Maritime Staff
Reference Guide

College of Maritime Operational Warfare

U.S. NAVAL WAR COLLEGE

Est. 1884

NEWPORT, RHODE ISLAND

Maritime Staff Reference Guide

College of Maritime Operational Warfare

30 November 2017

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

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

Restraint
Persistence
Legitimacy

Op /Joint Functions
C2
Intelligence
Fires
M&M
Protection
Sustainment

Elements of Operational Design
Termination	**Leverage**
Military End State	**Balance**
Objectives & Effects	**Anticipation**
Center of Gravity	**Synergy**
Decisive Points	**Culmination**
Lines of Operation	**Arranging Ops**
Lines of Effort	**Risk Tolerance**
Operational Reach	**Timing & Tempo**
Simultaneity & Depth	**Forces & Functions**
Direct vs. Indirect Approach	

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

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

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

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 401-841-7361or cmow_msoc_faculty@usnwc.edu

General info on the course can be found at:
https://usnwc.edu/college-of-maritime-operational-warfare/Professional-Military-Education/Maritime-Staff-Operators-Course

Another useful resource is the MOC Warfighter on-line journal. It contains articles from fleet staff operators like you. Please feel free to contribute articles you feel would benefit others.
https://usnwc.edu/Publications/MOC-Warfighter

Useful websites for downloading publications:

Joint Doctrine:
Joint Electronic Library (JEL): http://www.dtic.mil/doctrine/index.html
JEL + Joint Doctrine, Education and Training Electronic Information System (JDEIS):
UNCLAS: https://jdeis.js.mil/jdeis/index.jsp?
Classified: http://jdeis.js.smil.mil/jdeis

Navy Doctrine: https://portal.nwdc.navy.mil/ndls

Multi-Service Doctrine: http://www.alsa.mil/

USFFC Fleet CONOPS:
https://fims.nwdc.navy.navy.smil.mil/NewFIMS/default.aspx

DOD Issuances: Directives, Instructions, and Manuals
http://www.dtic.mil/whs/directives/

Navy Issuances: https://doni.documentservice.dla.mil/default.aspx

DOD, multinational/coalition/NGO Collaboration:
https:www.apan.org/

Table of Contents

Naval Missions

Our Naval Missions support national security objectives

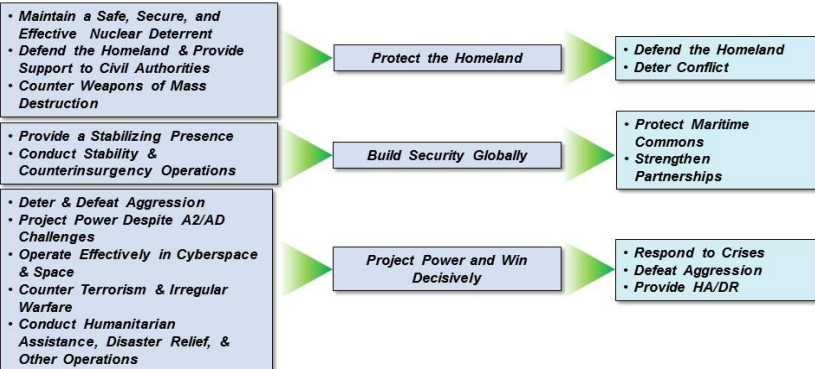*2012 Defense Strategic Guidance (DSG)*
Primary Missions of U.S. Armed Forces

*2014 Quadrennial Defense (QDR) Review*
Defense Strategy Pillars

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

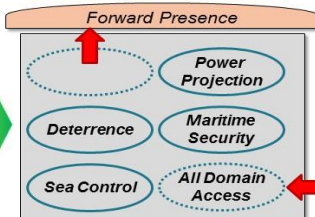|		
• *Maintain a Safe, Secure, and Effective Nuclear Deterrent* • *Defend the Homeland & Provide Support to Civil Authorities* • *Counter Weapons of Mass Destruction*	**Protect the Homeland**	• *Defend the Homeland* • *Deter Conflict*
• *Provide a Stabilizing Presence* • *Conduct Stability & Counterinsurgency 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*

Naval Essential Functions

Function: *"The broad, general, and enduring role for which an organization is designed, equipped, and trained." (JP 1-02, JP 1)*

CS21 2007 (6 Expanded Core Capabilities)

- Forward Presence
- Power Projection
- Deterrence
- Maritime Security
- Sea Control
- HA/DR
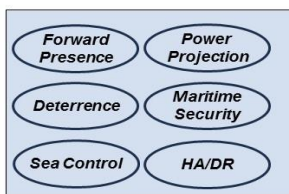
CS21R 2015 (5 Essential Functions)

Forward Presence

- Power Projection
- Deterrence
- Maritime Security
- Sea Control
- All Domain Access
- HA/DR

Forward presence as central theme and key enabler

Capabilities that provide Joint Assured Access (Counter A2/AD threats)

Discussed as a part of Power Projection (function) to be consistent with QDR

Included in Non-combat Crisis Response (capability) in MOC Standardization Manual

Functions are how we organize, train, and equip to achieve our missions

Naval Warfare

OBJECTIVES AND CONCEPTS 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. A means to an end, not the end itself.

- 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. (Note: there is no joint definition for sea control)

- **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: n**either side able to be decisive
    - **Absolute:** one fleet 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.
- **Purposes**:
    - Deny enemy commercial/military use of the sea
    - Ensure friendly maritime trade
    - Facilitate power projection
    - Allow landing/sustaining forces ashore
    - Protect 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 of maritime domain 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

Levels of Warfare and Command

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

Strategic Level: The level of warfare 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.

Operational Level: The level of warfare at which campaigns and major operations are planned, conducted, and sustained to achieve strategic objectives within theaters or other operational areas.

Tactical Level: The level of warfare at which battles and engagements are planned and executed to achieve military objectives assigned to tactical units or task forces. See also operational level of warfare; strategic level of warfare.

Levels of Command
- Are clearly delineated (Chain of Command), while *levels of war* are not
- 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

Operational Level of War (OLW)
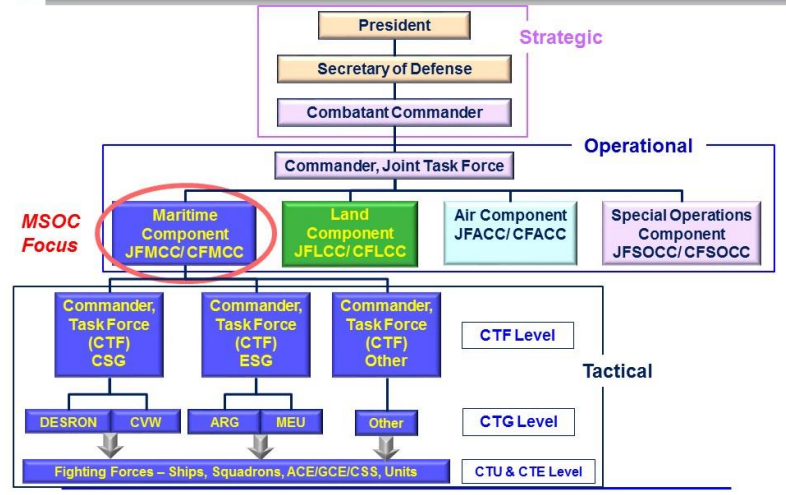
The Theater

Theater Organization and Structure

- **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.

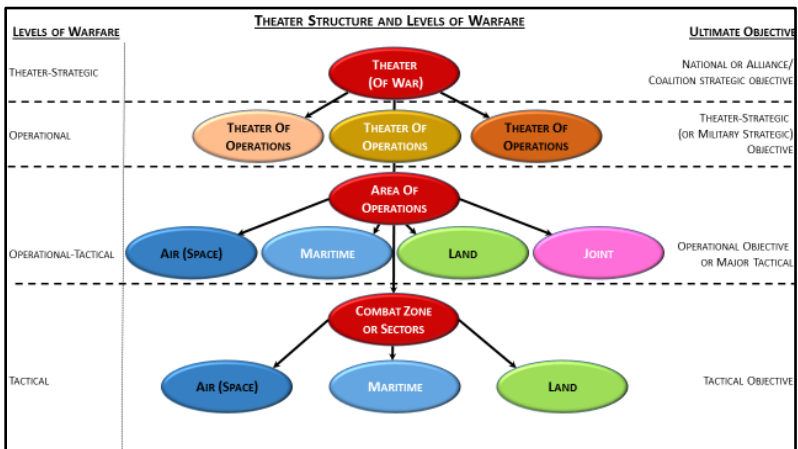- **Area of influence:** A geographical area wherein a commander is directly capable of influencing operations by maneuver or fire support systems normally under the commander's command or control.   An undefined area that extends beyond the boundaries of a given theater, but in which the CDR can directly 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.   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.

