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JOINT DOCTRINE Joint Force Employment





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Operational Art

J-7 OPERATIONAL PLANS AND INTEROPERABILITY DIRECTORATE

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PREFACE

This briefing is one of the publications comprising the Joint Doctrine Joint Force Employment Briefing Modules. It has been specifically designed as a definitive briefing guide for joint doctrine presentations and focuses on employing operational art, in concert with strategic guidance and direction received from superior leaders, in developing campaigns and operations. All the material found in the joint doctrine Joint Force Employment Briefing Modules is drawn directly from approved joint doctrine, without interpretation, and may be reproduced and distributed to advance a better understanding of joint warfare and the principles of joint doctrine.

The module is organized into two main sections. The first section contains slides and a briefing script. A briefing slide is depicted on the left hand page along with its accompanying script on the facing page. The particular Joint Doctrine Publication from which the material is drawn is identified as (**Source**) on the briefing script. Appendix A contains an outline of the briefing script.

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Section I

Operational Art Briefing Slides and Script

OPERATIONAL ART



Slide 1. Overview of Operational Art

Overview of Operational Art

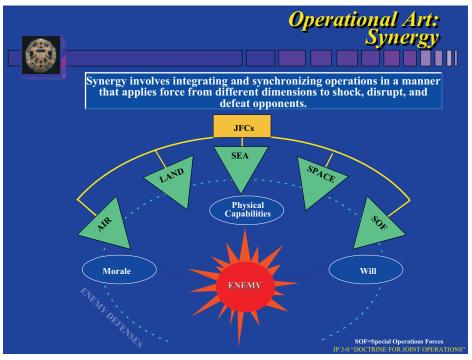
Joint Force Commanders (JFCs) employ operational art, in concert with strategic guidance and direction received from superior leaders, in developing campaigns and operations. Operational art is the use of military forces to achieve strategic goals through the design, organization, integration, and conduct of strategies, campaigns, major operations, and battles.

Operational art helps commanders use resources efficiently and effectively to achieve strategic objectives. Without operational art, war would be a set of disconnected engagements, with relative attrition the only measure of success or failure. Operational art requires broad vision, the ability to anticipate, and effective joint and multinational cooperation. Operational art is practiced not only by JFCs, but also by their senior staff officers and subordinate commanders.

Joint operational art looks not only at the employment of military forces but also at the arrangement of their efforts in time, space, and purpose. Joint operational art focuses in particular on the fundamental methods and issues associated with the synchronization of air, land, sea, space, and special operations forces.

Among many considerations, operational art requires commanders to answer the following questions: What military (or related political and social) conditions must be produced in the operational area to achieve the strategic goal? (Ends); What sequence of actions is most likely to produce that condition? (Ways); How should the resources of the joint force be applied to accomplish that sequence of actions? (Means); and What is the likely cost or risk to the joint force in performing that sequence of actions? (JP 3-0, Chapter II, para 2c & JP 3-0, Chapter III, para 5)

Operational art is characterized by the following fundamental elements: Synergy, simultaneity and depth, anticipation, balance, leverage, timing and tempo, operational reach and approach, forces and functions, arranging operations, centers of gravity, direct vs. indirect approach, decisive points, culmination and, finally, termination. (JP 3-0, Exec Summary)



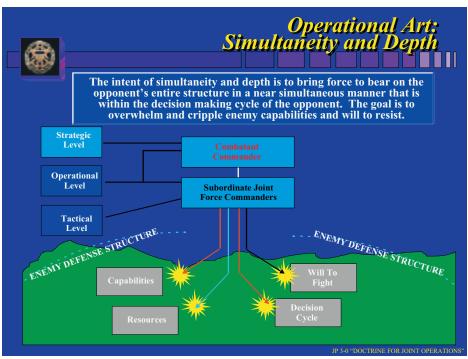
Slide 2. Synergy

Synergy

The first element of operational art, **synergy**, involves integrating and synchronizing operations in a manner that applies force from different dimensions to shock, disrupt, and defeat opponents. JFCs employ air, land, sea, space, and special operations forces in a wide variety of operations in war and in operations other than war. JFCs not only attack the enemy's physical capabilities, but also the enemy's morale and will. When required to employ force, JFCs seek combinations of forces and actions to achieve concentration in various dimensions, all culminating in attaining the assigned objective(s) in the shortest time possible and with minimal casualties. JFCs arrange symmetrical and asymmetrical actions to take advantage of friendly strengths and enemy vulnerabilities and to preserve freedom of action for future operations.

Engagements with the enemy may be thought of as symmetrical, if our force and the enemy force are similar (for example land versus land). They may be asymmetric if forces are dissimilar (for example air versus sea or sea versus land). It is difficult to view the contributions of air, land, sea, space, and special operations forces in isolation. Each may be critical to the success of the joint force, and each has certain unique capabilities that cannot be duplicated by other types of forces. The challenge for supported JFCs is to integrate and synchronize the wide range of capabilities at their disposal into full dimensional operations against the enemy. The synergy achieved by synchronizing the actions of air, land, sea, space, and special operations forces in joint operations and in multiple dimensions enables JFCs to project focused capabilities that present no vulnerabilities to an enemy to exploit.

The synergy of the joint force depends in large part on a shared understanding of the operational situation. JFCs integrate and synchronize operations in a manner that applies force from different dimensions to shock, disrupt, and defeat opponents. The JFC's vision of how operations will be conducted includes not only how to arrange operations but also a clear understanding of the desired end state. (JP 3-0, Chapter III, para 5a)



Slide 3. Simultaneity and Depth

Simultaneity and Depth

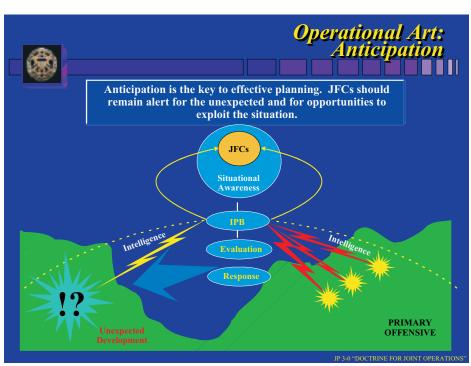
The intent of **simultaneity and depth** is to bring force to bear on the opponent's entire structure in a near simultaneous manner that is within the decision making cycle of the opponent. The goal is to overwhelm and cripple enemy capabilities and enemy will to resist.

Simultaneity is a key characteristic of the American way of war. It refers to the simultaneous application of capability against the full array of enemy capabilities and sources of strength. It refers specifically to the concept of attacking appropriate enemy forces and functions in such a manner as to cause confusion and demoralization. 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.

Simultaneity also refers to the concurrent conduct of operations at the tactical, operational, and strategic levels. Tactical commanders fight engagement and battles, understanding their relevance to the operational plan. JFCs set the conditions for battles within a major operation to achieve operational and strategic objectives. Geographic combatant commanders 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 war, commanders cannot be concerned only with events at their respective echelon.

