

CHAPTER IV

OPERATIONAL ART AND OPERATIONAL DESIGN

“War is an art and as such is not susceptible of explanation by fixed formula.”

**General George S. Patton, Jr., Success in War, *The Infantry Journal Reader*,
1931**

1. Overview

a. The JFC and staff develop plans and orders through the application of operational art and operational design in conjunction with JPP. They combine art and science to develop products that describe how (ways) the joint force will employ its capabilities (means) to achieve military objectives (ends), given an understanding of unacceptable consequences of employing capabilities as intended (risk).

(1) Operational art is the cognitive approach by commanders and staffs—supported by their skill, knowledge, experience, creativity, and judgment—to develop strategies, campaigns, and operations to organize and employ military forces by integrating ends, ways, means, and risks. Operational art is inherent in all aspects of operational design.

(2) Operational design is the conception and construction of the framework that underpins a campaign or operation and its subsequent execution. The framework is built upon an iterative process that creates a shared understanding of the OE; identifies and frames problems within that OE; and develops approaches, through the application of operational art, to resolving those problems, consistent with strategic guidance and/or policy. The **operational approach**, a primary product of operational design, allows the commander to continue JPP, translating broad strategic and operational concepts into specific missions and tasks (see Figure IV-1) to produce an executable plan.

b. **The purpose of operational design and operational art is to produce an operational approach**, allowing the commander to continue JPP, translating broad strategic and operational concepts into specific missions and tasks and produce an executable plan.

c. Operational design is one of several tools available to help the JFC and staff understand the OE and develop broad solutions for mission accomplishment and understand the uncertainty in a complex OE. Additionally, it supports a recursive and ongoing dialogue concerning the nature of the problem and an operational approach to achieve the desired objectives.

d. Operational design and operational art enable **understanding**. Understanding is more than just knowledge of the capabilities and capacities of the relevant actors (individuals and organizations) or the nature of the OE, it provides context for decision making and how the many facets of the problem are likely to interact, allowing commanders and planners to identify consequences, opportunities, and recognize risk. The

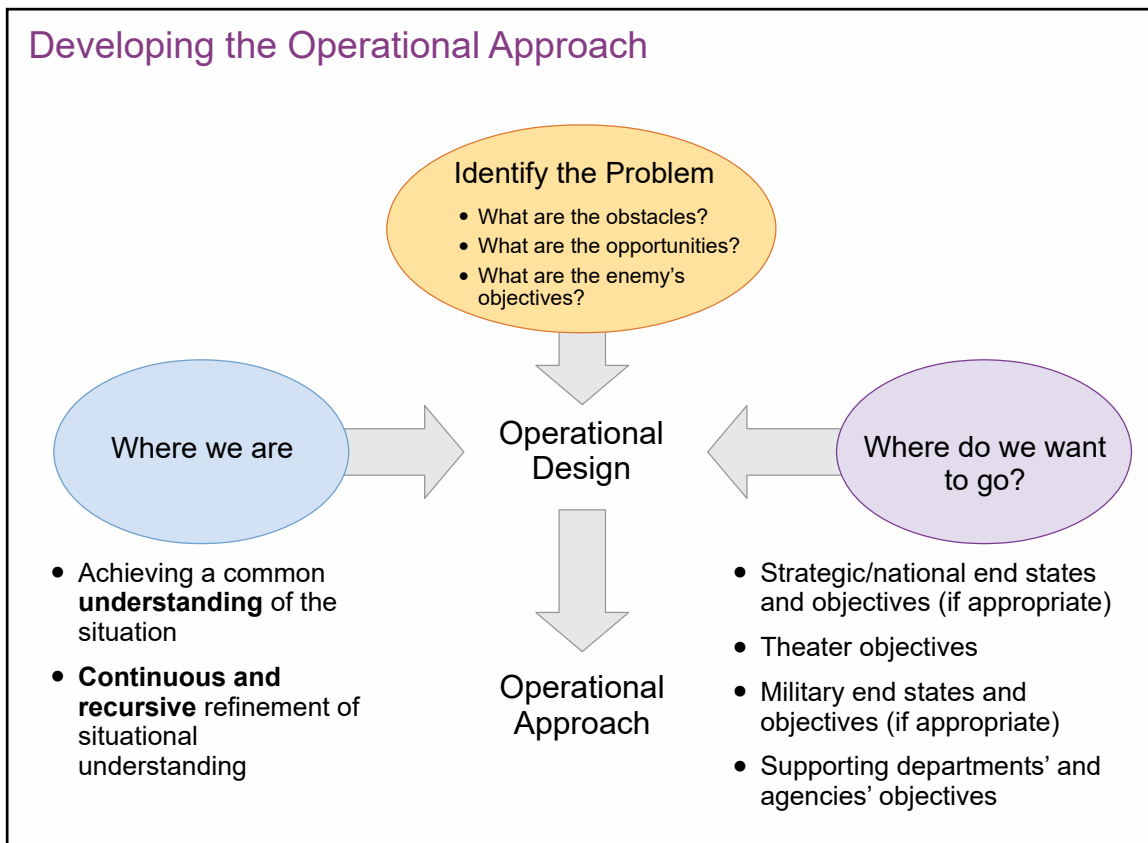


Figure IV-1. Developing the Operational Approach

tools described in this chapter are meant to aid commanders in conducting robust analysis, particularly in handling unexpected events or those events outside of their previous experience or understanding. Robust analysis will aid in better understanding and ultimately better decision making.

e. Implementation is based on the commander's and planners' experience and time available. Different commanders and planners will need different tools to help them as each person has inherent strengths, weaknesses, and prejudices. Similarly, every problem is different and may require different tools to analyze and address it. The tools chosen by the planner should be appropriate for the problem and should complement the planners' strengths and weaknesses.

(1) The amount of data readily available today can quickly overwhelm the planning process. Planners and commanders need to understand that a good timely decision with incomplete information may present a better solution than waiting until all information is available.

(2) In the complex social systems that are an integral part of military operations, additional data can greatly increase the complexity of the problem without aiding understanding. Operational art aids the commander in identifying the point of diminishing returns in collection and analysis.

2. The Commander's Role

a. **The commander is the central figure in operational design** due to knowledge and experience, and because the commander's judgment and decisions are required to guide the staff through the process. Generally, the more complex a situation, the more critical the role of the commander early in planning. Commanders draw on operational design to mitigate the challenges of complexity and uncertainty, as well as leveraging their knowledge, experience, judgment, intuition, responsibility, and authority to generate a clearer understanding of the conditions needed to focus effort and achieve success.

b. Commanders distinguish the unique features of their current situations to enable development of innovative or adaptive solutions. They understand that each situation requires a solution tailored to the context of the problem. Through the use of operational design and the application of operational art, commanders develop innovative, adaptive alternatives to solve complex challenges. These broad alternatives are the operational approach (Figure IV-1).

c. Commanders use the knowledge and understanding gained from operational design, along with any additional guidance from higher headquarters, to provide commander's guidance that directs and guides the staff through JPP in preparing detailed plans and orders. Developing meaningful touch-points throughout the planning process with the supported and supporting commanders and other stakeholders enables a shared understanding of the OE.

d. Operational design requires the commander to encourage discourse and leverage dialogue and collaboration to identify complex, ill-defined problems. To that end, the commander must empower organizational learning and develop methods to determine whether modifying the operational approach is necessary during the course of an operation or campaign. This requires assessment and reflection that challenge understanding of the existing problem and the relevance of actions addressing that problem. Due to complexity and constant change, commanders should be comfortable in the recognition that they will never know everything about the given OE and will never be able to fully define its problems. As such, many of the problems in the OE may not have solutions.

e. Red Teaming

(1) Gathering and analyzing information—along with discerning the perceptions of adversaries, enemies, partners, and other relevant actors—is necessary to correctly frame the problem, which enables planning. A red team, an independent group that challenges an organization to improve its effectiveness, can aid a commander and the staff to think critically and creatively; see things from varying perspectives; challenge their thinking; avoid false mind-sets, biases, or group thinking; and avoid the use of inaccurate analogies to frame the problem.

(2) Red teaming provides an independent capability to fully explore alternatives in plans and operations in the context of the OE and from the perspective of adversaries and other relevant actors.

(3) Commanders use red teams to aid them and their staffs to provide insights and alternatives during planning, execution, and assessment to:

- (a) Broaden the understanding of the OE.
- (b) Assist the commander and staff in framing problems and defining end state conditions.
- (c) Challenge assumptions.
- (d) Consider the perspectives of the adversary and other relevant actors as appropriate.
- (e) Aid in identifying friendly and enemy vulnerabilities and opportunities.
- (f) Assist in identifying areas for assessment as well as the assessment metrics.
- (g) Anticipate the cultural perceptions of partners, adversaries, and other relevant actors.
- (h) Conduct independent critical reviews and analyses of plans to identify potential weaknesses and vulnerabilities.

(4) Red teams provide the commander and staff with an independent capability to challenge the organization's thinking.

(5) The red team crosses staff functions and time horizons in JPP, which is different than a red cell, which is composed of members of the intelligence directorate of a joint staff (J-2) and performs threat emulation, or a joint intelligence operations center (JIOC) red team as an additive element on the J-2 staff to improve the intelligence analysis, products, and processes.

For more discussion on red teams, see Appendix K, "Red Teams."

SECTION A. OPERATIONAL ART

3. Overview

a. Commanders, skilled in the use of operational art, provide the vision that links strategic objectives to tactical tasks through their understanding of the strategic and OEs during both the planning and execution phases of an operation or campaign. More specifically, the interaction of operational art and operational design provides a bridge between strategy and tactics, linking national strategic aims to operations that must be executed to accomplish these aims and identifying how to assess the impact of the operations in achieving the strategic objectives. Likewise, operational art promotes unified action by helping JFCs and staffs understand how to facilitate the integration of other agencies and multinational partners toward achieving strategic and operational objectives.

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b. Through operational art, commanders link ends, ways, and means to attain the desired end state (see Figure IV-2). This requires commanders to answer the following questions:

(1) What is the current state of the OE?

(2) What are the military objectives that must be achieved, how are they related to the strategic objectives, and what objectives must be achieved to enable that strategic/national objective? How do these differ from the current conditions (state of the OE)? **(Ends)**

(3) What sequence of military actions, in conjunction with possible civilian actions, is most likely to achieve those objectives and attain the end state? How will I measure achievement of those objectives? **(Ways)**

(4) What military resources are required in concert with possible civilian resources to accomplish that sequence of actions within given or requested resources? **(Means)**

(5) What is the chance of failure or unacceptable consequences in performing that sequence of military actions? How will I identify if one or more of them occur? What is an acceptable level of “failure”? **(Risk)**

4. Role of Operational Art

a. Operational art enables commanders and staffs to take large amounts of data generated in the planning and analysis processes and distill it into useable information. During the plan development phase, detailed analysis may be required to determine feasible approaches and identify risk. Often during the decision-making process (and in IPRs), there is insufficient time to delve into the detail used to arrive at the proposed recommendation.

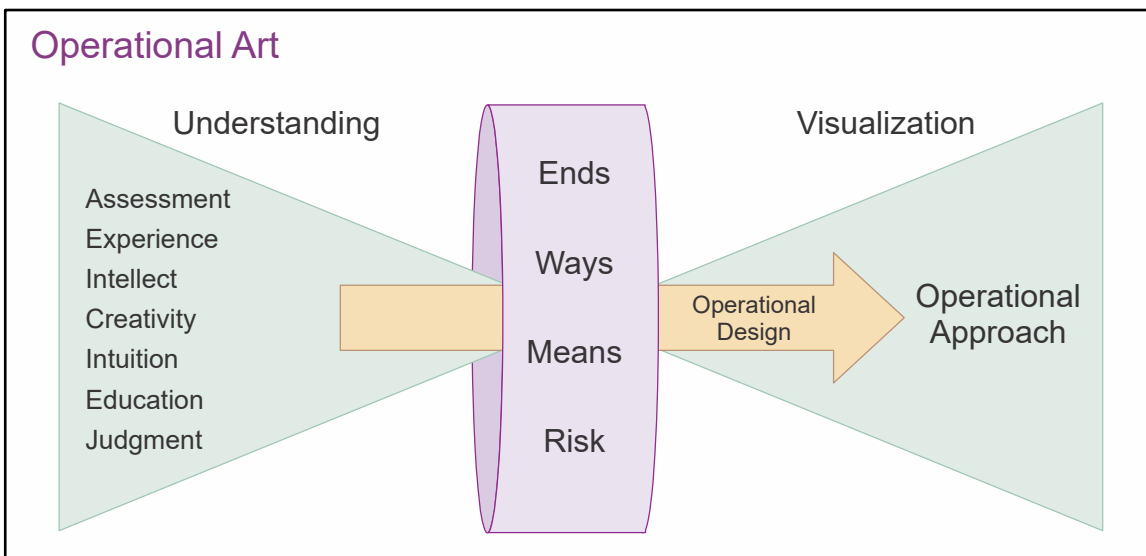


Figure IV-2. Operational Art

(1) Operational art provides the ability to better understand the OE, understand the decision-making process, and provide a concise and sufficiently detailed explanation without getting lost in the minutiae.

(2) It also provides the commander the ability to make judgments and decisions with incomplete information. This is critical in crisis planning, time-constrained planning, and during execution, when there may not be the amount of time or analytic capability desired to conduct a full analysis of the OE.

b. Operational art also provides awareness of personal and organizational biases that could affect the analysis and decision processes. Although it is often difficult to completely ignore the biases, it enables an understanding of how they affect the decision process and risk associated with those decisions.

SECTION B. OPERATIONAL DESIGN

5. Overview

a. **Operational design** is a methodology to aid commanders and planners in organizing and understanding the OE.

b. There are four major components to operational design (see Figure IV-3). The components have characteristics that exist outside of each other and are not necessarily sequential. However, an understanding of the OE and problem must be established prior to developing operational approaches.

c. Operational design is one of several tools available to help the JFC and staff understand the broad solutions for mission accomplishment and to understand the uncertainty in a complex OE. Additionally, it supports a recursive and ongoing dialogue concerning the nature of the problem and an operational approach to achieve the desired objectives.

d. The process is continuous and cyclical in that it is conducted prior to, during, and for follow-on joint operations.

e. **Methodology.** The general methodology in operational design is:

(1) Understand the strategic direction and guidance.

(2) Understand the strategic environment (policies, diplomacy, and politics).

(3) Understand the OE.

(4) Define the problem.

(5) Identify assumptions needed to continue planning (strategic and operational assumptions).

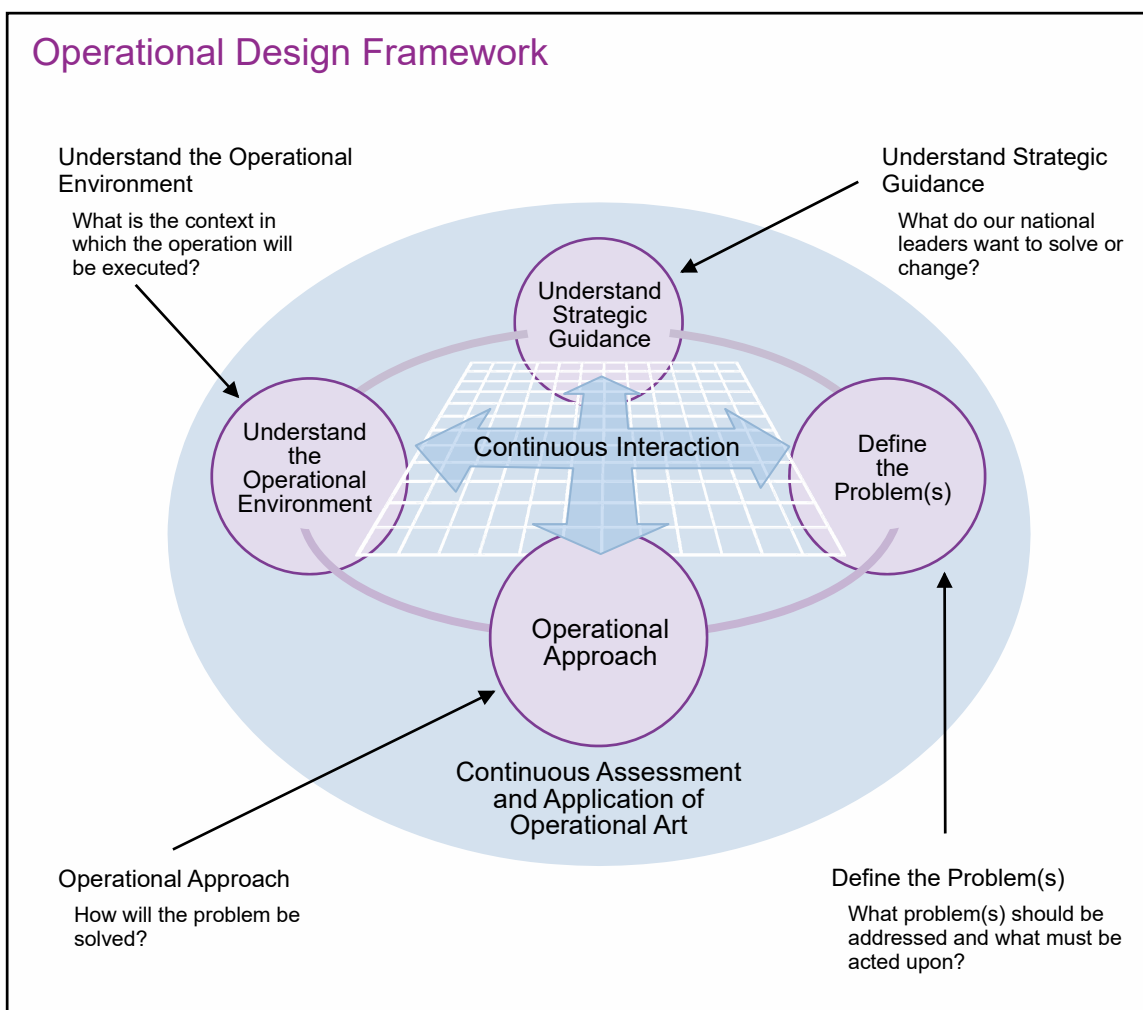


Figure IV-3. Operational Design Framework

- (6) Develop options (the operational approach).
- (7) Identify decisions and decision points (external to the organization).
- (8) Refine the operational approach(es).
- (9) Develop planning guidance.

f. These steps are not necessarily sequential. Iteration and reexamination of earlier work is essential to identify how later decisions affect earlier assumptions and to fill in gaps identified during the process.