- **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.

- **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. 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.

- **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.

- **Amphibious objective area (AOA):** A geographical area … within which is located the objective(s) to be secured by the amphibious force.

Theater Geometry: the main elements of any theater are positions, distances, bases of operation, physical objectives, decisive points, lines of operations, lines of retreat/withdrawal, and lines of communication.
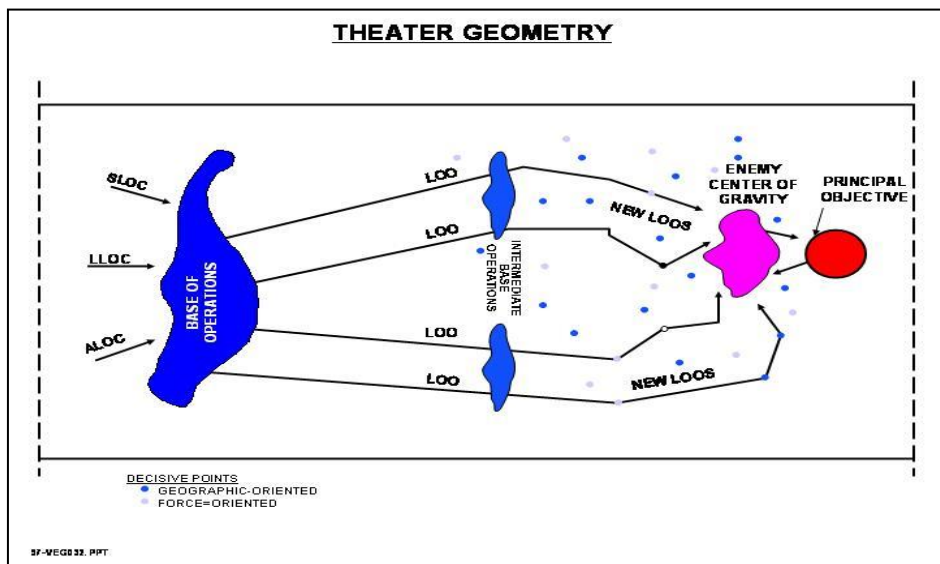
Positions
- Geography matters. Relative position of opposing forces is often crucial
- **Central position:** when a force is between two or more enemy forces
  - Advantages: Shorter LOCs; enemy can't easily concentrate forces
  - Disadvantages: Susceptible to simultaneous attack from multiple axes
- **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

- o Supports offensive and defensive operations
- o Established so advantageous lines can be created relative to objectives
- o Main base of operations usually located in own territory
- o Intermediate base of operations developed or obtained during the course of a major operation

- **Physical Objective**
  - o Theaters contain many physical objectives to be seized, held, controlled, or neutralized
  - o Geographic feature or a force
  - o Many tactical, few operational, and usually only a single strategic objective in the course of a campaign
  - o Never considered in isolation from the nonmilitary aspects of the situation
  - o Can apply to offense or defense
  - o Tactical objective: creates drastic change in a tactical area and contributes to a major tactical objective
  - o 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
  - o Strategic objective: drastic effect within a given theater
  - o National-strategic objective: results in ending enemy's organized resistance/hostilities in theater

- **Decisive Point**
  - o 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.
  - o A decisive point for one echelon may be an objective for the next-lower echelon
  - o Permanent or transitory; terrain or force-oriented

- **Line of Operation (LOO)**
  - o 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). An imaginary line along which a force moves from its base of operations toward a given physical objective
  - o Must be accessible and well protected
  - o Shifting LOOs during major operations should be avoided
  - o Main LOOs extend to the main objective
  - o Secondary LOOs extend to secondary objectives

- **Line of Communications (LOC)**
  - o 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.
  - o Shifting LOCs in combat should be avoided
  - o Shorter LOCs are usually better
  - o **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

Notional Navy Fleet/ Component MOC Organization

Commander's Decision Cycle and Timelines
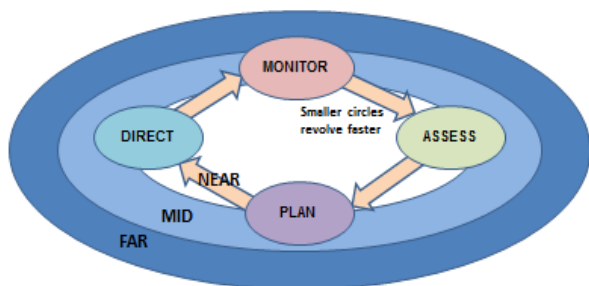
FAR
Operational focus is on "what's next." Typically responsible for planning the next phase of operations (sequels), assessing campaign/plan progress, validating plan assumptions.

MID
Operational focus is on "What if." Typically responsible for branch planning. Validates, refines, redirects future operations based on effects assessment and task execution. Prepares future operations warning orders (WARNORDs).

NEAR
Operational focus is on execution of current operations, "what is." Evaluates task accomplishment. Directs execution of branches and sequels. Prepares fragmentary orders (FRAGORDs).

Operational Art and Operational Design
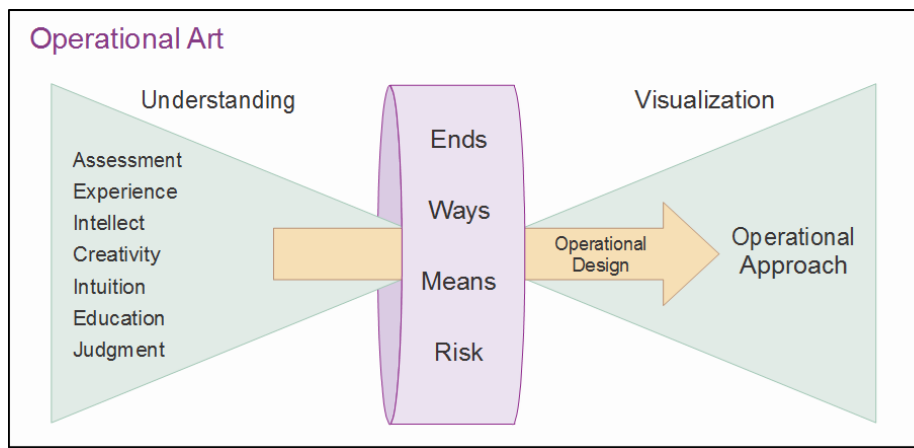
Operational Art - The cognitive approach by commanders and staffs - supported by their skill, knowledge, experience, creativity, and judgment - to develop strategies, campaigns, and operations to organize and employ military forces by integrating ends, ways, and means. (JP 3-0)

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:

What is the current state of the OE?

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

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

(Means) **What military resources are required in concert with possible civilian resources 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 military actions? How will I identify if one or more of them occur? What is an acceptable level of "failure"?**

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

Regressive Planning — Determine what the desired end state is and work backward.
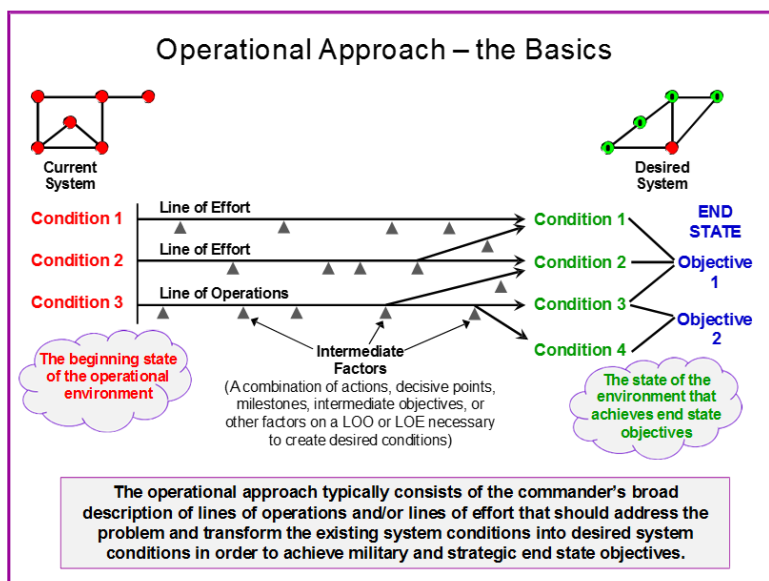
Figure VI-2. Operational Approach – The Basics

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. Defined in terms of friendly, enemy and geopolitical state.
  - What is the desired end state?
  - Determined by the nature of the 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 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
  - 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 warfare 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.
- **Effects**
  - **Effect**: the physical or behavioral state of a system that results from an action, a set of actions, or another effect.
  - 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
    - PMESI: 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.
  - 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.
  - <u>Not</u> 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.