The evolution of warfare and advances in technology have continuously expanded the depth of operations. Airpower can be projected at greater distances, while surface forces are able to maneuver more rapidly and project their influence at increasing depths. To be effective, JFCs should not allow an enemy sanctuary or respite. Joint force operations should be conducted across the full breadth and depth of the operational area, creating competing and simultaneous demands on enemy commanders and resources.

Like simultaneity, depth seeks to overwhelm the enemy throughout the battle area from multiple dimensions. The concept of depth applies to time as well as space (geographically). Operations extended in depth shape future conditions and can disrupt an opponent's decision cycle. Depth contributes to protection of the force by destroying enemy potential before its capabilities can be realized and employed. Simultaneity and depth place a premium on situational awareness at the operational level. (JP 3-0, Chapter III, para 5b)



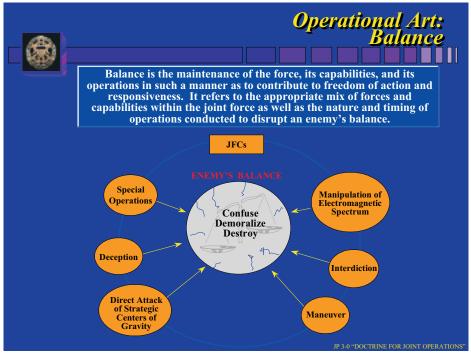
Slide 4. Anticipation

Anticipation

Anticipation is the key to effective planning. JFCs should remain alert for the unexpected and for opportunities to exploit the situation. JFCs continually gather information by personally observing and communicating with subordinates, higher headquarters, other forces in the operational area, and allies and coalition members. JFCs avoid surprise by monitoring operations as they unfold and signaling to their staff and subordinate units the actions they are to take to stay in control of events. JFCs also realize the impact of operations and prepare for their results.

Situational awareness is a prerequisite for commanders and planners to be able to anticipate opportunities and challenges. Intelligence preparation of the battlespace (IPB) can assist JFCs in defining likely or potential enemy courses of action. As such, IPB can significantly contribute to a JFC's ability to anticipate and exploit opportunities.

It should be noted, however, that anticipation is not without risk. Commanders and planners that tend to lean in anticipation of what they expect to encounter are more susceptible to operational military deception efforts by an opponent. Therefore, commanders and planners should carefully consider the information upon which decisions are being based. (JP 3-0, Chapter III, para 5c)



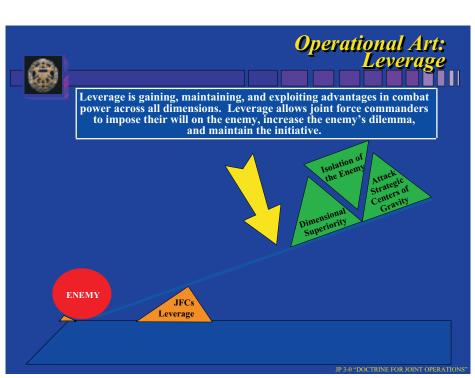
Slide 5. Balance

Balance

Balance is the maintenance of the force, its capabilities, and its operations in such a manner as to contribute to freedom of action and responsiveness. Balance refers to the appropriate mix of forces and capabilities within the joint force as well as the nature and timing of operations conducted to disrupt an enemy's balance.

JFCs strive to maintain friendly force balance while aggressively seeking to disrupt an enemy's balance by striking with powerful blows from unexpected directions or dimensions. Deception, special operations, manipulation of the electromagnetic spectrum, direct attack of enemy strategic centers of gravity, interdiction, and maneuver all converge to confuse, demoralize, and destroy the opponent. High-tempo joint operations set the conditions for battle. Even as the joint force defeats one enemy force, it should prepare to turn and strike another. Through continuous planning and wargaming, the commander strives never to be without options.

JFCs designate priority efforts and establish appropriate command relationships to assist in maintaining the balance of the force. Preserving the responsiveness of component capabilities is central to operational art. Combinations of operations and organization of the joint force should maintain or expand force responsiveness, not inhibit it. Decentralization of authority can contribute to responsiveness by reducing the distance in time and space between decision makers and ongoing operations. (JP 3-0, Chapter III, para 5d)



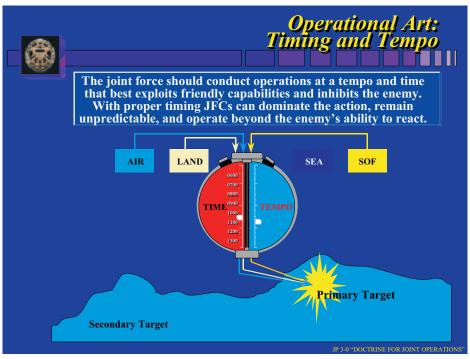
Slide 6. Leverage

Leverage

Joint Pub 1, "Joint Warfare of the Armed Forces of the United States," describes achieving **leverage** (that is, gaining, maintaining, and exploiting advantages in combat power across all dimensions) among the forces available to JFCs as "the centerpiece of joint operational art." Force interaction with respect to friendly force relationships can be generally characterized as supported (the receiver of a given effort) or supporting (the provider of such an effort). Support relationships afford an effective means to weigh (and ensure unity of effort for) various operations, each component typically receiving and providing support at the same time.

Force interaction with regard to enemy forces is another way for JFCs to achieve concentration in the various dimensions. JFCs arrange symmetrical and asymmetrical actions to take advantage of friendly strengths and enemy vulnerabilities and to preserve freedom of action for future operations. Asymmetrical actions that pit joint force strengths against enemy weaknesses and maneuver in time and space can provide decisive advantage. As a final part of force interaction, JFCs must take action to protect or shield all elements of the joint force from enemy symmetrical and asymmetrical action.

JFCs gain decisive advantage over the enemy through leverage. Leverage allows JFCs to impose their will on the enemy, increase the enemy's dilemma, and maintain the initiative. Dimensional superiority, isolation of the enemy, and attack of enemy strategic centers of gravity can all contribute to joint force leverage. (JP 3-0, Chapter III, para 5e)



Slide 7. Timing and Tempo

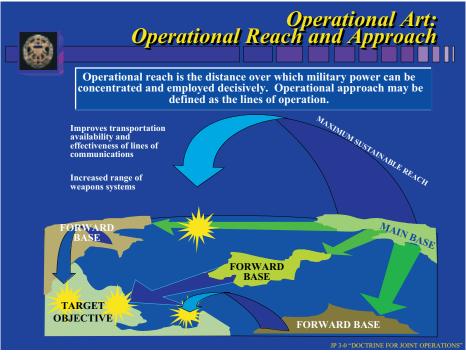
Timing and Tempo

The joint force should conduct operations at a **tempo and time** that best exploits friendly capabilities and inhibits the enemy. With proper timing, JFCs can dominate the action, remain unpredictable, and operate beyond the enemy's ability to react.