6. Understand the Strategic Direction and Guidance

a. Planning usually starts with the assignment of a planning task through a directive, order, or cyclical strategic guidance depending on how a situation develops. The commander and staff must analyze all available sources of guidance. These sources include written documents, such as the GEF and JSCP, written directives, oral instructions

from higher headquarters, domestic and international laws, policies of other organizations that are interested in the situation, communication synchronization guidance, and higher headquarters' orders or estimates.

b. Strategic direction from strategic guidance documents can be vague, incomplete, outdated, or conflicting. This is due to the different times at which they may have been produced, changes in personnel that result in differing opinions or policies, and the staffing process where compromises are made to achieve agreement within the documents. During planning, commanders and staff must read the directives and synthesize the contents into a concise statement. Since strategic guidance documents can be problematic, the JFC and staff should obtain clear, updated direction through routine and sustained civilian-military dialogue throughout the planning process. When clarification does not occur, planners and commanders identify those areas as elements of risk.

c. Additionally, throughout the planning process, senior leaders will provide additional guidance. This can be through formal processes such as SGSs and IPRs, or through informal processes such as e-mails, conversations, and meetings. All of this needs to be disseminated to ensure the command has a common understanding of higher commander's intent, vision, and expectations.

d. In particular, commanders maintain dialogue with leadership at all levels to resolve differences of interpretation of higher-level objectives and the ways and means to accomplish these objectives. Understanding the OE, defining the problem, and devising a sound approach, are rarely achieved the first time. Strategic guidance addressing complex problems can initially be vague, requiring the commander to interpret and filter it for the staff. While CCDRs and national leaders may have a clear strategic perspective of the problem from their vantage point, operational-level commanders and subordinate leaders often have a better understanding of specific circumstances that comprise the operational situation and may have a completely different perspective on the causes and solutions. Both perspectives are essential to a sound plan. Subordinate commanders should be aggressive in sharing their perspective with their higher headquarters, and both should resolve differences at the earliest opportunity. While policy and strategic guidance clarify planning, it is equally true that planning informs policy formulation. A strategy or plan that cannot be realistically executed at the tactical level can be as detrimental to long-range US interests as tactical actions that accomplish a task but undermine the strategic or operational objectives.

e. Strategic guidance is essential to operational art and operational design. As discussed in Chapter I, "Joint Planning," the President, SecDef, and CJCS all promulgate strategic guidance. In general, this guidance provides long-term as well as intermediate or ancillary objectives. It should define what constitutes victory or success (**ends**) and identify available forces, resources, and authorities (**means**) to achieve strategic objectives. The operational approach (**ways**) of employing military capabilities to achieve the ends is for the supported JFC to develop and propose, although policy or national positions may limit options available to the commander. Connecting resources and tactical actions to strategic ends is the responsibility of the operational commander—the commander must be

able to explain how proposed actions will result in desired effects, as well as the potential risks of such actions.

f. For situations that require the employment of military capabilities (particularly for anticipated large-scale combat), the President and SecDef may establish a set of **operational objectives**. However, in the absence of coherent guidance or direction, the CCDR/JFC may need to collaborate with policymakers in the development of these objectives. Achievement of these objectives should result in contributing to the **strategic objective—the broadly expressed conditions that should exist after the conclusion of a campaign or operation**. Based on the ongoing civilian-military dialogue, the CCDR will determine the **military end state** and military objectives, which define the role of military forces. These objectives are the basis for operational design.

7. Understand the Strategic Environment

a. After analyzing the strategic guidance, commanders and planners build an understanding of the strategic environment. This forms boundaries within which the operational approach must fit. Some considerations are:

(1) What actions or planning assumptions will be acceptable given the current US policies and the diplomatic and political environment?

(2) What impact will US activities have on third parties (focus on military impacts but identify possible political fallout)?

(3) What are the current national strategic objectives of the USG? Are the objectives expected to be long lasting or short-term only? Could they result in unintended consequences (e.g., if you provide weapons to a nation, is there sufficient time to develop strong controls so the weapons will not be used for unintended purposes)?

b. **Strategic-Level Considerations.** Strategic-level military activities affect national and multinational military objectives, develop CCMD campaign plans to achieve these objectives, sequence military operations, define limits and assess risks for use of the military instrument of national power, and provide military forces and capabilities in accordance with authorizing directives. Within the OE, there are strategic-level considerations that may include global aspects due to global factors such as international law, the capability of adversary/enemy information activities to influence world opinion, adversary and friendly organizations and institutions, and the capability and availability of national and commercial space-based systems and information technology. Strategic-level considerations of the OE are analyzed in terms of geopolitical regions, nations, and climate rather than local geography and weather. Nonmilitary aspects of the OE assume increased importance at the strategic level. For example, the industrial and technological capabilities of a nation or region will influence the type of military force it fields, and factors may influence the ability of a nation or region to endure a protracted conflict without outside assistance. In many situations, nonmilitary considerations may play a greater role than military factors in influencing adversary and relevant actor COAs. The JIPOE process analyzes all relevant aspects of the OE, including the adversary and other actors, and

PMESII systems and subsystems. This analysis should also consider possible intervention by third parties. The main JIPOE focus is to provide predictive intelligence that helps the JFC discern the adversary's probable intent and most likely future COA. During COA development, analysis, comparison, and approval during JPP, JIPOE-based COA models consider the entire range of resources available to the adversary, to include the mindset of key personalities and populations, and the financial flows and convergence of threat and illicit networks to fund adversary operations. JIPOE-based COA models identify both military and nonmilitary methods of power projection and influence, specify the theaters of main effort and the forces committed to each, and depict national as well as strategic and theater-level objectives of the relevant actors.

8. Understand the Operational Environment

a. The OE is the composite of the conditions, circumstances, and influences that affect the employment of capabilities and bear on the decisions of the commander. It encompasses physical areas and factors of the air, land, maritime, and space domains; the electromagnetic spectrum; and the information environment (which includes cyberspace). Included within these areas are the adversary, friendly, and neutral actors that are relevant to a specific joint operation. Understanding the OE helps the JFC to better identify the problem; anticipate potential outcomes; and understand the results of various friendly, adversary, and neutral actions and how these actions affect attaining the military end state (see Figure IV-4).

b. The commander must be able to describe both the current state of the OE and the desired state of the OE when operations conclude (desired military end state) to visualize an approach to solving the problem. Planners can compare the current conditions of the OE with the desired conditions. Identifying necessary objective conditions and termination criteria early in planning will help the commander and staff devise an operational approach with LOEs/LOOs that link each current condition to a desired end state condition.

c. **Describe the Current OE.** The JIPOE process is a comprehensive analytic tool to describe all aspects of the OE relevant to the operation or campaign.

d. Operational-Level Considerations

(1) In analyzing the current and future OE, the staff can use a PMESII analytical framework to determine relationships and interdependencies relevant to the specific operation or campaign (see Figure IV-5).

(2) The size and scope of the analysis may also vary depending on particular aspects of the OE. For example, if a landlocked adversary has the capability to conduct space-based intelligence collection or cyberspace operations, then the relevant portions of space and the information environment would extend worldwide, while maritime considerations might be minimal. While most joint operations at the operational level may encompass many or all PMESII considerations and characteristics, the staff's balanced JIPOE efforts should vary according to the relevant OE aspects of the operation or campaign.

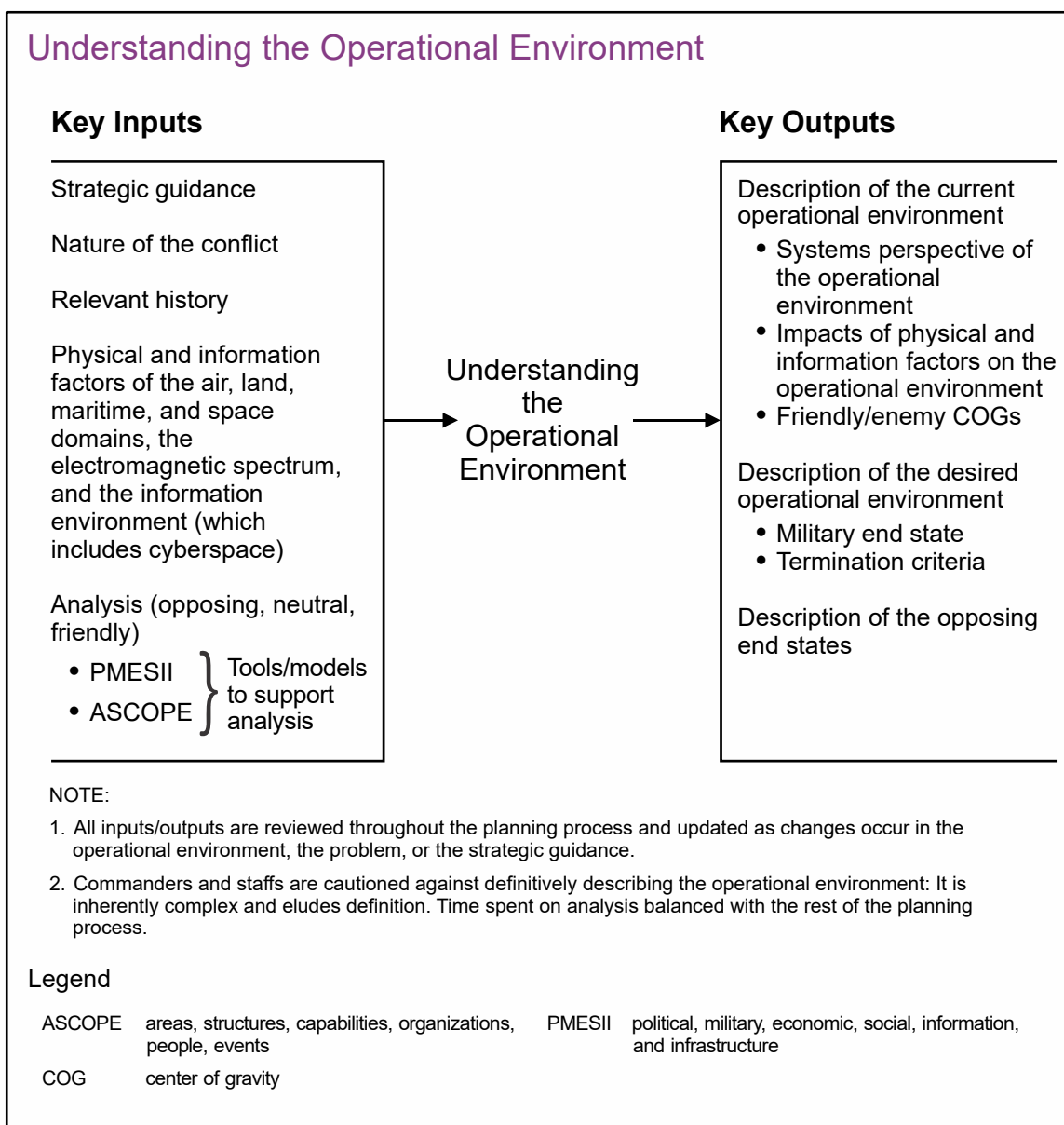


Figure IV-4. Understanding the Operational Environment

See JP 2-01.3, Joint Intelligence Preparation of the Operational Environment, for additional information on analyzing and understanding the OE.

(3) Additional factors that should be considered, include:

(a) Geographical features and meteorological and oceanographic characteristics.

(b) Population demographics (ethnic groups, tribes, ideological factions, religious groups and sects, language dialects, age distribution, income groups, public health issues).

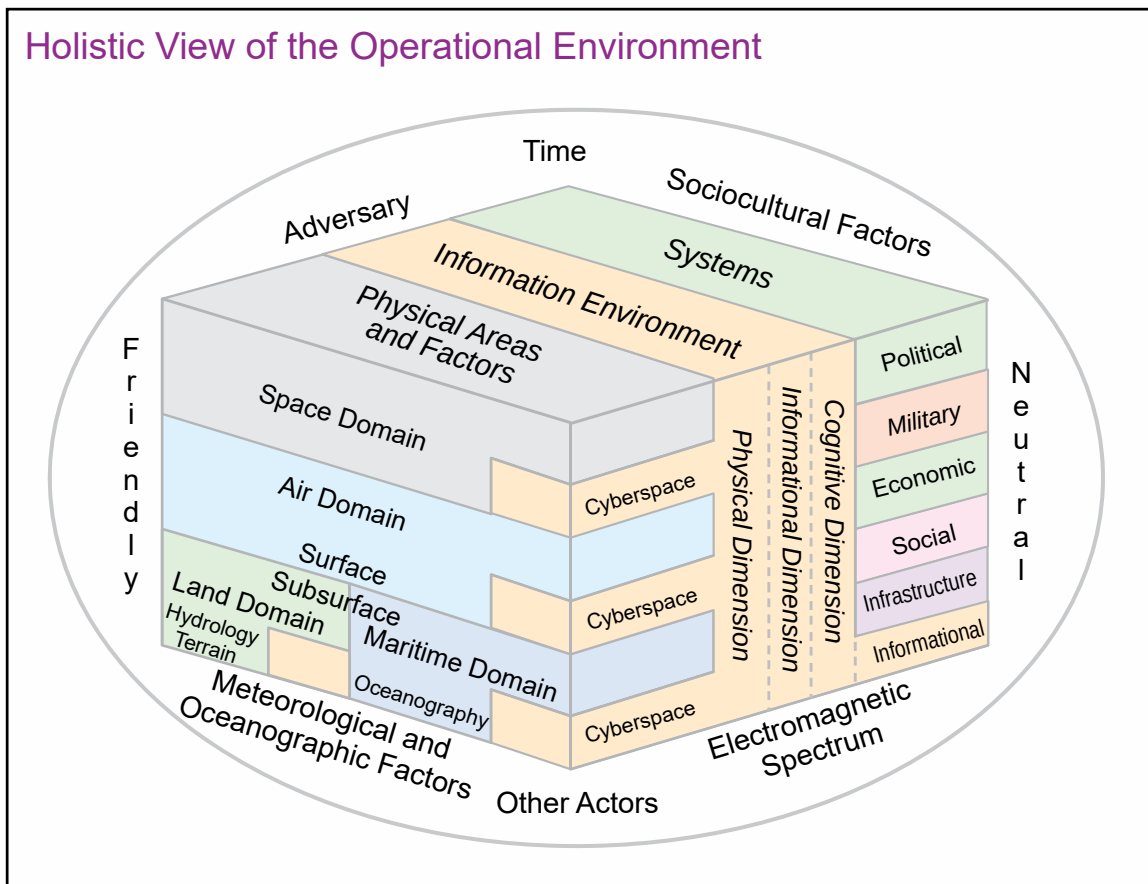


Figure IV-5. Holistic View of the Operational Environment

(c) Social and cultural factors of adversaries, neutrals, and allies in the OE (beliefs, how and where they get their information, types and locations of media outlets).

(d) Political and socioeconomic factors (economic system, political factions, tribal factions).

(e) Infrastructure, such as transportation, energy, and information systems.

(f) Operational limitations such as rules of engagement (ROE), rules for the use of force (RUF), or legal restrictions on military operations as specified in US law, international law, or HN agreements.

(g) All friendly, adversary, and enemy conventional, irregular, and paramilitary forces and their general capabilities and strategic objectives (including all known and/or suspected chemical, biological, radiological, and nuclear threats and hazards).

(h) Environmental conditions (earthquakes, volcanic activity, pollution, naturally occurring diseases).

(i) Location of toxic industrial materials in the area of interest that may produce chemical, biological, radiological, or nuclear hazards.

- (j) Psychological characteristics of adversary decision making.
- (k) All locations of foreign embassies, international organizations, and NGOs.
- (l) Friendly and adversary military and commercial capabilities provided by assets in space, their current or potential use, and critical vulnerabilities.
- (m) Knowledge of the capabilities and intent, COGs, and critical vulnerabilities of forces, individuals, or organizations conducting cyberspace operations.
- (n) Financial networks that could impact the adversary's ability to sustain operations.

