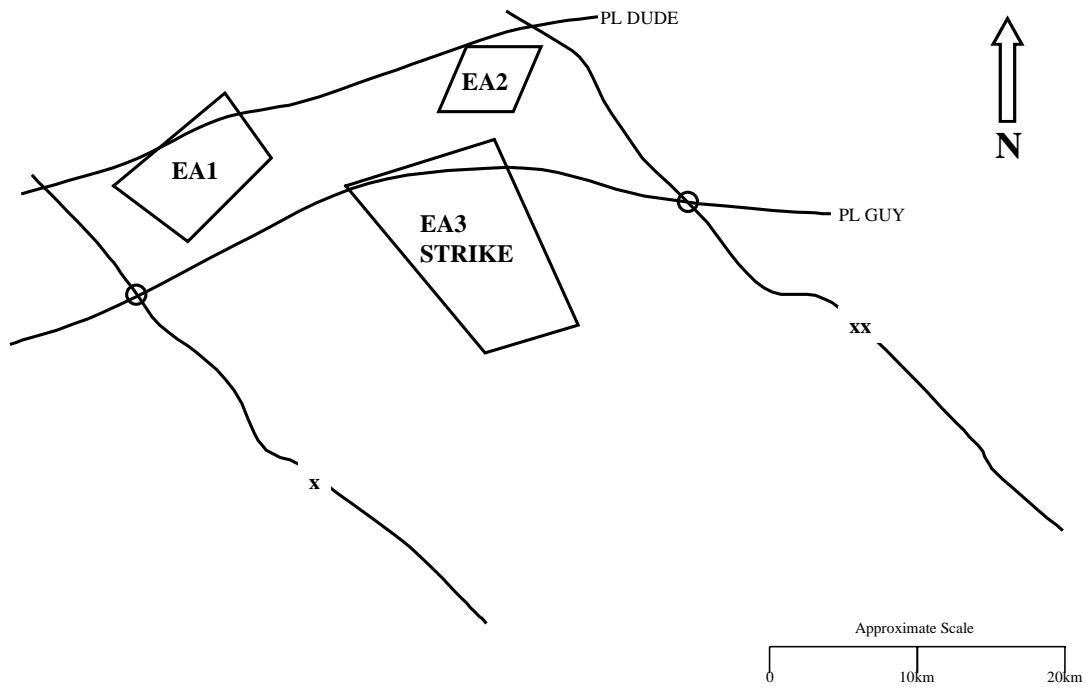


Figure 5. Engagement Areas

EA1 – EA3 is a suitable engagement area.

2.1.1.2.7 Battle Positions

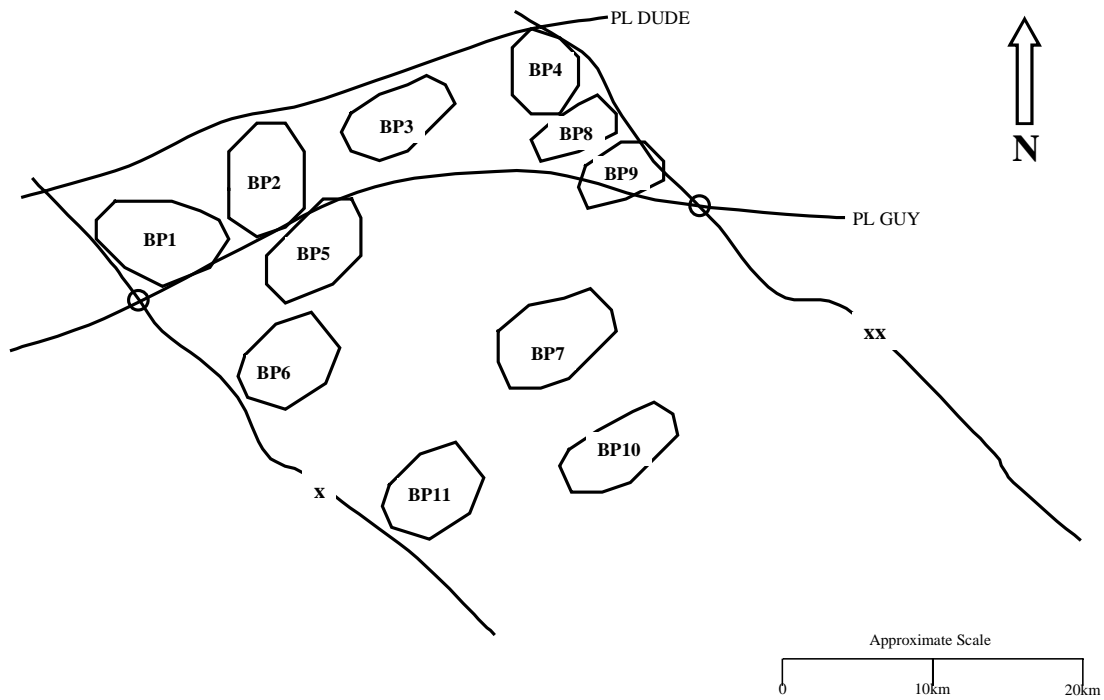


Figure 6. Battle Positions

BP1 – BP 11 is a suitable battle position for up to a battalion.

2.1.1.3 Enemy Combat Power

Red unit is an armor division (REDARMORDIVISION1) consisting of
[3 of Armor Regiment (REDARMORREGIMENT1, REDARMORREGIMENT2,
REDARMORREGIMENT3) consisting of
[3 of Armor Battalion equipped with T-62
1 of Mechanized Infantry Battalion equipped with BMP-2
1 of Artillery Battalion equipped with 2S1 122mm Howitzer]]
[1 of Mechanized Infantry Regiment (REDINFANTRYREGIMENT1) consisting
of
[1 of Armor Battalion equipped with T-62
3 of Mechanized Infantry Battalion equipped with BMP-2
1 of Artillery Battalion equipped with 2S1 122mm Howitzer]]
[1 of Artillery Regiment consisting of
[2 of Artillery Battalion equipped with 2S3 152mm Howitzer)
1 of Artillery Battalion equipped with BM21 122mm Rocket]]
]

2.1.1.4 Enemy Vulnerabilities

Red tanks have less speed and accuracy than Blue tanks.
Blue Forces have more firepower than Red Forces.
The T-62 tank lacks a stabilized gun, making it less effective while moving.
The M1A2 tank has a standoff range of 900 meters against the T-62 tank.
Red Forces will be vulnerable to Blue fires when canalized between sand dunes.

2.1.1.5 Enemy Courses of Action

2.1.1.5.1 Most Probable COA

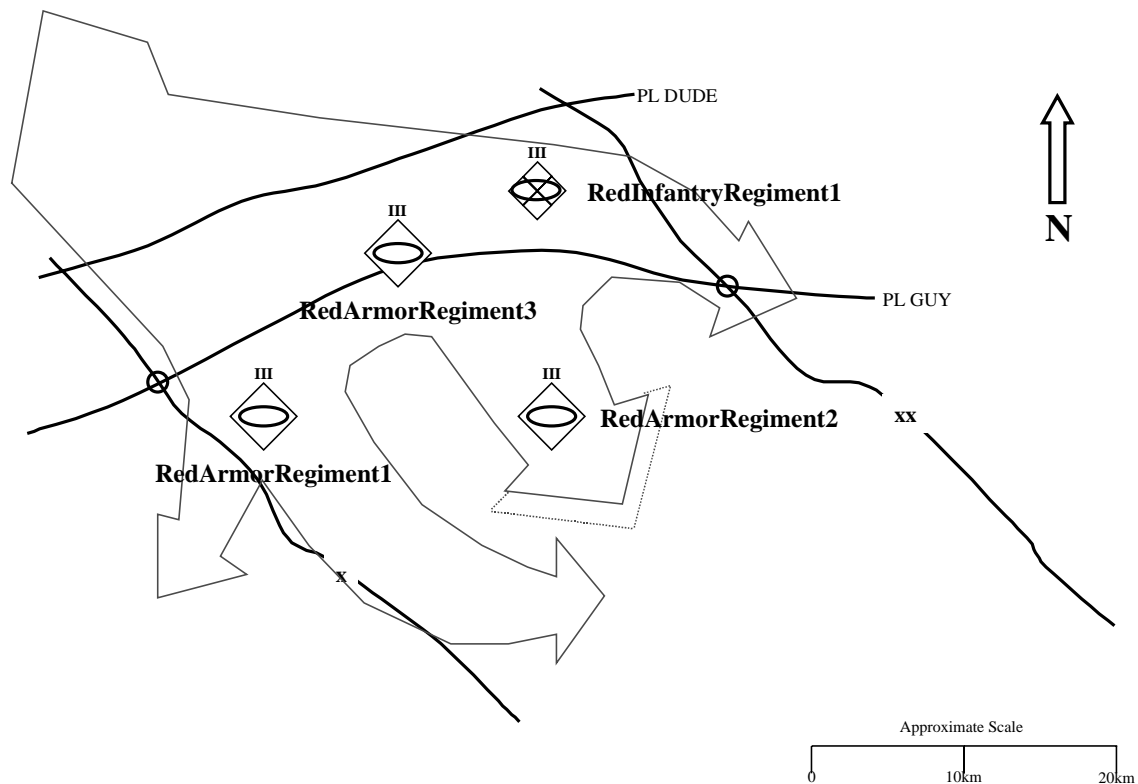


Figure 7. Red Most Probable COA

Mission: A Red Armor Division (REDARMORDIVISION1) attacks to penetrate Blue defenses and disrupt the Blue air assault division rear area in order to prevent Blue forces from interfering with the Red Army main effort.

Close: A Red armor regiment (REDARMORREGIMENT2) (Main Effort) attacks along AA2 to penetrate Blue defenses.

A Red mechanized infantry regiment (REDINFANTRYREGIMENT1) attacks along AA3 to fix Blue forces in order to deny Blue forces the ability to interfere with the Red Army main effort.

A Red armor regiment (REDARMORREGIMENT1) attacks along AA1 to fix Blue forces in order to deny Blue forces the ability to interfere with the main effort.

A Red Armor Regiment (REDARMORREGIMENT3) (Second Echelon) follows REDARMORREGIMENT2 and, on order, conducts forward passage of lines in order to assume the main effort. REDARMORREGIMENT3 attacks to destroy the Blue air assault division support area in order to draw Blue forces west away from Red Army main effort.

Reserve:

Security:

Deep: Deep operations will destroy the Blue reserve in order to prevent Blue forces from reinforcing Blue defenses.

Rear:

Fires: Fires will suppress Blue forces in the main battle area and destroy Blue artillery.
Obstacles:
Risk:
End State: At the conclusion of this operation, Red forces have penetrated Blue defenses and have destroyed the adjacent Blue air assault brigade support area.

2.1.1.5.2 Next most probable COA

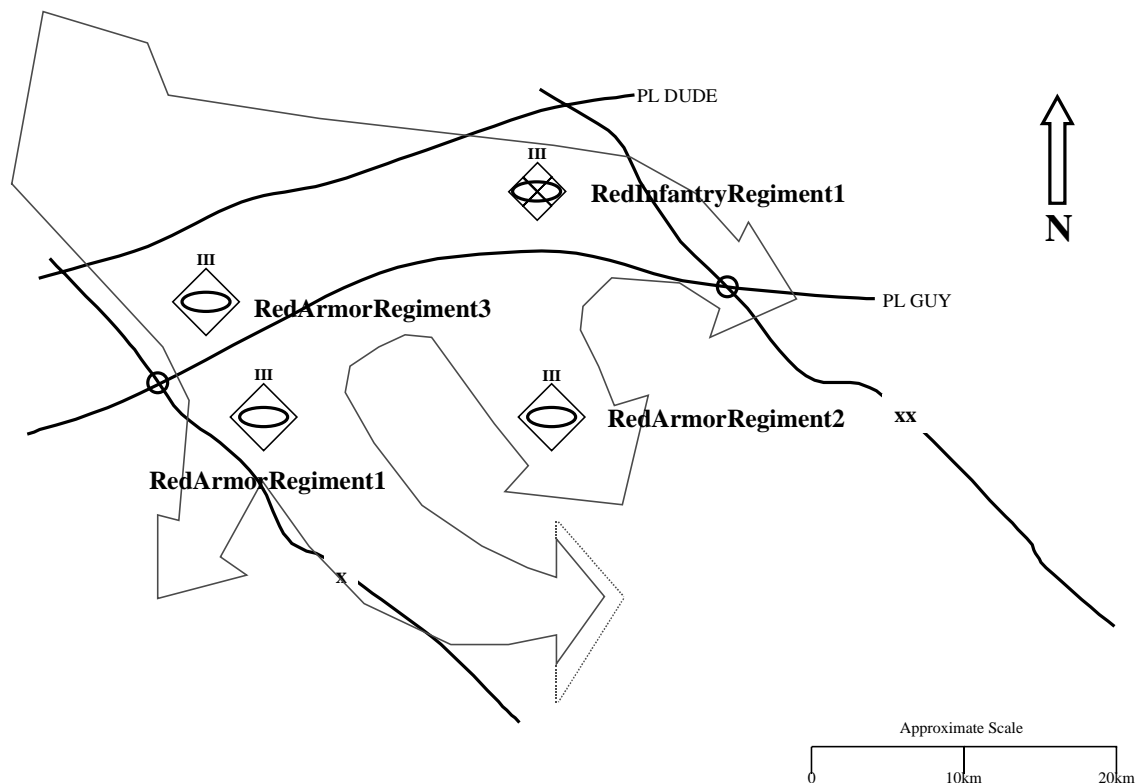


Figure 8. Red Next Most Probable COA

Mission: A Red Armor Division (REDARMORDIVISION1) attacks to penetrate Blue defenses and disrupt the Blue air assault division rear area in order to prevent Blue forces from interfering with the Red Army main effort.
Close: A Red armor regiment (REDARMORREGIMENT1) (Main Effort) attacks along AA1 to penetrate Blue defenses. A Red mechanized infantry regiment (REDINFANTRYREGIMENT1) attacks along AA3 to fix Blue forces in order to deny Blue forces the ability to interfere with the Red Army main effort. A Red armor regiment (REDARMORREGIMENT2) attacks along AA2 to fix Blue forces in order to deny Blue forces the ability to interfere with the main effort. A Red Armor Regiment (REDARMORREGIMENT3) (Second Echelon) follows REDARMORREGIMENT1 and, on order, conducts forward passage of lines in order to assume the main effort. REDARMORREGIMENT3 attacks to destroy the Blue air assault division support area in order to draw Blue forces west away from Red Army main effort.
Reserve:
Security:

<u>Deep:</u> Deep operations will destroy the Blue reserve in order to prevent Blue forces from reinforcing Blue defenses.
<u>Rear:</u>
<u>Fires:</u> Fires will suppress Blue forces in the main battle area and destroy Blue artillery.
<u>Obstacles:</u>
<u>Risk:</u>
<u>End State:</u> At the conclusion of this operation, Red forces have penetrated Blue defenses and have destroyed the adjacent Blue air assault brigade support area.

2.1.1.5.3 Most Dangerous COA

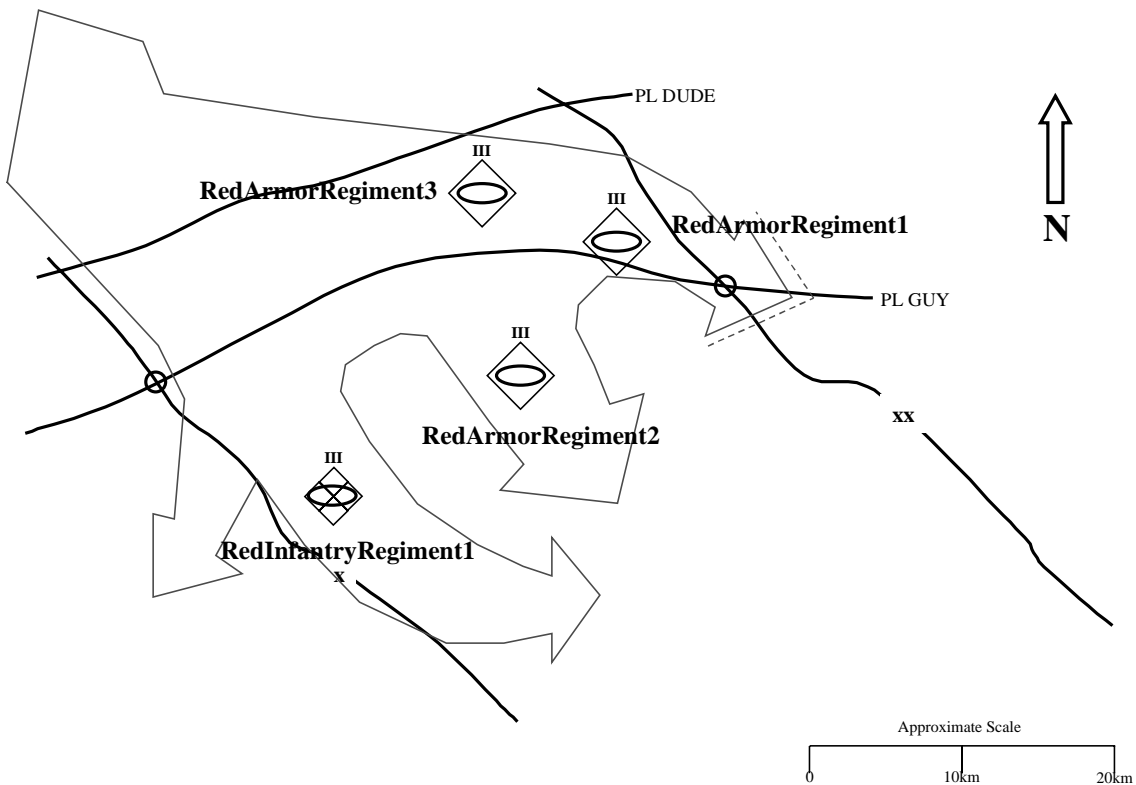


Figure 9. Red Most Dangerous COA

Mission: A Red Armor Division (REDARMORDIVISION1) attacks to penetrate Blue defenses and disrupt the Blue air assault division rear area in order to prevent Blue forces from interfering with the Red Army main effort.

Close: A Red mechanized infantry regiment (REDINFANTRYREGIMENT1) attacks along AA1 to fix Blue forces in order to deny Blue forces the ability to interfere with the main effort.

A Red armor regiment (REDARMORREGIMENT2) attacks along AA2 to fix Blue forces in order to deny Blue forces the ability to interfere with the main effort.

A Red armor regiment (REDARMORREGIMENT1) (Main Effort) attacks along AA3 to penetrate Blue defenses.

A Red armor regiment (REDARMORREGIMENT3) (Second Echelon) follows REDARMORREGIMENT1 and, on order, conducts forward passage of lines in order to assume the main effort. REDARMORREGIMENT3 attacks to destroy the Blue air assault division

support area in order to draw Blue forces west away from Red Army main effort.
Reserve:
Security:
Deep: Deep operations will destroy the Blue reserve and destroy Blue artillery assets.
Rear:
Fires: Fires will suppress Blue forces in the main battle area, and destroy Blue artillery.
Risk:
End State: At the conclusion of this operation, Red forces have penetrated Blue defenses and have destroyed the adjacent Blue air assault brigade support area.

2.1.2 G3/S3

2.1.2.1 Mission and Intent 2 Up:

Mission: X Corps defends to defeat the enemy attack in order to prevent the enemy from seizing Ad Dammam Port and Dhahran Port.

Intent: The intent is for X Corps to defend to defeat the enemy attack in order to prevent Red Forces from interdicting Ad Dammam Port and Dhahran Port. X Corps will conduct a spoiling attack into enemy force's western flank to destroy enemy reserve in order to prevent enemy reserve from attacking.

2.1.2.2 Mission and Intent 1 Up:

Mission: X Division defends in area of operations to defeat the enemy attack in order to prevent enemy from gaining access to the area south of PL STOP (Hill 190).

Intent: The intent is for X Division to defend in area of operations along PL GUY in order to prevent the enemy from gaining access to the area south of PL STOP (Hill 190).

2.1.2.3 Current Combat Power

Blue unit is a balanced brigade (BLUEBRIGADE1), consisting of [
[2 of mechanized infantry battalion equipped with M2 Bradley fighting vehicle,
consisting of
[4 of mechanized infantry company]]
[2 of armor battalion equipped with M1A2 tank, consisting of
[4 of armor company]]
[1 of Artillery Battalion (BLUEARTILLERYBATTALION1) equipped with M198
155mm self-propelled howitzer (SPH) (in direct support of BLUEBRIGADE1)]
[1 of Artillery Battalion equipped with M198 155mm SPH (Reinforcing
BLUEARTILLERYBATTALION1)]
]

The habitual task organization of Blue Unit (BLUEBRIGADE1) is [
[2 of mechanized infantry task force equipped with M2 Bradley fighting vehicle,
including
[3 of mechanized infantry company
1 of armor company equipped with M1A2 tank]]
[2 of armor battalion task force, equipped with M1A2 tank, consisting of
[3 of armor company
1 of mechanized infantry company equipped with M2 Bradley fighting vehicle]]
[
]

Blue Unit (BLUEBRIGADE1) is subordinate to an armor division (BLUEDIVISION1),
including [
[3 of Artillery Battery (BLUEMLRSBATTERY1, BLUEMLRSBATTERY2,
BLUEMLRSBATTERY3) equipped with MLRS (in general support to
BLUEDIVISION1)
1 of Artillery Battery equipped with MLRS (in general support reinforcing to
BLUEMLRSBATTERY1)
1 of Artillery Battery equipped with MLRS (in general support reinforcing to
BLUEMLRSBATTERY2)]
]

2.1.2.4 Specified Tasks

- a. Defend forward of PL GUY
- b. Prevent enemy forces from gaining access to area south of PL STOP (Hill 190).

2.1.2.5 Implied Tasks

None

2.1.2.6 Essential Tasks

Prevent enemy forces from gaining access to area south of PL STOP (Hill 190).

2.1.2.7 Constraints

Blue forces must prevent a company or larger from gaining access to the area south of PL STOP.

2.1.2.8 Engineer Assets

1 of Engineer Company consisting of
[3 of Combat Engineer Platoon and
1 of Assault and Obstacle Platoon]

2.1.2.9 Fire Support Assets

2 of artillery battalion equipped with 155mm SPH.

2.1.3 Products from the Commander

2.1.3.1 Approved Mission Statement

A balanced brigade defends in sector to block enemy forces in order to prevent enemy from gaining access to area south of PL STOP.

2.1.3.2 Commander's Intent

The intent is to:

- a. Prevent a company or larger from gaining access to area south of PL STOP (Hill 190).
- b. Prevent enemy forces from crossing west boundary of the brigade and prevent enemy forces from crossing east boundary of the brigade.
- c. Be prepared to delay enemy forces northwest of PL STOP (Hill 190).

2.2 Friendly COAs

2.2.1 COA 2.1

2.2.1.1 Base COA (Variant 2.1.0)

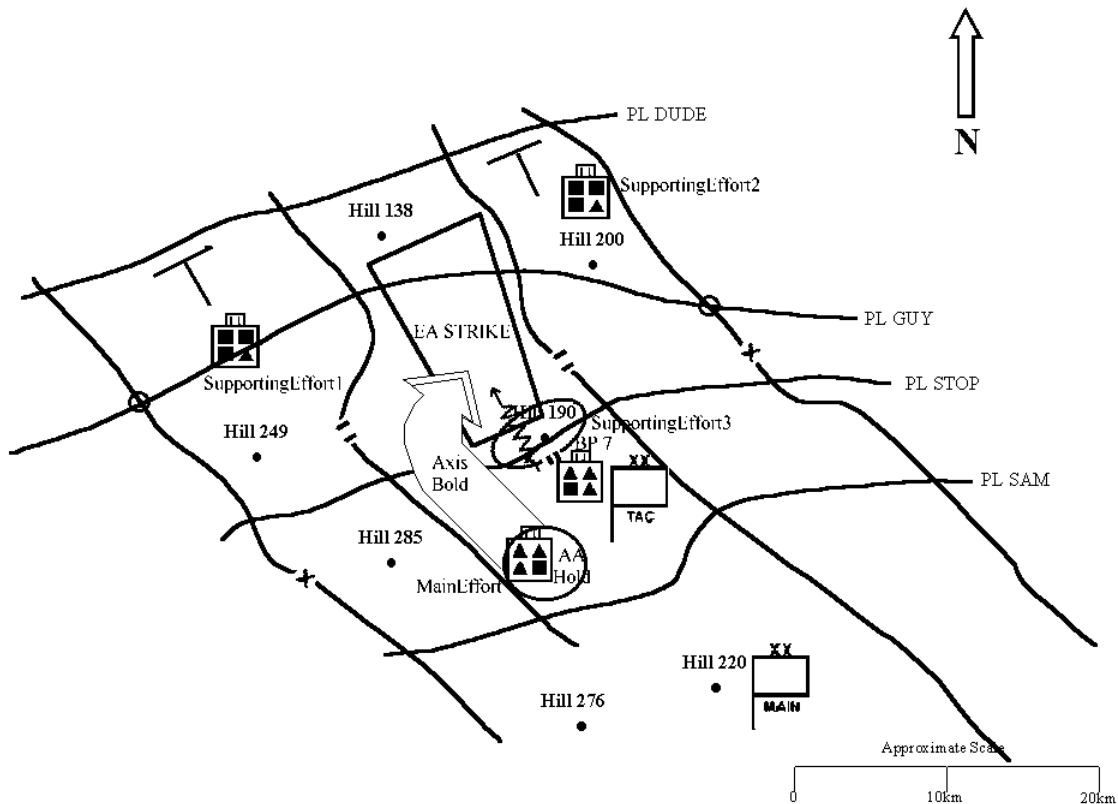


Figure 10. Base COA (COA 2.1)

COA 2.1
<p>Mission: A balanced brigade conducts a mobile defense to block REDARMORDIVISION1 in order to prevent enemy from gaining access to area south of PL STOP.</p> <p>Close: A mechanized infantry task force (Supporting Effort 1) defends in sector to block enemy forces along AA1 in order to cause enemy forces to maneuver into EA STRIKE. A mechanized infantry task force (Supporting Effort 2) defends in sector to block enemy forces along AA3 in order to cause enemy forces to maneuver into EA STRIKE. An armor task force (Supporting Effort 3) defends in BP7 to fix enemy forces in EA STRIKE in order to enable the Main Effort to conduct a counterattack. An armor task force (Main Effort) attacks along AXIS BOLD from AA HOLD into EA STRIKE to defeat enemy forces in AA2 (EA STRIKE) in order to prevent enemy from gaining access to the area south of PL STOP (Hill 190).</p> <p>Reserve:</p> <p>Security:</p> <p>Deep: Deep operations will destroy enemy mobility assets.</p>

<u>Rear:</u> A mechanized infantry platoon responds to threats in the rear area in order to protect the brigade support area.
<u>Fires:</u> Fires will destroy Red breaching assets and suppress REDARMORDIVISION1 in EA STRIKE. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.
<u>Obstacles:</u> Obstacles will turn enemy forces from AA1 into EA STRIKE, turn enemy forces from AA3 into EA STRIKE, and fix REDARMORDIVISION1 on AA2 in EA STRIKE.
<u>Risk:</u> Risk is assumed in this course of action by not designating a reserve.
<u>End State:</u> At the conclusion of this operation, Blue forces have blocked REDARMORDIVISION1 in EA STRIKE in order to prevent REDARMORDIVISION1 from gaining access to area south of PL STOP. BLUEBRIGADE1 defends in sector and is prepared to delay REDMOTORIZEDRIFLEDIVISION1.

2.2.1.2 Variant COA (Variant 2.1.1)

COA 2.1.1
<u>Mission:</u> A balanced brigade conducts a mobile defense to block REDARMORDIVISION1 in order to prevent enemy from gaining access to area south of PL STOP.
<u>Close:</u> A mechanized infantry task force (Supporting Effort 1) defends in sector to block enemy forces along AA1 in order to cause enemy forces to maneuver into EA STRIKE. A mechanized infantry task force (Supporting Effort 2) defends in sector to block enemy forces along AA3 in order to cause enemy forces to maneuver into EA STRIKE. An armor task force (Supporting Effort 3) defends in BP7 to fix enemy forces in EA STRIKE in order to enable the reserve to conduct a counterattack. An armor task force (Main Effort) attacks along AXIS BOLD from AA HOLD into EA STRIKE to defeat enemy forces in AA2 (EA Strike) in order to prevent enemy from gaining access to the area south of PL STOP (Hill 190).
<u>Reserve:</u> The reserve, an armor task force, on order attacks along AXIS BOLD from AA HOLD into EA STRIKE to defeat REDARMORDIVISION1 in AA2 (EA STRIKE) in order to prevent enemy from gaining access to the area south of PL STOP (Hill 190).
<u>Security:</u>
<u>Deep:</u> Deep operations will destroy enemy mobility assets.
<u>Rear:</u> A mechanized infantry platoon responds to threats in the rear area in order to protect the brigade support area.
<u>Fires:</u> Fires will destroy Red breaching assets and suppress REDARMORDIVISION1 in EA STRIKE. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.
<u>Obstacles:</u> Obstacles will turn enemy forces from AA1 into EA STRIKE, turn enemy forces from AA3 into EA STRIKE, and fix REDARMORDIVISION1 on AA2 in EA STRIKE.
<u>Risk:</u> Risk is assumed in this course of action by not designating a reserve.
<u>End State:</u> At the conclusion of this operation, Blue forces have destroyed REDARMORDIVISION1 in EA STRIKE in order to prevent Red forces from gaining access to area south of PL STOP. BLUEBRIGADE1 defends in sector and is prepared to delay REDMOTORIZEDRIFLEDIVISION1.

2.2.2 COA 2.2

2.2.2.1 Base COA (Variant 2.2.0)

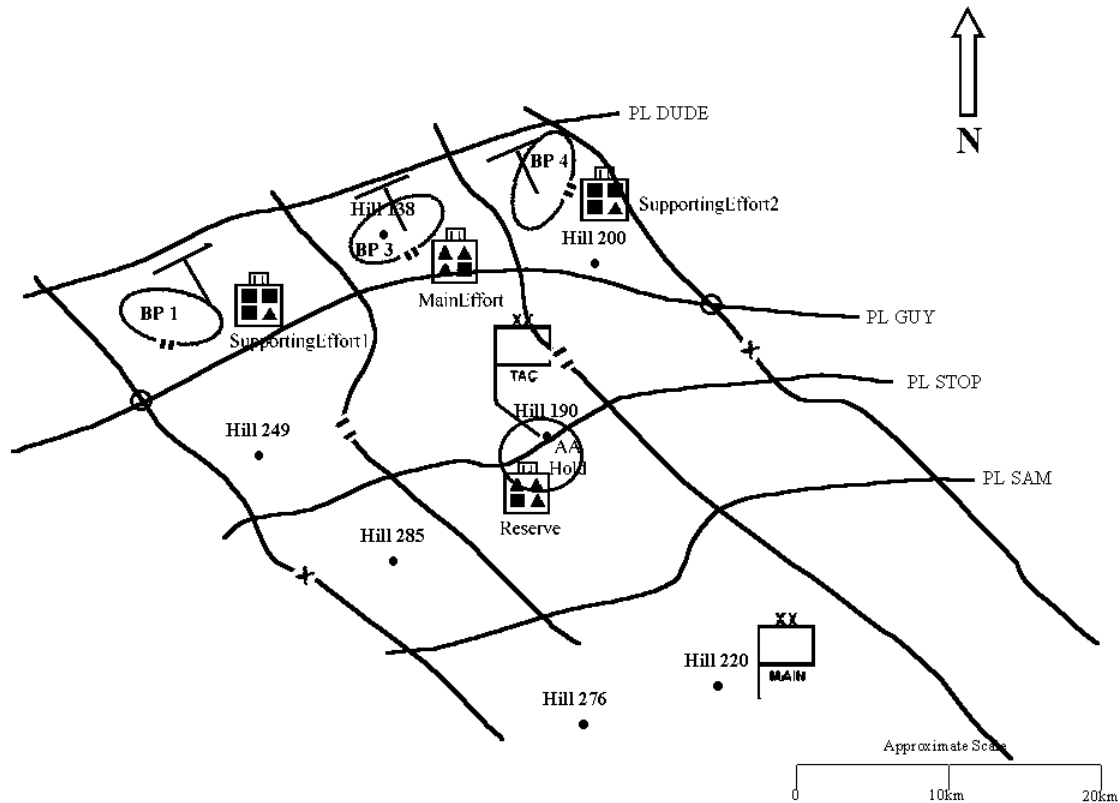


Figure 11. Base COA (COA 2.2)

COA 2.2
Mission: A balanced brigade conducts a forward defense to block REDARMORDIVISION1 in order to prevent enemy from gaining access to area south of PL STOP (Hill 190).
Close: An armor task force (Main Effort) defends vicinity BP3 to block enemy forces along AA2 in order to prevent enemy from gaining access to area south of PL STOP (Hill 190) A mechanized infantry task force (Supporting Effort 1) defends vicinity BP1 to block enemy forces along AA1 in order to prevent the enemy from bypassing the Main Effort. A mechanized infantry task force (Supporting Effort 2) defends vicinity BP4 to block enemy forces along AA3 in order to prevent the enemy from bypassing the Main Effort.
Reserve: The reserve, an armor task force at AA HOLD, will be prepared to reinforce defenses at BP3, counterattack to destroy Red forces along AA2, reinforce defenses at BP1, counterattack to destroy Red forces south of PL STOP, and secure brigade flank.
Security:
Deep: Deep operations will destroy enemy mobility assets.
Rear: A mechanized infantry platoon responds to threats in the rear area in order to protect the brigade support area.
Fires: Fires will destroy Red breaching assets and neutralize Red mobility assets at tactical

obstacles. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.
<u>Obstacles:</u> Obstacles will fix enemy forces on AA1 forward of BP1, fix enemy forces along AA3 forward of BP4, and block enemy forces on AA2 forward of BP3.
<u>Risk:</u> Risk is assumed in this course of action by defending forward with the bulk of the brigade's combat power.
<u>End State:</u> At the conclusion of this operation, Blue forces have destroyed REDARMORDIVISION1 forward of PL GUY. BLUEBRIGADE1 defends in sector and is prepared to delay REDMOTORIZEDRIFLEDIVISION1.

2.2.2.2 Variant COA (Variant 2.2.1)

COA 2.2.1
<u>Mission:</u> A balanced brigade conducts a forward defense to block REDARMORDIVISION1 in order to prevent enemy from gaining access to the area south of PL STOP (Hill 190).
<u>Close:</u> An armor task force (Main Effort) defends to secure BP3, in order to prevent enemy from gaining access to the area south of PL STOP (Hill 190) A mechanized infantry task force (Supporting Effort 1) defends to secure BP1, in order to prevent the enemy from bypassing the Main Effort. A mechanized infantry task force (Supporting Effort 2) defends to secure BP4, in order to prevent the enemy from bypassing the Main Effort.
<u>Reserve:</u> The reserve, an armor task force at AA HOLD, will be prepared to reinforce defenses at BP3, counterattack to destroy Red Forces along AA2, reinforce defenses at BP1, counterattack to destroy Red forces south of PL STOP, and secure brigade flank.
<u>Security:</u>
<u>Deep:</u> Deep operations will destroy enemy mobility assets.
<u>Rear:</u> A mechanized infantry platoon responds to threats in the rear area in order to protect the brigade support area.
<u>Fires:</u> Fires will destroy Red breaching assets and neutralize Red mobility assets at tactical obstacles. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.
<u>Obstacles:</u> Obstacles will fix enemy forces on AA1 forward of BP1, fix enemy forces along AA3 forward of BP4, and block enemy forces on AA2 forward of BP3.
<u>Risk:</u> Risk is assumed in this course of action by defending forward with the bulk of the brigade's combat power.
<u>End State:</u> At the conclusion of this operation, Blue forces have destroyed REDARMORDIVISION1 forward of PL GUY. BLUEBRIGADE1 defends in sector and is prepared to delay REDMOTORIZEDRIFLEDIVISION1.