The tempo of warfare has increased over time as technological advancements and innovative doctrines have been applied to military requirements. JFCs may elect to maintain an operational tempo that stretches the capabilities of both friendly and enemy forces, or they may conduct operations at a reduced pace.

Just as JFCs carefully select which capabilities of the joint force to employ, so do they consider the timing of the application of those capabilities. Timing refers to the effects achieved as well as to the application of force. JFCs selectively apply such capabilities in a manner that synchronizes their application in time, space, and purpose.

JFCs plan and conduct operations in a manner that synchronizes the effects of operations so that the maximum benefit of their contributions are felt by the opponent at the desired time. Although some operations of the joint force can achieve near-immediate effects, JFCs may elect to delay their application until the contributions of other elements can be brought to bear in a synchronized manner. Additionally, commanders and planners strive to ensure that effects achieved through combat operations build toward decisive results but are not unduly or inappropriately felt by opponents long after their defeat. (JP 3-0, Chapter III, para 5f)



Slide 8. Operational Reach and Approach

Operational Reach and Approach

Operational reach is the distance over which military power can be concentrated and employed decisively. Reach is influenced by the geography surrounding and separating the opponents. It is extended by locating force, reserves, bases, and logistics forward, by increasing the range of weapon systems, and by improving transportation availability and the effectiveness of lines of communications and throughput. Basing, whether from overseas locations, sea-based platforms, or the continental United States (CONUS), directly effects operational reach.

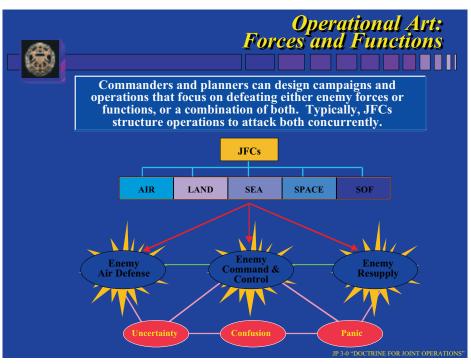
Nevertheless, for any given operation, there is a finite range beyond which the joint force cannot prudently operate or maintain effective operations. Thus, basing in the broadest sense is an indispensable foundation of joint operational art, directly affecting the combat power that the joint force is capable of generating by affecting such critical factors as sortie and resupply rates. The arrangement and successive positioning of advanced bases underwrites the progressive ability of the joint force to shield its components from enemy action and deliver symmetric and asymmetric blows with increasing power and ferocity. Basing is often directly affected by political and diplomatic considerations and, as such, can become a critical junction where strategic, operational, and tactical considerations interact. Bases are typically selected to be within operational reach of the opponent, where sufficient infrastructure is in place and where they can be assured of some degree of security from enemy attacks. Basing thus plays a vital role in determining the **operational approach**, which may be conceived of in terms of lines of operation.

Lines of operation define the directional orientation of the force in time and space in relation to the enemy and connect the force with its base of operations and its objectives.

A force operates on interior lines when its operations diverge from a central point and when it is therefore closer to separate enemy forces than the latter are to one another. This benefits the weaker force by allowing it to shift the main effort laterally more rapidly than the enemy.

A force operates on exterior lines when its operations converge on the enemy. This requires a stronger or more mobile force, but offers the opportunity to encircle and annihilate a weaker or less mobile opponent.

JFCs use lines of operation to focus combat power effects toward a desired end. They apply combat power throughout the three dimensions of space and over time in a logical design that integrates the capabilities of the joint force to converge on and defeat enemy centers of gravity. (JP 3-0, Chapter III, para 5g)

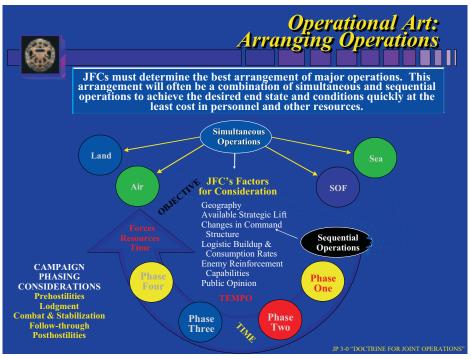


Slide 9. Forces and Functions

Forces and Functions

Commanders and planners can design campaigns and operations that focus on defeating either enemy forces or functions, or a combination of both. Typically, JFCs structure operations to attack both enemy forces and functions concurrently to create the greatest possible contact area between friendly and enemy forces and capabilities.

JFCs can focus on destroying and disrupting critical enemy functions such as command and control, resupply, and air defense to destroy enemy balance. Destruction or disruption of critical enemy functions can create uncertainty, confusion, and even panic in enemy leadership and forces, and may contribute directly to the collapse of enemy capability and will. The appropriateness of functional attack as the principal design concept frequently is based on time required and available to cripple enemy critical functions as well as the enemy's current actions and likely response to such attacks. (JP 3-0, Chapter III, para 5h)



Slide 10. Arranging Operations

Arranging Operations

JFCs must determine the best **arrangement** of major operations. This arrangement will often be a combination of simultaneous and sequential operations to achieve the desired end state conditions quickly and at the least cost in personnel and other resources. Factors considered for arrangement include geography of the operational area, available strategic lift, changes in command structure, logistic buildup and consumption rates, enemy reinforcement capabilities, and public opinion. Thinking about the arrangement helps determine tempo of activities in time and space. The dynamic nature of modern warfare complicates decisions concerning how to best arrange operations; however, the arrangement that the commander chooses should not foreclose future options.

The arrangement of major operations relates directly to the commander's decision on phasing. A phase represents a period during which a large portion of the forces are involved in similar or mutually supporting activities. Phasing may be sequential or concurrent and phases may overlap. During planning, commanders establish conditions for transitioning from one phase to another, and adjusts the phases when appropriate. Phasing assists commanders to think through the entire operation and to define requirements in terms of forces, resources, and time.

The primary benefit of phasing is that it assists commanders in achieving major objectives, which cannot be attained all at once. Campaign phasing should consider aspects such as prehostilities, lodgment, decisive combat and stabilization, follow-through, and posthostilities.

Actions during a prehostilities phase may be for deterrence or to seek to set the terms for battle and limit enemy freedom of action. A lodgment phase allows the movement and buildup of a decisive combat force in the operational area. A decisive combat and stabilization phase initially focuses on the rapid buildup of joint force capabilities. During a follow-through phase, JFCs synchronize joint force activities to bring the operation to a successful conclusion. During the posthostilities and redeployment phase, JFCs may retain responsibility for operations or they may transfer control of the situation to another authority and redeploy their forces.