(4) To produce a holistic view of the relevant adversary, neutral, and friendly systems within a larger system that includes many external influences, analysis should define how these systems interrelate. Most important to this analysis is describing the **relevant relationships** within and between the various systems that directly or indirectly affect the problem at hand. Although the J-2 manages the JIPOE process, other directorates and agencies can contribute valuable expertise to develop and assess the complexities of the OE.

For more information on JIPOE, see JP 2-01.3, Joint Intelligence Preparation of the Operational Environment.

(5) **Tendencies and Potentials.** In developing an understanding of the interactions and relationships of relevant actors in the OE, commanders and staffs consider observed tendencies and potentials in their analyses. Tendencies reflect the inclination to think or behave in a certain manner. Tendencies are not considered deterministic but rather model the thoughts or behaviors of relevant actors. Tendencies help identify the range of possibilities that relevant actors may develop with or without external influence. Once identified, commanders and staffs evaluate the potential of these tendencies to manifest within the OE. Potential is the inherent ability or capacity for the growth or development of a specific interaction or relationship. However, not all interactions and relationships support attaining the desired end state. The desired end state accounts for tendencies and potentials that exist among the relevant actors or other aspects of the OE. Early in JPP, pertinent lessons learned should be collected and reviewed as part of the analysis to allow previously learned lessons to make their way into the plan. The Joint Lessons Learned Information System provides a database of past lessons learned. However, people experienced in the mission, OE, and lessons learned functions should be sought for their knowledge and experience.

(6) Describe the key conditions that must exist in the future OE to achieve the objectives. Planners should put a temporal aspect to this set of conditions in order to be able to conduct feasibility and acceptability analyses.

(7) Determine the objectives of relevant actors affecting the OE. These actors will have different sets of conditions for achieving their respective objectives. Such

opposition can be expected to take actions to thwart US and partner nations' objectives. Other actors, neutral or friendly, may not have an opposing mindset, but may have desired conditions (or unintended consequences of their actions) that oppose our desired end state conditions. The analysis of the OE should identify where the contradictions between the competing sides, allies, partners, and neutrals lie and recognize the conflicts of interests. In the course of developing the plan, planners should ask themselves if the COA being considered addresses these conflicts.

9. Define the Problem

a. Defining the problem is essential to addressing the problem. It involves understanding and isolating the root causes of the issue at hand—defining the essence of a complex, ill-defined problem. Defining the problem begins with a review of the tendencies and potentials of the relevant actors and identifying the relationships and interactions among their respective desired conditions and objectives. The problem statement articulates how the operational variables can be expected to resist or facilitate transformation and how inertia in the OE can be leveraged to ensure the desired conditions are achieved.

(1) The problem statement identifies the areas for action that will transform existing conditions toward the desired end state. Defining the problem extends beyond analyzing interactions and relationships in the OE (see Figure IV-6). It identifies areas of tension and competition—as well as opportunities and challenges—that commanders must address to transform current conditions to attain the desired end state. Tension is the resistance or friction among and between actors. The commander and staff identify the tension by analyzing the context of the relevant actors' tendencies and potentials within the complex systems within the OE.

(2) Critical to defining the problem is determining what needs to be acted on to reconcile the differences between existing and desired conditions. Some of the conditions are critical to success, some are not. Some may be achieved as a secondary or tertiary result of another condition. In identifying the problem, the planning team identifies the tensions between the desired conditions and identifies the areas of tension that merit further consideration as areas of possible intervention.

(3) The JFC and staff must identify and articulate:

(a) Tensions between current conditions and desired conditions at the end state.

(b) Elements within the OE which must change or remain the same to attain desired end states.

(c) Opportunities and threats that either can be exploited or will impede the JFC from attaining the desired end state.

(d) Operational limitations.

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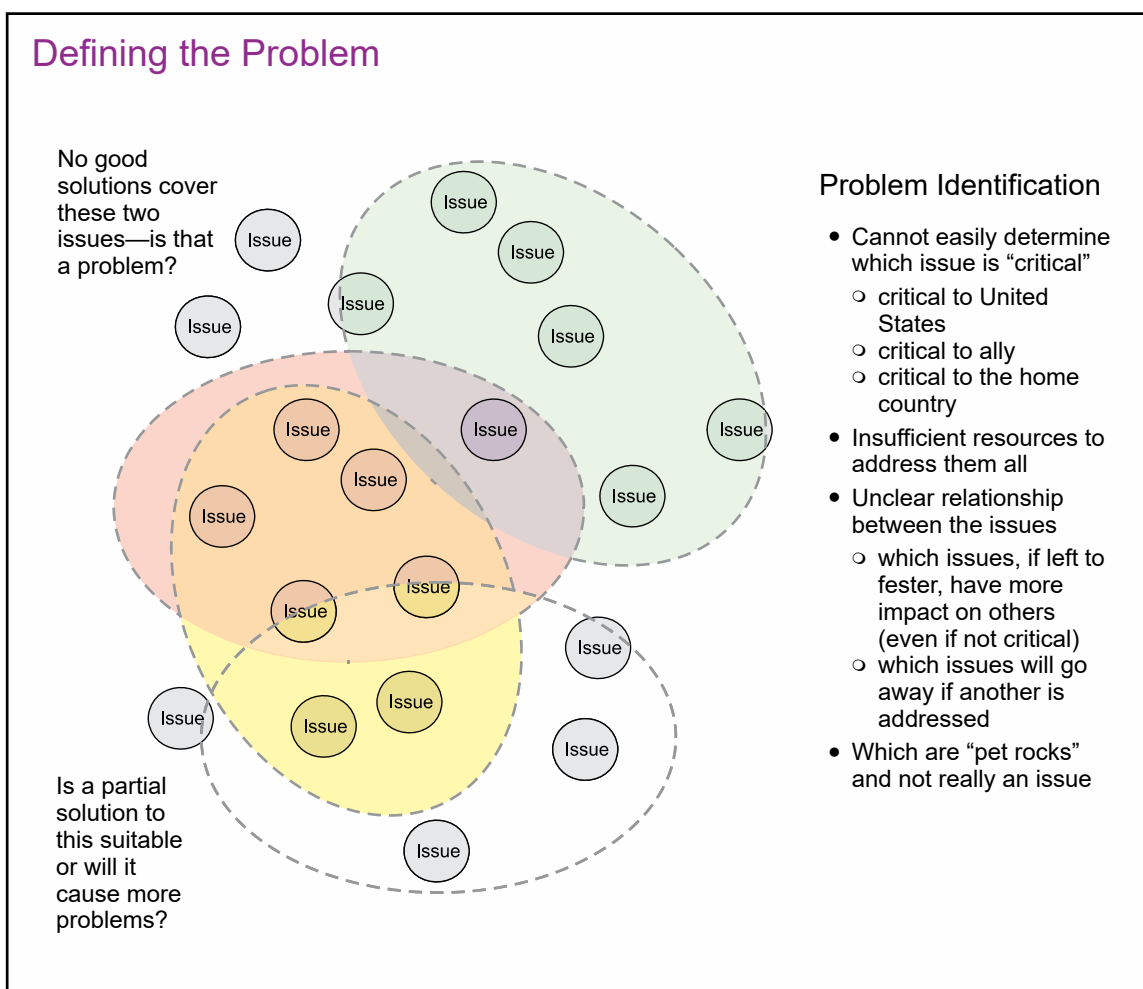


Figure IV-6. Defining the Problem

b. A concise problem statement is used to clearly define the problem or problem set to solve. It considers how tension and competition affect the OE by identifying how to transform the current conditions to the desired end state—before adversaries begin to transform current conditions to their desired end state. The statement broadly describes the requirements for transformation, anticipating changes in the OE while identifying critical transitions.

10. Identify Assumptions

a. Where there is insufficient information or guidance, the commander and staff identify assumptions to assist in framing solutions. At this stage, assumptions address strategic and operational gaps that enable the commander to develop the operational approach.

(1) Assumptions should be kept to the minimum required as each assumption adds to the probability of error in the plan and requires specific CCIRs to continuously check its validity.

(2) Assumptions address key and critical decisions required by senior leaders to enable the continuation of planning.

b. Commanders and staff should review strategic guidance and direction to see if any assumptions are imposed on the planning process. They should also regularly discuss planning assumptions with OSD and DOD leadership to see if there are changes in policy or guidance that affect the planning assumptions (examples could be basing or access permissions, allied or multinational contributions, alert and warning decision timelines, or anticipated threat actions and reactions). Assumptions should be phrased in terms of will or will not (rather than using “should” or “may”) in order to establish specific conditions that enable planning to continue.

c. During JPP, the commander may develop additional assumptions to support detailed COA development (see Chapter V, “Joint Planning Process”).

11. Developing Operational Approaches

a. The operational approach is a commander’s description of the broad actions the force can take to achieve an objective in support of the national objective or attain a military end state. It is the commander’s visualization of how the operation should transform current conditions into the desired conditions—the way the commander envisions the OE at the conclusion of operations to support national objectives. The operational approach is based largely on an understanding of the OE and the problem facing the JFC. A discussion of operational approaches within and between options forms the basis of the IPRs between the CDR and SecDef and staff (to ensure consistency with US policy and national objectives). Once SecDef approves the approach, it provides the basis for beginning, continuing, or completing detailed planning. The JFC and staff should continually review, update, and modify the approach as policy, the OE, end states, or the problem change. This requires frequent and continuing dialogue at all levels of command.

b. Commanders and their staffs can use operational design when planning any joint campaign or operation. Notwithstanding a commander’s judgment, education, and experience, the OE often presents situations so complex that understanding them—let alone attempting to change them—exceeds individual capacity. Nor does such complexity lend itself to coherent planning. Bringing adequate order to complex problems to facilitate further detailed planning requires an iterative dialogue between commander, the planning staff, and policy staff. Rarely will members of either staff recognize an implicit operational approach during their initial analysis and synthesis of the OE. Successful development of the approach requires continuous analysis, learning, dialogue, and collaboration between commander and staff, as well as other subject matter experts. The challenge is even greater when the joint operation involves other agencies, the private sector, and multinational partners (which is typically the case), whose unique considerations can complicate the problem.

c. It is essential that commanders, through a dialogue with their staffs, planning teams, initiative groups, and any other relevant sources of information, first gain an understanding of the OE, to include the US policy perspective, and define the problem facing the joint

force prior to conducting detailed planning. The problem as presented in guidance documents rarely includes all available guidance information and may identify the symptoms rather than the actual problem. From this understanding of the OE and definition of the problem, commanders develop their broad operational approach for transforming current conditions into desired conditions. The operational approach will underpin the operation and the detailed planning that follows. As detailed planning occurs, the JFC and staff continue discourse and refine their operational approach.

For additional information on assessment, see Appendix D, “Operation Assessment Plan (Examples).”

12. Identify Decisions and Decision Points

a. During planning, commanders inform leadership of the decisions that will need to be made, when they will have to be made, and the uncertainty and risk accompanying decisions and delay. This provides leaders, both military and civilian, a template and warning for the decisions in advance and provides them the opportunity to look across interagency partners and with allies to look for alternatives and opportunities short of escalation. The decision matrix also identifies the expected indicators needed in support of the intelligence collection plan.

b. Commanders are responsible to ensure senior leaders understand the risk and time lines associated with the decision points and the possible effects of delayed decisions.

13. Refine the Operational Approach

a. Throughout the planning processes, commanders and their staffs conduct formal and informal discussions at all levels of the chain of command. These discussions help refine assumptions, limitations, and decision points that could affect the operational approach and ensure the plan remains feasible, acceptable, and adequate.

b. The commander adjusts the operational approach based on feedback from the formal and informal discussions at all levels of command and other information.

14. Prepare Planning Guidance

a. **Developing Commander’s Planning Guidance.** The commander provides a summary of the OE and the problem, along with a visualization of the operational approach, to the staff and to other partners through commander’s planning guidance. As time permits, the commander may have been able to apply operational design to think through the campaign or operation before the staff begins JPP. In this case, the commander provides initial planning guidance to help focus the staff in mission analysis. Commanders should continue the analysis to further understand and visualize the OE as the staff conducts mission analysis. Upon completing analysis of the OE, the commander will issue planning guidance, as appropriate, to help focus the staff efforts. At a minimum, the commander issues planning guidance, either initial or refined, at the conclusion of mission analysis, and provides refined planning guidance as understanding of the OE, the problem, and visualization of the operational approach matures. It is critical for the commander to

provide updated guidance as the campaign or operation develops in order to adapt the operational approach to a changing OE or changed problem.

b. The format for the commander's planning guidance varies based on the personality of the commander and the level of command, but should adequately describe the logic to the commander's understanding of the OE, the methodology for reaching the understanding of the problem, and a coherent description of the operational approach. It may include the following elements:

(1) **Describe the OE.** Some combination of graphics showing key relationships and tensions and a narrative describing the OE will help convey the commander's understanding to the staff and other partners.

(2) **Define the problem to be solved.** A narrative problem statement that includes a timeframe to solve the problem will best convey the commander's understanding of the problem.

(3) **Describe the operational approach.** A combination of a narrative describing objectives, decisive points, and potential LOEs and LOOs, with a summary of limitations (constraints and restraints) and risk (what can be accepted and what cannot be accepted) will help describe the operational approach.

(4) **Provide the commander's initial intent.** The commander should also include the initial intent in planning guidance. The commander's initial intent describes the purpose of the operations, desired strategic end state, military end state, and operational risks associated with the campaign or operation. It also includes where the commander will and will not accept risk during the operation. It organizes (prioritizes) desired conditions and the combinations of potential actions in time, space, and purpose. The JFC should envision and articulate how military power and joint operations, integrated with other applicable instruments of national power, will achieve strategic success, and how the command intends to measure the progress and success of its military actions and activities. It should help staff and subordinate commanders understand the intent for unified action using interorganizational coordination among all partners and participants. Through commander's intent, the commander identifies the major unifying efforts during the campaign or operation, the points and events where operations must succeed to control or establish conditions in the OE, and where other instruments of national power will play a central role. The intent must allow for decentralized execution. It provides focus to the staff and helps subordinate and supporting commanders take actions to achieve the military objectives or attain the end state without further orders, even when operations do not unfold or result as planned. While there is no specified joint format for the commander's intent, a generally accepted construct includes the purpose, end state, and risk.

(a) **Purpose.** Purpose delineates reason for the military action with respect to the mission of the next higher echelon. The purpose explains why the military action is being conducted. The purpose helps the force pursue the mission without further orders, even when actions do not unfold as planned. Thus, if an unanticipated situation arises, participating

commanders understand the purpose of the forthcoming action well enough to act decisively and within the bounds of the higher commander's intent.

(b) **End State.** An end state is the set of required conditions that defines achievement of the commander's objectives. This describes what the commander desires in military end state conditions that define mission success by friendly forces. It also describes the strategic objectives and higher command's military end state and describes how reaching the JFC's military end state supports higher headquarters' end state (or national objectives).

(c) **Risk.** Defines aspects of the campaign or operation in which the commander will accept risk in lower or partial achievement or temporary conditions. It also describes areas in which it is not acceptable to accept such lower or intermediate conditions.

(d) The intent may also include operational objectives, method, and effects guidance.

(e) The commander may provide additional planning guidance such as information management, resources, or specific effects that must be created or avoided.

SECTION C. ELEMENTS OF OPERATIONAL DESIGN

15. Elements of Operational Design

The elements of operational design (Figure IV-7) can be used for all military planning. However, not all of the elements of operational design may be required for all plans.

a. Termination

(1) Termination criteria are the specified standards approved by the President and/or SecDef that must be met before military operations can be concluded. Termination criteria are a key element in establishing a military end state. Termination criteria describe the conditions that must exist in the OE at the cessation of military operations. The conditions must be achievable and measurable so the commander can clearly identify the achievement of the military end state. Effective planning cannot occur without a clear understanding of the military end state and the conditions that must exist to end military

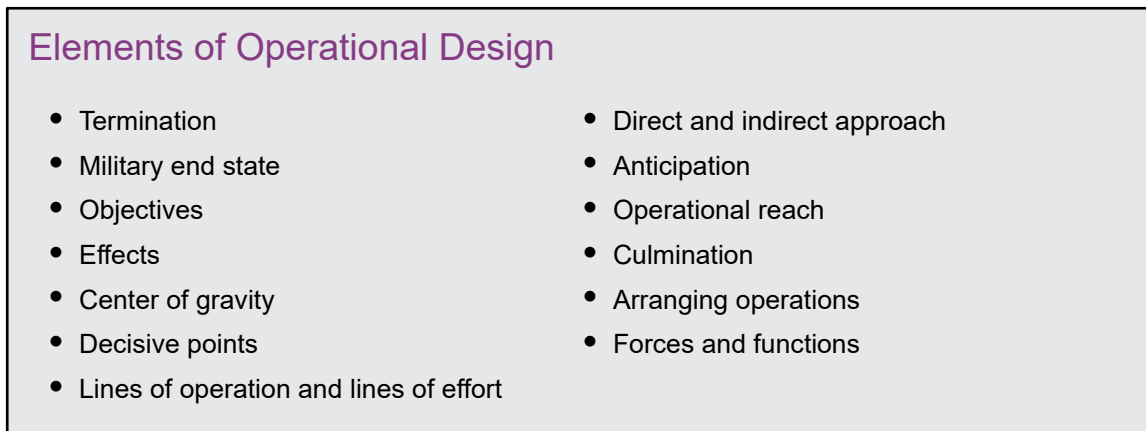


Figure IV-7. Elements of Operational Design

operations. Knowing when to terminate military operations and how to preserve achieved advantages is key to attaining the national strategic end state. To plan effectively for termination, the supported JFC must know how the President and SecDef intend to terminate the joint operation and ensure that the conditions in the OE endure. CCMD campaign plans will not normally have termination criteria.