2.2.3 COA 2.3

2.2.3.1 Base COA (Variant 2.3.0)

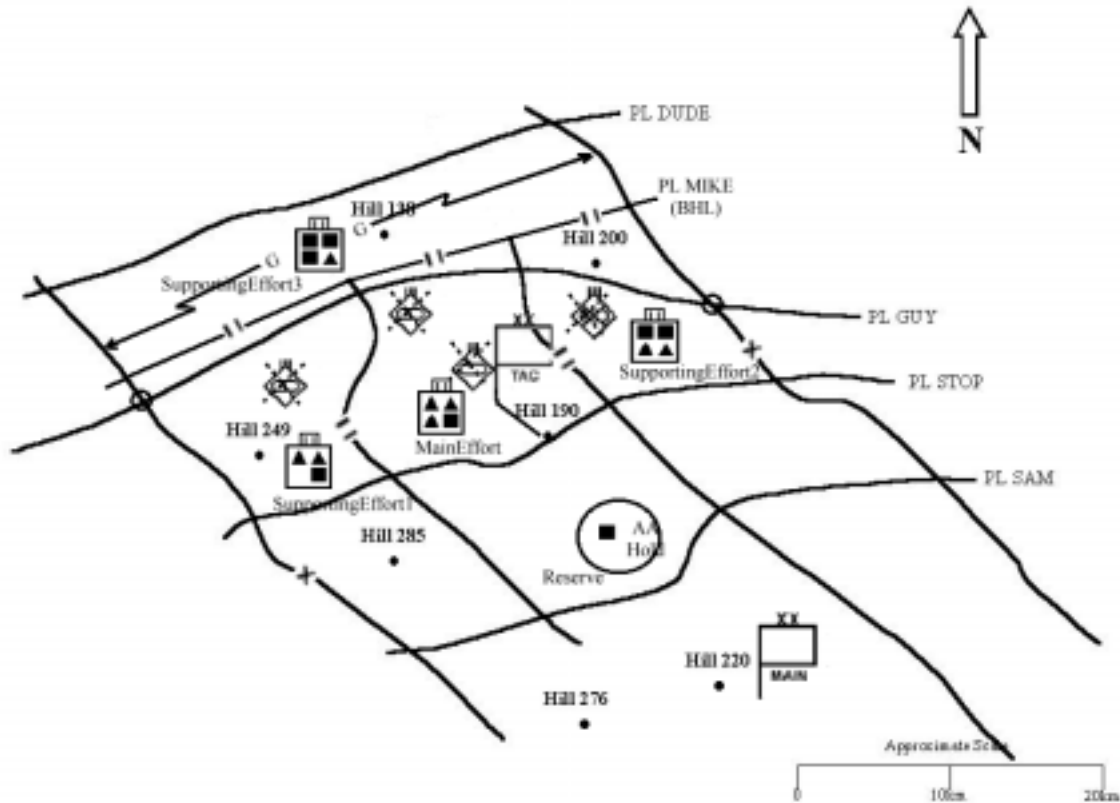


Figure 12. Base COA (COA 2.3)

COA 2.3
Mission: A balanced brigade conducts an area defense to block REDARMORDIVISION1 in order to prevent enemy from gaining access to the area south of PL STOP (Hill 190).
Close: An armor task force (Main Effort) defends in sector to destroy enemy forces along AA2 in order to prevent enemy from gaining access to the area south of PL STOP (Hill 190) An armor task force in the west (Supporting Effort 1) defends in sector to destroy enemy forces along AA1 in order to prevent the enemy from massing combat power on the location of the Main Effort. A mechanized infantry task force in the east (Supporting Effort 2) defends in sector to destroy enemy forces along AA3 in order to prevent the enemy from massing combat power on the location of the Main Effort.
Reserve: The reserve, a mechanized infantry company at AA HOLD, will be prepared to reinforce Main Effort, and be prepared to destroy enemy platoons south of PL STOP.
Security: A mechanized task force (Supporting Effort 3) guards the brigade area of operations in order to prevent Red forces from surprising Blue forces in the main battle area, attrits Red first echelon to 80% in order to prevent Red forces from massing combat power on the location of the Main Effort, and delays Red second echelon in order to prevent Red forces from massing combat power on the location of the Main Effort.

Additional Scenarios for the COA Challenge Problem, v2.1.1

<u>Deep:</u> Deep operations will destroy enemy mobility assets.
<u>Rear:</u> A mechanized infantry platoon responds to threats in the rear in order to protect the brigade support area.
<u>Fires:</u> Fires will destroy Red breaching assets and neutralize Red mobility assets at tactical obstacles. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.
<u>Obstacles:</u> Obstacles will disrupt enemy forces in the security area and fix enemy forces in the location of the Main Effort.
<u>Risk:</u>
<u>End State:</u> At the conclusion of this operation, Blue forces have destroyed REDARMORDIVISION1 forward of PL STOP. Battalions in the main battle area will defend forward in area of operations and be prepared to delay REDMOTORIZEDRIFLEDIVISION1. Supporting Effort 3 screens PL DUDE.

2.3 Simplified Friendly COAs

The following Blue COAs are simplified in that each task refers to a specific Red unit. In this case, we have provided a simplified Blue COA for each possible Red COA.

2.3.1 COA 2.1

2.3.1.1 Base COA (Variant 2.1.0)

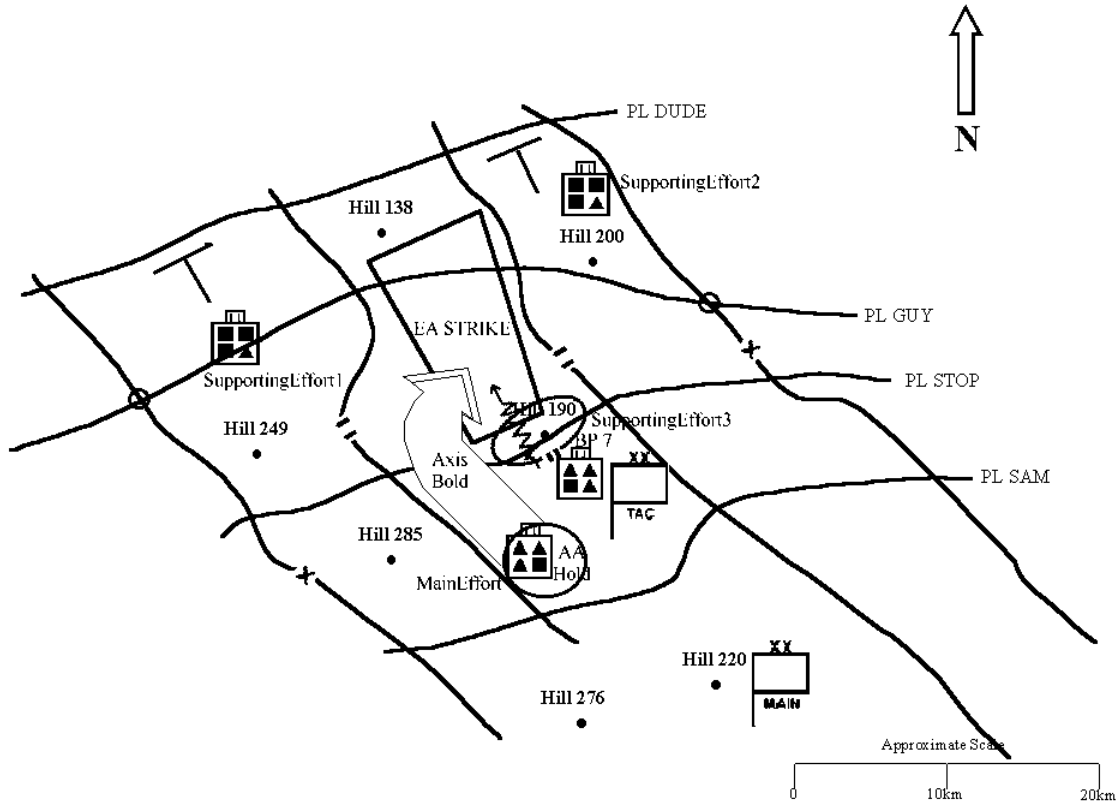


Figure 13. Base COA (COA 2.1)

COA 2.1 vs Red most probable COA
Mission: A balanced brigade conducts a mobile defense to block REDARMORDIVISION1 in order to prevent REDARMORDIVISION1 from gaining access to area south of PL STOP.
Close: A mechanized infantry task force (Supporting Effort 1) defends in sector to block REDARMORREGIMENT1 along AA1 in order to cause REDARMORREGIMENT1 forces to maneuver into EA STRIKE. A mechanized infantry task force (Supporting Effort 2) defends in sector to block REDINFANTRYREGIMENT1 along AA3 in order to cause REDINFANTRYREGIMENT1 forces to maneuver into EA STRIKE. An armor task force (Supporting Effort 3) defends in BP7 to fix REDARMORREGIMENT1, REDARMORREGIMENT2, and REDINFANTRYREGIMENT1 in EA STRIKE in order to enable the Main Effort to conduct a counterattack. An armor task force (Main Effort) attacks along AXIS BOLD from AA HOLD into EA STRIKE

to defeat REDARMORDIVISION1 in AA2 (EA STRIKE) in order to prevent REDARMORDIVISION1 from gaining access to the area south of PL STOP (Hill 190).
<u>Reserve:</u>
<u>Security:</u>
<u>Deep:</u> Deep operations will destroy enemy mobility assets.
<u>Rear:</u> A mechanized infantry platoon responds to threats in the rear area in order to protect the brigade support area.
<u>Fires:</u> Fires will destroy Red breaching assets and suppress REDARMORDIVISION1 in EA STRIKE. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.
<u>Obstacles:</u> Obstacles will turn REDARMORREGIMENT1 from AA1 into EA STRIKE, turn REDINFANTRYREGIMENT1 from AA3 into EA STRIKE, and fix REDARMORDIVISION1 on AA2 in EA STRIKE.
<u>Risk:</u> Risk is assumed in this course of action by not designating a reserve.
<u>End State:</u> At the conclusion of this operation, Blue forces have blocked REDARMORDIVISION1 in EA STRIKE in order to prevent REDARMORDIVISION1 from gaining access to area south of PL STOP. BLUEBRIGADE1 defends in sector and is prepared to delay REDMOTORIZEDRIFLEDIVISION1.

COA 2.1 vs Red next most probable COA
<u>Mission:</u> A balanced brigade conducts a mobile defense to block REDARMORDIVISION1 in order to prevent REDARMORDIVISION1 from gaining access to area south of PL STOP.
<u>Close:</u> A mechanized infantry task force (Supporting Effort 1) defends in sector to block REDARMORREGIMENT1 and REDARMORREGIMENT3 along AA1 in order to cause REDARMORREGIMENT1 and REDARMORREGIMENT3 to maneuver into EA STRIKE. A mechanized infantry task force (Supporting Effort 2) defends in sector to block REDINFANTRYREGIMENT1 along AA3 in order to cause REDINFANTRYREGIMENT1 to maneuver into EA STRIKE. An armor task force (Supporting Effort 3) defends in BP7 to fix REDARMORREGIMENT1, REDARMORREGIMENT2, and REDINFANTRYREGIMENT1 in EA STRIKE in order to enable the Main Effort to conduct a counterattack. An armor task force (Main Effort) attacks along AXIS BOLD from AA HOLD into EA STRIKE to defeat REDARMORDIVISION1 in AA2 (EA STRIKE) in order to prevent REDARMORDIVISION1 from gaining access to the area south of PL STOP (Hill 190).
<u>Reserve:</u>
<u>Security:</u>
<u>Deep:</u> Deep operations will destroy enemy mobility assets.
<u>Rear:</u> A mechanized infantry platoon responds to threats in the rear area in order to protect the brigade support area.
<u>Fires:</u> Fires will destroy Red breaching assets and suppress REDARMORDIVISION1 in EA STRIKE. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.
<u>Obstacles:</u> Obstacles will turn REDARMORREGIMENT1 and REDARMORREGIMENT3 from AA1 into EA STRIKE, turn REDINFANTRYREGIMENT1 from AA3 into EA STRIKE, and fix REDARMORDIVISION1 on AA2 in EA STRIKE.
<u>Risk:</u> Risk is assumed in this course of action by not designating a reserve.
<u>End State:</u> At the conclusion of this operation, Blue forces have blocked REDARMORDIVISION1 in EA STRIKE in order to prevent REDARMORDIVISION1 from gaining access to area south of PL STOP. BLUEBRIGADE1 defends in sector and is prepared to

delay REDMOTORIZEDRIFLEDIVISION1.

COA 2.1 vs Red most dangerous COA

<p><u>Mission:</u> A balanced brigade conducts a mobile defense to block REDARMORDIVISION1 in order to prevent REDARMORDIVISION1 from gaining access to area south of PL STOP.</p>
--

<p><u>Close:</u> A mechanized infantry task force (Supporting Effort 1) defends in sector to block REDINFANTRYREGIMENT1 along AA1 in order to cause REDINFANTRYREGIMENT1 to maneuver into EA STRIKE.</p>
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<p>A mechanized infantry task force (Supporting Effort 2) defends in sector to block REDARMORREGIMENT1 and REDARMORREGIMENT3 along AA3 in order to cause REDARMORREGIMENT1 and REDARMORREGIMENT3 to maneuver into EA STRIKE.</p>
--

<p>An armor task force (Supporting Effort 3) defends in BP7 to fix REDARMORREGIMENT1, REDARMORREGIMENT2, and REDINFANTRYREGIMENT1 in EA STRIKE in order to enable the Main Effort to conduct a counterattack.</p>

<p>An armor task force (Main Effort) attacks along AXIS BOLD from AA HOLD into EA STRIKE to defeat REDARMORDIVISION1 in AA2 (EA STRIKE) in order to prevent REDARMORDIVISION1 from gaining access to the area south of PL STOP (Hill 190).</p>
--

<p><u>Reserve:</u></p>

<p><u>Security:</u></p>

<p><u>Deep:</u> Deep operations will destroy enemy mobility assets.</p>

<p><u>Rear:</u> A mechanized infantry platoon responds to threats in the rear area in order to protect the brigade support area.</p>
--

<p><u>Fires:</u> Fires will destroy Red breaching assets and suppress REDARMORDIVISION1 in EA STRIKE. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.</p>

<p><u>Obstacles:</u> Obstacles will turn REDINFANTRYREGIMENT1 from AA1 into EA STRIKE, turn REDARMORREGIMENT1 and REDARMORREGIMENT3 from AA3 into EA STRIKE, and fix REDARMORDIVISION1 on AA2 in EA STRIKE.</p>

<p><u>Risk:</u> Risk is assumed in this course of action by not designating a reserve.</p>
--

<p><u>End State:</u> At the conclusion of this operation, Blue forces have blocked REDARMORDIVISION1 in EA STRIKE in order to prevent REDARMORDIVISION1 from gaining access to area south of PL STOP. BLUEBRIGADE1 defends in sector and is prepared to delay REDMOTORIZEDRIFLEDIVISION1.</p>

2.3.1.2 Variant COA (Variant 2.1.1)

COA 2.1.1 vs Red most probable COA

<p><u>Mission:</u> A balanced brigade conducts a mobile defense to block REDARMORDIVISION1 in order to prevent REDARMORDIVISION1 from gaining access to area south of PL STOP.</p>
--

<p><u>Close:</u> A mechanized infantry task force (Supporting Effort 1) defends in sector to block REDARMORREGIMENT1 along AA1 in order to cause REDARMORREGIMENT1 to maneuver into EA STRIKE.</p>
--

<p>A mechanized infantry task force (Supporting Effort 2) defends in sector to block REDINFANTRYREGIMENT1 along AA3 in order to cause REDINFANTRYREGIMENT1 to maneuver into EA STRIKE.</p>
--

<p>An armor task force (Supporting Effort 3) defends in BP7 to fix REDARMORREGIMENT1, REDARMORREGIMENT2, and REDINFANTRYREGIMENT1 in EA STRIKE in order to enable the reserve to conduct a counterattack.</p>

<p>An armor task force (Main Effort) attacks along AXIS BOLD from AA HOLD into EA STRIKE</p>
--

to defeat enemy forces in AA2 (EA Strike) in order to prevent enemy from gaining access to the area south of PL STOP (Hill 190).
<u>Reserve:</u> The reserve, an armor task force, on order attacks along AXIS BOLD from AA HOLD into EA STRIKE to defeat REDARMORDIVISION1 in AA2 (EA STRIKE) in order to prevent REDARMORDIVISION1 from gaining access to the area south of PL STOP (Hill 190).
<u>Security:</u>
<u>Deep:</u> Deep operations will destroy enemy mobility assets.
<u>Rear:</u> A mechanized infantry platoon responds to threats in the rear area in order to protect the brigade support area.
<u>Fires:</u> Fires will destroy Red breaching assets and suppress REDARMORDIVISION1 in EA STRIKE. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.
<u>Obstacles:</u> Obstacles will turn REDARMORREGIMENT1 from AA1 into EA STRIKE, turn REDINFANTRYREGIMENT1 from AA3 into EA STRIKE, and fix REDARMORDIVISION1 on AA2 in EA STRIKE.
<u>Risk:</u> Risk is assumed in this course of action by not designating a reserve.
<u>End State:</u> At the conclusion of this operation, Blue forces have destroyed REDARMORDIVISION1 in EA STRIKE in order to prevent Red forces from gaining access to area south of PL STOP. BLUEBRIGADE1 defends in sector and is prepared to delay REDMOTORIZEDRIFLEDIVISION1.

COA 2.1.1 vs Red next most probable COA
<u>Mission:</u> A balanced brigade conducts a mobile defense to block REDARMORDIVISION1 in order to prevent REDARMORDIVISION1 from gaining access to area south of PL STOP.
<u>Close:</u> A mechanized infantry task force (Supporting Effort 1) defends in sector to block REDARMORREGIMENT1 and REDARMORREGIMENT3 along AA1 in order to cause REDARMORREGIMENT1 and REDARMORREGIMENT3 to maneuver into EA STRIKE. A mechanized infantry task force (Supporting Effort 2) defends in sector to block REDINFANTRYREGIMENT1 along AA3 in order to cause REDINFANTRYREGIMENT1 to maneuver into EA STRIKE. An armor task force (Supporting Effort 3) defends in BP7 to fix REDARMORREGIMENT1, REDARMORREGIMENT2, and REDINFANTRYREGIMENT1 in EA STRIKE in order to enable the reserve to conduct a counterattack. An armor task force (Main Effort) attacks along AXIS BOLD from AA HOLD into EA STRIKE to defeat enemy forces in AA2 (EA Strike) in order to prevent enemy from gaining access to the area south of PL STOP (Hill 190).
<u>Reserve:</u> The reserve, an armor task force, on order attacks along AXIS BOLD from AA HOLD into EA STRIKE to defeat REDARMORDIVISION1 in AA2 (EA STRIKE) in order to prevent REDARMORDIVISION1 from gaining access to the area south of PL STOP (Hill 190).
<u>Security:</u>
<u>Deep:</u> Deep operations will destroy enemy mobility assets.
<u>Rear:</u> A mechanized infantry platoon responds to threats in the rear area in order to protect the brigade support area.
<u>Fires:</u> Fires will destroy Red breaching assets and suppress REDARMORDIVISION1 in EA STRIKE. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.
<u>Obstacles:</u> Obstacles will turn REDARMORREGIMENT1 and REDARMORREGIMENT3 from AA1 into EA STRIKE, turn REDINFANTRYREGIMENT1 from AA3 into EA STRIKE, and fix REDARMORDIVISION1 on AA2 in EA STRIKE.
<u>Risk:</u> Risk is assumed in this course of action by not designating a reserve.

End State: At the conclusion of this operation, Blue forces have destroyed REDARMORDIVISION1 in EA STRIKE in order to prevent Red forces from gaining access to area south of PL STOP. BLUEBRIGADE1 defends in sector and is prepared to delay REDMOTORIZEDRIFLEDIVISION1.

COA 2.1.1 vs Red most dangerous COA

Mission: A balanced brigade conducts a mobile defense to block REDARMORDIVISION1 in order to prevent REDARMORDIVISION1 from gaining access to area south of PL STOP.

Close: A mechanized infantry task force (Supporting Effort 1) defends in sector to block REDINFANTRYREGIMENT1 along AA1 in order to cause REDINFANTRYREGIMENT1 to maneuver into EA STRIKE.

A mechanized infantry task force (Supporting Effort 2) defends in sector to block REDARMORREGIMENT1 and REDARMORREGIMENT3 along AA3 in order to cause REDARMORREGIMENT1 and REDARMORREGIMENT3 to maneuver into EA STRIKE.

An armor task force (Supporting Effort 3) defends in BP7 to fix REDINFANTRYREGIMENT1, REDARMORREGIMENT1 and REDARMORREGIMENT3 in EA STRIKE in order to enable the reserve to conduct a counterattack.

~~An armor task force (Main Effort) attacks along AXIS BOLD from AA HOLD into EA STRIKE to defeat enemy forces in AA2 (EA Strike) in order to prevent enemy from gaining access to the area south of PL STOP (Hill 190).~~

Reserve: The reserve, an armor task force, on order attacks along AXIS BOLD from AA HOLD into EA STRIKE to defeat REDARMORDIVISION1 in AA2 (EA STRIKE) in order to prevent REDARMORDIVISION1 from gaining access to the area south of PL STOP (Hill 190).

Security:

Deep: Deep operations will destroy enemy mobility assets.

Rear: A mechanized infantry platoon responds to threats in the rear area in order to protect the brigade support area.

Fires: Fires will destroy Red breaching assets and suppress REDARMORDIVISION1 in EA STRIKE. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.

Obstacles: Obstacles will turn REDINFANTRYREGIMENT1 from AA1 into EA STRIKE, turn REDARMORREGIMENT1 and REDARMORREGIMENT3 from AA3 into EA STRIKE, and fix REDARMORDIVISION1 on AA2 in EA STRIKE.

Risk: ~~Risk is assumed in this course of action by not designating a reserve.~~

End State: At the conclusion of this operation, Blue forces have destroyed REDARMORDIVISION1 in EA STRIKE in order to prevent Red forces from gaining access to area south of PL STOP. BLUEBRIGADE1 defends in sector and is prepared to delay REDMOTORIZEDRIFLEDIVISION1.

2.3.2 COA 2.2

2.3.2.1 Base COA (Variant 2.2.0)

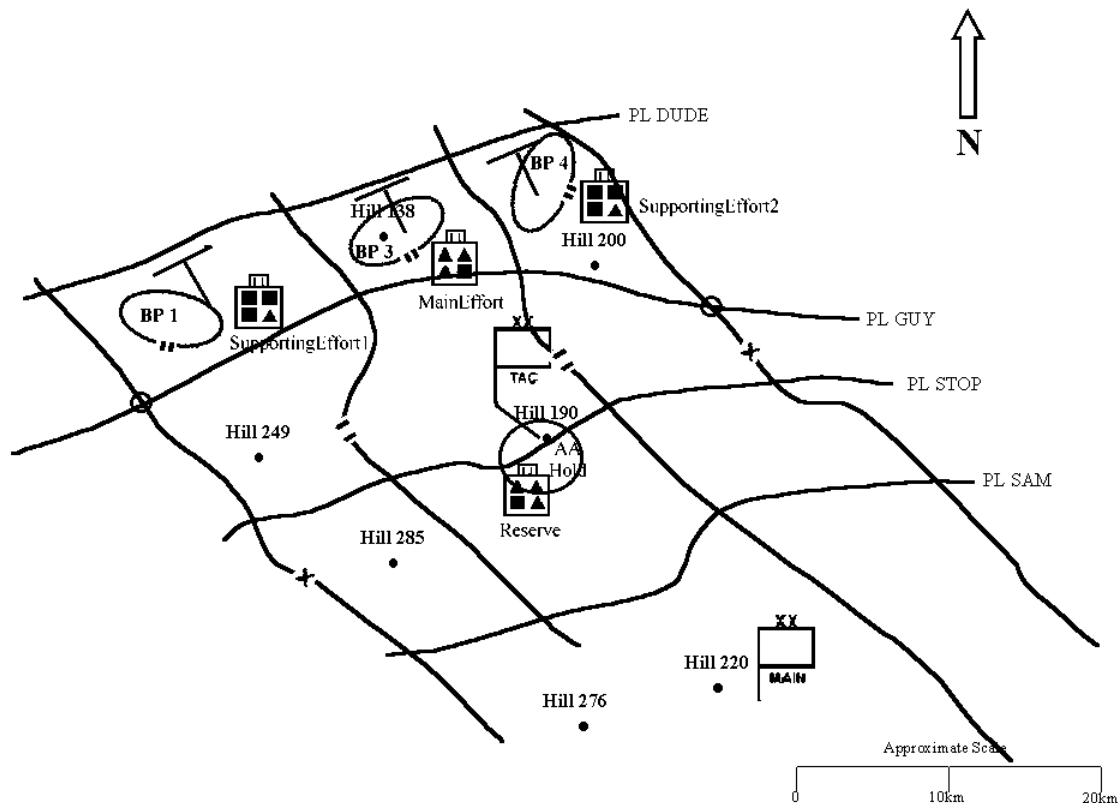


Figure 14. Base COA (COA 2.2)

COA 2.2 vs Red most probable COA

Mission. A balanced brigade conducts a forward defense to block REDARMORDIVISION1 in order to prevent REDARMORDIVISION1 from gaining access to area south of PL STOP (Hill 190).

Close: An armor task force (Main Effort) defends vicinity BP3 to block REDARMORREGIMENT2 and REDARMORREGIMENT3 along AA2 in order to prevent REDARMORREGIMENT2 and REDARMORREGIMENT3 from gaining access to area south of PL STOP (Hill 190)

A mechanized infantry task force (Supporting Effort 1) defends vicinity BP1 to block REDARMORREGIMENT1 along AA1 in order to prevent REDARMORREGIMENT1 from bypassing the Main Effort.

A mechanized infantry task force (Supporting Effort 2) defends vicinity BP4 to block REDINFANTRYREGIMENT1 along AA3 in order to prevent REDINFANTRYREGIMENT1 from bypassing the Main Effort.

Reserve: The reserve, an armor task force at AA HOLD, will be prepared to reinforce defenses at BP3, counterattack to destroy Red REDARMORREGIMENT2 and REDARMORREGIMENT3 along AA2, reinforce defenses at BP1, counterattack to destroy Red forces south of PL STOP, and secure brigade flank.

Additional Scenarios for the COA Challenge Problem, v2.1.1

<u>Security:</u>
<u>Deep:</u> Deep operations will destroy enemy mobility assets.
<u>Rear:</u> A mechanized infantry platoon responds to threats in the rear area in order to protect the brigade support area.
<u>Fires:</u> Fires will destroy Red breaching assets and neutralize Red mobility assets at tactical obstacles. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.
<u>Obstacles:</u> Obstacles will fix REDARMORREGIMENT1 on AA1 forward of BP1, fix REDINFANTRYREGIMENT1 along AA3 forward of BP4, and block REDARMORREGIMENT2 and REDARMORREGIMENT3 on AA2 forward of BP3.
<u>Risk:</u> Risk is assumed in this course of action by defending forward with the bulk of the brigade's combat power.
<u>End State:</u> At the conclusion of this operation, Blue forces have destroyed REDARMORDIVISION1 forward of PL GUY. BLUEBRIGADE1 defends in sector and is prepared to delay REDMOTORIZEDRIFLEDIVISION1.

COA 2.2 vs Red next most probable COA
<u>Mission.</u> A balanced brigade conducts a forward defense to block REDARMORDIVISION1 in order to prevent REDARMORDIVISION1 from gaining access to area south of PL STOP (Hill 190).
<u>Close:</u> An armor task force (Main Effort) defends vicinity BP3 to block REDARMORREGIMENT2 along AA2 in order to prevent REDARMORREGIMENT2 from gaining access to area south of PL STOP (Hill 190) A mechanized infantry task force (Supporting Effort 1) defends vicinity BP1 to block REDARMORREGIMENT1 and REDARMORREGIMENT3 along AA1 in order to prevent REDARMORREGIMENT1 and REDARMORREGIMENT3 from bypassing the Main Effort. A mechanized infantry task force (Supporting Effort 2) defends vicinity BP4 to block REDINFANTRYREGIMENT1 along AA3 in order to prevent REDINFANTRYREGIMENT1 from bypassing the Main Effort.
<u>Reserve:</u> The reserve, an armor task force at AA HOLD, will be prepared to reinforce defenses at BP3, counterattack to destroy Red REDARMORREGIMENT2 along AA2, reinforce defenses at BP1, counterattack to destroy Red forces south of PL STOP, and secure brigade flank.
<u>Security:</u>
<u>Deep:</u> Deep operations will destroy enemy mobility assets.
<u>Rear:</u> A mechanized infantry platoon responds to threats in the rear area in order to protect the brigade support area.
<u>Fires:</u> Fires will destroy Red breaching assets and neutralize Red mobility assets at tactical obstacles. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.
<u>Obstacles:</u> Obstacles will fix REDARMORREGIMENT1 and REDARMORREGIMENT3 on AA1 forward of BP1, fix REDINFANTRYREGIMENT1 along AA3 forward of BP4, and block REDARMORREGIMENT2 on AA2 forward of BP3.
<u>Risk:</u> Risk is assumed in this course of action by defending forward with the bulk of the brigade's combat power.
<u>End State:</u> At the conclusion of this operation, Blue forces have destroyed REDARMORDIVISION1 forward of PL GUY. BLUEBRIGADE1 defends in sector and is prepared to delay REDMOTORIZEDRIFLEDIVISION1.

COA 2.2 vs Red most dangerous COA
<u>Mission.</u> A balanced brigade conducts a forward defense to block REDARMORDIVISION1 in

order to prevent REDARMORDIVISION1 from gaining access to area south of PL STOP (Hill 190).
<p><u>Close:</u> An armor task force (Main Effort) defends vicinity BP3 to block REDARMORREGIMENT2 along AA2 in order to prevent REDARMORREGIMENT2 from gaining access to area south of PL STOP (Hill 190)</p> <p>A mechanized infantry task force (Supporting Effort 1) defends vicinity BP1 to block REDINFANTRYREGIMENT1 along AA1 in order to prevent REDINFANTRYREGIMENT1 from bypassing the Main Effort.</p> <p>A mechanized infantry task force (Supporting Effort 2) defends vicinity BP4 to block REDARMORREGIMENT1 and REDARMORREGIMENT3 along AA3 in order to prevent REDARMORREGIMENT1 and REDARMORREGIMENT3 from bypassing the Main Effort.</p>
<u>Reserve:</u> The reserve, an armor task force at AA HOLD, will be prepared to reinforce defenses at BP3, counterattack to destroy Red REDARMORREGIMENT2 along AA2, reinforce defenses at BP1, counterattack to destroy Red forces south of PL STOP, and secure brigade flank.
<u>Security:</u>
<u>Deep:</u> Deep operations will destroy enemy mobility assets.
<u>Rear:</u> A mechanized infantry platoon responds to threats in the rear area in order to protect the brigade support area.
<u>Fires:</u> Fires will destroy Red breaching assets and neutralize Red mobility assets at tactical obstacles. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.
<u>Obstacles:</u> Obstacles will fix REDINFANTRYREGIMENT1 on AA1 forward of BP1, fix REDARMORREGIMENT1 and REDARMORREGIMENT3 along AA3 forward of BP4, and block REDARMORREGIMENT2 on AA2 forward of BP3.
<u>Risk:</u> Risk is assumed in this course of action by defending forward with the bulk of the brigade's combat power.
<u>End State:</u> At the conclusion of this operation, Blue forces have destroyed REDARMORDIVISION1 forward of PL GUY. BLUEBRIGADE1 defends in sector and is prepared to delay REDMOTORIZEDRIFLEDIVISION1.

2.3.2.2 Variant COA (Variant 2.2.1)

COA 2.2.1 vs Red most probable COA
<u>Mission:</u> A balanced brigade conducts a forward defense to block REDARMORDIVISION1 in order to prevent REDARMORDIVISION1 from gaining access to the area south of PL STOP (Hill 190).
<p><u>Close:</u> An armor task force (Main Effort) defends to secure BP3, in order to prevent REDARMORREGIMENT2 and REDARMORREGIMENT3 from gaining access to the area south of PL STOP (Hill 190)</p> <p>A mechanized infantry task force (Supporting Effort 1) defends to secure BP1, in order to prevent the REDARMORREGIMENT1 from bypassing the Main Effort.</p> <p>A mechanized infantry task force (Supporting Effort 2) defends to secure BP4, in order to prevent the REDINFANTRYREGIMENT1 from bypassing the Main Effort.</p>
<u>Reserve:</u> The reserve, an armor task force at AA HOLD, will be prepared to reinforce defenses at BP3, counterattack to destroy REDARMORREGIMENT2 and REDARMORREGIMENT3 along AA2, reinforce defenses at BP1, counterattack to destroy Red forces south of PL STOP, and secure brigade flank.
<u>Security:</u>
<u>Deep:</u> Deep operations will destroy enemy mobility assets.

<u>Rear:</u> A mechanized infantry platoon responds to threats in the rear area in order to protect the brigade support area.
<u>Fires:</u> Fires will destroy Red breaching assets and neutralize Red mobility assets at tactical obstacles. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.
<u>Obstacles:</u> Obstacles will fix REDARMORREGIMENT1 on AA1 forward of BP1, fix REDINFANTRYREGIMENT1 along AA3 forward of BP4, and block REDARMORREGIMENT2 and REDARMORREGIMENT3 on AA2 forward of BP3.
<u>Risk:</u> Risk is assumed in this course of action by defending forward with the bulk of the brigade's combat power.
<u>End State:</u> At the conclusion of this operation, Blue forces have destroyed REDARMORDIVISION1 forward of PL GUY. BLUEBRIGADE1 defends in sector and is prepared to delay REDMOTORIZEDRIFLEDIVISION1.

COA 2.2.1 vs Red next most probable COA
<u>Mission:</u> A balanced brigade conducts a forward defense to block REDARMORDIVISION1 in order to prevent REDARMORDIVISION1 from gaining access to the area south of PL STOP (Hill 190).
<u>Close:</u> An armor task force (Main Effort) defends to secure BP3, in order to prevent REDARMORREGIMENT2 from gaining access to the area south of PL STOP (Hill 190) A mechanized infantry task force (Supporting Effort 1) defends to secure BP1, in order to prevent the REDARMORREGIMENT1 and REDARMORREGIMENT3 from bypassing the Main Effort. A mechanized infantry task force (Supporting Effort 2) defends to secure BP4, in order to prevent the REDINFANTRYREGIMENT1 from bypassing the Main Effort.
<u>Reserve:</u> The reserve, an armor task force at AA HOLD, will be prepared to reinforce defenses at BP3, counterattack to destroy REDARMORREGIMENT2 along AA2, reinforce defenses at BP1, counterattack to destroy Red forces south of PL STOP, and secure brigade flank.
<u>Security:</u>
<u>Deep:</u> Deep operations will destroy enemy mobility assets.
<u>Rear:</u> A mechanized infantry platoon responds to threats in the rear area in order to protect the brigade support area.
<u>Fires:</u> Fires will destroy Red breaching assets and neutralize Red mobility assets at tactical obstacles. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.
<u>Obstacles:</u> Obstacles will fix REDARMORREGIMENT1 and REDARMORREGIMENT3 on AA1 forward of BP1, fix REDINFANTRYREGIMENT1 along AA3 forward of BP4, and block REDARMORREGIMENT2 on AA2 forward of BP3.
<u>Risk:</u> Risk is assumed in this course of action by defending forward with the bulk of the brigade's combat power.
<u>End State:</u> At the conclusion of this operation, Blue forces have destroyed REDARMORDIVISION1 forward of PL GUY. BLUEBRIGADE1 defends in sector and is prepared to delay REDMOTORIZEDRIFLEDIVISION1.

COA 2.2.1 vs Red most dangerous COA
<u>Mission:</u> A balanced brigade conducts a forward defense to block REDARMORDIVISION1 in order to prevent REDARMORDIVISION1 from gaining access to the area south of PL STOP (Hill 190).

