

Appendix D

Marine Corps Planning Process Tools

The commander and his staff use Marine Corps Planning Process tools to record, track, and analyze critical planning information relative to the battlespace, the enemy, and friendly actions. These tools, when used properly, assist the commander and the staff in building situational awareness, assist in the preparation of plans and orders, facilitate the commander’s decisionmaking process, and increase tempo. Marine Corps Planning Process tools must serve the needs of the commander and the requirements of the situation. Use of Marine Corps Planning Process tools consists of IPB products and planning support tools.

Table D-1 identifies commonly used templates, worksheets, and matrices and how each tool supports the Marine Corps Planning Process. The examples in this appendix are at the MEF level, but these tools may be employed at any level of command. The formats and uses of these tools may be modified as required.

Table D-1. Marine Corps Planning Process Tools.

OVERLAYS, TEMPLATES, MATRICES, WORKSHEETS, AND GRAPHICS AND NARRATIVES	MISSION ANALY- SIS	COA DEVEL- OPMENT	COA WAR GAME	COMPARI- SON AND DECISION	ORDERS DEVELOP- MENT	TRANSI- TION
Modified Combined Obstacle Overlay (see fig. D-1, page D-4)	X	X	X			
Doctrinal Template (see fig. D-2, page D-5)	X	X	X			
Situation Template (see fig. D-3, page D-6)	X	X	X			
Event Template (see fig. D-4, page D-7)	X	X	X			
Event Matrix (see table D-3, page D-8)	X	X	X			
Decision Support Template (see fig. D-5, page D-9)		X	X	X	X	X
Decision Support Matrix (see table D-4, page D-10)		X	X	X	X	X

Table D-1. Marine Corps Planning Process Tools—Continued.

OVERLAYS, TEMPLATES, MATRICES, WORKSHEETS, AND GRAPHICS AND NARRATIVES	MISSION ANALYSIS	COA DEVELOPMENT	COA WAR GAME	COMPARISON AND DECISION	ORDERS DEVELOPMENT	TRANSITION
Course of Action Graphic and Narrative (see fig. D-6, page D-11)		X	X	X	X	
Synchronization Matrix (see table D-5, page D-12)		X	X	X	X	X
COA War Game Worksheet (see table D-6, page D-14)			X	X	X	
Comparison and Decision Matrix with Comments (see table D-7, page D-15)				X		
Comparison and Decision Matrix with Sample Ranking (see table D-8, page D-15)				X		

1. IPB Products

Intelligence preparation of the battlespace is a systematic, continuous process of analyzing the threat and the environment in a specific geographic area. The IPB process helps the commander selectively apply and maximize his combat power at critical points in time and space. It determines the threat's likely COA, and it describes the environment in which the command is operating and the effects of the environment on the command's operations. Battlespace and weather evaluations assist in identifying obstacles, mobility corridors, and avenues of approach; predicting weather effects for numerous mobility options; and estimating sea conditions. Intelligence preparation of the battlespace includes templating with a threat doctrinal assessment to show potential threat objectives and activities. This templating continues from planning to execution, both to assess current operations and to support planning for future operations.

Intelligence preparation of the battlespace products graphically record and display the results of the IPB process. Table D-2 identifies the major IPB products and shows where they are integrated into the planning process. Note that both the G-2/S-2 and the G-3/S-3 are responsible for specific products. While IPB starts as an intelligence effort, it expands to an operational process and has logistic and communications applications that are not shown in the table. The following subparagraphs provide a short description of each product.

Table D-2. IPB Integration Throughout the Marine Corps Planning Process.

		MISSION ANALYSIS	COA DEVELOPMENT	COA WAR GAME	COA COMPARISON/DECISION	ORDERS DEVELOPMENT	TRANSITION
Modified Combined Obstacle Overlay	G-2/S-2 →						
Doctrinal Template	G-2/S-2 →						Continuous ¹
Situation Template	G-2/S-2 →						Continuous ¹
Pertinent Threat COAs	G-2/S-2 →						Continuous ¹
Refined and Prioritized Threat COAs and Event Templates and Matrices		G-2/S-2 →					Continuous ¹
Initial Decision Support Template			G-3/S-3/OPT →				Continuous ¹
Decision Support Template Matrix				G-3/S-3/OPT →			Continuous ¹
¹ Templates are updated throughout the operation.							

a. Modified Combined Obstacle Overlay

The modified combined obstacle overlay is a graphic of the battlespace's effects on military operations. It is normally based on a product depicting all obstacles to mobility, and it is modified as necessary. Modifications can include cross-country mobility classifications, objectives, avenues of approach and mobility corridors, likely obstacles, defensible battlespace, likely engagement areas, key terrain, and built-up areas and civil infrastructure.