(2) Termination criteria are developed first among the elements of operational design as they enable the development of the military end state and objectives. Commanders and their staffs must think through, in the early stages of planning, the conditions that must exist in order to terminate military operations on terms favorable to the US and its multinational partners. A hasty or ill-defined end to the operation may bring with it the possibility that the adversary will renew hostilities or other actors may interfere, leading to further conflict. Commanders and their staffs must balance the desire for quick victory with termination on truly favorable terms.

(3) Termination criteria should account for a wide variety of operational tasks that the joint force may need to accomplish, to include disengagement, force protection, transition to post-conflict operations, reconstitution, and redeployment.

(4) Military end states are briefed to SecDef as part of the IPR process to ensure the military end states support the termination criteria. Once approved, the criteria may change. It is important for commanders and staffs to keep an eye out for potential changes, as they may result in a modification to the military end state as well as the commander's operational approach. As such, it is essential for the military to keep a dialogue between the civilian national leadership, and the leadership of other agencies and partners involved.

b. **Military End State.** Military end state is the set of required conditions that defines achievement of all military objectives. It normally represents **a point in time and/or circumstances beyond which the President does not require the military instrument of national power as the primary means to achieve remaining national objectives.** As such, the military end state is often closely tied to termination. While it may mirror many of the conditions of the national strategic end state, the military end state typically will be more specific and contain other supporting conditions. These conditions contribute to developing termination criteria, the specified standards approved by the President and/or SecDef that must be met before a joint operation can be concluded. Aside from its obvious association with strategic or operational objectives, clearly defining the military end state promotes unity of effort, facilitates synchronization, and helps clarify (and may reduce) the risk associated with the campaign or operation. Commanders should include the military end state in their planning guidance and commander's intent statement.

c. **Objectives. An objective is clearly defined, decisive, and attainable.** Once the military end state is understood and termination criteria are established, operational design continues with development of strategic and operational military objectives. Joint planning integrates military actions and capabilities with those of other instruments of national power in time, space, and purpose in unified action to achieve the JFC's military objectives, which contribute to strategic national objectives. Objectives and their supporting effects provide the basis for identifying tasks to be accomplished. **In GEF- and JSCP-directed**

campaign plans, objectives rather than an end state, define the path of the command's actions in contributing to national objectives.

(1) Military missions are conducted to achieve objectives and are linked to national objectives. Military objectives are an important consideration in plan development. They specify what must be accomplished and provide the basis for describing desired effects.

(2) A clear and concise end state allows planners to better examine objectives that must be met to attain the desired end state. Objectives describe what must be achieved to reach or attain the end state. These are usually expressed in military, diplomatic, economic, and informational terms and help define and clarify what military planners must do to support the national strategic end state. Objectives developed at the national-strategic and theater-strategic levels are the defined, decisive, and attainable goals toward which all military operations, activities, and investments are directed within the OA.

(3) Achieving operational objectives ties execution of tactical tasks to reaching the military end state.

(4) There are four primary considerations for an objective.

(a) An objective establishes a single desired result (a goal).

(b) An objective should link directly or indirectly to higher level objectives or to the end state.

(c) An objective is specific and unambiguous.

(d) An objective does not infer ways and/or means—it is not written as a task.

d. **Effects.** An effect is a physical and/or behavioral state of a system that results from an action, a set of actions, or another effect. A desired effect can also be thought of as a condition that can support achieving an associated objective, while an undesired effect is a condition that can inhibit progress toward an objective. In seeking unified action, a JFC synchronizes the military with the diplomatic, informational, and economic power of the US to affect the PMESII systems of relevant actors.

(1) The CCDR plans joint operations based on analysis of national strategic objectives and development of theater strategic objectives supported by measurable strategic and operational desired effects and assessment indicators (see Figure IV-8). At the operational level, a subordinate JFC develops supporting plans, which can include objectives supported by measurable operational-level desired effects and assessment indicators. This may increase operational- and tactical-level understanding of the purpose reflected in the higher-level commander's mission and intent. At the same time, commanders consider potential undesired effects and their impact on the tasks assigned to subordinate commands.

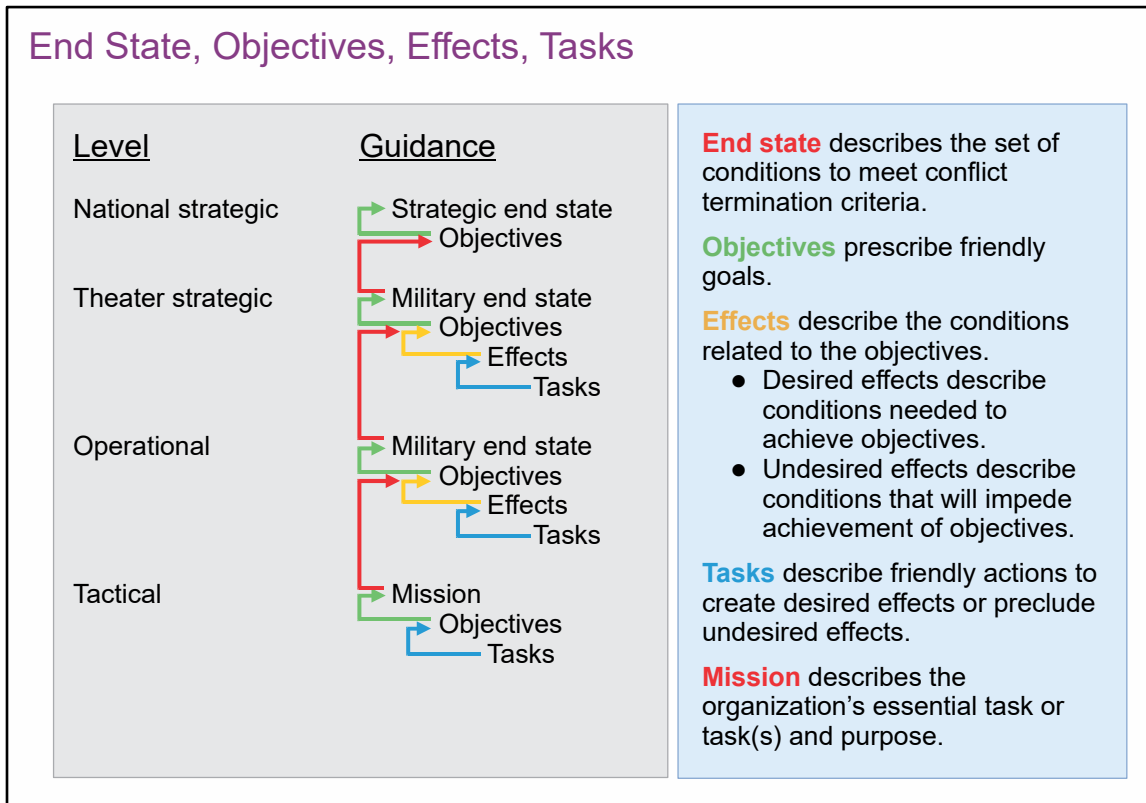


Figure IV-8. End State, Objectives, Effects, Tasks

- (2) There are four primary considerations for writing a desired effect statement.
- Each desired effect should link directly to one or more objectives.
 - The effect should be measurable.
 - The statement should not specify ways and means for accomplishment.
 - The effect should be distinguishable from the objective it supports as a condition for success, not as another objective or a task.

(3) The proximate cause of effects in complex situations can be difficult to predict particularly when they relate to moral and cognitive issues (such as religion and the “mind of the adversary,” respectively). Further, **there will always be gaps in our understanding of the OE.** Commanders and their staffs must appreciate that unpredictable third-party actions, unintended consequences of friendly operations, subordinate initiative and creativity, and the fog and friction of conflict will contribute to an uncertain OE.

(4) The use of effects in planning can help commanders and staff determine the tasks required to achieve objectives and use other elements of operational design more effectively by clarifying the relationships between COGs, LOOs, and/or LOEs; decisive points; and termination criteria. Once a systems perspective of the OE has been developed (and appropriate links and nodes have been identified), the linkage and relationship

between COGs, LOOs, and decisive points can become more obvious. This linkage allows for efficient use of desired effects in planning. The JFC and planners continue to develop and refine desired effects throughout JPP. Monitoring progress toward creating desired effects and avoiding undesired effects continues throughout execution.

(5) A mission is a task or set of tasks, together with the purpose, that clearly indicates the action to be taken and the reason for doing so. It is derived primarily from higher headquarters guidance.

e. **COG**

(1) One of the most important tasks confronting the JFC's staff during planning is identifying and analyzing friendly and adversary COGs. A COG is a source of power that provides moral or physical strength, freedom of action, or will to act. It is what Clausewitz called "the hub of all power and movement, on which everything depends ... the point at which all our energies should be directed." An objective is always linked to a COG. There may also be different COGs at different levels, but they should be nested. At the strategic level, a COG could be a military force, an alliance, political or military leaders, a set of critical capabilities or functions, or national will. At the operational level, a COG often is associated with the adversary's military capabilities—such as a powerful element of the armed forces—but could include other capabilities in the OE. In identifying COGs it is important to remember that irregular warfare focuses on legitimacy and influence over a population, unlike traditional warfare, which employs direct military confrontation to defeat an enemy's armed forces, destroy an enemy's war-making capacity, or seize or retain territory to force a change in an enemy's government or policies. Therefore, during irregular warfare, the enemy and friendly COG may be the same population.

(2) **COGs exist in an adversarial context** involving a clash of moral wills and/or physical strengths.

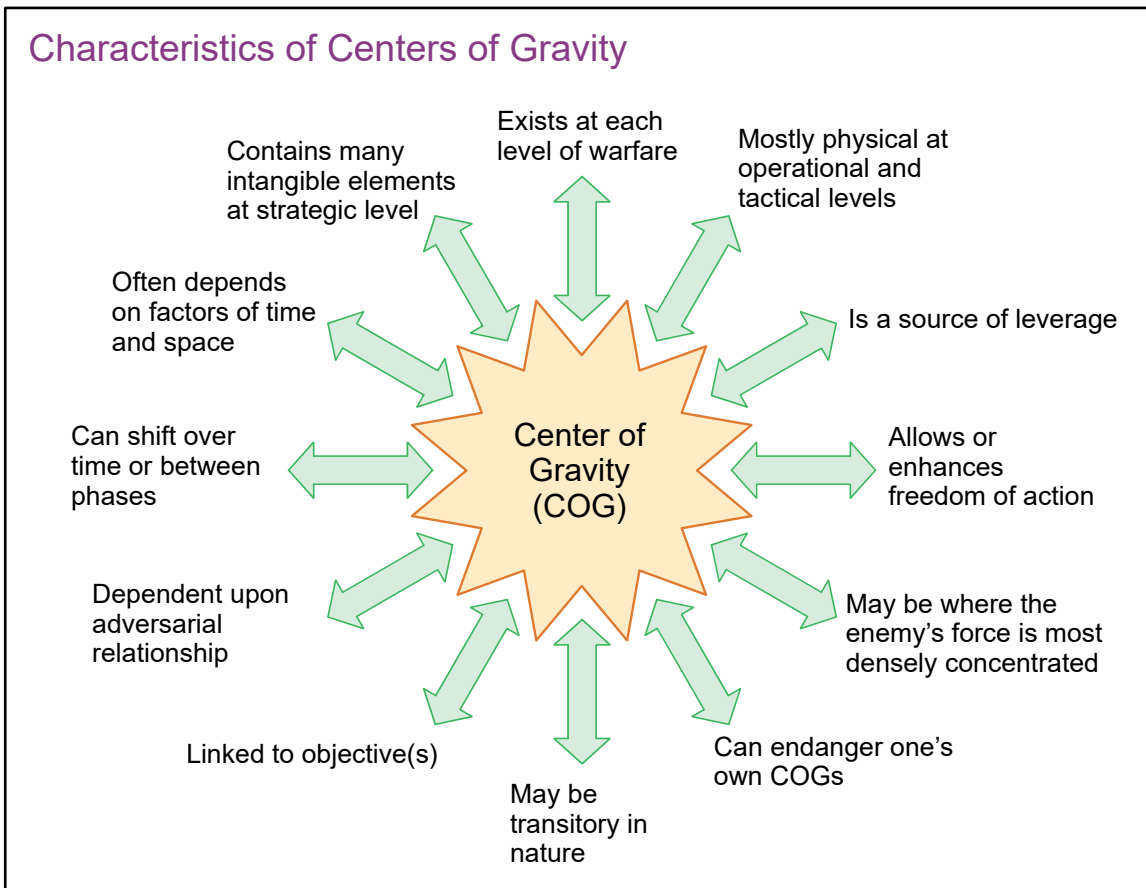
(a) Since COGs exist only in unitary systems, a CCMD TCP or FCP may not have a single COG, as it may be conducting operations along multiple lines that by themselves are not connected (from the US, they may be looked at as a connected system, but they themselves do not act as a single entity).

(b) COGs are formed out of the relationships between adversaries, and they do not exist in a strategic or operational vacuum. COGs are framed by each party's view of the threats in the OE and the requirements to develop/maintain power and strength relative to their need to be effective in accomplishing their objectives. Therefore, commanders not only must consider the enemy's COGs, but they also must identify and protect their own.

(c) Planners should focus on both the enemy's COGs and the friendly's, and understand that through the conduct of operations COGs may change. Assessment aids in identifying these changes. Because objectives are always linked to COGs, changes in objectives may change the COG for both the adversary and the friendly forces.

(3) The COG construct is useful as an analytical tool to help JFCs and staffs analyze friendly and adversary sources of strength as well as weaknesses and vulnerabilities. This process cannot be taken lightly, since a faulty conclusion resulting from a poor or hasty analysis can have very serious consequences, such as the inability to achieve strategic and operational objectives at an acceptable cost. The selection of COGs is not solely a static process by the J-2 during JIPOE. Planners must continually analyze and refine COGs due to actions taken by friendly forces and the adversary's reactions to those actions. Figure IV-9 shows a number of characteristics that may be associated with a COG.

(4) Analysis of friendly and adversary COGs is a key step in operational design. Joint force intelligence analysts identify adversary COGs, determining from which elements the adversary derives freedom of action, physical strength (means), and the will to fight. The J-2, in conjunction with other operational planners, then attempts to determine if the tentative or candidate COGs truly are critical to the adversary's strategy. This analysis is a linchpin in the planning effort. Others on the joint force staff conduct similar analysis to identify friendly COGs. Once COGs have been identified, JFCs and their staffs determine how to attack enemy COGs while protecting friendly COGs. The protection of friendly strategic COGs such as public opinion and US national capabilities typically requires efforts and capabilities beyond those of just the supported CCDR. An analysis of the identified COGs in terms of critical capabilities, requirements, and vulnerabilities is



IV-2 Figure IV-9. Characteristics of Centers of Gravity

vital to this process. As the COG acts as the balance point or focal point that holds the system together, striking it should cause the system to collapse.

(a) Striking the COG and fracturing the system could leave the planner and commander with multiple problems rather than with one, driving up complexity and risk. Even if planners and CCDRs identify a COG, it may not be best to strike it first, if the commander wants to avoid addressing multiple problems or the overall intent is to ensure stability within the system.

(b) Although identifying COGs is useful in understanding the system, planners should refrain from automatically assuming a strike on the COG is the solution to every operation. Consideration must be placed on whether total collapse of the enemy or system is commensurate with the objectives and end state.

(c) Rather, planners may recommend affecting smaller elements of the whole, enabling continued balance until the entire problem is reduced to manageable parts. If the latter approach is taken, planners must take into consideration that as the system changes, the COG, as in the world of physics, may change in relation to the remaining whole.

(d) Similarly, in a cooperative environment such as CCMD campaign plans, operations may be executed to strengthen the COG.

(5) Understanding the relationship among COGs not only permits but also compels greater precision in thought and expression in operational design. Planners should analyze COGs within a framework of three critical factors—capabilities, requirements, and vulnerabilities—to aid in this understanding. **Critical capabilities** are the primary abilities essential to the accomplishment of the objective. **Critical requirements** are essential conditions, resources, and means the COG requires to perform the critical capability. **Critical vulnerabilities** are those aspects or components of critical requirements that are deficient or vulnerable to direct or indirect attack in a manner achieving decisive or significant results. In general, a JFC must possess sufficient operational reach and combat power or other relevant capabilities to take advantage of an adversary's critical vulnerabilities while protecting friendly critical capabilities within the operational reach of an adversary.