<p><u>Close:</u> An armor task force (Main Effort) defends to secure BP3, in order to prevent REDARMORREGIMENT2 from gaining access to the area south of PL STOP (Hill 190)</p> <p>A mechanized infantry task force (Supporting Effort 1) defends to secure BP1, in order to prevent the REDINFANTRYREGIMENT1 from bypassing the Main Effort.</p> <p>A mechanized infantry task force (Supporting Effort 2) defends to secure BP4, in order to prevent the REDARMORREGIMENT1 and REDARMORREGIMENT3 from bypassing the Main Effort.</p>
<p><u>Reserve:</u> The reserve, an armor task force at AA HOLD, will be prepared to reinforce defenses at BP3, counterattack to destroy REDARMORREGIMENT2 along AA2, reinforce defenses at BP1, counterattack to destroy Red forces south of PL STOP, and secure brigade flank.</p>
<p><u>Security:</u></p>
<p><u>Deep:</u> Deep operations will destroy enemy mobility assets.</p>
<p><u>Rear:</u> A mechanized infantry platoon responds to threats in the rear area in order to protect the brigade support area.</p>
<p><u>Fires:</u> Fires will destroy Red breaching assets and neutralize Red mobility assets at tactical obstacles. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.</p>
<p><u>Obstacles:</u> Obstacles will fix REDINFANTRYREGIMENT1 on AA1 forward of BP1, fix REDARMORREGIMENT1 and REDARMORREGIMENT3 along AA3 forward of BP4, and block REDARMORREGIMENT2 on AA2 forward of BP3.</p>
<p><u>Risk:</u> Risk is assumed in this course of action by defending forward with the bulk of the brigade's combat power.</p>
<p><u>End State:</u> At the conclusion of this operation, Blue forces have destroyed REDARMORDIVISION1 forward of PL GUY. BLUEBRIGADE1 defends in sector and is prepared to delay REDMOTORIZEDRIFLEDIVISION1.</p>

2.3.3 COA 2.3

2.3.3.1 Base COA (Variant 2.3.0)

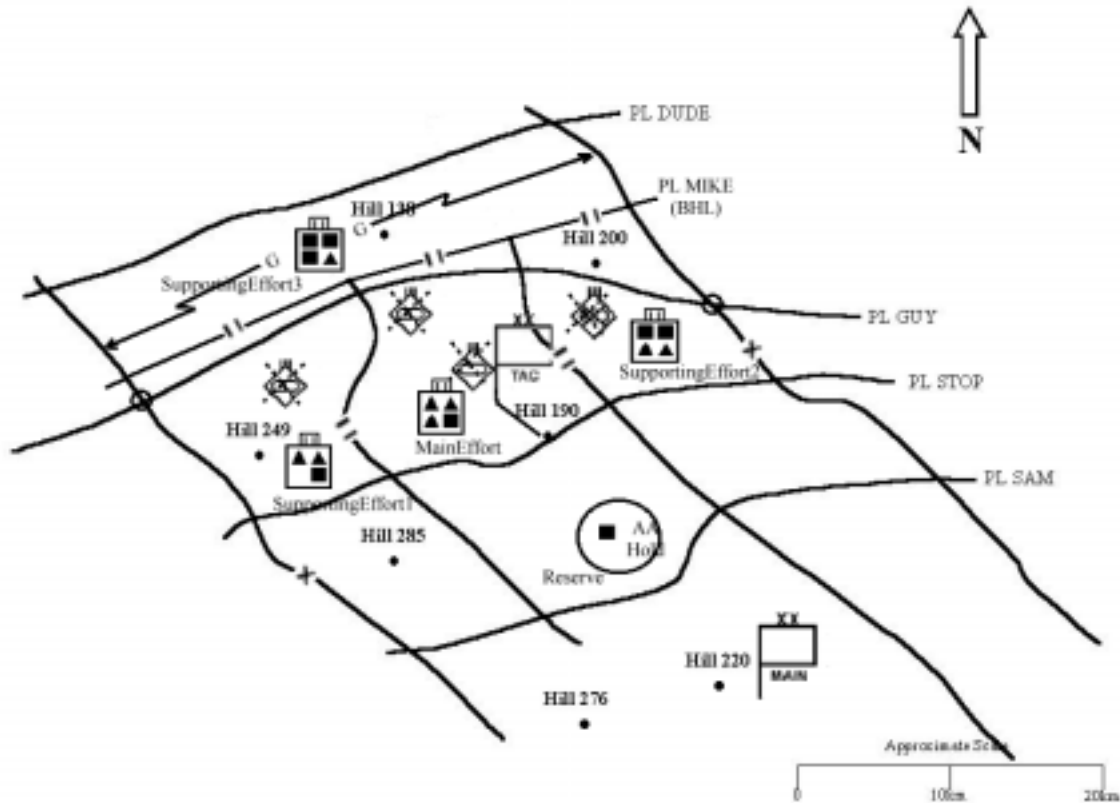


Figure 15. Base COA (COA 2.3)

COA 2.3 vs Red most probable COA
<p>Mission: A balanced brigade conducts an area defense to block REDARMORDIVISION1 in order to prevent REDARMORDIVISION1 from gaining access to the area south of PL STOP (Hill 190).</p>
<p>Close: An armor task force (Main Effort) defends in sector to destroy REDARMORREGIMENT2 and REDARMORREGIMENT3 along AA2 in order to prevent REDARMORREGIMENT2 and REDARMORREGIMENT3 from gaining access to the area south of PL STOP (Hill 190)</p> <p>An armor task force in the west (Supporting Effort 1) defends in sector to destroy REDARMORREGIMENT1 along AA1 in order to prevent REDARMORREGIMENT1 from massing combat power on the location of the Main Effort.</p> <p>A mechanized infantry task force in the east (Supporting Effort 2) defends in sector to destroy REDINFANTRYREGIMENT1 along AA3 in order to prevent REDINFANTRYREGIMENT1 from massing combat power on the location of the Main Effort.</p>
<p>Reserve: The reserve, a mechanized infantry company at AA HOLD, will be prepared to reinforce Main Effort, and be prepared to destroy enemy platoons south of PL STOP.</p>
<p>Security: A mechanized task force (Supporting Effort 3) guards the brigade area of operations in order to prevent Red forces from surprising Blue forces in the main battle area, attrits Red first</p>

echelon to 80% REDARMORREGIMENT1, REDARMORREGIMENT2 and REDINFANTRYREGIMENT1 in order to prevent Red forces from massing combat power on the location of the Main Effort, and delays Red second echelon REDARMORREGIMENT3 in order to prevent Red forces from massing combat power on the location of the Main Effort.
<u>Deep:</u> Deep operations will destroy enemy mobility assets.
<u>Rear:</u> A mechanized infantry platoon responds to threats in the rear in order to protect the brigade support area.
<u>Fires:</u> Fires will destroy Red breaching assets and neutralize Red mobility assets at tactical obstacles. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.
<u>Obstacles:</u> Obstacles will disrupt REDARMORDIVISION1 in the security area and fix REDARMORREGIMENT2 and REDARMORREGIMENT 3 in the location of the Main Effort.
<u>Risk:</u>
<u>End State:</u> At the conclusion of this operation, Blue forces have destroyed REDARMORDIVISION1 forward of PL STOP. Battalions in the main battle area will defend forward in area of operations and be prepared to delay REDMOTORIZEDRIFLEDIVISION1. Supporting Effort 3 screens PL DUDE.

COA 2.3 vs Red next most probable COA
<u>Mission.</u> A balanced brigade conducts an area defense to block REDARMORDIVISION1 in order to prevent REDARMORDIVISION1 from gaining access to the area south of PL STOP (Hill 190).
<u>Close:</u> An armor task force (Main Effort) defends in sector to destroy REDARMORREGIMENT2 along AA2 in order to prevent REDARMORREGIMENT2 from gaining access to the area south of PL STOP (Hill 190) An armor task force in the west (Supporting Effort 1) defends in sector to destroy REDARMORREGIMENT1 and REDARMORREGIMENT3 along AA1 in order to prevent REDARMORREGIMENT1 and REDARMORREGIMENT3 from massing combat power on the location of the Main Effort. A mechanized infantry task force in the east (Supporting Effort 2) defends in sector to destroy REDINFANTRYREGIMENT1 along AA3 in order to prevent REDINFANTRYREGIMENT1 from massing combat power on the location of the Main Effort.
<u>Reserve:</u> The reserve, a mechanized infantry company at AA HOLD, will be prepared to reinforce Main Effort, and be prepared to destroy enemy platoons south of PL STOP.
<u>Security:</u> A mechanized task force (Supporting Effort 3) guards the brigade area of operations in order to prevent Red forces from surprising Blue forces in the main battle area, attrits Red first echelon to 80% REDARMORREGIMENT1, REDARMORREGIMENT2 and REDINFANTRYREGIMENT1 in order to prevent Red forces from massing combat power on the location of the Main Effort, and delays Red second echelon REDARMORREGIMENT3 in order to prevent Red forces from massing combat power on the location of the Main Effort.
<u>Deep:</u> Deep operations will destroy enemy mobility assets.
<u>Rear:</u> A mechanized infantry platoon responds to threats in the rear in order to protect the brigade support area.
<u>Fires:</u> Fires will destroy Red breaching assets and neutralize Red mobility assets at tactical obstacles. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.
<u>Obstacles:</u> Obstacles will disrupt REDARMORDIVISION1 in the security area and fix REDARMORREGIMENT 2 in the location of the Main Effort.
<u>Risk:</u>
<u>End State:</u> At the conclusion of this operation, Blue forces have destroyed

REDARMORDIVISION1 forward of PL STOP. Battalions in the main battle area will defend forward in area of operations and be prepared to delay REDMOTORIZEDRIFLEDIVISION1. Supporting Effort 3 screens PL DUDE.
COA 2.3 vs Red most dangerous COA
<u>Mission:</u> A balanced brigade conducts an area defense to block REDARMORDIVISION1 in order to prevent REDARMORDIVISION1 from gaining access to the area south of PL STOP (Hill 190).
<u>Close:</u> An armor task force (Main Effort) defends in sector to destroy REDARMORREGIMENT2 along AA2 in order to prevent REDARMORREGIMENT2 from gaining access to the area south of PL STOP (Hill 190) An armor task force in the west (Supporting Effort 1) defends in sector to destroy REDINFANTRYREGIMENT1 along AA1 in order to prevent the REDINFANTRYREGIMENT1 from massing combat power on the location of the Main Effort. A mechanized infantry task force in the east (Supporting Effort 2) defends in sector to destroy REDARMORREGIMENT1 and REDARMORREGIMENT3 along AA3 in order to prevent REDARMORREGIMENT1 and REDARMORREGIMENT3 from massing combat power on the location of the Main Effort.
<u>Reserve:</u> The reserve, a mechanized infantry company at AA HOLD, will be prepared to reinforce Main Effort, and be prepared to destroy enemy platoons south of PL STOP.
<u>Security:</u> A mechanized task force (Supporting Effort 3) guards the brigade area of operations in order to prevent Red forces from surprising Blue forces in the main battle area, attrits Red first echelon to 80% REDARMORREGIMENT1, REDARMORREGIMENT2 and REDINFANTRYREGIMENT1 in order to prevent Red forces from massing combat power on the location of the Main Effort, and delays Red second echelon REDARMORREGIMENT3 in order to prevent Red forces from massing combat power on the location of the Main Effort.
<u>Deep:</u> Deep operations will destroy enemy mobility assets.
<u>Rear:</u> A mechanized infantry platoon responds to threats in the rear in order to protect the brigade support area.
<u>Fires:</u> Fires will destroy Red breaching assets and neutralize Red mobility assets at tactical obstacles. FASCAM will be prepared to secure flanks and reinforce breached tactical obstacles.
<u>Obstacles:</u> Obstacles will disrupt REDARMORDIVISION1 in the security area and fix REDARMORREGIMENT 2 in the location of the Main Effort.
<u>Risk:</u>
<u>End State:</u> At the conclusion of this operation, Blue forces have destroyed REDARMORDIVISION1 forward of PL STOP. Battalions in the main battle area will defend forward in area of operations and be prepared to delay REDMOTORIZEDRIFLEDIVISION1. Supporting Effort 3 screens PL DUDE.

2.4 Relative combat power analysis

2.4.1 Scenario RCP Inputs

None

2.4.2 Overall RCP and force ratio analysis for Blue and Red forces

Overall RCP Comparison							
Maneuver							
M1A2 co	.30	8	2.40	T-62 bn	.38	10	3.80
M2 co	.25	8	2.00	BMP-2 bn	.58	6	3.48
<i>Total Maneuver</i>			4.40				7.28
<i>Ratio (Maneuver)</i>			1				1.65
Fire support							
M198 155mm Bn	1.02	2	2.04	2S1 122mm Bn	.65	4	2.60
MLRS Btry	1.50	5	7.50 ¹⁵	2S3 152mm Bn	.79	2	1.58
				BM21 Bn	3.10	1	3.10
<i>Total Fire Support</i>			9.54				7.28
<i>Ratio (FS)</i>			1				.76
<i>Total (overall)</i>			6.44				14.54
<i>Ratio (overall)</i>			1				2.25

2.4.3 Local RCP and force ratio analysis by course of action

2.4.3.1 Blue COA 1

A balanced brigade conducts a mobile defense to block enemy forces in order to prevent enemy penetration of PL STOP. This is accomplished in three battalion task force sectors. The course of action begins with Supporting Effort 1 defending forward in sector on AA 1, Supporting Effort 2 defending forward in sector on AA 3, supporting effort three defending on AA 2, vicinity BP 7, and the Main Effort in AA HOLD. Enemy first echelon forces enter the brigade sector when lead regiments cross PL DUDE. One enemy regiment attacks on each AA 1,2,3. Contact is made initially in the sectors belonging to Supporting Efforts 1 and 2. Enemy regiments attempt to penetrate Supporting Effort 1 and 2 defenses. The regiment on AA 2 continues the attack with little resistance. Red forces being blocked by Supporting Efforts 1 and 2 continue to attack until attrited to 70

¹⁵ It's important to know that the MLRS batteries are there, but these belong to the division, and should not be counted toward the brigade's overall combat power. The force ratio for fire support takes the MLRS into account, because the division normally uses MLRS heavily in a counterbattery role, and this will indirectly benefit the brigade's fire support fight. The overall force ratio analysis, however, does not take this number into consideration. Only the forces under the immediate control of the brigade are considered for that purpose.

percent. When this level of attrition is reached, these regiments bypass their avenues of approach and continue the attack on AA 2. Blue Supporting Efforts 1 and 2 are attrited to 80 percent. The Red regiments on AA 2 make contact with Blue obstacles in EA STRIKE and are fixed by Supporting Effort 3. Red forces attempt to breach and bypass tactical obstacles in EA STRIKE, with the intent of penetrating or bypassing Supporting Effort 3. Supporting Effort 3 fixes Red forces in EA STRIKE. The lead Red regiment is attrited to 75 percent, and the following regiments (turned from other sectors) are attrited further slightly (to 60 percent). Blue Main Effort attacks along AXIS BOLD into EA STRIKE to defeat remaining enemy forces. Red forces are rendered incapable of further action when attrited to 30 percent overall strength. Blue forces are attrited to 80 percent overall strength. Second echelon tank regiment attacks into the brigade sector, and either attacks directly into EA STRIKE or is turned into the engagement area by supporting efforts. Second echelon tank regiment is defeated in EA STRIKE (attrited to 30 percent). Blue forces are attrited to 70 percent.

2.4.3.1.1 Local RCP comparisons, COA1, Red COA1

COA Specific RCP Inputs:

Critical Events:

- CE1: Supporting Effort 1 blocks REDARMORREGIMENT1 and canalizes REDARMORREGIMENT1 into AA2
- CE2: Supporting Effort 2 blocks REDINFANTRYREGIMENT1 and canalizes REDINFANTRYREGIMENT1 into AA2
- CE3: Supporting Effort 3 fixes REDARMORREGIMENT2, REDARMORREGIMENT1, and REDINFANTRYREGIMENT1. BLUEARTILLERYBATTALION1 suppresses REDARMORREGIMENT2, REDARMORREGIMENT1, and REDINFANTRYREGIMENT1.
- CE4: Supporting Effort 3 and Main Effort defeat REDARMORREGIMENT2, REDARMORREGIMENT1, and REDINFANTRYREGIMENT1. BLUEARTILLERYBATTALION1 suppresses REDARMORREGIMENT2, REDARMORREGIMENT1, and REDINFANTRYREGIMENT1.
- CE5: Supporting Effort 3 and Main Effort defeat REDARMORREGIMENT3. BLUEARTILLERYBATTALION1 suppresses REDARMORREGIMENT3.
- CE1 and CE2 before or overlap CE3
- CE3 meets CE4
- CE4 before CE5

Attrition Assumptions:

- During CE1 REDARMORREGIMENT1 attrits Supporting Effort 1 to 80%.
- During CE1 Supporting Effort 1 attrits REDARMORREGIMENT1 to 70%.
- During CE2 REDINFANTRYREGIMENT1 attrits Supporting Effort 2 to 80%.
- During CE2 Supporting Effort 2 attrits REDINFANTRYREGIMENT1 to 70%.
- During CE3 Supporting Effort 3 attrits REDARMORREGIMENT2 to 75%.

During CE3 Supporting Effort 3 attrits REDARMORREGIMENT1 to 60%.

During CE3 Supporting Effort 3 attrits REDINFANTRYREGIMENT1 to 60%.

During CE4 Supporting Effort 3 and Main Effort attrit REDARMORREGIMENT1 to 30%

During CE4 Supporting Effort 3 and Main Effort attrit REDARMORREGIMENT2 to 30%

During CE4 Supporting Effort 3 and Main Effort attrit REDINFANTRYREGIMENT1 to 30%

During CE4 REDARMORREGIMENT1, REDARMORREGIMENT2, and REDINFANTRYREGIMENT1 attrit Supporting Effort 3 and Main Effort to 80%.

During CE5 Supporting Effort 3 and Main Effort attrit REDARMORREGIMENT3 to 30%

During CE5 REDARMORREGIMENT3 attrits Supporting Effort 3 and Main Effort to 70%

COA Specific RCP Outputs:

CE1: SE1 blocks REDARMORREGIMENT1							
M1A2 co	.30	1	.30	T-62 bn	.38	3	1.14
M2 co	.25	3	.75	BMP-2 bn	.58	1	0.58
				2S1 122mm bn	.65	1	0.65
TOTALS			1.05				2.37
Ratio			1				2.26
CE2: SE2 blocks REDINFANTRYREGIMENT1							
M1A2 co	.30	1	.30	T-62 bn	.38	1	0.38
M2 co	.25	3	.75	BMP-2 bn	.58	3	1.74
				2S1 122mm bn	.65	1	0.65
TOTALS			1.05				2.77
Ratio			1				2.64
CE3: SE3 fixes REDARMORREGIMENT2, REDARMORREGIMENT1, and REDINFANTRYREGIMENT1¹⁶							
M1A2 co	.30	2	.60	T-62 bn	.38	3	1.14
M2 co	.25	1	.25	BMP-2 bn	.58	1	0.58
M198 155mm bn ¹⁷	1.02	2	2.04	2S1 122mm bn	.65	1 ¹⁸	0.65
				MRR(-) ¹⁹			1.48
				TR(-) ²⁰			1.20
TOTALS			2.89				5.05
Ratio			1				1.75

¹⁶ The two Red units blocked by SE1 and SE2 will be canalized into EA STRIKE

¹⁷ Purpose of fires is to defeat Red mobility and to suppress in EA STRIKE

¹⁸ Only the battalion supporting the middle regiment (not yet in contact) assumed to be effective at this point.

¹⁹ Maneuver forces only – attrited to 70% effectiveness. Artillery ineffective due to degraded command and control and counterbattery fires.

²⁰ Maneuver forces only – attrited to 70% effectiveness. Artillery ineffective due to degraded command and control and counterbattery fires.

CE4: SE3 and ME defeat REDARMORREGIMENT2, REDARMORREGIMENT1, and REDINFANTRYREGIMENT1 in EA STRIKE (counterattack)							
M1A2 co	.30	3	.90	TR(-) ²¹		1	1.77
M2 co	.25	1	.25	MRR(-) ²²		1	1.27
M198 155mm bn ²³	1.02	2	2.04	TR(-) ²⁴		1	1.03
SE3(-) ²⁵			.68				
TOTALS			3.87				4.07
Ratio			1				1.05
CE5: SE3 and ME defeat REDARMORREGIMENT3 in EA STRIKE							
M1A2 co ²⁶	.30	3	.72	TR ²⁷		1	2.13
M2 co ²⁸	.25	1	.20	Remnants ²⁹		1	2.25
M198 155mm bn ³⁰	1.02	2	1.63			1	
SE3(-) ³¹			.60				
TOTALS			3.15				4.38
Ratio			1				1.39

2.4.3.1.2 Local RCP comparisons, COA1, Red COA2

Same as Red COA1 except that the Red second echelon tank regiment attempts penetration on AA 1.

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 1 blocks REDARMORREGIMENT1 and canalizes REDARMORREGIMENT1 into AA2

CE2: Supporting Effort 2 blocks REDINFANTRYREGIMENT1 and canalizes REDINFANTRYREGIMENT1 into AA2

CE3: Supporting Effort 3 fixes REDARMORREGIMENT2, REDARMORREGIMENT1, and REDINFANTRYREGIMENT1. BLUEARTILLERYBATTALION1

²¹ Maneuver and DS Artillery – attrited to 75% effectiveness

²² Maneuver forces only – attrited to 60% effectiveness. Artillery ineffective due to degraded command and control and counterbattery fires.

²³ Purpose of fires is to defeat Red mobility and to suppress in EA STRIKE

²⁴ Maneuver forces only – attrited to 60% effectiveness. Artillery ineffective due to degraded command and control and counterbattery fires.

²⁵ SE3 maneuver forces only, attrited to 80% effectiveness

²⁶ attrited to 80 percent effectiveness.

²⁷ attrited to 90 percent by delay

²⁸ attrited to 80 percent effectiveness.

²⁹ combined strength of maneuver forces from first echelon regiments, attrited to 30 percent.

³⁰ Purpose of fires is to defeat Red mobility and to suppress in EA STRIKE

³¹ SE3 maneuver forces only, attrited to 70% effectiveness

suppresses REDARMORREGIMENT2, REDARMORREGIMENT1, and REDINFANTRYREGIMENT1.

CE4: Supporting Effort 3 and Main Effort defeat REDARMORREGIMENT2, REDARMORREGIMENT1, and REDINFANTRYREGIMENT1.
BLUEARTILLERYBATTALION1 suppresses REDARMORREGIMENT2, REDARMORREGIMENT1, and REDINFANTRYREGIMENT1.

CE5: Supporting Effort 1 blocks REDARMORREGIMENT3 and canalizes REDARMORREGIMENT3 into AA2.

CE6: Supporting Effort 3 and Main Effort defeat REDARMORREGIMENT3.
BLUEARTILLERYBATTALION1 suppresses REDARMORREGIMENT3.

CE1 and CE2 before or overlap CE3

CE1 before or meets CE5

CE3 meets CE4

CE5 before CE6

CE4 before or meets CE6

Attrition Assumptions:

During CE1 REDARMORREGIMENT1 attrits Supporting Effort 1 to 80%.

During CE1 Supporting Effort 1 attrits REDARMORREGIMENT1 to 70%.

During CE2 REDINFANTRYREGIMENT1 attrits Supporting Effort 2 to 80%.

During CE2 Supporting Effort 2 attrits REDINFANTRYREGIMENT1 to 70%.

During CE3 Supporting Effort 3 attrits REDARMORREGIMENT2 to 75%.

During CE3 Supporting Effort 3 attrits REDARMORREGIMENT1 to 60%.

During CE3 Supporting Effort 3 attrits REDINFANTRYREGIMENT1 to 60%.

During CE4 Supporting Effort 3 and Main Effort attrit REDARMORREGIMENT1 to 30%

During CE4 Supporting Effort 3 and Main Effort attrit REDARMORREGIMENT2 to 30%

During CE4 Supporting Effort 3 and Main Effort attrit REDINFANTRYREGIMENT1 to 30%

During CE4 REDARMORREGIMENT1, REDARMORREGIMENT2, and REDINFANTRYREGIMENT1 attrit Supporting Effort 3 and Main Effort to 80%.

During CE5 Supporting Effort 1 attrits REDARMORREGIMENT3 to 90%.

During CE6 Supporting Effort 3 and Main Effort attrit REDARMORREGIMENT3 to 30%

During CE6 REDARMORREGIMENT3 attrits Supporting Effort 3 and Main Effort to 70%

COA Specific RCP Outputs:

CE5: SE1 blocks REDARMORREGIMENT3							
M1A2 co ³²	.30	1	.24	TR ³³		1	2.13
M2 co ³⁴	.25	3	.60				
M198 155mm bn ³⁵	1.02	1	.80				
TOTALS			1.64				2.13
Ratio			1				1.30
CE6: SE3 and ME defeat REDARMORREGIMENT3 in EA STRIKE							
M1A2 co ³⁶	.30	3	.72	TR ³⁷		1	2.13
M2 co ³⁸	.25	1	.20	Remnants ³⁹		1	2.25
M198 155mm bn ⁴⁰	1.02	2	1.63			1	
SE3(-) ⁴¹			.60				
TOTALS			3.15				4.38
Ratio			1				1.39

2.4.3.1.3 Local RCP comparisons, COA1, Red COA3

Same as Red COA1 except that the Red second echelon tank regiment attempts penetration on AA 3.

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 2 blocks REDARMORREGIMENT1 and canalizes REDARMORREGIMENT1 into AA2.

CE2: Supporting Effort 1 blocks REDINFANTRYREGIMENT1 and canalizes REDARMORREGIMENT1 into AA2.

CE3: Supporting Effort 3 fixes REDARMORREGIMENT2, REDARMORREGIMENT1, and REDINFANTRYREGIMENT1. BLUEARTILLERYBATTALION1 suppresses REDARMORREGIMENT2, REDARMORREGIMENT1, and REDINFANTRYREGIMENT1.

³² attrited to 80 percent effectiveness.

³³ attrited to 90 percent by delay

³⁴ attrited to 80 percent effectiveness.

³⁵ assumed that one battalion of artillery will continue to fire to EA STRIKE, (80 percent effectiveness) while another battalion of artillery will respond to calls for fire against the enemy second echelon tank regiment.

³⁶ attrited to 80 percent effectiveness.

³⁷ attrited to 90 percent by delay

³⁸ attrited to 80 percent effectiveness.

³⁹ combined strength of maneuver forces from first echelon regiments, attrited to 30 percent.

⁴⁰ Purpose of fires is to defeat Red mobility and to suppress in EA STRIKE

⁴¹ SE3 maneuver forces only, attrited to 70% effectiveness

CE4: Supporting Effort 3 and Main Effort defeat REDARMORREGIMENT2, REDARMORREGIMENT1, and REDINFANTRYREGIMENT1.
 BLUEARTILLERYBATTALION1 suppresses REDARMORREGIMENT2, REDARMORREGIMENT1, and REDINFANTRYREGIMENT1.
 CE5: Supporting Effort 2 blocks REDARMORREGIMENT3 and canalizes REDARMORREGIMENT3 into AA2.
 CE6: Supporting Effort 3 and Main Effort defeat REDARMORREGIMENT3. BLUEARTILLERYBATTALION1 suppresses REDARMORREGIMENT3.
 CE1 and CE2 before or overlaps CE3
 CE1 before or meets CE5
 CE3 meets CE4
 CE5 before CE6
 CE4 before or meets CE6

Attrition Assumptions:

During CE1 REDARMORREGIMENT1 attrits Supporting Effort 2 to 80%.
 During CE1 Supporting Effort 2 attrits REDARMORREGIMENT1 to 70%.
 During CE2 REDINFANTRYREGIMENT1 attrits Supporting Effort 1 to 80%.
 During CE2 Supporting Effort 1 attrits REDINFANTRYREGIMENT1 to 70%.
 During CE3 Supporting Effort 3 attrits REDARMORREGIMENT2 to 75%.
 During CE3 Supporting Effort 3 attrits REDARMORREGIMENT1 to 60%.
 During CE3 Supporting Effort 3 attrits REDINFANTRYREGIMENT1 to 60%.
 During CE4 Supporting Effort 3 and Main Effort attrit REDARMORREGIMENT1 to 30%.
 During CE4 Supporting Effort 3 and Main Effort attrit REDARMORREGIMENT2 to 30%.
 During CE4 Supporting Effort 3 and Main Effort attrit REDINFANTRYREGIMENT1 to 30%.
 During CE4 REDARMORREGIMENT1, REDARMORREGIMENT2, and REDINFANTRYREGIMENT1 attrit Supporting Effort 3 and Main Effort to 80%.
 During CE5 Supporting Effort 2 attrits REDARMORREGIMENT3 to 90%.
 During CE6 Supporting Effort 3 and Main Effort attrit REDARMORREGIMENT3 to 30%.
 During CE6 REDARMORREGIMENT3 attrits Supporting Effort 3 and Main Effort to 70%.

COA Specific RCP Outputs:

CE5: SE2 blocks REDARMORREGIMENT3							
M1A2 co ⁴²	.30	1	.24	TR ⁴³		1	2.13
M2 co ⁴⁴	.25	3	.60				
M198 155mm bn ⁴⁵	1.02	1	.80				

⁴² attrited to 80 percent effectiveness.

⁴³ attrited to 90 percent by delay

⁴⁴ attrited to 80 percent effectiveness.

Additional Scenarios for the COA Challenge Problem, v2.1.1

TOTALS			1.64				2.13
<i>Ratio</i>			1				1.30
CE6: SE3 and ME defeat REDARMORREGIMENT3 in EA STRIKE							
M1A2 co ⁴⁶	.30	3	.72	TR ⁴⁷		1	2.13
M2 co ⁴⁸	.25	1	.20	Remnants ⁴⁹		1	2.25
M198 155mm bn ⁵⁰	1.02	2	1.63			1	
SE3(-) ⁵¹			.60				
TOTALS			3.15				4.38
<i>Ratio</i>			1				1.39

⁴⁵ assumed that one battalion of artillery will continue to fire to EA STRIKE, (80 percent effectiveness) while another battalion of artillery will respond to calls for fire against the enemy second echelon tank regiment.

⁴⁶ attrited to 80 percent effectiveness.

⁴⁷ attrited to 90 percent by delay

⁴⁸ attrited to 80 percent effectiveness.

⁴⁹ combined strength of maneuver forces from first echelon regiments, attrited to 30 percent.

⁵⁰ Purpose of fires is to defeat Red mobility and to suppress in EA STRIKE

⁵¹ SE3 maneuver forces only, attrited to 70% effectiveness

2.4.3.2 Blue COA 2

A balanced brigade conducts a forward defense to block enemy forces in order to prevent enemy penetration of PL STOP. This is accomplished in three battalion task force sectors. The course of action begins with Supporting Effort 1 defending forward in sector on AA 1, vicinity BP 1, Supporting Effort 2 defending forward in sector on AA 3, vicinity BP 4, and the Main Effort defending on AA 2, vicinity BP 3. The reserve, an armor task force, is positioned at AA HOLD. Enemy first echelon forces enter the brigade sector when lead regiments cross PL DUDE. One enemy regiment attacks on each AA 1, 2, 3. Contact is made immediately in all three sectors. Red forces being blocked in all three sectors continue to attack until rendered incapable of further action (attrited to 30 percent). Blue forces are attrited to 80 percent. Red second echelon tank regiment attacks on one of avenues of approach 1, 2, or 3. The defending Blue force defeats the TR and remnants from the first echelon (attrited to 30%). The Blue task force in contact is further attrited to 70%.

2.4.3.2.1 Local RCP comparisons, COA2, Red COA1

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 1 blocks REDARMORREGIMENT1

CE2: Supporting Effort 2 blocks REDINFANTRYREGIMENT1

CE3: Main Effort blocks REDARMORREGIMENT2.

BLUEARTILLERYBATTALION1 suppresses REDARMORREGIMENT2.

CE4: Main Effort blocks REDARMORREGIMENT3.

BLUEARTILLERYBATTALION1 suppresses REDARMORREGIMENT3.

CE1 starts CE2

CE2 starts CE3

CE3 before or meets CE4

Attrition Assumptions:

During CE1 Supporting Effort 1 attrits REDARMORREGIMENT1 to 30%

During CE1 REDARMORREGIMENT1 attrits Supporting Effort 1 to 80%

During CE1 Supporting Effort 2 attrits REDINFANTRYREGIMENT1 to 30%

During CE1 REDINFANTRYREGIMENT1 attrits Supporting Effort 2 to 80%

During CE3 Main Effort attrits REDARMORREGIMENT2 to 30%

During CE3 REDARMORREGIMENT2 attrits Main Effort to 80%

During CE4 Main Effort attrits REDARMORREGIMENT3 to 30%

During CE4 REDARMORREGIMENT3 attrits Main Effort to 70%

COA Specific RCP Outputs:

CE1: SE1 blocks REDARMORREGIMENT1							
M1A2 co	.30	1	.30	T-62 bn	.38	3	1.14
M2 co	.25	3	.75	BMP-2 bn	.58	1	0.58
				2S1 122mm bn	.65	1	0.65
TOTALS			1.05				2.37
Ratio			1				2.26
CE2: SE2 blocks REDINFANTRYREGIMENT1							
M1A2 co	.30	1	.30	T-62 bn	.38	1	0.38
M2 co	.25	3	.75	BMP-2 bn	.58	3	1.74
				2S1 122mm bn	.65	1	0.65
TOTALS			1.05				2.77
Ratio			1				2.64
CE3: ME blocks REDARMORREGIMENT2							
M1A2 co	.30	3	.90	T-62 bn	.38	3	1.14
M2 co	.25	1	.25	BMP-2 bn	.58	1	0.58
M198 155mm bn ⁵²	1.02	1	1.02	2S1 122mm bn	.65	1	0.65
TOTALS			2.17				2.37
Ratio			1				1.09
CE4: ME blocks REDARMORREGIMENT3, remnants of TR							
M1A2 co	.30	3	.72 ⁵³	T-62 bn	.38	3	1.14
M2 co	.25	1	.20 ⁵⁴	BMP-2 bn	.58	1	0.58
M198 155mm bn	.92	1	.92 ⁵⁵	2S1 122mm bn	.65	1	0.65
				TR(-) ⁵⁶			0.52
TOTALS			1.84				2.89
Ratio			1				1.57

2.4.3.2.2 Local RCP comparisons, COA2, Red COA2

Same as Red COA1, except that the second echelon tank regiment is blocked by SE1.

COA Specific RCP Inputs:*Critical Events:*

CE1: Supporting Effort 1 blocks REDARMORREGIMENT1

CE2: Supporting Effort 2 blocks REDINFANTRYREGIMENT1

CE3: Main Effort blocks REDARMORREGIMENT2.

BLUEARTILLERYBATTALION1 suppresses REDARMORREGIMENT2.

⁵² Purpose of fires is to defeat Red mobility – at least a battalion assumed in support of main effort

⁵³ Attrited to 80%

⁵⁴ Attrited to 80%

⁵⁵ A battalion of artillery, attrited to 90%

⁵⁶ Maneuver only, attrited to 30% (combat ineffective, as a unit). Artillery ineffective due to degraded command and control and counterbattery fires.

CE4: Supporting Effort 1 blocks REDARMORREGIMENT3.

BLUEARTILLERYBATTALION1 suppresses REDARMORREGIMENT3

CE1 starts CE2

CE2 starts CE3

CE1 before or meets CE4

Attrition Assumptions:

During CE1 Supporting Effort 1 attrits REDARMORREGIMENT1 to 30%

During CE1 REDARMORREGIMENT1 attrits Supporting Effort 1 to 80%

During CE1 Supporting Effort 2 attrits REDINFANTRYREGIMENT1 to 30%

During CE1 REDINFANTRYREGIMENT1 attrits Supporting Effort 2 to 80%

During CE3 Main Effort attrits REDARMORREGIMENT2 to 30%

During CE3 REDARMORREGIMENT2 attrits Main Effort to 80%

During CE4 Supporting Effort 1 attrits REDARMORREGIMENT3 to 30%

During CE4 REDARMORREGIMENT3 attrits Supporting Effort 1 to 70%

COA Specific RCP Outputs:

CE4: SE1 blocks REDARMORREGIMENT3, remnants of TR							
M1A2 co	.30	1	.24	T-62 bn	.38	3	1.14
M2 co	.25	3	.60	BMP-2 bn	.58	1	0.58
M198 155mm bn ⁵⁷	.92	1	.92	2S1 122mm bn	.65	1	0.65
				TR(-) ⁵⁸			0.52
TOTALS			1.76				2.89
<i>Ratio</i>			1				1.64

2.4.3.2.3 Local RCP comparisons, COA2, Red COA3

Same as Red COA1, except that the second echelon tank regiment is blocked by SE2.

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 1 blocks REDINFANTRYREGIMENT1

CE2: Supporting Effort 2 blocks REDARMORREGIMENT1

CE3: Main Effort blocks REDARMORREGIMENT2. .

BLUEARTILLERYBATTALION1 suppresses REDARMORREGIMENT2.

CE4: Supporting Effort 2 blocks REDARMORREGIMENT3.

BLUEARTILLERYBATTALION1 suppresses REDARMORREGIMENT3.

CE1 starts CE2

CE2 starts CE3

CE2 before or meets CE4

Attrition Assumptions:

⁵⁷ A battalion of artillery, attrited to 90%

⁵⁸ Maneuver only, attrited to 30% (combat ineffective, as a unit). Artillery ineffective due to degraded command and control and counterbattery fires.

During CE1 Supporting Effort 1 attrits REDINFANTRYREGIMENT1 to 30%
 During CE1 REDINFANTRYREGIMENT1 attrits Supporting Effort 1 to 80%
 During CE1 Supporting Effort 2 attrits REDARMORREGIMENT1to 30%
 During CE1 REDARMORREGIMENT1attrits Supporting Effort 2 to 80%
 During CE3 Main Effort attrits REDARMORREGIMENT2 to 30%
 During CE3 REDARMORREGIMENT2 attrits Main Effort to 80%
 During CE4 Supporting Effort 2 attrits REDARMORREGIMENT3 to 30%
 During CE4 REDARMORREGIMENT3 attrits Supporting Effort 2 to 70%

COA Specific RCP Outputs:

CE4: SE2 blocks REDARMORREGIMENT3, remnants of TR							
M1A2 co	.30	1	.24	T-62 bn	.38	3	1.14
M2 co	.25	3	.60	BMP-2 bn	.58	1	0.58
M198 155mm bn ⁵⁹	.92	1	.92	2S1 122mm bn	.65	1	0.65
				TR(-) ⁶⁰			0.52
TOTALS			1.76				2.89
<i>Ratio</i>			1				1.64

2.4.3.3 Blue COA 3

A balanced brigade conducts an area defense to block enemy forces in order to prevent enemy penetration of PL STOP. This is accomplished in four battalion task force sectors. The course of action begins with Supporting Effort 1 defending in sector on AA 1, Supporting Effort 2 defending in sector on AA 3, and the Main Effort defending in sector on AA 2. Supporting Effort 3 conducts a security mission (guard) between PL DUDE and PL MIKE. The reserve, a mechanized company team, is positioned at AA HOLD. Enemy first echelon forces enter the brigade sector when lead regiments cross PL DUDE. One enemy regiment attacks on each AA 1,2,3. Supporting Effort 3 provides early warning to forces in the main battle area, and attrits first echelon forces with direct and indirect fires. Red forces are attrited to 80 percent strength, Supporting Effort 3 is attrited to 90 percent strength. Battle handover takes place between the security force and the main battle area when Red first echelon forces cross PL MIKE. Second echelon tank regiment enters security area, and Supporting Effort 3 begins delaying operation. The Main Effort, Supporting Effort 1, and Supporting Effort 2 destroy enemy regiments in sector on their respective avenues of approach. Blue forces in the main battle area are attrited to 80 percent. Guard force (Supporting Effort 3) completes retrograde operation at PL MIKE, and conducts battle handover. Supporting Effort 3 is attrited to 80 percent. The second echelon tank regiment is attrited to 90 percent as a result of the delaying operation. Second echelon tank regiment attacks in one of the three task force sectors in the main battle area, and is destroyed. Blue forces in contact with the second echelon TR are attrited to 70 percent.