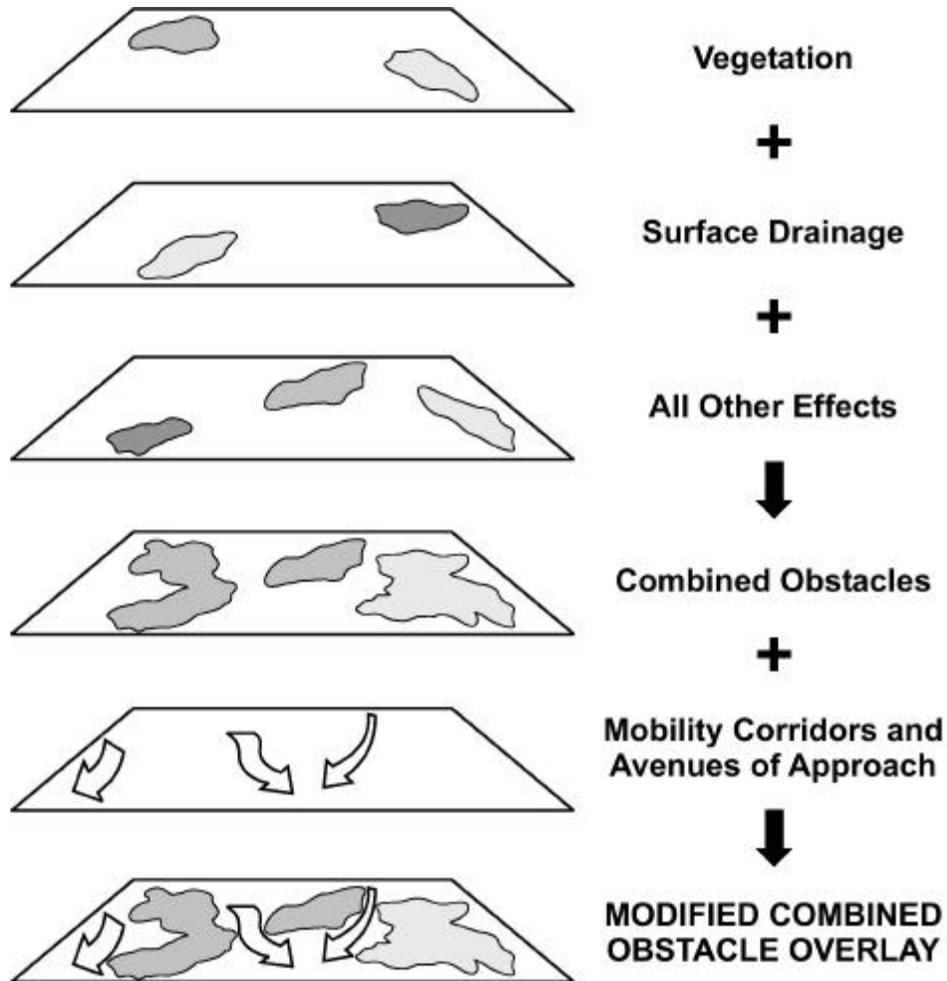


Figure D-1. Modified Combined Obstacle Overlay.

b. Doctrinal Template

Doctrinal templates are models based on postulated threat doctrine. They illustrate the disposition and activity of threat forces conducting a particular operation arrayed on ideal terrain. Doctrinal templates depict the enemy's nominal organization, frontages, depths, boundaries, and control measures for combat. They are usually scaled for use with a map background, and they are one part of a threat model. See figure D-2.

