



Maritime Staff Reference Guide

Maritime Staff Operators Course



U.S. NAVAL WAR COLLEGE
Est. 1884
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QUICK REFERENCE GUIDE

Methods of Combat Force Employment

Campaign: series of synchronized/coordinated major operations

Major Operation: series of synchronized/coordinated tactical actions

Tactical Action: raids, battles, engagements, etc.

Op Factors

Time
Space
Force
Interrelationships

Op /Joint Functions

C2
Intelligence
Fires
M&M
Protection
Sustainment

Elements of Operational Design

Termination	Leverage
End State & Objective	Balance
Effects	Anticipation
COG/ECOG	Synergy
Decisive Points	Culmination
Direct vs. Indirect	Arranging Ops
Lines of Operation	Risk Tolerance
Operational Reach	
Simultaneity & Depth	
Timing & Tempo	
Forces & Functions	

Principles of Joint Operations

Mass
Objective
Offensive
Security
Economy of Force
Maneuver
Unity of Cmd/Effort
Surprise
Simplicity

Restraint
Persistence
Legitimacy

COG Deconstruction

Find a COG:

- ID Critical Factors (strengths & weaknesses)
- COG comes from list of strengths

Attack a COG:

- ID Critical Capabilities (Operational functions)
- ID Critical Requirements (and supporting CCs)
- ID Critical Vulnerabilities within CRs

Phasing Construct

Ph 0: Shape
Ph I: Deter
Ph II: Seize the Initiative
Ph III: Dominate
Ph IV: Stabilize
Ph V: Enable Civil Authority

JIPOE Steps

Define the OE
Describe the OE
Evaluate the Enemy
Determine ECOGs/ECOAs

Navy Planning Process

Mission Analysis
COA Development
COA Analysis (Wargaming)
COA Comparison & Decision
Plan or Order Development
Transition

The Maritime Staff Operators Course faculty is pleased to produce this guide for the use of staff operators throughout the Navy. We hope you find it handy and easy to use. Please understand, however, that this is only a guidebook. Use it in conjunction with other joint and Navy doctrine publications. We welcome feedback on its content or suggestions for improvement. Feel free to contact us at 401-841-3685 or 841-3690 or MSOC@usnwc.edu

General info on the course can be found at:
<http://usnwc.edu/Academics/Maritime--Staff-Operators-Course.aspx>

Another useful resource is the MOC Warfighter on-line journal. It contains articles from fleet staff operators just like you. Please feel free to contribute articles highlighting your experiences.
<https://www.usnwc.edu/mocwarfighter/>

Useful websites for downloading publications:

Joint Doctrine: <https://jdeis.js.mil/jdeis/index.jsp?pindex=0>

Navy Doctrine: <https://ndls.nwdc.navy.mil/default.aspx>

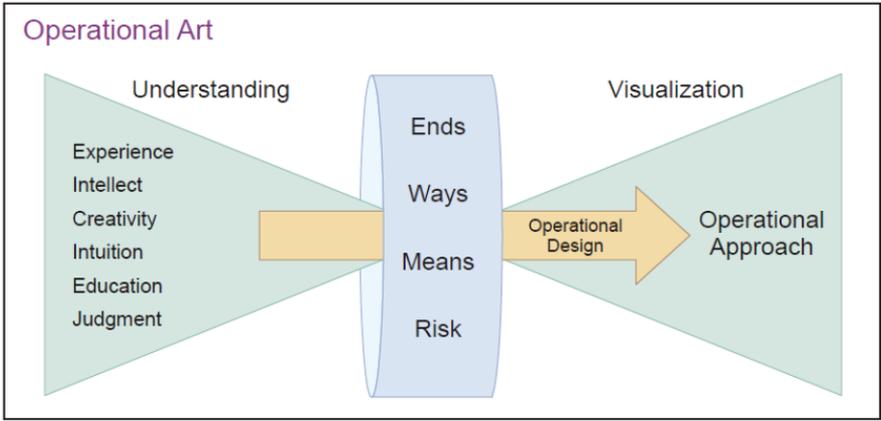
USFFC Fleet CONOPS: <http://fims.nwdc.navy.smil.mil/CONOPS/default.aspx>

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Operational Art and Design



Operational Art is the cognitive approach by commanders and staffs—supported by their skill, knowledge, and experience—to design strategies, campaigns, and major operations to accomplish strategic/operational objectives. OPART integrates ends, ways, and means. OPART encompasses operational design. (JP 3-0)

Ends, Ways, Means, Risk

Operational art is the method commanders use to visualize how best to efficiently and effectively employ military capabilities to accomplish their mission by answering the following questions:

(Ends) What is the military end state that must be achieved, how is it related to the strategic end state, and what objectives must be achieved to enable that end state?

(Ways) What sequence of actions is most likely to achieve those objectives and the end state?

(Means) What resources are required to accomplish that sequence of actions within given or requested resources?

(Risk) What is the chance of failure or unacceptable consequences in performing that sequence of actions?

Operational Design is the conception and construction of the framework that underpins a campaign or major operation plan and its subsequent execution. (JP 5-0)

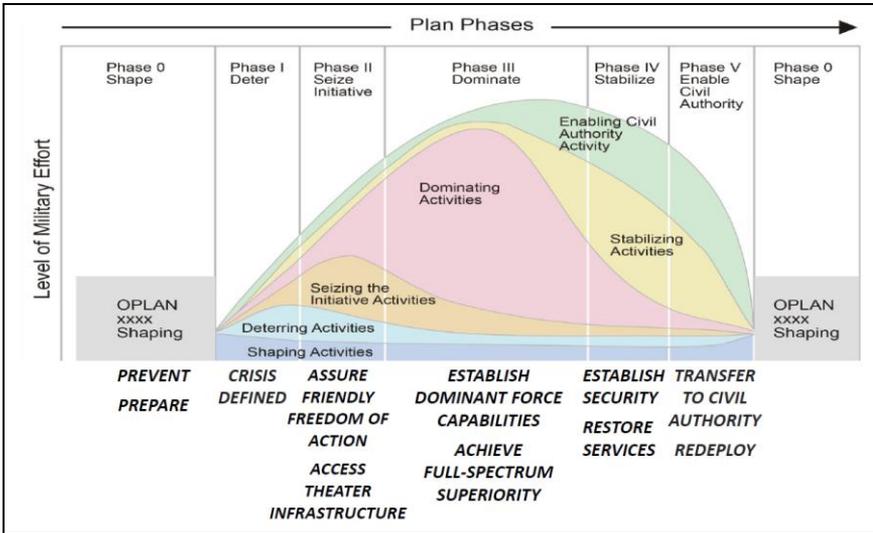
Regressive Planning—Determine what the desired end state is and work backward.

Operational Design Elements: NWP 3-32 and JP 5-0 have slightly different lists of elements, which are combined below. Use **operational design elements** to visualize the arrangement of actions in time/space/purpose to accomplish the mission:

- **Termination/End State**
 - End State: the set of required conditions that defines achievement of the commander's objectives.
 - What is the desired end state?
 - Determined by the nature of war and the perception of your adversary
 - Understanding the war's causes influences understanding termination
 - Keep leverage to prevent adversary from renewing hostilities
 - When do we stop military operations?
- **Objective**
 - A hierarchy of objectives begins with political-strategic objectives. Nested with and supporting political-strategic objectives are national-strategic objectives, theater-strategic objectives, operational objectives, and tactical objectives. Military effort at each level of war should be directed at the objectives defined for that specific level.
 - Can be physical or conceptual in the form of a desired condition.
 - Most important objective becomes basis for decisive operation.
 - **Operational objective:** a clearly defined, decisive, and attainable goal toward which every operation is directed; primary considerations for military objectives:
 - must link to a higher-level objective
 - must be as unambiguous as possible
 - should not specify ways/means
 - **End state:** the set of required conditions that defines achievement of the CDR's objectives (JP 1-02) Defined in terms of friendly, enemy and geopolitical state.
- **Effects**
 - The physical or behavioral state of a system that results from an action, a set of actions, or another effect. (JP 1-02)
 - The effect should be measurable
 - ID desired effects and undesired effects
 - Use a systems approach/direct and indirect approach to create desired effects
 - Producing effects can support achieving objectives
 - May link to more than one objective
 - Apply friendly DIME on enemy PMESII to create desired effects
 - DIME = diplomatic, information, military, economic
 - PMESII = political, military, economic, social, information, infrastructure

- **Center of Gravity/Enemy Center of Gravity (COG/ECOG)**
 - The source of power that provides moral or physical strength, freedom of action, or will to act. (JP 1-02)
 - Destruction or neutralization of the ECOG is the most direct path to victory
 - Military objectives should always be linked to a COG
 - JIPOE/IPB identifies ECOGs; OPT determines friendly COGs
 - Must protect friendly COG, attack ECOG
 - There may be different COGs at different levels, and they may change by phase.
 - Operational-level COGs/ECOGs may change by phase, but are almost always a military force.
- **Decisive Point (DP)**
 - A geographic place, specific key event, critical factor, or function that, when acted upon, allows commanders to gain a marked advantage over an adversary or contribute materially to achieving success. (JP 1-02)
 - Not an ECOG; but may be key to attacking ECOGs
- **Direct vs. Indirect**
 - The approach 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. An indirect approach attacks the enemy's COG by applying combat power against a series of decisive points that lead to the defeat of the COG while avoiding enemy strengths.
 - If strength insufficient or risk to force too high, direct attack may be inadvisable
- **Line of Operation (LOO)**
 - A line that 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 / space to an objective(s). (JP 1-02)
 - Defines the orientation of the force in time and space or purpose
 - A logical line that connects actions on nodes and DPs related in time and purpose with the objective
- **Line of Effort (LOE)**
 - Links multiple tasks and missions using the logic of purpose--cause and effect--to focus efforts toward establishing operational and strategic conditions
- **Logical line of Operation/Line of Effort (LLOO/LLOE)**
 - Useful tools for framing stability, COIN, or civil support operations.
 - Links multiple tasks with goal-oriented objectives that focus on establishing end-state conditions
 - Often essential to helping visualize how military capabilities can support the other instruments of national power (unity of effort)
- **Operational Reach**
 - The distance and duration across which a joint force can successfully employ military capabilities. (JP 1-02)
 - Basing is foundational to maintaining/extending reach

- **Simultaneity and Depth**
 - Simultaneous application of military and nonmilitary power against the enemy's key capabilities and sources of strength.
 - 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 defeat.
 - Overwhelm enemy, causing confusion and demoralization
 - Hit from multiple domains—parallel vice serial operations
 - Attack in depth disrupts an enemy's decision cycle
- **Timing and Tempo**
 - Conduct operations in tempo and time that best exploit friendly capabilities
 - Dominate the action, remain unpredictable, operate faster than enemy's ability to react
 - Try to operate inside enemy decision cycle
- **Forces and Functions**
 - Campaigns can defeat enemy forces or functions, or both concurrently
 - Attacking functions can destroy enemy's balance
- **Leverage**
 - Relative advantage in combat power across domains
 - Gain, maintain, and exploit the initiative
- **Balance**
 - Maintain the force's freedom of action
 - Disrupt enemy's balance; links to timing/tempo
- **Anticipation**
 - Key to effective planning. CDR must consider what might happen and look for the signs that may bring the possible event to pass.
 - Be alert for the unexpected; look for opportunities to exploit
 - Keep the initiative and stay prepared
- **Synergy**
 - Integrate and synchronize within all domains.
 - Seek combinations of forces/actions to achieve concentration
 - Attain the objective as quickly as possible with minimal casualties
- **Culmination**
 - The point in time and/or space at which an operation can no longer maintain momentum.
 - When attacker's combat power no longer exceeds that of the defender
 - When defender can no longer go on the counteroffensive or defend successfully
- **Arranging Operations**
 - A combination of simultaneous and sequential operations to reach the end state conditions with the lowest cost in personnel and other resources. Includes branches and sequels.
 - Logistics are crucial to arranging operations
 - Related phases implemented over time.
 - **Phasing is a key aspect of this element**
 - Divides a complex joint operation into manageable parts
 - Assists overall integration and synchronization of the plan



Notional Operation Plan vs. Level of Military Effort

- **Phase 0—Shape:** dissuade potential adversaries and solidify relationships with friends and allies
 - Shape perceptions of enemies and allies
 - Lead effort may not be military
 - Incorporated in theater campaign plan
 - Goal in all phases is to return quickly back to Phase 0
- **Phase I—Deter:** deter undesirable adversary action by showing the capabilities/resolve of the joint force
 - Characterized by preparatory actions that support follow-on phases
 - Builds on Phase 0 shaping actions
 - Military may not be the main effort
 - Usually start flow of forces into JOA
- **Phase II—Seize the Initiative:** seize the initiative in combat and noncombat situations through application of joint force capabilities
 - Military effort dominant
 - Combat operations at earliest possible time
 - Start stability operations to relieve conditions that started crisis

- **Phase III—Dominate: focuses on breaking the enemy's will or control of the operational area**
 - Military effort dominant
 - Full employment of the joint force to achieve operational objectives
 - Forces flowing, being sustained
 - Control of JOA domains
- **Phase IV—Stabilize: required when there is no fully functional, legitimate civil government authority present**
 - Characterized by a reduction in sustained combat ops
 - Threat is assessed as manageable and stability ops can begin
 - DOS may be in the lead with DOD supporting
 - Joint force may be used in limited local governance and to integrate NGOs, IGOs, OGAs, basic services (security, etc.)
 - Redeployment may begin
 - Transfer of authority to local government
- **Phase V—Enable Civil Authority: support legitimate civil governance**
 - Enable viability of civil authority; support provision of essential services
 - Redeployment operations commence (if not started earlier)
- **Branches and Sequels**
 - Branches answer: What if?
 - Sequels answer: What next?
- **Risk Tolerance**
 - Consider risk to mission and risk to forces
 - CDR's risk tolerance must be built into the plan
 - Risk must be evaluated throughout planning and execution
 - Risk mitigation must be built into the plan and constantly assessed

Operational Factors

Time

- The most critical factor—time lost can never be recovered
- Duration of conflict (logistics/sustainment)
- Preparation time (mobilization, deployment, etc.)
- Time for mobilization
- Planning time
- Time for deployment
- Warning time (helped by geostrategic positioning)
- Reaction time (alert status)
- Decision-making cycle
- Time between consecutive major operations = tempo
- Training time

Space

- **Shape and Distance:** critical aspects of space; affect power projection and logistics
- **Elements of Space**
 - Highly dynamic once hostilities start
 - Comprised of people, topography, oceanography, climate, infrastructure
 - Neutral zones can play a significant role in offense and defense
 - Maritime: use, control, or deny
- **Geostrategic Position**
 - Central position: no border on ocean (e.g., Afghanistan, Hungary)
 - Semi-central position: on maritime rim of a continental landmass (e.g., Germany)
 - Peninsular: longer sea than land frontier (e.g., Italy, /Korea)
 - Insular: large island (e.g., UK)
 - Archipelagic: Many islands (e.g., Philippines, Indonesia)

Force

- More than military—includes diplomatic, information, and economic
- **Physical Elements (tangible)**
 - Military size/type/mix, combat power, reserves, logistics, mobility, weapons
- **Human Elements (intangible)**
 - Morale, discipline, leadership, unit cohesion, training, jointness, doctrine

Time, Space and Force Interrelationships

- **Time-Space**
 - Time and space are not subject to the commander's will
 - Physical and climatological characteristics of space impact deployment and employment
- **Time-Force**
 - Timely availability of forces based on type/size of forces and their organization, distance to JOA, transportation mode, and infrastructure
- **Space-Force**
 - Overcoming space in movement of forces
 - Controlling space requires forces
 - Size of force in proportion to the space
- **Time-Space-Force**
 - The most complex relationship to assess—the essence of OPART
 - Greater distance to move forces requires more time

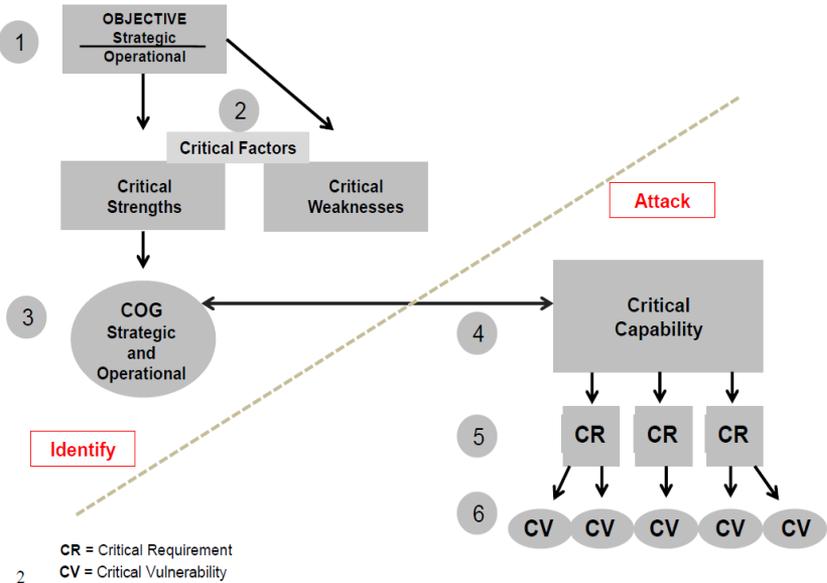
Principles of Joint Operations (JP 3-0)

- **Mass:** concentrate effects of combat power at the most advantageous place and time
- **Objective:** direct military operations toward a clearly defined, decisive, and attainable objective
- **Offensive:** seize, retain, and exploit the initiative
- **Security:** never permit the enemy to acquire an unexpected advantage
- **Economy of Force:** allocate minimum essential combat power to secondary efforts
- **Maneuver:** place enemy in a position of disadvantage
- **Unity of Command/Effort:** coordination among all forces toward a common objective
- **Surprise:** strike at a time/place or in a manner for which the enemy is unprepared
- **Simplicity:** prepare clear, uncomplicated plans and concise orders
- **Restraint:** limit collateral damage and prevent unnecessary use of force
- **Perseverance:** ensure commitment necessary to attain the national end state
- **Legitimacy:** legality, morality, rightness of actions

Center of Gravity Deconstruction

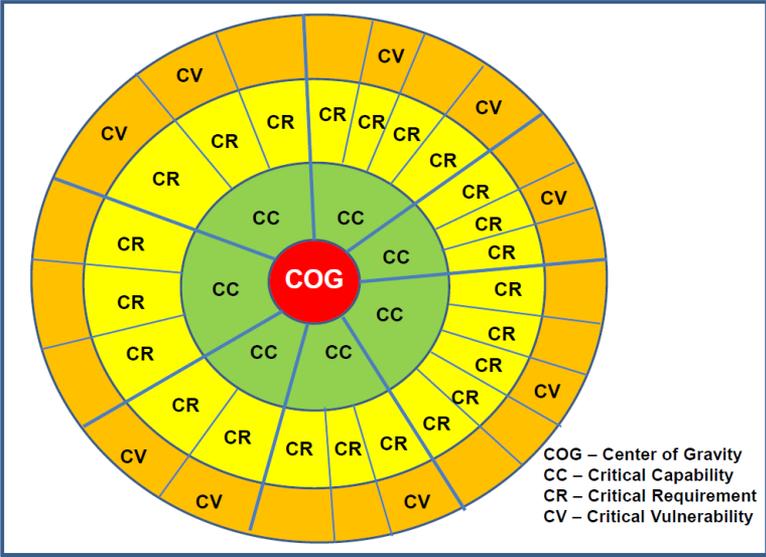
(JP 5-0 Chapter III and NWP 5-01 Appendix C)