⁵⁹ A battalion of artillery, attrited to 90%

⁶⁰ Maneuver only, attrited to 30% (combat ineffective, as a unit). Artillery ineffective due to degraded command and control and counterbattery fires.

2.4.3.3.1 Local RCP comparisons, COA3, Red COA1

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 3 guards REDARMORREGIMENT1,
REDARMORREGIMENT2, and REDINFANTRYREGIMENT1
CE2: Supporting Effort 3 delays REDARMORREGIMENT3
CE3: Supporting Effort 1 destroys REDARMORREGIMENT1
CE4: Supporting Effort 2 destroys REDINFANTRYREGIMENT1
CE5: Main Effort destroys REDARMORREGIMENT2.
BLUEARTILLERYBATTALION1 destroys REDARMORREGIMENT2.
CE6: Main Effort destroys REDARMORREGIMENT3.
BLUEARTILLERYBATTALION1 destroys REDARMORREGIMENT3.
CE1 before CE3, CD4, and CE5
CE1 before or meets CE2
CE2 before CE6
CE5 before or meets CE6

Attrition Assumptions:

During CE1 Supporting Effort 3 attrits REDARMORREGIMENT1,
REDARMORREGIMENT2, and REDINFANTRYREGIMENT1 to 80%.
During CE1 REDARMORREGIMENT1, REDARMORREGIMENT2, and
REDINFANTRYREGIMENT1 attrit Supporting Effort 3 to 90%.
During CE2 Supporting Effort 3 attrits REDARMORREGIMENT3 to 90%.
During CE2 REDARMORREGIMENT3 attrits Supporting Effort 3 to 80%.
During CE3 Supporting Effort 1 attrits REDARMORREGIMENT1 to 30%.
During CE3 REDARMORREGIMENT1 attrits Supporting Effort 1 to 80%.
During CE4 Supporting Effort 2 attrits REDINFANTRYREGIMENT1 to 30%.
During CE4 REDINFANTRYREGIMENT1 attrits Supporting Effort 2 to 80%.
During CE5 Main Effort attrits REDARMORREGIMENT2 to 30%.
During CE5 REDARMORREGIMENT2 attrits Main Effort to 80%.
During CE6 Main Effort attrits REDARMORREGIMENT3 to 30%.
During CE6 REDARMORREGIMENT3 attrits Main Effort to 70%.

COA Specific RCP Outputs:

CE1: SE3 guards REDARMORREGIMENT1, REDARMORREGIMENT2, and REDINFANTRYREGIMENT1							
M1A2 co	.30	1	.30	T-62 bn	.38	7	2.66
M2 co	.25	3	.75	BMP-2 bn	.58	5	2.90
M198 155mm bn	1.02	1	1.02	2S1 122mm bn	.65	3	1.95
TOTALS			2.07				7.51
Ratio			1				3.63

CE2: SE3⁶¹ delays REDARMORREGIMENT							
M1A2 co	.30	1	.27	T-62 bn	.38	7	2.66
M2 co	.25	3	.68	BMP-2 bn	.58	5	2.90
M198 155mm bn	1.02	1	1.02	2S1 122mm bn	.65	3	1.95
TOTALS			1.97				7.51
Ratio			1				3.81
CE3: SE1 destroys REDARMORREGIMENT1⁶²							
M1A2 co	.30	2	.60	T-62 bn	.30	3	.90
M2 co	.25	1	.50	BMP-2 bn	.46	1	.46
				2S1 122mm bn	.52	1	.52
TOTALS			1.10				1.88
Ratio			1				1.7
CE4: SE2 destroys REDINFANTRYREGIMENT1⁶³							
M1A2 co	.30	1	.30	T-62 bn	.30	1	0.30
M2 co	.25	3	.75	BMP-2 bn	.46	3	1.38
				2S1 122mm bn	.52	1	0.52
TOTALS			1.05				2.20
Ratio			1				2.10
CE5: ME destroys REDARMORREGIMENT2⁶⁴							
M1A2 co	.30	3	.90	T-62 bn	.30	3	.90
M2 co	.25	1	.25	BMP-2 bn	.46	1	.46
M198 155mm bn ⁶⁵	1.02	1	1.02	2S1 122mm bn	.52	1	.52
TOTALS			2.17				1.88
Ratio			1				0.87
CE6: ME⁶⁶ destroys REDARMORREGIMENT3⁶⁷							
M1A2 co	.24	1	.24	T-62 bn	.34	3	1.02
M2 co	.20	3	.60	BMP-2 bn	.52	1	0.52
M198 155mm bn	.92	1	.92	2S1 122mm bn	.59	1	0.59
TOTALS			1.76				2.13
Ratio			1				1.21

2.4.3.3.2 Local RCP comparisons, COA3, Red COA2

Same as Red COA 1, except that SE1 destroys second echelon tank regiment.

COA Specific RCP Inputs:

⁶¹ attrited to 90 percent

⁶² Forces attrited to 80% by Brigade security operation (guard).

⁶³ Forces attrited to 80% by Brigade security operation (guard).

⁶⁴ Forces attrited to 80% by Brigade security operation (guard).

⁶⁵ Purpose of fires is to defeat Red mobility – at least a battalion assumed in support of main effort

⁶⁶ Attrited to 80% by previous engagement

⁶⁷ Forces attrited to 90% by Brigade security operation (guard).

Critical Events:

CE1: Supporting Effort 3 guards REDARMORREGIMENT1,
REDARMORREGIMENT2, and REDINFANTRYREGIMENT1
CE2: Supporting Effort 3 delays REDARMORREGIMENT3
CE3: Supporting Effort 1 destroys REDARMORREGIMENT1
CE4: Supporting Effort 2 destroys REDINFANTRYREGIMENT1
CE5: Main Effort destroys REDARMORREGIMENT2.
BLUEARTILLERYBATTALION1 destroys REDARMORREGIMENT2.
CE6: Supporting Effort 1 destroys REDARMORREGIMENT3.
BLUEARTILLERYBATTALION1 destroys REDARMORREGIMENT3.
CE1 before CE3, CE4, and CE5
CE1 before or meets CE2
CE2 before CE6
CE3 before or meets CE6

Attrition Assumptions:

During CE1 Supporting Effort 3 attrits REDARMORREGIMENT1,
REDARMORREGIMENT2, and REDINFANTRYREGIMENT1 to 80%.
During CE1 REDARMORREGIMENT1, REDARMORREGIMENT2, and
REDINFANTRYREGIMENT1 attrit Supporting Effort 3 to 90%.
During CE2 Supporting Effort 3 attrits REDARMORREGIMENT3 to 90%.
During CE2 REDARMORREGIMENT3 attrits Supporting Effort 3 to 80%.
During CE3 Supporting Effort 1 attrits REDARMORREGIMENT1 to 30%.
During CE3 REDARMORREGIMENT1 attrits Supporting Effort 1 to 80%.
During CE4 Supporting Effort 2 attrits REDINFANTRYREGIMENT1 to 30%.
During CE4 REDINFANTRYREGIMENT1 attrits Supporting Effort 2 to 80%.
During CE5 Main Effort attrits REDARMORREGIMENT2 to 30%.
During CE5 REDARMORREGIMENT2 attrits Main Effort to 80%.
During CE6 Supporting Effort 1 attrits REDARMORREGIMENT3 to 30%.
During CE6 REDARMORREGIMENT3 attrits Supporting Effort 1 to 70%.

COA Specific RCP Outputs:

CE6: SE1⁶⁸ destroys REDARMORREGIMENT3⁶⁹							
M1A2 co	.24	2	.48	T-62 bn	.34	3	1.02
M2 co	.20	1	.20	BMP-2 bn	.52	1	0.52
M198 155mm bn	.92	1	.92	2S1 122mm bn	.59	1	0.59
TOTALS			1.6				2.13
<i>Ratio</i>			1				1.33

⁶⁸ Attrited to 80% by previous engagement

⁶⁹ Forces attrited to 90% by Brigade security operation (guard).

2.4.3.3.3 Local RCP comparisons, COA3, Red COA3

Same as Red COA 1, except that SE2 destroys second echelon tank regiment.

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 3 guards REDARMORREGIMENT1,
REDARMORREGIMENT2, and REDINFANTRYREGIMENT1
CE2: Supporting Effort 3 delays REDARMORREGIMENT3
CE3: Supporting Effort 1 destroys REDARMORREGIMENT1
CE4: Supporting Effort 2 destroys REDINFANTRYREGIMENT1
CE5: Main Effort destroys REDARMORREGIMENT2.
BLUEARTILLERYBATTALION1 destroys REDARMORREGIMENT2.
CE6: Supporting Effort 2 destroys REDARMORREGIMENT3.
BLUEARTILLERYBATTALION1 destroys REDARMORREGIMENT3.
CE1 before CE3, CE4, and CE5
CE1 before or meets CE2
CE2 before CE6
CE4 before or meets CE6

Attrition Assumptions:

During CE1 Supporting Effort 3 attrits REDARMORREGIMENT1,
REDARMORREGIMENT2, and REDINFANTRYREGIMENT1 to 80%.
During CE1 REDARMORREGIMENT1, REDARMORREGIMENT2, and
REDINFANTRYREGIMENT1 attrit Supporting Effort 3 to 90%.
During CE2 Supporting Effort 3 attrits REDARMORREGIMENT3 to 90%.
During CE2 REDARMORREGIMENT3 attrits Supporting Effort 3 to 80%.
During CE3 Supporting Effort 1 attrits REDARMORREGIMENT1 to 30%.
During CE3 REDARMORREGIMENT1 attrits Supporting Effort 1 to 80%.
During CE4 Supporting Effort 2 attrits REDINFANTRYREGIMENT1 to 30%.
During CE4 REDINFANTRYREGIMENT1 attrits Supporting Effort 2 to 80%.
During CE5 Main Effort attrits REDARMORREGIMENT2 to 30%.
During CE5 REDARMORREGIMENT2 attrits Main Effort to 80%.
During CE6 Supporting Effort 2 attrits REDARMORREGIMENT3 to 30%.
During CE6 REDARMORREGIMENT3 attrits Supporting Effort 2 to 70%.

COA Specific RCP Outputs:

CE6: SE2⁷⁰ destroys REDARMORREGIMENT3⁷¹							
M1A2 co	.24	2	.48	T-62 bn	.34	3	1.02
M2 co	.20	2	.40	BMP-2 bn	.52	1	0.52
M198 155mm bn	.92	1	.92	2S1 122mm bn	.59	1	0.59
TOTALS			1.8				2.13
Ratio			1				1.18

2.5 Questions, Answers, Critiques, and Fixes

2.5.1 Viability

2.5.1.1 Suitability

- Q: Is a subordinate unit in the course of action tasked to accomplish the overall purpose of the mission?
- A: [COA 2.1.0, COA 2.2.0, COA 2.3.0] Yes. The purpose of the Main Effort is to prevent enemy forces from gaining access to the territory south of PL STOP. This purpose is the same as the brigade's purpose.
- Q: Does the COA account for the following element of the commander's intent: "Prevent enemy forces from crossing west boundary of the brigade and prevent enemy forces from crossing east boundary of the brigade"?
- A: [COA 2.1.0] Yes.

Justification: Supporting Efforts 1 and 2 have defensive sectors contiguous with adjacent units. These two units defend forward in sector, with the purpose of diverting enemy forces into the brigade area of operations (specifically into EA STRIKE), and not out of it.

[COA 2.2.0] Yes.

Justification: The Main Effort and Supporting Efforts 1 and 2 defend forward along the entire width of the brigade sector, with the intent to block enemy forces. Successful blocking operations in all three battalion task force sectors will prevent enemy forces from penetrating the brigade boundary on either side. FASCAM minefields are planned to augment flank security.

⁷⁰ Attrited to 80% by previous engagement

⁷¹ Forces attrited to 90% by Brigade security operation (guard).

[COA 2.3.0] Yes.

Justification: The main battle area is sufficiently forward that avenues of approach outside the brigade area of operations are covered by forces in the main battle area. If Red forces are destroyed in the main battle area as planned, Red will be prevented from penetrating the brigade boundaries on either side. In addition, FASCAM minefields are planned to augment flank security.

(KF 6332.1) Tactical obstacles are employed to disrupt enemy formations, to turn them into a desired area, to fix them in position under direct and indirect fires, and to block enemy penetrations.

Q: Does the COA account for the following element of the commander's intent: be prepared to delay enemy forces northwest of PL STOP?

A: [COA 2.1.0] Yes.

Justification: All units can be expected to have adequate combat power to perform a delaying operation against the anticipated enemy forces, as illustrated in section 2.3 (Relative Combat Power Analysis). The course of action prepares for the possible delay of follow on divisions by specifying that the defense will be restored forward of PL GUY.

[COA 2.2.0] Yes.

Justification: All units can be expected to have adequate combat power to perform a delaying operation. Three battalion task forces are already defending forward in the brigade sector, and are in a position to conduct delaying actions in their sectors, if needed.

[COA 2.3.0] Yes.

Justification: All units can be expected to have adequate combat power to perform a delaying operation against the anticipated enemy forces, as illustrated in section 2.3 (Relative Combat Power Analysis). The three battalions in the main battle area are instructed to defend forward in sector in preparation for the delaying action. The guard force in the brigade security area reverts to a screen to provide early warning for this delaying action.

(KF 713.1) Both ST 100-9 and FM 34-130 give guidelines for historical minimum force ratios needed for some missions, principally attack and defense. Because only a few mission types are provided, planners augment them as necessary for additional tasks, making appropriate assumptions as necessary to estimate the required force ratio for a given mission and

circumstance. Planning ratios are given for the following friendly missions:

Attack (vs. prepared defense) 3:1

Attack (vs. prepared defense) 2.5:1

Defend (from prepared position) 1:3

Defend (from hasty position) 1:2.5

Counterattack (from flank of defense) 1:1

→ → Delay 1:6

It should be emphasized that these force ratios are considered to be minimally acceptable. For example, an attack against a prepared defense with the listed 3:1 ratio would typically be estimated to have about a 50% probability of success (as would the corresponding defense with a 1:3 ratio). To be assured of success, a 5:1 or 6:1 ratio would be preferred for the attack vs. a prepared defense; the other situations listed would likewise require better odds to assure success.

Q: [COA 2.1.0] Does the following task assigned to Supporting Effort 1 accomplish its specified purpose: “block enemy forces along AA 1 in order to cause them to maneuver into EA STRIKE.”?

A: Yes.

Justification: Enemy attacks that are blocked in this sector are likely to be diverted to sectors that are less heavily defended (AA 2).

Q: [COA 2.1.0] Does the following task assigned to Supporting Effort 3 accomplish its specified purpose?: “fix enemy forces in EA STRIKE in order to enable the Main Effort to conduct a counterattack to destroy enemy forces.”

A: Yes.

Justification: If Red forces are fixed in EA STRIKE, they will be unable to gain a position of advantage from which they can thwart the Main Effort’s counterattack.

Q: [COA 2.2.0] Does the following task assigned to Main Effort accomplish its specified purpose: “block enemy forces along AA 2 in order to prevent enemy penetration south of PL STOP”?

A: Yes, assuming enemy most probable course of action (main attack on avenue of approach 2), and assuming that the Blue supporting efforts accomplish their purposes in support of the Main Effort.

Q: [COA 2.2.1] Does the following task assigned to Main Effort accomplish its specified purpose: “secure BP 3 in order to prevent enemy penetration south of PL STOP”?

A: *Critique: The COA may not be suitable because one or more of the tasks will not accomplish its purpose.*

Justification: It is not clear that securing BP 3 will prevent enemy forces from penetrating PL STOP. This task is terrain oriented, and the purpose is to prevent the enemy from taking some action.

(KF 521.1) Tasks are expressed with regard to terrain, friendly forces, or enemy forces.

(a) Tasks that are terrain-oriented are clear, control, counter-reconnaissance, occupy, seize, secure, retain.

(b) Tasks that are friendly force-oriented are follow and assume, follow and support, guard, linkup, support by fire.

(c) Tasks that are enemy force-oriented are ambush, attack by fire, block, bypass, canalize, contain, defeat, destroy, disengagement, disrupt, exfiltrate, interdict, fix, isolate, neutralize, penetrate.

Potential improvements: Change the task for this effort to an enemy-oriented task. Tasks that could accomplish the stated purpose include block, fix, destroy, and defeat.

2.5.1.2 Feasibility

All relative combat power and force ratio analysis figures below are supported in greater detail in section 0, *Relative Combat Power Analysis*.

Q: [COA 2.1.0] Does Supporting Effort 2 have sufficient resources to accomplish its mission?

A: Yes.

Justification: Relative combat power analysis yields a Blue to Red force ratio of 1:2.64. This ratio is better than the 1:3 ratio historically viewed as necessary for a 50 percent chance of success in a prepared defense against a deliberate attack.

(KF 713.1) Both ST 100-9 and FM 34-130 give guidelines for historical minimum force ratios needed for some missions, principally attack and defense. Because only a few mission types are provided, planners augment them as necessary for additional tasks, making appropriate assumptions as

necessary to estimate the required force ratio for a given mission and circumstance. Planning ratios are given for the following friendly missions:

- Attack (vs. prepared defense) 3:1
- Attack (vs. prepared defense) 2.5:1
- → Defend (from prepared position) 1:3
- Defend (from hasty position) 1:2.5
- Counterattack (from flank of defense) 1:1
- Delay 1:6

It should be emphasized that these force ratios are considered to be minimally acceptable. For example, an attack against a prepared defense with the listed 3:1 ratio would typically be estimated to have about a 50% probability of success (as would the corresponding defense with a 1:3 ratio). To be assured of success, a 5:1 or 6:1 ratio would be preferred for the attack vs. a prepared defense; the other situations listed would likewise require better odds to assure success.

Q: [COA 2.1.0] Does the Main Effort have sufficient resources to accomplish its mission?

A: *Critique: The COA may not be feasible because a unit has inadequate forces for an assigned task.*

Justification: Relative combat power analysis yields a Blue to Red force ratio of 1 to 1.05. This is less than the 1:1 ratio historically viewed as necessary for a 50 percent chance of success in counterattacking against an enemy's flank.

(KF 713.1) Both ST 100-9 and FM 34-130 give guidelines for historical minimum force ratios needed for some missions, principally attack and defense. Because only a few mission types are provided, planners augment them as necessary for additional tasks, making appropriate assumptions as necessary to estimate the required force ratio for a given mission and circumstance. Planning ratios are given for the following friendly missions:

- Attack (vs. prepared defense) 3:1
- Attack (vs. prepared defense) 2.5:1
- Defend (from prepared position) 1:3
- Defend (from hasty position) 1:2.5
- → Counterattack (from flank of defense) 1:1
- Delay 1:6

It should be emphasized that these force ratios are considered to be minimally acceptable. For example, an attack against a prepared defense with the listed 3:1 ratio would typically be estimated to have about a 50% probability of success (as would the corresponding defense with a 1:3 ratio). To be assured

of success, a 5:1 or 6:1 ratio would be preferred for the attack vs. a prepared defense; the other situations listed would likewise require better odds to assure success.

Potential fix: Reallocate a mechanized company from Supporting Effort 1 to the Main Effort. Supporting Effort 1 will still achieve slightly better than 1:3, and the Main Effort and Supporting Effort 3 combine to achieve slightly better than 1:1 over the Red forces in EA STRIKE.

Q: [COA 2.2.0] Does the Main Effort have sufficient resources to accomplish its mission?

A: Yes.

Justification: Assuming Red COA 1, the Main Effort will face two tank regiments (in serial: a tank regiment in the first echelon, and a follow-on tank regiment in the second echelon). Against the first echelon tank regiment, the Main Effort has a 1:1.09 ratio, well within the historic minimum of 1:3 for a reasonable chance of success. When the Main Effort defends against the second echelon tank regiment, there will also be remnants of the first tank regiment remaining in the Main Effort sector. Assuming that the first echelon tank regiment is destroyed by the Main Effort's blocking operations (as reflected in the Relative Combat Power Analysis section above, we will allow for 30 percent of the original strength of that tank regiment to remain in the sector to add to the total combat power the Main Effort will face. The force ratio between the Main Effort (assumed in the Relative Combat Power analysis to be attrited to 80% maneuver, 90% field artillery) and the combined Red forces in sector is estimated to be 1:1.57. This is also well within the historic minimum of 1:3 necessary for a reasonable chance of success of defending in prepared positions against a deliberate attack.

(KF 713.1) Both ST 100-9 and FM 34-130 give guidelines for historical minimum force ratios needed for some missions, principally attack and defense. Because only a few mission types are provided, planners augment them as necessary for additional tasks, making appropriate assumptions as necessary to estimate the required force ratio for a given mission and circumstance. Planning ratios are given for the following friendly missions:

- Attack (vs. prepared defense) 3:1
- Attack (vs. prepared defense) 2.5:1
- → Defend (from prepared position) 1:3
- Defend (from hasty position) 1:2.5
- Counterattack (from flank of defense) 1:1
- Delay 1:6

It should be emphasized that these force ratios are considered to be minimally acceptable. For example, an attack against a prepared defense

with the listed 3:1 ratio would typically be estimated to have about a 50% probability of success (as would the corresponding defense with a 1:3 ratio). To be assured of success, a 5:1 or 6:1 ratio would be preferred for the attack vs. a prepared defense; the other situations listed would likewise require better odds to assure success.

Q: [COA 2.3.0] Does Supporting Effort 3 have sufficient resources to accomplish its mission?

A: Yes.

Justification: Supporting Effort 3 is performing a security operation in which it will guard the brigade area with respect to enemy first echelon forces, providing early warning and attriting them to 80%. Supporting Effort 3 will also delay the second echelon tank regiment. A 1:6 force ratio is required to have a reasonable chance of success for a guard and delay. The force ratio between Supporting Effort 3 and the first echelon forces is 1:3.63. The force ratio between Supporting Effort 3 and the second echelons tank regiment is nearly 1:1.

(KF 713.1) Both ST 100-9 and FM 34-130 give guidelines for historical minimum force ratios needed for some missions, principally attack and defense. Because only a few mission types are provided, planners augment them as necessary for additional tasks, making appropriate assumptions as necessary to estimate the required force ratio for a given mission and circumstance. Planning ratios are given for the following friendly missions:

Attack (vs. prepared defense) 3:1
Attack (vs. prepared defense) 2.5:1
Defend (from prepared position) 1:3
Defend (from hasty position) 1:2.5
Counterattack (from flank of defense) 1:1

→ → Delay 1:6

It should be emphasized that these force ratios are considered to be minimally acceptable. For example, an attack against a prepared defense with the listed 3:1 ratio would typically be estimated to have about a 50% probability of success (as would the corresponding defense with a 1:3 ratio). To be assured of success, a 5:1 or 6:1 ratio would be preferred for the attack vs. a prepared defense; the other situations listed would likewise require better odds to assure success.

2.5.1.3 Acceptability

Q: In what ways might this course of action be assuming risk to the Main Effort?

- A: [COA 2.1.0] *Critique: The COA assumes some risk or may not be acceptable because a unit is responsible for a disproportionately large amount of enemy forces.*

Justification: The Main Effort will conduct an attack into an engagement area against a large enemy force. Success depends on the assumption that this large enemy force will be partially attrited by Supporting Effort 1 and Supporting Effort 2, and fixed by the efforts of Supporting Effort 3, vicinity Hill 190.

(KF 714.1b) Tactical risk is incurred by assigning a unit responsibility for a disproportionately large number of enemy forces.

Potential Improvements:

- Allocate additional combat power to the Main Effort
- Place another maneuver force at EA STRIKE in an attack by fire position to add to the total combat power included in the overall force ratio at EA STRIKE.

(KF 714.2f) Tactical risk can be managed by adding combat power to a unit (attached units, additional weapon systems, stockpiled ammunition and fuel, etc.)

- [COA 2.1.0] *Critique: The COA assumes some risk or may not be acceptable because the potential for fratricide exists.*

Justification: The Main Effort will be exposed to the risk of fratricide from the fires of Supporting Effort 3 and supporting artillery fires, and obstacles in the engagement area. Extensive coordination, preparation, and rehearsals are necessary to reduce this risk.

Potential Improvements:

- Give the Main Effort a limit of advance
- Give the Main Effort an attack by fire position to occupy from which it will attack enemy forces in EA STRIKE.

- [COA 2.1.0] *Critique: The COA assumes some risk or may not be acceptable because the COA keeps few or no forces in reserve.*

Justification: The COA explicitly acknowledges the lack of a reserve and assumes this risk, as reflected in its Reserve and Risk statements.

(KF 714.1c) Tactical risk is incurred by holding a small reserve or no reserve at all.

Potential Improvements: Re-allocate a mechanized company from Supporting Effort 1 to be the brigade reserve. This would be an appropriate use of economy of force. Supporting Effort 1 would have a force ratio of better than 1:3 for its defense, and the brigade would have a reserve.

(KF 114.3) Allocate minimum essential combat power to secondary efforts.

(KF 114.4) A Course of Action in which more than the minimum necessary force is applied to secondary efforts is probably not effectively employing the Principle of Economy of Force.

(KF 713.1) Both ST 100-9 and FM 34-130 give guidelines for historical minimum force ratios needed for some missions, principally attack and defense. Because only a few mission types are provided, planners augment them as necessary for additional tasks, making appropriate assumptions as necessary to estimate the required force ratio for a given mission and circumstance. Planning ratios are given for the following friendly missions:

Attack (vs. prepared defense) 3:1
Attack (vs. prepared defense) 2.5:1
→ → Defend (from prepared position) 1:3
Defend (from hasty position) 1:2.5
Counterattack (from flank of defense) 1:1
Delay 1:6

It should be emphasized that these force ratios are considered to be minimally acceptable. For example, an attack against a prepared defense with the listed 3:1 ratio would typically be estimated to have about a 50% probability of success (as would the corresponding defense with a 1:3 ratio). To be assured of success, a 5:1 or 6:1 ratio would be preferred for the attack vs. a prepared defense; the other situations listed would likewise require better odds to assure success.

(KF 714.2c) Tactical risk can be managed by holding a capable reserve.

[COA 2.1.0, COA 2.2.0] *Critique: The COA assumes some risk or may not be acceptable because there is insufficient security in the scheme of maneuver.*

Justification: No security area is designated, and no force is assigned the responsibility to conduct security operations for the brigade.

Potential Improvements:

- Re-plan the COA to include a security area, and a brigade security force
- Designate a security area. Delegate responsibility for the security battle by directing Supporting Effort 1, Supporting Effort 2, and Supporting Effort 3

to conduct security tasks in the security area within their respective sectors until a specified time/event. Optionally, specify a minimum force to be used in each sector (i.e., a company-sized force).

[COA 2.2.0] *Critique: The COA assumes some risk or may not be acceptable because a unit is responsible for a disproportionately large amount of enemy forces.*

Justification: Assuming the enemy most likely course of action, the Main Effort will face two enemy tank regiments. If the enemy's follow-on tank regiment follows closely behind the first echelon tank regiment, it is possible that the Main Effort will face both tank regiments at once, rather than in succession. This presents the Main Effort with a Red to Blue force ratio of 1:2.18. This is still within the historic minimum of 1:3 necessary for reasonable chance of success. This is not bad in itself; however, it is disproportionate in that the Main Effort is faced with a force ratio less favorable than one or more supporting efforts under this circumstance.

Potential Improvements:

Re-plan the COA to create, maintain, or increase the desired interval between the echelons. This can be done by defending in depth, thus using more of the brigade sector to develop the interval. This can also be done by designating a sector within which to conduct a delay of the second echelon.

Q: In what ways might this course of action be assuming risk to Supporting Effort 2?

A: [COA 2.2.0] *Critique: The COA assumes some risk or may not be acceptable because a unit is responsible for a disproportionately large amount of enemy forces.*

Justification: Assuming Red course of action 3 (most dangerous, in which Red main attack occurs along avenue of approach 3), Supporting Effort 2 will face a tank regiment from the first echelon and another from the second echelon. If the enemy's follow-on tank regiment follows closely behind the first echelon tank regiment, it is possible that the Main Effort will face both regiments at once, rather than in succession. This presents Supporting Effort 2 with a Blue to Red force ratio of 1: 4.51. This is insufficient to prevent a penetration by the enemy in Supporting Effort 2's sector.

(KF 713.1) Both ST 100-9 and FM 34-130 give guidelines for historical minimum force ratios needed for some missions, principally attack and defense. Because only a few mission types are provided, planners augment them as necessary for additional tasks, making appropriate assumptions as necessary to estimate the required force ratio for a given mission and

circumstance. Planning ratios are given for the following friendly missions:

- Attack (vs. prepared defense) 3:1
- Attack (vs. prepared defense) 2.5:1
- → Defend (from prepared position) 1:3
- Defend (from hasty position) 1:2.5
- Counterattack (from flank of defense) 1:1
- Delay 1:6

It should be emphasized that these force ratios are considered to be minimally acceptable. For example, an attack against a prepared defense with the listed 3:1 ratio would typically be estimated to have about a 50% probability of success (as would the corresponding defense with a 1:3 ratio). To be assured of success, a 5:1 or 6:1 ratio would be preferred for the attack vs. a prepared defense; the other situations listed would likewise require better odds to assure success.

Potential Improvements:

- Re-plan the COA to create, maintain, or increase the desired interval between the echelons. This can be done by defending in depth, thus using more of the brigade sector to develop the interval. This can also be done by designating a sector within which to conduct a delay of the second echelon.
- Assign a “be prepared” task to the reserve to reinforce Supporting Effort 2 in the event that this happens. Develop a decision point for the commitment of the reserve for this contingency.
- Develop a branch plan that shifts the Main Effort, making Supporting Effort 2 the Main Effort.

Q: In what ways does this course of action manage tactical risk for Supporting Effort 2?

A: [COA 2.2.0] The brigade maintains an armor task force in reserve for this course of action. If the enemy adopts its most dangerous course of action, this reserve can be committed in support of Supporting Effort 2. It is also likely that Supporting Effort 2 would be designated the Main Effort, and additional combat power would be diverted accordingly (field artillery targets, and priorities of fires). These efforts could bring the force ratio back to within a reasonable tolerance.

(KF 714.2c) Tactical risk can be managed by holding a capable reserve.

(KF 711.4) If it appears the enemy has adopted a course of action that prevents the Main Effort from accomplishing the unit’s purpose, or is deemed particularly dangerous to a commander’s forces, he is likely to

consider changing the designation of the Main Effort in order to avert failure.

2.5.1.4 Completeness

Q: Are any elements of the COA sketch missing or ambiguous?

A: [COA 2.1.0] *Critique: The COA sketch provides insufficient control of fires and/or movement.*

Justification: Additional control measures could be used in this sketch to clarify what the striking force is to do in EA STRIKE. To clarify this role, and to de-conflict the striking force's role with that of the fixing force, additional control measures should be used to specify the final location or objective for the striking force (e.g., attack by fire positions, support by fire positions, objective). Constraining control measures are also critical. While the axis of advance (axis Bold) restricts the striking force commander's freedom of maneuver, it would also be appropriate to depict a limit of advance or an objective at which the striking force is to stop. Such measures prevent fratricide. Because there is a Corps covering force operation forward of the brigade defense, it is not necessary or appropriate to designate either a FEBA or FSCL.

Potential Improvements:

- Give the Main Effort a limit of advance
- Give the Main Effort an attack by fire position to occupy from which it will attack enemy forces in EA STRIKE.

(KF 4322.1) FM 100-40 provides a discussion of the control measures normally used in an area defense (p. 11-7). These control measures are appropriate in a number of different contexts. Control measures appropriate to course of action sketches are the fire support coordination line (FSCL), areas of operation (AO), battle positions (BP), engagement areas (EA), the forward age of the battle area (FEBA), and strong points. It is not necessary to include instances of each one of these control measures in every area defense COA sketch.

(KF 4321.1) FM 100-40 provides a discussion of the control measures normally used in a mobile defense (p. 12-5). These control measures are appropriate in a number of different contexts. In a course of action sketch, any of the measures appropriate for an area defense (see KF 4322.1) are appropriate for use in a mobile defense. In addition, it is appropriate to designate a line of departure (LD) or a line of contact (LC) for the striking force, and control measures that specify what the striking force is to do,

such as attack by fire positions, support by fire positions, engagement areas, or objectives. The striking force also needs constraining control measures to de-conflict its fires and actions with those of the fixing force. These include limit of advance (LOA), boundaries (possibly including on order boundaries), an axis of attack, or direction of attack. It is not necessary to include instances of each one of these control measures in every mobile defense COA sketch.

2.5.2 Correctness

2.5.2.1 Questions regarding array of forces

Accounting for the proper number of arrayed forces is straightforward, and was exemplified in scenario 1. Examples for the scenario can be generated upon request.

2.5.2.2 Questions regarding scheme of maneuver

Q: Does the course of action focus combat power at the decisive point?

(KF 712.1) The decisive point is a point where an enemy weakness allows overwhelming combat power to be applied, leading to mission accomplishment. This point can be a location on the ground, a time or an event. (TM-HPKB-3, p.6, FM 101-5, p. 5-12, FM 101-5-1, p. 1-46, FM 100-5, pp. 6-7 to 6-8).

A: [COA 2.1.0] In this COA, the decisive point is EA STRIKE. The enemy weakness to be exploited is the concentration of enemy forces in a position of vulnerability. This is a weakness that will require the use of the depth of the brigade's battlespace in order to cause Red forces to be concentrated in that engagement area. This COA attempts this by using supporting efforts to force Red forces into the EA and to fix them there, exposing the bulk of the Red forces to massed fires in the EA. Assuming the actions to create the enemy weakness are successful, combat power is focused against that weakness in the following ways:

- Supporting Effort 3 and Main Effort forces are committed against forces in EA STRIKE.
- Fires are planned to suppress enemy forces in EA STRIKE.
- Tactical obstacles are planned to fix enemy forces in EA STRIKE, and deep operations are planned to deny Red's ability to reduce those obstacles.

[COA 2.2.0] *Critique: The COA does not appear to focus combat power at the decisive point.*

In this COA the decisive point can be seen as the temporal and spatial interval between the first echelon and second echelon Red forces. The enemy weakness here is that Red must allow for this interval in order to develop situation and

exploit a penetration. Combat power is focused against that weakness in the following ways:

- The force ratio between Blue and Red on AA 2 is well over the historic minimum for a prepared defense against either echelon independently.
- Fires are planned to destroy enemy mobility assets.
- Tactical obstacles are planned to fix enemy forces on avenues of approach 1, 2, and 3.

This COA does not, however, take full advantage of this choice of decisive point. The defense is planned well forward in the brigade sector, and does not exploit the depth of the sector, within which the Blue unit can maintain or increase this interval between enemy echelons. Ways in which this can be done include employment of FASCAM in between enemy echelons, delaying operations, fires, and deep attacks. As such, this COA relies on the assumption that the enemy will space the echelons in this way, and does not create the opportunity to force or increase this interval.

(KF 714.1n) Tactical risk is incurred by defending forward with the bulk of the unit's combat power

Potential Improvements:

Re-plan the COA to create, maintain, or increase the desired interval between the echelons. This can be done by defending in depth, thus using more of the brigade sector to develop the interval. This can also be done by designating a sector within which to conduct a delay of the second echelon.

[COA 2.3.0] In this COA the decisive point can be seen as the temporal and spatial interval between the first echelon and second echelon Red forces. The enemy weakness here is that Red must allow for this interval in order to develop the situation and exploit a penetration. Combat power is focused against that weakness in the following ways:

- The force ratio between Blue and Red on AA 2 is well over the historic minimum for a prepared defense against either echelon independently.
- Fires are planned to destroy enemy mobility assets.
- Tactical obstacles are planned to fix enemy forces on avenue of approach 2, and disrupt forces in the security area.
- The guard force in the security area delays the second echelon tank regiment, ensuring sufficient spacing between the first and second echelons so that forces in the main battle area have the opportunity to engage these echelons separately.

Q: Does the purpose of Supporting Effort 2 contribute to the success of the Main Effort?

A: [COA 2.1.0] Yes.

Justification: The Main Effort will prevent the penetration of PL STOP by conducting a counterattack against enemy forces in EA STRIKE. Supporting Effort 2 prevents enemy forces from bypassing EA STRIKE along avenue of approach 3.

A: [COA 2.2.0] Yes.

Justification: The Main Effort will prevent the penetration of PL STOP by blocking enemy forces on AA 2. Supporting Effort 2 prevents enemy forces from bypassing AA 2.

Q: Does the purpose of Supporting Effort 3 contribute to the success of the Main Effort?

A: [COA 2.1.0] Yes.

Justification: The Main Effort will prevent the penetration of PL STOP by conducting a counterattack against enemy forces in EA STRIKE. Supporting Effort 3 prevents enemy forces from maneuvering out of EA STRIKE, thus enabling the counterattack.

Q: Is the Main Effort assigned a task appropriate to its capabilities?

A: [COA 2.1.0] Yes.

Justification: The Main Effort, an armor task force, is capable of defeating a Red maneuver force, and is appropriate for that role.

A: [COA 2.2.0] Yes.

Justification: The Main Effort, an armor task force, is capable of blocking a Red maneuver force, and is appropriate for that role.

Q: Is the unit that is designated as the reserve in fact an uncommitted force?

A: [COA 2.2.0] Yes.

Justification: The reserve in this course of action is assigned only “be prepared” tasks for planning.

[COA 2.1.1] *Critique:* The unit designated as the reserve appears to be assigned a task. This makes the unit a committed force, and not a proper reserve.