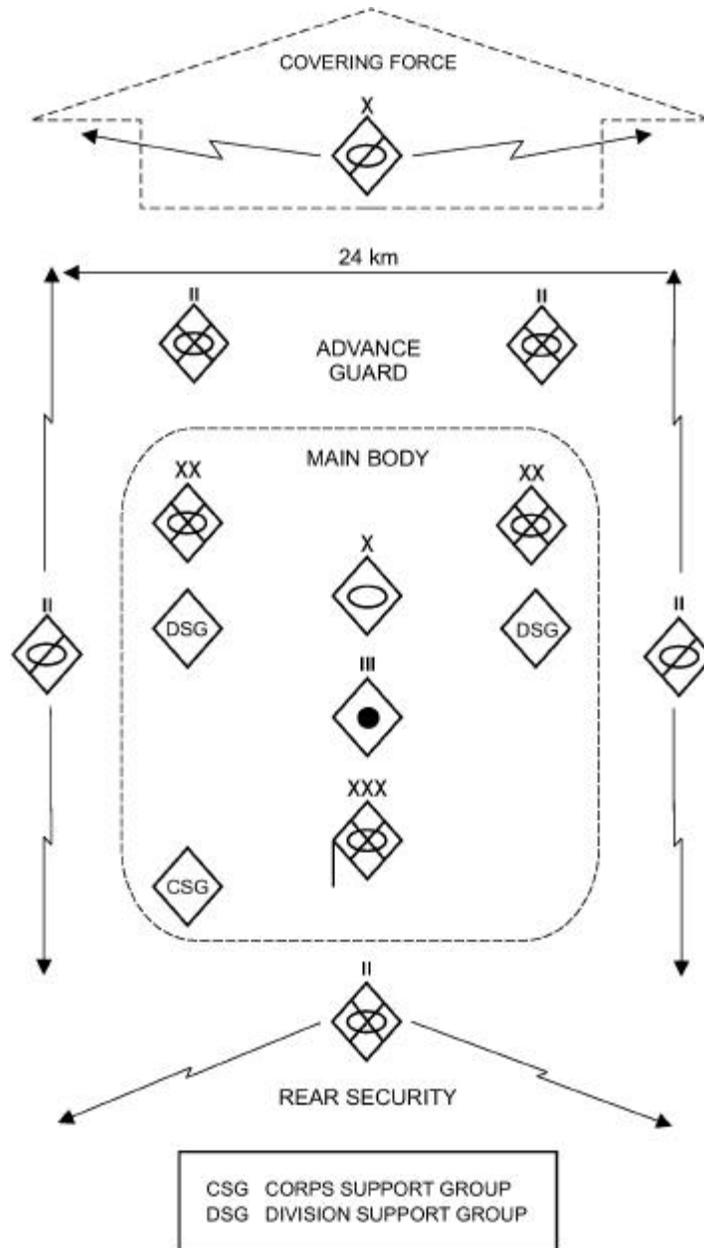


Figure D-2. Doctrinal Template.

c. Situation Template

A situation template is a doctrinal template that has been modified to depict threat dispositions based on the effects of the battlespace and the pursuit of a particular COA. This accounts for the threat's current situation with respect to the terrain, training and experience levels, logistic status, losses, and dispositions. Normally, the situation template depicts threat units two levels down and critical points in the COA. Situation templates are one part of a threat COA model. Models may contain more than one situation template to depict locations and formations at various times. See figure D-3.