- o If strength is insufficient or risk to force too high, direct attack may be inadvisable

- **Line of Operation (LOO)**
  - o 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).
  - o Defines the orientation of the force in time and space or purpose
  - o A logical line that connects actions on nodes and DPs related in time and purpose with the objective
- **Line of Effort (LOE)**
  - o 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.
  - o Links multiple tasks and missions using the logic of purpose--cause and effect--to focus efforts toward establishing operational and strategic conditions
- **Operational Reach**
  - o The distance and duration across which a force can successfully employ military capabilities.
  - o Basing is foundational to maintaining/extending reach
- **Simultaneity and Depth**
  - o Simultaneous application of military and nonmilitary power against the enemy's key capabilities and sources of strength.
  - o 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.
  - o Overwhelm enemy, causing confusion and demoralization
  - o Hit from multiple domains in parallel vice serial operations
  - o Attack in depth disrupts an enemy's decision cycle
- **Timing and Tempo**
  - o Conduct operations in tempo and time that best exploit friendly capabilities
  - o Dominate the action, remain unpredictable, operate faster than enemy's ability to react
  - o Try to operate inside enemy decision cycle
- **Forces and Functions**
  - o Campaigns can defeat enemy forces or functions, or both concurrently
  - o Attacking functions can destroy enemy's balance
- **Leverage**
  - o Relative advantage in combat power across domains
  - o Gain, maintain, and exploit the initiative
- **Balance**
  - o Maintain the force's freedom of action
  - o 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

Notional Operation Plan Phases vs Level of Military Effort
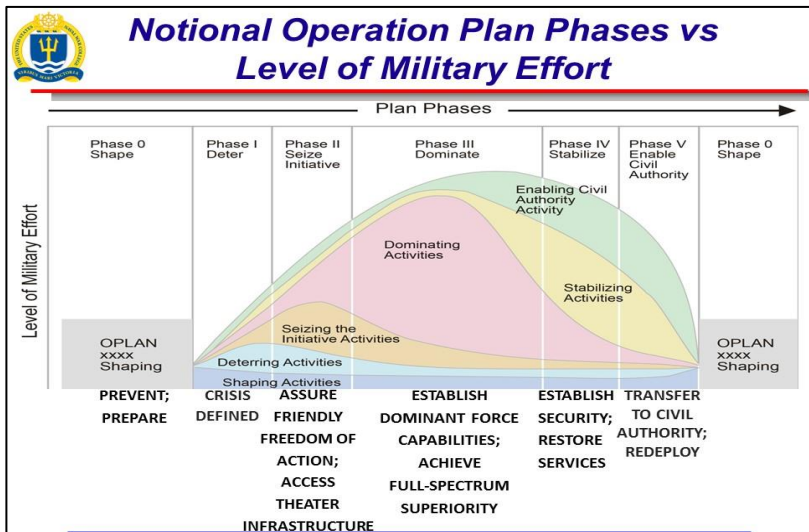
Phase 0—Shape: dissuade potential adversaries and solidify relationships with friends and allies
- Shape perceptions of enemies and allies
- Lead effort may not be military
- Incorporated in theater campaign plan
- Goal in all phases is to return quickly back to Phase 0

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 non-combat situations through application of joint force capabilities
- Military effort dominant
- Combat operations at earliest possible time
- Start stability activities to relieve conditions that started crisis

Phase III—Dominate: focus 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 activities 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

o　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
- Time for mobilization
- Planning time
- Training time
- Time for deployment
- Warning time (helped by geostrategic positioning)
- Reaction time (alert status)
- Time between consecutive major operations = tempo

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 space: use, control, or deny
- **Geostrategic Position**
  - Continental: no border on ocean (e.g., Afghanistan, Hungary)
  - Semi-continental: 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**
    - o Time and space are not subject to the commander's will
    - o Physical and climatological characteristics of space impact deployment and employment
- **Time-Force**
    - o Timely availability of forces based on type/size of forces and their organization, distance to JOA, transportation mode, and infrastructure
- **Space-Force**
    - o Overcoming space in movement of forces
    - o Controlling space requires forces
    - o Size of force in proportion to the space
- **Time-Space-Force**
    - o The most complex relationship to assess—the essence of OPART Greater distance to move forces requires more time

<u>Principles of Joint Operations</u> (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

Operational / Joint Functions (JP 3-0)

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

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

- o   Adversary forces
- o   Time

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

US Joint Doctrine Command Relationships (JP 1)

Combatant Command (Command Authority)

(Unique to Combatant Commander)

- Planning, programming, budgeting, and execution process input
- Assignment of subordinate commanders
- Relationships with Department of Defense agencies
- Directive authority for logistics

Operational control when delegated

- Authoritative direction for all military operations and joint training
- Organize and employ commands and forces
- Assign command functions to subordinates
- Establish plans and requirements for intelligence, surveillance, and reconnaissance activities
- Suspend subordinate commanders from duty

Tactical control when delegated

Local direction and control of movements or maneuvers to accomplish mission

Support relationship when assigned

Aid, assist, protect, or sustain another organization

Figure V-1. Command Relationships Synopsis

Chain of Command

```
                              ┌──────────────────────┐
                              │      President       │
                              └──────────────────────┘
    ┌──────────────┐          ┌──────────────────────┐
    │  Chairman    │..........│ Secretary of Defense │
    │  of the      │          └──────────────────────┘
    │ Joint Chiefs │
    │  of Staff    │                    ┌────────────────────────┐      ┌──────────────┐
    └──────────────┘                    │ Secretaries of Military│──────│   Service    │
                                        │     Departments        │      │   Chiefs     │
    ┌──────────────┐                    └────────────────────────┘      └──────────────┘
    │              │          ┌──────────────────────────────┐
    │   Unified    │          │  Commanders of Military      │
    │   Commands   │          │     Service Forces           │
    │              │          │ --Service Retained Forces(see│
    └──────────────┘          │    GFMIG)                    │
          │ COCOM             │ --Unassigned Forces(see GFMIG)│
                              └──────────────────────────────┘
 ┌──────────────┐      ┌──────────────┐                 ┌──────────────┐
 │  Joint Task  │      │  Functional  │                 │   Service    │
 │    Force     │      │  Component   │                 │  Component   │
 └──────────────┘      │  Commands    │                 │  Commands    │
  OPCON/ TACON         └──────────────┘                 └──────────────┘
 ┌──────────────┐   OPCON/ TACON
 │  Service/    │      ┌──────────────┐
 │  Functional  │      │Forces/Capab. │
 │  Components  │      │Made Available│
 └──────────────┘      └──────────────┘
 ┌──────────────┐
 │ Subordinate  │
 │   Unified    │
 │   Command    │
 └──────────────┘
        │ OPCON
 ┌──────────────┐      ┌──────────────┐         ┌──────────────┐
 │  Functional  │      │   Service    │         │  Joint Task  │
 │  Component   │      │  Components  │         │    Force     │
 │  Commands    │      └──────────────┘         └──────────────┘
 └──────────────┘                                OPCON/ TACON
 OPCON/ TACON                                   ┌──────────────┐
 ┌──────────────┐                               │ Service/     │
 │Forces/Capab. │                               │ Functional   │
 │Made Available│                               │ Components   │
 └──────────────┘                               └──────────────┘
```

Note: This diagram is only an example; it does not prescribe joint force organization.

Legend

COCOM	combatant command (command authority)	chain of command	———
GFMIG	Global Force Management Implementation Guidance	administrative control	———
OPCON	operational control	channel of communication	············
TACON	tactical control		

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. For definitions, see the Glossary.

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	

Operational Intelligence

- Designed to meet the CDR's operational and strategic objectives.
- 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 Operational Environment (IPOE)**
  (Doctrinally not a step in the NPP, but feeds initial NPP steps and supports throughout).
  - JIPOE is conducted by the JFC (e.g., CJTF) and used to develop the Intel estimate and OPORD Annex B. IPOE is conducted by the components (e.g., C/JFMCC) and used to develop their products and provide support to component-level planning.

  - JIPOE/IPOE 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/IPOE 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; planners must understand our vulnerabilities and how to respond to disruption/degradation.

