LESSON 2
MISSION ANALYSIS AND INTELLIGENCE PREPARATION OF THE BATTLESPACE (IPB)

"If I always appear prepared, it is because before entering on an undertaking, I have meditated for long and foreseen what may occur."
—Napoléon Bonaparte

Lesson Introduction

In this lesson you will begin learning the planning process. Even though Intelligence Preparation of the Battlespace (IPB) is not a formal step in the planning process, it is a key to the beginning of the process. Since IPB is a critical input into the first formal step of the process (Mission Analysis), it is imperative you become very familiar with it. This lesson introduces students to the IPB process and provides the practical techniques to effectively visualize the battlespace. It also exposes students to the four-step IPB process, some key intelligence products, and the various decision support tools initially generated within the IPB process.

You will also learn about the first formal step of the MCPP, Mission Analysis. Mission Analysis is often referred to as the most important planning step because of the criticality of accomplishing it properly and completely. If Mission Analysis is conducted improperly or incompletely, the staff/operational planning team (OPT) will need to "re-cock" its efforts, ultimately failing to generate planning tempo.

Mission Analysis generates several outputs. It is important to understand that many of these outputs are applied in step two, COA Development, but are also used throughout the entire process. You will see examples of this phenomenon later in the lesson.

Student Requirements by Educational Objective

Requirement 1

Objective 1. Explain the role of the IPB process in operational planning. [JPME 1(e), 2(d), 4(d)]

Read:

- FM 34-130, Chapter 1, from the beginning to "IPB and the Collection Management Process" (11 pages)

IPB performs several functions in the Marine Corps planning process. It

- provides a detailed description of the physical environment, the human factors, and the enemy threat within the area of operations.
- uncovers potential advantages and limitations offered by the geography, climate, and physical environment.

- helps assess enemy strengths and vulnerabilities while highlighting the possible enemy courses of action.
- identifies areas and locations where the enemy may be vulnerable.

These functions allow planners (1) to designate named areas of interest (NAIs), which trigger intelligence collection requirements and target areas of interest (TAIs) associated with high-payoff targets, and (2) to anticipate decision points (DPs). As such, IPB is a valuable tool in the development of analyses and comparisons of possible friendly courses of action.

The IPB process supports the planning process at all levels of war. At the MEF's operational/tactical level of planning, where the future operations planning occurs, the determination of enemy vulnerabilities, capabilities, possible courses of action, and decision points is especially useful. At the tactical level of planning, the IPB terrain analysis template(s), threat evaluation, and weather analysis matrix produce three of the four factors a tactical commander must consider when making a tactical decision. Those four factors are weather, enemy, terrain, and friendly combat power. While the basic IPB methodology is used at all levels of war and in all situations, the key to successful use of IPB is adapting the methodology to fit each unique situation. For example, the MEF staff does not normally need to template smaller enemy forces such as companies or platoons. In fact, a MEF's templates may be different from those of its major subordinate commands (MSCs). In operations other than war, conventional threat templates are often meaningless while ethnic and tribal locational overlays may be critical.

Requirement 2

Objective 2. Examine the techniques and procedures involved in the IPB process and the development of intelligence products and decision support tools. [JPME 4(d)]

Read:

- MCWP 5-1, Appendix D (all) (15 pages)

To properly capture and analyze necessary information and disseminate it to subordinates, a thorough knowledge and understanding of the following intelligence products and decision-support tools is necessary:

Modified combined obstacle overlay (MCOO)
Doctrinal template
Situation template
Event template
Event matrix
Decision support template
Decision support matrix

A knowledge of key terms such as named areas of interest, target areas of interest, decision points, and time phase lines is also necessary.

The MCOO is the most important element of the IPB for Marine planners. Production of the MCOO consists of four overlays and basic map preparation. Each overlay, for a scenario like the Pacific Strike example in our IMI, takes approximately two to three hours to produce. A good intelligence section can produce a MCOO in eight to twelve hours. As one would expect, IPB differs based upon the type of mission assigned, level of detail required, and type of unit being supported. For instance, MOUT operations, aviation IPB, and amphibious IPB have entirely different IPB production schedules. All are unique and quite distinct from each other.