Justification: The strike force in a mobile defense is a committed force. It is improper to call this the reserve.

Potential Improvements: Call this a committed force – probably the Main Effort. Designate another force as the reserve.

Q: Is the task assigned to Supporting Effort 1 a proper tactical task?

A: [COA 2.1.0, COA 2.2.0, COA 2.3.0] Yes.

Justification: “Block” and “Destroy” are tactical tasks, as defined in the COA CP grammar.

2.5.2.3 Questions regarding command and control

Questions about controlling headquarters and appropriate span of control are straightforward. Examples for this scenario can be generated upon request.

2.5.3 Questions regarding strengths and weaknesses

Q: To what extent does this course of action conform to principle of Objective?

A: [COA 2.1.0, COA 2.2.0, COA 2.3.0] All of these courses of action have clear, well formed purpose statements. Supporting effort purposes all relate to that of the Main Effort. So, in this sense, all of these courses of action conform to the principle of objective.

(KF 111.4) A Course of Action in which purpose statements and/or the objects of tasks are either missing or badly formed is probably not properly applying the Principle of Objective.

(KF 111.5) A course of action which does not have a clearly defined purpose, which the Main Effort accomplishes and all other efforts support, then the Course of Action fails to follow the Principle of Objective altogether.

Q: To what extent does this course of action conform to principle of Offensive?

A: [COA 2.1.0] This course of action is a mobile defense. A battalion task force conducts an attack as the strike force to accomplish the brigade’s purpose. This course of action makes good use of the principle of offensive, as mobile defenses generally do.

(KF 112.2) Nearly all Offensive Types of Operation and Choices of Maneuver reflect the Principle of Offensive to some degree. In addition, there are a number of actions taken from a defensive posture, which tend to reflect the Principle of Offensive, such as Mobile Defense, Counterattack, and Spoiling Attack. The presence of these elements in a Course of Action, considered with the degree and manner in which they are used, can serve as evidence of observance of the Principle of Offensive.

[COA 2.2.0, COA 2.3.0] *Critique: This COA is not effectively applying the principle of offensive because relatively few attacks are used to accomplish the key tasks in the operation.*

Justification: Because there are no attacks in these two courses of action, this is a fair statement about them. Note that this is not necessarily a severe criticism of these courses of action. It is just an accurate observation about the courses of action with respect to this principle.

(KF 112.3) A Course of Action (either offensive or defensive in nature) in which there are relatively few offensive types of operation, choices of maneuver, and/or other offensive options probably is not effectively applying the Principle of Offensive.

Q: To what extent does this course of action conform to principle of Mass?

A: [COA 2.1.0] This COA applies the principle of mass in the following ways:

- Supporting efforts force Red combat power into EA STRIKE.
- Both Supporting Effort 3 and ME forces are committed against Red forces in EA STRIKE.
- Fires are planned to suppress enemy forces in EA STRIKE.
- Tactical obstacles are planned to fix enemy forces in EA STRIKE, and deep operations are planned to deny Red's ability to reduce those obstacles.

(KF 113.2) Observance of the Principle of Mass may be evidenced by allocation to the Main Effort of significantly greater combat power than the minimum required throughout its mission, accounting for expected losses during the mission.

(KF 113.3) Observance of the Principle of Mass may be evidenced by allocation of significantly more than the minimum combat power required at the Decisive Point.

[COA 2.2.0] *Critique: This COA is not effectively applying the principle of mass because it does not demonstrably mass the unit's combat power at the decisive point.*

Justification: In this COA the decisive point can be seen as the temporal and spatial interval between the first echelon and second echelon Red forces. The enemy weakness here is that Red must allow for this interval in order to develop situation and exploit a penetration. The COA does mass combat power in the following ways:

- The force ratio between Blue and Red on AA 2 is well over the historic minimum for a prepared defense against either echelon independently.
- Fires are planned to destroy enemy mobility assets.
- Tactical obstacles are planned to fix enemy forces on avenues of approach 1, 2, and 3.

(KF 113.2) Observance of the Principle of Mass may be evidenced by allocation to the Main Effort of significantly greater combat power than the minimum required throughout its mission, accounting for expected losses during the mission.

(KF 113.3) Observance of the Principle of Mass may be evidenced by allocation of significantly more than the minimum combat power required at the Decisive Point.

This COA does not, however, take full advantage of this choice of decisive point. The defense is planned well forward in the brigade sector, and does not exploit the depth of the sector, within which the Blue unit can maintain or increase this interval between enemy echelons. Ways in which this can be done include employment of FASCAM in between enemy echelons, delaying operations, fires, and deep attacks. As such, this COA relies on the assumption that the enemy will space the echelons in this way, and does not create the opportunity to force or increase this interval.

(KF 113.1) To mass is to synchronize the effects of all of the elements of combat power at the proper point and time to achieve decisive results (FM 100-5, p. 2-4)

Potential Improvements:

Re-plan the COA to create, maintain, or increase the desired interval between the echelons. This can be done by defending in depth, thus using more of the brigade sector to develop the interval. This can also be done by designating a sector within which to conduct a delay of the second echelon. Use the minimum force necessary in the supporting efforts, and mass combat power on each echelon separately, to maximize employment of the principle of mass.

[COA 2.3.0] This COA applies the principle of mass in the following ways:

- The force ratio between Blue and Red on AA 2 is well over the historic minimum for a prepared defense against either echelon independently.

- Fires are planned to destroy enemy mobility assets.
- Tactical obstacles are planned to fix enemy forces on avenue of approach 2, and disrupt forces in the security area.
- The guard force in the security area delays the second echelon tank regiment, increasing the spacing between the first and second echelons. This allows Blue to mass combat power against these echelons separately.

(KF 113.1) To mass is to synchronize the effects of all of the elements of combat power at the proper point and time to achieve decisive results (FM 100-5, p. 2-4)

(KF 113.2) Observance of the Principle of Mass may be evidenced by allocation to the Main Effort of significantly greater combat power than the minimum required throughout its mission, accounting for expected losses during the mission.

(KF 113.3) Observance of the Principle of Mass may be evidenced by allocation of significantly more than the minimum combat power required at the Decisive Point.

Q: To what extent does this course of action conform to principle of Maneuver?

A: [COA 2.1.0] The defensive maneuver choice is a defense in depth. This course of action makes good use of this choice of maneuver by using the depth of the defensive sector to force the enemy into EA STRIKE. In doing so, Blue is seeking a position of advantage over Red by occupying battle positions and conducting a flank attack, while forcing Red to fight from a position of vulnerability (from within a developed engagement area).

(KF 115.1) Maneuver is the movement of forces in relation to the enemy to gain positional advantage.

(KF 115.5) Positional advantage can be achieved by:

- Engaging the flank or rear of the enemy, rather than the front (e.g., Turning Movement, Infiltration, Envelopment, Encirclement)
- Engaging the enemy from a position of higher altitude (e.g., Ambush)
- Engaging an exposed enemy from a position of cover or concealment (e.g., Ambush, various defenses from prepared positions)
- Engaging an enemy from multiple directions (e.g., Envelopment, Encirclement)

- Occupying or controlling key terrain that affords a positional advantage to friendly forces in accomplishing a particular mission or purpose or preventing an enemy from doing so.

[COA 2.2.0] *Critique: This COA is not effectively applying the principle of Maneuver because the form of maneuver indicated does not appear to result in a positional advantage over the enemy.*

Justification: The defensive maneuver choice is a forward defense. This is only a preferred maneuver choice in the defense when the terrain forward in the sector favors the defending force or when the force is explicitly directed to retain forward terrain (FM 100-40, p. 10-8). It is not necessary for the brigade to defend so far forward when the placement of the no penetration line allows use of a significant amount depth in the brigade sector. If the enemy penetrates the main defensive positions in this course of action, the lack of other significant forces in depth may allow the enemy to exploit that success and penetrate PL STOP.

[COA 2.3.0] The defensive maneuver choice is defense in depth. This COA makes effective use of the depth of the brigade sector by allocating the forward portion of the sector to the security battle, attriting and delaying Red forces to support the scheme of maneuver in the main battle area. Task forces in the main battle area are given latitude to use the depth of their sectors to accomplish their purposes.

[COA 2.2.0, COA 2.3.0] *Critique: This COA is not effectively applying the principle of maneuver because it is primarily an area defense without any mobile defeat mechanisms.*

Justification: This is a fair observation about any area defense, and does not indicate that a course of action that employs an area defense is deficient.

Q: To what extent does this course of action conform to principle of Economy of Force?

A: [COA 2.1.0] *Critique: This COA is not effectively applying the principle of economy of force because excessive force is allocated to secondary (supporting) efforts.*

Justification: Supporting Effort 1 has a force ratio of 1:2.26 against the enemy tank regiment that it is to block. While this force ratio is not wildly excessive (we're not suggesting that secondary efforts should have the bare minimum force ratio needed for 50 percent chance of success), it is possible to take a mechanized company away from this effort and still have an acceptable force

ratio for the mission. This mechanized company could be used elsewhere in the COA more effectively. For example, the Main Effort could be weighted, or the company could be placed in reserve (the COA currently has no reserve).

(KF 114.3) Allocate minimum essential combat power to secondary efforts.

(KF 114.4) A Course of Action in which more than the minimum necessary force is applied to secondary efforts is probably not effectively employing the Principle of Economy of Force.

Potential Improvements:

- Re-allocate a mechanized infantry company from Supporting Effort 1 to be the brigade reserve.
- Re-allocate a mechanized infantry company from Supporting Effort 1 to the Main Effort.

Q: To what extent does this course of action conform to principle of Simplicity?

A: [COA 2.1.0] *Critique: This COA is not effectively applying the principle of simplicity because inherently complex tasks are employed.*

Justification: A mobile defense is inherently complex. In addition, any attack into an engagement area is inherently complex, because the fires of multiple units have to be de-conflicted to prevent fratricide and confusion.

(KF 119.5) A Course of Action containing more than a small number of inherently complex tasks, types of operation, choices of maneuver, or other actions probably is not making maximal use of the Principle of Simplicity.

(KF 119.6) The following types of operation, tasks and other activities are considered inherently complex:

- Night Operations
- Encirclement
- Penetration
- Infiltration
- Entry Operations (incl. Airborne/Air Assault operations, Amphibious Operations)
- Mobile Defense
- Breach
- Canalize
- Disengagement

- Follow & Assume (complex due to implied passage of lines)
- Interdict
- Linkup
- River Crossing
- Passage of Lines

Q: To what extent does this course of action conform to principle of Surprise?

A: [COA 2.1.0] *Critique: This COA is not effectively applying the principle of surprise because no use of tactical deception is explicit or implicit in the concept.*

Justification: The success of this course of action relies on the enemy's perception of success on avenue of approach 2. The enemy may be suspicious of avenue of approach 2, however, if he believes that he is being invited to take it. Some sort of resistance ought to be offered to reduce this suspicion, and to give the enemy the impression of a successful penetration on that avenue of approach against Blue defenses. At the same time, deception could also be used in the supporting effort sectors, to make those defenses look stronger than they are – with a sufficiently convincing deception plan, less force can be allocated to those sectors, and more to the fixing and striking force efforts, or to the reserve.

Potential Improvements:

Some sort of deception would strengthen this COA. Task Supporting Effort 3 to defend with one company forward in sector, vicinity Hill 138, and employ false positions to create the impression that a battalion defends there. The intent is to deceive the enemy about the true location of Blue main defenses, by presenting the deception story that the brigade is defending forward in sector, and that the enemy achieves success in the first echelon along AA2.

(KF 118.4) Surprise can be achieved by employing deception. The ways in which deception can be accomplished are many, but include feints, demonstrations, and false positions. These efforts can include decoy equipment, actual preparation of positions, tactical loudspeaker teams, false command posts with EM signatures and communications traffic, etc...

(KF 118.5) Use of the words “false”, “decoy,” “dummy,” “deceive,” or “deception” in a Course of Action may serve as evidence of the employment of the Principle of Surprise.

[COA 2.1.0, COA 2.2.0] *Critique: This COA is not effectively applying the principle of surprise because little or no effort is made to defeat enemy reconnaissance.*

Justification: Neither one of these COAs designates a security area or tasks any effort to conduct security or counter reconnaissance missions.

Potential Improvements:

Replan the course of action to include a security plan that addresses counter-reconnaissance. This can be done by:

- creating a brigade security area, and tasking a brigade security force to conduct a screen or guard,
- designating a security area forward of a phase line. Delegate responsibility for the security battle by directing Supporting Effort 1, Supporting Effort 2, and Supporting Effort 3 to conduct security tasks in the security area within their respective sectors until a specified time/event. Optionally, specify a minimum force to be used in each sector (i.e., a company-sized force).

Task the security force or SEs to destroy enemy reconnaissance elements in the security area.

[COA 2.3.0] This COA allocates a significant portion of the brigade's available maneuver forces as a task force to the security area, and resources that force to conduct a guard mission. A guard force has the implicit task to destroy or repel all enemy reconnaissance patrols (FM 100-40, p. 16-24). This force is quite capable of defeating enemy reconnaissance, so this COA may achieve surprise indirectly.

Q: To what extent does this course of action conform to principle of Security?

A: [COA 2.1.0, COA 2.2.0] *Critique: This COA is not effectively applying the principle of security because there is little or no effort in the security battle.*

Justification: Neither one of these COAs designates a security area or tasks any effort to conduct security or counter reconnaissance missions.

(KF 117.2) A Course of Action in which there is no security battle plan may not be effectively employing the Principle of Security.

Potential Improvements:

- Replan the course of action to include a security plan that addresses counter-reconnaissance. This can be done by:
 - creating a brigade security area, and tasking a brigade security force to conduct a screen or guard.

- designating a security area forward of a phase line. Delegate responsibility for the security battle by directing Supporting Effort 1, Supporting Effort 2, and Supporting Effort 3 to conduct security tasks in the security area within their respective sectors until a specified time/event.
- Optionally, specify a minimum force to be used in each sector (i.e., a company-sized force).
- Task the security force or SEs to destroy enemy reconnaissance elements in the security area.

2.5.4 Questions that further develop a course of action

2.5.4.1 Identify branch plans

These could be generated as a result of war gaming or planning. Any number of conclusions could be reached here, given any number of COA combinations and contingencies. The following is an example of what one might look like.

Q: In considering Red course of action 2, what contingencies necessitate a branch plan involving Supporting Effort 1, and what should the branch plan be?

A: [COA 2.2.0] If the enemy executes course of action 2, and commits the second echelon tank regiment along AA 1, Supporting Effort 1 may have insufficient combat power to block this regiment. A branch plan that addresses this contingency is to confirm the enemy intent to commit the second echelon tank regiment on avenue of approach 3, and commit the reserve to reinforce Supporting Effort 1. A named area of interest (NAI) must be identified where this enemy intent can be confirmed or denied, and a decision point (DP) designated to support the decision to commit the reserve.

2.5.4.2 Determining the decisive point

Q: What is the decisive point of this course of action?

(KF 712.1) The decisive point is a point where an enemy weakness allows overwhelming combat power to be applied, leading to mission accomplishment. This point can be a location on the ground, a time or an event. (TM-HPKB-3, p.6, FM 101-5, p. 5-12, FM 101-5-1, p. 1-46, FM 100-5, pp. 6-7 to 6-8).

A: [COA 2.1.0] In this COA, the decisive point is EA STRIKE.

Justification: It is clear that this is the decisive point of this course of action, because this is a mobile defense, and the strike force is attacking to defeat enemy forces in that engagement area. All of the supporting efforts in this course of action are taking action to make this possible -- Supporting Efforts 1

and 2 force the enemy to maneuver into the engagement area, while Supporting Effort 3 prevents the enemy from escaping the engagement area. The engagement area is clearly seen as ideal ground on which to engage and defeat the enemy. The scheme of maneuver, concept for fires, and obstacle plan all focus combat power in this engagement area. This will present an enemy weakness (in this case, forces concentrated in a position of vulnerability) which Blue can exploit. If successful, the effect will be that Red units are allowed to penetrate on AA 2, far enough until forces are concentrated in the engagement area, and then prevented from maneuvering out of the EA until defeated, thus accomplishing the purpose of not allowing access to the area beyond PL STOP.

[COA 2.2.0] The decisive point is not explicitly stated, and must be inferred. In this COA, a feasible decisive point is the temporal and spatial interval between the first and second echelon Red forces. The enemy weakness here is that Red must allow for this interval in order to develop situation and exploit a penetration. This weakness enables Blue to engage enemy forces one regiment at a time on any avenue of approach. Combat power is focused against that weakness by:

- allocating overwhelming combat power on AA 2 (well over the historic minimum for a prepared defense against either echelon independently),
- supporting the scheme of maneuver with fires to destroy enemy mobility assets,
- supporting the scheme of maneuver with tactical obstacles to fix enemy forces on avenues of approach 1, 2, and 3.

It is possible to infer other decisive points for this course of action, but support for them is limited. For example one might posit that the decisive point is Hill 138. However, it is difficult to identify what enemy weakness is presented there, and how Blue focuses combat power to exploit that weakness and accomplish the purpose.

[COA 2.3.0] The decisive point is not explicitly stated, and must be inferred. In this COA, it is feasible that the decisive point is the temporal and spatial interval between the first and second echelon Red forces. The enemy weakness here is that Red must allow for this interval in order to develop the situation and exploit a penetration. This weakness enables Blue to engage enemy forces one regiment at a time on any avenue of approach. Combat power is focused against that weakness by:

- delaying any second echelon forces in the security area, thus increasing the interval between echelons, so that forces in the main battle area have the opportunity to engage these echelons separately,
- allocating overwhelming combat power on AA 2 (well over the historic minimum for a prepared defense against either echelon independently),
- supporting the scheme of maneuver with fires to destroy enemy mobility assets, and

- supporting the scheme of maneuver with tactical obstacles to fix enemy forces on avenue of approach 2, and disrupt forces in the security area.

2.5.4.3 Determine critical events

Q: What are the critical events of this course of action?

A: [COA 2.1.0] The critical events are:

- enemy first echelon forces blocked at BP1 and BP4
- enemy second echelon forces committed to AA 2
- enemy forces fixed in EA STRIKE
- Main Effort defeats enemy forces in EA STRIKE

[COA 2.2.0] The critical events are:

- Enemy first echelon forces blocked
- Enemy second echelon forces blocked

[COA 2.3.0] The critical events are:

- Enemy first echelon forces attrited in security area
- enemy first echelon forces blocked
- enemy second echelon forces delayed in security area
- enemy second echelon forces blocked

Justification: The critical events listed above can be inferred by application of Knowledge Fragments 712.3, 712.4, and 712.6:

(KF 712.3) Action at the decisive point is always a critical event.

(KF 712.4) An engagement with a major subordinate enemy element is usually a critical event.

(KF 712.6) Events that establish preconditions necessary for action at the decisive point are usually critical events.

2.5.4.4 Identify decision points

Q: What are the decision points of this course of action?

(KF 754.1) A decision point is an event or location on the battlefield where a tactical decision is required during mission execution. (FM 101-5, p. 5-18)

(KF 754.2) If it is anticipated that a decision will need to be made, and the decision is tactically significant, then a decision point should be used to manage it.

(KF 754.3) A decision anticipated by a decision point has preconditions that prompt the decision to be made.

(KF 754.4) The preconditions for making a decision can be satisfied by confirming indicators on the battlefield that can be monitored and reported.

(KF 754.5) Decisions have a life span. Beyond some foreseeable point, it is too late to make the decision.

(KF 754.6) Decision points identify when and where a decision must be made to have the maximum effect on friendly or enemy courses of action.

A: [COA 2.1.0]

Decision: begin strike force attack on AXIS BOLD.
Preconditions: Three or more enemy regiments in EA STRIKE
Indication: forces from AA 1 diverted to AA 2, forces from AA 3
diverted to AA 2
Reporting responsibility: Supporting Effort 1, Supporting Effort 2
Last point at which decision can be made: N/A

[COA 2.3.0]

Decision: shift priority of fires (field artillery) from security area to
main battle area.
Preconditions: enemy first echelon formations attrited to 80 percent
Indication: guard force reports enemy units attrited
Reporting responsibility: Supporting Effort 3
Last point at which decision can be made: enemy first echelon formations
attack into main battle area (priorities of fires shift automatically)

Decision: begin retrograde operation (delay) in security area.
Preconditions: enemy second echelon in security area
Indication: enemy second echelon formations cross PL DUDE
Reporting responsibility: Supporting Effort 3
Last point at which decision can be made: N/A

3. Scenario 3

3.1 *Products of Mission analysis*

3.1.1 G2/S2 (Intelligence)

3.1.1.1 Battlefield environment

(Note: The following text is explanatory in nature and does not need to be represented in developer systems.)

The terrain throughout the area of operations consists of rolling hills, farmlands, creeks, valleys, and woodlands. Scattered woodlands cover only three percent of the Kansas area and are generally found along river and stream valleys. The division area of operations is bounded in the east by the MISSOURI RIVER, in the south by the KANSAS RIVER, and in the west by PERRY LAKE.

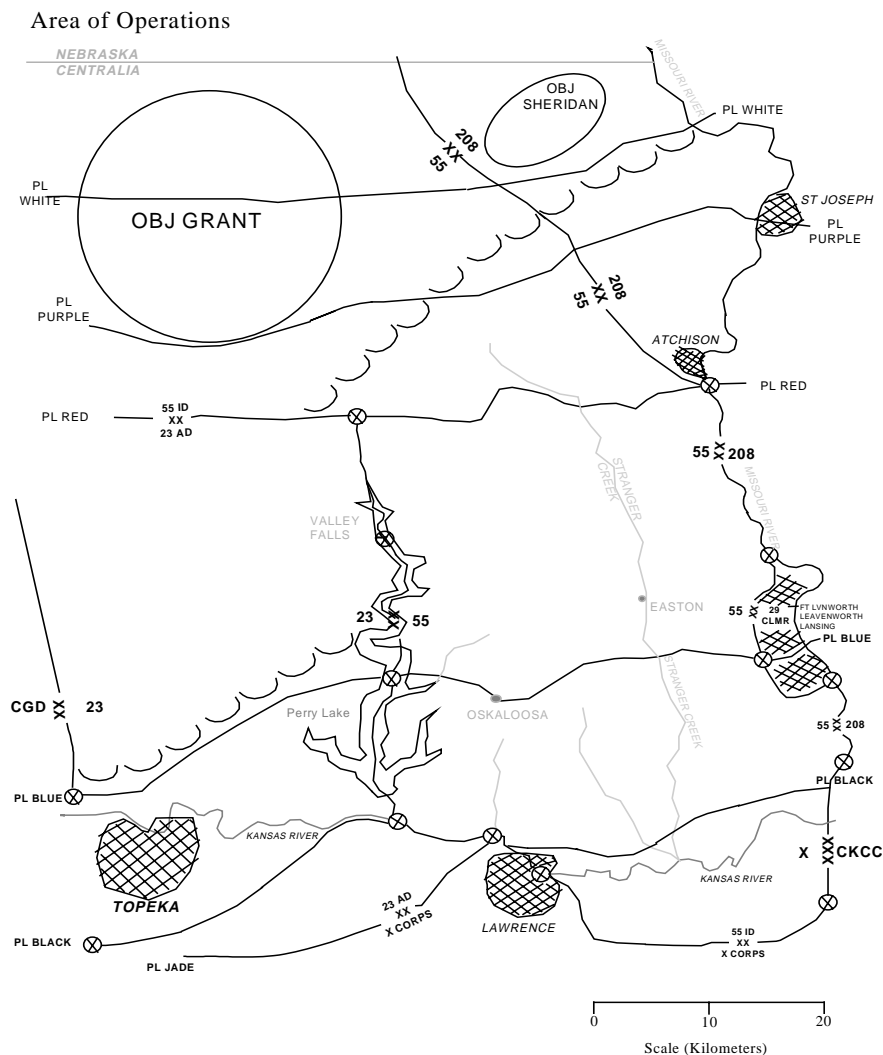


Figure 16 Area of Operations

(Note: The following text is explanatory in nature and does not need to be represented in developer systems)

Area 1: The MISSOURI RIVER is a formidable obstacle east-west movement unless existing bridges are used. Significant vegetation and steep ridges east and west of the MISSOURI RIVER impede cross-country movement. Adjacent to the river, fine-grained soil impedes traffic.

Area 2: PERRY LAKE and the surrounding marsh area is a significant obstacle to movement. Further surrounding PERRY LAKE is an area of lightly wooded terrain with weak soil.

Areas 3 and 4: The KANSAS RIVER is a formidable obstacle north-south movement unless existing bridges are used. Adjacent to the river, fine-grained soil impedes traffic.

3.1.1.2.2 Avenues of approach

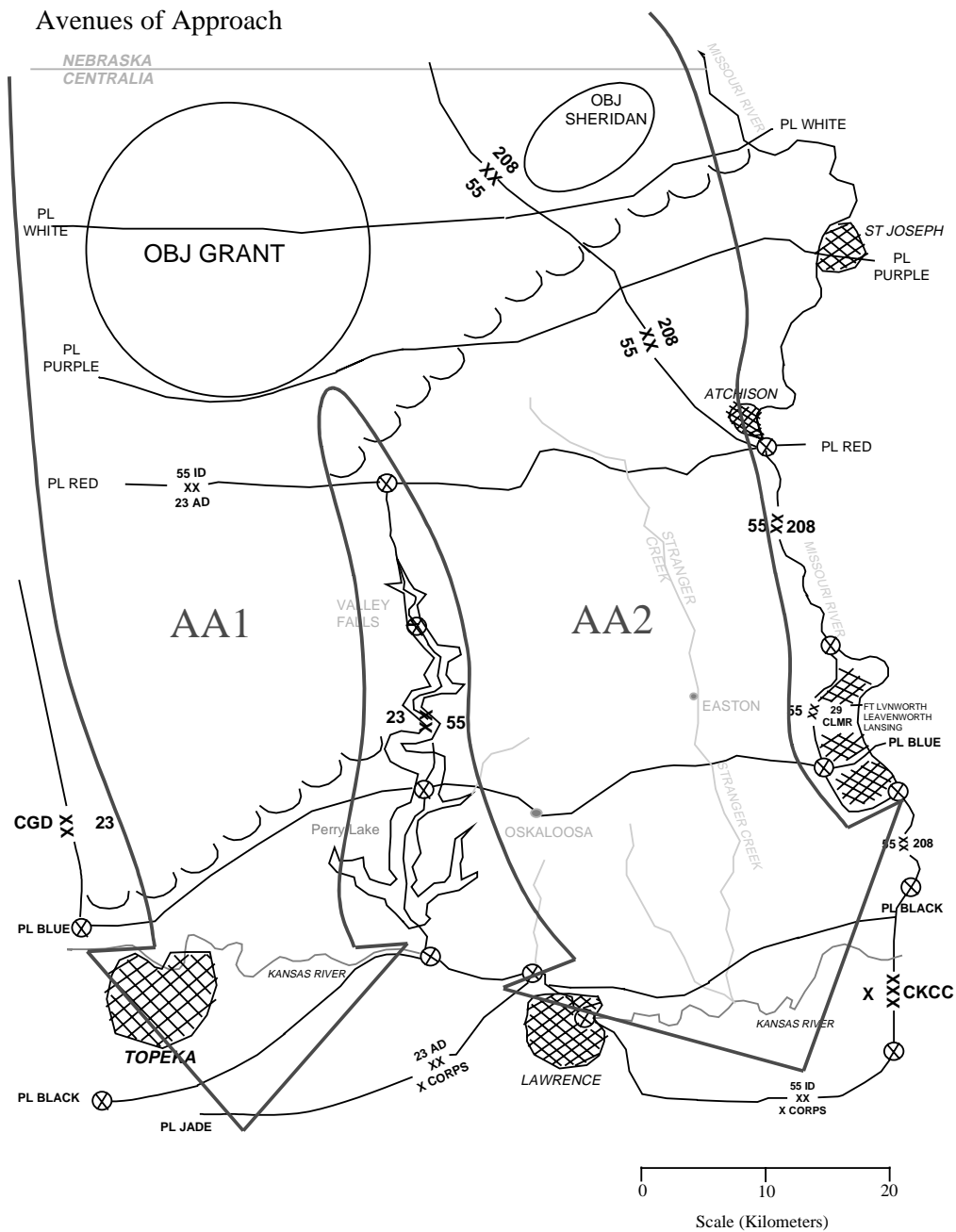


Figure 18 Avenues of Approach

AA1 is an Army-sized avenue of approach and is currently good for military operations.
AA2 is an Army-sized avenue of approach and is currently good for military operations.

3.1.1.2.3 Mobility corridors

Mobility Corridors

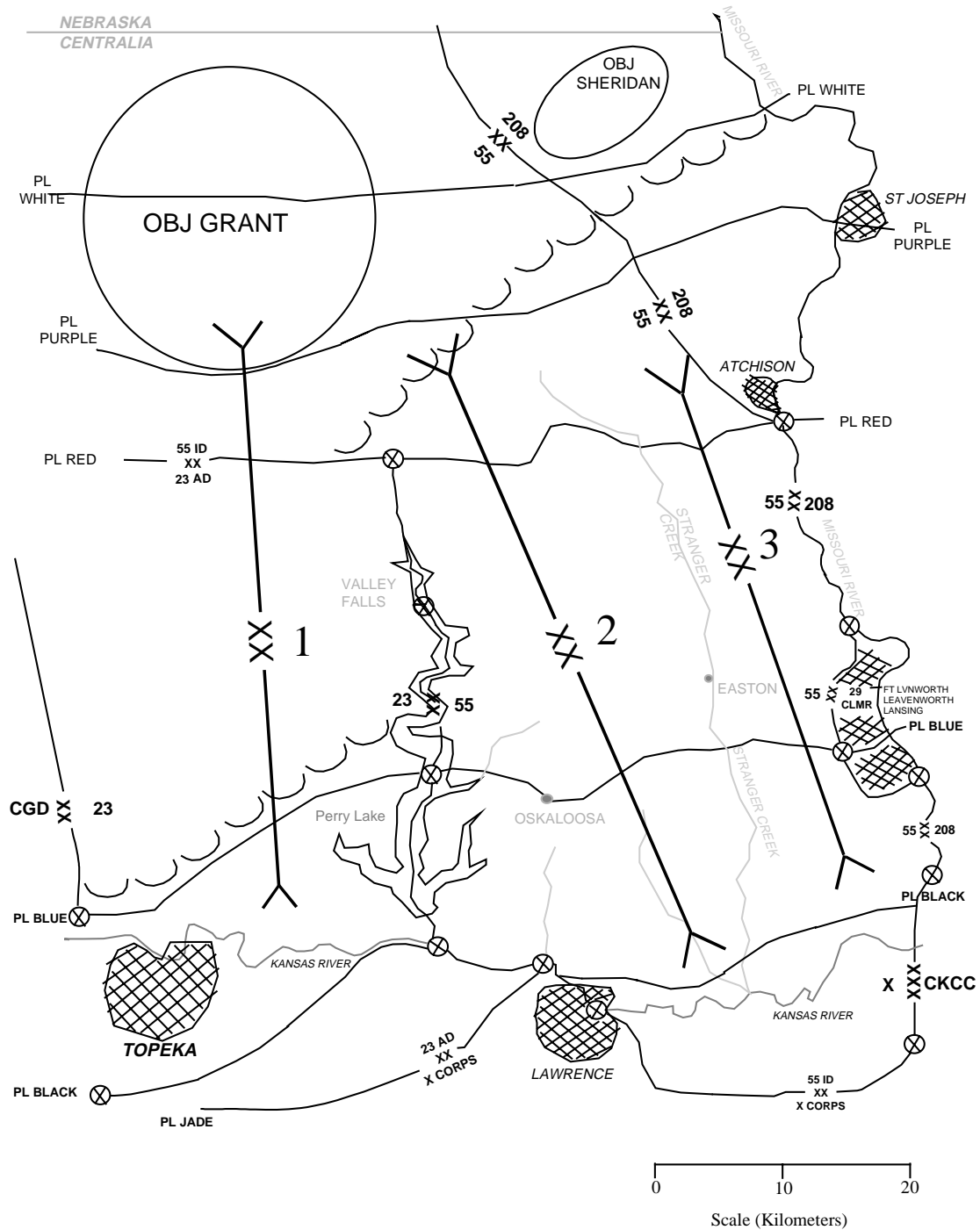


Figure 19 Mobility Corridors

MC1 is a division-sized mobility corridor and is currently good for military operations.
 MC2 is a division-sized mobility corridor and is currently good for military operations.
 MC3 is a division-sized mobility corridor, and is currently good for military operations.

3.1.1.2.4 Infiltration Lanes

K4 is key terrain because controlling it allows its owner the ability to prevent units from gaining access to TOPEKA from the east.

K5,a bridge (UP 1806), is key terrain because controlling it allows its owner the ability to maneuver across the KANSAS RIVER on HIGHWAY I 70.

K6,a group of bridges vicinity UP 5328, is key terrain because controlling it allows its owner the ability to maneuver across the KANSAS RIVER toward KANSAS CITY.

K7,the highway intersections of HIGHWAY 36, HIGHWAY 29, HIGHWAY 59, HIGHWAY 71, HIGHWAY 169 vicinity UQ 4504, is key terrain because controlling it allows its owner the ability to maneuver between HIGHWAY 36 and HIGHWAY 29 and HIGHWAY 59 and HIGHWAY 71 and HIGHWAY 169.

3.1.1.2.6 Engagement areas

The terrain throughout the area of operations is generally open, gently rolling, and mostly free of vegetation. Most of the AO is suitable for engagement areas, so no areas in particular are identified.

3.1.1.2.7 Battle positions:

The terrain throughout the area of operations is gently rolling, affording opportunities for cover (i.e., reverse slope defenses). However, most of the AO is free of vegetation, making concealment difficult. Most of the AO is equally suitable for battle positions, so no areas in particular are identified.

3.1.1.3 Enemy combat power

Red unit is a tank division (REDTANKDIVISION1), consisting of [
[1 of mechanized infantry brigade (REDINFANTRYBRIGADE1) equipped with BMP-2, consisting of
[3 of mechanized infantry battalions, equipped with BMP-2
1 of tank battalion, equipped with T-80
1 of Artillery Battalion equipped with 2S1 122mm self-propelled howitzer (SPH) (in direct support of REDINFANTRYBRIGADE1)]]
[1 of tank brigade (REDTANKBRIGADE1) equipped with T-80, consisting of
[3 of tank battalions, equipped with T-80
1 of mechanized infantry battalion, equipped with BMP-2
1 of Artillery Battalion equipped with 2S1 122mm SPH (in direct support of REDTANKBRIGADE1)]]
[1 of tank brigade (REDTANKBRIGADE2) equipped with T-80, consisting of
[3 of tank battalions, equipped with T-80
1 of mechanized infantry battalion, equipped with BMP-2
1 of Artillery Battalion equipped with 2S1 122mm SP (in direct support of REDTANKBRIGADE2)]]
[1 of tank brigade (REDTANKBRIGADE3) equipped with T-80, consisting of
[3 of tank battalions, equipped with T-80

1 of mechanized infantry battalion, equipped with BMP-2
 1 of Artillery Battalion equipped with 2S1 122mm SP (in direct support of REDTANKBRIGADE3))]
 [1 of division artillery group (REDARTILLERYGROUP), consisting of
 [3 of Artillery Battalion equipped with 2S3 152mm SPH
 1 of Artillery Battalion equipped with BM21 122mm multiple rocket launcher (MRL)]]
]

REDTANKDIVISION1 is subordinate to REDTANKARMY1 including [
 [1 of infantry brigade (REDINFANTRYBRIGADE2)]
 [1 of infantry division (REDINFANTRYDIVISION1)]
 [1 of armor division (REDTANKDIVISION2)]
]

REDTANKDIVISION1 is at 91% combat effectiveness
 REDINFANTRYBRIGADE2 is at 78% combat effectiveness

3.1.1.4 *Enemy vulnerabilities*

Red lines of communication are vulnerable to aviation.
 Red forces are vulnerable to Blue forces.
 Red aviation is limited and has little effect.
 Battalions of REDINFANTRYBRIGADE2 are incapable of supporting each other.

3.1.1.5 *Enemy courses of action*

3.1.1.5.1 Most Probable COA

<u>Mission</u> : REDTANKARMY1 attacks along AA 1 to seize TOPEKA and to seize the location of bridges across the KANSAS RIVER.
<u>Close</u> : REDTANKDIVISION2 and REDINFANTRYDIVISION1 (Red first echelon) attack to penetrate Blue defense. REDTANKDIVISION1 (Red second echelon) follows Red first echelon and assumes the main effort in order to seize TOPEKA.
<u>Reserve</u> : The reserve, a tank brigade (REDTANKBRIGADE4) follows the Red second echelon.
<u>Fires</u> : Fires will suppress Blue Forces in order to enable penetration by Red Forces, and will neutralize Blue artillery.
<u>Deep</u> : Deep operations destroy Blue rear areas in order to disrupt lines of communication and disrupt the ability to prepare for offensive operations.