    Four steps of IPOE (NWP 5-01 Annex B-1):
    1. Define the Operational Environment.
       a. Identify the AO and AOI.
       b. Determine the significant characteristics of the operational environment.
       c. Evaluate existing databases and identify intelligence gaps and priorities.
    2. Describe the Impact of the Operational Environment.
       a. Analyze factor space and factor time in the operational environment.
       b. Determine OE effects on enemy and friendly capabilities and broad COAs.
    3. Evaluate the Adversary (Factor Force).
       a. Identify adversary force capabilities
       b. Consider and describe general ECOAs.
       c. Determine current adversary situation (situation template)

        d.   Identify adversary capabilities, vulnerabilities
        e.   Identify ECOGs, Decisive Points

4. <u>Develop ECOAs.</u>
        a.   Identify enemy objectives and end state.
        b.   Identify and develop the full range of ECOAs.
        c.   Evaluate and prioritize ECOAs. (Most-likely, most dangerous, etc.)

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.

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.

- Four primary methods:
    - <u>Active defensive measures</u> protect the joint force from attack
    - <u>Passive defensive measures</u> make friendly forces difficult to target
    - Apply technology/procedures to <u>reduce fratricide</u>
    - Reduce loss of personnel/capabilities to <u>accidents and health threats</u>

- 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)

Center of Gravity Deconstruction
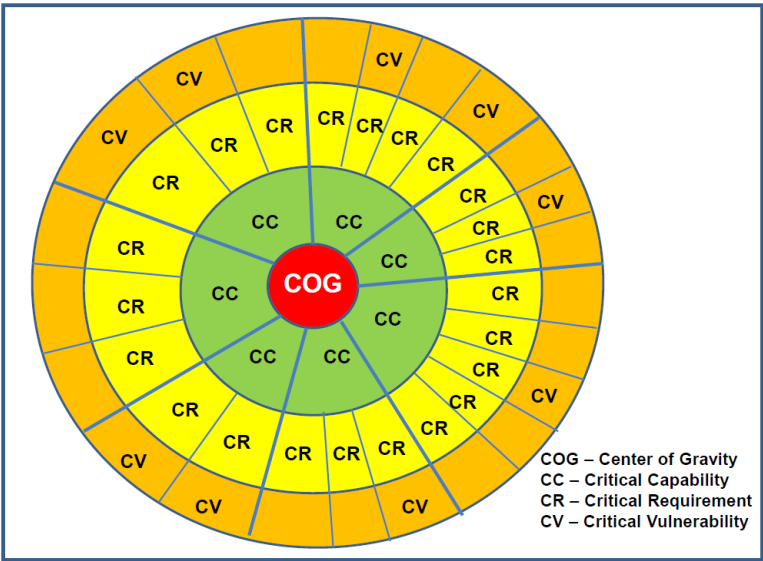
(NWP 5-01 Appendix C)

Center of Gravity Analysis
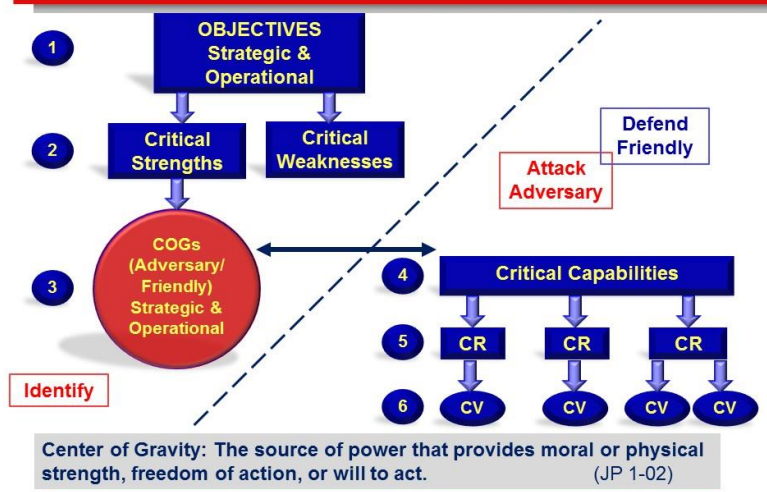
Center of Gravity: The source of power that provides moral or physical strength, freedom of action, or will to act. (JP 1-02)

- **Center of Gravity (COG):** The source of power that provides moral or physical strength, freedom of action, or will to act. 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 <u>or one's own</u> 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:**
  - o **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).
  - o **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. 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.

- **Attack Enemy COG/ Defend Friendly COG:**
  - o **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.
  - o **Critical Requirement (CR):** An essential condition, resource, and means for a critical capability to be fully operational.
  - o **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.

"Mayan Sundial" Technique for COG Analysis

COG – Center of Gravity
CC – Critical Capability
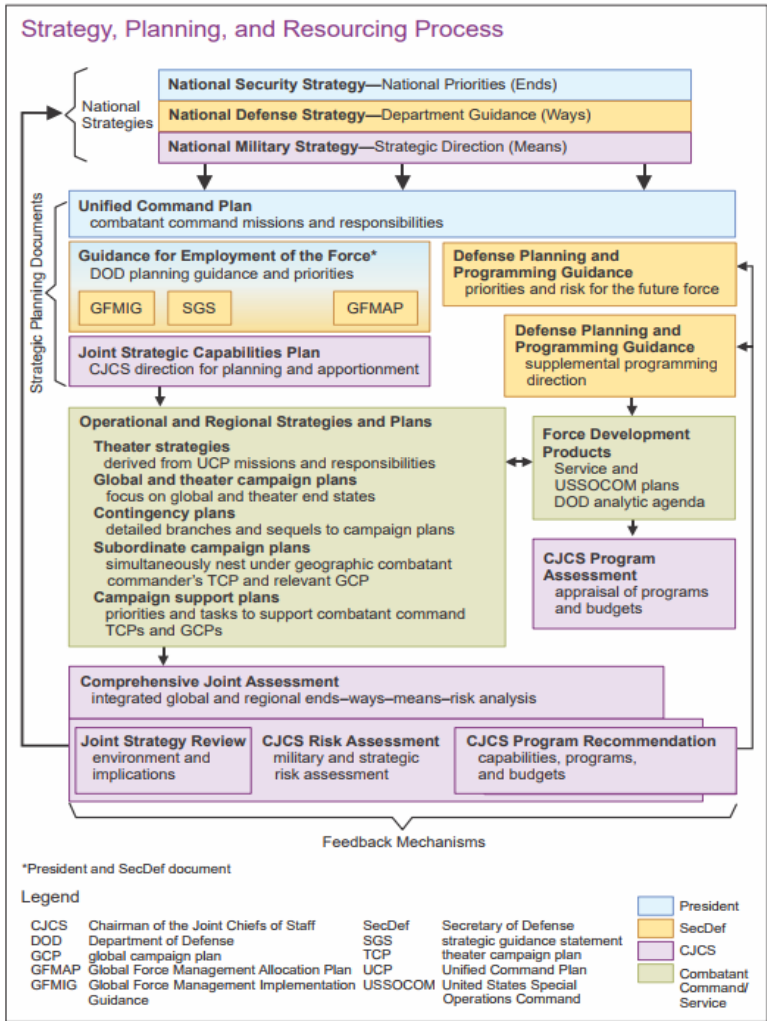CR – Critical Requirement
CV – Critical Vulnerability
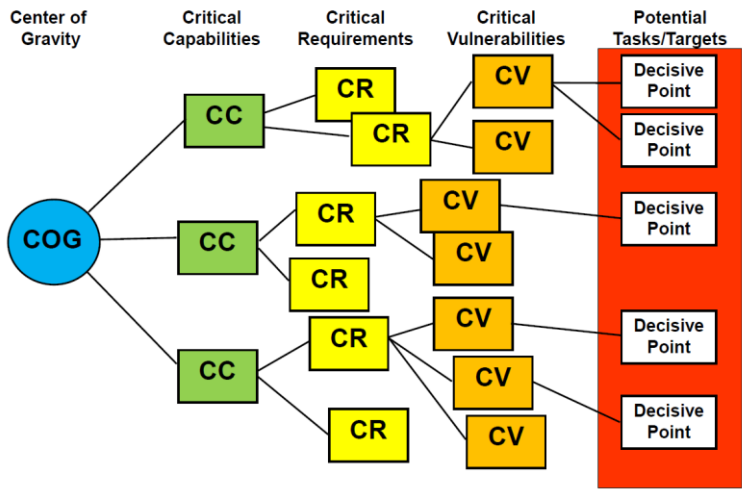
"Fishbone" Technique for COG Analysis

Planning

(Joint Planning JP 1-0 Chapter II)

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

Figure II-1. Strategy, Planning, and Resourcing Process

Types of Planning Efforts

Deliberate planning (aka Planning for a Contingency) 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—Base Plan (BPLAN): 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 CCDR'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 (aka Planning in a Crisis)
- o Situation may be a complete surprise with no contingency planning foundation
- o Situation may replicate a developed contingency plan
- o Situation may be able to use part of a contingency plan
- o Planning results in executable orders