(6) When identifying friendly and enemy critical vulnerabilities, the JFC and staff will understandably want to focus their efforts against the critical vulnerabilities that will do the most decisive damage to an enemy's COG. However, in selecting those critical vulnerabilities, planners must also compare their criticality with their accessibility, vulnerability, redundancy, resiliency, and impact on the civilian populace, and then balance those factors against friendly capabilities to affect those vulnerabilities. The JFC should seek opportunities aggressively to apply force against an adversary in as vulnerable an aspect as possible, and in as many dimensions as possible. In other words, the JFC seeks to undermine the adversary's strength by exploiting adversary vulnerabilities while protecting friendly vulnerabilities from adversaries attempting to do the same.

(7) A proper analysis of adversary critical factors must be based on the best available knowledge of how adversaries organize, fight, think, and make decisions, and their physical and psychological strengths and weaknesses. JFCs and their staffs must develop an understanding of their adversaries' capabilities and vulnerabilities, as well as factors that might influence an adversary to abandon its strategic objectives. They must also envision how friendly forces and actions appear from the adversaries' viewpoints. Otherwise, the JFC and the staff may fall into the trap of ascribing to an adversary attitudes, values, and reactions that mirror their own.

(8) Before solidifying COGs into the plan, planners should analyze and test the validity of the COGs. The defeat, destruction, neutralization, or substantial weakening of a valid COG should cause an adversary to change its COA or prevent an adversary from achieving its strategic objectives. If analysis and/or wargaming show this does not occur, then perhaps planners have misidentified the COG, and they must revise their COG and critical factors analysis. The conclusions, while critically important to the planning process itself, must be tempered with continuous evaluations because derived COGs and critical vulnerabilities are subject to change at any time during the campaign or operation. Accordingly, JFCs and their subordinates should be alert to circumstances during execution that may cause derived COGs and critical vulnerabilities to change and adjust friendly plans and operations accordingly.

(9) Commanders must also analyze friendly COGs and identify critical vulnerabilities (see Figure IV-10). For example, long sea and air lines of communications (LOCs) from the continental United States (CONUS) or supporting theaters could be a critical vulnerability for a friendly COG. Through prior planning and coordination, commanders can mitigate the potential impact of challenges such as the failure of foreign governments to provide overflight clearances to US forces or MNFs. A friendly COG could also be something more intangible in nature. During the 1990-1991 Persian Gulf Conflict, for example, the Commander, US Central Command, identified the coalition itself as a friendly operational COG and took appropriate measures to protect it, to include deployment of theater missile defense systems. In conducting the analysis of friendly vulnerabilities, the supported commander must decide how, when, where, and why friendly military forces are (or might become) vulnerable to hostile actions and then plan accordingly. The supported commander must achieve a balance between prosecuting the main effort and protecting critical capabilities and vulnerabilities in the OA to protect friendly COGs.

For more information on COGs and the systems perspective, see JP 2-01.3, Joint Intelligence Preparation of the Operational Environment.

f. Decisive Points

(1) A decisive point is a geographic place, specific key event, critical factor, or function that, when acted upon, allows a commander to gain a marked advantage over an enemy or contributes materially to achieving success (e.g., creating a desired effect, achieving an objective). Decisive points can greatly influence the outcome of an action. Decisive points can be physical in nature, such as a constricted sea lane, a hill, a town,

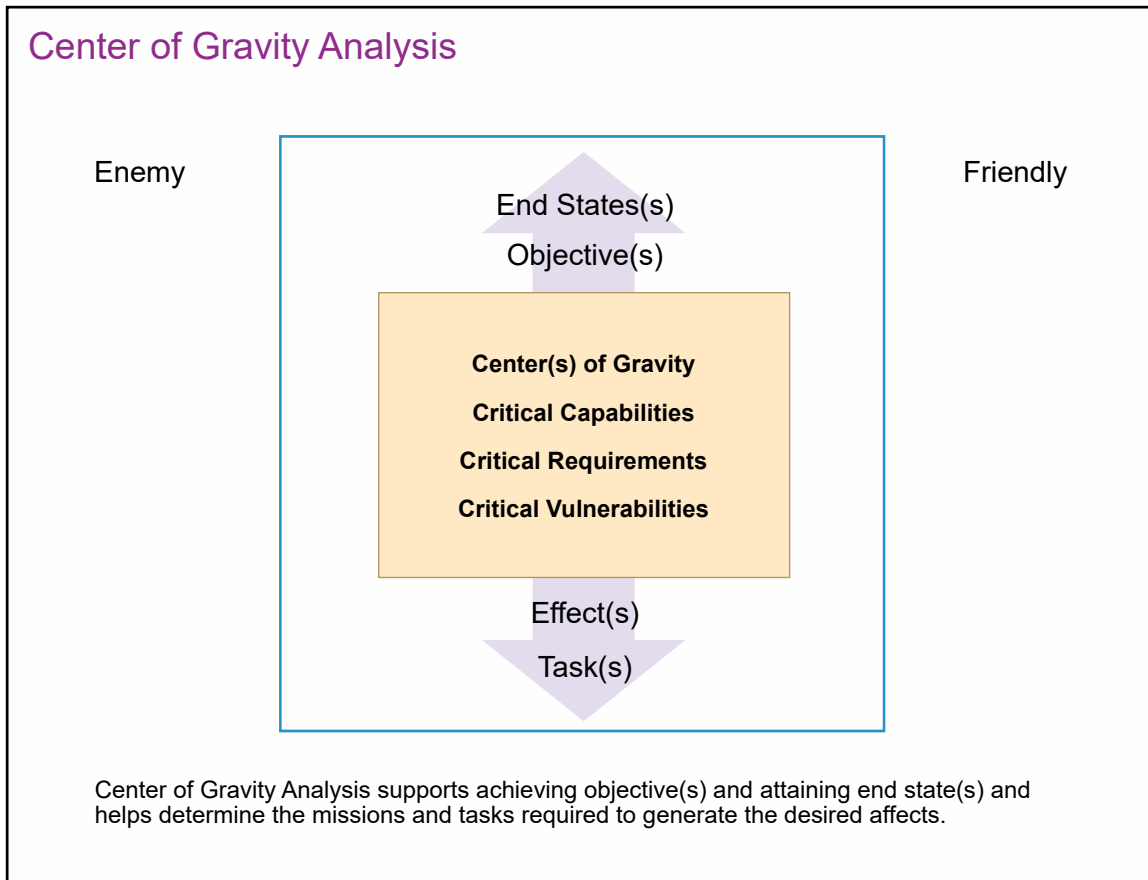


Figure IV-10. Center of Gravity Analysis

weapons of mass destruction material cache or facility, or an air base, but they could include other elements such as command posts, critical boundaries, airspace, or communications and/or intelligence nodes. In some cases, specific key events may also be decisive points, such as attainment of air or maritime superiority, commitment of the enemy's reserve, opening a supply route during humanitarian operations, or gaining the trust of a key leader. In still other cases, decisive points may have a larger systemic impact and, when acted on, can substantially affect the enemy's information, financial, economic, or social systems. When dealing with an irregular threat, commanders and their staffs should consider how actions against decisive points will affect not only the enemy, but also the relevant population's perception of enemy and friendly forces. Collateral effects on the local populace may impact stability in the area or region of interest.

(2) The most important decisive points can be determined from analysis of critical factors. Understanding the relationship between a COG's critical capabilities, requirements, and vulnerabilities can illuminate direct and indirect approaches to the COG. It is likely most of these critical factors will be decisive points, which should then be further addressed in the planning process.

(3) There may often be cases where the JFC's combat power and other capabilities will be insufficient to affect the enemy's COGs rapidly with a single action. In this situation, the supported JFC must selectively focus a series of actions against the

enemy's critical vulnerabilities until the cumulative effects of these actions lead to mission success. Just as a combined arms approach is often the best way to attack an enemy field force in the military system, attacking several vulnerable points in other systems may offer an effective method to influence an enemy COG. The indirect approach may offer the most effective method to exploit enemy critical vulnerabilities through the ID of decisive points. **Although decisive points are usually not COGs, they are the keys to attacking or protecting them.**

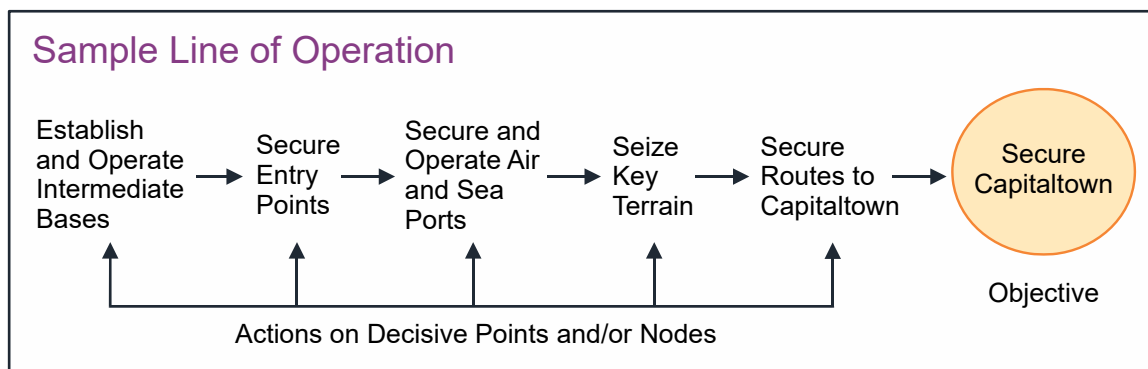
g. LOO and LOE

(1) LOOs

(a) A LOO defines the interior or exterior orientation of the force in relation to the enemy or that connects actions on nodes and/or decisive points related in time and space to an objective(s). LOOs describe and connect a series of decisive actions that lead to control of a geographic or force-oriented objective (see Figure IV-11). Operations designed using LOOs generally consist of a series of actions executed according to a well-defined sequence, although multiple LOOs can exist at the same time (parallel operations). Combat operations are typically planned using LOOs. These lines tie offensive, defensive, and stability tasks to the geographic and positional references in the OA. Commanders synchronize activities along complementary LOOs to attain the military end state.

(b) **A force operates on interior lines when its operations diverge from a central point.** Interior lines usually represent central position, where a friendly force can reinforce or concentrate its elements faster than the enemy force can reposition. With interior lines, friendly forces are closer to separate enemy forces than the enemy forces are to one another. Interior lines allow an isolated force to mass combat power against a specific portion of an enemy force by shifting capabilities more rapidly than the enemy can react.

(c) **A force operates on exterior lines when its operations converge on the enemy.** Operations on exterior lines offer opportunities to encircle and annihilate an enemy force. However, these operations typically require a force stronger or more mobile than the enemy.



IV-28 Figure IV-11. Sample Line of Operation

(d) The relevance of interior and exterior lines depends on the time and space relationship between the opposing forces. Although an enemy force may have interior lines with respect to the friendly force, this advantage disappears if the friendly force is more agile and operates at a higher tempo. Conversely, if a smaller friendly force maneuvers to a position between larger but less agile enemy forces, the friendly force may be able to defeat them in detail before they can react effectively.

(2) LOEs

(a) A LOE links multiple tasks and missions using the logic of purpose—cause and effect—to focus efforts toward establishing operational and strategic conditions. LOEs are essential to operational design when positional references to an enemy or adversary have little relevance, such as in counterinsurgency operations or stability activities. In operations involving many nonmilitary factors, LOEs may be the only way to link tasks, effects, conditions, and the desired end state (see Figure IV-12). LOEs are often essential to helping commanders visualize how military capabilities can support the other instruments of national power. They are a particularly valuable tool when used to achieve unity of effort in operations involving MNFs and civilian organizations, where unity of command is elusive, if not impractical.

(b) Commanders at all levels may use LOEs to develop missions and tasks and to determine force capability requirements. Commanders synchronize and sequence related actions along multiple LOEs. Seeing these relationships helps commanders assess progress toward attaining the end state as forces perform tasks and accomplish missions.

(c) Commanders typically visualize stability activities along LOEs. For stability activities, commanders may consider linking primary stability tasks to their corresponding DOS post-conflict technical sectors. These stability tasks link military actions with the broader interagency effort across the levels of warfare. A full array of LOEs might include offensive and defensive lines, as well as a line for public affairs, information-related capabilities (IRCs), and counter threat finance. All typically produce effects across multiple LOEs.

(d) Commanders and staff should consider cross-cutting LOEs involving more than one instrument of national power in order to create a more effective system for interagency coordination during execution. LOEs planned around functional areas such as diplomacy or economics create unintentional interagency coordination stovepipes during execution, because they are fixed toward the efforts of a single USG department or agency. Cross-cutting LOEs such as establishing essential services or civil security operations create a tendency toward more dynamic and open interagency coordination during execution because they require the synchronization of efforts of multiple USG departments and agencies. This type of construct brings to bear the capabilities and expertise of multiple elements of the USG, which makes it particularly effective toward achieving more complex objectives.

(3) **Combining LOOs and LOEs.** Commanders may use both LOOs and LOEs to connect objectives to a central, unifying purpose. LOEs can also link objectives,

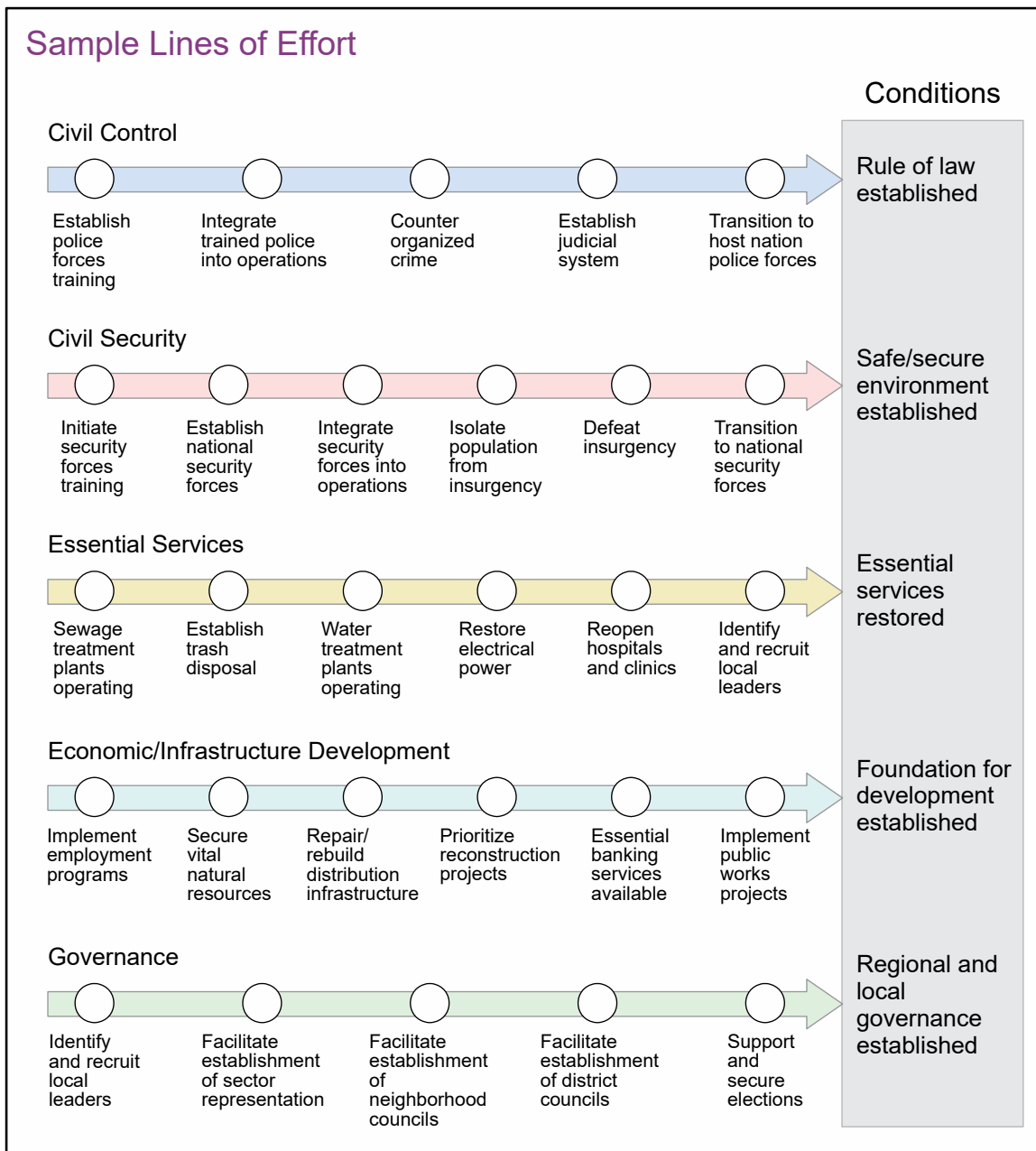


Figure IV-12. Sample Lines of Effort

decisive points, and COGs. Combining LOOs and LOEs allows commanders to include nonmilitary activities in their operational design. This combination helps commanders incorporate stability tasks into their operational approach that are necessary to reach the end state. It allows commanders to consider the less tangible aspects of the OE where the other instruments of national power or nontraditional military activities may dominate. Commanders can then visualize concurrent and post-conflict stability activities. Making these connections relates the tasks, effects, and objectives identified in the operation or campaign plan.