COG Analysis Steps

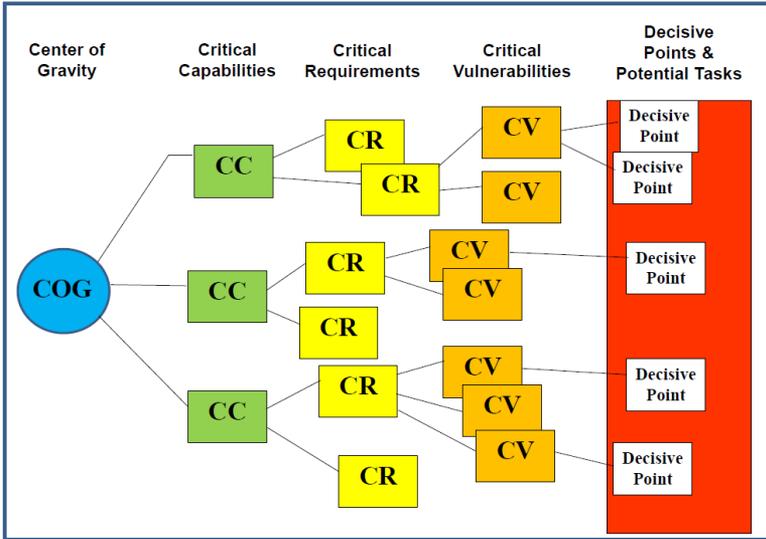


- **Center of Gravity (COG):** The source of power that provides moral or physical strength, freedom of action, or will to act. (JP 1-02) The source of massed strength, physical or moral, or source of leverage—whose serious degradation, dislocation, neutralization, or destruction would have a decisive impact on the enemy's or one's own ability to accomplish a given objective. (Vego)
 - Linked to the objective
 - Strategic level—usually intangible; lower levels—predominantly physical
 - COGs are things, not attributes
 - Operational COG is often a critical strength for the strategic COG
 - Transitional due to
 - Change in composition of alliance/coalition
 - Change of objective
 - Change in phase
 - Weakening of original COG

- **Identify COG by looking at Critical Factors:**
 - **Critical Factor (CF):** An attribute considered crucial for the accomplishment of the objective that describes the environment (in relationship to the objective) and must be identified and classified as either sufficient (critical strength) or insufficient (critical weakness). (NTRP 1-02)
 - **Critical Strength:** A military or nonmilitary capability considered essential to the accomplishment of one's or the adversary's military objective(s); the most important among the critical strengths is the center of gravity. (NWP 5-01) The COG comes from list of critical strengths
Critical Weakness: A military or nonmilitary capability considered essential to the accomplishment of one's or the adversary's military objectives but, in terms of quantity, quality or both, insufficient or inadequate to perform their intended functions. (NWP 5-01)
- **Attack COG:**
 - **Critical Capability (CC):** A means that is considered a crucial enabler for a center of gravity to function as such, and is essential to the accomplishment of the specified or assumed objective. (JP 1-02)
 - **Critical Requirement (CR):** An essential condition, resource, and means for a critical capability to be fully operational. (JP 1-02)
 - **Critical Vulnerability (CV):** An aspect of a critical requirement which is deficient or vulnerable to direct or indirect attack that will cause decisive or significant effects. (JP 1-02)



“Mayan Sundial” Technique for COG Analysis



Operational / Joint Functions

(JP 3-0 Chapter III)

- Functions are interrelated capabilities/activities that allow the CDR to synchronize, plan, prepare, conduct, and sustain military actions across the full range of operations. Some functions, such as C2 and intelligence, apply to all operations. Others, such as fires, apply as required.

Operational C2

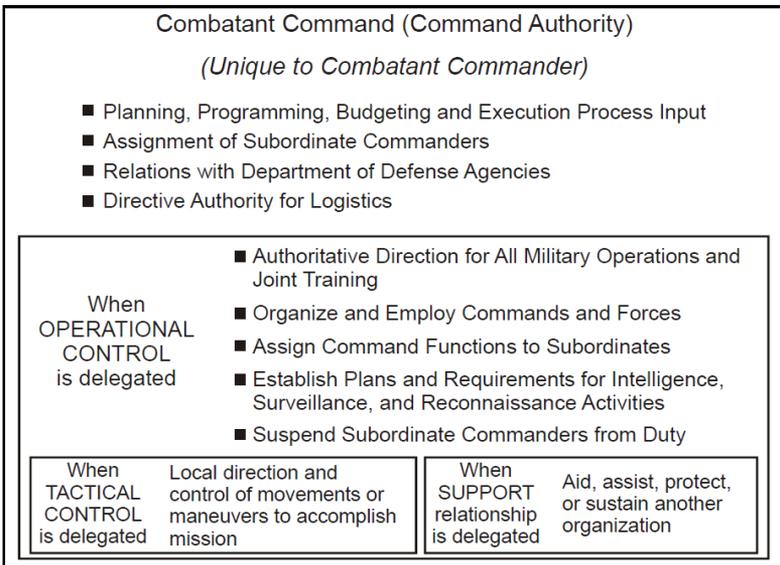
- The exercise of authority/direction by a properly designated CDR over assigned and allocated forces in the accomplishment of the mission
- Single most important function (binds together the rest of the operational functions)
- Enables the CDR to synchronize activities in time, space and purpose to achieve unity of effort
- Most important elements are information, authority, and communications
- Focuses the staff to support critical decisions at the OLW
- Process to determine required actions, codify actions in directives, execute actions, and monitor results
- Monitor: measure ongoing activities based on current plans
- Assess: determine the impact of events relative to mission progress
- Plan: develop new plans or adjust current plans
- Direct: CDR uses MOC to direct actions to ensure orders are executed as intended

- **Principal challenges are**
 - Size/dispersion of forces
 - Operational tempo
 - Interoperability/terrain/weather
- **C2 elements**
 - Span of control
 - Command echelons
 - Information flow
 - Communications
 - Integration
 - Coordination
- **Effective command organization should have**
 - Simple C2 structure
 - Small number of subordinate command echelons
 - Centralized direction/decentralized execution (assign tasks, but not how to accomplish them)
 - Integrated vertically, to be responsive to the CDR
 - Integrated laterally so individual command elements are synchronized

- **Type of command depends on:**
 - Assigned objectives and missions
 - Geographic characteristics of the area
 - Assigned/allocated forces
 - Adversary forces
 - Time

- **Command echelons can be established using one method or a combination of:**
 - Geographic
 - Functional
 - Service component

US Joint Doctrine Command Relationships (JP 1 Chapter V)



Allied/Multinational Doctrine Command Relationships

In the following chart, the duties, responsibilities and authorities were derived from definitions in JP 3-0 and AJP 3. Some authorities are clear, others are not. The CDR must ensure that the force understands its command relationships.

Duties and Responsibilities Derived from JP 3-0 and AJP 3	U.S. Joint Doctrine				Allied/Multinational			
	COCOM	OPCON	TACON	Support	OPCOM	OPCON	TACOM	TACON
Exercise/delegate OPCON	YES	YES			YES			
Exercise/delegate TACON	YES	YES			YES	YES		
Establish support relationships	YES	YES	YES					
Directive authority for logistic matters	YES	NO	NO		NO	NO		
Prescribe the chain of command	YES	YES						
Employ forces within the command	YES	YES						
Assign command functions to subord commanders	YES	YES						
Coordinate/approve admin, support and discipline	YES							
Direct military ops, joint training and logistics	YES							
Coord with DOD/MOD agencies/CCDRs and intl orgs	YES							
Establish personnel policies	YES							
Suspend subordinates from duty	YES	YES						
Convene general courts martial	YES							
Establish plans and rqmts for C2/ISR activities	YES	YES						
Delineate functional responsibilities/OPAREAs		YES						
Administration		NO	NO		NO	NO		
Discipline/internal organization/unit training		NO						
Designate coordinating authorities		YES						
Direct military ops and joint training		YES						
Organize subordinate commands and forces		YES						
Plan for/deploy/direct/control subordinate forces		YES						
Conduct joint training and exercises		YES						
Assign responsibilities for routine matters		YES						
Local defense and OPAREAs		YES						
Detailed direction of movement w/in OPAREA			YES					YES
Direct military ops			YES					
Control designated forces			YES					
Control/direct app of force/tac use of CS assets			YES					
Aid, assist, protect or sustain another force				YES				
Coordinating authority or DIRLAUTH	YES	YES	YES	YES				
Assign missions or tasks					YES			
Deploy units					YES	YES		
Reassign forces					YES			
Direct forces assigned						YES		
Assign separate employment of units						NO		
Assign tasks							YES	

Joint Support Relationships

Established by a superior commander between subordinates when one organization should aid, protect, complement, or sustain another force.

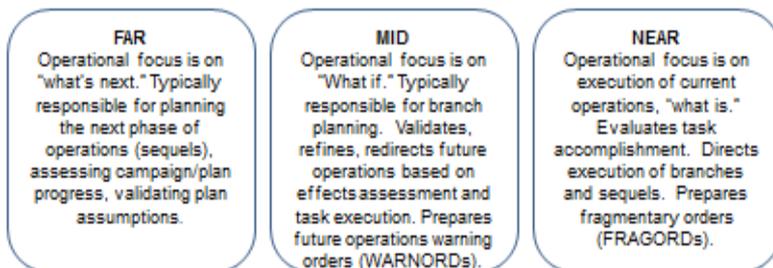
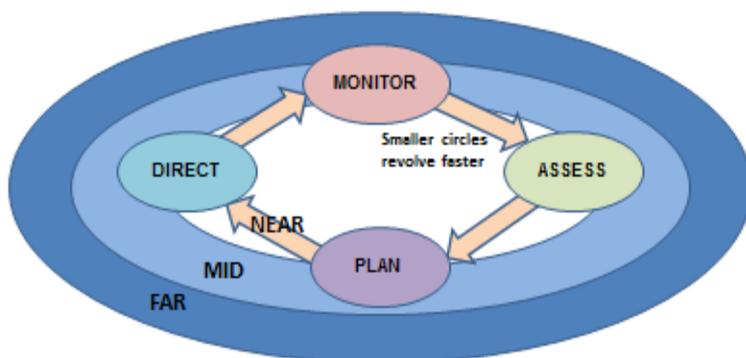
Supported CDR has primary responsibility for all aspects of task assigned.

- Receives assistance from another CDR's force or capabilities
- Responsible for ensuring that the supporting CDR understands the assistance required

Supporting CDR provides support.

- Aids, protects, complements, or sustains another CDR's force or capabilities
- Responsible for providing the assistance required by the supported CDR.

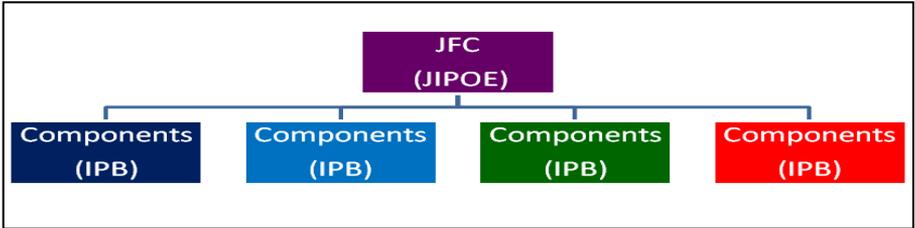
Commander's Decision Cycle



CDR's Decision Cycle and Timelines

Operational Intelligence

- Designed to meet CDR's operational and strategic objectives
- Defined as intel products that work within an intel organization
- Multiple sources (e.g., HUMINT, SIGINT, OSINT, IMINT, MASINT, TECHINT) are used to collect data/info IOT analyze and produce intel
- Intel must be front-loaded in the NPP
- **Joint Intelligence Preparation of the Operational Environment (JIPOE)/Intelligence Preparation of the Battlespace (IPB)** (Doctrinally not part of NPP, but feeds initial NPP steps and supports throughout. Note: Navy doctrine uses IPOE; same methodology but lumps JIPOE and IPB together)
 - JIPOE is conducted by the JFC (e.g., CJTF) and used to develop the intel estimate and OPORD Annex B. IPB is conducted by the components (e.g., C/JFMCC) and used to develop their products



- JIPOE is a continuous process designed to support the commander's decision making
 - Used to produce intel products
 - Provides CDR and staff with understanding of the operational environment (OE) and the adversary relative to the mission
 - JIPOE products support the NPP
 - CDR and staff must be critical consumers, provide guidance and know when and how to prod the system
 - Intel and ISR must be integrated with other operational functions
 - Maritime intelligence operations center (MIOC) and METOC cell are key components in the MOC and must be integrated
 - The maritime domain must be understood to evaluate its impact on friendly and enemy forces and actions
 - The US depends on space support; must understand our vulnerabilities and how to respond to disruption/degradation

Four steps of JIPOE/IPB:

1. Define the Operational Environment
 - a. Identify the AO and AOI
 - b. Determine the significant characteristics of the environment
 - c. Evaluate existing databases and identify intelligence gaps and priorities
2. Describe the OE Effects
 - a. Analyze /time/space/force/ interrelationships
 - b. Determine OE effects on enemy and friendly capabilities and broad COAs
3. Evaluate the Enemy
 - a. Identify enemy capabilities, situation, general ECOAs
4. Develop ECOAs
 - a. Identify enemy objectives and end state
 - b. Identify ECOGs, CCs, CRs, CVs and DPs
 - c. Identify and develop ECOAs

Operational Fires

- Produce decisive impact on outcome of a major operation
- Planned/executed at the operational level of command
- Types: lethal and nonlethal
- Shape the battlespace in support of the operational objectives
- When employed outside of an area of operations they
 - Facilitate maneuver of friendly forces
 - Disrupt maneuver of enemy's forces
 - Isolate the AO of a major operation or campaign
 - Neutralize enemy's operational reserve
 - Neutralize enemy critical functions and facilities
 - Deceive the enemy as to the main effort

Operational Movement and Maneuver

- Movement is the deployment of forces to a JOA
- Maneuver is employment of forces in the operational area through movement in combination with fires to achieve a position of advantage in respect to the enemy. (JP 1-02)

Operational Protection

Preservation of the effectiveness and survivability of mission-related military and nonmilitary personnel, equipment, facilities, information, and infrastructure deployed or located within or outside the boundaries of a given operational area (JP 1-02).

- Four primary methods:
 - Active defensive measures protect the joint force from attack
 - Passive defensive measures make friendly forces difficult to target
 - Apply technology/procedures to reduce fratricide
 - Reduce loss of personnel/capabilities to accidents and health threats
- Principal components (integration of components essential):
 - Land:
 - I&W
 - Air and missile defense (to include BMD)
 - Airspace control
 - Force protection
 - Protection of information systems
 - Protection of logistics infrastructure
 - Defense against WMD
 - Rear area/air base ground defense
 - OPSEC/physical security
 - Defense against terrorist acts
 - Maritime (in addition to those above):
 - Sea-based air defense
 - ASW
 - Defense of the coast
 - Anti-surface defense
 - Defensive mining/mine countermeasures (MCM)
- Commanders must balance defense of an operational COG vs. protection of all theater forces; best to defend COG and accept risk elsewhere

Operational Sustainment

- Major operations/campaigns are usually limited by sustainment requirements
- National responsibility may have multinational solutions
- Affected by diplomatic, economic, and environmental considerations
- Synchronization between operations and logistics is essential
- Logistics determine operational reach: can be extended to forward areas by
 - Establishing new bases in forward areas
 - Deploying friendly forces into forward areas
 - Improvements in the transportation network
- Military classes of supply
 - **Class I**—Subsistence (food), health, and comfort items.
 - **Class II**—Clothing, tentage, tools.
 - **Class III**—Petroleum, oil, lubricants (POL).
 - **Class IV**—Construction and barrier materials.
 - **Class V**—Ammunition.
 - **Class VI**—Personal demand items (hygiene products, snacks, alcohol).
 - **Class VII**—Major end items (launchers, tanks, vehicles).
 - **Class VIII**—Medical materials.
 - **Class IX**—Repair parts.
 - **Class X**—Non-standard material for nonmilitary programs (agriculture/economic development).