Planning Efforts Comparison

Contingency and Crisis Comparison

	Planning for a Contingency	Planning in a Crisis
Time available	As defined in authoritative directives (normally 6+ months)	Situation dependent (hours, days, up to 12 months)
Environment	Distributed, collaborative planning	Distributed, collaborative planning and execution
Facts and assumptions	Significant use of assumptions	Rely on facts and minimal use of assumption
JPEC involvement	Full JPEC participation (Note: JPEC participation may be limited for security reasons.)	Full JPEC participation (Note: JPEC participation may be limited for security reasons.)
APEX operational activities	Situational awareness Planning Assessment	Situational awareness Planning Execution Assessment
APEX functions	Strategic guidance Concept development Plan development Plan assessment	Strategic guidance Concept development Plan development Plan assessment
Document assigning planning task	CJCS issues: 1. JSCP 2. Planning directive 3. WARNORD (for short suspense planning)	CJCS issues: 1. WARNORD 2. PLANORD 3. SecDef-approved ALERTORD
Forces for planning	Apportioned in JSCP	Allocated in WARNORD, PLANORD, or ALERTORD.
Planning guidance	CJCS issues JSCP or WARNORD. CCDR issues PLANDIR and TPFDD LOI.	CJCS issues WARNORD, PLANORD, or ALERTORD. CCDR issues WARNORD, PLANORD, or ALERTORD and TPFDD LOI to subordinates, supporting commands, and supporting agencies.
COA selection	CCDR prepares COAs and submits to CJCS and SecDef for review. Specific COA may or may not be selected.	CCDR develops commander's estimate with recommended COA.
CONOPS approval	SecDef approves planning or directs additional planning or changes.	President/SecDef approve COA, disapproves or approves further planning.
Final planning product	Campaign plan. Level 1–4 contingency plan.	OPORD
Final planning product approval	CCDR submits final plan to CJCS for review and SecDef for approval.	CCDR submits final plan to President/SecDef for approval.
Execution document	Not applicable.	CJCS issues SecDef-approved EXORD. CCDR issues EXORD.
Output	Plan	Execution

Legend

ALERTORD	alert order	JSCP	Joint Strategic Campaign Plan
APEX	Adaptive Planning and Execution	LOI	letter of instruction
CCDR	combatant commander	OPORD	operations order
CJCS	Chairman of the Joint Chiefs of Staff	PLANDIR	planning directive
COA	course of action	PLANORD	planning order
CONOPS	concept of operations	SecDef	Secretary of Defense
EXORD	execute order	TPFDD	time-phased force and deployment data
JPEC	joint planning and execution community	WARNORD	warning order community

Figure II-6. Contingency and Crisis Comparison

Types of Orders (JP 5-0)

Joint Orders

	Order Type	Intended Action	Secretary of Defense Approval Required
Warning order	WARNORD	Initiates development and evaluation of COAs by supported commander. Requests commander's estimate be submitted.	No. Required when WARNORD includes deployment or deployment preparation actions.
Planning order	PLANORD	Begins planning for anticipated President or SecDef-selected COA. Directs preparation of OPORDs or contingency plan.	No. Conveys anticipated COA selection by the President or SecDef.
Alert order	ALERTORD	Begins execution planning on President or SecDef-selected COA. Directs preparation of OPORD or contingency plan.	Yes. Conveys COA selection by the President or SecDef.
Operation order	OPORD	Effect coordinated execution of an operation.	Specific to the OPORD.
Prepare to deploy order	PTDO	Increase/decrease deployability posture of units.	Yes (if allocates force). Refers to five levels of deployability posture.
Deployment/ redeployment order	DEPORD	Deploy/redeploy forces. Establish C-day/L-hour. Increase deployability. Establish joint task force.	Yes (if allocates force). Required for movement of unit personnel and equipment into combatant commander's AOR.
Execute order	EXORD	Implement President or SecDef decision directing execution of a COA or OPORD.	Yes.
Fragmentary order	FRAGORD	Issued as needed after an OPORD to change or modify the OPORD execution.	No.

Legend

AOR	area of responsibility
C-day	unnamed day on which a deployment operation begins
COA	course of actions
L-hour	specific hour on C-day at which deployment operation commences or is to commence
SecDef	Secretary of Defense

Figure II-7. Joint 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

- o Deception planning
  - o Concurrent with the planning for a major operation/campaign
  - o Must be integrated with the operational plan it is covering
  - o Must be coordinated with the coalition at some level
  - o Resource-intensive
  - o OPSEC
    - Deception's defensive mode
    - OPSEC must aid the deception
  - o 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
  - o May be required due to inadequate sustainment
  - o May be employed to deceive the enemy
  - o Assists in synchronization/sequencing tactical actions within a major operation
  - o Cedes initiative to enemy if prepared to take it
  - o 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.
  - o Force mix and location must be considered in planning
  - o Mobility and combat power are more important than size of force
  - o Reduces risk to mission and forces

- **Coalition Force Coordination**
  - o Understand ROE differences
  - o Determine how coalition forces will integrate or coordinate in C2 structure
    - Place in deputy or CTF command positions when able
  - o Understand intel/info-sharing restraints
    - Share as much as possible
  - o Understand who provides what sustainment to whom
  - o Coordinate movement and maneuver plans
  - o Understand protection coordination
  - o Understand fires capabilities
  - o Be wary of fratricide potential
  - o Understand their perception of risk
  - o Understand they will require decision time to coordinate with national authorities
  - o Swap LNOs to max extent
    - Prepare for language/cultural differences

- **Types of Forces**
  - o Assigned: forces under COCOM of a CCDR
  - o Allocated: forces made available to a CCDR upon initiation of a crisis
  - o Apportioned: forces to be used by a CCDR for deliberate and crisis action planning

- **Rules of Engagement**
  - o Standing ROE
  - o Supplemental ROE
  - o 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?

Risk

- **Risk Probability Definitions**
  - o Frequent: Occurs very often, continuously experienced
  - o Likely: Occurs several times
  - o Occasional: Occurs sporadically
  - o Seldom: Remotely possible, could occur at some time
  - o Unlikely: Can assume will not occur, but not impossible

- **Risk Severity Categories**
  - o 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.
  - o 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.
  - o Marginal (III) Degraded mission capability or unit readiness. Minor damage to equipment or systems, property, or the environment. Injury or illness of personnel.
  - o 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**
  - o Extremely High Risk: Loss of ability to accomplish the mission
  - o 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
  - o Moderate Risk: Expected degraded mission capabilities
  - o Low Risk: Little or no impact on mission accomplishment

E – Extremely high / H – High / M – Moderate / L - Low

SEVERITY		PROBABILITY				
		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

Navy Planning Process

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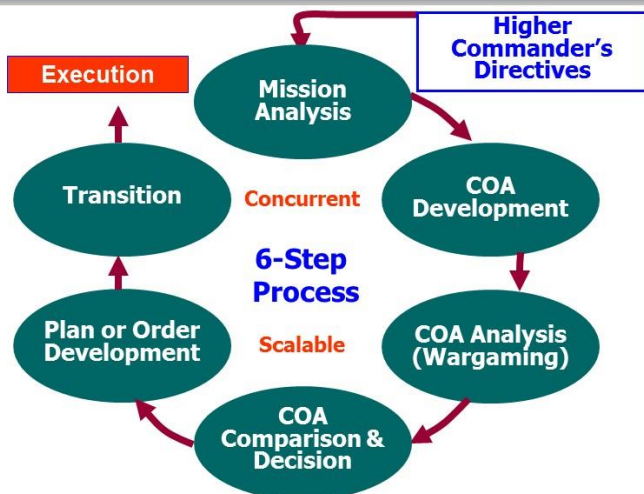
NPP Step One: Mission Analysis
(NWP 5-01 Chapter 2, Annex Q-1)

Inputs

From Higher Headquarters
- o   Plans, orders and guidance
- o   Intelligence products
- o   Staff estimates

From the Commander
- o   Initial planning guidance
- o   Initial commander's intent
- o   Design products (if used0

From the Staff
- o   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 <u>must</u> be validated or disproved, or they contribute to risk
- 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

- o Proposed Commander's Planning Guidance / Intent
- o Decision

- • Develop warning order(s) (optional)
  - o **<u>Warning Order #1 (Includes at a minimum</u>**)
  - o Approved mission statement
  - o Commander's intent
  - o Changes to task organization
  - o Develop Commander's planning guidance
  - o CCIRs and EEFIs
  - o Risk guidance
  - o 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
- o Warning order
- o Operation order

From the Commander
- o Mission statement and commander's intent
- o Planning guidance and governing factors