Requirement 3

Objective 3. Comprehend the concept, composition, and characteristics of the commander's battlespace area evaluation (CBAE) as described in MCWP 5-1 and MCDP 1-0 and be able to apply each element listed below in operational planning. [JPME 1(b)(e)]

- Commander's critical information requirements (CCIRs)
- Commander's intent
- Centers of gravity (COG)
- Commander's battlespace

Read:

- MCWP 5-1, pp. 2-1 to 2-4 (stop at Commander's Initial Guidance) (4 pages)
- MCDP 1, pp. 45 to 47 and 88 to 90 (6 pages)
- MCDP 1-0, pp. 4-3 to 4-10 (stop at Deployment) (8 pages)

The commander uses CBAE to visualize, develop, assess, integrate, translate, and transmit knowledge to the staff to support the planning and decision-making process. CBAE is composed of the following:

- Commander's critical information requirements (CCIRs)
- Commander's intent
- Centers of gravity (COG)
- Commander's battlespace

Commander's Critical Information Requirements

To accomplish their mission, commanders use CCIRs to

- help confirm their vision of the battlespace or identify significant deviations from that vision
- assess desired effects
- determine how to achieve a decision

CCIRs have a life cycle and must be tied to the collection plan. They are an integral part of the planning process, beginning with Mission Analysis, and are refined all the way through Orders Development and Transition. CCIRs can be nominated and refined by the staff or come from the commander directly. Regardless, the commander must approve all CCIRs. CCIRs are refined continually and are linked to the decision support template and decision support matrix. Sources for CCIRs include SOP lists, mission statements, higher headquarters' CCIRs, and the results from war gaming. The commander may add to or modify the list.

There are three categories of CCIRs:

- Priority Intelligence Requirements (PIRs). An intelligence requirement associated with a decision that will critically affect the overall success of the command's mission. PIRs reflect how the commander sees his enemy *and allow him to focus intelligence collection against these priorities.*

- Friendly Force Information Requirements (FFIRs). Information the commander needs about friendly forces to develop plans and make effective decisions. Depending on the circumstances, information on unit location, composition, readiness, personnel status, and logistics status could become an FFIR. FFIRs reflect how the commander sees himself.

- Essential Elements of Friendly Information (EEFI). Specific facts about friendly intentions, capabilities and activities needed by adversaries to plan and execute effective operations against friendly forces. EEFIs reflect information the commander does not want the enemy to see.

Commander's Intent

What is commander's intent? The commander's intent is described below:

- Joint Pub 1. "The commander's vision of the end state to be achieved."

- Joint Pub 3-0. "A concise expression of the purpose of the operation, not a summary of the concept of operations."

- FM 100-5. "A concise expression of the purpose of an operation, a description of the desired end state, and the way in which the posture of that goal facilitates transition to future operations."

- MCDP 1. ". . . a device designed to help subordinates understand the larger context of their actions. The purpose of providing intent is to

allow subordinates to exercise judgment and initiative—to depart from the original plan when the unforeseen occurs—in a way that is consistent with higher commanders' aims. There are two parts to any mission: the task to be accomplished and the reason or intent behind it. Of the two, the intent is predominant. While a situation may change, making the task obsolete, the intent is more lasting and continues to guide our actions. Understanding the intent of our commander allows us to exercise initiative in harmony with the commander's desires."

- MCDP 1-0. "The commander's intent provides the overall purpose for accomplishing the task assigned through mission tactics."

- NDP 1. ". . . a desired result of action."

The commander writes his own intent. It is indeed *his* intent and not the intent of the staff written to justify a planned course of action after the fact. The commander should review his intent periodically. It may have to change. An alert chief of staff makes sure the most recent intent is still *the* intent. This is particularly important in long, drawn-out operations not involving direct combat.

The commander's intent is not the commander's guess of what he thinks is going to happen. Neither is it a "burning bush" vision. Rather, the intent is usually based on what the commander knows integrated through his personality, experience, and instinct. It is mental imaging, not mental wishing, of how something will happen.

The art of creating the commander's intent is derived from the commander's total professional experience. It is not a checklist. It comes from the following:

- Studying the operational environment [mission-enemy-terrain and weather-troops and fire support available, time-space and logistics (METT-T-SL)]. He visualizes the operational environment.
- Bonding with key leaders and knowing their strengths, weaknesses, attitudes, and personalities
- Practicing with feedback, education, training, and study
- Daily professional leadership style

Issuing commander's intent is useful to the commander in conveying to subordinates what the desired end state is. Moreover, the intent serves to do the following:

- Orient
- Clarify
- Focus
- Encourage and freely initiative
- Provide enduring elements in chaos
- Unify subordinate commanders' efforts

- Enable self-synchronization

While the list above is by no means exhaustive, you can get a feel for the broad utility of commander's intent.