Levels of War and Command

Levels of War

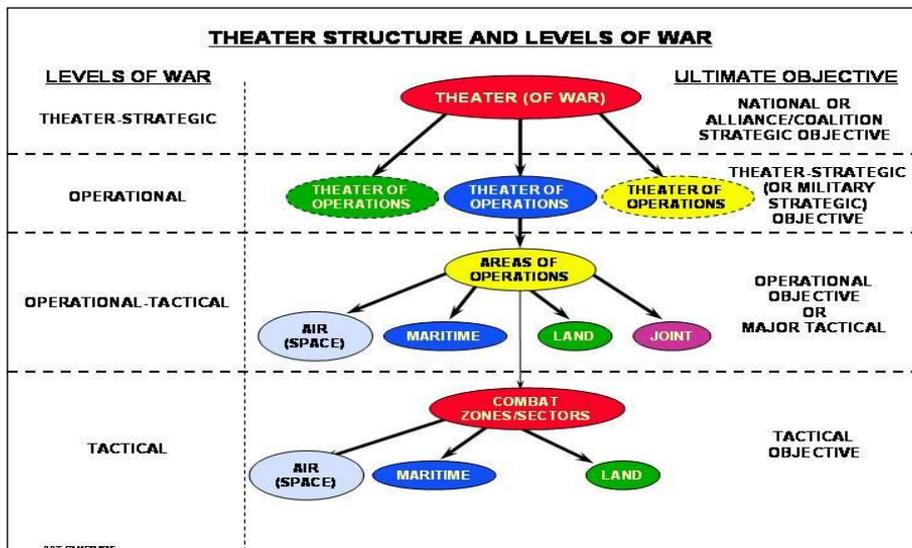
- Determined by the nature/scope of the military objective
- Larger objective = higher level of war
- Objective determines the size/mix of forces
- Command structures and echelons must be matched to levels of war
- Not determined by command echelon, size of force, or area

- **National-Strategic Level of War (e.g., POTUS, SecDef, JCS)**
 - Implementation of NSS/NMS and strategic objectives
 - Responsible for C2 of military forces in peacetime and war
 - Builds coalitions
 - Determines forward presence requirements
 - Provides national space capabilities
 - Provides strategic communication guidance/conducts strategic info operations
 - Protects country's strategic assets
 - Coordinates/ integrates interagency and multinational cooperation
- **Theater-Strategic Level of War (e.g., CDR)**
 - Develops theater strategy
 - Conducts strategic ISR to provide intelligence for development and execution of theater strategy and the employment of theater forces
 - Maintains alliances/regional relations
 - Provides security assistance, FHA, etc.
 - Planning/prep for multiple campaigns
 - Theater-strategic logistic support
- **Operational Level of War (e.g., JFC)**
 - Major operations and campaigns provide the vital link between strategic objectives and tactical force employment
 - Plan and conduct campaigns and major operations
 - Synchronizes land, sea, space, and SOF to achieve theater objectives
 - Normally established only in time of crisis
 - Plans/executes/synchronizes logistics
 - Major role in post-hostilities
- **Tactical Level of War (e.g., individual units)**
 - Employment of units to achieve tactical objectives
 - Almost entirely focused on physical combat with purely military objectives
 - Consists of battles and engagements
 - Plan/prepare/conduct tactical deployments
 - Uses logistics; has no authority over logistics

Levels of Command

- Three basic: strategic, operational, and tactical
 - Theater-strategic covers potential for simultaneous, multiple-theater wars
 - Compression of factor space has created two additional levels: operational-strategic/operational-tactical

The Theater

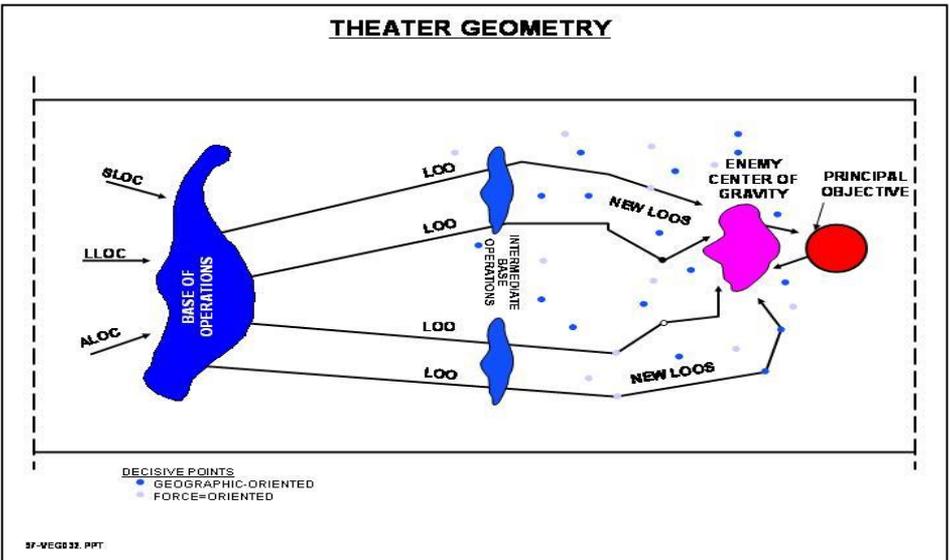


Theater Organization and Structure

- Area of influence:** A geographical area wherein a commander is directly capable of influencing operations by maneuver or fire support systems normally under the commander's command or control. (JP 3-0) An undefined area that extends beyond the boundaries of a given theater, but in which the CDR can directly influence actions by using maneuver or fires.
- Area of interest (AOI):** That area of concern to the commander, including the area of influence, areas adjacent thereto, and extending into enemy territory. This area also includes areas occupied by enemy forces that could jeopardize the accomplishment of the mission. (JP 1-02) It encompasses adjacent geographic areas where pol/mil/econ developments have an effect within a JOA.
- Theater of operations (TOO):** An operational area defined by the geographic combatant commander for the conduct or support of specific military operations. (JP 1-02) Typically smaller than a theater of war but large enough to allow for operations in depth and over extended periods of time.
- Joint operations area (JOA):** An area of land, sea, and airspace, defined by a geographic combatant commander or subordinate unified commander, in which a joint force commander (normally a joint task force commander) conducts military operations to accomplish a specific mission. (JP 1-02)

- **Area of operations (AO):** An operational area defined by the joint force commander for land and maritime forces that should be large enough to accomplish their missions and protect their forces. (JP 1-02) Typically defined for maritime and land forces; a subset of the JOA.
- **Joint special operations area (JSOA):** An area of land, sea, and airspace assigned by a joint force commander to the commander of a joint special operations force to conduct special operations activities. (JP 1-02)
- **Joint security area (JSA):** A specific surface area, designated by the JFC to facilitate protection of joint bases and their connecting lines of communications that support joint operations. (JP 1-02)
- **Amphibious objective area (AOA):** A geographical area ... within which is located the objective(s) to be secured by the amphibious force. (JP 1-02)

Theater Geometry: the main elements of any theater are positions, distances, bases of operation, physical objectives, DPs, LOOs, lines of retreat/withdrawal, and LOCs.



Positions

- Geography still matters. Relative position of opposing forces is often crucial
- **Central position:** when a force is between two or more enemy forces
 - Advantages: Shorter LOCs; enemy can't easily concentrate forces
 - Disadvantages: Susceptible to simultaneous attack from multiple axes
- **Exterior position:** when a force lies along periphery of enemy's center
 - Advantages
 - Maneuver: single-sided envelopment or wide movement
 - Can conduct attacks from multiple directions
 - Can use movement to draw enemy from assigned objective
 - Disadvantage: Requires numerically larger and more mobile force
- **Distances**
 - Of note, at the operational level is the distance between bases and combat employment areas
- **Base of Operations**
 - Encompasses a land or coastal area where forces are assembled and sustained
 - Acts as a power focus as close to the enemy as possible
 - Supports offensive and defensive operations
 - Established so advantageous lines can be created relative to objectives
 - Main base of operations usually located in own territory
 - Intermediate base of operations developed or obtained during the course of a major operation
- **Physical Objective**
 - Theaters contain many physical objectives to be seized, held, controlled, or neutralized
 - Geographic feature or a force
 - Many tactical, few operational, and only a single strategic in the course of a campaign
 - Never considered in isolation from the nonmilitary aspects of the situation
 - Can apply to offense or defense
 - Tactical objective: creates drastic change in a tactical area and contributes to a major tactical objective
 - Operational objective: needs a larger force and more time to accomplish; has significant effect on the next-higher physical objective and leads to drastic change in a theater; can be fixed or mobile
 - Strategic objective: drastic effect within a given theater
 - National-strategic objective: results in ending enemy's organized resistance/hostilities in theater

- **Decisive Point**
 - A geographic place, specific key event, critical factor, or function that, when acted upon, allows commanders to gain a marked advantage over an adversary or contribute materially to achieving success. (JP 1-02)
 - A decisive point for one echelon may be an objective for the next-lower echelon
 - Permanent or transitory; terrain or force-oriented
- **Line of Operation (LOO)**
 - A line that 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). (JP 1-02) An imaginary line along which a force moves from its base of operations toward a given physical objective
 - Must be accessible and well protected
 - Shifting LOOs during major operations should be avoided
 - Main LOOs extend to the main objective
 - Secondary LOOs extend to secondary objectives
- **Line of Communications (LOC)**
 - A route, either land, water, and/or air, that connects an operating military force with a base of operations and along which supplies and military forces move. (JP 1-02)
 - Shifting LOCs in combat should be avoided
 - Shorter is usually better
 - **Land Lines of Communications (LLOCs):** links between bases of operations and fielded forces; roads, railroads, waterways
 - **Air Lines of Communications (ALOCs):** used extensively for fast transport of troops and specialized cargo
 - **Sea Lines of Communications (SLOCs):** routes used for commercial trade and transporting troops/materiel; focal area: area in which shipping must pass without going into port
- **Interior/Exterior Lines**
 - **Interior lines:** used when operating between enemy LOOs; allow simultaneous concentric actions from many directions vs. enemy. To exploit, need sufficient space to move, ability to quickly move, and security of LOCs
 - **Exterior lines:** when lines of movement are separated by those of the enemy; chief advantage/threat is envelopment of enemy; to be successful on exterior lines, need superiority in combat power, good C2, and speed

Naval Missions

Our Naval Missions Support National Security Objectives



2012 Defense Strategic Guidance (DSG)
Primary Missions of U.S. Armed Forces



2014 Quadrennial Defense (QDR) Review
Defense Strategy Pillars



A Cooperative Strategy For 21st Century Seapower (Refresh) (CS21R)
Naval Missions

- Maintain a Safe, Secure, and Effective Nuclear Deterrent
- Defend the Homeland & Provide Support to Civil Authorities
- Counter Weapons of Mass Destruction

Protect the Homeland

- Defend the Homeland
- Deter Conflict

- Provide a Stabilizing Presence
- Conduct Stability & Counterinsurgency Operations

Build Security Globally

- Protect Maritime Commons
- Strengthen Partnerships

- Deter & Defeat Aggression
- Project Power Despite A2/AD Challenges
- Operate Effectively in Cyberspace & Space
- Counter Terrorism & Irregular Warfare
- Conduct Humanitarian Assistance, Disaster Relief, & Other Operations

Project Power and Win Decisively

- Respond to Crises
- Defeat Aggression
- Provide HA/DR

Derived from CS21R March 2015

Naval Warfare

OBJECTIVES OF NAVAL WARFARE

- **Maritime Superiority:** that degree of dominance of one force over another that permits the conduct of maritime operations by the former and its related land, maritime, and air forces at a given time and place without prohibitive interference by the opposing force. (JP 1-02) A means to an end, not the end itself.
- **Maritime Supremacy:** that degree of maritime superiority wherein the opposing force is incapable of effective interference. (Note: No longer a joint term.)
- War at sea must have control of the air; in littorals need influence over adjacent land areas.
- **Sea Control:** Sea control refers to one's ability to use a given part of the sea/ocean and associated airspace for both military and nonmilitary purposes in time of open hostilities. Sea control is not an aspect of peacetime power projection—a frequent misconception. Sea control is obtained only through combat. Sea control in the littorals is highly dependent on the Navy's ability not only to obtain and maintain sufficient degree of control of the surface and subsurface but also control of the air. Without air superiority, sea control in the littorals simply cannot be obtained/maintained and exercised. Sea control can be strategic, operational, and tactical in scale. Strategic sea control pertains to

the entire maritime theater, while control of a major part of a maritime theater represents operational sea control. Tactical sea control pertains to control of a naval/maritime combat sector (or zone) but sometimes can encompass a maritime area of operations. (NWP 5-01)

- **Degrees of Sea Control:**
 - **General:** complete freedom to use the sea for friendly purposes
 - **Local:** superiority in an operationally significant part of the sea

 - **Permanent:** stronger side dominates JOA; enemy unable to interfere with friendly operations
 - **Temporary:** neither side able to be decisive

 - **Absolute:** can operate without major opposition while the other fleet cannot operate at all
 - **Limited:** one side has freedom of action; other side operates at high risk
 - **Contested:** opposing sides possess roughly equal capabilities

Sea Control Operations: The employment of forces to destroy enemy naval forces, suppress enemy sea commerce, protect vital sea lanes, and establish local military superiority in vital sea areas. (JP 1-02)

Purposes:

- Deny enemy commercial/military use of the sea
 - Ensure friendly maritime trade
 - Facilitate power projection
 - Allow landing/sustaining forces ashore
 - Protest sea-based logistics.
- **Basing/Deployment Area Control:**
 - Allows execution of major naval operations
 - Part of operational protection

Sea Denial:

Objective: Prevent the use of the sea by the enemy
Practical when insufficient force to ensure use by own forces, adequate force to deny use to enemy.

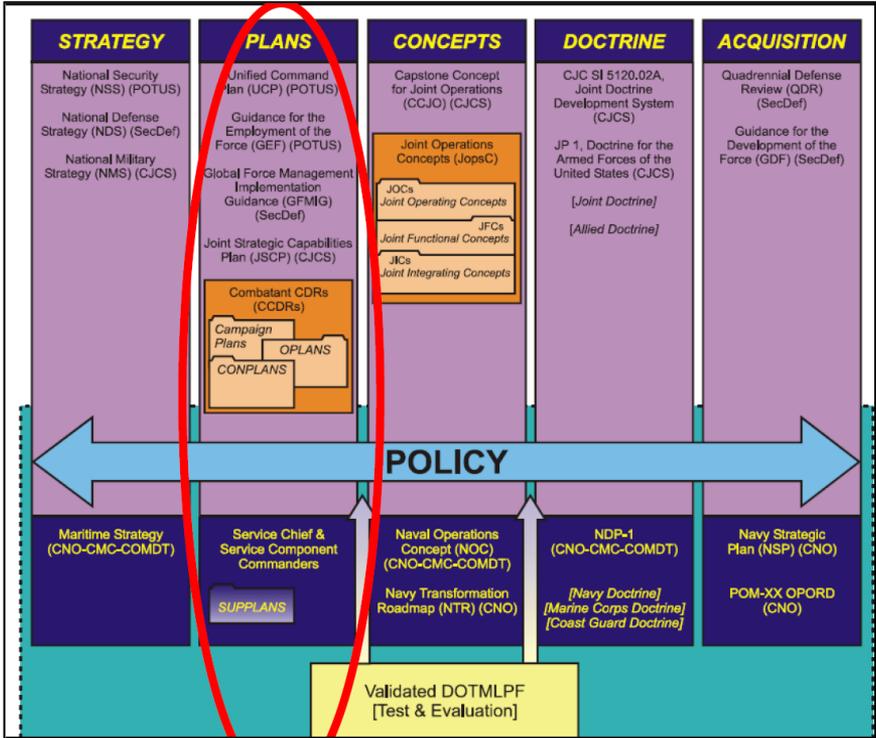
Methods:

- Offensive or defensive mining
- Chokepoint control
 - Control of critical passages
 - Control of shore of a strait/narrows
- Critical for the movement of own forces
- Counter-blockade
- Coastal defense
- Operational deception

Planning

(Joint Planning (JP 5-0 Chapter IV))

The following depicts how plans should align with strategy, concepts, doctrine, and acquisition:



Types of Orders

Alert Order: provides planning guidance and directs initiation of execution planning for selected COA.

Deployment Order: SecDef/CJCS directs the transfer of forces between CCMDs.

Execute Order: initiates military operations.

Fragmentary Order: issued to modify an OPORD or execute branch/sequel.

Operation Order: issued by a CDR to subordinates to effect coordinated execution of an operation.

Planning Order: provides essential planning guidance and directs the initiation of execution planning before the directing authority approves a military course of action.

Warning Order: describes the situation, allocates forces and resources, establishes command relationships, provides other initial planning guidance, and initiates subordinate unit mission

Components of a Plan

Ends

- What the force is trying to accomplish and why.
- The conditions, when established, constitute the desired end state.
- Articulated in mission statement and commander's intent.

Ways

- How the force will achieve the desired conditions
- The way the force will accomplish the mission is described in the concept of operations.
- Sequence of actions most likely to attain desired conditions
- Sequence (e.g. phasing) is described in the concept of operations.

Means

- Resources required, and how to apply them to accomplish the sequence of actions.
- Resource application is addressed in the concept of operations, Schemes/estimates of support, tasks to subordinate units, and task organization.

Deliberate planning occurs outside of crisis conditions. The process is designed to uncover problems and issues which can be resolved before a crisis develops. Deliberate plans also provide a useful basis for crisis response. The process provides time to accomplish detailed planning for operations in specific geographical areas or missions. The final product is a plan with assumptions.

Deliberate plans include four levels of planning detail:

a. Level 1—Commander's Estimate: provides SecDef with military COAs to meet a potential contingency; reflects the supported CDR's analysis of the various COAs that may be used to accomplish the assigned mission and contains a recommended COA.

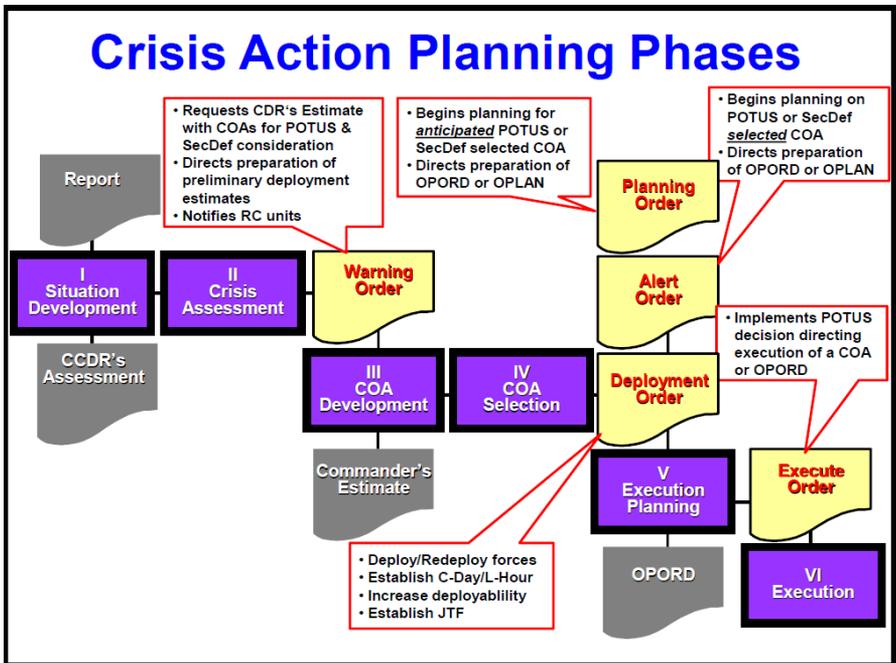
b. Level 2—Basic Plan: describes the concept of operations, major forces, concepts of support, and anticipated timelines for completing the mission; normally does not include annexes or a TPFDD.

c. Level 3—Concept Plan (CONPLAN): abbreviated format operation plan; Basic Plan with selected annexes (usually A (Organization), B (Intelligence), C (Operations), D (Logistics), J (Command Relationships), K (Communications Systems), S (Special Technical Operations), V (Interagency Coordination), and Z (Distribution)) and CCCR's estimate of feasibility with respect to forces, logistics, sustainment, and transportation; it may include a TPFDD.

d. Level 4—Operation Plan (OPLAN): a detailed joint plan containing full CONOPS, all applicable annexes, and a TPFDD; identifies forces, functional support, and resources to execute the plan and provide estimates for force flow into the theater; can be quickly developed into an OPORD.

Crisis Action Planning

- Situation may be a complete surprise with no contingency planning foundation
- Situation may replicate a developed contingency plan
- Situation may be able to use part of a contingency plan
- Planning results in executable orders



Operational Planning

- **Operational Idea (Scheme)/CONOPS**
 - Plan for a major operation consists of an operational idea or scheme
 - Apply principles of joint operations to enhance success
 - Use direct or indirect action to neutralize the ECOG
 - Apply combat power sequentially/simultaneously
 - Apply combat power symmetrically or asymmetrically
 - Include a main effort and supporting/sustaining efforts
 - Understand logistical implications
 - Consider all operational functions
 - Protect the friendly COG
 - Incorporate information operations, including military deception
 - Understand operational factors interrelationships
 - Synchronize major tactical tasks in terms of time and space
 - Plan for branches and sequels
 - Plan operational pauses to regenerate combat potential
 - Analyze potential culmination points
 - Consider an operational reserve

Planning Days and Hours Definitions

C-Day: Deployment operation commences.

L-Hour: Hour on C-day a deployment operation commences.

D-Day: Operation commences.

H-Hour: Hour on D-day an operation commences.

E-Day: Landing force begins to embark.

M-Day: Mobilization commences.

F-Hour: SecDef announces decision to mobilize Reserves.

N-Day: Active-duty unit is notified for deployment or redeployment.

O-Day: Off-load day

R-Day: Redeployment day.