From the staff
- o Updated IPOE
- o Enemy COAs
- o Staff estimates
- o Initial risk assessment

Process
- Analyze relative combat power (NWP 5-01 Appendix E)
  - Review IPOE and mission analysis
- Generate COA options
  - o Ensure COA directed at maritime ECOG by phase
  - o Ensure COA protects friendly COG

Generate COA Options

Establish operational framework
Start at beginning, looking at first phase of operation:
1. Annotate decisive points.
2. Apply effort construct
3. Assign essential tasks (decisive tasks)
4. Assign generic units/capabilities to tasks and purposes
5. Convert generic units to specific units
6. Task organize (assign CTF construct, build task org
7. Assign staffs
8. Determine control measures
9. Determine C2
10. Synchronize
11. Repeat for subsequent phases

Process
* Analyze Relative Combat Power
* Generate COA Options
* Test for Validity
* Recommend C2 Relationships
* Prepare Sketches/Statements
* Prepare COA Brief
* Develop COA Analysis and Evaluation Criteria
* Refine risk assessment each COA
* Develop assessment criteria
* Review ROE

- Test for validity (see details below)
- Recommend command and control relationships and structure
- Prepare COA sketches and statements/narratives

- o 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/shaping efforts by phase
    - ▪ Develop C2 structure that shows changes by phase
- o Narrative: Overall description of COA
    - ▪ Main/supporting/sustaining/shaping efforts listed by phase
    - ▪ Estimated phase duration
    - ▪ Use UJTL/UNTL terms for task and purpose
    - ▪
    - ▪ Force employment by phase
    - ▪ ID location, sequencing of major units by phase
    - ▪ ID phase end state criteria in maritime domain

- • Prepare COA briefing
  - o **COA Briefing format (suggested):**
  - o Updated IPOE if applicable
  - o Enemy most likely and most dangerous COAs
  - o Higher Commander's Mission & Intent
  - o CFMCC Mission
  - o Commander's Intent
  - o Commander's Planning Guidance
  - o Relative Combat Power Assessment
  - o Updated Facts and Assumptions
  - o Presentation of Complete COA by phase with rationale
    - o 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 measures; include reference to essential, specified, implied tasks as well as decisive points and COG; recommended ROE revisions; recommended RFCs or RFFs. Brief each supporting function as required/directed (e.g., fires, sustainment, deploying concept, IO themes).
  - o Repeat for each COA presented
  - o 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 enemy COAs
- Course of action analysis (Wargaming) guidance
- Initial synch matrix
- Refined CDR's intent
- Refined staff estimates
- Initial operational assessment
- Refined risk assessment
- Identified RFFs/RFCs and supplemental 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
- o Refined commander's intent
- o Wargaming guidance
- o Approved COAs
- o Governing factors/evaluation criteria and critical events

From the staff
- o Refined enemy COAs
- o Initial staff estimates
- o Updated IPOE

Process
- Organize for wargaming
- List all friendly forces
- Review assumptions
- List known critical events
- Select wargaming method
- Select method to record and display results
- Conduct the war game and display and assess results
- Conduct risk assessment and mitigation
- Wargame
- Refine staff estimates
- Conduct war game briefing (optional)

  - o **War game briefing (proposed):**
  - o Higher Headquarters Intent & Mission
  - o Mission and Intent
  - o Updated Intelligence Estimate and IPOE
  - o Enemy situation
    - o Courses of Action considered – Most Likely, Most Dangerous, other ECOA considerations
  - o Friendly situation
    - o Wargaming guidance
    - o Critical facts and assumptions
    - o 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
  - o Advantages and disadvantages to the COA

Outputs

- Refine COA
- War game record results into draft synch matrix
- Initial decision support matrix/template (NWP 5-01 App I)
- 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
- o Evaluation criteria/governing factors

From the staff
- o COA war game worksheet
- o COA sketch and narrative
- o Updated IPOE
- o Decision support matrix
- o Refined staff estimates
- o Evaluation criteria
- o Governing factors
- o Proposed risk controls

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

o   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
- o Mission statement
- o Commander's intent

From the staff
- o Task organization
- o CONOPS
- o Staff estimates
- o Synchronization matrix
- o Operational assessment
- o 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)
  - o Include summary of enemy situation in OA
  - o ID ECOG/COG in the maritime domain by phase
  - o State most likely ECOA
  - o Verbatim HHQ mission and intent
  - o Include missions of adjacent units, other agencies, IGOs, NGOs in OA
- Notes for para 2 (Mission)
  - o Verbatim CDR-approved mission statement for issuing command
  - o Mission statement includes who, what, where, when, why

- Notes for para 3 (Execution)
    - o Verbatim CDR's intent
    - o Format: purpose, method, end state, risk
    - o Phased CONOPS explaining how units cooperate to accomplish mission
    - o May include each operational function and how they are synchronized
    - o 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
    - o CCIRs as approved by CDR
    - o Provide ROE emphasis as necessary
- Notes for para 4 (Admin & Log)
    - o Describe manner of logistic support, making basic concept clear
- Notes for para 5 (Command & Control)
    - o 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)

Types of Orders

Alert Order: provides essential planning guidance, directs the initiation of execution planning after the directing authority approves a military COA, but does not authorize execution.

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 planning.

Deployment Order: SecDef/CJCS authorizes the transfer and allocation of all forces among CCMDs, Services, and DOD agencies and specifies the authorities the gaining CCDR will exercise over specified forces to be transferred.

Operation Orders: a directive issued by a commander to subordinate commanders for the purpose of effecting the coordinated execution of an operation.

Execute Order: An order to initiate military operations as directed

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

NPP Step Six: Transition
(NWP 5-01 Chapter 7)

Inputs
> From the commander
>> o Approved OPORD/OPLAN
>
> From the staff
>> o Refined IPOE
>> o Outline FRAGORDs for branch plans
>> o Information for future missions/sequels
>> o Staff estimates
>> o Assessment framework
>> o OPGENs, OPTASKs, and supplements
>> o CONOPS
>> o Synch matrix
>> o Decision support matrix
>> o Decision support template

Process
- Transition briefing
- Transition drills
- Rehearsals (as required)
- 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
- prepared to plan sequels
- Running estimates developed
- Operational assessment guidance refined

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

All staffs should be able to produce a sound plan in a time-constrained environment. Omitting steps of the NPP is not the solution. Anticipation, organization, and preparation are the keys to success. The commander, MOC director, or chief of staff decides how to shorten the process.

Techniques for Planning in a time-constrained environment
- Plan to plan: Establish a timeline. Start with the end in mind and stay on time
- Involve the commander
- Involve experienced liaisons and staff
- Compress steps, but do not skip steps
- Plan sub-steps concurrently
- Maximize parallel planning, share products as early as possible
- Demand collaboration on planning products, order production and transition plan
- Quickly assimilate new information
- Develop products to less depth
- Brief "in-stride"
- Subordinate commanders need visibility of planning throughout the process
- Determine up front the subordinate CDRs' expectations for planning products
- Begin building the order concurrently with planning
- Acceptable on-time directives are better than perfect ones that are late

- How to save time in Mission Analysis
  - Get directive planning guidance from the commander
  - Issue verbal warning orders

- How to save time in COA Development
  - Develop the COA with a small team and the commander
  - The commander may limit the number of COAs to be developed
  - Develop COAs in parallel rather than sequentially
  - Weed out invalid COAs

- How to save time in COA analysis
  - Use a "hasty war game" to determine a favored COA(s) before in-depth COA analysis
  - Conduct the full war game in the time allotted to synchronize elements
  - Wargame fewer COAs; possibly a directed COA
  - Wargame fewer ECOAs
  - Use "critical events" or "sequence of critical tasks" method
  - Build the synchronization matrix as you go

- How to save time in COA Comparison and Decision
  - Involve the commander
  - Limit evaluation criteria/governing factors
  - Develop and brief from the advantages and disadvantages matrix

- How to save time in Plans and Orders Development
  - Designate the writer at the beginning of the process
  - Satisfice with less material
  - Use pre-planned responses where feasible
  - Effectively develop and refine the synchronization matrix
  - Require early staff and subordinate involvement
  - Cross-walk the order
  - Schedule a confirmation brief from subordinates

- How to save time during transition
  - Schedule the transition brief and attendees at the start of the process
  - Determine how the plan will transition at the start of the process
  - Determine up front the planning products that will be transitioned