Additionally, the commander's intent is directly linked to the relationship he has developed with his subordinate commanders. If the relationship is close or long-standing, intent tends to be easier to convey. On the other hand, as units or organizations are task-organized and respective commanders are thrust together situationally, intent is more difficult to convey and may tend to be longer and more detailed. As commanders get to know each other better, and discover how each other works and thinks, intent becomes clearer, more understandable, and more enduring.

Centers of Gravity

See Educational Objective #6.

Commander's Battlespace

The concept of the MEF's battlespace has evolved significantly in recent years. In the past, the Aviation Combat Element (ACE) commander planned and conducted operations in the deep battlespace. The close battlespace was the domain of the Ground Combat Element (GCE) commander, and the Combat Service Support Element (CSSE) commander was responsible for operations in the rear battlespace.

Today, the MEF Command Element (CE) plans and executes operations throughout the entire battlespace under the *single battle concept*. This does not imply the MEF CE tells the major subordinate commands (MSCs) "the detailed how" to conduct operations; however, the CE does specify the "what," "when," and "where" of the MSC's missions.

Battlespace has four distinct dimensions, which are inter-related and dynamic. They are length, width, space, and time.

The battlespace environment can be broken into four categories:

- *Infrastructure*. Generally includes transportation, natural resources, power, agriculture, weather, and communications.

- *Threat aspects*. Represents mental, moral, and physical sources of strength. These include installations, facilities, equipment, and resources that span the levels of war, from strategic to tactical.

- *Civilian aspects*. Also represents mental, moral, and physical sources of strength. This category includes population centers, governments, religious sites, clans, tribes, etc.

- *Friendly aspects*. Includes the effects and influence of the following:

  —Forces assigned: U.S. and Allied
  —National Command and Control: the President, Secretary of Defense, JCS, Combatant Commanders
  —Support: Elements of national power, host nations, agencies, other Combatant Commanders.

Area of operations. An area of operations (AO) is the type of operational area normally associated with MARFOR- or MEF-level operations. The AO is defined by the JFC for land and naval forces. It should be large enough for component commanders to both accomplish their missions and protect their forces.

Area of influence. A geographic area wherein a commander is directly capable of influencing operations by maneuver or fire support systems normally under the commander's command or control. The MEF (MAGTF) commander's ACE adds tremendous depth to that area of influence.

Area of interest. An area designated by the MEF commander, beyond the AO, within which both friendly and enemy activities are monitored. It includes areas from which the enemy can affect current or future friendly operations. It may also include SLOCs, APODs/SPODs, or MPF support.

Linear and non-linear battlespace. Linear battlespace is a conventional, traditional concept. History provides a wealth of examples in which deep, close, and rear areas within the battlespace can be clearly identified. Non-linear battlespace, as a concept, can be more complex in both planning and execution. Consider Vietnam as an excellent example of non-linear battlespace, where deep, close, and rear battlespace take on an incongruous appearance.

The MEF's battlespace. The MEF battlespace is determined by METT-T and is established by higher headquarters. Inherent with defining the MEF's battlespace are the requirement and responsibility to perform the warfighting functions of command and control, maneuver, fires, logistics, force protection, and intelligence.

- *Command and control*. Consistent with the single battle concept, does the MEF's command and control portion of the operations order or plan enable the MEF commander to conduct the planning, decision, execution, and assessment (PDE&A) functions throughout the battlespace?

- *Maneuver*. Is there sufficient space (air, land, and sea) to conduct maneuver? Terrain, mobility/counter-mobility, and threat disposition are all factors to be carefully considered.

- *Fires*. Will the MEF's operational reach cover the battlespace with both lethal and non-lethal fires delivered from multi-dimensional

platforms? Can non-organic fire support be integrated into the MEF's operational concept for fires? Can the MEF effectively conduct targeting throughout the battlespace?

- *Logistics*. Are there adequate ports, airfields, and other LOCs in the area of operations to support the MEF? Is the rear battlespace sufficient to support RSO&I and CSS operations?

- *Force protection*. Is there sufficient battlespace to disperse forces and adequately protect them throughout the battlespace? Have the **friendly** *centers of gravity* and *critical vulnerabilities* been identified and addressed in planning?

- *Intelligence*. Can the threat be detected, located, identified, and targeted? Can continuous battle damage assessment be conducted and indicators of success evaluated?