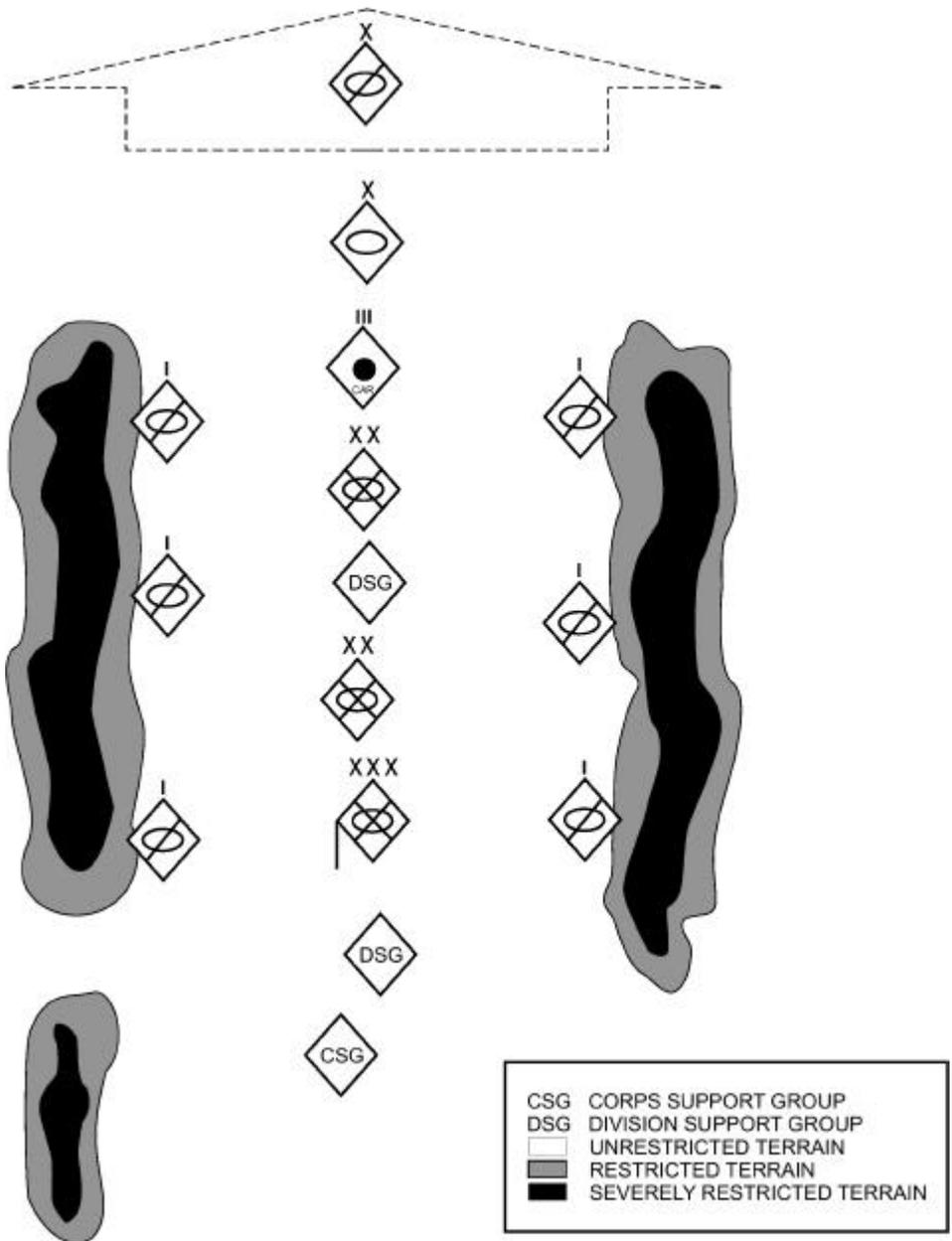


Figure D-3. Situation Template.

d. Event Template and Matrix

The event template is derived from the situation template and depicts the named areas of interest. Named areas of interest are areas where activity (or lack of activity) will indicate which COA the threat has adopted. Named areas of interest are described in FM 34-130/FMFRP 3-23-2, *Intelligence Preparation of the Battlefield*. Time phase lines indicate movement of forces and the expected flow of the operation, and they are also indicated on the event template. The event template is a guide for collection planning. The event matrix depicts types of activity expected in each named area of interest, when the named area of interest is expected to be active, and any additional information to aid in collection planning. See figure D-4 and table D-3.