Decision Support Aids

Synchronization Matrix
- NWP 5-01 says to begin during COA development, but there can be benefits if begun during mission analysis
- Graphically reflects planned operation
- Y axis typically: HQ, CTFs, Operational Functions, Decision Points, Branch Plans, etc.
- 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 I	Phase II	Phase III	Phase IV
CFMCC HQ	T: P:	T: P:	T: P:	T: P:
CTF 91	T: P:	T: P:	T: P:	T: P:
CTF 92	T: P:	T: P:	T: P:	T: P:
CTF 93	T: P:	T: P:	T: P:	T: P:
C2	T: P:	T: P:	T: P:	T: P:
Strike	T: P:	T: P:	T: P:	T: P:

Amphibious	T: P:	T: P:	T: P:	T: P:
SUW	T: P:	T: P:	T: P:	T: P:
ASW	T: P:	T: P:	T: P:	T: P:
BMD	T: P:	T: P:	T: P:	T: P:
Logistics	T: P:	T: P:	T: P:	T: P:
Information	T: P:	T: P:	T: P:	T: P:
Branches				

Decision Support Matrix

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

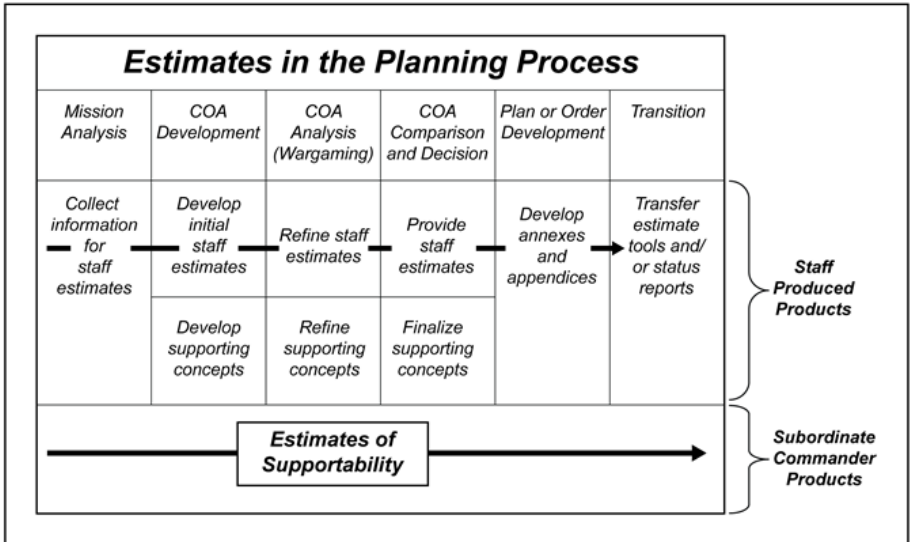| DP	CCIR	Decision Options	Decision Support Criteria	Location (NAIs)
1 (Commence Assault)	**PIR:** **Enemy Mines Cleared**	**OPTION A1: Delay Assault / Continue to clear** **Option A2: Use alternate Landing Sites**	•**Time available to support JTF CONOP** •**Alternate sites support the JTF CONOP / Available**	**VIC NAI #10**
(X) Description of decision for the commander	*PIR(s)/ FFIR(s) that lead to the decision*	*1a: Non-prioritized list of options for the commander* *1b: Pre-planned options based on detailed planning*	*1a: Criteria that guides decision making* *1b: Should lead to CCIRs*	*Named Area of Interest, if known*

- ## 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 OPORD annexes, appendices and synch matrix

Estimates in the Planning Process

Mission Analysis	COA Development	COA Analysis (Wargaming)	COA Comparison and Decision	Plan or Order Development	Transition	
Collect information for staff estimates	Develop initial staff estimates	Refine staff estimates	Provide staff estimates	Develop annexes and appendices	Transfer estimate tools and/ or status reports	**Staff Produced Products**
	Develop supporting concepts	Refine supporting concepts	Finalize supporting concepts			
Estimates of Supportability						**Subordinate Commander Products**

Sample Staff Estimates Matrix

NPP Step/Staff Estimate Step	NPP Step Inputs	OPT Focus	Staff Section Focus from a staff functional area perspective
Upon receipt of mission (not an NPP step) begin recording information	CDR has directed planning and OPT forming.	Prepare for planning by conducting a quick initial assessment	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.
Mission Analysis Initial Staff Estimate Para 1 Mission Para 2 Situation and Considerations	CDR's initial planning guidance HHQ Directives Existing staff area estimates Existing intel or other section estimates OPT Direction	Define the problem and mission by developing an understanding of mission, environment, terrain, friendly and enemy forces, neutrals and time	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.
COA Development Concept of support for each COA. Para 3 COA Dev.	OPT has presented MA brief Approved Mission Statement Initial CDR's Intent and Planning Guidance OPT has brainstormed possible COAs	Develop COAs that accomplish the mission within the CDR's guidance	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.

COA Analysis Refined Staff Estimates Para 4 COA Analysis, Staff area	Approved COAs Refined ECOAs CDR's wargaming guidance Staff estimates paras 1-3	Evaluate the effectiveness of each friendly COA against ECOAs using specified evaluation criteria.	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.
COA Comparison Staff Estimates Para 5 COA Comparison	Wargaming results Decision Support Matrix Refined estimates paras 1-4	Compare COAs to determine "best" COA	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.
COA Decision and Approval Para 6 Recommendations and Conclusions	CDR selects a COA	Select the most advantageous COA	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.
Plan or Order Development Annexes and Appendices	OPT determines which annexes required	Prepare and issue OPLAN/OPORD	Prepare specific annexes and input to base order/plan. If no order is being developed, update estimates.
Transition Running Estimates	Complete or partially complete OPLAN/ OPORD	Shift from planning to execution	Participate in transition brief. Coordinate results with higher, adjacent and subordinate levels. Update estimate estimates as required.

Operational Assessment
(NWP 5-01 Appendix G)

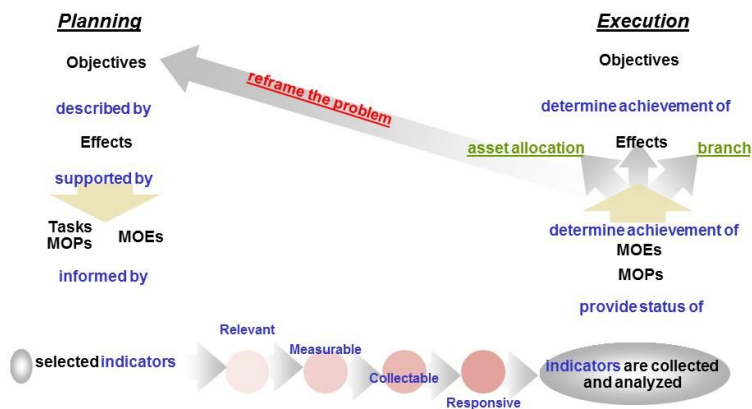(Primary Reference: Joint Doctrine Note 1-15, Operation Assessment, 15 January 2015)

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 warfare and across the range of military operations.

Assessment in Planning and Execution

Planning

Objectives
reframe the problem
described by
Effects
supported by
Tasks MOPs   MOEs
informed by

selected indicators   Relevant   Measurable   Collectable   Responsive

Execution

Objectives
determine achievement of
asset allocation   Effects   branch
determine achievement of
MOEs
MOPs
provide status of

indicators are collected and analyzed

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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
- Collectable: 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.

- Produces effects/achieves objectives at all levels of warfare 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
- Lead the adversary to make decisions that suit your purposes
- Protect own information

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 solutions that facilitate 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?

<u>TTP</u>: 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

Enemy 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 wargaming/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 or incorporate 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 may 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 adversary 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 the game 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
        - Adversary force lay-down and discuss potential reactions
        - 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 enemy'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 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 that are 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 selects a COA that will be developed 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 DOD Dictionary of Military and Associated Terms (formerly known as Joint Publication 1-02) unless otherwise noted

administrative control (ADCON) – Direction or exercise of authority over subordinate or other organizations in respect to administration and support.

administrative control (ADCON) (NATO) – The direction or exercise of authority over subordinate or other organizations in respect to administrative matters such as personnel management, supply, services and other matters not included in the operational mission of the subordinate or other organizations. (AJP 3)

alert order (ALERTORD) – 1. A planning directive that provides essential planning guidance, directs the initiation of execution planning after the directing authority approves a military course of action, but does not authorize execution. 2. A planning directive that provides essential planning guidance, directs the initiation of execution planning after the directing authority approves a military course of action, but does not authorize execution.

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

antiaccess (A2) — Action, activity, or capability, usually long-range, designed to prevent an advancing enemy force from entering an operational area.

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

area denial (AD) — Action, activity, or capability, usually short-range, designed to limit an enemy force's freedom of action within an operational area.

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..