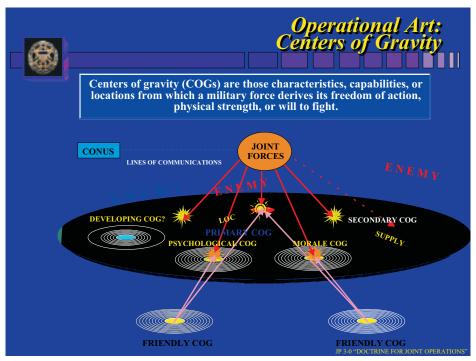
Logistics is crucial to phasing. Joint force planners consider establishing logistic bases, opening and maintaining lines of communications (LOCs), establishing intermediate logistic bases to support new phases, and defining priorities for services and support. Logistics, then, is key to arranging the operations of campaigns and should be planned and executed as a joint responsibility.

Changes in phases at any level can represent a period of vulnerability for the force. At this point, missions and task organizations often change. The careful planning of branches and sequels can reduce the risk associated with transition between phases.

Branches and sequels directly relate to the concept of phasing. Their proper use can add flexibility to a campaign or major operation plan. Branches are options built into the basic plan. They may include shifting priorities, changing unit organization and command

relationships, or changing the very nature of the joint operation itself. Branches add flexibility to plans by anticipating situations that could alter the basic plan. Sequels are subsequent operations based on the possible outcomes of the current operation; victory, defeat, or stalemate. At the campaign level, phases can be viewed as sequels to the basic plan. (JP 3-0, Chapter III, para 5i)

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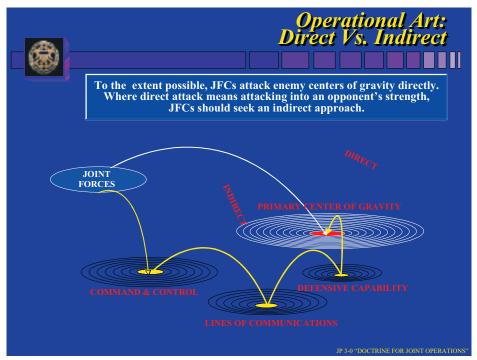
Slide 11. Centers of Gravity

Centers of Gravity

The essence of operational art lies in being able to mass effects against the enemy's sources of power in order to destroy or neutralize them. **Centers of gravity (COGs)** are those characteristics, capabilities, or locations from which a military force derives its freedom of action, physical strength, or will to fight. At the strategic level, COGs might include a military force, an alliance, national will or public support, a set of critical capabilities or functions, or national strategy itself. The COGs concept is useful as an analytical tool, while designing campaigns and operations to assist commanders and staffs in analyzing friendly and enemy sources of strength as well as weaknesses. It is important to note that analysis of COGs, both enemy and friendly, is a continuous process throughout an operation.

In theory, destruction or neutralization of enemy COGs is the most direct path to victory. However, COGs can change during the course of an operation and, at any given time, COGs may not be apparent or readily discernible. Identification of enemy COGs requires detailed knowledge and understanding of how opponents organize, fight, and make decisions as well as their physical and psychological strengths and weaknesses. JFCs and their subordinates should be alert to circumstances that may cause COGs to change and adjust friendly operations accordingly.

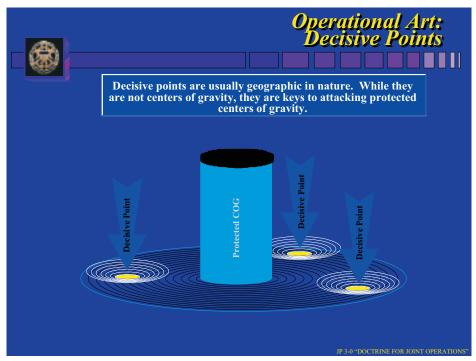
Enemy COGs will frequently be well protected, making direct attack difficult and costly. This situation may require joint operations that result in indirect attacks until conditions are established that permit successful direct attacks. It is also important to identify friendly COGs so that they can be protected. Long sea and air LOCs from CONUS or supporting theaters can represent a COG. (JP 3-0, Chapter III, para 5j)



Slide 12. Direct vs. Indirect

Direct vs. Indirect

To the extent possible, JFCs attack enemy COGs directly. Where **direct** attack means attacking into an opponent's strength, JFCs should seek an **indirect** approach. For example, if the COG is a large enemy force, the joint force may attack it indirectly by isolating it from its command and control, severing its lines of communications, and defeating or degrading its air defense and indirect fire capability. When vulnerable, the enemy force can be attacked directly by appropriate elements of the joint force. (JP 3-0, Chapter III, para 5k)

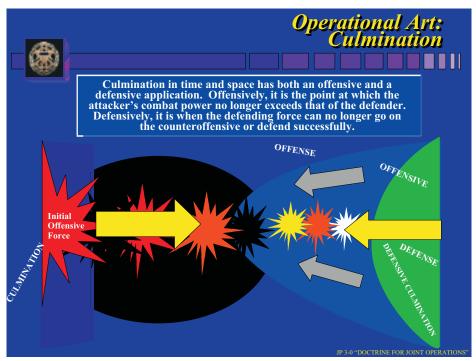


Slide 13. Decisive Points

Decisive Points

By correctly identifying and controlling **decisive points**, a commander can gain a marked advantage over the enemy and greatly influence the outcome of an action. Decisive points are usually geographic in nature, such as a constricted sea lane, a hill, a town, or an air base. While decisive points are not COGs, they are the keys to attacking protected COGs.

There will normally be more decisive points in an operational area than JFCs can control, destroy, or neutralize with available resources. Planners must analyze potential decisive points and determine which points enable eventual attack of the enemy's COGs. The commander designates the most important decisive points as objectives and allocates resources to control, destroy, or neutralize them. Geographic decisive points that assist commanders to gain or maintain the initiative are crucial. Controlling these points in the attack assists commanders to gain freedom of operational maneuver. (JP 3-0, Chapter III, para 5I)



Slide 14. Culmination

Culmination

Culmination has both an offensive and defensive application. In the offense, the culmination occurs at the point in time and space at which an attacker's combat power no longer exceeds that of the defender. 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 culmination, then strike when the attacker has exhausted available resources and is ill-disposed to defend successfully.

Synchronization of logistics 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 strategic objectives before reaching their culminating points. If the commanders cannot do so, they should rethink their concept of operations. (JP 3-0, Chapter III, para 5m)



Slide 15. Termination

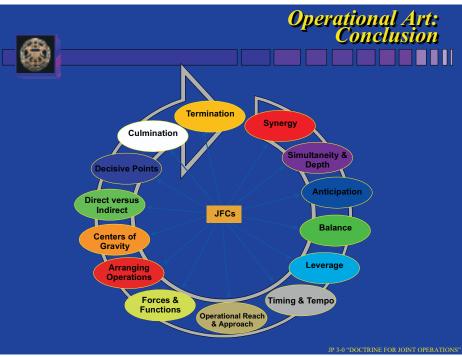
Termination

Knowing when to **terminate** military operations and how to preserve achieved advantages is a component of strategy and operational art. Before forces are committed, JFCs must know how the National Command Authorities (NCA) intend to terminate the operation and ensure its outcomes endure, and then determine how to implement that strategic design at the operational level. The underlying causes of a particular war — such as cultural, religious, territorial, or hegemonic — must influence the understanding of conditions necessary for termination of hostilities and resolution of conflict. Ideally, national and allied or coalition decision makers will seek the advice of senior military leaders concerning how and when to end combat operations.