(4) Defeat and stability mechanisms complement COG analysis. While COG analysis helps us understand a problem, defeat and stability mechanisms suggest means to solve it. They provide a useful tool for describing the main effects a commander wants to create along a LOO or LOE.

(a) **Defeat Mechanisms.** Defeat mechanisms primarily apply in combat operations against an active enemy force. Combat aims at defeating armed enemies—regular, irregular, or both, through the organized application of force to kill, destroy, or capture by all means available. There are two basic defeat mechanisms to accomplish this: attrition and disruption. The aim of disruption is to defeat an enemy's ability to fight as a cohesive and coordinated organization. The alternative is to destroy his material capabilities through attrition, which generally is more costly and time-consuming. Although acknowledging that all successful combat involves both mechanisms, joint doctrine conditionally favors disruption because it tends to be a more effective and efficient way of causing an enemy's defeat, and the increasing imperative for restraint in the application of violence may often preclude the alternative. The defeat mechanisms may include:

1. **Destroy.** To identify the most effective way to eliminate enemy capabilities; it may be attained by sequentially applying combat power over time or with a single, decisive attack.

2. **Dislocate.** To compel the enemy to expose forces by reacting to a specific action; it requires enemy commanders to either accept neutralization of part of their force or risk its destruction while repositioning.

3. **Disintegrate.** To exploit the effects of dislocation and destruction to shatter the enemy's coherence; it typically follows destruction and dislocation, coupled with the loss of capabilities that enemy commanders use to develop and maintain situational understanding.

4. **Isolate.** To limit the enemy's ability to conduct operations effectively by marginalizing critical capabilities or limiting the enemy's ability to influence events; it exposes the enemy to continued degradation through the massed effects of other defeat mechanisms.

(b) **Stability Mechanisms.** A stability mechanism is the primary method through which friendly forces affect civilians in order to attain conditions that support establishing a lasting, stable peace. Combinations of stability mechanisms produce complementary and reinforcing effects that help to shape the human dimension of the OE more effectively and efficiently than a single mechanism applied in isolation. Stability mechanisms may include compel, control, influence, and support. Proper application of these stability mechanisms is key in irregular warfare where success is dependent on enabling a local partner to maintain or establish legitimacy and influence over relevant populations.

1. Compel. To maintain the threat—or actual use—of lethal or nonlethal force to establish control and dominance; effect behavioral change; or enforce cessation of hostilities, peace agreements, or other arrangements. Legitimacy and compliance are interrelated. While legitimacy is vital to achieving HN compliance, compliance depends on how the local populace perceives the force’s ability to exercise force to accomplish the mission. The appropriate and discriminate use of force often forms a central component to success in stability activities; it closely ties to legitimacy. Depending on the circumstances, the threat or use of force can reinforce or complement efforts to stabilize a situation, gain consent, and ensure compliance with mandates and agreements. The misuse of force—or even the perceived threat of the misuse of force—can adversely affect the legitimacy of the mission or the military instrument of national power.

2. Control. To establish public order and safety; secure borders, routes, sensitive sites, population centers, and individuals; and physically occupy key terrain and facilities. As a stability mechanism, control closely relates to the primary stability task, establish civil control. However, control is also fundamental to effective, enduring security. When combined with the stability mechanism compel, it is inherent to the activities that comprise disarmament, demobilization, and reintegration, as well as broader security sector reform programs. Without effective control, efforts to establish civil order—including efforts to establish both civil security and control over an area and its population—will not succeed. Establishing control requires time; patience; and coordinated, cooperative efforts across the OA.

3. Influence. To alter the opinions and attitudes of the HN population through IRCs, presence, and conduct. It applies nonlethal capabilities to complement and reinforce the compelling and controlling effects of stability mechanisms. Influence aims to effect behavioral change through nonlethal means. It is more a result of public perception than a measure of operational success. It reflects the ability of forces to operate successfully among the people of the HN, interacting with them consistently and positively while accomplishing the mission. Here, consistency of actions, words, and deeds is vital. Influence requires legitimacy. Military forces earn the trust and confidence of the people through the constructive capabilities inherent to combat power, not through lethal or coercive means. Positive influence is absolutely necessary to achieve lasting control and compliance. It contributes to success across the LOEs and engenders support among the people. Once attained, influence is best maintained by consistently exhibiting respect for, and operating within, the cultural and societal norms of the local populace.

4. Support. To establish, reinforce, or set the conditions necessary for the other instruments of national power to function effectively, coordinating and cooperating closely with HN civilian agencies and assisting aid organizations as necessary to secure humanitarian access to vulnerable populations. Support is vital to a comprehensive approach to stability activities. The military instrument of national power brings unique expeditionary capabilities to stabilization efforts. These capabilities enable the force to quickly address the immediate needs of the HN and local populace. In extreme circumstances, support may require committing considerable resources for a protracted period. However, easing the burden of support on military forces requires enabling civilian

agencies and organizations to fulfill their respective roles. This is typically achieved by combining the effects of the stability mechanisms—compel, control, and influence—to reestablish security and control, restoring essential civil services to the local populace, and helping to secure humanitarian access necessary for aid organizations to function effectively.

h. Direct and Indirect Approach. The approach is the manner in which a commander contends with a COG. A direct approach attacks the enemy's COG or principal strength by applying combat power directly against it. However, COGs are generally well protected and not vulnerable to a direct approach. Thus, commanders usually choose an indirect approach. An indirect approach attacks the enemy's COG by applying combat power against critical vulnerabilities that lead to the defeat of the COG while avoiding enemy strength.

(1) Direct attacks against enemy COGs resulting in their neutralization or destruction provide the most direct path to victory. Since direct attacks against enemy COGs mean attacking an opponent's strength, JFCs must determine if friendly forces possess the power to attack with acceptable risk. Commanders normally attack COGs directly when they have superior forces, a qualitative advantage in leadership, and/or technological superiority over enemy weapon systems. In the event a direct attack is not a reasonable solution, JFCs should consider an indirect approach until conditions are established that permit successful direct attacks (see Figure IV-13). Whenever applicable, JFCs should consider developing simultaneous and/or synchronized action with both direct and indirect approaches. In this manner, the adversary's derived vulnerabilities can offer indirect pathways to gain leverage over its COGs.

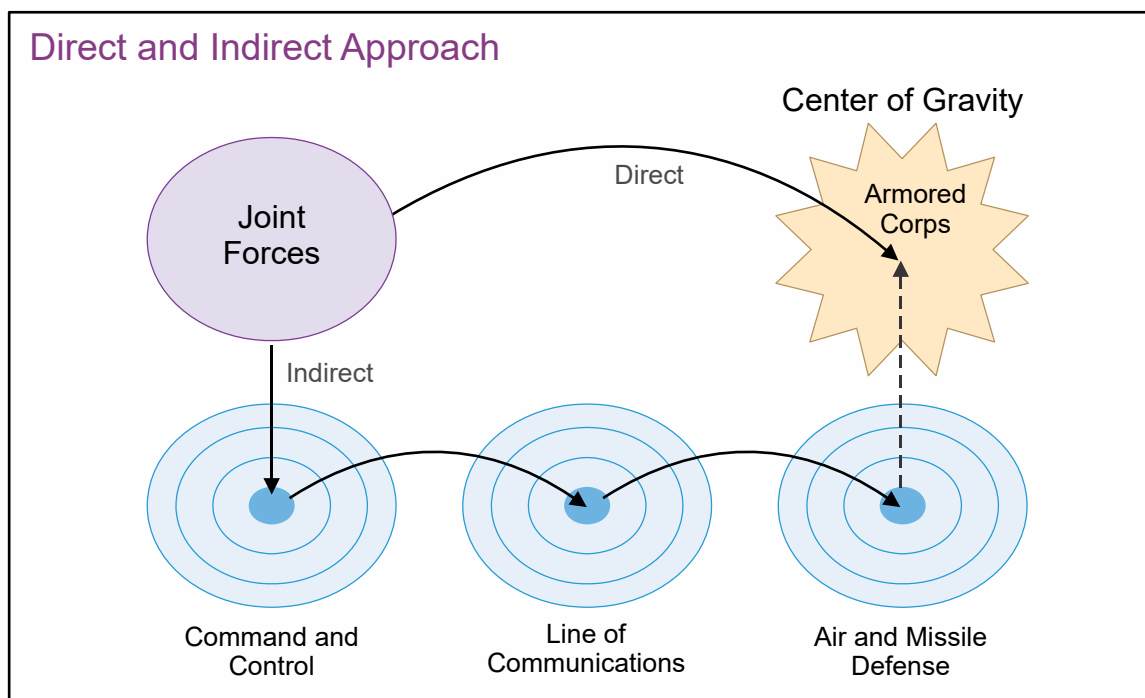


Figure IV-13. Direct and Indirect Approach

(2) At the strategic level, indirect methods of defeating the adversary's COG could include depriving the adversary of allies or friends, emplacing sanctions, weakening the national will to fight by undermining the public support for war, and breaking up cohesion of adversary alliances or coalitions.

(3) At the operational level, the most common indirect method of defeating an enemy's COGs is to conduct a series of attacks against selected aspects of the enemy's combat power. For example, the JFC may sequence combat actions to force an enemy to divide its forces in theater, destroy the enemy's reserves or elements of the enemy's base of operations, or prevent or hinder the deployment of the enemy's major forces or reinforcements into the OA. Indirect methods of attacking the enemy's COGs (through critical vulnerabilities) could entail reducing the enemy's operational reach, isolating the force from its command and control (C2), and destroying or suppressing key protection functions such as air defense. Additionally, in irregular warfare, a persistent indirect approach will help enable a legitimate and capable local partner to address the conflict's causes and to provide security, good governance, and economic development.

i. Anticipation

(1) Anticipation is key to effective planning. JFCs must consider what might happen and look for the signs that may bring the possible event to pass. During execution, JFCs should remain alert for the unexpected and for opportunities to exploit the situation. They continually gather information by personally observing and communicating with higher headquarters, subordinates, partner nations, and other organizations in the OA. JFCs may avoid surprise by gaining and maintaining the initiative at all levels of command and throughout the OA, thus forcing the adversary to react rather than initiate, and by thoroughly and continuously wargaming to identify probable adversary reactions to joint force actions. JFCs should also realize the effects of operations and associated consequences on the adversary, interagency and multinational partners, and civilians and prepare for their results.

(2) Shared, common understanding of the OE aids commanders and their staffs in anticipating opportunities and challenges. Knowledge of friendly capabilities; adversary capabilities, intentions, and likely COAs; and the location, activities, and status of dislocated civilians enables commanders to focus joint efforts where they can best, and most directly, contribute to achieving military objectives.

(3) Anticipation is critical to the decision-making process. Operations often require that decisions are made in the advance of need. Decisions such as to mobilize reserves or deploy or reposition forces require anticipation to ensure those requirements are available when needed or when an opportunity arises.

(4) **Anticipation is not without risk.** Commanders and staff officers who tend to lean forward in anticipation of what they expect to encounter are more susceptible to deception efforts by an opponent or having forces out of position if opportunities or threats appear in other places. Therefore, commanders and their staffs should carefully consider all available information upon which decisions are being based. Where possible, multiple

or redundant sources of information should be employed to reduce risk in the decision-making process.

j. Operational Reach

(1) Operational reach is the distance and duration across which a joint force can successfully employ military capabilities. Reach may be constrained by the geography, threats, and environmental conditions in and around the OA. Reach may be extended through forward positioning of capabilities and resources, using IRCs, increasing the range and effectiveness of weapon systems, leveraging HNS and contracted support (e.g., system support, external support, theater support) and maximizing the throughput efficiency of the distribution architecture. Operational reach can be unintended. Joint force messages and images may reach outside the OA to unintended audiences creating effects that are contrary to the JFC's objectives. This type of operational reach can be mitigated with properly synchronized communication and proper execution of operations security procedures.

(2) The concept of operational reach is inextricably tied to the concept of LOOs. The geography surrounding and separating our adversaries influences operational reach. Locating forces, reserves, bases, pre-positioned equipment sets, and logistics forward extends operational reach. Operational reach is also affected by increasing the range of weapons and by improving transportation availability and the effectiveness of LOCs and throughput capability. Given the appropriate level of superiority, some assets—such as air, space, and cyberspace—maintain a responsive global capability that significantly extends operational reach. Nevertheless, for any given campaign or major operation, there is a finite range beyond which predominant elements of the joint force cannot prudently operate or maintain effective operations.

(3) Basing, in the broadest sense, is an indispensable part of operational art, since it is tied to the concept of LOOs and directly affects operational reach. Whether from overseas locations, sea-based platforms, or CONUS, basing directly affects the combat power and other capabilities that a joint force can generate. In particular, the arrangement and positioning of advanced bases (often in austere, rapidly emplaced configurations) underwrites the ability of the joint force to shield its components from adversary action and deliver symmetric and asymmetric blows. It also directly influences the combat power and other capabilities the joint force can generate because of its impact on such critical factors as sortie or resupply rates. Political and diplomatic considerations can often affect basing decisions.

(4) US force basing options span the range from permanently based forces to temporary seabasing during crisis response in littoral areas of instability. Bases are typically selected to be within operational reach of the adversary. To that end, analysis during planning must determine whether sufficient infrastructure, destination port and airfield capacities, and diplomatic support exist or can be obtained to support the operational and sustainment requirements of deployed forces, and where they can be assured of some degree of security from attack. Determining where to locate infrastructure and bases poses critical challenges for planners since infrastructure and basing play a key role in enabling campaigns and operations. Adversaries will likely try to develop

antiaccess or area denial capabilities to prevent the buildup and sustainment of forces. One such approach could be a preemptive attack against US forces located outside the adversary's boundaries, so planners must also consider the risk of placing US combat capabilities within the adversary's operational reach. Planners must determine how to mitigate an adversary's efforts to deny access to the theater and its infrastructure and conduct operations as part of the theater campaign to set conditions for future operations.

k. Culmination

(1) Culmination is that point in time and/or space at which the operation can no longer maintain momentum. In the offense, the culminating point is the point at which effectively continuing the attack is no longer possible and the force must consider reverting to a defensive posture or attempting an operational pause. Here the attacker greatly risks counterattack and defeat and continues the attack only at great peril. Success in the attack at all levels is to secure the objective before reaching culmination. A defender reaches culmination when the defending force no longer has the capability to go on the counteroffensive or defend successfully. Success in the defense is to draw the attacker to offensive culmination, then conduct an offensive to expedite the enemy's defensive culmination. During stabilization efforts, culmination may result from the erosion of national will, decline of popular support, questions concerning legitimacy or restraint, or lapses in protection leading to excessive casualties.

(2) The JFC must ensure forces and assets arrive at the right times and places to support the campaign and that sufficient resources will be available when needed in the later stages of the campaign. Integration and synchronization of sustainment with combat operations can forestall culmination and help commanders control the tempo of their operations. At both tactical and operational levels, theater logistic planners forecast the drain on resources associated with conducting operations over extended distance and time. They respond by generating enough military resources at the right times and places to enable their commanders to achieve military strategic and operational objectives before reaching their culminating points. If commanders cannot generate these resources, they should revise their CONOPS.

1. Arranging Operations

(1) Commanders must determine the best arrangement of joint force and component operations to conduct the assigned tasks and joint force mission. This arrangement often will be a combination of simultaneous and sequential operations to reach the end state conditions with the least cost in personnel and other resources. Commanders consider a variety of factors when determining this arrangement, including geography of the OA, available strategic lift, changes in command structure, force protection, distribution and sustainment capabilities, adversary reinforcement capabilities, and public opinion. Thinking about the best arrangement helps determine the tempo of activities in time, space, and purpose. Planners should consider factors such as simultaneity, depth, timing, and tempo when arranging operations.

(a) **Simultaneity refers to the simultaneous application of integrated military and nonmilitary power against the enemy's key capabilities and sources of strength.** Simultaneity in joint force operations contributes directly to an enemy's collapse by placing more demands on enemy forces and functions than can be handled. This does not mean all elements of the joint force are employed with equal priority or that even all elements of the joint force will be employed. It refers specifically to the concept of attacking appropriate enemy forces and functions throughout the OE in such a manner as to damage their morale and physical cohesion.

(b) **Simultaneity also refers to the concurrent conduct of operations at the tactical, operational, and strategic levels.** Tactical commanders fight engagements and battles, understanding their relevance to the contingency plan. JFCs set the conditions for battles within a major operation or campaign to achieve military strategic and operational objectives. GCCs integrate theater strategy and operational art. At the same time, they remain acutely aware of the impact of tactical events. Because of the inherent interrelationships between the various levels of warfare, commanders cannot be concerned only with events at their respective echelon, so commanders at all levels should understand how their actions contribute to the military end state.

(c) The evolution of warfare and advances in technology have expanded the depth of operations. US joint forces can rapidly maneuver over great distances and strike with precision. Joint force operations should be conducted across the full breadth and depth of the OA, creating competing and simultaneous demands on enemy commanders and resources. **The concept of depth seeks to overwhelm the enemy throughout the OA, creating competing and simultaneous demands on enemy commanders and resources and contributing to the enemy's speedy defeat.** Depth applies to time as well as geography. Operations extended in depth shape future conditions and can disrupt an opponent's decision cycle. Global strike, interdiction, and the integration of IRCs with other capabilities are examples of the applications of depth in joint operations. Operations in depth contribute to protection of the force by destroying enemy potential before its capabilities can be realized or employed.