S-Day: POTUS authorizes selective reserve call-up.

T-Day: POTUS declares a national emergency; partial mobilization.

W-Day: POTUS declares. Associated w/ adversary decision to prepare for war.

- **Military Deception**
 - Contributes to surprise, security, and economy of effort
 - Focuses on supporting a major operation or campaign
 - Planned to protect the details of execution and confuse the enemy
 - Four types: feint, demonstration, ruse and display
 - Target Audience: enemy commander and staff—impact the decisions the enemy CDR is expected to make prior to and during the operation
 - Goal: mislead enemy CDR to act in a manner that unwittingly serves our objectives

- Deception planning
 - Concurrent with the planning for a major operation/campaign
 - Must be integrated with the operational plan it is covering
 - Must be coordinated with the coalition at some level
 - Resource-intensive
 - OPSEC
 - Deception's defensive mode
 - OPSEC must aid the deception
 - Time
 - Need time to present the deception story
 - Need time for the deception target audience to make the decision to take the desired action
- **Operational Pause:** temporary halt in operations
 - May be required due to inadequate sustainment
 - May be employed to deceive the enemy
 - Assists in synchronization/sequencing tactical actions within a major operation
 - Cedes initiative to enemy if prepared to take it
 - Understand effect of pause on friendly and enemy forces
- **Operational Reserve:** An emergency reserve of men and/or materiel established for the support of a specific operation. (JP 1-02)
 - Force mix and location must be considered in planning
 - Mobility and combat power are more important than size of force
 - Reduces risk to mission and forces

Risk

- Determined by severity and probability
- Identification and mitigation recommendations provided by staff
- Assumed by CDR
- At operational level look at risk to mission and risk to forces
- **Risk Probability Definitions**
 - Frequent: Occurs very often, continuously experienced
 - Likely: Occurs several times
 - Occasional: Occurs sporadically
 - Seldom: Remotely possible, could occur at some time
 - Unlikely: Can assume will not occur, but not impossible
- **Risk Severity Categories**
 - Catastrophic (I) Loss of ability to accomplish the mission or mission failure. Death or permanent disability. Loss of major or mission-critical system or equipment. Major property (facility) damage. Severe environmental damage. Mission-critical security failure. Unacceptable collateral damage.

- Critical (II) Significantly degraded mission capability, unit readiness, or personal disability. Extensive damage to equipment or systems. Significant damage to property or the environment. Security failure. Significant collateral damage.
 - Marginal (III) Degraded mission capability or unit readiness. Minor damage to equipment or systems, property, or the environment. Injury or illness of personnel.
 - Negligible (IV) Little or no adverse impact on mission capability. First aid or minor medical treatment. Slight equipment or system damage but fully functional and serviceable. Little or no property or environmental damage.
- **Risk Assessment Definitions**
 - Extremely High Risk: Loss of ability to accomplish the mission if threats occur during mission
 - High Risk: Significant degradation of ability to accomplish mission, inability to accomplish all parts of the mission, or inability to complete the mission to standards if threats occur during mission
 - Moderate Risk: Expected degraded mission capabilities if threats occur during mission
 - Low Risk: Expected risk has little or no impact on mission accomplishment

E – Extremely high / H – High / M – Moderate / L - Low						
		PROBABILITY				
SEVERITY		Frequent	Likely	Occasional	Seldom	Unlikely
Catastrophic	I	E	E	H	H	M
Critical	II	E	H	H	M	L
Marginal	III	H	M	M	L	L
Negligible	IV	M	L	L	L	L

Coalition Force Coordination

- Understand ROE differences
 - Determine how coalition forces will integrate or coordinate in C2 structure
 - Place in deputy or CTF command positions when able
 - Understand intel/info-sharing restraints
 - Share as much as possible
 - Understand who provides what sustainment to whom
 - Coordinate movement and maneuver plans
 - Understand protection coordination
 - Understand fires capabilities
 - Be wary of fratricide potential
 - Understand their perception of risk
 - Understand they will require decision time to coordinate with national authorities
 - Swap LNOs to max extent
 - Prepare for language/cultural differences
- **Types of Forces**
 - Assigned: forces put under COCOM of a CCDR
 - Allocated: forces made available to a CCDR upon initiation of a crisis
 - Apportioned: forces to be used by a CCDR for deliberate planning
 - **Rules of Engagement**
 - Standing ROE
 - Supplemental ROE
 - Answer questions:
 - What is it you need the tactical forces to do to achieve the objectives? (Anticipate)
 - Who in the chain of command should authorize the action?

Decision Support Aids

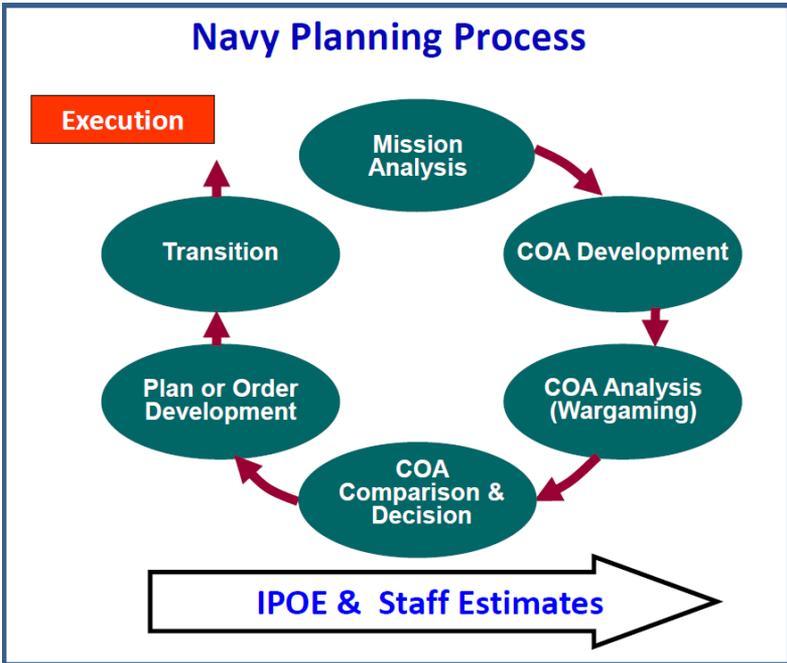
- **Synchronization Matrix**
 - NWP 5-01 says to begin during COA development, but there can be benefits to begin during mission analysis
 - Graphically reflects planned operation
 - Y axis typically: HQ, CTFs, Operational Functions, Decision Points, Branch Plans
 - X axis typically: Phases of Operation, time
 - Put task (task/purpose/location) for each Y component during each X segment
 - Forms basis of para 3 of OPORD
 - Vertically, all tasks during each phase are listed
 - Ensures completion of all specified and implied tasks
 - Horizontally, ensure no gaps/seams/duplicate tasking

	Phase 0	Phase I	Phase II	Phase III
		D-Day to D+5	D+6 to D+21	D+22 to D+60
CFMCC HQ	Ashore	Flagship	Flagship	Flagship
CTF 91	En route from CONUS	CVOA Skyhawk	CVOA Phantom	CVOA Corsair
CTF 92	In port Sydney	En route to OA Chesty	OA Chesty	AOA Bulldog
CTF 93	En route from Tahiti	OAs Sweep and Drag	OAs Sweep and Drag	AOA Bulldog
C2	Establish LNOs at all HQs			CTF 93 TACON to CTF 92
Strike			TLAM vs. CDCM and SAM sites	Support CTF 92 with CAS
Amphibious			Rehearsal in OA Chesty	Seize port of Melville
SUW	En route from	In port Margaritaville	En route OA Sneaky	Conduct MILDEC in OA Sneaky
ASW	OAs Snorkel and Bubble	OAs Snorkel and Bubble	OAs Snorkel and Bubble	OAs Snorkel and Baffle
BMD			Defend Bigville	Defend Bigville
Logistics	Refuel CTF 91/93	OAs Exxon and Shell	OAs Exxon and Hess	OAs Exxon and Hess
etc.				

- **Decision Support Matrix**
 - Provides linkage among DPs, CCIRs, and response options for tripped CCIRs
 - Begin during mission analysis

CCIR	Decision Options	Decision Support Criteria	Location
PIR: CDCM Activity	OPTION A1: Increase ISR on CDCM sites OPTION A2: Relocate forces outside CDCM range OPTION A3: Electronic attack CDCMs/radars OPTION A4: Kinetic strike CDCMs/radars OPTION A5: Options A3 & A4	- HVUs in jeopardy - Current intel & positioning data - ROE authorization - Assets available for tasking - Indications of hostile intent/act - CDCMs approved as MDTs	NAI 2 NAI 4 NAI 5 NAI 9 NAI 4

Navy Planning Process



NPP Step One: Mission Analysis (NWP 5-01 Chapter 2, Annex Q-1)

Inputs

From Higher Headquarters

- Plans, orders and guidance
- Intelligence products
- Staff estimates

From the Commander

- Initial planning guidance
- Initial commander's intent
- Design products (if used)

From the Staff

- Initial staff estimates (NWP 5-01 Appendix K)

Process

- Identify source(s) of the mission
- Review the commander's initial planning guidance
- Receive IPOE briefing
- Identify command relationships
- Analyze higher commander's mission and intent
- Determine specified, implied and essential tasks
 - Specified: come from HHQ orders
 - Implied: do not include routine tasks or SOP
 - Essential: MUST be executed to achieve mission success
- State the purpose of the operation
- Identify externally imposed limitations
 - Restraints (can't do) and constraints (must do)
- Identify facts and develop planning assumptions
 - Assumptions given by HHQ are treated as facts by subordinate CDRs for planning purposes
 - Own assumptions may be necessary to continue planning
 - Assumptions must be validated or disproved
- Analyze available forces and assets
 - Review forces available/necessary for tasks; compare the two; prepare RFFs/RFCs as required
- Determine critical factors, friendly COG, and decisive points
- Conduct initial risk assessment
- Develop proposed mission statement: Who/what/where/when/why
- Develop proposed updates to commander's intent
- Develop proposed commander's critical information requirements (CCIRs); Composed of PIRs and FFIRs
 - They belong to the commander
 - Must be tied to decision points
- Conduct mission analysis briefing
 - **Mission Analysis Briefing format (suggested):**
 - Situation Update
 - N2 Initial Intelligence Update
 - Higher Mission / Intent / CONOPS (if appropriate)
 - Maritime Component Commander's Initial Planning Guidance
 - Sources of mission
 - Command / force relationships
 - Facts / Assumptions
 - Limitations
 - Tasks – Specified, Implied, Essential
 - Forces Assigned / Apportioned /Allocated / Shortfalls
 - Friendly centers of gravity and DPs
 - Initial force structure analysis
 - Initial risk assessment and vulnerability assessment
 - Other (Fires, Protection, Intel) (IO, Assessment, Log, C2)
 - Proposed Mission Statement
 - Proposed initial CCIRs
 - Proposed Commander's Planning Guidance / Intent

- Decision
- Develop warning order(s) (optional)
 - **Warning Order #1 (Includes at a minimum)**
 - Approved mission statement
 - Commander's intent
 - Changes to task organization
 - Commander's planning guidance
 - CCIRs and EEFI
 - Risk guidance
 - Priorities by operational functions

Outputs

- Mission statement
- Commander's intent
- Commander's planning guidance
- Commander's critical information requirements
- Warning order(s)
- Updated initial staff estimates

NPP Step Two: Course of Action Development

(NWP 5-01 Chapter 3, Annex Q-2)

Inputs

From Higher Headquarters

- Warning order
- Operation order

From the Commander

- Mission statement and commander's intent
- Planning guidance and governing factors

From the staff

- Updated IPOE
- Adversary COAs
- Staff estimates
- Initial risk assessment

Process

- Analyze relative combat power (NWP 5-01 Appendix E)
Review IPOE and mission analysis
- Generate COA options
DRAW-D based on enemy COG
- Test for validity (see details below)
- Recommend command and control relationships and structure
- Prepare COA sketches and statements/narratives
 - Sketch: Map of the JOA that IDs friendly and enemy positions by phase
 - Maritime domain control measures (e.g., CVOA, AOA)
 - Identify main/supporting/sustaining efforts by phase
 - Use UJTL/UNTL terms for task and purpose
 - Ensure COA directed at maritime ECOG by phase
 - Ensure COA protects friendly COG
 - Develop C2 structure that shows changes by phase
 - Narrative: Overall description of COA
 - Main and supporting/sustaining efforts listed by phase
 - Estimated phase duration
 - Force employment by phase
 - ID location, sequencing of major units by phase
 - ID phase end state criteria in maritime domain
 - ID military deception operations
 - ID reserve forces

- Prepare COA briefing
 - **COA Briefing format (suggested):**
 - Updated IPOE if applicable
 - Enemy most likely and most dangerous COAs
 - Higher Commander's Mission & Intent
 - CFMCC Mission
 - Commander's Intent
 - Commander's Planning Guidance
 - Relative Combat Power Assessment
 - Updated Facts and Assumptions
 - Presentation of Complete COA by phase with rationale
 - Each COA should include task organization; sketch and statements by phase; identification of main, supporting, shaping and sustaining efforts by phase; illustration of force laydown complete with control measures; highlight risk and mitigation factors; include reference to essential, specified, implied tasks as well as decisive points and COG; recommended ROE revisions; recommended requests for capability or RFFs. Brief each supporting function as required/directed (e.g., fires, sustainment, deploying concept, IO themes).
 - Repeat for each COA presented
 - Recommended wargaming guidance and evaluation criteria modification (if any)
- Develop COA analysis guidance and evaluation criteria
- Refine initial risk assessment for each COA (NWP 5-01 Appendix F)
- Develop initial operational assessment criteria (NWP 5-01 App G)
- Review ROE

Outputs

- Approved COAs
- Refined adversary COAs
- Wargaming guidance
- Evaluation criteria/governing factors
- Initial staff estimates
- Refined risk assessment
- Initial operational assessment criteria
- Recommended RFFs/RFCs and ROE

Some terms for COA statements and tasks/purposes:

Actions by Friendly Forces		
Allocate	Attack	Collect
Conduct	Control	Coordinate
Delay	Deploy	Detain
Detect	Determine	Develop
Dominate	Embark	Employ
Engage	Enhance	Escort
Establish	Evacuate	Execute
Insert	Integrate	Maintain
Maneuver	Move	Navigate
Occupy	Perform	Prepare
Provide	Reconstitute	Search
Secure	Seize	Stabilize
Stage	Support	Synchronize
Track	Transit	Transport
Withdraw		

Effects on the Threat		
Block	Contain	Deceive
Defeat	Degrade	Deny
Destroy	Disrupt	Exploit
Interdict	Isolate	Limit
Neutralize	Suppress	Turn

Common Purpose Statements		
Allow	Cause	Create
Deny	Divert	Enable
Facilitate	Identify	Protect
Influence	Observe	Open
Preserve	Prevent	Support
	Surprise	

How to Test the Validity of each Tentative COA

(a) **Suitable/Adequate**—accomplishes the mission within CDR's guidance. Scope and concept of planned operations can accomplish the assigned mission and comply with the planning guidance provided.

1. Does it accomplish the mission?
2. Does it meet the CDR's intent?
3. Does it accomplish all the essential tasks?
4. Does it meet the end state conditions?
5. Does it take enemy and friendly COGs into consideration?

(b) **Feasible**—accomplishes the mission within time, space, resource limitations. Mission can be accomplished using available resources within the time contemplated by the plan.

1. Does the CDR have the force structure and lift to execute it?
2. Can other CDRs support to fill shortfalls?

(c) **Acceptable**—balances cost and risk with the advantage gained. COA is proportional, worth the cost, consistent with the law of war, and is militarily and politically supportable.

1. Does it contain unacceptable risk?
2. Does it take into account limitations placed on the CDR?
3. Are COAs reconciled with external constraints, particularly ROE?

(d) **Distinguishable**—sufficiently varies from other COAs, through:

1. Focus or direction of main effort
2. Scheme of maneuver
3. Sequential versus simultaneous maneuvers
4. Primary mechanism for mission accomplishment
5. Task organization
6. Use of reserves

(e) **Complete**—answers the who, what, where, when, how, why; includes forces required, deployment concept, employment concept, sustainment concept, time estimates for achieving objectives, description of the end state, mission success criteria, and mission termination criteria. It addresses:

1. Objectives and tasks/purposes
2. Major forces required
3. Concepts for deployment, employment, sustainment
4. Time estimates for achieving objectives
5. Military end state and mission success criteria

NPP Step Three: Course of Action Analysis (Wargaming) **(NWP 5-01 Chapter 4, Annex Q-3)**

Inputs

From the commander

- Refined commander's intent
- Wargaming guidance
- Approved COAs
- Evaluation criteria and critical events

From the staff

- Refined adversary COAs
- Initial staff estimates
- Updated IPOE

Process

- Organize for wargaming
- List all friendly forces
- Review assumptions
- List known critical events
- Identify governing factors (GFs) important to the CDR (if not already given) – use to compare COAs
- Select wargaming method
- Select method to record and display results
- Conduct the war game and display and assess results
- Validate effectiveness of each friendly COA vs. each ECOA
- If COAs are modified at any time, you must re-wargame vs. ECOAs
- Conduct risk assessment and mitigation
- Wargame and refine staff estimates
- Conduct war game briefing (optional)
 - **War-game briefing (proposed):**
 - Higher Headquarters Intent & Mission
 - Mission and Intent
 - Updated Intelligence Estimate and IPOE
 - Enemy situation
 - Courses of Action considered - Most Likely, Most Dangerous, other ECOA considerations
 - Friendly situation
 - Wargaming guidance
 - Critical facts and assumptions
 - COA considered (individually)
 - Summary, analysis, and proposed modifications
 - Task organization and adjustments by phase or event
 - Initial decision support products
 - Risk to mission and force
 - Current and emerging evaluation criteria
 - Advantages and disadvantages to the COA

Outputs

- War game-refined COAs
- War game records (draft synch matrix)
- Initial decision support matrix/template
- List of critical events and decision points
- Branches and sequel identified for development
- Updated assumptions
- Updated evaluation criteria

NPP Step Four: Course of Action Comparison and Decision **(NWP 5-01 Chapter 5, Annex Q-4)**

Inputs

From the commander

- Evaluation criteria/GFs/weighting factors

From the staff

- COA war game worksheet
- COA sketch and narrative
- Updated IPOE
- Initial decision support matrix/template (NWP 5-01 Appendix I)
- Refined staff estimates
- Evaluation criteria/governing factors
- Proposed risk controls

Process

- Present staff estimates, risk and assessments
- Perform COA comparison using governing factors
- Summarize advantages and disadvantages
 - Compare the merits of each COA
- Make final test of validity
- Conduct COA comparison briefing
 - **COA decision briefing (suggested):**
 - HHQ Intent
 - Restated mission (approved mission statement)
 - Status of friendly forces
 - Updated intelligence estimate, weather analysis, enemy situation (analysis of adversary COAs)
 - Friendly COAs
 - Assumptions used in planning
 - Results of staff estimate
 - Advantages and disadvantages (including risk) of each COA (with decision matrix or table showing COA comparison)
 - Recommended COA
 - State commander's decision
- Make synchronization matrix (NWP 5-01 Appendix I)
- Develop CONOPS
- Refine DSM/DST
- Refine IPOE
- Issue warning order (optional) (NWP 5-01 Annex L-1)
 - **Warning Order #2 (Normally includes)**
 - Mission
 - Commander's intent
 - Updated CCIRs and EEFls
 - Concept of operations
 - The AO
 - Principal tasks assigned to subordinate units
 - Preparation and rehearsal instructions not included in SOPs
 - A final timeline for the operations