Military operations typically conclude with attainment of the strategic ends for which the NCA committed forces. In some cases, these aims will be military strategic aims that, once achieved, allow transition to other instruments of national power and agencies as the means to achieve broader aims. Commanders strive to end combat operations on terms favorable to the United States and its allies or coalition partners. The basic element of this goal is gaining control over the enemy in the final stages of combat. A hasty or ill-designed end to the operation may bring with it the possibility that related disputes will arise, leading to further conflict.

If the conditions have been properly set and met for ending the conflict, the necessary leverage should exist to prevent the enemy from renewing hostilities. Moreover, the strategic aims for which the United States fought should be secured. There is a delicate balance between the desire for quick victory and termination on truly favorable terms.

A period of postconflict activities exists from the immediate end of the conflict to the redeployment of the last US Service member. Also, a variety of operations other than war occur during this period to ensure political objectives are achieved and sustained. Even as forces transition from combat operations to postconflict activities, requirements for humanitarian assistance will emerge. JFCs should identify postconflict requirements as early as possible so as to facilitate transition and to permit the simultaneous redeployment of forces no longer required. (JP 3-0, Chapter III, para 5n)



Slide 16. Conclusion

Conclusion

Once again, let me review the key elements of operational art that we have discussed here today:

Synergy is a concept that relates to integrating and synchronizing operations.

Simultaneity and depth are used to bring force to bear on the opponent's entire structure in a near simultaneous manner.

Anticipation is the key to effective planning so as to remain alert for the unexpected and for opportunities to exploit the situation.

Balance is an appropriate mix of forces and capabilities within the joint force.

Leverage is used to impose a force's will on the enemy, increase the enemy's dilemma, and maintain the initiative.

Timing and tempo serve to assist forces in dominating the action, remaining unpredictable, and operating beyond the enemy's ability to react, with the goal being to exploit friendly capabilities and inhibit the enemy.

Operational reach and approach discusses the range in which the joint force can prudently operate or maintain effective operations, emphasizing that basing, in the broadest sense, is an indispensable foundation of joint operational art.

Forces and functions of the enemy are typically targeted by joint force operations concurrently, in order to create the greatest possible contact area between friendly and enemy forces.

Arranging operations will often consist of a combination of simultaneous and sequential operations to achieve the desired end state conditions quickly and at the least cost in personnel and other resources.

Centers of gravity are those characteristics, capabilities, or locations from which a military force derives its freedom of action, physical strength, or will to fight.

Direct versus Indirect refers to the JFC's attacking of enemy COGs directly or indirectly.

Decisive points, usually geographic in nature, can assist a force in gaining a marked advantage over the enemy and may greatly influence the outcome of an action.

Culmination has both an offensive and defensive application. In the offense, the culminating point is the point in time and space at which an attacker's combat power no longer exceeds that of the defender. A defender reaches culmination when the defending force no longer has the capability to go on the counteroffensive or defend successfully.

And lastly, **termination** is an essential component of strategy and operational art, whereby forces know when to terminate military operations and how to preserve achieved advantages.

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APPENDIX A

Section II Operational Art Outline of Briefing Script

Operational Art Briefing Outline

I. Overview of Operational Art

A. Joint Force Commanders employ operational art, in concert with strategic guidance and direction received from superior leaders, in developing campaigns and operations. Operational art is the use of military forces to achieve strategic goals through the design, organization, integration, and conduct of strategies, campaigns, major operations, and battles.

B. Operational art helps commanders use resources efficiently and effectively to achieve strategic objectives. Without operational art, war would be a set of disconnected engagements, with relative attrition the only measure of success or failure.

- 1. Operational art requires broad vision, the ability to anticipate, and effective joint and multinational cooperation.
- 2. Operational art is practiced not only by JFCs, but also by their senior staff officers and subordinate commanders.

C. Joint operational art looks not only at the employment of military forces but also at the arrangement of their efforts in time, space, and purpose. Joint operational art focuses in particular on the fundamental methods and issues associated with the synchronization of air, land, sea, space, and special operations forces.

D. Among many considerations, operational art requires commanders to answer the following questions:

- 1. What military (or related political and social) conditions must be produced in the operational area to achieve the strategic goal? (Ends);
- 2. What sequence of actions is most likely to produce that condition? (Ways);
- 3. How should the resources of the joint force be applied to accomplish that sequence of actions? (Means);
- 4. What is the likely cost or risk to the joint force in performing that sequence of actions? (JP 3-0, Chapter II, para 2c & JP 3-0, Chapter III, para 5)

E. Operational art is characterized by the following fundamental elements: Synergy, simultaneity and depth, anticipation, balance, leverage, timing and tempo, operational reach and approach, forces and functions, arranging operations, centers of gravity, direct vs. indirect approach, decisive points, culmination, and, finally, termination. (JP 3-0, Exec Summary)

II. Synergy

A. The first element of operational art, **synergy**, involves integrating and synchronizing operations in a manner that applies force from different dimensions to shock, disrupt, and defeat opponents. JFCs employ air, land, sea, space, and special operations forces in a wide variety of operations in war and in operations other than war.

- 1. JFCs not only attack the enemy's physical capabilities, but also the enemy's morale and will. When required to employ force, JFCs seek combinations of forces and actions to achieve concentration in various dimensions, all culminating in attaining the assigned objective(s) in the shortest time possible and with minimal casualties.
- 2. JFCs arrange symmetrical and asymmetrical actions to take advantage of friendly strengths and enemy vulnerabilities and to preserve freedom of action for future operations.

B. Engagements with the enemy may be thought of as symmetrical, if our force and the enemy force are similar (for example land versus land). They may be asymmetric if forces are dissimilar (for example air versus sea or sea versus land). It is difficult to view the contributions of air, land, sea, space, and special operations forces in isolation. Each may be critical to the success of the joint force, and each has certain unique capabilities that cannot be duplicated by other types of forces.

- 1. The challenge for supported JFCs is to integrate and synchronize the wide range of capabilities at their disposal into full dimensional operations against the enemy.
- 2. The synergy achieved by synchronizing the actions of air, land, sea, space, and special operations forces in joint operations and in multiple dimensions enables JFCs to project focused capabilities that present no vulnerabilities to an enemy to exploit.