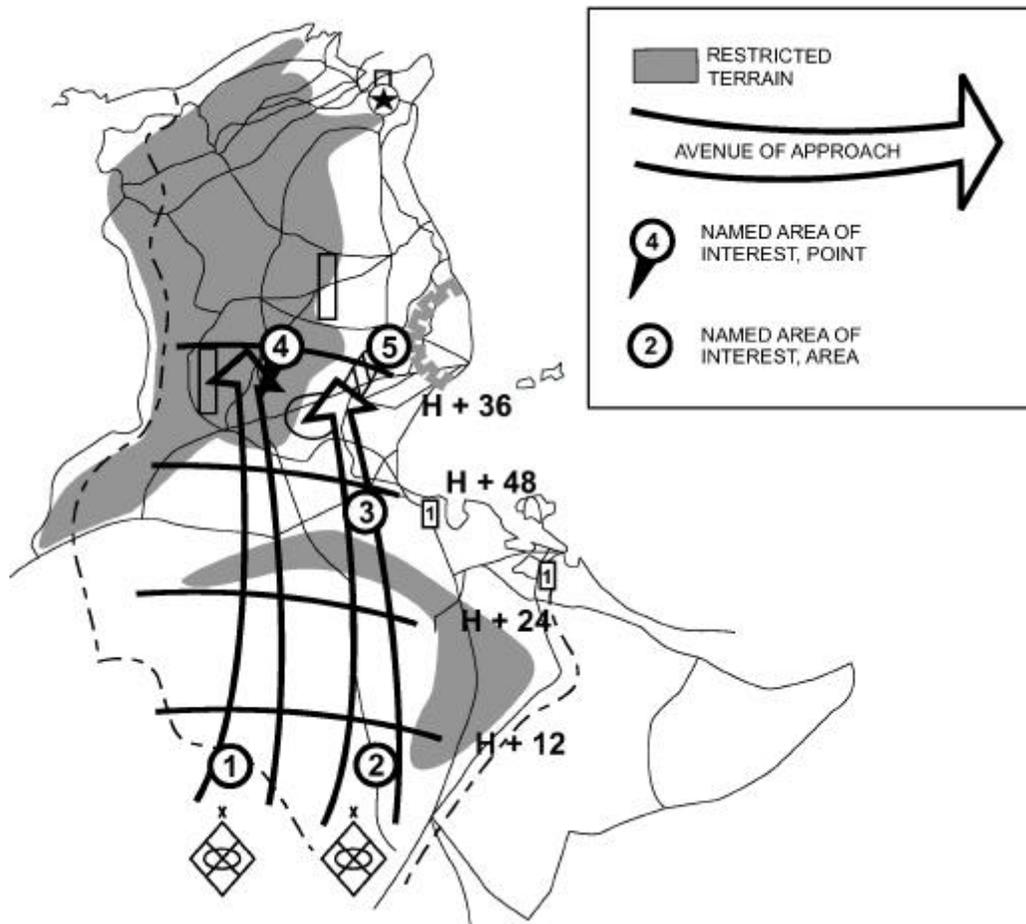


Figure D-4. Event Template.

Table D-3. Event Matrix.

NAMED AREA OF INTEREST	NO EARLIER THAN	NO LATER THAN	EVENT/INDICATOR
1	H + 6	H + 12	Brigade-sized forces moving north.
2	H + 6	H + 12	Brigade-sized forces moving north.
3	H + 12	H + 24	Orangeland forces enter Blue-land. Northern Operational Group driving on Jesara oil-fields.
4	H + 14	H + 24	Orangeland forces seize junction of Highways 7 and 8. Northern Operational Group turns northwest toward Jesara.
5	H + 18	H + 24	Orangeland forces enter Teal-ton. Northern Operational Group driving on Jesara.

e. Decision Support Template and Matrix

The decision support template is normally developed during COA wargaming. It is derived from doctrinal, situational, and event templates. The decision support template depicts decision points, time phase lines associated with movement of threat and friendly forces, the flow of the operation, and other information required to execute a specific friendly COA. The decision support template is a key planning tool for use during transition and execution. The decision support matrix provides a recap of expected events, decision points, and planned friendly actions in a narrative form. It shows where and when a decision must be taken if a specific action is to take place. It ties decision points to named areas of interest, targeted areas of interest, CCIRs, collection assets, and potential friendly response options. The decision support template and matrix may be refined as planning progresses after the war game. See figure D-5 and table D-4.