(d) The joint force should conduct operations at a tempo and point in time that maximizes the effectiveness of friendly capabilities and inhibits the adversary. **With proper timing, JFCs can dominate the action, remain unpredictable, and operate beyond the enemy's ability to react.**

(e) The **tempo** of warfare has increased over time as technological advancements and innovative doctrines have been applied to military requirements. While in many situations JFCs may elect to maintain an operational tempo that stretches the capabilities of both friendly and enemy forces, on other occasions JFCs may elect to conduct operations at a reduced pace. During selected phases of a campaign, JFCs could reduce the pace of operations, frustrating enemy commanders while buying time to build a decisive force or tend to other priorities in the OA such as relief to displaced persons. During other phases, JFCs could conduct high-tempo operations designed specifically to overwhelm enemy defensive capabilities. Assuring strategic mobility preserves the JFC's ability to control tempo by allowing freedom of theater access.

(2) Several tools are available to planners to assist with arranging operations. Phases, branches and sequels, operational pauses, and the development of a notional TPFDD all improve the ability of the planner to arrange, manage, and execute complex operations.

(a) **Phases.** Phasing is a way to view and conduct a complex joint operation in manageable parts. The main purpose of phasing is to integrate and synchronize related activities, thereby enhancing flexibility and unity of effort during execution. Reaching the end state often requires arranging an operation or campaign in several phases. Phases in a contingency plan are sequential, but during execution there will often be some simultaneous and overlapping execution of the activities within the phases. In a campaign, each phase can represent a single major operation; while in a major operation, a phase normally consists of several subordinate operations or a series of related activities. See Section D, “Phasing,” for a more detailed discussion.

(b) **Branches and Sequels.** Many plans require adjustment beyond the initial stages of the operation. Consequently, JFCs build flexibility into plans by developing branches and sequels to preserve freedom of action in rapidly changing conditions. They are primarily used for changing deployments or direction of movement and accepting or declining combat.

1. Branches provide a range of alternatives often built into the basic plan. Branches add flexibility to plans by anticipating situations that could alter the basic plan. Such situations could be a result of adversary action, availability of friendly capabilities or resources, or even a change in the weather or season within the OA.

2. Sequels anticipate and plan for subsequent operations based on the possible outcomes of the current operation—victory, defeat, or stalemate.

3. Once the commander and staff have determined possible branches and sequels as far in advance as practicable, they should determine what or where the **decision points** (not to be confused with decisive points) should be. Such decision points capture in space and/or time decisions a commander must make. To aid the commander, planners develop synchronization matrices as well as a decision support matrix (DSM) to link those decision points with the earliest and latest timing of the decision and the appropriate priority intelligence requirements (PIRs) (things the commander must know about the enemy and the OE to make the decision) and friendly force information requirements (FFIRs) (things the commander must know about friendly forces to make the decision). **Each branch from a decision point requires different actions, and each action demands various follow-up actions, such as sequels or potential sequels.**

(c) Operational Pause

1. The supported JFC should aggressively conduct operations to obtain and maintain the initiative. However, there may be certain circumstances when this is not feasible because of logistic constraints or force shortfalls. Therefore, **operational pauses may be required when a major operation may be reaching the end of its sustainability.**

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As such, operational pauses can provide a safety valve to avoid potential culmination, while the JFC retains the initiative in other ways. However, if an operational pause is properly executed in relation to one's own culminating point, the enemy will not have sufficient combat power to threaten the joint force or regain the initiative during the pause.

2. Operational pauses are also useful tools for obtaining the proper synchronization of sustainment and operations. Normally, operational pauses are planned to regenerate combat power or augment sustainment and forces for the next phase, although this will result in extending the duration of a major operation or campaign. Moreover, **properly planned and sequenced operational pauses ensure the JFC has sufficient forces and assets to accomplish strategic or operational objectives.** However, planners must guard against cutting the margin of sustainment and combat effectiveness too thin. Executing a pause before it is necessary provides for flexibility in the timing of the pause and allows for its early termination under urgent conditions without unduly endangering the future effectiveness of the force.

3. Operational pauses can also be times to support strategic decisions, such as offer opportunities for de-escalation and negotiation.

4. The primary drawback to operational pauses is that they risk forfeiture of strategic or operational initiative. It is therefore incumbent upon the JFC to plan on as few operational pauses as possible, if any, and consistent with the CONOPS, to alternate pauses and tempo between components of the force. In this manner, a major portion of the joint force can maintain pressure on the enemy through offensive actions while other components pause. Additionally, operational pauses can provide opportunities for military deception if planned in advance.

(d) Realistic plans, branches, sequels, orders, and an accurate TPFDD are important to enable the proper sequencing of operations. Further, the dynamic nature of modern military operations requires adaptability concerning the arrangement of military capabilities in time, space, and purpose. For example, a rapidly changing enemy situation or other aspects of the OE may cause the commander to alter the planned arrangement of operations even as forces are deploying. Therefore, maintaining overall force visibility, to include both in-transit visibility and asset visibility, are critical to maintaining flexibility. The arrangement that the commander chooses should not foreclose future options.

m. Forces and Functions

(1) Commanders and planners can plan campaigns and operations that focus on defeating either enemy forces, functions, or a combination of both. Typically, JFCs structure operations to attack both enemy forces and functions concurrently to create the greatest possible friction between friendly and enemy forces and capabilities. These types of operations are especially appropriate when friendly forces enjoy technological and/or numerical superiority over an opponent.

(2) JFCs can focus on destroying and disrupting critical enemy functions such as C2, sustainment, and protection. An attack an enemy's functions normally is intended to

destroy the enemy's balance, thereby creating vulnerabilities to be exploited. The direct effect of destroying or disrupting critical enemy functions can create the indirect effects of uncertainty, confusion, and even panic in enemy leadership and forces and may contribute directly to the collapse of enemy capability and will. When determining whether functional attack should be the principal operational approach, JFCs should evaluate several variables within the context of anticipated events such as time required to cripple the enemy's critical functions, time available to the JFC, the enemy's current actions, and likely responses to such actions.

SECTION D. PHASING

16. Application

a. **A phase can be characterized by the focus that is placed on it.** Phases are distinct in time, space, and/or purpose from one another, but must be planned in support of each other and should represent a natural progression and subdivision of the campaign or operation. Each phase should have a set of starting conditions that define the start of the phase and ending conditions that define the end of the phase. The ending conditions of one phase are the starting conditions for the next phase.

b. Phases are necessarily linked and gain significance in the larger context of the campaign. As such, it is imperative the campaign or operation not be broken down into numerous arbitrary components that may inhibit tempo and lead to a plodding, incremental approach. Since a campaign is required whenever pursuit of a strategic objective is not attainable through a single major operation, the theater operational design includes provision for related phases that may or may not be executed.

c. Activities in phases may overlap. The commander's vision of how a campaign or operation should unfold drives subsequent decisions regarding phasing. Phasing, in turn, assists with synchronizing the CONOPS and aids in organizing the assignment of tasks to subordinate commanders. By arranging operations and activities into phases, the JFC can better integrate capabilities and synchronize subordinate operations in time, space, and purpose. Each phase should represent a natural subdivision of the campaign or operation's intermediate objectives. As such, a phase represents a definitive stage during which a large portion of the forces and joint/multinational capabilities are involved in similar or mutually supporting activities.

d. As a general rule, the phasing of the campaign or operation should be conceived in condition-driven rather than time-driven terms. However, resource availability depends in large part on time-constrained activities and factors—such as sustainment or deployment rates—rather than the events associated with the operation. The challenge for planners, then, is to reconcile the reality of time-oriented deployment of forces and sustainment with the condition-driven phasing of operations.

e. Effective phasing must address how the joint force will avoid reaching a culminating point. If resources are insufficient to sustain the force until attaining the end state, planners should consider phasing the campaign or operation to account for necessary

operational pauses between phases. Such phasing enables the reconstitution of the joint force during joint operations, but the JFC must understand this may provide the adversary an opportunity to reconstitute as well. In some cases, sustainment requirements, diplomatic factors, and political factors within the HN may even dictate the purpose of certain phases as well as the sequence of those phases. For example, phases may shift the main effort among Service and functional components to maintain momentum while one component is being reconstituted.

f. Commanders determine the number and purpose phases used during a campaign or operation. The use of the phases provides a way to arrange combat and stability activities. **Within the context of these phases established by a higher-level JFC, subordinate JFCs and component commanders may establish additional phases that fit their CONOPS.** For example, the joint force land component commander (JFLCC) or a subordinate commander might have the following four activities inside a phase to seize the initiative: deploy, forcible entry, defense, and offense. The JFLCC could use the offense phase as a transition to the GCC's dominate phase.

17. Number, Sequence, and Overlap

Working within the phasing construct, the actual phases used will vary (compressed, expanded, or omitted entirely) with the joint campaign or operation and will be determined by the JFC. During planning, the JFC establishes conditions, objectives, or events for transitioning from one phase to another and plans sequels and branches for potential contingencies. Phases are designed to be conducted sequentially, but some activities from a phase may begin in a previous phase and continue into subsequent phases. The JFC adjusts the phases to exploit opportunities presented by the adversary or operational situation or to react to unforeseen conditions. A joint campaign or operation may be conducted in multiple phases simultaneously if the OA has widely varying conditions. For instance, the commander may transition to stabilization efforts in some areas while still conducting combat operations in other areas where the enemy has not yet capitulated. Occasionally, operations may revert to a previous phase in an area where a resurgent or new enemy reengages friendly forces.

18. Transitions

Transitions between phases are planned as distinct shifts in focus by the joint force, often accompanied by changes in command or support relationships. The activities that predominate during a given phase, however, rarely align with neatly definable breakpoints. The need to move into another phase is normally identified by assessing that a set of objectives are achieved or that the enemy has acted in a manner that requires a major change in focus for the joint force and is therefore usually event driven, not time driven. Changing the focus of the operation takes time and may require changing commander's objectives, desired effects, measures of effectiveness (MOEs), measures of performance (MOPs), priorities, command relationships, force allocation, or even the approach. An example is the shift of focus from sustained combat operations to a preponderance of stability activities. Hostilities gradually lessen as the joint force facilitates reestablishing order, commerce, and local government and deters adversaries from resuming hostile

actions while the US and international community take steps to establish or restore the conditions necessary for long-term stability. This challenge demands an agile shift in joint force skill sets, actions, organizational behaviors, and mental outlooks, and interorganizational coordination with a wider range of interagency and multinational partners and other participants to provide the capabilities necessary to address the mission-specific factors.

5. A Joint Operation Model

a. Most individual joint operations share certain activities or actions in common. These include forming a joint HQ, deploying and redeploying capabilities (forces, materiel, etc.), and interacting with other interorganizational participants. Some activities can also

characterize specific types of operations such as large-scale combat, FHA, and COIN. For example, Figure V-4 shows six general groups of military activities that may typically occur in preparation for and during a single large-scale joint combat operation.

b. The nature of operations and activities during a typical joint combat operation will change from its beginning (when the CJCS issues the execute order) to the operation's end (when the joint force disbands and components return to a pre-operation status). **Shaping** activities usually precede the operation and may continue during and after the operation. The purpose of **shaping** activities is to help set the conditions for successful execution of the operation. Figure V-4 shows that from deter through enable civil authority, the operations and activities in these groups vary in magnitude—time, intensity, forces, etc.—as the operation progresses (the relative magnitudes in the figure are notional). At various points in time, each specific group might characterize the main effort of the joint force.

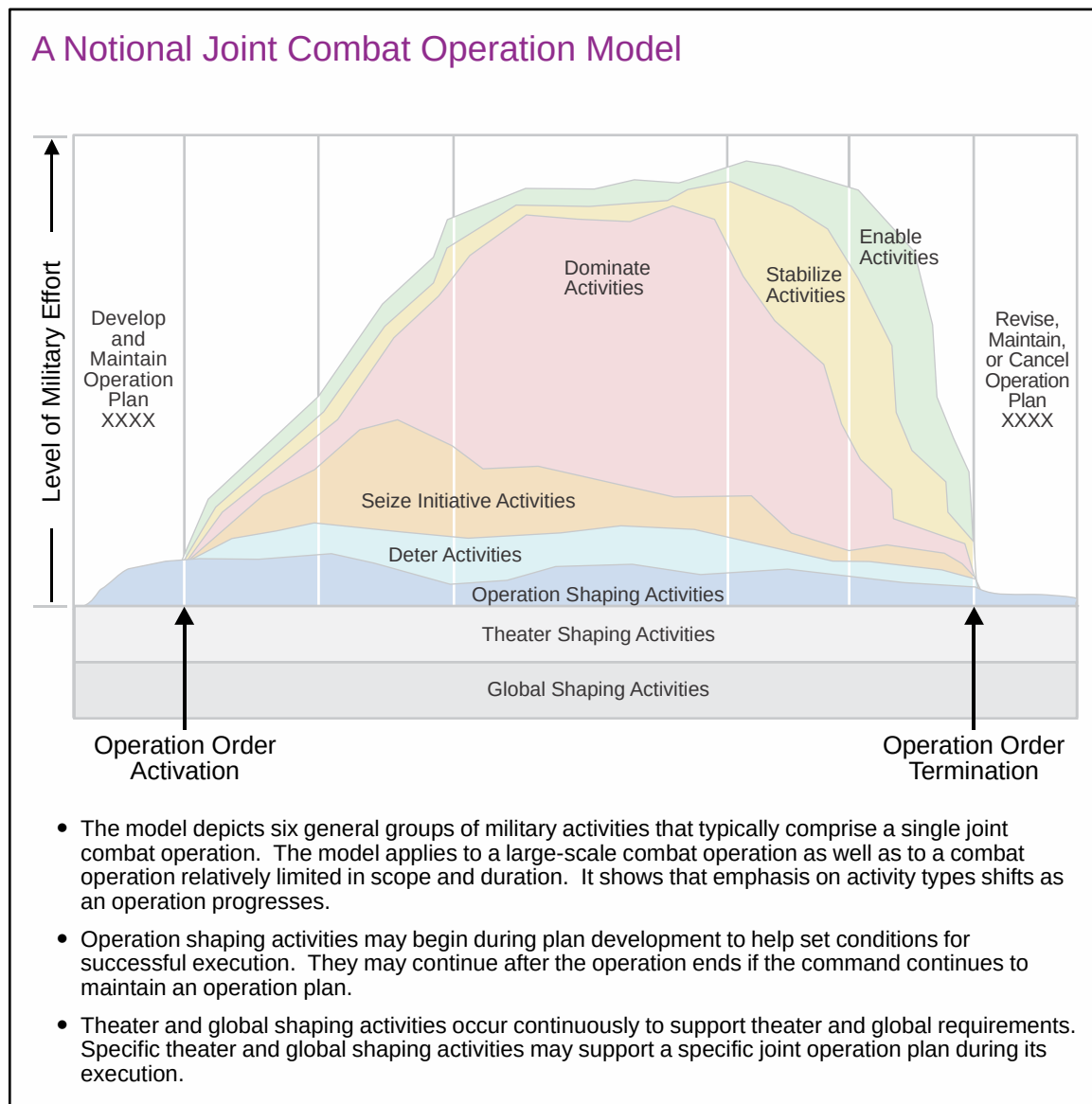


Figure V-4. A Notional Joint Combat Operation Model

For example, **dominate** activities would characterize the main effort after the joint force **seizes the initiative** until the enemy no longer is able to effectively resist. Even so, activities in the other groups would usually occur concurrently at some level of effort. The following paragraphs provide more information on the nature of these activities.

(1) **Shape**

(a) In general, shaping activities help set conditions for successful theater operations. Shaping activities include long-term persistent and preventive military engagement, security cooperation, and deterrence actions to assure friends, build partner capacity and capability, and promote regional stability. They help identify, deter, counter, and/or mitigate competitor and adversary actions that challenge country and regional stability. A GCC's TCP provides these and other activities tasked by SecDef/CJCS strategic guidance in pursuit of national objectives. Likewise, CCDRs may direct more focused geographic and functional shaping activities at the potential execution of specific contingency plans for various types of operations. In the best case, shaping activities may avert or diminish conflict. At the least, shaping provides a deeper, and common, understanding of the OE. Preparatory intelligence activities inform operation assessment, planning, and execution to improve the JFC's understanding of the OE.

(b) Shaping activities are largely conducted through other interorganizational participants (e.g., USG departments and agencies, PNs), with DOD in a supporting role. Where US and PN interests converge, cooperation is possible. Some partners are quite capable already; others may benefit from US assistance. When a nation shares our interests and has the capacity to absorb US training, regional security can be increased. Military engagement and security cooperation activities are executed continuously to enhance international legitimacy and gain multinational cooperation. These activities should improve perceptions and influence adversaries' and allies' behavior, develop allied and friendly military capabilities for self-defense and multinational operations, improve information exchange and intelligence sharing, provide US forces with peacetime and contingency access, and positively affect conditions that could lead to a crisis. These activities prepare the OE in advance to facilitate access, should contingency operations be required. The joint community, in concert with multinational and interagency partners, must maintain and exercise strong regional partnerships as essential shaping activities in peacetime to ensure operational access during plan execution. For example, obtaining and maintaining rights of navigation and overflight help ensure global reach and rapid projection of military power.