Outputs

From the commander

- COA decision

From the staff

- Synch matrix
- CONOPS
- DSM/DST
- Updated IPOE
- WARNORD

NPP Step Five: Plan or Order Development

(NWP 5-01 Chapter 6)

Inputs

From the commander

- Mission statement
- Commander's intent

From the staff

- Task organization
- CONOPS
- Staff estimates
- Synchronization matrix
- Operational assessment
- OPGENs, OPTASKs, and supplements

Process

- Prepare plan or order
- Reconcile plan or order
- Cross-walk and update supporting operational directives (OPGENs, OPTASKs, and supplements)
- Cross-walk plan or order
- Commander approves and issues plan or order

Outputs

- Plan, order or maritime supporting plan (MARSUPPLAN)
- Refined IPOE
- Planning support tools
- Updated OPGENs, OPTASKs, and supplements
- Operational assessment guidance
 - Staff estimates

ORDERS WRITING GUIDANCE (NWP 5-01 Appendix L)

- Use SMEAC format
- Notes for para 1 (Situation)
 - Include summary of enemy situation in OA
 - ID ECOG/COG in the maritime domain by phase
 - State most likely ECOA
 - Verbatim HHQ mission and intent
 - Include missions of adjacent units, other agencies, IGOs, NGOs in OA
- Notes for para 2 (Mission)
 - Verbatim CDR-approved mission statement for issuing command
 - Mission statement includes who, what, where, when, why

- Notes for para 3 (Execution)
 - Verbatim CDR's intent
 - Format: purpose, method, end state, risk
 - Phased CONOPS explaining how units cooperate to accomplish mission
 - May include each operational function and how they are synchronized
 - Tasks to subordinate units
 - Listed in task organization sequence
 - Listed for each unit by phase
 - Each task includes purpose
 - A good synch matrix makes this easier
 - Include coordinating instructions for tasks that impact two or more units
 - CCIRs as approved by CDR
 - Provide ROE emphasis as necessary
- Notes for para 4 (Admin & Log)
 - Describe manner of logistic support, making basic concept clear
- Notes for para 5 (Command & Control)
 - ID command relationship changes that occur by phase

PLANS AND ORDERS FORMAT

Base OPORD

1. SITUATION

- a. General
- b. Enemy forces - enemy center of gravity, enemy critical factors, probable enemy courses of action, terrorist threats
- c. Friendly forces- friendly center of gravity, friendly critical factors, HHQ mission and intent, missions of adjacent units
- d. IGOs/NGOs
- e. Civil considerations
- f. Attachments and detachments

2. MISSION

3. EXECUTION

- a. Commander's intent
- b. Concept of operations- By phase and/or by function as required
- c. Tasks to subordinate and supporting units. Specify "on order" (O/O) or "be prepared to" (BPT). O/O missions are to be executed at an unspecified time in the future. BPT missions assigned to units might be executed. They are planned after any "on-order" missions.
- d. Coordinating instructions

4. ADMIN AND LOG

- a. Concept of Support
- b. Material and services
- c. Medical services
- d. Personnel
- e. Civil affairs
- f. Public affairs

5. COMMAND & CONTROL

- a. Command relationships
- b. Location of commander
- c. Succession of command
- d. Liaison requirements
- e. Command, control, and communications
- f. Reports

5 Paragraph Order-SMEAC

- **Situation:** General, Enemy, Friendly, HHQ, Adjacent
- **Mission:** Statement of what is to be done and why it will be done, as well as the who, when and where
- **Execution:** The how (based on selected COA)
 - Commander's Intent (Purpose, Method, End state, Risk)
 - Concept of operations (how forces will work together to accomplish the mission)
 - Task and Purpose assignments to each subordinate unit
 - Coordinating Instructions (ROE, CCIRs, timeline)
- **Administration and logistics:** Concept describing how operation will be sustained
- **Command and control:** Command Relationships (responsibilities/authorities, succession of command, comm plan)

NPP Step Six: Transition

(NWP 5-01 Chapter 7)

Inputs

From the commander

- Approved OPORD/OPLAN

From the staff

- Refined IPOE
- Outline FRAGORDs for branch plans/future missions/ sequels
- Staff estimates
- Assessment framework
- OPGENs, OPTASKs, and supplements
- CONOPS
- Synch matrix
- Decision support matrix/decision support template

Process

- Transition briefing
- Transition drills
- Rehearsals
- Confirmation briefing
 - Within the staff - turnover of the plan can be from planning cells to COPS for execution
 - May include back-briefs from subordinates

Outputs

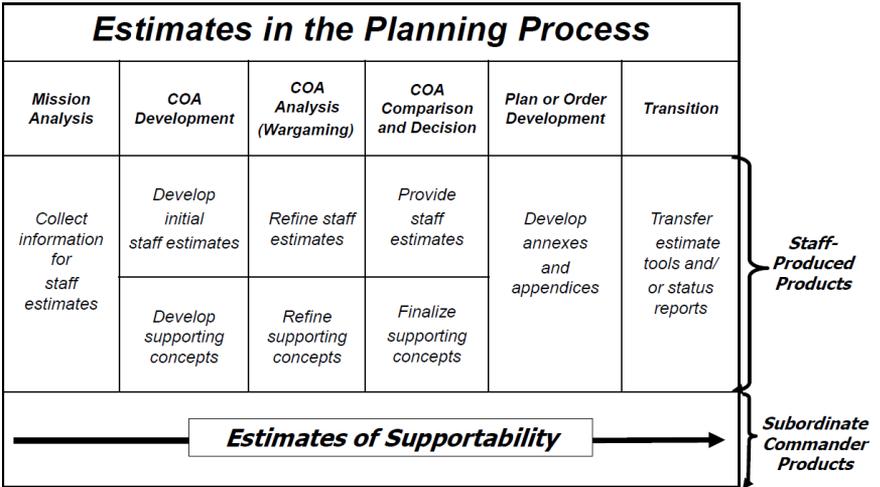
- Subordinate commanders and staffs prepared to execute the order and possible branch plans
- Staff prepared to plan sequels
- Running estimates developed
- Operational assessment guidance refined

NPP in a Time-Constrained Environment (NWP 5-01 Appendix M)

- Omitting NPP steps is ***not*** the answer. Do ***not*** skip Mission Analysis or COA analysis (wargaming)
- Four time-saving techniques:
 - Increase commander's involvement
 - Commander is more directive in guidance, limits options
 - Commander limits number of COAs to be developed
 - Maximize parallel planning, share products as early as possible
- Staff estimates become even more important
- Begin building the order concurrently with planning

Staff Estimates (NWP 5-01 Appendix K)

- Assessment by various staff elements of their ability to support potential COAs or missions in order to assist in the CDR's decisions
- Submitted by N1, 2, 3, 4, 5, 6, special staff; or as directed
- Includes current status, ability to meet mission, shortfalls of specialty area
- Serve as foundation for OPOD annexes, appendices and synch matrix



Sample Staff Estimates Matrix

NPP Step/Staff Estimate Step	NPP Step Inputs	OPT Focus	Staff Section Focus from a staff functional area perspective
<p>Upon receipt of mission (not an NPP step) begin recording information</p>	<p>CDR has directed planning and OPT forming.</p>	<p>Prepare for planning by conducting a quick initial assessment</p>	<p>Conduct initial assessment of staff functional areas. Determine planning requirements/timeline. Identify OPT members. Collect relevant functional area references/existing info. Make recommendations on immediate response actions.</p>
<p>Mission Analysis Initial Staff Estimate Para 1 Mission Para 2 Situation and Considerations</p>	<p>CDR's initial planning guidance HHQ Directives Existing staff area estimates Existing intel or other section estimates OPT Direction</p>	<p>Define the problem and mission by developing an understanding of mission, environment, terrain, friendly and enemy forces, neutrals and time</p>	<p>Analyze HHQ mission from a staff area perspective. Determine known facts, current status and conditions of friendly (and neutral) forces. Describe the situation – environment and threat capabilities and vulnerabilities. Identify staff area specified and implied tasks. Conduct an initial functional area force structure analysis. Conduct an initial functional area risk assessment. Develop assumptions to missing or unknown facts. Develop a functional area mission statement essential tasks and purpose. Submit requests for information (RFIs) as required.</p>
<p>COA Development Concept of support for each COA. Para 3 COA Dev.</p>	<p>OPT has presented MA brief Approved Mission Statement Initial CDR's Intent and Planning Guidance OPT has brainstormed possible COAs</p>	<p>Develop COAs that accomplish the mission within the CDR's guidance</p>	<p>Determine a functional area requirement for each COA, e.g., COA 1 has _____ fuel requirements. Determine friendly and enemy relative advantages in specific staff areas. Conduct initial tests for validity on all possible COAs. Describe possible concepts to gain an advantage in staff areas (or mitigate risk). Develop potential eval criteria. Define staff area objectives and potential tasks for subordinates. Assist OPT in developing COA sketch and narrative. Assist in preparation of COA briefing with analysis and impact of specific areas.</p>

<p>COA Analysis Refined Staff Estimates Para 4 COA Analysis, Staff area</p>	<p>Approved COAs Refined ECOAs CDR's wargaming guidance Staff estimates paras 1-3</p>	<p>Evaluate the effectiveness of each friendly COA against ECOAs using specified evaluation criteria.</p>	<p>Contribute to developing critical events, decision points and governing factors. Capture key support and execution considerations including risk assessment, casualty projections, ISR requirements and limitations, projected locations, C2 system requirements and METOC impacts. Staff members participate to cover responsibilities and area adequacy. Identify strengths and weaknesses of each support option. Integrate support requirements into potential branches and sequels. Update previous staff estimate paragraphs to reflect gained information.</p>
<p>COA Comparison Staff Estimates Para 5 COA Comparison</p>	<p>Wargaming results Decision Support Matrix Refined estimates paras 1-4</p>	<p>Compare COAs to determine "best" COA</p>	<p>Contribute to determining functional evaluation criteria. Coordinate results with higher, adjacent and subordinate levels. List pros/cons for each COA. Make final tests for feasibility and acceptability per specific staff area. Provide recommendations for COA comparison.</p>
<p>COA Decision and Approval Para 6 Recommendations and Conclusions</p>	<p>CDR selects a COA</p>	<p>Select the most advantageous COA</p>	<p>Prepare new estimate reflecting the selected COA. Assist in completing the synchronization matrix. Assist in developing the concept of operations. Analyze risk and develop possible mitigation measures.</p>
<p>Plan or Order Development Annexes and Appendices</p>	<p>OPT determines which annexes required</p>	<p>Prepare and issue OPLAN/OPORD</p>	<p>Prepare specific annexes and input to base order/plan. If no order is being developed, update estimates.</p>
<p>Transition Running Estimates</p>	<p>Complete or partially complete OPLAN/OPORD</p>	<p>Shift from planning to execution</p>	<p>Participate in transition brief. Coordinate results with higher, adjacent and subordinate levels. Update estimate estimates as required.</p>

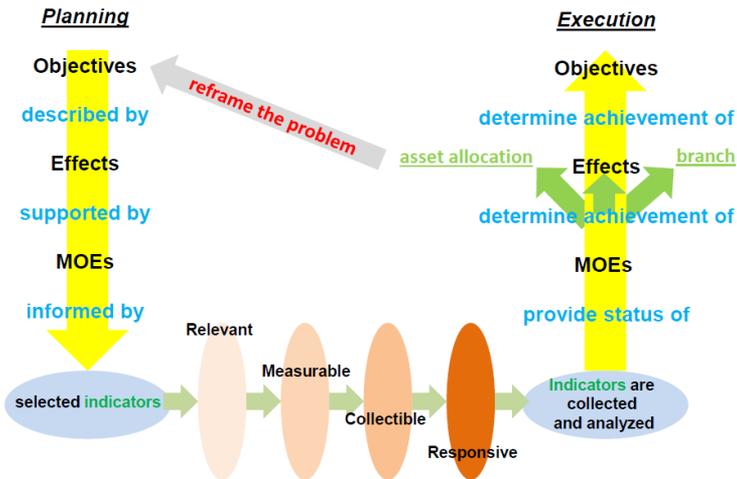
Operational Assessment

(NWP 5-01 Appendix G)

(Primary Reference: Commander's Handbook for Assessment Planning and Execution, Joint Staff J-7, September 2011)

Assessment Fundamentals

Assessment is a continuous commander-centric analytical process to measure progress toward objectives. It is both art and science, and part of the commander's decision cycle. Assessment is applicable at all levels of war and across the range of military operations.



Measures Validation

Measures and indicators should be:

- Relevant: MOEs and indicators provide useful insight into the operational environment and support decision making
- Measurable: There are quantitative and qualitative standards against which MOEs and indicators can be evaluated
- Collectible: Mechanisms are in place that will enable collection of the data
- Responsive: Collection and evaluation of the data enable timely response by the staff and decisions by the commander

Measures Development

Step 1: Analyze the desired effect based on the objective

Step 2: Brainstorm measures of performance and effectiveness (MOPs/MOEs)
MOPs evaluate friendly task performance. Effects are measured by MOEs (stated as trends). The UNTL/UJTL contain sample assessment measures based on task.

Step 3: Evaluate MOEs

Step 4: Develop MOE indicators. MOE-Is provide indication of MOE changes.

Step 5: Evaluate MOEs based on the validation criteria outlined above.

Step 6: Rank MOEs

Step 7: MOE reverse order review (cut any MOEs and indicators not required)

Step 8: Weight MOEs for importance in the assessment process

MOE	MOP	Indicator
Answers the question, "Are we doing the right things?"	Answers the question, "Are we doing things right?"	Answers the question, "What is the status of this MOE or MOP?"
Measures purpose accomplishment	Measures task completion	Measures the data inputs to inform MOEs and MOPs
No hierarchical relationship to MOPs	No hierarchical relationship to MOEs	Subordinate to MOEs and MOPs
Often formally tracked in formal assessment plans	Often formally tracked in execution matrices	Often formally tracked in formal assessment plans
Typically challenging to choose the correct ones	Typically simple to choose the correct ones	Typically as challenging to choose as the supported MOE or MOP

Assessment Plan Example:

Objective: Deter RED aggression in the maritime domain

Effect: BLUE maritime superiority established in chokepoint X

MOE: Increase / decrease in RED activity IVO chokepoint X

MOE-I: Relative combat power of RED IVO chokepoint X

MOE-I: Hours of RED maritime patrol dedicated to chokepoint X.

MOE: Increase / decrease in RED mining activity

MOE-I: Number of RED naval forces observed loading mines

MOE-I: Number of RED vessels IVO chokepoint X carrying mines

MOE-I: RED navy observed mining chokepoint X

Effect: RED is dissuaded from operating IVO SLOC Y

MOE: Increase / decrease in RED activity in SLOC Y

MOE-I: Percentage of RED surface combatants operating in SLOC Y

MOE-I: Hours of RED airborne maritime patrol dedicated to SLOC Y

Information Operations

(JP 3-13)

Information Operations: The integrated employment, during military operations, of information-related capabilities (IRCs) in concert with other lines of operation to influence, disrupt, corrupt or usurp the decision-making of adversaries and potential adversaries while protecting our own. (JP 1-02)

- Produces effects/achieves objectives at all levels of war and across range of military operations
- Activities must be consistent with national security policy and strategic objectives
- Not only impacts military activities, but may have economic and political aspects
- Must be coordinated across all warfare areas
- Use of more than one IRC improves chances of mission success

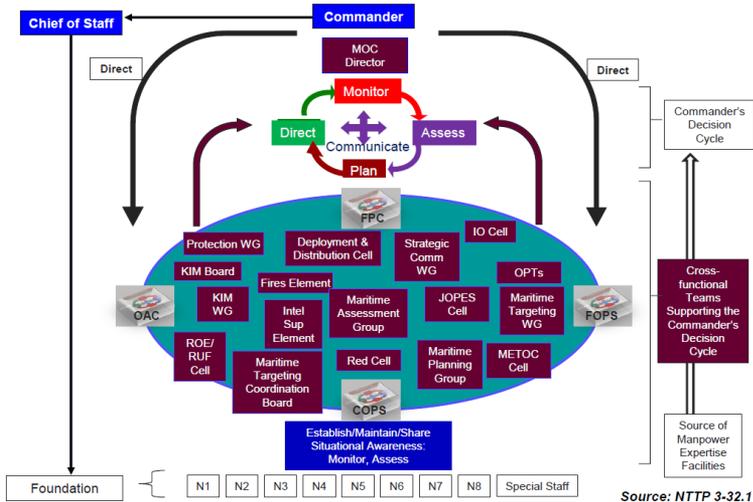
Information-Related Capabilities

- Strategic Communication (SC)
- Joint Interagency Coordination Group (JIACG)
- Public Affairs (PA)
- Civil-Military Operations (CMO)
- Cyberspace Operations (CO)
- Cybersecurity
- Space Operations
- Military Information Support Operations (MISO)
- Intelligence
- Military Deception (MILDEC)
- Operations Security (OPSEC)
- Special Technical Operations (STO)
- Joint Electromagnetic Spectrum Operations (JEMSO)
- Key Leader Engagement (KLE)

Nature of IO is to

- Deny the adversary information so his decision-making suffers (OPSEC, JEMSO)
- Lead the adversary to make decisions that suit your purposes (MISO, MILDEC)
- Protect own information (CO, Cybersecurity)

Notional MOC Construct



OPT Leader's Guide

Display prominently to guide discussion

Preparation

- Define purpose / scope of plan
- Review the IPOE
- Tech support required
- IM policy and procedures
- Templates available/to be designed
- RFI management
- Deliverables
- Timeline
- Planning tools (DCO, C2PC, PPT, etc.)
- Whiteboards / butcher block paper / planning materials
- Staff estimates
- Agenda

Execution / Daily Tempo

- Start-up brief
 - RFI update
 - Intel / Ops Review
 - Facts / Assumptions
 - Timeline review
 - Planning awareness (where we are in the process)
 - Product status
 - Today's suspenses
- Any brief-backs to the MOC director
- Today's breakout groups
- Reach-back to staff elements or national assets

Timeline for today

PLANNING LEAD GUIDE: Mission Analysis

NWP 5-01 Chapter 2, Annex Q-5

INTRODUCTION

During mission analysis, the planning leader gains an appreciation for the problem. The ultimate goal of mission analysis is to develop the commander's and the staff's situational understanding and to recommend a mission statement to the commander. Mission analysis is a multi-step process; some steps are concurrent, some are sequential, and all should be considered. The planning leader will prepare a decision brief for the commander to approve a mission statement, draft commander's intent, initial planning guidance, and initial CCIRs. Take advantage of any time spent with the commander; note any and all guidance received to keep the team focused properly.