C. The synergy of the joint force depends in large part on a shared understanding of the operational situation.

- 1. JFCs integrate and synchronize operations in a manner that applies force from different dimensions to shock, disrupt, and defeat opponents.
- The JFC's vision of how operations will be conducted includes not only how to arrange operations but also a clear understanding of the desired end state. (JP 3-0, Chapter III, para 5a)

III. Simultaneity and Depth

A. The intent of simultaneity and depth is to bring force to bear on the opponent's entire structure in a near simultaneous manner that is within the decision making cycle of the opponent.

1. The goal is to overwhelm and cripple enemy capabilities and enemy will to resist.

B. Simultaneity is a key characteristic of the American way of war. It refers to the simultaneous application of capability against the full array of enemy capabilities and sources of strength.

- 1. It refers specifically to the concept of attacking appropriate enemy forces and functions in such a manner as to cause confusion and demoralization.
- 2. 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.

C. Simultaneity also refers to the concurrent conduct of operations at the tactical, operational, and strategic levels. Tactical commanders fight engagement and battles, understanding their relevance to the operational plan. JFCs set the conditions for battles within a major operation to achieve operational and strategic objectives.

- 1. Geographic combatant commanders integrate theater strategy and operational art. At the same time, they remain acutely aware of the impact of tactical events.
- 2. Because of the inherent interrelationships between the various levels of war, commanders cannot be concerned only with events at their respective echelon.

D. The evolution of warfare and advances in technology have continuously expanded the depth of operations.

- 1. Airpower can be projected at greater distances, while surface forces are able to maneuver more rapidly and project their influence at increasing depths.
- 2. To be effective, JFCs should not allow an enemy sanctuary or respite. Joint force operations should be conducted across the full breadth and depth of the operational area, creating competing and simultaneous demands on enemy commanders and resources.

E. Like simultaneity, depth seeks to overwhelm the enemy throughout the battle area from multiple dimensions.

- 1. The concept of depth applies to time as well as space (geographically).
- 2. Operations extended in depth shape future conditions and can disrupt an opponent's decision cycle.
- 3. Depth contributes to protection of the force by destroying enemy potential before its capabilities can be realized and employed.

4. Simultaneity and depth place a premium on situational awareness at the operational level. (JP 3-0, Chapter III, para 5b)

IV. Anticipation

A. Anticipation is the key to effective planning. JFCs should remain alert for the unexpected and for opportunities to exploit the situation. JFCs continually gather information by personally observing and communicating with subordinates, higher headquarters, other forces in the operational area, and allies and coalition members.

- 1. JFCs avoid surprise by monitoring operations as they unfold and signaling to their staff and subordinate units the actions they are to take to stay in control of events. JFCs also realize the impact of operations and prepare for their results.
- 2. Situational awareness is a prerequisite for commanders and planners to be able to anticipate opportunities and challenges. IPB can assist JFCs in defining likely or potential enemy courses of action. As such, IPB can significantly contribute to a JFC's ability to anticipate and exploit opportunities.
- B. It should be noted, however, that anticipation is not without risk.
 - 1. Commanders and planners that tend to lean in anticipation of what they expect to encounter are more susceptible to operational military deception efforts by an opponent.
 - Therefore, commanders and planners should carefully consider the information upon which decisions are being based. (JP 3-0, Chapter III, para 5c)

V. Balance

A. Balance is the maintenance of the force, its capabilities, and its operations in such a manner as to contribute to freedom of action and responsiveness.

- 1. Balance refers to the appropriate mix of forces and capabilities within the joint force;
- 2. as well as the nature and timing of operations conducted to disrupt an enemy's balance.

B. JFCs strive to maintain friendly force balance while aggressively seeking to disrupt an enemy's balance by striking with powerful blows from unexpected directions or dimensions.

1. Deception, special operations, manipulation of the electromagnetic spectrum, direct attack of enemy strategic centers of gravity, interdiction, and maneuver all converge to confuse, demoralize, and destroy the opponent.

2. High-tempo joint operations set the conditions for battle. Even as the joint force defeats one enemy force, it should prepare to turn and strike another. Through continuous planning and wargaming, the commander strives never to be without options.

C. JFCs designate priority efforts and establish appropriate command relationships to assist in maintaining the balance of the force.

- 1. Preserving the responsiveness of component capabilities is central to operational art.
- Combinations of operations and organization of the joint force should maintain or expand force responsiveness, not inhibit it. Decentralization of authority can contribute to responsiveness by reducing the distance in time and space between decision makers and ongoing operations. (JP 3-0, Chapter III, para 5d)

VI. Leverage

A. Joint Pub 1, "Joint Warfare of the Armed Forces of the United States," describes achieving leverage (that is, gaining, maintaining, and exploiting advantages in combat power across all dimensions) among the forces available to JFCs as "the centerpiece of joint operational art."

- 1. Force interaction with respect to friendly force relationships can be generally characterized as supported (the receiver of a given effort) or supporting (the provider of such an effort).
- 2. Support relationships afford an effective means to weigh (and ensure unity of effort for) various operations, each component typically receiving and providing support at the same time.

B. Force interaction with regard to enemy forces is another way for JFCs to achieve concentration in the various dimensions. JFCs arrange symmetrical and asymmetrical actions to take advantage of friendly strengths and enemy vulnerabilities and to preserve freedom of action for future operations.

- 1. Asymmetrical actions that pit joint force strengths against enemy weaknesses and maneuver in time and space can provide decisive advantage.
- 2. As a final part of force interaction, JFCs must take action to protect or shield all elements of the joint force from enemy symmetrical and asymmetrical action.
- C. JFCs gain decisive advantage over the enemy through leverage.
 - 1. Leverage allows JFCs to impose their will on the enemy, increase the enemy's dilemma, and maintain the initiative.

 Dimensional superiority, isolation of the enemy, and attack of enemy strategic centers of gravity can all contribute to joint force leverage. (JP 3-0, Chapter III, para 5e)

VII. Timing and Tempo

A. The joint force should conduct operations at a tempo and time that best exploits friendly capabilities and inhibits the enemy. With proper timing, JFCs can dominate the action, remain unpredictable, and operate beyond the enemy's ability to react.

B. The tempo of warfare has increased over time as technological advancements and innovative doctrines have been applied to military requirements. JFCs may elect to maintain an operational tempo that stretches the capabilities of both friendly and enemy forces, or they may conduct operations at a reduced pace.

C. Just as JFCs carefully select which capabilities of the joint force to employ, so do they consider the timing of the application of those capabilities.

- 1. Timing refers to the effects achieved as well as to the application of force.
- 2. JFCs selectively apply such capabilities in a manner that synchronizes their application in time, space, and purpose.

D. JFCs plan and conduct operations in a manner that synchronizes the effects of operations so that the maximum benefit of their contributions are felt by the opponent at the desired time.