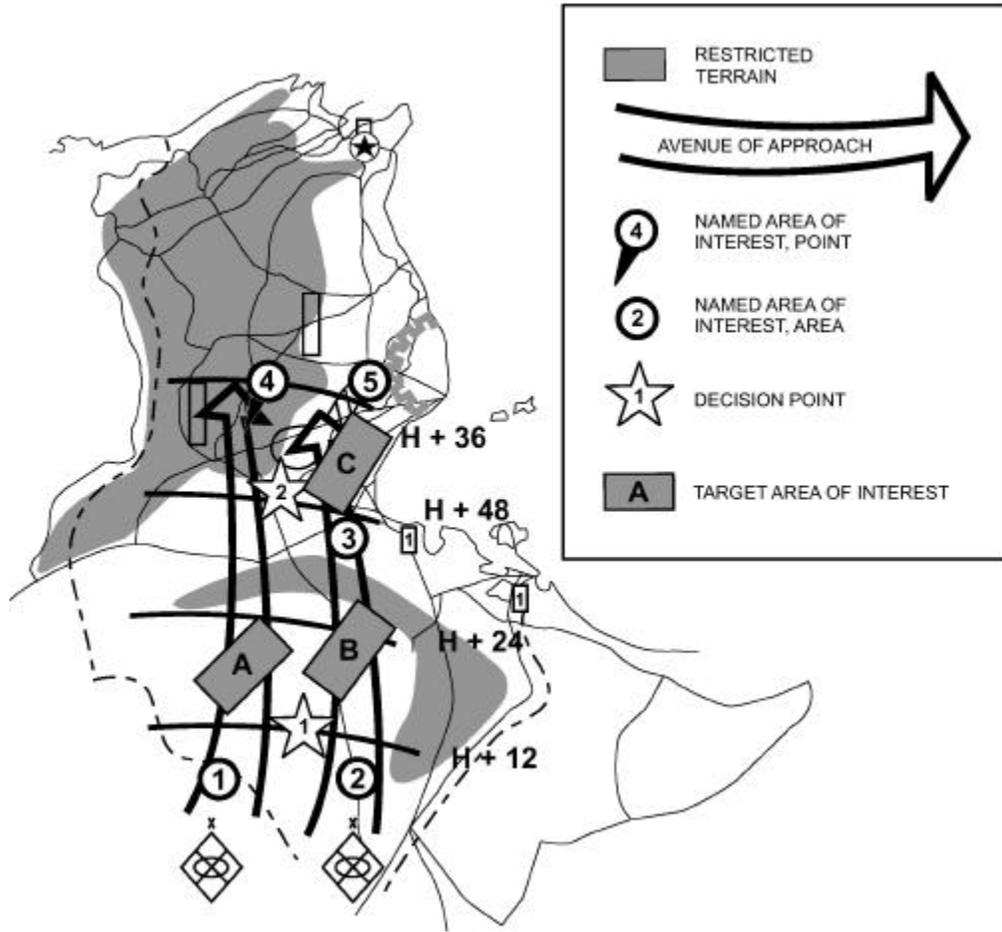


Figure D-5. Decision Support Template.

Table D-4. Decision Support Matrix.

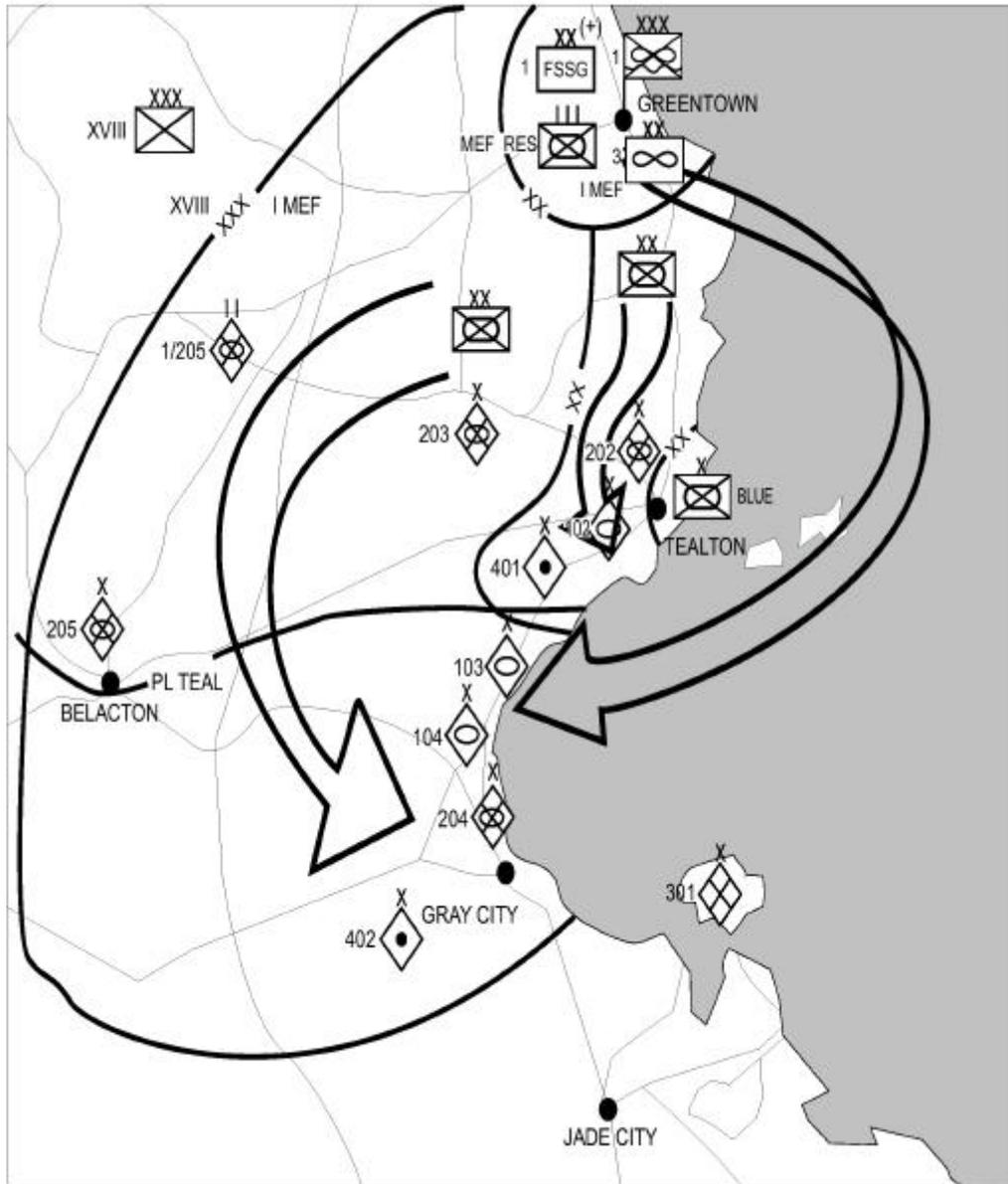
EVENT NUMBER	EVENT	NO EARLIER THAN/NO LATER THAN	NAMED AREA OF INTEREST	TARGETS AREAS OF INTEREST	FRIENDLY ACTION
1	Orangeland forces enter Blueiland, Northern Operational Group division driving on Tealton.	H + 14/H + 24	1, 2	A, B	Covering force withdraws; Marine aircraft wing (MAW) conducts interdiction west of phase line TEAL.
2	Orangeland forces seize junction of Highways 7 and 8. Northern Operational Group turns northwest on Jesara.	H + 18/H + 24	3, 4	C	1 st and 3 ^d Marine Divisions (MARDIVs) execute branch plan HAWK.