3.1.1.5.2 Most Dangerous COA

Red COA 2 (Most Dangerous)

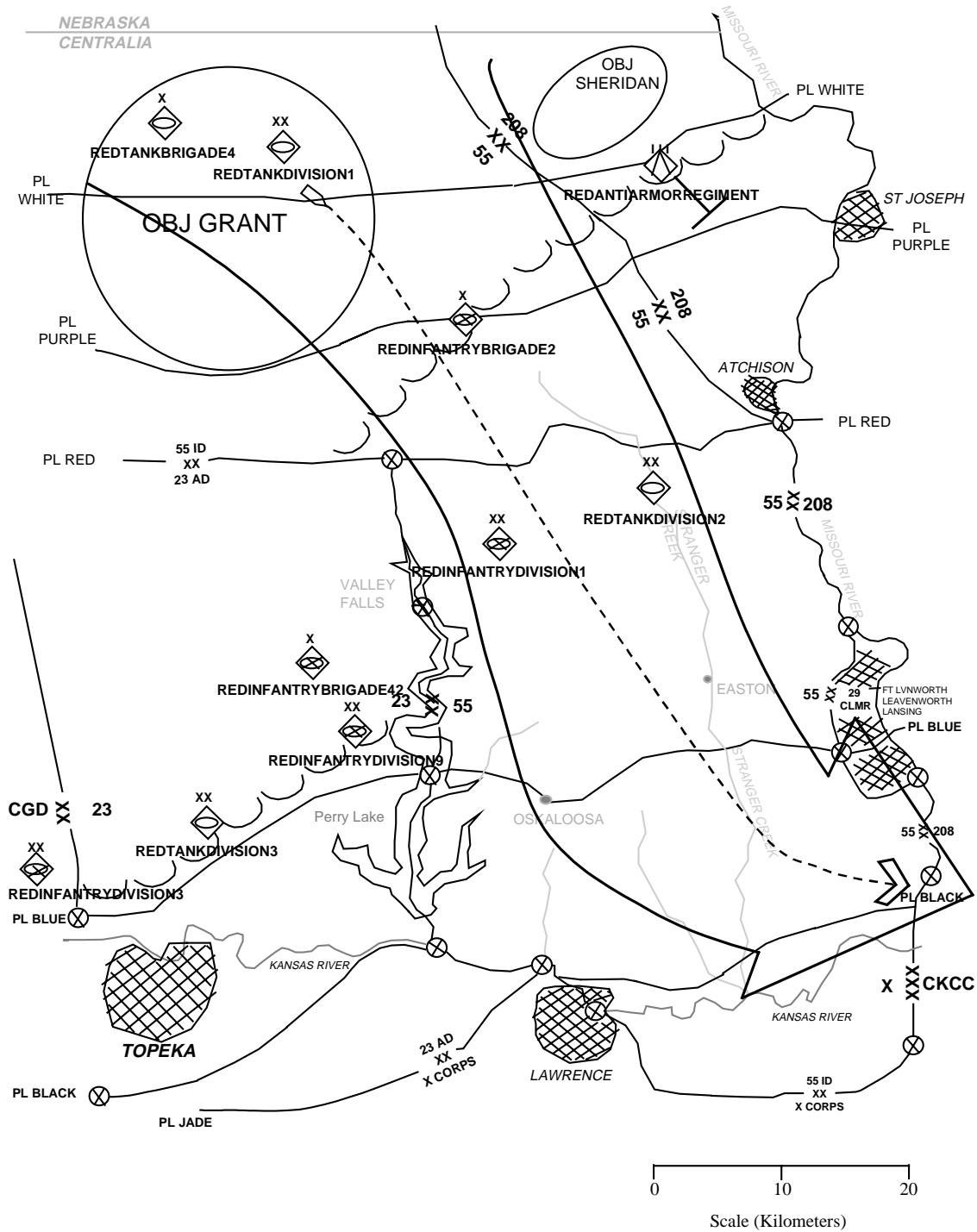


Figure 22 Red Most Dangerous COA

<p><u>Mission:</u> REDTANKARMY1 attacks along AA 2 to defeat Blue Forces in order to prevent Blue Forces from conducting a counterattack.</p> <p>On order, REDTANKARMY1 attacks to seize KANSAS CITY.</p>
<p><u>Close:</u> REDTANKDIVISION2 and REDINFANTRYDIVISION1 (Red first echelon) conduct passage of lines through REDINFANTRYBRIGADE2 and attack to defeat Blue Forces counterattack.</p> <p>REDTANKDIVISION1 (Red second echelon) follows and assumes the main effort and attacks to seize KANSAS CITY.</p>
<p><u>Reserve:</u> The reserve, a tank brigade (REDTANKBRIGADE4) follows the Red Main Effort.</p>
<p><u>Fires:</u> Fires will suppress Blue Forces in order to enable penetration by Red Forces, and will neutralize Blue artillery.</p>
<p><u>Deep:</u> Deep operations will destroy Blue rear areas in order to disrupt lines of communications and disrupt the ability to prepare for offensive operations.</p>

3.1.2 G3/S3

3.1.2.1 Mission and intent 2 up

JTF mission statement: Joint Task Force on order conducts operations in sector to defeat enemy operations in order to protect KANSAS CITY and TOPEKA.

JTF intent: The intent is for land forces protect TOPEKA and KANSAS CITY. Aviation will attrit and delay Red second echelon. Sea forces will protect lines of communication and protect the southern flank. Blue Forces will attack to destroy the Red brigades in CENTRALIA and EASTLAND, after denying Red Forces the ability to conduct offensive operations and reinforcing Blue Forces.

3.1.2.2 Mission and intent 1 up

X Corps mission statement: X Corps, on order, defends in sector to defeat two Red armies north of PL BLACK and prevent Red Forces from seizing KANSAS CITY and TOPEKA in order to enable Blue army to reinforce forces and conduct offensive operations.

X Corps Intent: The intent is to defeat the Red Forces north of PL BLACK in order to prevent Red Forces from seizing KANSAS CITY and TOPEKA.

BLUEINFANTRYDIVISION1 and artillery and aviation will defeat one Red Army as rapidly as possible in order to enable counterattack by Blue Forces. X Corps will defend north of PL BLACK and be prepared to conduct offensive operations.

3.1.2.3 Mission of adjacent units

To our left, BLUEARMORDIVISION1 defends in sector between TOPEKA and LAWRENCE to defeat the REDMECHANIZEDARMY1 north of TOPEKA. On order attacks north to penetrate the REDMECHANIZEDARMY1 and defeat the REDTANKDIVISION2 in zone south of PL RED. BLUEAVIATIONBRIGADE2 attacks to defeat the REDTANKARMY1 vicinity EA GEORGIA.

To our right, BLUEARMOREDCAVALRYREGIMENT defends in sector north of KANSAS CITY and east of the MISSOURI RIVER. On order conducts an attack across the MISSOURI RIVER to defeat Red tank regiment vicinity OBJ SHERIDAN.

3.1.2.4 Current combat power

Blue unit is a mechanized infantry division (BLUEINFANTRYDIVISION1) consisting of [

- [An armor brigade (BLUEBRIGADE1) consisting of
 - [2 of armor battalions equipped with M1A2
 - 1 of mechanized infantry battalion equipped with M2
 - 1 of artillery battalion equipped with M198 155 SPH (in direct support of BLUEBRIGADE1)]]
- [A balanced brigade (BLUEBRIGADE2) consisting of
 - [2 of armor battalions equipped with M1A2
 - 2 of mechanized infantry battalions equipped with M2
 - 1 of artillery battalion equipped with M198 155 SPH (in direct support of BLUEBRIGADE2)]]
- [A mechanized infantry brigade (BLUEBRIGADE3) consisting of
 - [3 of armor battalions equipped with M1A2
 - 1 of artillery battalion equipped with M198 155 SPH (in direct support of BLUEBRIGADE3)]]
- [A mechanized infantry brigade (BLUEBRIGADE4) (OPCON to BlueINFANTRYDIVISION1) consisting of
 - [2 of mechanized infantry battalions equipped with M113
 - 2 of armor battalions equipped with M60A3]]
- [1 of Armored Cavalry Squadron (BLUCAVALRYSQUADRON) consisting of
 - [3 of armored cavalry troops equipped with M3 and M1A2
 - 2 of air cavalry troops equipped with OH58D KW]]
- [1 of Aviation Brigade (BLUEAVIATIONBRIGADE1) including
 - [1 of Attack Helicopter Battalion (BLUEAVIATIONBATTALION1) equipped with AH-64
 - 1 of Attack Helicopter Battalion (BLUEAVIATIONBATTALION2) equipped with AH-64 (OPCON to BLUEINFANTRYDIVISION1)]]
- [1 of division artillery brigade, including
 - [2 of MLRS Battery (in general support of BLUEINFANTRYDIVISION1)]]

]

BLUEINFANTRYDIVISION1 is subordinate to X Corps.
X Corps is subordinate to Joint Task Force.

BLUEBRIGADE1 is at 90% combat effectiveness
BLUEBRIGADE2 is at 90% combat effectiveness
BLUEBRIGADE3 is at 90% combat effectiveness
BLUECAVALRYSQUADRON is at 83% combat effectiveness
BLUEAVIATIONBRIGADE1 is at 90% combat effectiveness
BLUEAVIATIONBATTALION1 is at 85% combat effectiveness
BLUEAVIATIONBATTALION2 is at 71% combat effectiveness
BLUEINFANTRYDIVISION1 artillery is at 94% combat effectiveness

3.1.2.5 Specified or implied tasks

Defeat the REDTANKDIVISION1 in the vicinity of OBJ GRANT
Secure OBJ GRANT
Deny REDTANKARMY1 the ability to engage in offensive operations
Deny REDTANKARMY1 the ability to reinforce the REDMECHANIZEDARMY1 to the south and to the southwest.

3.1.2.6 Essential tasks

Defeat the REDTANKDIVISION1 in the vicinity of OBJ GRANT
Secure OBJ GRANT
Deny REDTANKARMY1 the ability to engage in offensive operations
Deny REDTANKARMY1 the ability to reinforce the REDMECHANIZEDARMY1 to the south and to the southwest.

3.1.2.7 Constraints

None.

3.1.3 Products from the Commander

3.1.3.1 Approved mission statement

On order, BLUEINFANTRYDIVISION1 attacks to defeat the REDTANKDIVISION1 in the vicinity of OBJ GRANT in order to deny REDTANKARMY1 the ability to engage in offensive operations and deny REDTANKARMY1 the ability to reinforce the REDMECHANIZEDARMY1 to the south and to the southwest.

3.1.3.2 Commander's intent

The intent is to defeat the REDTANKARMY1 second echelon tank division (REDTANKDIVISION1). BLUEINFANTRYDIVISION1 moves to the vicinity of OBJ GRANT to defend. Surprise and defeat the REDTANKDIVISION1 first echelon in march formation north of PL PURPLE.

Secure the division's flanks north of PL WHITE.

The following risks are acceptable: Risk is assumed by failing to protect Blues Forces west flank south of VALLEY FALLS.

The reserve will be prepared to attack REDTANKBRIGADE4 and be prepared to attack Red first echelon in Blue area of operations in order to prevent Red Forces from reinforcing REDTANKDIVISION1.

The division will secure OBJ GRANT and disrupt Red lines of communication north of PL RED in the vicinity of OBJ GRANT. Blue Forces will block REDTANKARMY1 and REDMECHANIZEDARMY1 to the south after Blue Forces defeat REDTANKDIVISION1.

Blue Forces will attack REDTANKDIVISION1 artillery assets and command and control systems in order to delay Red second echelon for 3 to 6 hours.

Conduct counter reconnaissance and security operations in the division area of operations in order to prevent the enemy from detecting Blue preparations for offensive operations.

Blue fires will neutralize enemy artillery and disrupt the enemy attack.

Blue Forces must secure lines of communication.

Be prepared to defend right flank north of PL WHITE to defeat Red company attacks.

If REDTANKARMY1 south of PL RED moving to the north be prepared to defend flank.

3.2 Friendly COAs

3.2.1 COA 3.1

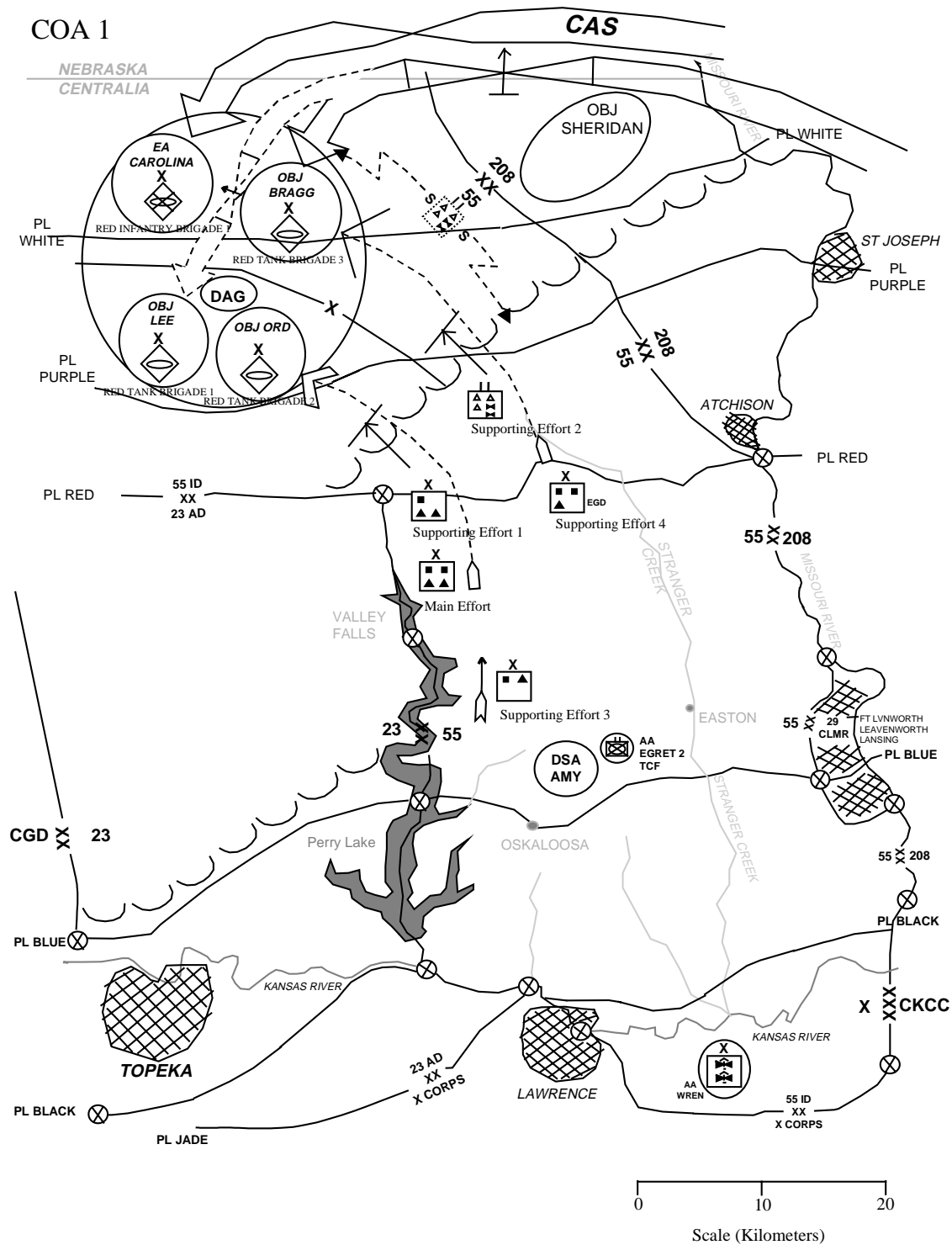


Figure 23 COA 3.1

COA 3.1
<p><u>Mission:</u> BLUEINFANTRYDIVISION1 on order attacks to defeat REDTANKDIVISION1 in the vicinity of OBJ GRANT in order to deny REDTANKARMY1 the ability to engage in offensive operations and deny REDTANKARMY1 the ability to reinforce REDMECHANIZEDARMY1 to the south and to the southwest.</p>
<p><u>Close:</u> An armor heavy brigade (Supporting Effort 1) attacks in zone to penetrate REDINFANTRYBRIGADE2 in the west of the division zone in order to enable the Main Effort to attack into OBJ GRANT.</p> <p>An armored cavalry squadron (Supporting Effort 2) attacks to penetrate REDINFANTRYBRIGADE2 in the east of the division zone in order to enable Supporting Effort 4 to conduct forward passage of lines into OBJ GRANT.</p> <p>A balanced brigade (Main Effort) conducts a forward passage of lines through Supporting Effort 1 and attacks to defeat REDTANKBRIGADE2 in order to prevent REDTANKDIVISION1 from reinforcing REDMECHANIZEDARMY1 to the south.</p> <p>A balanced brigade (Supporting Effort 3) follows and supports the Main Effort.</p> <p>A mechanized heavy brigade (Supporting Effort 4) conducts a forward passage of lines through Supporting Effort 2 and attacks to defeat REDTANKBRIGADE3.</p>
<p><u>Reserve:</u> None</p>
<p><u>Security:</u> The armored cavalry squadron screens the division northern flank after Supporting Effort 4 conducts a forward passage of lines through Supporting Effort 2.</p>
<p><u>Deep:</u> An aviation battalion (BLUEAVIATIONBATTALION1) attrits REDTANKBRIGADE3 prior to Supporting Effort 3 conducting a forward passage of lines.</p> <p>An aviation battalion (BLUEAVIATIONBATTALION2) destroys REDTANKBRIGADE1 after Blue Forces defeat REDTANKBRIGADE3.</p> <p>Close air support attrits REDINFANTRYBRIGADE1.</p>
<p><u>Rear:</u> A mechanized infantry battalion (TCF) in the vicinity of EGRET 2 responds to threats in the rear.</p> <p>Supporting Effort 1 secures lines of communication.</p>
<p><u>Fires:</u> Fires will attack to attrit the Red artillery group in OBJ GRANT.</p>
<p><u>Risk:</u> Risk is assumed by not holding a reserve.</p> <p>Risk is assumed by failing to protect the division south flank.</p>
<p><u>End State:</u> At the conclusion of this operation BLUEINFANTRYDIVISION1 has defeated REDTANKDIVISION1 and is defending in OBJ GRANT.</p> <p>The armored cavalry squadron screens to the north of the division.</p> <p>A mechanized heavy brigade (Supporting Effort) defends in the northeast of OBJ GRANT.</p> <p>The balanced brigade (Main Effort) defends in the west of OBJ GRANT.</p> <p>A mechanized heavy brigade (Supporting Effort) defends in the south of OBJ GRANT.</p> <p>The armored heavy brigade secures lines of communication between the BLUEINFANTRYDIVISION1 zone and OBJ GRANT.</p>

3.2.2 COA 3.2

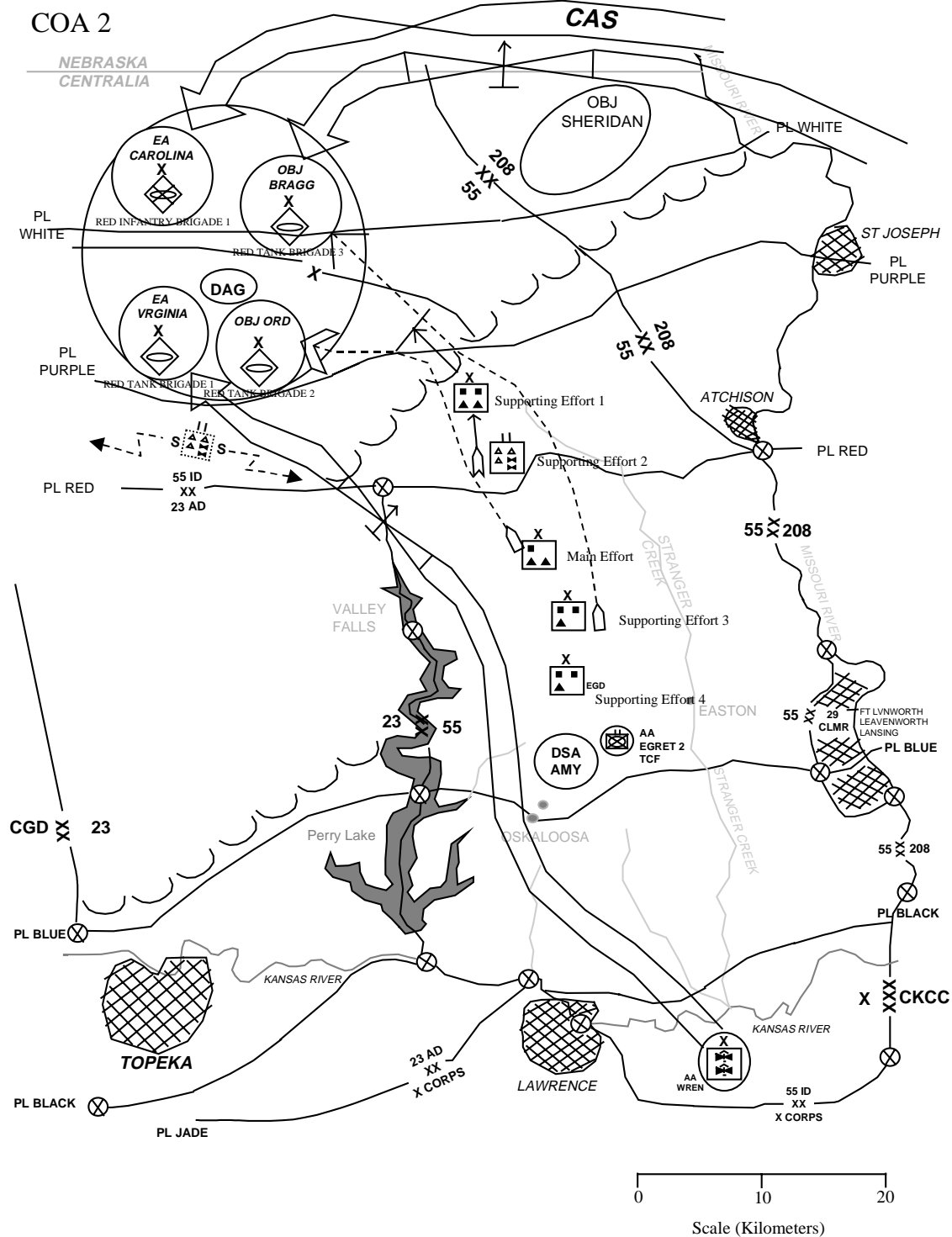


Figure 24 COA 3.2

COA 3.2
<p><u>Mission:</u> BLUEINFANTRYDIVISION1 on order attacks to defeat REDTANKDIVISION1 in the vicinity of OBJ GRANT in order to deny REDTANKARMY1 the ability to engage in offensive operations and deny REDTANKARMY1 the ability to reinforce REDMECHANIZEDARMY1 to the southwest and to the south.</p>
<p><u>Close:</u> A balanced brigade (Supporting Effort 1) attacks to penetrate REDINFANTRYBRIGADE2 in the center of the division zone and secures location of penetration in order to enable the forward passage of lines to OBJ GRANT and to secure lines of communication to OBJ GRANT.</p> <p>An armored cavalry squadron (Supporting Effort 2) follows and supports Supporting Effort 1 and secures the penetration.</p> <p>An armored heavy brigade (Main Effort) conducts a forward passage of lines and attacks in zone to defeat REDTANKBRIGADE2 in order to prevent REDTANKDIVISION1 from reinforcing REDMECHANIZEDARMY1 to the south.</p> <p>A mechanized heavy brigade (Supporting Effort 3) follows the Main Effort and conducts a forward passage of lines and attacks in zone to defeat REDTANKBRIGADE3 in order to prevent REDTANKDIVISION1 from reinforcing REDMECHANIZEDARMY1 to the south.</p> <p>An aviation battalion (BLUEAVIATIONBATTALION1) destroys REDTANKBRIGADE1 in order to prevent the enemy from massing combat power on the Main Effort.</p>
<p><u>Reserve:</u> The reserve, a mechanized heavy brigade (Supporting Effort 4), follows the Main Effort in zone.</p> <p>Be prepared to block enemy forces in order to prevent enemy forces from attacking between the location of the Main Effort and the location of Supporting Effort 3.</p>
<p><u>Security:</u> The armored cavalry squadron screens the southern flank of the division after the Reserve conducts a forward passage of lines.</p>
<p><u>Deep:</u> An aviation battalion (BLUEAVIATIONBALLATION2) attrits REDTANKBRIGADE3 prior to Supporting Effort 3 attacks to destroy REDTANKBRIGADE3.</p> <p>Close air support attrits REDINFANTRYBRIGADE1 in order to prevent REDINFANTRYBRIGADE1 from reinforcing REDTANKBRIGADE2 and REDTANKBRIGADE3.</p>
<p><u>Rear:</u> A mechanized infantry battalion (TCF) in the vicinity of EGRET 2 responds to threats in the rear.</p>
<p><u>Fires:</u> Fires will attack to attrit the Red artillery group in OBJ GRANT.</p> <p>Be prepared to attrit REDINFANTRYBRIGADE1 in order to prevent enemy from reinforcing REDTANKBRIGADE2 and REDTANKBRIGADE3.</p>
<p><u>Risk:</u> Risk is assumed by failing to protect the division's east flank north of PL WHITE.</p>
<p><u>End state:</u> At the conclusion of this operation BLUEINFANTRYDIVISION1 has defeated REDTANKDIVISION1 and is defending OBJ GRANT.</p> <p>The armored cavalry squadron screens to the south of OBJ GRANT.</p> <p>The armored heavy brigade (Main Effort) defends in the south of OBJ GRANT, a mechanized heavy brigade (Supporting Effort 3) defends in the north of OBJ GRANT, and a mechanized heavy brigade (Reserve) is prepared to defend from the center of OBJ GRANT.</p> <p>The balanced brigade (Supporting Effort 1) secures lines of communication in the division zone.</p>

3.2.3 COA 3.3

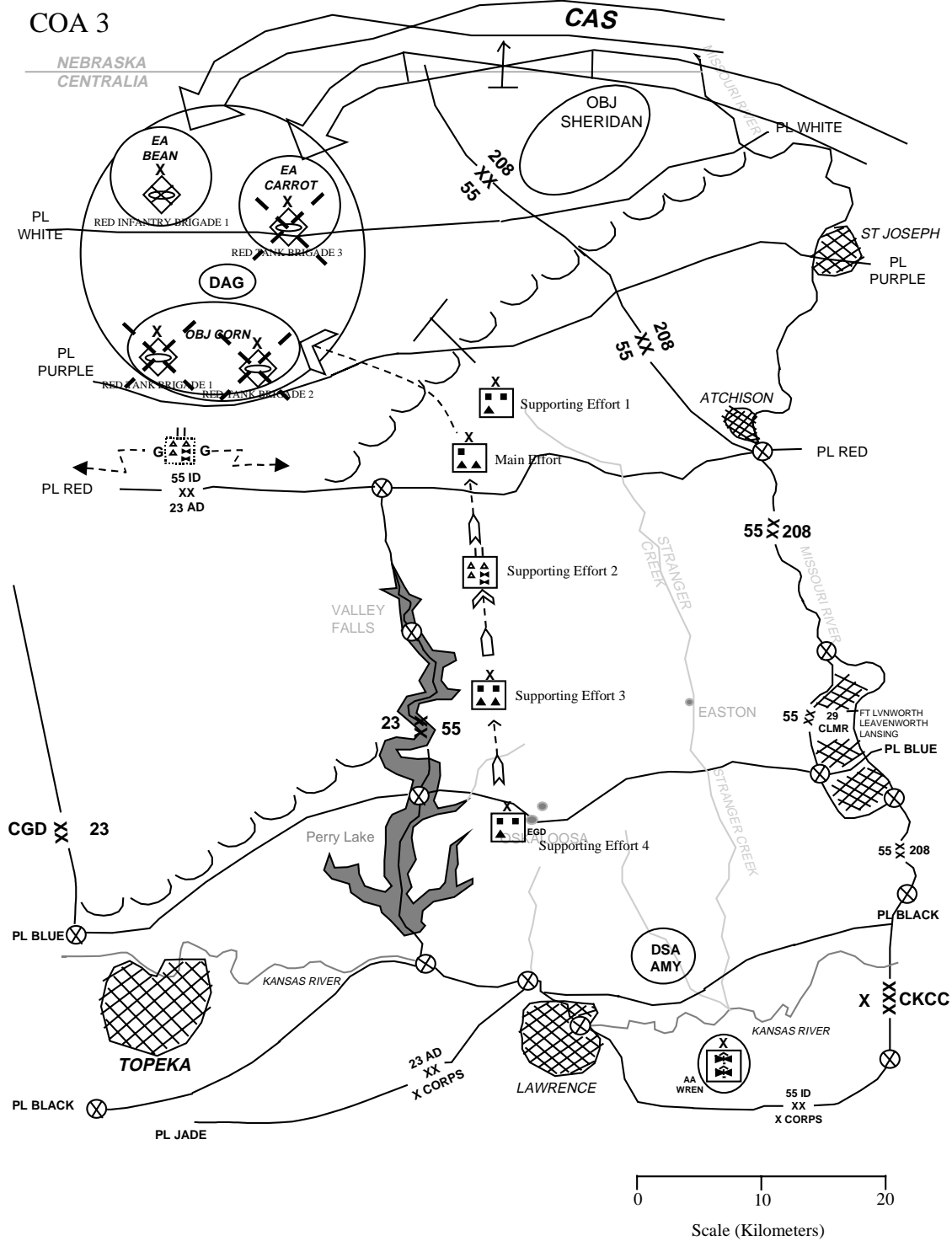


Figure 25 COA 3.3

COA3.3
<p><u>Mission:</u> BLUEINFANTRYDIVISION1 on order attacks to defeat REDTANKDIVISION1 in the vicinity of OBJ GRANT in order to deny REDTANKARMY1 the ability to engage in offensive operations and deny REDTANKARMY1 the ability to reinforce REDMECHANIZEDARMY1 to the southwest and to the south.</p>
<p><u>Close:</u> A mechanized heavy brigade (Supporting Effort 1) attacks to penetrate REDINFANTRYBRIGADE2 and secures the location of penetration in order to enable the forward passage of lines to OBJ GRANT and to secure lines of communication to OBJ GRANT. An armor heavy brigade (Main Effort) conducts a forward passage of lines through Supporting Effort 1 and attacks in zone to defeat REDTANKBRIGADE1 and REDTANKBRIGADE2 in order to prevent REDTANKDIVISION1 from reinforcing REDMECHANIZEDARMY1 in the south.</p> <p>The armored cavalry squadron (Supporting Effort 2) follows the Main Effort and clears location of penetration in order to enable forward passage of lines by Blue Forces.</p> <p>A balanced brigade (Supporting Effort 3) follows Supporting Effort 2 and attacks in zone to defeat REDTANKBRIGADE1 and REDTANKBRIGADE2 in order to prevent REDTANKDIVISION1 from reinforcing REDMECHANIZEDARMY1 in the south.</p>
<p><u>Reserve:</u> The reserve, a mechanized heavy brigade (Supporting Effort 4) follows the Main Effort in zone, and is prepared to block a company or larger at PHASE LINE WHITE in order to prevent the enemy from reinforcing REDTANKBRIGADE1 and REDTANKBRIGADE2.</p>
<p><u>Security:</u> The division Armored cavalry Squadron guards the southern flank of the division after Supporting Effort 4 conducts a forward passage of lines through Supporting Effort 1.</p>
<p><u>Deep:</u> Two aviation brigades attack to destroy REDTANKBRIGADE3.</p> <p>Close air support attrits REDINFANTRYBRIGADE1.</p>
<p><u>Fires:</u> Fires will attack to attrit the Red artillery in OBJ GRANT and be prepared to attrit the Red second echelon in order to prevent REDTANKDIVISION1 from reinforcing REDTANKDIVISION2 and REDINFANTRYDIVISION1.</p>
<p><u>Risk:</u> Risk is assumed by not designating a TCF.</p>
<p><u>End state:</u> At the conclusion of this operation, BLUEINFANTRYDIVISION1 has defeated REDTANKDIVISION1, is defending OBJ GRANT and is linked with lines of communication extending from its sector.</p> <p>The armored cavalry squadron screens to the south of OBJ GRANT.</p> <p>An armor heavy brigade defends in the east of OBJ GRANT; a balanced brigade defends in the west of OBJ GRANT; a mechanized heavy brigade (Reserve) is prepared to defend from the center of OBJ GRANT.</p>

COA 3.4
<p><u>Mission:</u> BLUEINFANTRYDIVISION1 on order attacks to defeat REDTANKDIVISION1 in the vicinity of OBJ GRANT in order to deny REDTANKARMY1 the ability to engage in offensive operations and deny REDTANKARMY1 the ability to reinforce REDMECHANIZEDARMY1 to the southwest and to the south.</p>
<p><u>Close:</u> An armor heavy brigade in the west (Supporting Effort 1) attacks in zone to REDINFANTRYBRIGADE2 in the west of the division zone and secures the penetration in order to enable the forward passage of lines by the Main Effort and to secures lines of communication to OBJ GRANT.</p> <p>The armored cavalry squadron (Supporting Effort 2) attacks to penetrate REDINFANTRYBRIGADE2 in the east of the zone in order to enable Supporting Effort 3 to conduct forward passage of lines into OBJ GRANT.</p> <p>A balanced brigade (Main Effort) conducts a forward passage of lines through Supporting Effort 1 and attacks to defeat REDTANKBRIGADE2 in order to prevent REDTANKDIVISION1 from reinforcing REDMECHANIZEDARMY1 in the south.</p> <p>A mechanized heavy brigade (Supporting Effort 3) conducts a forward passage of lines through Supporting Effort 2 and attacks to defeat REDTANKBRIGADE3 in order to protect the Main Effort flank.</p>
<p><u>Reserve:</u> The reserve, a balanced brigade (Supporting Effort 4) follows the Main Effort in zone. Be prepared to follow and assume the main effort and attack to defeat REDTANKBRIGADE2.</p>
<p><u>Security:</u> The division armored cavalry squadron (Supporting Effort 2) screens along the division's north flank after Supporting Effort 4 conducts a forward passage of lines.</p>
<p><u>Deep:</u> An aviation battalion (BLUEAVIATIONBATTALION1) destroys REDTANKBRIGADE1 in order to prevent REDTANKDIVISION1 from reinforcing REDMECHANIZEDARMY1 in the south.</p> <p>An aviation battalion (BLUEAVIATIONBATTALION2) attacks to attrit REDTANKBRIGADE3 by destroying 1 battalion prior to the Supporting Effort 3 attack.</p> <p>On order attacks to defeat REDINFANTRYBRIGADE1 in order to prevent REDINFANTRYBRIGADE1 from reinforcing REDTANKBRIGADE1 and in order to prevent REDINFANTRYBRIGADE1 from reinforcing REDMECHANIZEDARMY1 in south.</p> <p>Close air support attrits REDTANKBRIGADE2 prior to the Main Effort attack.</p>
<p><u>Fires:</u></p>
<p><u>Risk:</u></p>
<p><u>End state:</u> At the end of this operation BLUEINFANTRYDIVISION1 has defeated REDTANKDIVISION1 and is defending OBJ GRANT.</p> <p>The armored cavalry squadron screens to the north of the division's defense.</p> <p>A mechanized heavy brigade(Supporting Effort 3) defends in the in the northeast of OBJ GRANT, the balanced brigade (Main Effort) defends in the west of OBJ GRANT, and a mechanized heavy brigade (Supporting Effort) defends in the south of OBJ GRANT.</p> <p>The armored heavy brigade secures lines of communication between the division zone and OBJ GRANT.</p>

3.3 Relative combat power analysis

3.3.1 Scenario RCP Inputs

REDTANKDIVISION2 will not interfere with offensive operations by BLUEINFANTRYDIVISION1.

REDTANKARMY1 artillery will not interfere with offensive operations by BLUEINFANTRYDIVISION1.

Red units to our west will not interfere with offensive operations by BLUEINFANTRYDIVISION1.

REDMECHANIZEDARMY1 will not interfere with offensive operations by BLUEINFANTRYDIVISION1.

3.3.2 Overall RCP and force ratio analysis for Blue and Red forces

<i>Overall RCP Comparison</i>							
Maneuver							
<i>BLUEINFANTRYDIVISION1 (90%)</i>				<i>REDTANKDIVISION1 (91%)</i>			
M1A2 Bn	1.09	6	6.54	T-80 bn	.63	10	6.3
M2 bn	.9	5	4.5	BMP-2 bn	.53	6	3.18
M60A3 Bn	.8	1	.8	<i>REDINFANTRYBRIGADE2 (78%)</i>			
M113 bn	.64	2	1.28	T-80 bn	.55	1	.55
Cavalry Squadron	.71	1	.71	BMP-2 bn	.45	4	1.8
ATKHB	2.53	1	2.53				
ATKHB (OPCON)	2.0	1	2.0				
<i>Total Maneuver</i>			18.62				11.83
<i>Ratio (Maneuver)</i>			1.57				1
Fire support							
<i>BLUEINFANTRYDIVISION1 ARTY (94%)</i>				<i>REDTANKDIVISION1 (91%)</i>			
M198 155mm Bn	.96	3	2.88	2S1 122mm Bn	.59	4	2.37
MLRS Btry	1.41	2	2.82	2S3 152mm Bn	.72	3	2.16
				BM21 Bn	2.80	1	2.82
				<i>REDINFANTRYBRIGADE2 (78%)</i>			
				2S3 152mm Bn	0.61	1	.61
<i>Total Fire Support</i>			5.7				7.96
<i>Ratio (FS)</i>			.72				1
<i>Total (overall)</i>			24.32				19.79
<i>Ratio (overall)</i>			1.23				1

3.3.3 Local RCP and force ratio analysis by course of action

3.3.3.1 Blue COA 1

BLUEINFANTRYDIVISION1 attacks with a brigade (Supporting Effort 1) and a cavalry squadron (Supporting Effort 2) abreast to create two penetrations, then passes one brigade through the eastern penetration (Supporting Effort 4) and two brigades (Main Effort, Supporting Effort 3) through the western penetration. A balanced brigade (Main Effort), followed and supported by a balanced brigade (Supporting Effort 3), attacks in zone to defeat a tank brigade (TBR) in objective ORD and a mechanized heavy brigade (Supporting Effort 4) attacks in zone to defeat one Red brigade in objective BRAGG. An attack helicopter battalion (AHB) attacks to attrit a TBR in objective BRAGG prior to the eastern supporting effort brigade attack. A second AHB attacks to destroy a TBR in objective LEE after the TBR in objective BRAGG is defeated.