- 1. Although some operations of the joint force can achieve near-immediate effects, JFCs may elect to delay their application until the contributions of other elements can be brought to bear in a synchronized manner.
- 2. Additionally, commanders and planners strive to ensure that effects achieved through combat operations build toward decisive results but are not unduly or inappropriately felt by opponents long after their defeat. (JP 3-0, Chapter III, para 5f)

VIII. Operational Reach and Approach

A. **Operational reach** is the distance over which military power can be concentrated and employed decisively.

- 1. Reach is influenced by the geography surrounding and separating the opponents.
- 2. It is extended by locating force, reserves, bases, and logistics forward, by increasing the range of weapon systems, and by improving transportation availability and the effectiveness of lines of communications and throughput.

3. Basing, whether from overseas locations, sea-based platforms, or CONUS, directly effects operational reach.

B. Nevertheless, for any given operation, there is a finite range beyond which the joint force cannot prudently operate or maintain effective operations. Thus, basing in the broadest sense is an indispensable foundation of joint operational art, directly affecting the combat power that the joint force is capable of generating by affecting such critical factors as sortie and resupply rates.

- 1. The arrangement and successive positioning of advanced bases underwrites the progressive ability of the joint force to shield its components from enemy action and deliver symmetric and asymmetric blows with increasing power and ferocity.
- 2. Basing is often directly affected by political and diplomatic considerations and, as such, can become a critical junction where strategic, operational, and tactical considerations interact.
- 3. Bases are typically selected to be within operational reach of the opponent, where sufficient infrastructure is in place and where they can be assured of some degree of security from enemy attacks.
- 4. Basing thus plays a vital role in determining the operational approach, which may be conceived of in terms of lines of operation.

C. Lines of operation define the directional orientation of the force in time and space in relation to the enemy and connect the force with its base of operations and its objectives.

D. A force operates on interior lines when its operations diverge from a central point and when it is therefore closer to separate enemy forces than the latter are to one another. This benefits the weaker force by allowing it to shift the main effort laterally more rapidly than the enemy.

E. A force operates on exterior lines when its operations converge on the enemy. This requires a stronger or more mobile force, but offers the opportunity to encircle and annihilate a weaker or less mobile opponent.

F. JFCs use lines of operation to focus combat power effects toward a desired end. They apply combat power throughout the three dimensions of space and over time in a logical design that integrates the capabilities of the joint force to converge on and defeat enemy centers of gravity. (JP 3-0, Chapter III, para 5g)

IX. Forces and Functions

A. Commanders and planners can design campaigns and operations that focus on defeating either enemy forces or functions, or a combination of both.

1. Typically, JFCs structure operations to attack both enemy forces and functions

concurrently to create the greatest possible contact area between friendly and enemy forces and capabilities.

B. JFCs can focus on destroying and disrupting critical enemy functions such as command and control, resupply, and air defense to destroy enemy balance.

- 1. Destruction or disruption of critical enemy functions can create uncertainty, confusion, and even panic in enemy leadership and forces and may contribute directly to the collapse of enemy capability and will.
- 2. The appropriateness of functional attack as the principal design concept frequently is based on time required and available to cripple enemy critical functions as well as the enemy's current actions and likely response to such attacks. (JP 3-0, Chapter III, para 5h)

X. Arranging Operations

A. JFCs must determine the best arrangement of major operations. This arrangement will often be a combination of simultaneous and sequential operations to achieve the desired end state conditions quickly and at the least cost in personnel and other resources.

- 1. Factors considered for arrangement include geography of the operational area, available strategic lift, changes in command structure, logistic buildup and consumption rates, enemy reinforcement capabilities, and public opinion.
- 2. Thinking about the arrangement helps determine tempo of activities in time and space.
- 3. The dynamic nature of modern warfare complicates decisions concerning how to best arrange operations; however, the arrangement that the commander chooses should not foreclose future options.

B. The arrangement of major operations relates directly to the commander's decision on phasing.

- 1. A phase represents a period during which a large portion of the forces are involved in similar or mutually supporting activities.
- 2. Phasing may be sequential or concurrent and phases may overlap.
- 3. During planning, commanders establish conditions for transitioning from one phase to another, and adjusts the phases when appropriate.
- 4. Phasing assists commanders to think through the entire operation and to define requirements in terms of forces, resources, and time.

C. The primary benefit of phasing is that it assists commanders in achieving major objectives, which cannot be attained all at once. Campaign phasing should consider

aspects such as prehostilities, lodgment, decisive combat and stabilization, follow-through, and posthostilities.

D. Actions during a prehostilities phase may be for deterrence or to seek to set the terms for battle and limit enemy freedom of action.

- 1. A lodgment phase allows the movement and buildup of a decisive combat force in the operational area.
- 2. A decisive combat and stabilization phase initially focuses on the rapid buildup of joint force capabilities.
- 3. During a follow-through phase, JFCs synchronize joint force activities to bring the operation to a successful conclusion.
- 4. During the posthostilities and redeployment phase, JFCs may retain responsibility for operations or they may transfer control of the situation to another authority and redeploy their forces.
- E. Logistics is crucial to phasing.
 - 1. Joint force planners consider establishing logistic bases, opening and maintaining LOCs, establishing intermediate logistic bases to support new phases, and defining priorities for services and support.
 - 2. Logistics, then, is key to arranging the operations of campaigns and should be planned and executed as a joint responsibility.
- F. Changes in phases at any level can represent a period of vulnerability for the force.
 - 1. At this point, missions and task organizations often change.
 - 2. The careful planning of branches and sequels can reduce the risk associated with transition between phases.

G. Branches and sequels directly relate to the concept of phasing. Their proper use can add flexibility to a campaign or major operation plan.

- 1. Branches are options built into the basic plan.
- 2. They may include shifting priorities, changing unit organization and command relationships, or changing the very nature of the joint operation itself.
- 3. Branches add flexibility to plans by anticipating situations that could alter the basic plan.
- H. Sequels are subsequent operations based on the possible outcomes of the current

operation, victory, defeat, or stalemate. At the campaign level, phases can be viewed as sequels to the basic plan. (JP 3-0, Chapter III, para 5i)

XI. Centers of Gravity

A. The essence of operational art lies in being able to mass effects against the enemy's sources of power in order to destroy or neutralize them. COGs are those characteristics, capabilities, or locations from which a military force derives its freedom of action, physical strength, or will to fight.

- 1. At the strategic level, COGs might include a military force, an alliance, national will or public support, a set of critical capabilities or functions, or national strategy itself.
- 2. The COGs concept is useful as an analytical tool, while designing campaigns and operations to assist commanders and staffs in analyzing friendly and enemy sources of strength as well as weaknesses.
- 3. It is important to note that analysis of COGs, both enemy and friendly, is a continuous process throughout an operation.

B. In theory, destruction or neutralization of enemy COGs is the most direct path to victory. However, COGs can change during the course of an operation, and, at any given time, COGs may not be apparent or readily discernible.