ORGANIZATION, METHOD, TIMELINE

- **Organize:** The planning leader is the facilitator, keeps the planning on track, and ensures the planning spaces have necessary support materials available (butcher block paper, pens, maps, IT support, etc.). Organize the planning team by creating breakout groups (task analysis, assumptions, limitations, risk, etc.). Group size may dictate that one person has more than one job. Designate individuals responsible for building the briefing, submitting RFIs, RFFs, and other planning-related tasks. Task the deputy leader to be the timekeeper to move the process along and keep it on track.
- **Method:** During the initial meeting, establish and brief business rules for the planning team, discuss deliverable(s) for products and lay out responsibilities for who will be in which working group(s). Determine when and how much time for the breakout groups and when to reconvene the whole team to conduct back-briefs, finalize as a group, and provide additional guidance. Identify expectations for level of detail for each breakout group and when to move forward from one step to the next.
 - **Collaboration:** Ensure the planning team does not work in a vacuum; reach out to HHQ and adjacent and subordinate organizations. Establish solid working relationships ASAP.
 - **Products: TTP:** Brainstorm and maintain hard copies throughout the NPP. Capture all butcher block and whiteboard products electronically for future use. Post the mission analysis brief template on the bulkhead for situational awareness and final slide makeup. Do not throw anything away!
 - **Be decisive:** Control the tempo of mission analysis.
 - **Rehearsal:** Build time for at least one briefing rehearsal.
 - **Synchronization matrix:** Assign someone as the POC for the synch matrix. This can be started during MA.

- **Timeline:** Be cognizant of time vs. tasks; be ready to adjust as required without missing any steps.

OTHER CONSIDERATIONS: Break-out groups should look at:

- **Task Analysis:** Specified, implied, and essential tasks. Essential tasks are used to develop proposed mission statement. Discerning these can take some time but, if correct, the rest of the plan will follow appropriately.
- **Limitations:** Externally imposed constraints and restraints.
- **Forces Available:** Analyze capabilities and force closure.
- **Friendly COG** (source of power that provides moral or physical strength, freedom of action or will to act) and decisive points (forces, events, locations that lend an advantage) and friendly CVs (what to protect).
- **Assumptions:** Higher HQ assumptions are treated as facts for planning purposes until validated or proven false (OK to question HHQ assumptions; submit RFIs); what assumptions do you need to make to allow planning to proceed?
- **Risk Assessment:** Initial risk to force and risk to mission.
- **Draft Commander's Intent:** Purpose, method, and end state.
- Planning CCIRs: PIRs (threat-focused), FFIRs (friendly force-focused), tied to assumptions: What information is needed to proceed with planning?
- **Governing Factors:** Draft initial factors from interaction with the commander. These will be used to support the development of evaluation criteria later in the process.
- **Assessment:** Start thinking about assessment and how to incorporate it into planning from the start.
- **Briefing Development:** Remember, it's a decision briefing! Make it clear to the commander what decision is being made.

TTP: Use "Regressive Planning." Develop a planning timeline that incorporates all the steps required. Start with the date and time when the product is due to the commander and then develop the timeline backward. **Post the timeline for all the team to see – and stick to it.**

PLANNING LEAD GUIDE: Course of Action Development NWP 5-01 Chapter 3, Annex Q-5

INTRODUCTION

Mission analysis produces an approved mission statement, a refined commander's intent, planning guidance, and initial CCIRs. During COA development the planning team generates options (COAs) for follow-on analysis and comparison that satisfy the commander's intent and planning guidance. These options are broadly stated potential solution that facilitates the accomplishment of the mission. Be sure to write down any specific guidance from the commander.

ORGANIZATION, METHOD, TIMELINE

- **Organize:** The planning team leader can either create COA breakout groups where each group develops a COA simultaneously or work as a single group developing one COA at a time. The leader should maintain the same individuals responsible for briefing, RFIs, RFFs, risk, etc. Task the deputy to be the timekeeper to move the process along. (Group size may dictate one person has more than one job.)
- **Method:** COA DEV incorporates the products/outputs from mission analysis. The planning team leader ensures the team completes the following key steps:
 - **Conduct Relative Combat Power Assessment:** Assess the strengths, weaknesses, and capabilities of friendly forces compared to adversary forces.
 - **Generate COA Options:** Assign "troops to tasks", array forces, task-organize forces, ID initial control measures (e.g., operating areas).
 - **Draft Initial C2:** Look at initial C2 structure and levels of command and control authority.
 - **Validity Test:** Ensure COAs are suitable, feasible, acceptable, distinguishable, and complete.
 - **Develop COA Sketch and Statement:** Include task and purpose for each subordinate unit.
 - **Collaboration:** All stakeholders should be incorporated in the development of the COAs.
 - **Products:** TTP: Brainstorm on butcher block, post, and then come together to analyze developed COAs. Walls get crowded with butcher-block products; reorganize for access to necessary information. Capture all work electronically for future use.
 - **Be Decisive:** Control the tempo of COA development.

- **Rehearsal:** Build time for at least one briefing rehearsal.
- **Timeline:** Be cognizant of time vs. task to stay on time or adjust as required.

Other Considerations:

- Review any updated intelligence products.
- Post the mission and generic phasing scheme on the wall as a guide.
- Revisit facts and assumptions to see if anything has changed.
- Review RFI and RFF/RFC status.
- Consider analyzing relative combat power as a group.
- Consider developing multiple COAs simultaneously.
- Use DRAW-D (defend, reinforce, attack, withdraw, delay) as a baseline to generate options (don't forget deterrence options).
- Identify key supporting and supported relationships within phases.
- Identify main, supporting and sustaining efforts by phase. and their tasks and purposes.
- Capture the task(s) and purpose(s) of these efforts.
- Focus on established decisive points and adversary critical vulnerabilities (CVs) to develop tasks and apply combat power.
- Consider how to protect friendly CVs identified in mission analysis.
- Fight the desire to "wargame" and target everything.
- Identify the sequencing of the operation for each COA.
- Refine initial governing factors.
- Does the COA accomplish the mission?

TTP: COAs should address:

Who: Which components

What: What tasks

When: Timing or sequencing

Where: Where in the operational environment

Why: Desired results (intent)

How: Scheme of maneuver/fires

PLANNING LEAD GUIDE: Course of Action Analysis NWP 5-01 Chapter 4, Annex Q-5

INTRODUCTION

Adversary and friendly COAs have been developed. COA analysis (“wargaming”) is all about describing friendly force actions in time and space from a perspective of operational phases and critical events to accomplish the mission and objectives. Analyze friendly COAs vs. enemy COAs (ECOAs) to produce a record of results (which forms the basis of a synchronization matrix) that forms the concept of operations. Further, COA analysis leads to refinement of operational functions (C2, intelligence, fires, movement and maneuver, protection and sustainment) and identification of branches and sequels for future plans and future operations to further develop. Keep in mind the objective of COA analysis is to improve all potential friendly COAs by allowing the red cell to exploit any weaknesses uncovered during wargaming.

ORGANIZATION, METHOD, TIMELINE:

- **Organize:** A key element in analysis is preparation. Designate a facilitator (could be you), an RFI/RFF manager; a recorder; and role players for subordinates, adjacent units, other forces, components and agencies, the Red Cell, and role players to consider the operational functions and any other stakeholders.

Method: Review the steps in NWP 5-01 Chapter 4. Post them on the wall and use them to drive the process.

1. Prepare for the war game:

- Gather planning tools
- Determine the participants
- List and review friendly forces (working group (WG) task)
- List and review enemy forces (WG task)
- List known critical events (discuss as a team)
- Determine enemy COAs to oppose (red cell or N-2)
- Select a wargaming method
- Select a method to record the wargaming results - narrative -- sketch -- war game worksheets
- Construct the synchronization matrix

2. Conduct the war game

- Keep in mind the purpose of wargaming: to identify gaps in friendly COAs, and to visualize a likely sequence of events
- Use a basic wargaming methodology: Blue action, red reaction, blue counteraction, and record results. Stop, analyze, and note any improvements to friendly COA. Proceed to next blue action.

3. Assess results and prepare products:
 - Potential decision points
 - Governing factors, evaluation criteria insights
 - Potential branches and sequels
 - COA shortfalls and strengths
 - Revised staff estimates
 - Refined COAs
 - Provide feedback through the COA decision briefing

Other Considerations:

- Organize the room: put a map on a table in the center or on the wall (fight the map and not the synch matrix), fill in the war game record, butcher block and sticky notes ready, recorder ready, ergonomics of how the people are arrayed in the room.
- Explain the rules for the war game (e.g., team interaction and where intervention is expected).
- Post and review the approved mission statement and commander's intent.
- Post and review friendly and enemy COAs, any draft C2, enemy order of battle, current CCIRs, current facts and assumptions, known critical events (e.g., NEO, MILDEC, etc.) and known decision points.
- Post a blank COA advantage/disadvantage matrix (fill it out after wargaming to analyze strengths and weaknesses).
- Avoid comparing COAs at this point.
- Post validity test criteria and refer to them during analysis.
- Produce a war game record in the form of a synch matrix, to be used as a baseline for the potential CONOPS.

Lessons Learned:

- Be sure the red cell and staff representatives have adequate time to prepare for the war game.
- A balance must be struck between stifling creativity and making progress in the process.
Maintaining control is the key to successful wargaming. Do not let the process devolve into arguing about the results of tactical actions. This is not a simulation.

PLANNING LEAD GUIDE: War Game Checklist **(This is only one technique; there are many methods)**

PRELIMINARY ACTIONS:

- Gather planning tools and materials. Post data.
- ID role players
 - Review the timeline
 - Explain the war game rules
 - Explain the purpose of the war game and expected results
- Review (as a group) key information: Post all pertinent information
 - List friendly forces
 - Review mission and intent (2 levels up)
 - Review facts and assumptions
 - Updated intelligence since COA development
 - Review known phases and critical events/decision points
 - Analyze friendly and enemy COAs
 - DO NOT GET BOGGED DOWN IN TACTICAL EVENTS

WAR GAME SEQUENCE ACTION / REACTION / COUNTERACTION **(fight the map, not the matrix):**

- Red cell gives a situation overview.
- The facilitator gives a friendly situation overview (don't forget "white" forces and civilian population).
- The friendly role player ("blue") starts action by describing initial blue force actions (task force and joint functions).
- The red cell describes the same scope of enemy reaction.
- Blue determines counteraction (if any) in all areas.
 - Adjust subordinate actions
 - Review joint function areas
 - Identify CCIRs and potential branches and sequels
 - Analyze associated risks and propose any mitigation (record all relevant data)
 - Explore other issues (ROE supplemental requests, etc.)
 - Record results/insights
- Check the timeline; do you need to adjust?
- Start on the next analysis
- The RFI manager and war game recorder are proactive in filling out data and matrices
- Continue iterations by phase and critical events within phases until finished
- Modify COAs by mitigating any weaknesses that are discovered during wargaming and red cell reactions.

OTHER TIPS:

- Constantly apply the validity test during the war game to ensure viability of execution.
- When wargaming concludes, analyze advantages and disadvantages of each COA based on its own merits; DO NOT compare COAs at this point.
- Conduct action/reaction/counteraction by moving units and making reference to the map or butcher block; use the war game record to drive the sequencing of actions, however, the focus is on analyzing the COA, not filling out the war game record.
- A decision support matrix is a product of COA analysis; request guidance (e.g., from the MOC director) to drive that planning.

REMINDERS:

- Analyze your tasks (forces) by critical events and within each phase.
- Wargaming may produce additional RFIs; collaborate directly to resolve issues quickly rather than producing a long list of assumptions.
- Visualize the consequences of the proposed actions (second and third-order effects); what effects they have on operations in later phases with respect to force location, time to react, C2, and other functional areas.
- You can't plan for every contingency with infinite numbers of branches and sequels; identify the most likely contingencies for branch and sequel planning to drive future planning.

Results of Wargaming affect:

- Command and control
 - Intelligence
 - Fires
 - Movement & maneuver
 - Protection
 - Sustainment
-
- Synch matrices and decision support matrices are means to record these results

ANALYZE COURSES OF ACTION (WARGAMING)—RED CELL

INTRODUCTION

The red cell models the reaction(s) of a thinking adversary during the war game. It uses threat doctrine and operational experience to react to friendly dispositions in order to test friendly COA(s) during wargaming. The red cell ensures assessed threat capabilities and vulnerabilities are realistically evaluated against each friendly COA. A red cell member should be present throughout the war game, but make a distinction between the red cell and the N-2 planning team representative. The former provides insight into enemy capabilities and actions per the COA(s), while the latter is the conduit to intelligence resources, products, and refined assessments.

ORGANIZATION, METHOD

- **Organize:** The red cell functions as an extension of the N2. It should include operators and intelligence staff representatives. The red cell can be taken from the planning team or can be a standing group that augments the planning team.
- **Method:** The war game is controlled and run by the planning team leader with the red cell role-playing the enemy. The planning lead establishes the rules of engagement and appoints the war game facilitator to control the functioning of the war game. Prior to the war game the red cell should:
 - **Review:** Adversary situation
 - Road to crisis
 - Enemy COG analysis and deconstruction
 - Review adversary force lay-down and discuss potential reactions
 - Review adversary most likely and most dangerous COAs
 - **Be professional:** Your objective is not to win the war game. Your focus is to role-play the adversary and devise **practical, rational enemy reactions** to the friendly COAs.

During the conduct of the war game:

- The relationship between the planning team and red cell is complementary, not adversarial. Avoid rejecting red cell positions when they conflict with the planning team's views.
- The red cell should portray the adversary's most likely or most dangerous COA as directed by the N-2 and approved by the commander.
- The red cell leader role: Plays the adversary commander and orchestrates adversary reaction to friendly moves using doctrine, tactics, techniques, and procedures of the threat to the best of his ability.

- The red cell acts in accordance with the enemy COA(s) and should not be overly (unrealistically) creative.
- Neither the planning team nor the red cell should keep secrets from each other in order to gain an advantage during the war game. The objective is to improve all friendly COAs by revising them after any weaknesses are found during wargaming.

TTP:

- Be sure that the red cell has adequate time to prepare for the war game.
- A balance must be struck between stifling creativity and making progress in the process.
- Maintaining control is the key to successful wargaming.

PLANNING LEAD GUIDE: COA Comparison and Decision NWP 5-01 Chapter 5, Appendix H, Annex Q-5

INTRODUCTION

COA comparison is a subjective process whereby COAs are considered independently of each other and evaluated/compared against a set of evaluation criteria (drawn from the commander's governing factors). The goal is to identify and recommend the COA that has the highest probability of success. The planning team has conducted mission analysis, COA development, and wargaming. Now identify the strengths and weaknesses of the COAs, so the COA with the highest probability of success can be recommended to the commander. COA comparison and decision is presented to the commander in the form of a decision briefing.

ORGANIZATION, METHOD, TIMELINE

- **Organize:** As small break-out groups that conduct comparisons to identify advantages and disadvantages of each COA. (While not recommended, this discussion can be facilitated by using one of the three different methods (unweighted, weighted, and plus/minus/neutral.) This brings out where tradeoffs (risk versus bold action, trading space for time, etc.) or modifications to the COA can be made. Ensure there is subordinate and staff representation in each group.

- **Method:** TTP: Go over the advantages and disadvantages of each COA first (as a team); look at them through role-players' eyes (task force, staff directorate, functions perspective) and then conduct other comparison methods incorporating the evaluation criteria.
 - Ensure the planning team members understand the evaluation criteria.
 - Each staff representative identifies criteria relating to that staff function.
 - Staff representatives evaluate feasible COAs using those evaluation criteria important to them.
 - Be careful not to portray subjective conclusions as the result of quantifiable analysis.
 - At this point in planning, collaboration is mainly internal; collaborate on how to mitigate disadvantages or weaknesses.
 - This leads to a decision briefing during which the commander will select a COA that will develop into a concept of operations and OPORD/OPLAN, etc.

- **Timeline:** Post the timeline prior to starting. Control the tempo. Be cognizant of time vs. task. Use regressive planning to stay on schedule. Build time for at least one briefing rehearsal.

Other Considerations:

- Determine your comparison methods and record the results. Perform all, some, or a combination of them.

- Determine the staff's recommendation and make that recommendation to the commander during the decision briefing.
- Be prepared to back up your recommendation with critical reasoning, not just numbers.
- When comparing the advantages and disadvantages of COAs, try to mitigate disadvantages after each iteration before starting the next one; this ensures the best COA after refinement.
- After the commander makes his decision, receive final planning guidance, refine the war game record and the synchronization matrix (fill in gaps), and use that and all other support products to develop your CONOPS.
- Make a final test for feasibility and acceptability

Lesson Learned: Ensure those who compare COAs are the same individuals who performed COA analysis. If not, time will be wasted trying to get the new planners fully aware of the COAs.