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 1 and Supporting Effort 2 penetrate
REDINFANTRYBRIGADE2

CE2: Main Effort and Supporting Effort 3 defeat REDTANKBRIGADE2

CE3: Supporting Effort 4 defeats REDTANKBRIGADE3

CE1 before CE2 and CE3

Attrition Assumptions:

BLUEAVIATIONBATTALION2 attrits REDTANKBRIGADE1 to 30%.

COA Specific RCP Outputs:

CE1: SE1 and SE2 penetrate REDINFANTRYBRIGADE2							
M1A2 bn	1.09	2	2.18	20% Red Inf. Bde. 2 ⁷²	.47	1	0.47
M2 bn	.9	1	.9	20% Red Inf. Bde. 2	.47	1	0.47
M198 155mm bn	.96	1	.96	2S3 152mm bn	.61	1	0.61
Cav sqdn	.71	1	.71				
TOTALS			4.75				1.55
Ratio			3				1
CE2: Main Effort (supported by SE3) attack at OBJ ORD							
M1A2 bn	1.09	3	3.27	T-80 bn	.80	3	2.4
M2 bn	.9	3	2.7	BMP-2 bn	.53	1	.53
M198 155mm bn	.96	2	1.92	2S1 122mm bn	.65	1	.65
TOTALS			7.89				3.58
Ratio			2.2				1
CE3: SE4 attack at OBJ BRAGG⁷³							
M60A3 bn	.89	1	.89	T-80 bn	.80	2	1.6
M113 bn	.71	2	1.42	BMP-2 bn	.53	1	.53
M198 155mm bn				2S1 122mm bn	.65	1	.65
TOTALS			2.31				2.78
Ratio			.83				1

3.3.3.2 Blue COA 2

The BLUEINFANTRYDIVISION1 attacks with a brigade followed and supported by a cavalry squadron to create a penetration through enemy defensive lines. Three brigades attack sequentially through the penetration to engage brigades of the REDTANKDIVISION1 in the vicinity of objective GRANT. The Main Effort brigade leads the attack to defeat one Red brigade in objective ORD. A supporting effort brigade attacks through the penetration after the Main Effort brigade to defeat one TBR in objective BRAGG. A mechanized heavy brigade next passes through the penetration, follows the Main Effort brigade, and is the division reserve. One AHB attacks to destroy one TBR in EA VIRGINIA and a second AHB attacks to attrit one TBR in objective BRAGG forward of the supporting effort brigade attack on that objective. The cavalry squadron passes through the penetration and screens the division southern flank during the attack after all units have passed.

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 1 penetrates REDINFANTRYBRIGADE2

⁷² Due to expressed Red vulnerability of infantry battalions being incapable of mutual support, each of the two penetrations (by SE1 and SE2) are assumed to be facing 20% of the combat power of REDINFANTRYBRIGADE2 (2% x 2.35 = 0.47).

⁷³ One tank battalion destroyed on OBJ BRAGG by ATKHB

CE2: Main Effort defeats REDTANKBRIGADE2

CE3: Supporting Effort 3 defeats REDTANKBRIGADE3

CE1 before CE2 and CE3

COA Specific RCP Outputs:

CE1: SE1 penetrates REDINFANTRYBRIGADE2							
M1A2 bn	1.09	2	2.18	20% Red Inf. Bde. 2	.47	1	0.47
M2 bn	.9	2	1.8	152mm bn	.61	1	0.61
M198 155mm bn	.96	1	.96				
TOTALS			4.94				1.08
Ratio			4.5				1
CE2: Main Effort attack at OBJ ORD							
M1A2 bn	1.09	2	2.18	T-80 bn	.80	3	2.4
M2 bn	.9	1	.9	BMP-2 bn	.53	1	.53
M198 155mm bn	.96	1	.96	2S1 122mm bn	.65	1	.65
TOTALS			4.04				3.58
Ratio			1.13				1
CE3: SE3 attack at OBJ BRAGG⁷⁴							
M1A2 bn	1.09	1	1.09	T-80 bn	.80	2	1.6
M2 bn	.9	2	1.8	BMP-2 bn	.53	1	.53
M198 155mm bn	.96	1	.96	2S1 122mm bn	.65	1	.65
TOTALS			3.85				2.78
Ratio			1.4				1

3.3.3.3 Blue COA 3

The BLUEINFANTRYDIVISION1 attacks with a brigade to create a penetration and then moves sequentially through the lane to engage brigades of the REDTANKDIVISION1 vicinity OBJ GRANT. The Main Effort brigade attacks to defeat to Red brigades vicinity OBJ CORN. The cavalry squadron moves through the penetration and widens the gap to pass the remaining division attacking forces. A supporting effort brigade (Supporting Effort 3) follows the cavalry squadron and then assumes the Main Effort to attack two tank brigades vicinity OBJ CORN. Two attack helicopter battalions attack to destroy one tank brigade in EA CARROT. A balanced brigade (Supporting Effort 4) follows the Main Effort, and serves as the division reserve. The cavalry squadron passes through the penetration and guards the division southern flank.

COA Specific RCP Inputs:

Critical Events:

⁷⁴ One tank battalion destroyed on OBJ BRAGG by ATKHB

CE1: Supporting Effort 1 penetrates REDINFANTRYBRIGADE2

CE2: Main Effort attacks REDTANKBRIGADE1 and REDTANKBRIAGDE2

CE3: Main Effort and Supporting Effort 3 attack REDTANKBRIGADE1 and REDTANKBRIAGDE2

CE1 before CE2

CE2 meets CE3

COA Specific RCP Outputs:

CE1: SE1 penetrates REDINFANTRYBRIGADE2							
M1A2 bn	1.09	1	1.09	20% Red Inf. Bde. 2	.47	1	0.47
M2 bn	.9	2	1.8	2S3 152mm bn	.61	1	0.61
155mm bn	.96	1	.96				
TOTALS			3.79				1.08
Ratio			3.4				1
CE2: Main Effort attack at OBJ CORN⁷⁵							
M1A2 bn	1.09	2	2.18	T-80 bn	.80	6	4.8
M2 bn	.9	1	.9	BMP-2 bn	.53	2	1.06
M198 155mm bn	.96	1	.96	2S1 122mm bn	.65	2	1.3
TOTALS			4.04				7.16
Ratio			.56				1
CE3: Main Effort and SE3 attack at OBJ CORN⁷⁶							
M1A2 bn	1.09	4	4.36	T-80 bn	.80	3	2.4
M2 bn	.9	3	2.7	BMP-2 bn	.53	1	.53
M198 155mm bn	.96	2	1.92	2S1 122mm bn	.65	1	.65
TOTALS			8.98				3.58
Ratio			2.5				1

3.3.3.4 Blue COA 4

BLUEINFANTRYDIVISION1 attacks with a brigade (Supporting Effort 1) and cavalry squadron (Supporting Effort 2) abreast to create to penetrations, then pass is one brigade (Supporting Effort 3) through the eastern penetration and two brigades (Main Effort and Supporting Effort 4) through the western penetration. A balanced brigade (Main Effort) attacks in zone to defeat a tank brigade in OBJ MOUSE. A mech heavy brigade (Supporting Effort 3) in the east attacks in zone to defeat a tank brigade and OBJ PIG. An attack helicopter battalion attacks to destroy a tank brigade in OBJ CAT. A second attack helicopter battalion attacks to attrit the tank brigade in OBJ PIG prior to attack of

⁷⁵ The task as stated entails the main effort defeating two tank brigades in OBJ CORN. This combat power comparison is based on that engagement, before Supporting Effort 3 is in a position to support the main effort. It is unlikely, however, that the main effort brigade would engage both enemy tank brigades simultaneously.

⁷⁶ This comparison takes both the main effort and SE3 into account against the enemy brigades in OBJ CORN. For simplicity, no attrition is assumed from initial contact by the main effort.

Supporting Effort 3, then conducts a subsequent attack to defeat the MIBR in OBJ DOG. CAS is used to attrit the tank brigade in OBJ MOUSE prior to Main Effort attack on OBJ MOUSE.

COA Specific RCP Inputs:

Critical Events:

CE1: Supporting Effort 1 and Supporting Effort 2 penetrate
REDINFANTRYBRIAGDE2

CE2: Main Effort defeats REDTANKBRIGADE2

CE3: Supporting Effort 3 defeats REDTANKBRIGADE3

CE1 before CE2 and CE3

COA Specific RCP Outputs:

CE1: SE1 and SE2 penetrate REDINFANTRYBRIGADE2							
M1A2 bn	1.09	2	2.18	20% Red Inf. Bde. 2	.47	1	0.47
M2 bn	.9	1	.9	20% Red Inf. Bde. 2	.47	1	0.47
M198 155mm bn	.96	1	.96	2S3 152mm bn	.61	1	0.61
Cav sqdn	.71	1	.71				
TOTALS			4.75				1.55
Ratio			3				1
CE2: Main Effort attack at OBJ MOUSE⁷⁷							
M1A2 bn	1.09	2	2.18	T-80 bn	.80	2	1.6
M2 bn	.9	2	1.8	BMP-2 bn	.53	1	.53
M198 155mm bn	.96	1	.96	2S1 122mm bn	.65	1	.65
TOTALS			4.94				2.78
Ratio			1.8				1
CE3: SE3 attack at OBJ PIG⁷⁸							
M60A3 bn	.89	1	.89	T-80 bn	.80	2	1.6
M113 bn	.71	2	1.42	BMP-2 bn	.53	1	.53
M198 155mm bn				2S1 122mm bn	.65	1	.65
TOTALS			2.31				2.78
Ratio			.83				1

⁷⁷ One tank battalion on OBJ MOUSE destroyed by ATKHB

⁷⁸ One tank battalion destroyed on OBJ PIG by ATKHB

3.4 Questions, Answers, Critiques, and Fixes

3.4.1 Viability

3.4.1.1 Suitability

Q: Is a subordinate unit in the course of action tasked to accomplish the overall purpose of the mission?

A: [COA 3.1.0] [COA 3.2.0] [COA 3.3.0] [COA 3.4.0] Yes.

Justification: The purpose of the division is to deny REDTANKARMY1 the ability to continue offensive operations and deny REDTANKARMY1 the ability to reinforce REDMECHANIZEDARMY1. The division accomplishes this purpose as the corps Main Effort, by defeating the REDTANKDIVISION1. Other corps units (supporting efforts) are defeating the other elements of REDTANKARMY1. Therefore, the purpose of denying REDTANKDIVISION1's offensive capability accomplishes the division's purpose. The Main Effort in this course of action is assigned the purpose to keep the REDTANKDIVISION1 from reinforcing REDMECHANIZEDARMY1 to the south, which accomplishes this purpose.

(KF 711.1) The Main Effort must accomplish the overall unit's purpose.

Q: Does the COA account for the following element of the commander's intent: position BLUEINFANTRYDIVISION1 in the vicinity of OBJ GRANT to continue to defend against follow-on forces?

A: [COA 3.1.0, COA 3.2.0, COA 3.3.0, COA 3.4.0] Yes.

Justification: The course of action includes an end state with the bulk of the division's combat power defending in OBJ GRANT.

Q: Does the COA account for the following element of the commander's intent: defeat the REDTANKDIVISION1 first echelon brigades before they reach PL PURPLE?

A: [COA 3.1.0] Yes, in part. *Critique: The COA may not be suitable because an element of the commander's intent is not accomplished.*

Justification: This course of action does a fair job of ensuring that no enemy forces are able to cross PL PURPLE, in that separate attacks are planned against each of the four enemy brigades. There is a slight risk that the enemy forces in OBJ LEE could attack across PL PURPLE during the attack, since the attack helicopter battalion responsible for it does not attack until after the destruction of forces in OBJ BRAGG. This is explicit in the course of action

statement, and evidenced by the ATKHB air axis of advance shown as a subsequent attack after the one attacking into OBJ BRAGG.

[COA 3.2.0] Yes.

Justification: This course of action does a good job of ensuring that no enemy forces are able to cross PL PURPLE. Separate attacks are planned against each of the four enemy brigades. In particular, the two lead brigades are addressed early in the course of action (one by the main attack, and one by an attack helicopter battalion).

[COA 3.3.0] *Critique: The COA may not be suitable because an element of the commander's intent is not accomplished.*

Justification: This course of action does a poor job of ensuring that no enemy forces are able to cross PL PURPLE. Initial contact with enemy lead brigades in OBJ CORN is made by the Main Effort on the eastern flank of the objective. While the Main Effort engages the easternmost Red brigade, no force attacks the westernmost enemy brigade, leaving it free to continue the attack south of PL PURPLE.

Possible fix: re-plan the course of action. At a minimum, make sure that attacks against the lead brigades prevent those brigades from continuing their movement south of PL PURPLE.

[COA 3.4.0] Yes.

Justification: This course of action does an excellent job of ensuring that no enemy forces cross PL PURPLE. Attack aviation and close air support attack both of the lead brigades in objectives CAT and MOUSE, in addition to the division Main Effort.

Q: Does the COA account for the following element of the commander's intent: secure the division's flanks during the counterattack, north of the LC?

A: [COA 3.1.0, COA 3.4.0] Yes, in part. *Critique: The COA may not be suitable because an element of the commander's intent is not accomplished.*

Justification: This course of action follows the commander's intent by assigning the cavalry squadron the mission to screen the division's right flank. This will protect the division from the possible threat of company sized elements from the north and east. However, the threat of counterattack against the division's left flank by forward elements of REDTANKARMY1 is more significant.

Potential Improvements: This course of action could follow this element of the commander's guidance better by securing the division's left flank, or even both flanks.

Critique: The COA may not be suitable because an element of the commander's intent is not accomplished.

[COA 3.2.0] Yes, in part. *Critique:* The COA may not be suitable because an element of the commander's intent is not accomplished.

Justification: This course of action follows the commander's intent by assigning the cavalry squadron the mission to screen the division's left flank. This will prevent the division from being surprised by elements of REDTANKARMY1 south of PL RED that turn back north to counterattack.

Potential Improvements: This course of action could follow this element of the commander's guidance more completely by also securing the division's right flank against the possible threat of company sized elements from the north and east. This is a lesser threat, however, and is therefore a preferable flank on which to assume risk than is the left.

[COA 3.3.0] Yes, in part. *Critique:* The COA may not be suitable because an element of the commander's intent is not accomplished.

Justification: This course of action follows the commander's intent by assigning the cavalry squadron the mission to guard the division's left flank, thus preventing surprise from a counterattack on the left flank by elements of REDTANKARMY1 south of PL RED that turn back north to counterattack. Only the left flank is secured by this action, however, and there is some risk of attack from the right flank by company sized elements from the north and east.

Potential Improvements: This course of action could follow this element of the commander's guidance more completely by also securing the division's right flank against the possible threat of company sized elements from the north and east. This is a lesser threat than that of a counterattack from the left flank, however, and the right flank is therefore a preferable flank on which to assume risk, and the cavalry squadron should not be assigned to conduct security operations on both flanks simultaneously.

(KF 452.1) "Security operations obtain information about the enemy and provide reaction time, maneuver space, and protection to the main body" (FM 17-95). Security operations consist of the missions of screen, guard, cover, and area security. The first three of these may be considered in terms of the degree of security provided and the amount of combat power required for execution. Screen provides the least amount of security and

requires the least amount of combat power. Cover provides the most security and also requires the most combat power. Guard is between these two. More complete descriptions of each task can be found in FM 101-5-1 and FM 100-40. (COAA Memo “Division Cavalry Squadron”)

(KF 452.2) Units that are capable of conducting various security tasks: Cavalry troops (company-sized maneuver units) screen. Cavalry squadrons (battalion-sized maneuver units) perform screen and guard. Covering force operations require more force than that available within a division’s cavalry squadron, and are normally performed by the Corps’ Armored Cavalry Regiment, a separate brigade, or a reinforced divisional brigade. (COAA Memo “Division Cavalry Squadron”)

(KF 452.3) In divisional cavalry, sustained security operations require the entire squadron. Fragmenting the squadron to provide security in multiple directions simultaneously should be avoided. (COAA Memo “Division Cavalry Squadron”)

Q: Does the COA account for the following element of the commander’s intent: “position the reserve with the flexibility to maneuver in response to the REDTANKBRIGADE4 and any first echelon forces shifting combat power to the north (or retrograde and) into our area of operations to reinforce the REDTANKDIVISION1”?

A: [COA 3.1.0] *Critique: The COA may not be suitable because an element of the commander’s intent is not accomplished.*

Justification: In giving guidance about the positioning of the reserve, the commander is implicitly expressing his preference to keep a reserve. COA 1 does not keep a reserve. The risk here is mitigated by the fact that Supporting Effort 3 is assigned the task to follow and support the Main Effort.

Possible fix: Re-plan the course of action to allocate a force as the division reserve. A battalion could be re-allocated from the penetrating force (Supporting Effort 1), or the TCF could be reduced to a company team, thus freeing a task force (-) for the reserve mission.

[COA 3.2.0, COA 3.3.0, COA 3.4.0] Yes.

Justification: The reserve follows the Main Effort, placing it in a suitable position to react in the ways stated to support the Main Effort. Be prepared missions or planning priorities could be issued to the reserve in order to comply more explicitly with the commander’s intent; however, nothing in the COA suggests that the reserve’s preparation is likely to be incompatible with the commander’s intentions.

3.4.1.2 Feasibility

Q: Does the Main Effort have sufficient resources to accomplish its mission?

A: [COA 3.1.0] Yes.

Justification: Because the Main Effort is followed and supported by Supporting Effort 3 during the attack at OBJ ORD, their combat power is combined in the comparison. The force ratio analysis shows that the Blue main attack has a force ratio of 2.2 to 1 over Red forces. This compares favorably with the historical minimum of 1:1 viewed as necessary for success when counterattacking against an enemy's flank.

(KF 713.1e) The force ratio historically considered the minimum acceptable for a counterattack on the flank of the defense is 1:1.

Q: [COA 3.2.0] Does Supporting Effort 1 have sufficient resources to accomplish its mission?

[COA 3.1.0] Does Supporting Effort 2 have sufficient resources to accomplish its mission?

[COA 3.1.0, COA 3.4.0] Does SE4 have sufficient resources to accomplish its mission?

A: *Critique: The COA may not be feasible because a unit has inadequate forces for an assigned task.*

Justification: Supporting effort 4 is a balanced brigade equipped with M113 armored personnel carriers, and M60A3 main battle tanks. Although the enemy brigade will have been attrited by attack aviation before the SE4 attack, the SE4's force ratio against the enemy brigade (equipped with modern T-80 tanks and BMP-2 infantry fighting vehicles) is only .83 to 1. This is lower than the historical minimum of 1:1 viewed as necessary for success when counterattacking against an enemy's flank.

(KF 713.1e) The force ratio historically considered the minimum acceptable for a counterattack on the flank of the defense is 1:1.

Possible fix: re-plan the course of action to allocate sufficient combat power against the enemy brigade, and to assign a suitable task and purpose to the EGD brigade. Ways in which this can be done:

- give SE4 the task to penetrate, and give another Blue brigade the task to defeat Red forces on OBJ GRANT.
- Attach additional combat power to SE4

- further attrit the enemy prior to the attack by SE4 using close air support, attack aviation, division artillery.

Q: [COA 3.1.0] Does Supporting Effort 2 have sufficient resources to accomplish its mission?

A: *Critique: The COA may not be feasible because a unit has inadequate forces for an assigned task.*

Justification: Supporting effort 2 (the division cavalry squadron) and Supporting Effort 1 (an armor heavy brigade) conduct simultaneous penetrations against the REDINFANTRYBRIGADE2. Combined, Blue units have a 3 to 1 force ratio over the blocking force. However, if Supporting Effort 2 faces half of the Red combat power alone at its penetration site, it has only a .88 to 1 force ratio. While a reduced force ratio (i.e., less than 2.5:1) may be adequate for success against an enemy in a hasty defense across a wide front, this force ratio is clearly insufficient.

(KF 713.1b) The force ratio historically considered the minimum acceptable for an attack against a hasty defense is 2.5:1.

Possible fix: allocate additional combat power to Supporting Effort 2. One source of combat power is artillery support. The division could place an artillery battalion in direct support of Supporting Effort 2 until the penetration is complete, and then returned that battalion to the brigade that it habitually supports. The force ratio could also be reduced by finding a lightly defended area for the cavalry squadron to conduct its penetration.

Q: [COA 3.2.0] Does the Main Effort have sufficient resources to accomplish its mission?

A: Yes.

Justification: When the Main Effort attacks Red forces at OBJ ORD, it will have a force ratio of 1.13 to 1. This compares favorably with the historical minimum of 1:1 viewed as necessary for success when counterattacking against an enemy's flank.

(KF 713.1e) The force ratio historically considered the minimum acceptable for a counterattack on the flank of the defense is 1:1.

Q: [COA 3.3.0] Does the Main Effort have sufficient resources to accomplish its mission?

A: *Critique: The COA may not be feasible because a unit has inadequate forces for an assigned task.*

Justification: The Main Effort is tasked in both the course of action statement and sketch to defeat two tank brigades vicinity OBJ CORN. The force ratio between the Main Effort and both of the Red brigades it is .56 to 1. This is well below the historical minimum of 1:1 viewed as necessary for success when counterattacking against an enemy's flank.

(KF 713.1e) The force ratio historically considered the minimum acceptable for a counterattack on the flank of the defense is 1:1.

Possible fix: Re-plan the course of action so that the Main Effort is responsible for only one of these brigades, and assigned responsibility for the other Red brigade to another division effort.

Q: Does Supporting Effort 2 have sufficient resources to accomplish its mission?

A: [COA 3.3.0] *Critique: The COA may not be feasible because a unit has inadequate forces for an assigned task.*

Justification: Supporting effort 2 is a division cavalry squadron. It is assigned the task to guard the division's left flank. It is appropriate for a cavalry squadron to conduct the task "guard". A guard is a type of security operation, which is the primary purpose of the cavalry squadron. However, under some circumstances it may be necessary to augment the cavalry squadron with additional combat power in order to enable it to conduct a guard, which involves protecting the main force by fighting to gain time, while also observing and reporting information. Whether or not a cavalry squadron has sufficient resources to conduct a guard is situation dependent. Because this security operation is intended to guard against possibly brigade-sized counterattacks from the south, the cavalry squadron may not have adequate resources to conduct this mission. If, on the other hand, the cavalry squadron had been tasked to guard the division's right flank (against company-sized threats), the cavalry squadron might arguably have adequate resources to conduct a guard mission.

(KF 452.1) "Security operations obtain information about the enemy and provide reaction time, maneuver space, and protection to the main body" (FM 17-95). Security operations consist of the missions of screen, guard, cover, and area security. The first three of these may be considered in terms of the degree of security provided and the amount of combat power required for execution. Screen provides the least amount of security and requires the least amount of combat power. Cover provides the most security and also requires the most combat power. Guard is between these

two. More complete descriptions of each task can be found in FM 101-5-1 and FM 100-40. (COAA Memo “Division Cavalry Squadron”)

(KF 452.2) Units that are capable of conducting various security tasks: Cavalry troops (company-sized maneuver units) screen. Cavalry squadrons (battalion-sized maneuver units) perform screen and guard. Covering force operations require more force than that available within a division’s cavalry squadron, and are normally performed by the Corps’ Armored Cavalry Regiment, a separate brigade, or a reinforced divisional brigade. (COAA Memo “Division Cavalry Squadron”) (KF 452.13) The commander assigns a guard mission to the cavalry squadron when he expects contact or has an exposed flank that requires greater protection than a screen provides. The squadron commander can be given freedom of action in his zone, or the division commander may place time or event constraints on his mission. In any case, the cavalry squadron commander normally needs the division commander’s permission to withdraw beyond his rear boundary. (COAA Memo “Division Cavalry Squadron”)

(KF 452.17) A flank guard protects the flank of the main body. A cavalry squadron can guard one flank of a division-size force. The guard responsibility begins as the trail element of the advance guard or lead element in the main body and ends at the rear of the protected force or lead element of the rear guard. (COAA Memo “Division Cavalry Squadron”)

Possible fixes:

- Augment the cavalry squadron with additional combat power to better enable it to fight delaying actions against brigade sized enemy units.
- Leave the cavalry squadron’s organization as it is, and change the task to either cover or screen.

3.4.1.3 Acceptability

Q: In what ways might this course of action be assuming risk to the Main Effort?

A: [COA 3.1.0] *Critique: The COA assumes some risk or may not be acceptable because a unit is responsible for a disproportionately large amount of enemy forces.*

Justification: The Main Effort is tasked to defeat two tank brigades vicinity OBJ CORN. The force ratio between the Main Effort and both of the Red brigades it is .56 to 1. This is well below the historical minimum of 1:1 viewed as necessary for success when counterattacking against an enemy’s flank. When the Main Effort makes contact with the easternmost brigade in OBJ CORN, there is no other division effort in contact with the westernmost brigade in that objective. This leaves both Red brigades free to maneuver

against the Main Effort before the follow and support brigade (3d unit through the penetration) arrives and adds its combat power. This is an unjustified risk that will likely result in the loss of a significant part of the division's combat power, with little affect against the enemy.

(KF 713.1e) The force ratio historically considered the minimum acceptable for a counterattack on the flank of the defense is 1:1.

(KF 714.1b) Tactical risk is incurred by assigning a unit responsibility for a disproportionately large number of enemy forces.

Possible fix: Re-plan the course of action so that the Main Effort is responsible for only one of these brigades, and assigned responsibility for the other Red brigade to another division effort.

Q: In what ways might this course of action be assuming risk to Supporting Effort 4?

A: [COA 3.1.0, COA 3.4.0] *The COA assumes some risk or may not be acceptable because a unit is responsible for a disproportionately large amount of enemy forces.*

Justification: Supporting effort 4 is a balanced brigade equipped with M113 armored personnel carriers, and M60A3 main battle tanks. Although the enemy brigade will have been attrited by attack aviation before the SE4 attack, the SE4's force ratio against the enemy brigade (equipped with modern T-80 tanks and BMP-2 infantry fighting vehicles) is only .83 to 1. This is lower than the historical minimum of 1:1 viewed as necessary for success when counterattacking against an enemy's flank. Because of the low force ratio and the relative inferiority of the maneuverability and firepower of the unit's equipment, this force is that a disadvantage against Red brigades compared to other Blue brigades. Furthermore, while SE4's maneuver forces constitute only 12 percent of the division's total maneuver force (2.31 UE out of 18.62 total maneuver UE), it is given responsibility to defeat 20 percent (2.78 UE out of 13.67 total maneuver UE) of the Red maneuver forces.

(KF 713.1e) The minimum force ratio historically considered to provide a reasonable possibility of success in counterattacking on the flank of the defense is 1:1.

(KF 714.1b) Tactical risk is incurred by assigning a unit responsibility for a disproportionately large number of enemy forces.

Possible fix: re-plan the course of action to allocate sufficient combat power against the enemy brigade, and to assign a suitable task and purpose SE4. Ways in which this can be done:

- Give SE4 the task to penetrate, and give another Blue brigade the task to defeat Red forces on OBJ GRANT.
- Attach additional combat power to SE4 further attrit the enemy prior to the attack by SE4 using close air support, attack aviation, division artillery.

(KF 714.2f) Tactical risk can be managed by adding combat power to a unit (attached units, additional weapon systems, stockpiled ammunition and fuel, etc.).

[COA 3.3.0] *Critique: The COA assumes some risk or may not be acceptable because the potential for fratricide exists.*

Justification: In this course of action, the Main Effort is given the task to defeat two tank brigades in OBJ CORN, and Supporting Effort 2 is given the mission to attack the same brigades in OBJ CORN. As a result, both Blue efforts have the responsibility for enemy forces in the same objective, with no other control measures to de-conflict of fires and movement of the two Blue brigades. This creates a very high potential for fratricide due to the lack of control and ambiguity about responsibility for enemy forces.

(KF 714.16) The convergence of friendly forces is always risky because of the increased potential for fratricide. (COAA Memo “Risk factors associated with selected mission”)

(KF 116.6) A Course of Action in which separate units (i.e., not organized under a single headquarters) are assigned the same task is probably not effectively employing the Principle of Unity of Command. This does not apply to units which are assigned to assume a task being performed by another (as in a “follow and assume” tasking).

Possible fix: split OBJ CORN into two objectives. Task the Main Effort to defeat a tank brigade in one objective. The other brigade can follow and assume the Main Effort on the subsequent objective to defeat the second Red tank brigade. Support this concept by also attacking the second tank brigade with an attack helicopter battalion or some other asset prior to the follow and assume brigade attack, to attrit the Red force, prevent that Red brigade from interfering with the Main Effort.

[COA 3.1.0] *The COA assumes some risk or may not be acceptable because the COA keeps few or no forces in reserve.*

Justification: COA 1 does not keep a reserve. The resulting risk, however, is mitigated by the fact that Supporting Effort 3 is assigned the task to follow and support the Main Effort.

(KF 714.1c) Tactical risk is incurred by holding a small reserve or no reserve at all.

Possible fixes:

- Re-plan the course of action to allocate a force to be the division reserve. A battalion could be reallocated from the penetrating force (Supporting Effort 1), or the TCF could be reduced to a company team, thus freeing a task force (-) for the reserve mission.
- Re-designate the following support effort as the division reserve.
- No change—justify meeting the commander’s intent by designating the following support effort.

[COA 3.1.0, COA 3.4.0] *Critique: The COA assumes some risk or may not be acceptable because there is insufficient security in the scheme of maneuver.*

Justification: The division is vulnerable on both the left and right flanks during the counterattack. On the left the division is vulnerable to counterattack against the division’s left flank by forward elements of REDTANKARMY1 that have passed PL RED, and are in a position to turn back north against the division during the counterattack. On the right the division is vulnerable to attack by company-sized units from the right. Of these threats, the former is more formidable because brigade-sized units can turn to reinforce the Red units in OBJ GRANT. These courses of action do not secure against the more formidable threat, and instead assign a security mission to the division cavalry squadron on the right flank against the lesser threat. Another reason it would be more advantageous to conduct a security operation on the left flank is that the security operation would be better focused on the Main Effort (southern end of OBJ GRANT).

(KF 117.3) A Course of Action in which tactical risks are incurred and accepted, without corresponding measures or circumstances to manage the risk, may not be maximally employing the Principle of Security. Note it is not necessarily ideal to avoid risk altogether, and it is frequently appropriate to take even large risks in order to achieve a significant tactical benefit. It is important, however, to ensure that the expected benefit outweighs the expected risk, and that any appropriate, reasonable, and available measures are taken to minimize the likelihood or magnitude of negative consequences of such risks.

Possible fixes:

- Designate another security force, and secure both flanks.
- Accept risk on the right flank, and shift the cavalry squadron screen to the left flank

Q: In what ways does this course of action manage tactical risk for the Main Effort?

A: [COA 3.1.0] Supporting effort 3 is assigned the task to follow and support the Main Effort, which manages the risk to the Main Effort of not designating a division reserve. The risk here is mitigated by the fact that Supporting Effort 3 is assigned the task to follow and support the Main Effort. A follow and support force directly supports the mission accomplishment of the force conducting an offensive operation (in this case, the Main Effort).

Q: In what ways does this course of action manage tactical risk for the Main Effort?

A: [COA 3.2.0] An attack helicopter battalion attacks enemy forces on EA VIRGINIA at the same time that the Main Effort conducts its attack against enemy forces on OBJ ORD. This prevents the Main Effort from engaging a disproportionate number of enemy forces, by preventing the enemy forces in EA VIRGINIA from maneuvering against the Main Effort.

(KF 714.2b) Tactical risk can be managed by assigning a unit responsibility for a relatively small number of enemy forces.

(KF 714.2d) Tactical risk can be managed by allowing units adequate time to accomplish key tasks.

Q: In what ways does this course of action manage tactical risk for Supporting Effort 3?

A: [COA 3.4.0] An attack helicopter battalion attrits enemy forces at OBJ BRAGG by 1 tank battalion prior to Supporting Effort 3's attack. This improves the force ratio for Supporting Effort 3, increasing its chances for success.

(KF 714.2b) Tactical risk can be managed by assigning a unit responsibility for a relatively small number of enemy forces.

3.4.1.4 Completeness

Q: Are any elements of the COA sketch missing or ambiguous?

A: [COA 3.3.0, COA 3.4.0] *Critique: The COA sketch provides insufficient control of fires and/or movement.*

Justification: A brigade boundary should be used between the northern end southern objectives in OBJ GRANT, to de-conflict the maneuver between the main and supporting attacks. This course of action sketch lacks control measures to de-conflict these two brigades, particularly during movement to their respective objectives.

Possible fix: draw a brigade boundary beginning at the line of contact and extending across OBJ GRANT just south of PL WHITE, dividing the division zone beyond a lot of contact and OBJ GRANT into brigade zones.

[COA 3.3.0] Critique: The COA sketch is ambiguous with respect to responsibility for terrain and/or objectives.

Justification: In this course of action, two units are assigned responsibility for OBJ CORN (Main Effort and Supporting Effort 2

Possible fix: split OBJ CORN into two objectives. Task the Main Effort to defeat a tank brigade in one objective. The other brigade can follow and assume the Main Effort on the subsequent objective to defeat the second Red tank brigade. Support this concept by also attacking the second tank brigade with an attack helicopter battalion or some other asset prior to the follow and assume brigade attack, to attrit the Red force, prevent that Red brigade from interfering with the Main Effort.

[COA 3.3.0] Critique: The COA sketch is ambiguous with respect to responsibility for enemy forces.

Justification: In this course of action, two units are assigned responsibility for the lead enemy tank brigades (Main Effort and Supporting Effort 2).

(KF 116.6) A Course of Action in which separate units (i.e., not organized under a single headquarters) are assigned the same task is probably not effectively employing the Principle of Unity of Command. This does not apply to units which are assigned to assume a task being performed by another (as in a “follow and assume” tasking).

Possible fix: split OBJ CORN into two objectives. Task the Main Effort to defeat a tank brigade in one objective. The other brigade can follow and assume the Main Effort on the subsequent objective to defeat the second Red tank brigade. Support this concept by also attacking the second tank brigade with an attack helicopter battalion or some other asset prior to the follow and assume brigade attack, to attrit the Red force, prevent that Red brigade from interfering with the Main Effort.

[COA 3.1.0, COA 3.2.0, COA 3.3.0, COA 3.4.0] Critique: The COA sketch does not include mission graphics for all of the key tactical tasks.

Justification: Each of these courses of action use the task “defeat”. Mission graphics would clarify the sketch, by helping to distinguish the CAS and attack helicopter missions that are intended to attrit from those that are intended to destroy or defeat.

Potential Improvements: Add tactical mission graphics for all key tactical tasks.

Q: Are any elements of the COA statement missing or ambiguous?

A: [COA 3.4.0] *Critique: The COA is not a “complete mission statement” because there is no description of fire support to the maneuver plan.*

Justification: There is no fires statement for this course of action, describing how fire support will complement the scheme of maneuver.

Potential improvement: Include a fires statement.

3.4.2 Correctness

Q: Is the correct number of forces of the right kind arrayed in this course of action?

A: [COA 3.2.0] *Critique: The COA’s array of forces appears to array too many units.*

Justification: There are eight mechanized infantry battalions arrayed on the sketch for COA 2, while there are only 7 available.

Possible fix: remove one of the mechanized infantry battalions. This can be done by:

- assigning the TCF mission to a mech company team, rather than a task force
- the leading one of the mechanized infantry battalions from Supporting Effort 1, which has a 4.45 to 1 force ratio against Red forces at the penetration.

3.4.2.1 Questions regarding array of forces

(No questions regarding this scenario)

3.4.2.2 Questions regarding scheme of maneuver

Q: Does the course of action focus combat power at the decisive point?

Background Information: The decisive point of this operation can be seen as the defeat of the lead eastern brigade within about one hour. This allows Blue

to maneuver against the western lead brigade, defend against that brigade if it maneuvers against us, or flex to engage the trail eastern brigade, if required.⁷⁹

A: [COA 3.1.0, COA 3.2.0] Yes.

Justification: The main attack is directed against the identified decisive point. Greater mass at the decisive point can be achieved by directing close air support or attack aviation to attrit the enemy at that objective prior to the main attack.

(KF 113.3) Observance of the Principle of Mass may be evidenced by allocation of significantly more than the minimum combat power required at the Decisive Point.

[COA 3.3.0] *Critique: The COA does not appear to focus combat power at the decisive point.*

Justification: In this course of action, the Main Effort is given the task to defeat two tank brigades in OBJ CORN, achieving a force ratio of only .56 to 1. In addition, the Main Effort is not focused on the eastern lead brigade alone. Instead, the Main Effort's attention is split between both of the lead brigades, further defeating the ability to focus combat power at this (or any other) decisive point.