2. Planning Support Tools

Planning support tools support the commander's and staff's planning effort by recording and displaying critical planning information on the COAs and the commander's decisions and guidance. They aid the commander in decisionmaking by displaying critical information in a useful format. Planning support tools include the COA graphic and narrative, synchronization matrix, COA war game worksheets, and the comparison and decision matrix.

a. Course of Action Graphic and Narrative

The COA graphic and narrative are a visual depiction and written description of a COA. They clearly portray how the organization will accomplish the mission, identifying the who (notional task organization), what (tasks), when, where, how, and why (intent). It should include the tasks and purpose of the main effort, supporting efforts, and reserve. It also includes maneuver control measures, such as boundaries. The COA narrative and graphic, when approved by the commander, forms the basis for the concept of operations and operations overlay in the OPLAN or OPORD. See figure D-6.



A MARDIV, as the main effort, conducts an envelopment to defeat enemy forces north of Gray City. A MARDIV(-)(Rein); as a supporting effort, it attacks in zone to fix and defeat enemy forces west of Tealton and conducts a link up with Blueland forces in Tealton. The MAW, as a supporting effort, isolates the MEF battlespace from enemy reinforcement from the south, while focusing efforts against the 102^d and 103^d Armored Brigades and the 401st and 402^d Artillery Regiments. The supporting MARDIV(-)(Rein) designates one infantry regiment as the MEF reserve and one battalion as the MEF tactical combat force. This phase concludes with enemy forces defeated north of Gray City.

Figure D-6. Course of Action Graphic and Narrative.

b. Synchronization Matrix

A synchronization matrix is a planning support tool designed to integrate the efforts of the force across the warfighting functions and to record the results of the COA war game. It depicts, over time, the diverse actions of the entire force that are necessary to execute the COA. When completed, it provides the basis for an execution matrix or Annex X, Execution Checklist, to the OPLAN or OPORD. See table D-5.

Table D-5. Synchronization Matrix.

TIME/EVENT		PRE D-DAY	D-DAY – D + 2	D + 3 – D + 4	D + 5 – D + 6
Enemy Action					
Decision Points				1	2
Intelligence		MEF conducts reconnaissance in zone.			
	Named area of interest		1, 2	3, 4	5
Force Protection	Survivability	Establish combat air patrol over MEF area of operation.			
	NBC		Priority of support to aviation combat element (ACE).		

Table D-5. Synchronization Matrix—Continued.