- 1. Identification of enemy COGs requires detailed knowledge and understanding of how opponents organize, fight, and make decisions, as well as their physical and psychological strengths and weaknesses.
- 2. JFCs and their subordinates should be alert to circumstances that may cause COGs to change and adjust friendly operations accordingly.

C. Enemy COGs will frequently be well protected, making direct attack difficult and costly.

- 1. This situation may require joint operations that result in indirect attacks until conditions are established that permit successful direct attacks.
- 2. It is also important to identify friendly COGs so that they can be protected. Long sea and air LOCs from CONUS or supporting theaters can represent a center of gravity. (JP 3-0, Chapter III, para 5j)

XII. Direct versus Indirect

A. To the extent possible, JFCs attack enemy COGs directly.

B. Where direct attack means attacking into an opponent's strength, JFCs should seek an indirect approach.

C. For example, if the COGs is a large enemy force, the joint force may attack it indirectly by isolating it from its command and control, severing its lines of communications, and defeating or degrading its air defense and indirect fire capability.

D. When vulnerable, the enemy force can be attacked directly by appropriate elements of the joint force. (JP 3-0, Chapter III, para 5k)

XIII. Decisive Points

A. By correctly identifying and controlling decisive points, a commander can gain a marked advantage over the enemy and greatly influence the outcome of an action.

- 1. Decisive points are usually geographic in nature, such as a constricted sea lane, a hill, a town, or an air base.
- 2. While decisive points are not centers of gravity, they are the keys to attacking protected centers of gravity.

B. There will normally be more decisive points in an operational area than JFCs can control, destroy, or neutralize with available resources.

- 1. Planners must analyze potential decisive points and determine which points enable eventual attack of the enemy's COGs.
- 2. The commander designates the most important decisive points as objectives and allocates resources to control, destroy, or neutralize them. Geographic decisive points that assist commanders to gain or maintain the initiative are crucial.
- 3. Controlling these points in the attack assists commanders to gain freedom of operational maneuver. (JP 3-0, Chapter III, para 5l)

XIV. Culmination

- A. Culmination has both an offensive and defensive application.
 - 1. In the offense, the culmination occurs at the point in time and space at which an attacker's combat power no longer exceeds that of the defender.

a. Here the attacker greatly risks counterattack and defeat and continues the attack only at great peril.

b. Success in the attack at all levels is to secure the objective before reaching culmination.

- 2. A defender reaches culmination when the defending force no longer has the capability to go on the counteroffensive or defend successfully.
 - a. Success in the defense is to draw the attacker to culmination;

b. Then strike when the attacker has exhausted available resources and is ill-disposed to defend successfully.

B. Synchronization of logistics with combat operations can forestall culmination and help commanders control the tempo of their operations.

- 1. At both tactical and operational levels, theater logistic planners forecast the drain on resources associated with conducting operations over extended distance and time.
- 2. They respond by generating enough military resources at the right times and places to enable their commanders to achieve strategic objectives before reaching their culminating points.
- 3. If the commanders cannot do so, they should rethink their concept of operations. (JP 3-0, Chapter III, para 5m)

XV. Termination

A. Knowing when to terminate military operations and how to preserve achieved advantages is a component of strategy and operational art.

- 1. Before forces are committed, JFCs must know how the NCA intend to terminate the operation and ensure its outcomes endure, and then determine how to implement that strategic design at the operational level.
- 2. The underlying causes of a particular war such as cultural, religious, territorial, or hegemonic must influence the understanding of conditions necessary for termination of hostilities and resolution of conflict.
- 3. Ideally, national and allied or coalition decision makers will seek the advice of senior military leaders concerning how and when to end combat operations.

B. Military operations typically conclude with attainment of the strategic ends for which the NCA committed forces. In some cases, these aims will be military strategic aims that, once achieved, allow transition to other instruments of national power and agencies as the means to achieve broader aims.

- 1. Commanders strive to end combat operations on terms favorable to the United States and its allies or coalition partners.
- 2. The basic element of this goal is gaining control over the enemy in the final stages of combat.
- 3. A hasty or ill-designed end to the operation may bring with it the possibility that related disputes will arise, leading to further conflict.

C. If the conditions have been properly set and met for ending the conflict, the necessary leverage should exist to prevent the enemy from renewing hostilities.

- 1. Moreover, the strategic aims for which the United States fought should be secured.
- 2. There is a delicate balance between the desire for quick victory and termination on truly favorable terms.

D. A period of postconflict activities exists from the immediate end of the conflict to the redeployment of the last US Service member. Also, a variety of operations other than war occur during this period to ensure political objectives are achieved and sustained.

E. Even as forces transition from combat operations to postconflict activities, requirements for humanitarian assistance will emerge. JFCs should identify postconflict requirements as early as possible so as to facilitate transition and to permit the simultaneous redeployment of forces no longer required. (JP 3-0, Chapter III, para 5n)

XVI. Conclusion

A. Once again, let me review the key elements of operational art that we have discussed here today:

- 1. **Synergy** is a concept that relates to integrating and synchronizing operations.
- 2. **Simultaneity and depth** are used to bring force to bear on the opponent's entire structure in a near simultaneous manner.
- 3. **Anticipation** is the key to effective planning so as to remain alert for the unexpected and for opportunities to exploit the situation.
- 4. **Balance** is an appropriate mix of forces and capabilities within the joint force.
- 5. **Leverage** is used to impose a force's will on the enemy, increase the enemy's dilemma, and maintain the initiative.
- 6. **Timing and tempo** serve to assist forces in dominating the action, remaining unpredictable, and operating beyond the enemy's ability to react, with the goal being to exploit friendly capabilities and inhibit the enemy.
- 7. **Operational reach and approach** discusses the range in which the joint force can prudently operate or maintain effective operations, emphasizing that basing, in the broadest sense, is an indispensable foundation of joint operational art.
- 8. **Forces and functions** of the enemy are typically targeted by joint force operations concurrently, in order to create the greatest possible contact area between friendly and enemy forces.
- 9. Arranging operations will often consist of a combination of simultaneous

and sequential operations to achieve the desired end state conditions quickly and at the least cost in personnel and other resources.

- 10. **Centers of gravity** are those characteristics, capabilities, or locations from which a military force derives its freedom of action, physical strength, or will to fight.
- 11. **Direct versus Indirect Approach** refers to the JFC's attacking of enemy COGs directly or indirectly.
- 12. **Decisive points**, usually geographic in nature, can assist a force in gaining a marked advantage over the enemy and may greatly influence the outcome of an action.
- 13. **Culmination** has both an offensive and defensive application. In the offense, the culminating point is the point in time and space at which an attacker's combat power no longer exceeds that of the defender. A defender reaches culmination when the defending force no longer has the capability to go on the counteroffensive or defend successfully.
- 14. And lastly, **termination** is an essential component of strategy and operational art, whereby forces know when to terminate military operations and how to preserve achieved advantages.

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