(KF 113.3) Observance of the Principle of Mass may be evidenced by allocation of significantly more than the minimum combat power required at the Decisive Point.

Possible fix: Split OBJ CORN into two objectives. Task the Main Effort to defeat the easternmost lead tank brigade, and weight the Main Effort for success. Further support the Main Effort by also attacking the westernmost lead tank brigade with an attack helicopter battalion or some other asset defeat the Red force, preventing that Red brigade from interfering with the Main Effort.

[COA 3.4.0] Yes.

Justification: The main attack is directed against that point. This COA further masses combat power by directing close air support against this brigade to attrit the enemy at that objective prior to the main attack.

Q: Does the purpose of Supporting Effort 3 contribute to the success of the Main Effort?

⁷⁹ Source: Course author, C300, "Fundamentals of Warfighting", Command and General Staff College

A: [COA 3.1.0] Yes.

Justification: The mission of Supporting Effort 3 is to follow and support the Main Effort. Follow and support is an operation in which a force follows and supports the mission accomplishment of the force conducting an offensive operation. This contributes directly to the success of the supported unit (in this case, the Main Effort).

[COA 3.2.0] *Critique: The purpose of a supporting effort does not appear to contribute to the success of the Main Effort.*

Justification: Supporting effort 3 attacks to defeat an enemy tank brigade in the vicinity of OBJ BRAGG in order to prevent the enemy division from reinforcing the REDMECHANIZEDARMY1 in the south. The purpose, as stated, is merely a duplication of the Main Effort's purpose. This does not clearly demonstrate that the Supporting Effort's purpose is to contribute to the success of the Main Effort.

Possible fix: It is clear that if Supporting Effort 3 is successful in defeating the tank brigade on OBJ BRAGG, this will prevent that tank brigade from interfering with the Main Effort, thus directly supporting the Main Effort's success. Supporting effort 3's purpose could simply be reworded to make more explicit the way in which this effort contributes to the success of the Main Effort. For example, it might be reworded as, "in order to prevent the tank brigade in the vicinity of OBJ BRAGG from conducting a counterattack against the Main Effort's right flank."

(KF 711.2). The supporting efforts in a COA must support the Main Effort's success.

[COA 3.3.0] *Critique: The purpose of a supporting effort does not appear to contribute to the success of the Main Effort.*

Justification: The Main Effort is tasked to defeat two tank brigades in OBJ CORN in order to prevent the enemy division from reinforcing REDMECHANIZEDARMY1 in the south. Supporting effort 3 is tasked to conduct exactly the same task for exactly the same purpose. This is a duplication of effort, not a supporting effort. Supporting effort 3's purpose does not relate to the Main Effort's success as much as it interferes with it.

(KF 711.2). The supporting efforts in a COA must support the Main Effort's success.

Potential Improvements: Split OBJ CORN into two objectives. Task the Main Effort to defeat the easternmost lead tank brigade, and weight the Main Effort

for success. Further support the Main Effort by also attacking the westernmost lead tank brigade with an attack helicopter battalion or some other asset defeat the Red force, preventing that Red brigade from interfering with the Main Effort.

[COA 3.4.0] Yes.

Justification: The purpose of Supporting Effort 3 is stated as, “to protect the flank of the Main Effort.” This statement clearly establishes the way in which Supporting Effort 3’s defeat of the tank brigade in OBJ PIG will support the Main Effort in accomplishing its purpose.

Q: Is Supporting Effort 2 assigned a task appropriate to its capabilities?

A: [COA 3.1.0, COA 3.4.0] Yes.

Justification: Supporting effort 2 is a division cavalry squadron. It is assigned two different tasks: penetrate and screen.

- It is appropriate for a cavalry squadron to conduct the task “penetrate”. When employed in an economy of force role, the cavalry squadron can conduct missions such as attack. Although this type of mission is less common for the cavalry squadron than reconnaissance and security missions, missions such as attack and defend are within the capabilities of this type of unit.

(KF 623.17) If required, cavalry units can conduct an attack, a defense, or a delay as an economy of force in support of the Main Effort. Some risk must be assumed when doing this, due to the loss of the reconnaissance and security normally provided by the cavalry unit. The risk entailed in the mission may result in the long term loss or reduction in unit capability to perform reconnaissance and security operations. (COAA Memo “Division Cavalry Squadron”)

(KF 623.18) In order to conduct a defense as an economy of force to support the Main Effort, a divisional cavalry squadron often requires augmentation with additional combat, combat support, and combat service support assets to accomplish this mission. The amount of terrain the squadron can defend is dependent on the number of ground troops and the number and type of maneuver company reinforcements assigned. (COAA Memo “Division Cavalry Squadron”)

- It is appropriate for a cavalry squadron to conduct the task “screen”. A screen is a type of security operation, which is the primary purpose of the cavalry squadron. The cavalry squadron in this COA is adequately resourced to conduct the screen without further augmentation.

(KF 623.8b) The Armored Division Cavalry Squadron can appropriately be assigned the security missions of Screen, Guard, Cover, Area Security, Route Security, or Convoy Security.

[COA 3.3.0] Yes.

Justification: Supporting effort 2 is a division cavalry squadron. It is assigned two different tasks: clear and guard.

- It is appropriate for a cavalry squadron to conduct the task “clear”. When employed in an economy of force role, the cavalry squadron can conduct missions such as attack. Although this type of mission is less common for the cavalry squadron than reconnaissance and security missions, missions such as attack and defend are within the capabilities of this type of unit.

(KF 623.17) If required, cavalry units can conduct an attack, a defense, or a delay as an economy of force in support of the Main Effort. Some risk must be assumed when doing this, due to the loss of the reconnaissance and security normally provided by the cavalry unit. The risk entailed in the mission may result in the long term loss or reduction in unit capability to perform reconnaissance and security operations. (COAA Memo “Division Cavalry Squadron”)

- It is appropriate for a cavalry squadron to conduct the task “guard”. A guard is a type of security operation, which is the primary purpose of the cavalry squadron. Note: this is addressed in a critique elsewhere regarding adequacy of unit resources. Under some circumstances it may be necessary to augment the cavalry squadron with additional combat power in order to enable it to conduct a guard. Whether or not a cavalry squadron has enough resources to conduct a guard is situation dependent. Because this security operation is intended to guard against possibly brigade-sized counterattacks from the south, the cavalry squadron may not have adequate resources to conduct this mission. If on the other hand, the cavalry squadron had been tasked to guard the division’s right flank (against company-sized threats), the cavalry squadron might arguably have adequate resources to conduct a guard mission.

(KF 623.8b) The Armored Division Cavalry Squadron can appropriately be assigned the security missions of Screen, Guard, Cover, Area Security, Route Security, or Convoy Security.

Q: Is the task assigned to Supporting Effort 3 a proper tactical task?

A: [COA 3.1.0] Yes.

Justification: “Follow and support” is a proper tactical task.

[COA 3.2.0] Yes.

Justification: “Defeat” is a proper tactical task.

[COA 3.3.0] *Critique: The task assigned to a unit is not a proper tactical task.*

Justification: The task statement given to Supporting Effort 3 in this COA is “attack in zone to attack to tank brigades vicinity OBJ CORN to prevent the enemy division from reinforcing REDMECHANIZEDARMY1 in the south. “Attack” is not a tactical task, but a type of operation.

Possible fix: change the tactical task assigned to Supporting Effort 3 to “defeat” or “destroy”.

[COA 3.4.0] Yes.

Justification: “Defeat” is a proper tactical task.

Q: Is the following control measure placed correctly relative to other sketch elements?

A: [COA 3.3.0] *Critique: A control measure appears to be placed or oriented improperly with respect to some other sketch element.*

Justification: The tactical mission graphic for “block” is placed on the sketch as the tactical mission for Supporting Effort 1. The tactical task assigned to Supporting Effort 1 in the COA statement is “penetrate.”

Possible fix: change the tactical mission graphic for Supporting Effort 1 to the “penetrate” mission graphic.

[COA 3.3.0] *Critique: A control measure appears to be placed or oriented improperly with respect to some other sketch element.*

Justification: A tactical mission graphic is depicted for Supporting Effort 2, which is similar to both “follow and assume” and “follow and support”, but is not clearly either one of them. Depending on which, this graphic either indicates that Supporting Effort 2 is to follow and assume the Main Effort, or to follow and support the Main Effort. If the intent is to depict either one of these missions, it is drawn incorrectly.

In addition, neither one of those mission graphics (even if drawn correctly) is the appropriate choice with respect to this effort. The mission of Supporting Effort 2 in that phase of the operation is to follow the Main Effort and clear the penetration site. “Follow” is a term used to broadly define the movement of forces, and is not equivalent to either of the tasks “follow and support” or “follow and assume”.

Possible fix: Remove the graphic.

[COA 3.3.0] *Critique: A control measure appears to be placed or oriented improperly with respect to some other sketch element.*

Justification: A tactical mission graphic is depicted for Supporting Effort 3, which is similar to both “follow and assume” and “follow and support”, but is not clearly either one of them. Depending on which, this graphic either indicates that Supporting Effort 3 is to follow and assume the Main Effort, or to follow and support Supporting Effort 2. If the intent is to depict either one of these missions, it is drawn incorrectly.

Possible fixes:

- Remove the graphic.
- Correct to depict “follow and assume”, and describe the task as such in the course of action statement.

[COA 3.3.0] *Critique: A control measure appears to be placed or oriented improperly with respect to some other sketch element.*

Justification: A tactical mission graphic is depicted for Supporting Effort 4, which is similar to both “follow and assume” and “follow and support”, but is not clearly either one of them. Depending on which, this graphic either indicates that Supporting Effort 2 is to follow and assume the Main Effort, or to follow and support Supporting Effort 3. If the intent is to depict either one of these missions, it is drawn incorrectly.

In addition, neither one of those mission graphics (even if drawn correctly) is the appropriate choice with respect to this effort. The mission of Supporting Effort 4 is to follow the Main Effort and act as the reserve. It is not a committed force. “Follow” is a term used to broadly define the movement of forces, and is not equivalent to either of the tasks “follow and support” or “follow and assume”.

Possible fix: Remove the graphic.

[COA 3.4.0] *Critique: A control measure appears to be placed or oriented improperly with respect to some other sketch element.*

Justification: The follow and support tactical mission graphic is depicted for Supporting Effort 4. The mission of Supporting Effort 4 is to follow the Main Effort and act as the reserve. It is not a committed force. “Follow” is a term used to broadly define the movement of forces, and is not equivalent to the task “follow and support”, which describes a committed effort.

Possible fix: Remove the graphic.

3.4.2.3 Questions regarding command and control

(No questions included for this scenario)

3.4.3 Questions regarding strengths and weaknesses

Q: To what extent does this course of action conform to the principle of Objective?

A: [COA 3.1.0, COA 3.2.0, COA 3.4.0] The COA appears to conform well to the principle of Objective.

Justification: the overall division mission is an attack directed at enemy forces vicinity OBJ GRANT. This objective appears to be well-defined, in that it describes the enemy forces to be defeated, and the places on the battlefield where those forces are expected to be at the time of the attack. Each course of action also demonstrates that the division more than likely has adequate combat power to attain this objective. The overall ratio of Blue to Red forces available in this operation is 1.1:1, adequate combat power for a reasonable chance of success conducting a counterattack against enemy’s flank.

(KF 111.1) Direct every military operation toward a clearly defined, decisive, and attainable objective.

In addition, the attack is further defined as a series of smaller objectives within the larger objective. Each one of these objectives clearly defines the responsibility for the individual main and supporting attacks that make up the overall division course of action. Each one of these component attacks appears attainable with little or no modification (see feasibility critiques for supporting attacks against OBJ BRAGG).

(KF 111.2) The attainment of intermediate objectives must directly, quickly, and economically contribute to the operation.

[COA 3.3.0] *This COA is not effectively applying the principle of Objective because it does not have a clearly defined purpose that the Main Effort accomplishes and all other efforts support.*

Justification: OBJ CORN is used as a control measure for brigade sized efforts, but contains more forces than are appropriate for brigade to defeat at one time. For example, the force ratio analysis reveals that the first brigade to attack OBJ CORN (the Main Effort) has only a .53 to 1 force ratio for the attack. This demonstrates that the COA fails to properly exercise the principle of objective, because OBJ CORN is not attainable.

(KF 111.1) Direct every military operation toward a clearly defined, decisive, and attainable objective.

OBJ CORN is also used to describe and control the actions of two different units in this COA. The Main Effort is given the mission to defeat enemy forces vicinity OBJ CORN, as is Supporting Effort 3. This demonstrates that the COA fails to properly exercise the principle of objective, because OBJ CORN is poorly defined.

(KF 111.5) A course of action which does not have a clearly defined purpose, which the Main Effort accomplishes and all other efforts support, then the Course of Action fails to follow the Principle of Objective altogether.

Q: To what extent does this course of action conform to the principle of Offensive?

A: [COA 3.2.0, COA 3.3.0] The COA appears to conform well to the principle of Offensive.

Justification: In general, each of these courses of action applies the principle of Offensive, in that the operation is a whole, and the tasks to subordinate units, utilize attacks to a great extent.

(KF 112.2) Nearly all Offensive Types of Operation and Choices of Maneuver reflect the Principle of Offensive to some degree. In addition, there are a number of actions taken from a defensive posture, which tend to reflect the Principle of Offensive, such as Mobile Defense, Counterattack, and Spoiling Attack. The presence of these elements in a Course of Action, considered with the degree and manner in which they are used, can serve as evidence of observance of the Principle of Offensive.

[COA 3.4.0] The COA appears to conform well to the principle of Offensive.

Justification: In general, the course of action applies the principle of Offensive, in that the operation is a whole, and the tasks to subordinate units, utilize attacks to a great extent.

This course of action goes a little further in applying the principle of offensive, by using the cavalry squadron in a supporting attack. While attacks are not the usual use for division cavalry, this is an appropriate role for cavalry units. By assigning the cavalry unit an attack mission, this COAs further exemplifies the principle of Offensive.

(KF 112.2) Nearly all Offensive Types of Operation and Choices of Maneuver reflect the Principle of Offensive to some degree. In addition, there are a number of actions taken from a defensive posture, which tend to reflect the Principle of Offensive, such as Mobile Defense, Counterattack, and Spoiling Attack. The presence of these elements in a Course of Action, considered with the degree and manner in which they are used, can serve as evidence of observance of the Principle of Offensive.

[COA 3.1.0] The COA appears to conform well to the principle of Offensive.

Justification: In general, the course of action applies the principle of Offensive, in that the operation is a whole, and the tasks to subordinate units, utilize attacks to a great extent.

This course of action goes a little further in applying the principle of offensive, by using the cavalry squadron in a supporting attack. While attacks are not the usual use for division cavalry, this is an appropriate role for cavalry units. By assigning the cavalry unit an attack mission, this COAs further exemplifies the principle of Offensive.

In addition, this COA does not hold a reserve, and instead commits all available maneuver power to an attack of some sort. Because no part of the force is left uncommitted to an attack, this COA further exemplifies the principle of offensive.

(KF 112.2) Nearly all Offensive Types of Operation and Choices of Maneuver reflect the Principle of Offensive to some degree. In addition, there are a number of actions taken from a defensive posture, which tend to reflect the Principle of Offensive, such as Mobile Defense, Counterattack, and Spoiling Attack. The presence of these elements in a Course of Action, considered with the degree and manner in which they are used, can serve as evidence of observance of the Principle of Offensive.

Q: To extent does this course of action conform to the principle of Mass?

Relevant Background: The decisive point of this operation can be seen as the defeat of the lead eastern brigade within about one hour. This allows Blue to

maneuver against the western lead brigade, defend against that brigade if it maneuvers against us, or flex to engage the trail eastern brigade, if required.⁸⁰

A: [COA 3.1.0] The COA appears to conform well to the principle of Mass.

Justification: This COA applies the principle of Mass because the main attack is directed toward accomplishing the mission at the decisive point identified above, and a follow and support effort is committed to respond directly to the Main Effort in accomplishing that mission. Combined, the Main Effort and Supporting Effort 3 in this course of action have a 2.2 to 1 advantage over the enemy brigade at OBJ ORD.

In addition, because the unit assigned the responsibility for OBJ ORD is designated the Main Effort, we can assume that this unit receives the highest priority for division level resources, further massing combat power at this point.

(KF 113.2) Observance of the Principle of Mass may be evidenced by allocation to the Main Effort of significantly greater combat power than the minimum required throughout its mission, accounting for expected losses during the mission.

(KF 113.3) Observance of the Principle of Mass may be evidenced by allocation of significantly more than the minimum combat power required at the Decisive Point.

(KF 113.4) A Course of Action in which the Main Effort is not allocated overwhelming force is probably not properly applying the Principle of Mass.

(KF 113.5) A Course of Action in which the Decisive Point does not have overwhelming force applied to it is probably not properly applying the Principle of Mass.

[COA 3.2.0] The COA appears to partially conform to the principle of Mass.

Critique: This COA is not effectively applying the principle of mass because the Main Effort is not weighted for success.

Justification: This COA applies the principle of mass to some extent, because the main attack is directed toward accomplishing the mission at the decisive point identified above. Additionally, as the Main Effort, this force can expect to receive the highest priority for division level resources. However, the Main Effort has a force ratio of 1.13 to 1 against the enemy forces at OBJ

⁸⁰ Source: Course author, C300, "Fundamentals of Warfighting", Command and General Staff College

ORD, which is only slightly above the 1:1 force ratio historically viewed as necessary for a counterattack against an enemy's flank. No other division level assets contribute to the defeat of the enemy forces at OBJ ORD.

(KF 113.4) A Course of Action in which the Main Effort is not allocated overwhelming force is probably not properly applying the Principle of Mass.

(KF 113.5) A Course of Action in which the Decisive Point does not have overwhelming force applied to it is probably not properly applying the Principle of Mass.

Potential improvements:

- Greater mass at the decisive point can be achieved by directing close air support or attack aviation to attrit the enemy at that objective prior to the main attack. This would increase the force ratio between the Main Effort and the enemy forces at OBJ ORD.
- Allocate additional battalion(s) to the Main Effort.
- Task another unit to follow and support the Main Effort in its attack against OBJ ORD.

[COA 3.3.0] *Critique: This COA is not effectively applying the principle of mass because it does not demonstrably mass the unit's combat power at the decisive point.*

Justification: In this course of action, one brigade (the Main Effort) is given the task to defeat two tank brigades in OBJ CORN, achieving a force ratio of only .56 to 1, which is clearly insufficient to accomplish the task.

In addition, the Main Effort is not focused on the decisive point described above. Instead, the Main Effort is directed against both of the lead brigades, further defeating the ability to focus combat power at this (or any other) decisive point.

(KF 113.4) A Course of Action in which the Main Effort is not allocated overwhelming force is probably not properly applying the Principle of Mass.

(KF 113.5) A Course of Action in which the Decisive Point does not have overwhelming force applied to it is probably not properly applying the Principle of Mass.

Potential improvements: Split OBJ CORN into two objectives. Task the Main Effort to defeat the easternmost lead tank brigade, and weight the Main Effort for success. Further support the Main Effort by also attacking the

westernmost lead tank brigade with an attack helicopter battalion or some other asset to defeat the Red force, preventing that Red brigade from interfering with the Main Effort.

[COA 3.4.0] The COA appears to conform well to the principle of Mass.

Justification: This COA applies the principle of mass because the main attack is directed toward accomplishing the mission at the decisive point identified above, and additional combat power is applied at that point to weight the Main Effort for success. Close air support is employed against the enemy forces at OBJ ORD prior to the main attack. Assuming that the close air support destroys the equivalent of a tank battalion's worth of combat power, the Main Effort can be expected to have a force ratio of 1.8 to 1 against the tank brigade at OBJ ORD.

In addition, because the unit assigned the responsibility for OBJ ORD is designated the Main Effort, we can assume that this unit receives the highest priority for division level resources, further massing combat power at this point.

(KF 113.4) A Course of Action in which the Main Effort is not allocated overwhelming force is probably not properly applying the Principle of Mass.

(KF 113.5) A Course of Action in which the Decisive Point does not have overwhelming force applied to it is probably not properly applying the Principle of Mass.

Q: To what extent does this course of action conform to the principle of Maneuver?

A: [COA 3.1.0, COA 3.2.0, COA 3.3.0, COA 3.4.0] The COA appears to conform well to the principle of Maneuver.

Justification: Each of these courses of action achieves a position of advantage against the enemy, in that the division counterattack is directed against the flank of REDTANKARMY1, which is attacking south in the adjacent unit's zone (23 AD).

In addition, all of the individual attacks against enemy forces in OBJ GRANT are directed against either the flank or rear of the enemy brigades.

(KF 115.1) Maneuver is the movement of forces in relation to the enemy to gain positional advantage.

(KF 115.5a) Positional advantage can be achieved by engaging the flank or rear of the enemy, rather than the front (e.g., Turning Movement, Infiltration, Envelopment, Encirclement).

Q: To what extent does this course of action conform to principle of Economy of Force?

A: [COA 3.2.0] *Critique: This COA is not effectively applying the principle of economy of force because excessive force is allocated to secondary (supporting) efforts.*

Justification: In this course of action, a balanced brigade, consisting of two mechanized battalions and two armor battalions, this is used to penetrate enemy forces at the line of contact. Assuming that the REDINFANTRYBRIGADE2 defense across a broad front, and that any single penetration site will be opposed by (at most) one battalion's worth of combat power from that force (fully supported by available artillery, but not supported by other battalions), this brigade will achieve a 4.45 to 1 force ratio for the penetration. While this may ensure a rapid penetration, the amount of combat power allocated to this effort is excessive when compared to the force ratio achieved by the Main Effort at the decisive point (1.13 to 1).

(KF 114.4) A Course of Action in which more than the minimum necessary force is applied to secondary efforts is probably not effectively employing the Principle of Economy of Force.

Potential improvements: It is possible to redistribute one or more battalions from Supporting Effort 1 to the main attack, while still maintaining a sufficient advantage at the penetration to ensure a rapid advance to OBJ GRANT.

A: [COA 3.3.0] *This COA is not effectively applying the principle of Economy of Force because excessive force is allocated to secondary (supporting) efforts.*

Justification: This course of action fails to exercise economy of force in that excessive force is allocated to the penetration by Supporting Effort 1 (3.4 to 1), while the Main Effort fights at a disadvantage (with a force ratio of .56 to 1). This is not the most effective use of combat power available, and does not economize for the sake of increasing combat power at the decisive point.

This course of action also fails to exercise economy of force in that it does not employ all combat power available in the most effective way possible. Specifically, two ATKHBs are allocated in the deep battle to destroy enemy forces in EA CARROT. One ATKHB is probably sufficient for this task, leaving the second ATKHB without a real purpose, and potentially available for use elsewhere in the course of action.

(KF 114.4) A Course of Action in which more than the minimum necessary force is applied to secondary efforts is probably not effectively employing the Principle of Economy of Force.

(KF 114.5) A Course of Action in which forces are left without a role is probably not maximally employing the Principle of Economy of Force.

Potential Improvements: Use the available second ATKHB to attack enemy forces in the vicinity of OBJ CORN, taking care to appropriately integrate such an attack with other efforts at this objective. For instance, while the Main Effort attacks one of the two tank brigades at OBJ CORN, the ATKHB might carry out an attack to attrit the other. Such an attack should be carefully integrated with other Blue efforts in the vicinity.

Q: To what extent does this course of action conform to the principle of Unity of Command/Effort?

A: [COA 3.3.0] *This COA is not effectively applying the principle of Unity of Command/Effort because the purposes of supporting efforts do not relate sufficiently to the purpose of the Main Effort.*

Justification: Because two different brigades are directed to attack at OBJ CORN, there is no unity of effort in the attack against that objective, and no clear responsibility for achieving the purpose there. As a result, command and control of the attack against enemy forces within OBJ CORN would be extremely difficult for the division and for each of the two brigades. The risk of confusion, mission failure, and fratricide is high.

(KF 116.2) A Course of Action in which Supporting Efforts are not related to the Main Effort is probably not effectively employing the Principle of Unity of Command (or Unity of Effort).

Potential improvements: re-plan the course of action so that each objective/task/purpose is assigned to only one effort. For example, task one effort to defeat the easternmost lead tank brigade, and task another effort to defeat the westernmost lead tank brigade. Establish control measures, as necessary, to clearly delineate responsibilities. For example, establish a unit boundary, or split OBJ CORN into two objectives, and assign only one effort responsibility for each objective at any one time.

[COA 3.4.0] The COA appears to conform well to the principle of Unity of Command/Effort.

Justification: This COA exemplifies the principle of unity of effort because the purposes of supporting efforts relate directly to the success of the Main Effort. The purpose of Supporting Effort 1 is to pass the Main Effort forward.

The purpose of Supporting Effort 2 is initially to pass forward Supporting Effort 3, whose purpose in turn is to protect the flank of the Main Effort.

(KF 116.2) A Course of Action in which Supporting Efforts are not related to the Main Effort is probably not effectively employing the Principle of Unity of Command (or Unity of Effort).

Q: To what extent does this course of action conform to the principle of Simplicity?

A: [COA 3.3.0] The COA appears to conform well to the principle of Simplicity.

Justification: This COA is relatively simple, in that each objective has exactly one attack directed against it.

(KF 119.2) Other factors being equal, the simplest plan is preferable.
(FM 100-5, p. 2-6)

(KF 119.3) A Course of Action containing tasks nested in multiple layers, or containing a significant number of conditional tasks, probably is not making maximal use of the Principle of Simplicity.

[COA 3.4.0] *Critique: This COA is not effectively applying the principle of simplicity because there are several multiply nested and/or conditional tasks specified in the concept.*

Justification: In this course of action, the cavalry squadron must conduct two very different tasks in sequence -- first a penetration of elements of the REDINFANTRYBRIGADE2, pass a unit forward, and then transition to the security operations (screen of the division's right flank). The penetration and forward passage of lines are inherently complex tasks in themselves. In addition, the cavalry squadron is not best suited for attacks. While it is possible to employ the cavalry squadron in an "economy of force" role by assigning missions such as attack and defend, this type of unit is best suited for reconnaissance and security.

In addition, this COA employs multiple efforts against two different objectives (OBJ PIG and OBJ MOUSE). Close air support will attack enemy forces on OBJ MOUSE prior to the Main Effort attack against that objective. Attack aviation will conduct an attack against enemy forces on OBJ PIG prior to the attack of Supporting Effort 3 against that objective. Each one of these objectives will require careful command and control at the division level to de-conflict operations sufficiently to ensure success and reduce risk. All of this will be going on at the same time that the division is also controlling forward passage of lines through two different penetration sites, and the transition of the division cavalry squadron from a penetration and forward passage of lines to a security operation.

(KF 119.3) A Course of Action containing tasks nested in multiple layers, or containing a significant number of conditional tasks, probably is not making maximal use of the Principle of Simplicity.

(KF 119.5) A Course of Action containing more than a small number of inherently complex tasks, types of operation, choices of maneuver, or other actions probably is not making maximal use of the Principle of Simplicity.

(KF 119.6c, n) The following types of operation, tasks and other activities are considered inherently complex: Penetration, Passage of Lines.

Potential improvements: No change to the course of action is recommended. However, this complexity should be recognized, decision support measures should be put into place, and branch plans should be identified, in order to help control this complex operation.

[COA 3.1.0, COA 3.4.0] *This COA is not effectively applying the principle of simplicity because inherently complex tasks are employed.*

Justification: Penetration and forward passage of lines are inherently complex tasks. Command and control of the division attack will be more complex because these COAs used two breach sites.

(KF 119.6c, n) The following types of operation, tasks and other activities are considered inherently complex: Penetration, Passage of Lines.

Potential Improvements: No change to the course of action is recommended. However, this complexity should be recognized, decision support measures should be put into place, and branch plans should be identified, in order to help control this complex operation.

Q: To what extent does this course of action conform to the principle of Surprise?

A: [COA 3.1.0, COA 3.4.0] The COA appears to conform to the principle of Surprise.

Justification: This course of action may achieve a measure of surprise, because two different penetration sites are used, potentially increasing the rate at which ground forces can mass on the enemy at OBJ GRANT, and limiting the enemy's time to react to the division's counterattack.

(KF 118.2) The enemy can be surprised about the tempo of the operation, the size of the force, the direction or location of the Main Effort, and timing. (FM 100-5, p. 2-5)

(KF 118.3) Factors contributing to surprise include speed, effective intelligence, deception, application of unexpected combat power, operations security, and variations in tactics and methods of operation. (FM 100-5, p. 2-5)

[COA 3.2.0] The COA appears to conform to the principle of Surprise.

Justification: This course of action may achieve a measure of surprise, because a great deal of combat power is concentrated against a single penetration site. This could result in a rapid penetration of the REDINFANTRYBRIGADE2 and subsequent attack to OBJ GRANT. If successful, this surprise would limit the enemy's time to react to the division's counterattack.

Q: To what extent does this course of action conform to the principle of Security?

A: [COA 3.1.0, COA 3.4.0] *This COA is not effectively applying the principle of security because significant tactical risks are taken without justification or risk management.*

Justification: At the time of the division's counterattack, the lead elements of the REDTANKARMY1 will have crossed PL RED in adjacent Blue division's zone. Because of this, there is a risk that a brigade or more could turn north once our counterattack against the REDTANKDIVISION1 is detected, in order to prevent the loss of the REDTANKDIVISION1. This presents a significant risk to the division on the left flank during our attack at OBJ GRANT. This course of action conducts a security operation on the division's right flank, against the possibility that company size threats could threaten the division's right flank, and apparently accepts risk on the division's left flank against the more significant threat.

(KF 117.3) A Course of Action in which tactical risks are incurred and accepted, without corresponding measures or circumstances to manage the risk, may not be maximally employing the Principle of Security. Note it is not necessarily ideal to avoid risk altogether, and it is frequently appropriate to take even large risks in order to achieve a significant tactical benefit. It is important, however, to ensure that the expected benefit outweighs the expected risk, and that any appropriate, reasonable, and available measures are taken to minimize the likelihood or magnitude of negative consequences of such risks.

Potential improvements:

- shift the security operation intended for the division's right flank to the division's left flank.
- Allocate additional combat power to the security battle, and secure both flanks.

[COA 3.2.0, COA 3.3.0] The COA appears to conform well to the principle of Security.

Justification: This course of action applies the principle of security, in that a significant force is allocated to the security battle to conduct appropriate missions (i.e., screen, guard). These security missions are well placed because the threat to the division's left flank is more significant than the threat to the division's right flank. The security operation also more directly contributes to the success of the Main Effort, because the screen is oriented on the Main Effort (that is, on the flank of the division where the Main Effort is operating).

(KF 117.1) Security enhances freedom of action by reducing vulnerability to hostile acts, influence, or surprise.

(KF 117.5) "Risk is inherent in war; however, commanders must not be overly cautious. To be successful, commanders must take necessary, calculated risks to preserve the force and defeat the enemy." (FM 100-5, p. 2-5)

3.4.4 Questions that further develop a course of action

3.4.4.1 Identify branch plans

Branch plans may be generated as a result of war gaming or planning. Any number of conclusions could be reached here, given any number of COA combinations and contingencies. The following is an example of what one might look like.

Q: In considering Red course of action 1, what contingencies necessitate a branch plan involving (Blue division), and what should the branch plan be?

A: [COA 3.4.0] *Contingencies necessitating branch plan:*
REDINFANTRYBRIGADE2 defends successfully against Supporting Effort 2's penetration, and prevents Supporting Effort 2 from achieving the penetration.

Possible branch plan: "If Supporting Effort 2 fails to penetrate REDINFANTRYBRIGADE2 and sustains 20 percent losses, Supporting Effort 2 discontinue the attack. On order, Supporting Effort 3 moves to the western penetration site. Supporting effort 3 conducts forward passage of lines through Supporting Effort 1 after the forward passage of the Main Effort. Supporting effort 3 continues the attack to defeat enemy forces on OBJ PIG.

On order, Supporting Effort 2 moves to the western penetration site. Supporting effort 2 conducts forward passage of lines through Supporting Effort 1 after the forward passage of Supporting Effort 4. Supporting effort 2 establishes screen after completion of forward passage of lines.”

Justification: If the REDINFANTRYBRIGADE2 defends successfully against Supporting Effort 2’s penetration, and prevents Supporting Effort 2 from achieving the penetration, the division needs a branch plan to react to this. The branch plan should address the circumstances under which the tower squadrons penetration should be aborted (in order to preserve combat power for the screen), and where to direct forces that were supposed to go through the penetration. Note that the example provided above is just one possible branch plan to respond to this contingency.

3.4.4.2 Determining the decisive point

Q: What is the decisive point of this course of action?

A: [COA 3.1.0, COA 3.2.0, COA 3.4.0] The decisive point of this operation is the defeat of the lead eastern brigade within about one hour.⁸¹

Assessment: This is a well-defined and justifiable decisive point. It allows Blue to maneuver against the western lead brigade, defend against that brigade if it maneuvers against us, or flex to engage the trail eastern brigade, if required.

This decisive point has the following characteristics:

Physical extent: Easternmost lead enemy brigade

Temporal extent: Within one hour of beginning of attack.

Enemy weakness: Enemy brigades will be in march formation, making them more vulnerable to attack, and less able to defend against attacking Blue brigades. Forces from other brigades within REDTANKDIVISION1 will be slow to reinforce the easternmost lead brigades, and one hour will not be enough time for the lead elements of REDTANKARMY1 to turn north to reinforce REDTANKDIVISION1.

Effect on the enemy: Easternmost lead TBR defeated while in march formation north of PL PURPLE.

Friendly action: Defeat easternmost lead brigade while in march formation, and be prepared to defeat enemy forces from adjacent brigades if those forces attack.

[COA 3.3.0] The decisive point of this operation is the defeat of the lead two brigades north of PL PURPLE.⁸²

⁸¹ Source: Course author, C300, “Fundamentals of Warfighting”, Command and General Staff College

⁸² Source: Student course of action, C300 exam

Assessment: This is a well-defined decisive point, but it may be too big to allow Blue to focus combat power to achieve its purpose. The course of action that was derived based on that decisive point (COA 3.3.0) demonstrates some of the flaws that can arise when the decisive point is not adequately defined or understood. The Main Effort is given responsibility for too much enemy force, and the risk of mission failure is high.

This decisive point has the following characteristics:

Physical extent: Lead enemy brigades

Temporal extent: Before the lead brigades cross PL PURPLE.

Enemy weakness: Enemy brigades will be in march formation, making them more vulnerable to attack, and less able to defend against attacking Blue brigades.

Effect on the enemy: Two (lead) TBRs defeated north of PL PURPLE.

Friendly action: Defeat lead brigades in the vicinity of OBJ CORN.

3.4.4.3 Determine critical events

Q: What are the critical events of this course of action?

A: [COA 3.1.0] The critical events of the COA are as follows:
Penetrate REDINFANTRYBRIGADE2 forces at the line of contact
Forward passage of lines
Deep attacks destroy brigade in EA CAROLINA
Defeat enemy forces in OBJs ORD and BRAGG (simultaneously)
Deep attacks destroy brigade in OBJ LEE
Establish screen

[COA 3.2.0] The critical events of the COA are as follows:
Penetrate REDINFANTRYBRIGADE2 forces at the line of contact
Forward passage of lines
Deep attacks destroy brigades in EA CAROLINA and EA VIRGINIA
Defeat enemy forces in OBJ ORD
Defeat enemy forces in OBJ BRAGG
Defeat enemy forces in EA VIRGINIA
Establish screen

[COA 3.3.0] The critical events of the COA are as follows:
Penetrate REDINFANTRYBRIGADE2 forces at the line of contact
Forward passage of lines
Deep attacks destroy brigades in EA BEAN and EA CARROT
Main effort attack against enemy forces in OBJ CORN
Battle handover from Main Effort to Supporting Effort 3 in OBJ CORN
Defeat enemy forces in OBJ CORN

Establish guard

[COA 3.4.0] The critical events of the COA are as follows:
Penetrate REDINFANTRYBRIGADE2 forces at the line of contact
Forward passage of lines
Deep attacks destroy brigade in OBJ CAT
Defeat enemy forces in OBJ MOUSE and PIG (simultaneously)
Deep attacks destroy brigade in OBJ DOG
Establish screen

3.4.4.4 Identify decision points

Q: What are the decision points of this course of action?

A: [COA 3.4.0] The decision points of the COA are as follows:

Decision: Discontinue Supporting Effort 2 penetration and redirect Supporting Effort 3 to western penetration site.

Preconditions: Failure to establish eastern penetration

Indication: Enemy forces defend heavily against Supporting Effort 2. Supporting effort 2 fails to achieve penetration, and suffers 20 percent losses.

Reporting responsibility: Supporting effort 2.

Last point at which decision can be made: N/A

Decision: Discontinue aviation attack against enemy forces in OBJ PIG, and commence follow on aviation attack against enemy forces in OBJ DOG.

Preconditions: Desired level of attrition achieved on OBJ PIG or closure of Supporting Effort 3 is imminent.

Indication: One tank battalion on OBJ PIG destroyed, Supporting Effort 3 passage of lines complete.

Reporting responsibility: Aviation brigade.

Last point at which decision can be made: Supporting effort 3 in assault position.

Decision: Commit reserve to follow and assume the Main Effort.

Preconditions: Main attack reaching a culminating point.

Indication: Main attack unable to continue the attack to defeat enemy forces on OBJ MOUSE.

Reporting responsibility: Main effort.

Last point at which decision can be made: N/A