TIME/EVENT		PRE D-DAY	D-DAY – D + 2	D + 3 – D + 4	D + 5 – D + 6
Maneuver	Deep		MAW attacks Northern Operational Group armor and artillery, command and control (C2), and combat service support (CSS) facilities.	MAW attacks 102, 103, 401, and 402.	
	Security		Covering forces conduct security operations		
	Close		1 st and 3 ^d MARDIVs complete rupture of enemy defenses.	1 st MARDIV attacks enemy forces south of phase line TEAL. 3 ^d MARDIV conducts link up with Blue-land forces.	1 st MARDIV and MAW defeat enemy forces south of phase line TEAL. The 3 ^d MARDIV conducts a link up with Special Purpose MAGTF-B (SPMAGTF-B).
	Reserve	3 ^d MARDIV— one regiment to MEF reserve.			
	Rear	3 ^d MARDIV— one battalion to tactical combat force.			
	Mobility	Priority of main supply route development in main effort zone.			
	Counter-mobility			Complete execution of Barrier Plan South.	
	Fires	Lethal			
Nonlethal				Fire expendable jammer to disrupt Northern Operational Group attack.	
Targeted areas of interest				A	B

Table D-5. Synchronization Matrix—Continued.

TIME/EVENT		PRE D-DAY	D-DAY – D + 2	D + 3 – D + 4	D + 5 – D + 6
Logistics	Sustainment	Logistic Throughput Plan.			
	Transport	Movement Control Plan.			
C2				MEF assumes tactical control of Blueland Forces in the vicinity of Tealton.	
	Information warfare and C2 warfare	Build enemy electronic order of battle nodal analysis.	Attack Northern Operational Group C2 nodes.		

c. Course of Action War Game Worksheet

The COA war game worksheet is used during the war game to record friendly action, enemy reaction, and friendly counter-action involved in each COA. It is also used to capture critical information that may be identified during the war game, such as potential CCIRs, decision points, and named areas of interest. See table D-6.

Table D-6. Course of Action War Game Worksheet.

COA 1, STAGE A; BOX: MOST LIKELY							
ACTION	REACTION	COUNTER ACTION	ASSETS	APPROX. TIME	DECISION POINT (DP)	CCIR	REMARKS
MARDIV envelops Orangeland forces north of Gray City.	102 ^d and 103 ^d Armored Brigades counter-attack.	MAW interdicts moving enemy forces. MARDIV engages and destroys enemy armor at long range.	Surge MAW attack assets to interdict enemy armor.	D + 3	DP 3	Will 102 ^d and 103 ^d Armored Brigades move west to counter-attack.	MARDIV has priority of close air support.

d. COA Comparison and Decision Matrix

The COA comparison and decision matrix is a planning support tool designed to assist the commander and staff in recording the advantages and disadvantages of each COA as it is compared against the commander’s evaluation criteria. It may reflect various techniques for weighing the COA against the commander’s evaluation criteria, as shown below in tables D-7 and D-8. The commander may use the COA comparison and decision matrix to aid his decisionmaking process during the selection of a COA for execution.

Table D-7. Comparison and Decision Matrix with Comments.

COMMANDER'S EVALUATION CRITERIA	COA 1	COA 2	COA 3
Force Protection	Moderate casualties.	High casualties. Increased nuclear, biological, and chemical threat.	Light casualties.
Tempo, Surprise		Achieving surprise unlikely.	High chance of achieving surprise.
Shapes the Battlespace	ACE interdiction of enemy lines of communication limits enemy's ability to reinforce.		Deception likely to be effective.
Asymmetrical Operations	ACE operates against second echelon armor forces. Ground combat element (GCE) mechanized forces attack enemy dismounted infantry.	MEF mechanized forces against enemy mechanized forces.	
Maneuver	Frontal attack followed by penetration.	Frontal attack.	Turning movement.
Decisive Actions	ACE disrupts deployment of second echelon forces through interdiction.		Isolate first echelon forces. Disrupt lines of communication, logistics facilities, and assembly areas.
Simplicity		Simplest.	Demanding command and coordination requirements.

Table D-8. Comparison and Decision Matrix with Sample Ranking.

COMMANDER'S EVALUATION CRITERIA	COA 1	COA 2	COA 3
Intelligence	3	2	1
Force Protection	2	1	3
Tempo, Surprise	1	2	3
Focus, Speed, Concentration	3	2	1
Shapes the Battlespace	3	2	1
Asymmetrical Operations and Combined Arms	1	2	3
Maneuver	2	1	3
Decisive Actions	3	2	1
Simplicity	2	3	1
Friendly Casualties	2	3	1
TOTAL	22	20	18

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