GLOSSARY

Source of all terms and definitions is JP 1-02 unless otherwise noted

allocation - Distribution of limited forces and resources for employment among competing requirements.

apportionment - In the general sense, distribution of forces and capabilities as the starting point for planning.

area of influence - A geographical area wherein a commander is directly capable of influencing operations by maneuver or fire support systems normally under the commander's command or control.

area of interest (AOI) - That area of concern to the commander, including the area of influence, areas adjacent thereto, and extending into enemy territory. This area also includes areas occupied by enemy forces who could jeopardize the accomplishment of the mission.

area of operations (AO) - An operational area defined by the joint force commander for land and maritime forces that should be large enough to accomplish their missions and protect their forces.

area of responsibility (AOR) - The geographical area associated with a combatant command within which a geographic combatant commander has authority to plan and conduct operations.

assign (forces) - To place units or personnel in an organization where such placement is relatively permanent, or where such organization controls and administers the units or personnel for the primary function, or greater portion of the functions, of the unit or personnel.

assumption - A supposition on the current situation or a presupposition on the future course of events, either or both assumed to be true in the absence of positive proof, necessary to enable the commander in the process of planning to complete an estimate of the situation and make a decision on the course of action.

attach - The placement of units or personnel in an organization where such placement is relatively temporary.

battle rhythm - A deliberate daily cycle of command, staff, and unit activities intended to synchronize current and future operations.

branch - The contingency options built into the base plan used for changing the mission, orientation, or direction of movement of a force to aid success of the operation based on anticipated events, opportunities, or disruptions caused by adversary actions and reactions.

campaign - A series of related major operations aimed at achieving strategic and operational objectives within a given time and space.

center of gravity (COG) - The source of power that provides moral or physical strength, freedom of action, or will to act.

choke-point control - The ability to, directly or indirectly, ensure control of a given strait/narrows by one's forces. The converse is choke-point control denial.

collection plan - A plan for collecting information from all available sources to meet intelligence requirements and for transforming those requirements into orders and requests to appropriate agencies.

combatant command (command authority (COCOM)) - Nontransferable command authority established by Title 10 ("Armed Forces"), United States Code, Section 164, exercised only by commanders of unified or specified combatant commands unless otherwise directed by the President or the Secretary of Defense. Combatant command (command authority) cannot be delegated and is the authority of a combatant commander to perform those functions of command over assigned forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction over all aspects of military operations, joint training, and logistics necessary to accomplish the missions assigned to the command. Combatant command (command authority) should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and Service or functional component commanders. Combatant command (command authority) provides full authority to organize and employ commands and forces as the combatant commander considers necessary to accomplish assigned missions. Operational control is inherent in combatant command (command authority).

command and control (C2) - The exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. Command and control functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission.

command relationships –The interrelated responsibilities between commanders, as well as the operational authority exercised by commanders in the chain of command; defined further as combatant command (command authority), operational control, tactical control, or support.

commander's critical information requirement (CCIR) - An information requirement identified by the commander as being critical to facilitating timely decision making. (JP 1-02. Source: JP 3-0)

commander's estimate – A source of information from the perspective of the commander. Typically submitted by supported joint force commanders in a crisis. It considers the operational environment, the nature of the operation and strategic direction. (JP 5-0)

commander's intent - A concise expression of the purpose of the operation and the desired end state that supports mission command, provides focus to the staff, and helps subordinate and supporting commanders act to achieve the commander's desired results without further orders, even when the operation does not unfold as planned.

commander's planning guidance - The commander's vision of decisive and shaping actions used to assist the planning team in determining the main effort, phases of the operation, location of critical events, and other aspects of the operation the commander deems pertinent to course of action development. (NTRP 1-02)

common operational picture (COP) - A single identical display of relevant information shared by more than one command that facilitates collaborative planning and assists all echelons to achieve situational awareness.

concept of operations (CONOPS) - A verbal or graphic statement that clearly and concisely expresses what the joint force commander intends to accomplish and how it will be done using available resources.

constraint - In the context of joint operation planning, a requirement placed on the command by a higher command that dictates an action, thus restricting freedom of action.

course of action (COA) - 1. Any sequence of activities that an individual or unit may follow. 2. A scheme developed to accomplish a mission. 3. A product of the course-of-action development step of the joint operation planning process.

crisis action planning (CAP) - The Adaptive Planning and Execution system process involving the time-sensitive development of joint operation plans and operation orders for the deployment, employment, and sustainment of assigned and allocated forces and resources in response to an imminent crisis.

critical capability (CC) – A means that is considered a crucial enabler for a center of gravity to function as such and is essential to the accomplishment of the specified or assumed objective(s).

critical factor (CF) - An attribute considered crucial for the accomplishment of the objective that describes the environment (in relationship to the objective) and must be identified and classified as either sufficient (critical strength) or insufficient (critical weakness). (NTRP 1-02)

critical requirement - An essential condition, resource, and means for a critical capability to be fully operational.

critical strength - A capability considered essential for the accomplishment of a given or assumed military objective. (NWP 5-01)

critical vulnerability - An aspect of a critical requirement which is deficient or vulnerable to direct or indirect attack that will create decisive or significant effects.

critical weakness - A military or non-military capability considered essential to the accomplishment of one's or the adversary's military objectives, but in terms of quantity or quality or both, is insufficient or inadequate to perform its intended functions. (NWP 5-01)

culminating point - The point at which a force no longer has the capability to continue its form of operations, offense or defense.

decision point - A point in space and time when the commander or staff anticipates making a key decision concerning a specific course of action.

decisive point (DP) - A geographic place, specific key event, critical factor, or function that, when acted upon, allows commanders to gain a marked advantage over an adversary or contribute materially to achieving success.

defense support of civil authorities (DSCA) - Support provided by United States Federal military forces, Department of Defense civilians, Department of Defense contract personnel, Department of Defense component assets, and National Guard forces (when the Secretary of Defense, in coordination with the governors of the affected states, elects and requests to use those forces in Title 32, United States Code, status) in response to requests for assistance from civil authorities for domestic emergencies, law enforcement support, and other domestic activities, or from qualifying entities for special events.

disaster relief (DR) - Goods and services provided to meet the immediate needs of disaster-affected communities. (NTRP 1-02)

disaster response - Operations, both foreign and domestic, which provide immediate aid to save lives, alleviate the suffering of disaster affected populations, and prevent significant property damage when the magnitude of the disaster exceeds the impacted sovereign states' and humanitarian community response capabilities.

economy of force - The allocation of minimum essential combat capability to supporting efforts, with attendant degree of risk, so that combat power may be concentrated on the main effort. Economy of force is used to describe a principle of war and a condition of tactical operations; it is not used to describe a mission. (MCRP 5-12C)

effect - 1. The physical or behavioral state of a system that results from an action, a set of actions, or another effect. 2. The result, outcome, or consequence of an action. 3. A change to a condition, behavior, or degree of freedom.

electronic warfare (EW) - Military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the adversary.

end state - The set of required conditions that defines achievement of the commander's objectives.

essential elements of friendly information (EEFI) - Key questions likely to be asked by adversary officials and intelligence systems about specific friendly intentions, capabilities, and activities, so they can obtain answers critical to their operational effectiveness.

essential task - A specified or implied task that an organization must perform to accomplish the mission that is typically included in the mission statement.

evaluation criteria - Standards used by the staff during course of action analysis and comparison to help identify advantages and disadvantages of the various courses of action with the intent of making a decision recommendation to the commander.

expanded maritime interception operations (EMIO) - Broadened maritime interception operations to intercept targeted personnel or material that poses an imminent threat to the United States and may involve multinational forces and implementation without sanctions. (NTRP 1-02)

force protection (FP) - Preventive measures taken to mitigate hostile actions against Department of Defense personnel (to include family members), resources, facilities, and critical information.

foreign humanitarian assistance (FHA) - Department of Defense activities, normally in support of the United States Agency for International Development or Department of State, conducted outside the United States, its territories, and possessions to relieve or reduce human suffering, disease, hunger, or privation.

fragmentary order (FRAGORD) - An abbreviated form of an operation order issued as needed after an operation order to change or modify that order or to execute a branch or sequel to that order.

friendly force information requirement (FFIR) - Information the commander and staff need to understand the status of friendly force and supporting capabilities.

governing factors - In the context of joint operation planning, those aspects of the situation (or externally imposed factors) that the commander deems critical to the accomplishment of the mission.

high-payoff target (HPT) - A target whose loss to the adversary will significantly contribute to the success of the friendly course of action. High-payoff targets are those high-value targets that must be acquired and successfully attacked for the success of the friendly commander's mission.

high-value target (HVT) - A target the adversary commander requires for the successful completion of the mission. The loss of high-value targets would be expected to seriously degrade important adversary functions throughout the friendly commander's area of interest.

humanitarian assistance (HA) - Programs conducted to relieve or reduce the results of natural or manmade disasters or other endemic conditions such as human pain, disease, hunger, or privation that might present a serious threat to life or that can result in great damage to or loss of property. Humanitarian assistance provided by United States forces is limited in scope and duration. The assistance provided is designed to supplement or complement the efforts of the host nation civil authorities or agencies that may have the primary responsibility for providing humanitarian assistance.

implied task - In the context of joint operation planning, a task derived during mission analysis that an organization must perform or prepare to perform to accomplish a specified task or the mission, but which is not stated in the higher headquarters order.

information assurance (IA) - Measures that protect and defend information and information systems by ensuring their availability, integrity, authentication, confidentiality, and nonrepudiation.

information operations (IO) - The integrated employment, during military operations, of information-related capabilities in concert with other lines of operation to influence, disrupt, corrupt, or usurp the decision-making of adversaries and potential adversaries while protecting our own.

intelligence preparation of the operational environment (IPOE) - An analytical methodology employed to reduce uncertainties concerning the adversary, environment, and terrain for all types of operations. Intelligence preparation of the operational environment builds an extensive database for each potential area in which a unit may be required to operate. The database is then analyzed in detail to determine the impact of the adversary, environment, and terrain on operations and presents it in graphic form. Intelligence preparation of the operational environment is a continuing process. (NTRP 1-02)

intelligence, surveillance, and reconnaissance (ISR) - An activity that synchronizes and integrates the planning and operation of sensors, assets, and processing, exploitation, and dissemination systems in direct support of current and future operations. This is an integrated intelligence and operations function.

Interdiction - 1. An action to divert, disrupt, delay, or destroy the adversary's military surface capability before it can be used effectively against friendly forces, or to otherwise achieve objectives. 2. In support of law enforcement, activities conducted to divert, disrupt, delay, intercept, board, detain, or destroy, under lawful authority, vessels, vehicles, aircraft, people, cargo, and money.

joint force - A general term applied to a force composed of significant elements, assigned or attached, of two or more Military Departments operating under a single joint force commander.

joint force air component commander (JFACC) - The commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for recommending the proper employment of assigned, attached, or made available for tasking air forces; planning and coordinating air operations; or accomplishing such operational missions as may be assigned.

joint force commander (JFC) - A general term applied to a combatant commander, subunified commander, or joint task force commander authorized to exercise combatant command (command authority) or operational control over a joint force.

joint force land component commander (JFLCC) - The commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for recommending the proper employment of assigned, attached, or made available for tasking land forces; planning and coordinating land operations; or accomplishing such operational missions as may be assigned.

joint force maritime component commander (JFMCC) - The commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for recommending the proper employment of assigned, attached, or made available for tasking maritime forces and assets; planning and coordinating maritime operations; or accomplishing such operational missions as may be assigned.

joint functions - Related capabilities and activities placed into six basic groups of command and control, intelligence, fires, movement and maneuver, protection, and sustainment to help joint force commanders synchronize, integrate, and direct joint operations.

joint integrated prioritized target list (JIPTL) - A prioritized list of targets approved and maintained by the joint force commander. Targets and priorities are derived from the recommendations of components and other appropriate agencies, in conjunction with their proposed operations supporting the joint force commander's objectives and guidance.

joint intelligence preparation of the operational environment (JIPOE) - The analytical process used by joint intelligence organizations to produce intelligence estimates and other intelligence products in support of the joint force commander's decision-making process. It is a continuous process that includes defining the operational environment; describing the impact of the operational environment; evaluating the adversary; and determining adversary courses of action.

joint operations - A general term to describe military actions conducted by joint forces and those Service forces employed in specified command relationships with each other, which of themselves, do not establish joint forces.

joint operations area (JOA) - An area of land, sea, and airspace, defined by a geographic combatant commander or subordinate unified commander, in which a joint force commander (normally a joint task force commander) conducts military operations to accomplish a specific mission.

joint planning group (JPG) - A planning organization consisting of designated representatives of the joint force headquarters principal and special staff sections, joint force components (Service or functional), and other supporting organizations or agencies as deemed necessary by the joint force commander.

joint targeting coordination board (JTCB) - A group formed by the joint force commander to accomplish broad targeting oversight functions that may include but are not limited to coordinating targeting information, providing targeting guidance and priorities, and refining the joint integrated prioritized target list. The board is normally comprised of representatives from the joint force staff, all components, and if required, component subordinate units.

joint task force (JTF) - A joint force that is constituted and so designated by the Secretary of Defense, a combatant commander, a subunified commander, or an existing joint task force commander.

line of effort (LOE) - In the context of joint operation planning, using the purpose (cause and effect) to focus efforts toward establishing operational and strategic conditions by linking multiple tasks and missions.

line of operation (LOO) - A line that 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).

logistics - Planning and executing the movement and support of forces. It includes those aspects of military operations that deal with: a. design and development, acquisition, storage, movement, distribution, maintenance, evacuation, and disposition of materiel; b. movement, evacuation, and hospitalization of personnel; c. acquisition or construction, maintenance, operation, and disposition of facilities; and d. acquisition or furnishing of services.

main effort - The designated activity or subordinate organization whose mission at a given time is most critical to overall mission success. It is usually weighted with the preponderance of resources by the higher organization. (NWP 5-0)

maneuver - 1. A movement to place ships, aircraft, or land forces in a position of advantage over the adversary. 2. A tactical exercise carried out at sea, in the air, on the ground, or on a map in imitation of war. 3. The operation of a ship, aircraft, or vehicle, to cause it to perform desired movements. 4. Employment of forces in the operational area through movement in combination with fires to achieve a position of advantage in respect to the adversary.

maritime interception operations (MIO) - Efforts to monitor, query, and board merchant vessels in international waters to enforce sanctions against other nations such as those in support of United Nations Security Council Resolutions or prevent the transport of restricted goods.

maritime operations center (MOC) - 1. The collective name for the boards, bureaus, cells, centers, and working groups that execute the maritime headquarters maritime operations functions. 2. A physical space in the maritime headquarters that is principally used for the monitoring, assessing, planning, and direction of current operations. (NTRP 1-02)

maritime security operations (MSO) - Those operations to protect maritime sovereignty and resources and to counter maritime-related terrorism, weapons proliferation, transnational crime, piracy, environmental destruction, and illegal seaborne immigration. (NTRP 1-02)

maritime superiority - That degree of dominance of one force over another that permits the conduct of maritime operations by the former and its related land, maritime, and air forces at a given time and place without prohibitive interference by the opposing force.

maritime supremacy - That degree of maritime superiority wherein the opposing force is incapable of effective interference. (NTRP 1-02) Note: No longer a joint term.

measure of effectiveness (MOE) - A criterion used to assess changes in system behavior, capability, or operational environment that is tied to measuring the attainment of an end state, achievement of an objective, or creation of an effect.

measure of effectiveness indicators (MOEIs) - Observable or measurable information requirements that when compiled together, provide evidence of or gives grounds for a measure of effectiveness. (NWP 5-01)

measure of performance (MOP) - A criterion used to assess friendly actions that is tied to measuring task accomplishment.

military information support operations (MISO) - Planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior of foreign governments, organizations, groups, and individuals in a manner favorable to the originator's objectives.

mine warfare (MW) - The strategic, operational, and tactical use of mines and mine countermeasures either by emplacing mines to degrade the adversary's capabilities to wage land, air, and maritime warfare or by countering of adversary-emplaced mines to permit friendly maneuver or use of selected land or sea areas.

mission - 1. The task, together with the purpose, that clearly indicates the action to be taken and the reason therefor. 2. In common usage, especially when applied to lower military units, a duty assigned to an individual or unit; a task. 3. The dispatching of one or more aircraft to accomplish one particular task.

named area of interest (NAI) - A geospatial area or systems node or link against which information that will satisfy a specific information requirement can be collected. Named areas of interest are usually selected to capture indications of adversary courses of action, but also may be related to conditions of the operational environment.

Navy component commander (NCC) - The commander of a naval component assigned or attached to a joint force (unified command) constituted and so designated by the Joint Chiefs of Staff or by a commander of an existing unified command that was established by the Joint Chiefs of Staff. (NTRP 1-02)

objective - The clearly defined, decisive, and attainable goal toward which every operation is directed.

operation - 1. A series of tactical actions with a common purpose or unifying theme. 2. A military action or the carrying out of a strategic, operational, tactical, service, training, or administrative military mission.

operational art - The cognitive approach by commander and staff—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, and means.

operational control (OPCON) - 1. Command authority that may be exercised by commanders at any echelon at or below the level of combatant command. Operational control is inherent in combatant command (command authority) and may be delegated within the command. Operational control is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command. Operational control should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and Service or functional component commanders. Operational control normally provides full authority to organize commands and forces and to employ those forces as the commander in operational control considers necessary to accomplish assigned missions; it does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training. (JP 1-02) 2. A command authority granted to an allied/multinational maritime commander by a national commander with full command or an allied/multinational maritime commander with operational command to direct forces assigned so that the commander can accomplish specific missions or tasks that are usually limited by function, time, or location; to deploy units concerned; and to retain or assign tactical command or control of those units. It does not include the authority to assign separate employment of the units concerned. Neither does it, of itself, include administrative command or logistic responsibility. Subordinate to operational command. (NTRP 1-02)

operational design - The conception and construction of the framework that underpins a campaign or major operation plan and its subsequent execution.

operational level of war (OLW) - The level of war at which campaigns and major operations are planned, conducted, and sustained to achieve strategic objectives within theaters or other operational areas.

operation order (OPORD) - A directive issued by a commander to subordinate commanders for the purpose of effecting the coordinated execution of an operation.

operation plan (OPLAN) - 1. Any plan for the conduct of military operations prepared in response to actual and potential contingencies. 2. A complete and detailed joint plan containing a full description of the concept of operations, all annexes applicable to the plan, and a time-phased force and deployment data.

operations security (OPSEC) - A process of identifying critical information and subsequently analyzing friendly actions attendant to military operations and other activities.

priority intelligence requirement (PIR) - An intelligence requirement, stated as a priority for intelligence support, that the commander and staff need to understand the adversary or other aspects of the operational environment.

request for information (RFI) - 1. Any specific time-sensitive ad hoc requirement for intelligence information or products to support an ongoing crisis or operation not necessarily related to standing requirements or scheduled intelligence production. A request for information can be initiated to respond to operational requirements and will be validated in accordance with the combatant command's procedures. 2. The National Security Agency/Central Security Service uses this term to state ad hoc signals intelligence requirements.

restraint - In the context of joint operation planning, a requirement placed on the command by a higher command that prohibits an action, thus restricting freedom of action.

rules of engagement (ROE) - Directives issued by competent military authority that delineate the circumstances and limitations under which United States forces will initiate or continue combat engagement with other forces encountered.

running estimate - A staff estimate which is continuously updated with new information as the operation proceeds.

sea control - The ability to use a given part of the maritime environment and associated airspace for both military and nonmilitary purposes in time of open hostilities. (No doctrine source for definition)

sea control operations - The employment of forces to destroy enemy naval forces, suppress enemy sea commerce, protect vital sea lanes, and establish local military superiority in vital sea areas.

sea denial - Partially or completely denying the adversary the use of the sea with a force that may be insufficient to ensure the use of the sea by one's own forces.

sequel - The subsequent major operation or phase based on the possible outcomes (success, stalemate, or defeat) of the current major operation or phase.