In the regional combatant command or JTF environment, it is reasonable to expect that the service or functional components share a common view of the battlespace; however, this is not always true. Services are manned, equipped, trained, and organized to fight in inherently different ways and in different venues. Each seeks to optimize its capabilities within the constraints of the Combatant Commander's AOR, and each seeks to maximize its freedom of action.

An Army-dominated joint forces land component commander (JFLCC) has a propensity to push the FSCL well beyond the FLOT to facilitate freedom of action in the employment of Army aviation, MLRS, and ATACMS systems. An Air Force-dominated joint forces air component commander (JFACC) views this as an impediment to effective air interdiction operations, while Marine forces consider this theater FSCL an ineffective coordinating measure due to the range limitations of GCE combat systems. Consequently, the JFLCC and JFACC will negotiate a compromise in the location of the FSCL, while the Marine forces will often establish an internal FSCL, called a battlespace coordination line (BCL), within their assigned AO.

Requirement 4

Objective 4. Recognize the inputs, tasks, and outputs associated with the Mission Analysis step.

Objective 5. Use the Mission Analysis step to create the appropriate outputs of this step in the context of an operational or tactical situation (special emphasis on the construction of the mission statement). [JPME 2(c),3(a)(c)]

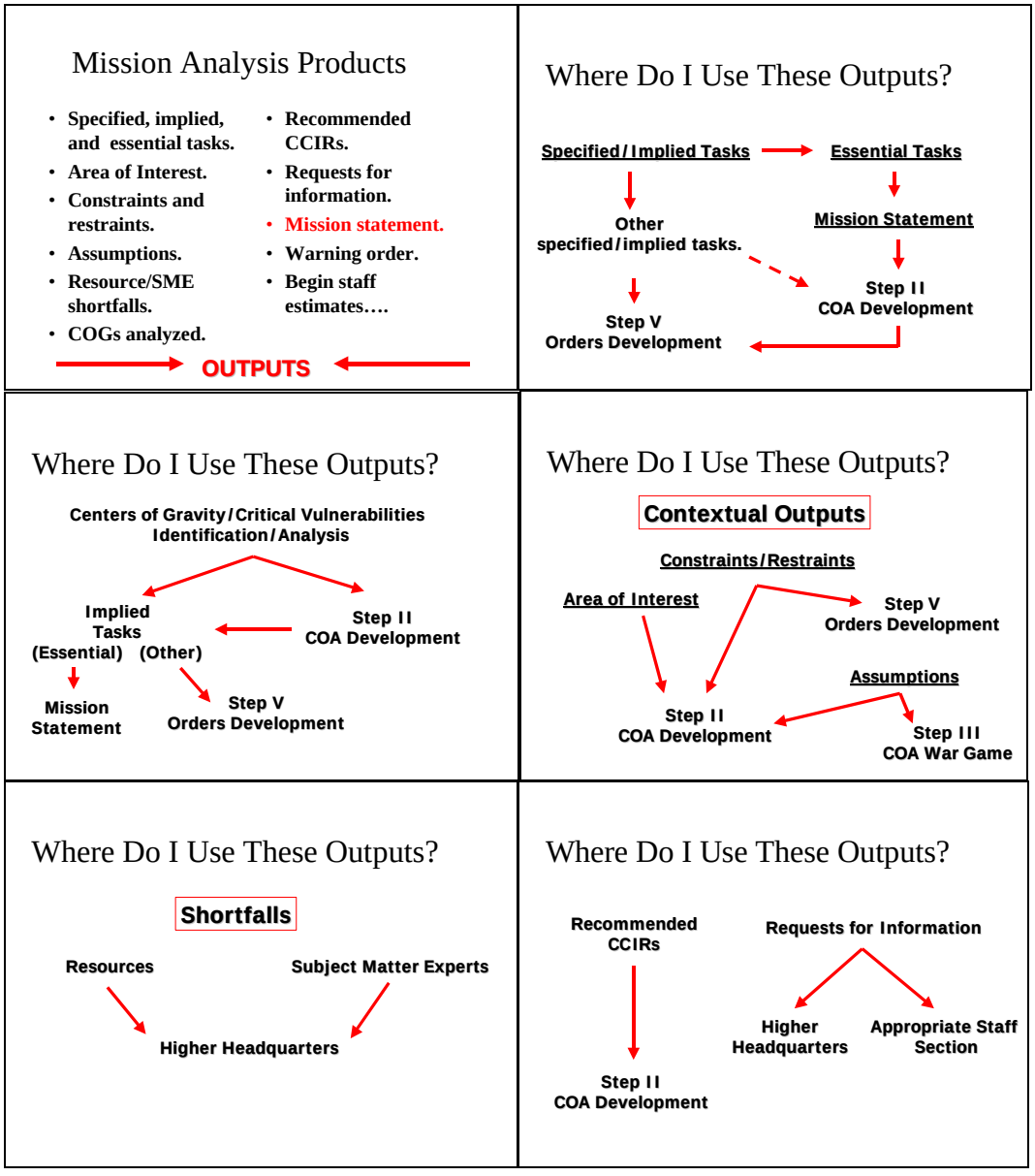
Read:

- MCWP 5-1, pp. 2-4 to 2-9 (6 pages)

The interactive multimedia instruction (IMI) (Web/CD-based) product allows each student to use Mission Analysis in a practical application setting. You can accomplish objective 5 only by using the practical application portion of the IMI product.

**** <u>View the interactive multimedia instruction for lesson #2 immediately following this lesson's summary.</u>**

Mission Analysis is extremely product-output centric. Many outputs from the Mission Analysis planning step, including refined CCIRs, assumptions, and limitations, are used in virtually every planning step. Others, such as the center of gravity analysis, are cornerstones for the remainder of the planning efforts. Below is a series of charts showing where the various Mission Analysis outputs go (read left to right).



Requirement 5

Objective 6. Understand and apply center of gravity analysis. [JPME 3(b)(d)(e)]

Read:

- Strange, Joe, Dr., *Perspectives on Warfighting #4, Centers of Gravity & Critical Vulnerabilities*, Second Edition. Read in this order: Chapter 1, pp. 1 to 4; Chapter 4, pp. 43 to 76, 83 to 91; and the Preface, pp. viii to xvi (52 pages).

A link exists between critical vulnerabilities and the center(s) of gravity. We can follow this link from the center of gravity to critical capabilities through critical requirements and finally arrive at critical vulnerabilities. After designating the center of gravity, we must analyze existing capabilities and identify the inherent abilities that enable that center of gravity to function as a center of gravity. The person, things, or units that give the center of gravity its power or strength are good critical capability candidates.

A former MEF commander once said, "Center of gravity selection is the most important thing I do." Defeating the center of gravity, according to Clausewitz, was vital to winning the conflict. In *On War* he stated, "One must keep the dominant characteristics of both belligerents in mind. Out of these characteristics a certain center of gravity develops, the hub of all power and movement, on which everything depends. That is the point against which all our energies should be directed."[1] When the commander selects the center of gravity, he focuses his staff and subordinate commanders on what he believes is essential to the enemy. He in turn commits tactical, theater, and national resources (such as collection assets) to gather intelligence and shape forces to prepare the battlespace for an attack or campaign against the identified enemy center(s) of gravity. If possible, this attack is mounted against a center of gravity. If a direct attack is not possible, the center of gravity is attacked through its critical vulnerabilities. Remember, Marine Corps doctrine pits our strength against enemy weakness. If the center of gravity is misidentified and attacked or indirectly attacked through its critical vulnerabilities and ultimately defeated, then time and resources have been expended needlessly, without achieving the desired endstate to the conflict or contingency. Some enemy destruction may have occurred but the campaign continues without the desired outcome.

Lesson Summary

As a framework for staff integration, intelligence preparation of the battlespace (IPB) provides commanders and their staffs with a process to coordinate efforts during the planning process at the tactical and operational levels of war. The IPB process is a systematic approach to analysis that integrates the assigned mission with the enemy doctrine, weather, and terrain, as well as other environmental aspects.

[1] *On War*, pp 595-6.

IPB, the elements of the CBAE, and the Mission Analysis process provide a valuable blend of intelligence products, the direct involvement of the commander, and the meticulous work of an operational planning team (OPT). These basic elements of the planning process establish the initial direction and focus of the developing operational plan. This is the reason we must place appropriate emphasis on the first step of the Marine Corps Planning Process.

JPME Summary

AREA 1					AREA 2				AREA 3					AREA 4					AREA 5			
A	B	C	D	E	A	B	C	D	A	B	C	D	E	A	B	C	D	E	A	B	C	D
	X			X			X	X	X	X	X	X	X				X					