(2) **Deter.** Successful deterrence prevents an adversary's undesirable actions, because the adversary perceives an unacceptable risk or cost of acting. Deterrent actions are generally weighted toward protection and security activities that are characterized by preparatory actions to protect friendly forces, assets, and partners, and indicate the intent to execute subsequent phases of the planned operation. A number of FDOs, FROs, and force enhancements could be implemented during this phase. The nature of these options varies according to the nature of the adversary (e.g., traditional or irregular, state or non-state), the adversary's actions, US national objectives, and other factors. Once a crisis is defined, these actions may include mobilization, tailoring of forces, and other

predeployment activities; initial deployment into a theater; employment of intelligence collection assets; and development of mission-tailored C2, intelligence, force protection, and logistic requirements to support the JFC's CONOPS. CDRs continue to conduct military engagement with multinational partners to maintain access to areas, thereby providing the basis for further crisis response. Many deterrent actions build on security cooperation activities. They can also be part of stand-alone operations.

(3) **Seize Initiative.** JFCs seek to seize the initiative in all situations through decisive use of joint force capabilities. In combat, this involves both defensive and offensive operations at the earliest possible time, forcing the enemy to culminate offensively and setting the conditions for decisive operations. Rapid application of joint combat power may be required to delay, impede, or halt the enemy's initial aggression and to deny the enemy its initial objectives. Operations to gain access to theater infrastructure and expand friendly freedom of action continue during this phase, while the JFC seeks to degrade enemy capabilities with the intent of resolving the crisis at the earliest opportunity.

(4) **Dominate.** These actions focus on breaking the enemy's will to resist or, in noncombat situations, to control the OE. Successful domination depends on overmatching enemy capabilities at critical times and places. Joint force options include attacking weaknesses at the leading edge of the enemy's defensive perimeter to roll enemy forces back, and striking in depth to threaten the integrity of the enemy's A2/AD, offensive weapons and force projection capabilities, and defensive systems. Operations can range from large-scale combat to various stability actions depending on the nature of the enemy. Dominating activities may establish the conditions to achieve strategic objectives early or may set the conditions for transition to a subsequent phase of the operation.

(5) **Stabilize.** These actions and activities are typically characterized by a shift in focus from sustained combat operations to stability activities. These operations help reestablish a safe and secure environment and provide essential government services, emergency infrastructure reconstruction, and humanitarian relief. The intent is to help restore local political, economic, and infrastructure stability. Civilian officials may lead operations during part or all of this period, but the JFC typically will provide significant supporting capabilities and activities. The joint force may be required to perform limited local governance (i.e., military government), and integrate the efforts of other supporting interagency and multinational partners until legitimate local entities are functioning. The JFC continuously assesses the impact of operations on the ability to transfer authority for remaining requirements to a legitimate civil entity.

(6) **Enable Civil Authority.** Joint force support to legitimate civil governance typically characterizes these actions and activities. The commander provides this support by agreement with the appropriate civil authority. In some cases, especially for operations within the US, the commander provides this support under direction of the civil authority. The purpose is to help the civil authority regain its ability to govern and administer to the services and other needs of the population. The military end state typically is reached during this phase, signaling the end of the joint operation. CCMD involvement with other nations and other government agencies beyond the termination of the joint operation, such as lower-level stability activities and FHA, may be required to achieve national objectives.

For more information on stability activities, refer to JP 3-07, Stability.

c. Some joint operations below the level of large-scale combat will have distinguishable groups of activity. However, activities may be compressed or absent entirely according to the nature of the operation. For example, deployment of forces associated with **seize the initiative** activities may have a deterrent effect sufficient to dissuade an enemy from conducting further operations, returning the OE to a more stable state. Likewise, although FID and NEO may occur as supporting operations to larger combat operations in the OA, they will have no evident dominating activities. Figure V-5 shows a notional successful joint strike, which did not require follow-on operations. Figure V-6 shows a notional FHA operation that required predominantly stabilize and enable civil authority activities.

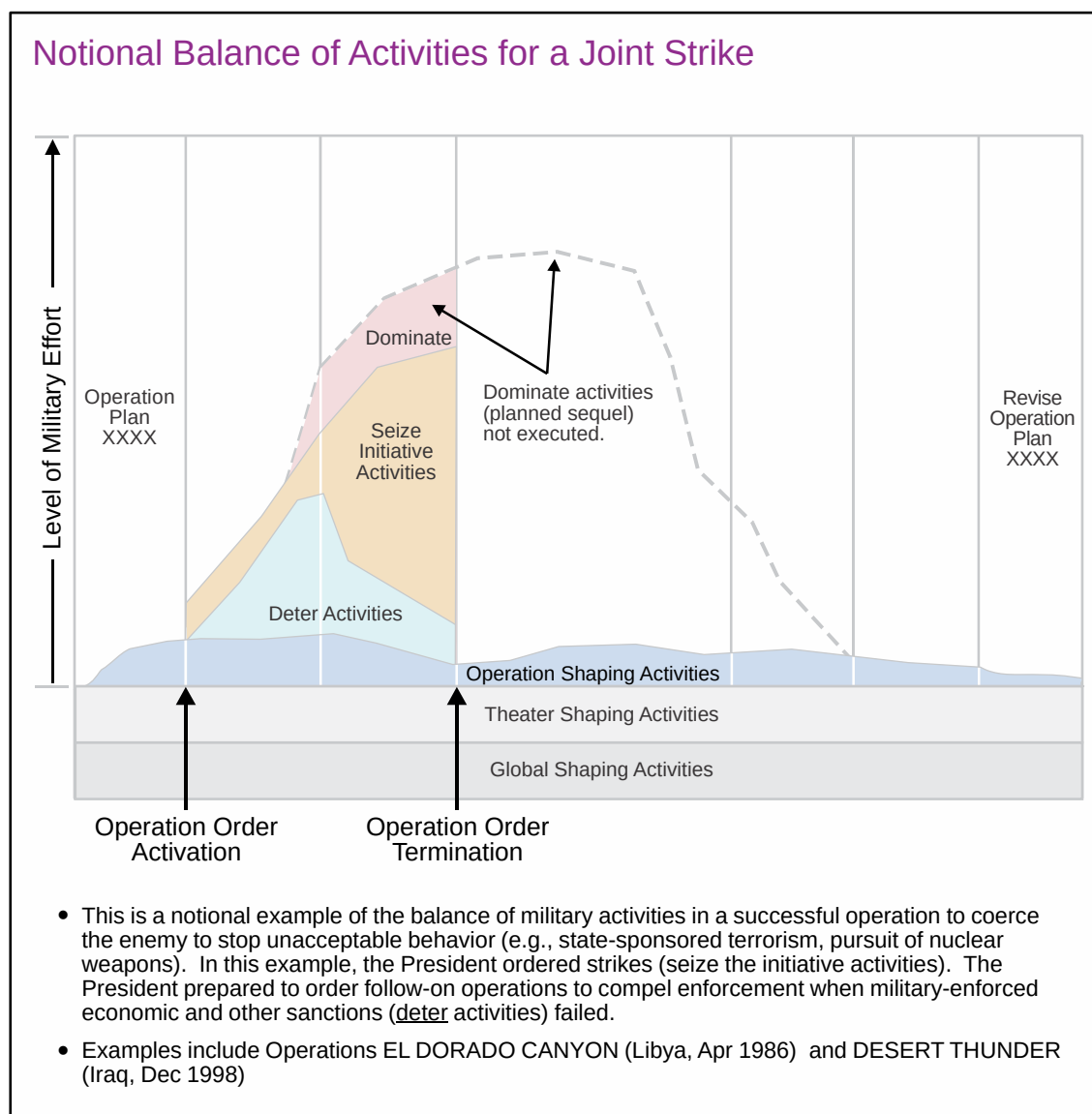


Figure V-5. Notional Balance of Activities for a Joint Strike

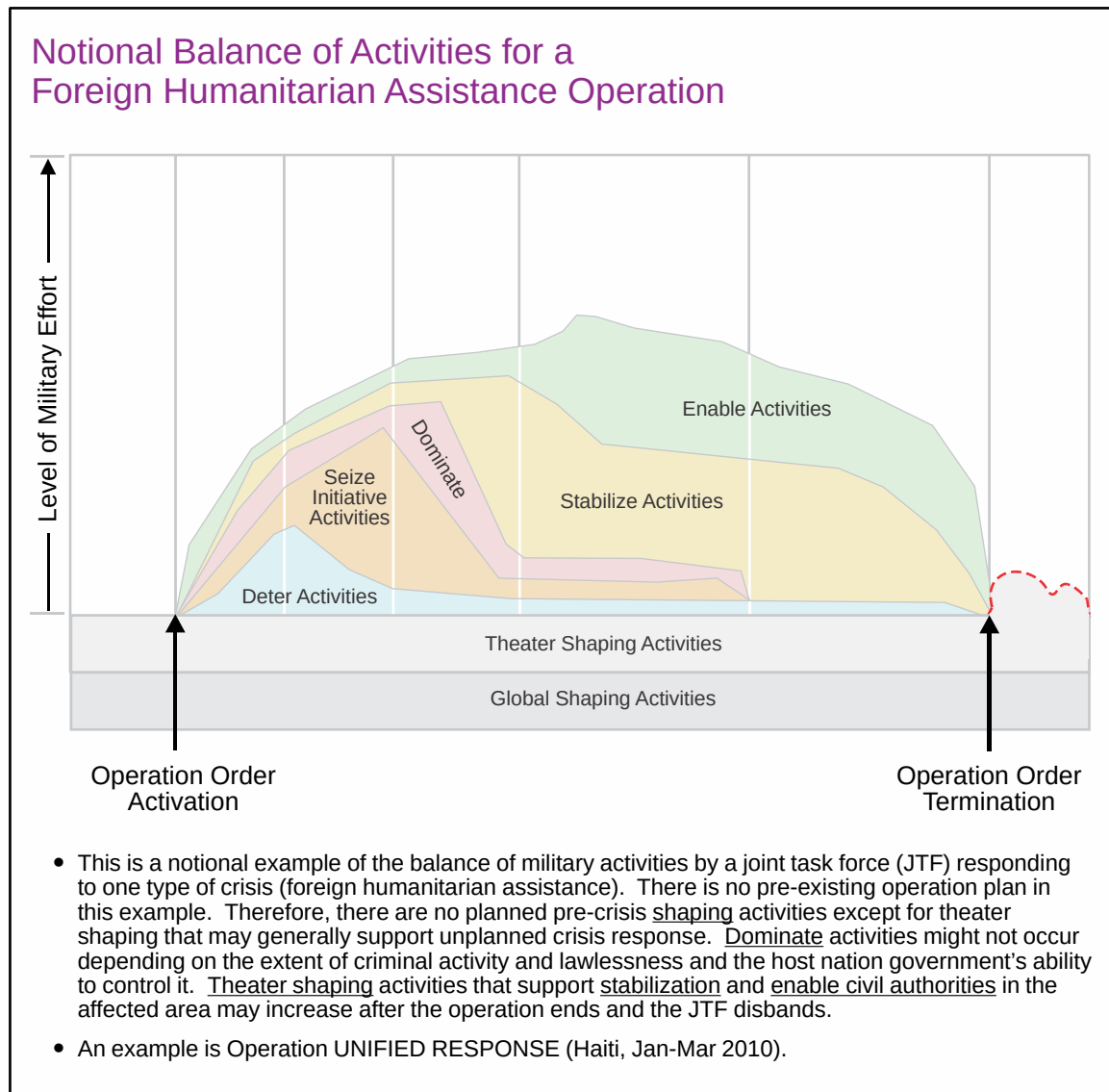


Figure V-6. Notional Balance of Activities for a Foreign Humanitarian Assistance Operation

6. Phasing a Joint Operation

a. The six general groups of activity in Figure V-4 provide a convenient basis for thinking about a joint operation in notional phases, as Figure V-7 depicts. A phase is a definitive stage or period during a joint operation in which a large portion of the forces and capabilities are involved in similar or mutually supporting activities for a common purpose that often is represented by intermediate objectives. Phasing, which can be used in any operation regardless of size, helps the JFC organize large operations by integrating and synchronizing subordinate operations. **Phasing helps JFCs and staffs visualize, plan, and execute the entire operation and define requirements in terms of forces, resources, time, space, and purpose.** It helps them systematically achieve military objectives that cannot be attained all at once by arranging smaller, focused, related

operations in a logical sequence. Phasing also helps commanders mitigate risk in the more dangerous or difficult portions of an operation.

b. Figure V-7 shows one phasing alternative. Actual phases of an operation will vary (e.g., compressed, expanded, or omitted entirely) according to the nature of the operation and the JFC's decisions. For example, UW operations normally use a seven-phase model. During planning, the JFC establishes conditions, objectives, and events for transitioning from one phase to another and plans sequels and branches for potential contingencies. Phases may be conducted sequentially, but some activities from a phase may begin in a previous phase and continue into subsequent phases. The JFC adjusts the phases to exploit opportunities presented by the enemy and operational situation or to react to unforeseen conditions.

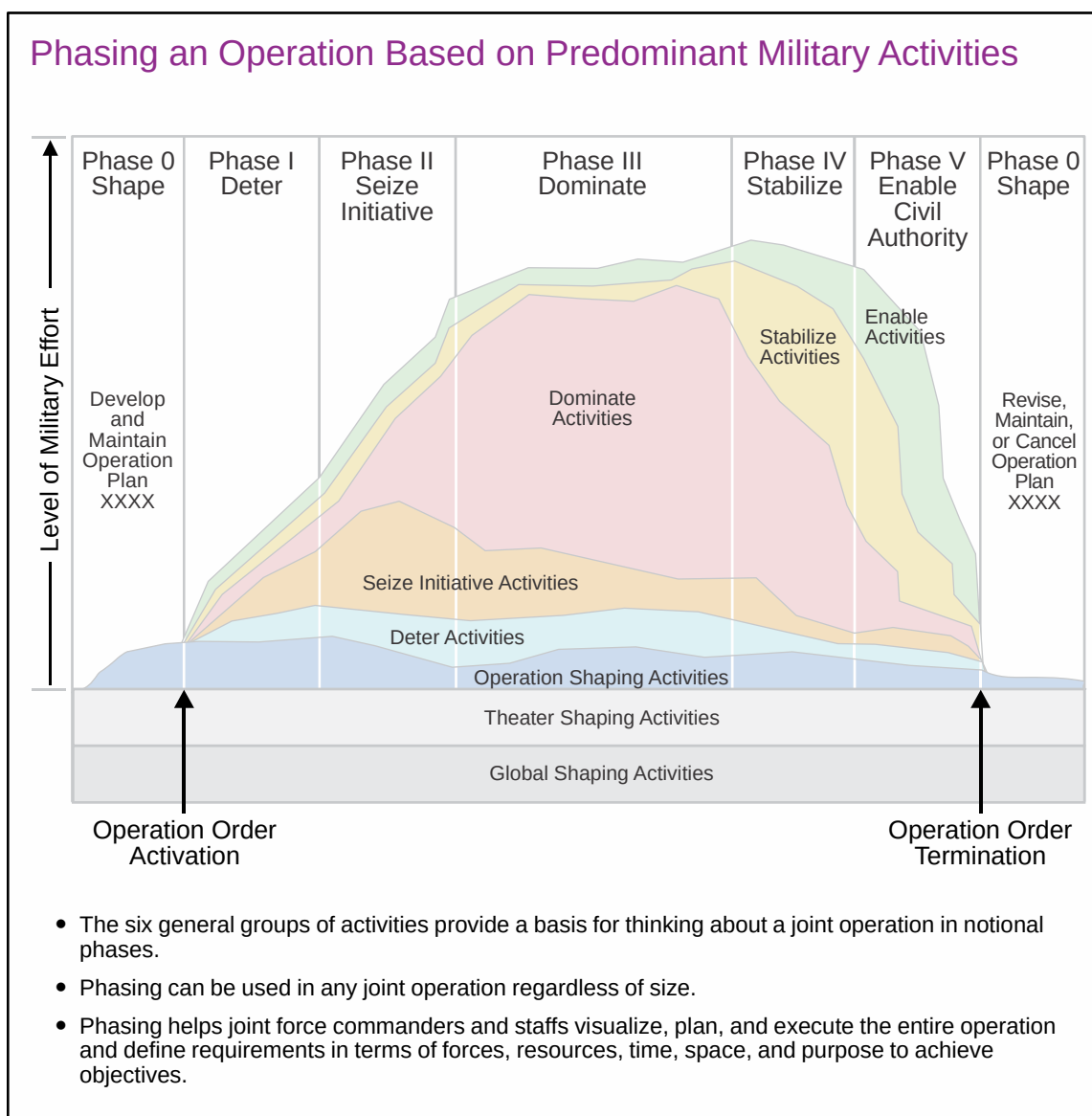


Figure V-7. Phasing an Operation Based on Predominant Military Activities