Service component command - A command consisting of the Service component commander and all those Service forces, such as individuals, units, detachments, organizations, and installations under that command, including the support forces that have been assigned to a combatant command or further assigned to a subordinate unified command or joint task force.

shaping actions - Those activities conducted by friendly forces designed to set conditions for the success of subsequent operations. Normally associated with supporting forces or efforts.

shaping effort - The designated activity or subordinate organization(s) whose mission at a given time creates desired conditions or effects for current or future activities but does not directly support the main effort. (NWP 5-01)

specified task - In the context of joint operation planning, a task that is specifically assigned to an organization by its higher headquarters.

stability operations - An overarching term encompassing various military missions, tasks, and activities conducted outside the United States in coordination with other instruments of national power to maintain or reestablish a safe and secure environment, provide essential governmental services, emergency infrastructure reconstruction, and humanitarian relief.

staff estimate - A planning tool prepared by functional and special staff that gives supportability assessments of proposed actions to inform planners and assist the commander's decision making.

strategic communication (SC) - Focused United States Government efforts to understand and engage key audiences to create, strengthen, or preserve conditions favorable for the advancement of United States Government interests, policies, and objectives through the use of coordinated programs, plans, themes, messages, and products synchronized with the actions of all instruments of national power.

strategic level of war - The level of war at which a nation, often as a member of a group of nations, determines national or multinational (alliance or coalition) strategic security objectives and guidance, then develops and uses national resources to achieve those objectives.

support - 1. The action of a force that aids, protects, complements, or sustains another force in accordance with a directive requiring such action. 2. A unit that helps another unit in battle. 3. An element of a command that assists, protects, or supplies other forces in combat.

supported commander - 1. The commander having primary responsibility for all aspects of a task assigned by the Joint Strategic Capabilities Plan or other joint operation planning authority. 2. In the context of joint operation planning, the commander who prepares operation plans or operation orders in response to requirements of the Chairman of the Joint Chiefs of Staff. 3. In the context of a support command relationship, the commander who receives assistance from another commander's force or capabilities, and who is responsible for ensuring that the supporting commander understands the assistance required.

supporting commander - 1. A commander who provides augmentation forces or other support to a supported commander or who develops a supporting plan. 2. In the context of a support command relationship, the commander who aids, protects, complements, or sustains another commander's force, and who is responsible for providing the assistance required by the supported commander.

supporting effort - The designated activity or subordinate organization(s) whose mission at a given time is designed to directly contribute to the success of the main effort. (NWP 5-01)

sustaining effort - The designated activity or subordinate organization(s) whose mission is directed at sustaining friendly forces to continue or prepare for activity. (NWP 5-01)

sustainment - The provision of logistics and personnel services required to maintain and prolong operations until successful mission accomplishment.

synchronization - 1. The arrangement of military actions in time, space, and purpose to produce maximum relative combat power at a decisive place and time. 2. In the intelligence context, application of intelligence sources and methods in concert with the operation plan to ensure intelligence requirements are answered in time to influence the decisions they support.

tactical control (TACON) - Command authority over assigned or attached forces or commands, or military capability or forces made available for tasking, that is limited to the detailed direction and control of movements or maneuvers within the operational area necessary to accomplish missions or tasks assigned. Tactical control is inherent in operational control. Tactical control may be delegated to, and exercised at any level at or below the level of combatant command. Tactical control provides sufficient authority for controlling and directing the application of force or Tactical use of combat support assets within the assigned mission or task.

tactical level of war - The level of war at which battles and engagements are planned and executed to achieve military objectives assigned to tactical units or task forces.

targeting - The process of selecting and prioritizing targets and matching the appropriate response to them, considering operational requirements and capabilities.

target area of interest (TAI) - The geographical area where high-value targets can be acquired and engaged by friendly forces. Not all target areas of interest will form part of the friendly course of action; only target areas of interest associated with high priority targets are of interest to the staff. These are identified during staff planning and wargaming. Target areas of interest differ from engagement areas in degree. Engagement areas plan for the use of all available weapons; target areas of interest might be engaged by a single weapon.

task - An action or activity (derived from an analysis of the mission and concept of operations) assigned to an individual or organization to provide a capability. (NTRP 1-02)

time-sensitive target (TST) - A joint force commander designated target requiring immediate response because it is a highly lucrative, fleeting target of opportunity or it poses (or will soon pose) a danger to friendly forces.

warning order (WARNORD) - 1. A preliminary notice of an order or action that is to follow. 2. A planning directive that initiates the development and evaluation of military courses of action by a supported commander and requests that the supported commander submit a commander's estimate. 3. A planning directive that describes the situation, allocates forces and resources, establishes command relationships, provides other initial planning guidance, and initiates subordinate unit mission planning.

ACRONYMS

See JP 1-02 and NTRP 1-02 for additional approved joint and Navy doctrinal acronyms and definitions, and doctrinal convention for capitalization.

A2/AD	anti-access/area denial
AADC	area air defense commander
AADP	area air defense plan
AAW	antiair warfare
ACA	airspace control authority
ACSA	acquisition and cross-servicing agreement
AD	air defense
ADCON	administrative control
AEF	air and space expeditionary force
AETF	air and space expeditionary task force
AIS	Automatic Identification System
ALOC	air line of communication
ALSA	Air Land Sea Application (Center)
AMCIT	American citizen
AMEMB	American Embassy
AO	area of operations
AOA	amphibious objective area
AOC	air operations center
AOI	area of interest
AOR	area of responsibility
APEX	Adaptive Planning and Execution
APOD	aerial port of debarkation
APOE	aerial port of embarkation
ARG	amphibious ready group
ASM	anti-ship missile; air-to-surface missile
ASW	antisubmarine warfare
AT/FP	antiterrorism/force protection
ATO	air tasking order
B2C2WG	boards, bureaus, centers, cells, and working groups Note: generally replaced by cross-functional team (CFT)
BDA	battle damage assessment
BMD	ballistic missile defense
BPT	be prepared to
C2	command and control
C3	command, control and communications (not generally used)
C4	command, control, communications and computers

C4I	command, control, communications, computers and intelligence
CA	civil affairs
CAL	critical asset list
CAOC	combined air and space operations center
CAP	crisis action planning; combat air patrol
CAS	close air support
CaS	collaboration at sea
CAT	crisis action team
CATF	commander, amphibious task force
CBRNE	chemical, biological, radiological, nuclear, and high-yield explosives
CC	critical capability
CCDR	combatant commander
CCIR	commander's critical information requirement
CCMD	combatant command
CCOI	critical contact of interest
C-day	unnamed day on which a deployment operation commences
CDCM	coastal defense cruise missile
CENTRIXS	Combined Enterprise Regional Information Exchange System
CES	commander's estimate of the situation
CFACC	combined force air component commander
CFLCC	combined force land component commander
CFMCC	combined force maritime component commander
CFSOCC	combined force special operations component commander
CFT	cross-functional team
CHAPGRU	cargo handling and port group
CI	counterintelligence
CIE	collaborative information environment
CJCS	Chairman of the Joint Chiefs of Staff
CJCSI	Chairman of the Joint Chiefs of Staff instruction
CJCSM	Chairman of the Joint Chiefs of Staff manual
C/JFMCC	combined/joint force maritime component commander
C/JSOTF	combined/joint special operations task force
C/JTF	combined/joint task force
CJTF	combined joint task force (NATO); commander, joint task force
CLF	commander, landing force
CMO	civil-military operations
CMOC	civil-military operations center

CNA	computer network attack (replaced by offensive cyberspace operations; no longer a doctrinal term)
CND	computer network defense (replaced by defensive cyberspace operations; no longer a doctrinal term)
CNE	computer network exploitation (no longer a doctrinal term)
CNO	Chief of Naval Operations; computer network operations (replaced by cyberspace operations; no longer a doctrinal term)
CO	cyberspace operations
COA	course of action
COCOM	combatant command (command authority)
COG	center of gravity
COI	contact of interest
COIN	counterinsurgency
COMAFFOR	commander, Air Force forces
COMARFOR	commander, Army forces
COMCAM	combat camera
COMMARFOR	commander, Marine Corps forces
COMNAVFOR	commander, Navy forces
CONOPS	concept of operations
CONPLAN	concept plan; operation plans in concept format
COP	common operational picture
COPS	current operations (cell)
COS	chief of staff
CR	critical requirement
CRAF	Civil Reserve Air Fleet
CS	civil support; combat support
CS21R	A Cooperative Strategy for 21st Century Seapower (Refresh)
CSAR	combat search and rescue
CSF	carrier strike force
CSG	carrier strike group
CT	counterterrorism
CUB	commander's update brief
CV	critical vulnerability
CWC	composite warfare commander
DAL	defended asset list
DART	disaster assistance response team
DC	dislocated civilian
DCO	defensive cyberspace operations
D-day	unnamed day on which a particular operation commences

DEPORD	deployment order
DHS	Department of Homeland Security
DIA	Defense Intelligence Agency
DIDM	daily intentions and directives message
DIME	diplomatic, information, military, and economic
DIRLAUTH	direct liaison authorized
DISA	Defense Information Systems Agency
DOD	Department of Defense
DODD	Department of Defense directive
DOE	Department of Energy
DOJ	Department of Justice
DON	Department of the Navy
DOS	Department of State
DOT	Department of Transportation
DOTMLPF	doctrine, organization, training, materiel, leadership and education, personnel, facilities
DP	displaced person
DPG	Defense Planning Guidance
DR	disaster relief; disaster response (USCG)
DRRS	Defense Readiness Reporting System
DSCA	defense support of civil authorities
DSP	Defense Support Program (reconnaissance satellites)
DSPD	defense support to public diplomacy
EA	executive agent; electronic attack
EAP	emergency action plan
EOA	enemy course of action
EOG	enemy center of gravity
EEFI	essential element(s) of friendly information
EEZ	exclusive economic zone
EMIO	expanded maritime interception operations
EOD	explosive ordnance disposal
ESF	expeditionary strike force
ESG	expeditionary strike group
EW	electronic warfare
EXORD	execute order
F2T2EA	find, fix, track, target, engage, assess
FCC	functional combatant commander
FFIR	friendly force information requirement
FHA	foreign humanitarian assistance
FHP	force health protection
FID	foreign internal defense
FOB	forward operating base
FON	freedom of navigation

FONOPS	freedom of navigation operations
FOPS	future operations (cell)
FPC	future plans cell
FRAGORD	fragmentary order
FRTF	fleet response training plan
FYDP	Future Years Defense Program
GCC	geographic combatant commander
GCCS	Global Command and Control System
GCCS-J	Global Command and Control System–Joint
GCCS-M	Global Command and Control System–Maritime
GDF	Guidance for Development of the Force
GEF	Guidance for Employment of the Force
GOPLAT	gas-oil platform
HA	humanitarian assistance
HA/DR	humanitarian assistance/disaster relief
H-hour	specific hour on D-day when a particular operation commences
HHQ	higher headquarters
HN	host nation
HNS	host-nation support
HOC	humanitarian operations center
HPT	high-payoff target
HPTL	high-payoff target list
HSPD	homeland security Presidential directive
HSS	health service support
HUMINT	human intelligence
HVA	high-value asset
HVT	high-value target
I&W	indications and warning
IA	information assurance; individual augmentee
IACG	interagency coordination group
IADS	integrated air defense system
IAMD	integrated air and missile defense
ICC	Intelligence Coordination Center (USCG)
ID	identify; infantry division
IDP	internally displaced person
IE	information environment
IGO	intergovernmental organization
IM	information management
IMINT	imagery intelligence
IMO	International Maritime Organization
IO	information operations
IOC	initial operational capability

IOT	in order to
IPB	intelligence preparation of the battlespace
IPOE	intelligence preparation of the operational environment
IPR	in-progress review; intelligence production requirement
ISB	intermediate staging base
ISO	in support of
ISR	intelligence, surveillance, and reconnaissance
ISSA	inter-Service support agreement
IW	irregular warfare
IWC	information operations warfare commander
JADOCS	Joint Automated Deep Operations Coordination System
JAOC	joint air operations center
JEB	joint effects board
JCMOTF	joint civil-military operations task force
JDEIS	Joint Doctrine, Education, and Training Electronic Info System
JEMSO	joint electromagnetic spectrum operations
JFACC	joint force air component commander
JFC	joint force commander
JFE	joint fires element
JFLCC	joint force land component commander
JFMCC	joint force maritime component commander
JFSOCC	joint force special operations component commander
JIACG	joint interagency coordination group
JIATF	joint interagency task force
JIB	joint information bureau
JIOC	joint intelligence operations center
JIPOE	joint intelligence preparation of the operational environment
JIPTL	joint integrated prioritized target list
JISE	joint intelligence support element
JLG	joint liaison group
JLOTS	joint logistics over-the-shore
JMET	joint mission-essential task
JMETL	joint mission-essential task list
JMISTF	joint military information support task force
JOA	joint operations area
JOC	joint operations center
JOPEs	Joint Operation Planning and Execution System
JP	joint publication

JPEC	joint planning and execution community
JPG	joint planning group
JRSOI	joint reception, staging, onward movement, integration
JSCP	Joint Strategic Capabilities Plan
JSOTF	joint special operations task force
JTCB	joint targeting coordination board
JTF	joint task force
JTL	joint target list
JTT	joint targeting toolbox
JWAC	Joint Warfare Analysis Center
KM	knowledge management
KMO	knowledge management officer
KMP	knowledge management plan
L-hour	specific hour on C-day at which a deployment commences
LMSR	large, medium-speed roll-on/roll-off (ship)
LNO	liaison officer
LOAC	law of armed conflict
LOC	line of communications
LOGCAP	logistics civil augmentation program
LOO	line of operation
LOTS	logistics over-the-shore
LRC	logistics readiness center
M&M	movement and maneuver
MAAP	master air attack plan
MAG	Marine aircraft group
MAGTF	Marine air-ground task force
MARAD	Maritime Administration
MARLO	Marine liaison officer
MARSUPPLAN	maritime support plan
MARSUPREQ	maritime support request
MASINT	measurement and signature intelligence
MCC	maritime component commander; Marine component commander
MCCDC	Marine Corps Combat Development Command
MCDP	Marine Corps doctrine publication
MCM	mine countermeasures
MCOO	modified combined obstacle overlay
MCPP	Marine Corps Planning Process
MCT	Marine Corps task (UNTL)
MCTL	Marine Corps Task List (UNTL)
MCWP	Marine Corps warfighting publication

MDA	maritime domain awareness
M-day	unnamed day on which full mobilization commences
MDMP	Military Decision-Making Process (US Army)
MDT	maritime dynamic target
MEF	Marine expeditionary force
MESF	maritime expeditionary security force
MET	mission-essential task
METL	mission-essential task list
METOC	meteorological and oceanographic
MEU	Marine expeditionary unit
MHQ	maritime headquarters
MILDEC	military deception
MIO	maritime interception ops; maritime interdiction ops (NATO)
MIPTL	maritime integrated priority target list
MISO	military information support operations (replaces PSYOP)
MIST	military information support team
MIW	mine warfare
MNF	multinational force
MOC	maritime operations center
MOE	measure of effectiveness
MOE-I	measure of effectiveness indicator
MOG	maximum on ground
MOP	measure of performance
MOPP	mission-oriented protective posture
MOTR	maritime operational threat response
MOUT	military operations in urban terrain
MPA	maritime patrol aircraft
MPG	maritime planning group
MPRA	maritime patrol and reconnaissance aircraft
MPSRON	maritime pre-positioning ships squadron
MSC	Military Sealift Command; major subordinate command
MSCA	military support to civil authorities
MSCP	maritime security cooperation plan
MTCB	maritime targeting coordination board
NAI	named area of interest
NALE	naval and amphibious liaison element; Navy–Air Force liaison element
NATO	North Atlantic Treaty Organization
NAVFOR	Navy forces
NCAGS	naval cooperation and guidance for shipping

NCC	Navy (naval) component commander
NCW	network-centric warfare; naval coastal warfare
N-day	day an active unit is notified for deployment or redeployment
NDLS	Navy Doctrine Library System
NDS	National Defense Strategy
NECC	Navy Expeditionary Combat Command
NEO	noncombatant evacuation operation
NETOPS	network operations
NGFS	naval gunfire support
NGO	nongovernmental organization
NIOC	Navy Information Operations Command
NIST	national intelligence support team
NMET	Navy mission-essential task
NMETL	Navy Mission-Essential Task List
NMS	National Military Strategy
NMIC	National Maritime Intelligence Center
NNWC	Naval Network Warfare Command
NOC	Naval Operations Concept
NPP	Navy Planning Process
NSC	National Security Council
NSCT	National Strategy for Combating Terrorism
NSFS	naval surface fire support
NSL	no-strike list
NSMS	National Strategy for Maritime Security
NSPD	national security Presidential directive
NSS	National Security Strategy
NSWTG	naval special warfare task group
NTA	Navy tactical task (UNTL)
NTTL	Navy Tactical Task List (UNTL)
NTTP	Navy tactics, techniques, and procedures
NWL	Navy Warfare Library
NWP	Navy warfare publication
O&M	operation and maintenance
OA	operational assessment
OAC	operational assessment cell
OCA	offensive counterair
OCHA	Office for the Coordination of Humanitarian Affairs (UN)
OCO	offensive cyberspace operations
OE	operational environment
OFDA	Office of US Foreign Disaster Assistance
OGA	other government agency

OLW	operational level of war
ONI	Office of Naval Intelligence
O/O	on order
OOB	order of battle
OODA	observe, orient, decide, act (loop)
OPART	operational art
OPCON	operational control
OPGEN	operational general message
OPLAN	operation plan
OPORD	operation order
OPS	operations
OPSEC	operations security
OPT	operational planning team
OSINT	open-source intelligence
OTC	officer in tactical command
PA	public affairs
PACOM	Pacific Command
PAO	public affairs officer
PCC	policy coordination committee
PHIBRON	amphibious squadron
PID	positive identification
PIR	priority intelligence requirement
PKO	peacekeeping operations
PMESII	political, military, economic, social, information, and infrastructure
POD	port of debarkation
POE	port of embarkation; port of entry
POLAD	political advisor
PPAG	proposed public affairs guidance
PPBE	Planning, Programming, Budgeting, and Execution
PR	personnel recovery
PSYOP	psychological operations (obsolete – now MISO)
PWC	principal warfare commander
QRF	quick reaction force
RC	Reserve Component
RCA	riot control agent
R-day	day on which redeployment of major combat forces begins
RDD	required delivery date
RFC	request for capabilities
RFF	request for forces
RFI	request for information

ROC	regional operations center; required operational capability
ROE	rules of engagement
ROMO	range of military operations
RO/RO	roll-on/roll-off
ROWPU	reverse osmosis water purification unit
RRF	Ready Reserve Force
RSOI	reception, staging, onward movement, and integration
RTL	restricted target list
RUF	rules for the use of force
SA	situational awareness
SAG	surface action group
SAM	surface-to-air missile
SASO	security and stability operations (USMC); stability and support operations, security and support operations
SC	strategic communication
SCC	Service component commander
SCP	security cooperation plan
S/CRS	Office of the Coordinator for Reconstruction and Stabilization (DOS)
SEAD	suppression of enemy air defenses
SecDef	Secretary of Defense
SIGINT	signals intelligence
SJFHQ	standing joint force headquarters
SLOC	sea line of communications
SME	subject matter expert
SMEAC	situation, mission, execution, admin and logistics, command and signal
SOCCE	special operations command and control element
SOF	special operations forces
SOFA	status-of-forces agreement
SOLAS	safety of life at sea
SOLE	special operations liaison element
SOP	standard operating procedure
SPECOPS	special operations
SPINS	special instructions
SPMAGTF	special-purpose Marine air-ground task force
SPOD	seaport of debarkation
SPOE	seaport of embarkation
SROE	standing rules of engagement
SRUF	standing rules for the use of force
SSM	surface-to-surface missile
STAR	sensitive target approval and review

STW	strike warfare
SUW	surface warfare
TA	tactical task (UJTL); target audience
TACAIR	tactical air
TACMEMO	tactical memorandum
TACON	tactical control
TAI	target area of interest
TAMD	theater air and missile defense
TBMCS	theater battle management core system
TBMD	theater ballistic missile defense
TECHINT	technical intelligence
TF	task force
TNL	target nomination list
TPFDD	time-phased force and deployment data
TPFDL	time-phased force and deployment list
TSC	theater security cooperation
TSCP	theater security cooperation plan
TSOC	theater special operations command
TST	time-sensitive target
TTP	tactics, techniques, and procedures
UJTL	Universal Joint Task List
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNMTF	United Nations maritime task force
UNSCR	United Nations Security Council resolution
UNTL	universal naval task list
USAID	United States Agency for International Development
USC	United States Code
USFFC	United States Fleet Forces Command
USG	United States Government
VBIED	vehicle-borne improvised explosive device
VISA	Voluntary Intermodal Shipping Agreement
VOI	vessel of interest
WARNORD	warning order
WMD	weapons of mass destruction



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