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.

assessment — 1. A continuous process that measures the overall effectiveness of employing capabilities during military operations. 2. Determination of the progress toward accomplishing a task, creating a condition, or achieving an objective. 3. Analysis of the security, effectiveness, and potential of an existing or planned intelligence activity. 4. Judgment of the motives, qualifications, and characteristics of present or prospective employees or "agents."

assign – 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.

authorized departure - A procedure, short of ordered departure, by which mission employees or dependents or both, are permitted to leave post in advance of normal rotation when the national interests or imminent threat to life require it.

base plan (BPLAN) — A type of operation plan that describes the concept of operations, major forces, sustainment concept, and anticipated timelines for completing the mission without annexes or time-phased force and deployment data.

battle rhythm – A deliberate daily cycle of command, staff, and unit activities intended to synchronize current and future operations. (NWP 5-01)

branch (plan) – 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 enemy 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. (NWP 5-01)

collection plan – A systematic scheme to optimize the employment of all available collection capabilities and associated processing, exploitation, and dissemination resources to satisfy specific information requirements.

combatant command (command authority) (COCOM) – Nontransferable command authority, which cannot be delegated, 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.

combat power — The total means of destructive and/or disruptive force that a military unit/formation can apply against the opponent at a given time.

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 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.

commander's estimate – A developed course of action designed to provide the Secretary of Defense with military options to meet a potential contingency.

commander's intent – A clear and concise expression of the purpose of the operation and the desired military 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.

control — Authority that may be less than full command exercised by a commander over part of the activities of subordinate or other organizations.

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). (NWP 5-01)

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.

cybersecurity — Prevention of damage to, protection of, and restoration of computers, electronic communications systems, electronic communications services, wire communication, and electronic communication, including information contained therein, to ensure its availability, integrity, authentication, confidentiality, and nonrepudiation. (DODI 8500.01)

cyberspace operations (CO) — The employment of cyberspace capabilities where the primary purpose is to achieve objectives in or through cyberspace.

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.

deployment order (DEPORD) – A planning directive from the Secretary of Defense, issued by the Chairman of the Joint Chiefs of Staff, that authorizes and directs the transfer of forces between combatant commands by reassignment or attachment.

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

economy of force – The judicious employment and distribution of forces so as to expend the minimum essential combat power on secondary efforts in order to allocate the maximum possible combat power on primary efforts.

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 enemy.

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

essential element of friendly information (EEFI) – Key question 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. (NWP 5-01)

execute order (EXORD) – An order to initiate military operations as directed.

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)

expeditionary force — An armed force organized to achieve a specific objective in a foreign country.

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 disaster relief (FDR) – Assistance that can be used immediately to alleviate the suffering of foreign disaster victims that normally includes services and commodities as well as the rescue and evacuation of victims; the provision and transportation of food, water, clothing, medicines, beds, bedding, and temporary shelter; the furnishing of medical equipment, medical and technical personnel; and making repairs to essential services.

foreign humanitarian assistance (FHA) – Department of Defense activities, conducted outside the United States, its territories 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.

freedom of navigation operations — Operations conducted to protect United States navigation, overflight, and related interests on, under, and over the seas.

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

full command (FULLCOM) (NATO) – The military authority and responsibility of a superior officer to issue orders to subordinates. It covers every aspect of military operations and administration and exists only within national Services. The term 'command', as used internationally, implies a lesser degree of authority than when it is used in a purely national sense. No NATO or coalition commander has full command over the forces assigned to him since, in assigning forces to NATO, nations will delegate only operational command or operational control. (AJP 3)

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 enemy will significantly contribute to the success of the friendly course of action.

high-value target (HVT) – A target the enemy commander requires for the successful completion of the mission.

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) – Actions that protect and defend information systems by ensuring 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 battlespace (IPB) — The analytical methodologies employed by the Services or joint force component commands to reduce uncertainties concerning the enemy, environment, time, and terrain.

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 enemy'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 doctrine – Fundamental principles that guide the employment of United States military forces in coordinated action toward a common objective and may include terms, tactics, techniques, and procedures.

joint electromagnetic spectrum operations (JEMSO) — Those activities consisting of electronic warfare and joint electromagnetic spectrum management operations used to exploit, attack, protect, and manage the electromagnetic operational environment to achieve the commander's objectives.

joint force – A force composed of 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, and/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, subordinate unified 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, and/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, and/or made available for tasking maritime forces and assets; planning and coordinating maritime operations; or accomplishing such operational missions as may be assigned.

joint force special operations component commander (JFSOCC) – 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, and/or made available for tasking special operations forces and assets; planning and coordinating special 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.

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.

joint operations – 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 and/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, synchronization, and priorities, and refining the joint integrated prioritized target list.

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 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.

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).

logistic control (LOGCON) (NATO) – The authority granted to a NATO Commander over assigned logistics units and organizations in the JOA, including national support elements (NSEs), that empowers him to synchronize, prioritize, and integrate their logistics functions and activities to accomplish the joint theater mission. It does not confer authority over the nationally owned resources held by NSEs, except as agreed in the transfer of authority or in accordance with NATO Principles and Policies for Logistics. (AJP 3)

logistics – Planning and executing the movement and support of forces.

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 5-01)

major operation — A series of tactical actions (battles, engagements, strikes) conducted by combat forces, coordinated in time and place, to achieve strategic or operational objectives in an operational area.

maneuver – 1. A movement to place ships, aircraft, or land forces in a position of advantage over the enemy. 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 enemy.

maritime dynamic target (MDT) - A joint force maritime component commander-designated target requiring immediate response because it poses (or soon will pose) a danger to friendly forces or it is a highly lucrative, fleeting target of opportunity. (NTRP 1-02)

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.

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.

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 enemy's capabilities to wage land, air, and maritime warfare or by countering of enemy-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) – The 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.

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)

noncombatant evacuation operation (NEO) - An operation whereby noncombatant evacuees are evacuated from a threatened area abroad, which includes areas facing actual or potential danger from natural or manmade disaster, civil unrest, imminent or actual terrorist activities, hostilities, and similar circumstances, that is carried out with the assistance of the Department of Defense.

objective – 1. The clearly defined, decisive, and attainable goal toward which every operation is directed. 2. The specific target of the action taken which is essential to the commander's plan.

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 access — The ability to project military force into an operational area with sufficient freedom of action to accomplish the 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 command (OPCOM) (NATO) – The authority granted to a commander to assign missions or tasks to subordinate commanders, to deploy units, to reassign forces, and to retain or delegate operational and/or tactical control as the commander deems necessary. Note it does not include responsibility for administration. (AJP 3)

operational control (OPCON) –1. 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. (DOD Dictionary) 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 control (OPCON) (NATO) – The authority delegated to a commander to direct forces assigned so that the commander may accomplish specific missions or tasks, which are usually limited by function, time, or location and to deploy units concerned, and to retain or assign tactical control to those units. It does not include authority to assign separate employment of components of the units concerned. Neither does it, of itself, include administrative or logistic control. (AJP 3)

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

operational intelligence – Intelligence that is required for planning and conducting campaigns and major operations to accomplish strategic objectives within theaters or operational areas.

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

o**perational reach –** The distance and duration across which a force can successfully employ military capabilities

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 capability that identifies and controls critical information, indicators of friendly force actions attendant to military operations, and incorporates countermeasures to reduce the risk of an adversary exploiting vulnerabilities.

ordered departure — 1. A procedure by which the number of United States Government personnel, their dependents, or both are reduced at a foreign service post. 2. Mandatory departure of some or all categories of personnel and dependents to designated safe havens as directed by the Department of State, with the implementation of the theater evacuation plan.

permissive environment — Operational environment in which host country military and law enforcement agencies have control, as well as the intent and capability to assist operations that a unit intends to conduct.

planning order (PLANORD) – A planning directive that provides essential planning guidance and directs the initiation of execution planning before the directing authority approves a military course of action.

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.

protection of shipping — The use of proportionate force, when necessary for the protection of United States flag vessels and aircraft, United States citizens (whether embarked in United States or foreign vessels), and their property against unlawful violence.

raid — An operation to temporarily seize an area in order to secure information, confuse an enemy, capture personnel or equipment, or to destroy a capability culminating with a planned withdrawal.

reconnaissance — A mission undertaken to obtain, by visual observation or other detection methods, information about the activities and resources of an enemy or adversary, or to secure data concerning the meteorological, hydrographic, or geographic characteristics of a particular area.

request for information (RFI) – 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.

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. (NWP 5-01)

safe haven - Designated area(s) to which noncombatant evacuees of the United States Government's responsibility and commercial vehicles and materiel may be evacuated during a domestic or other valid emergency.

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. Note: There is no doctrine source for this definition. (NWP 5-01)

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. (NWP 5-01)

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. (NWP 5-01)

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)

show of force — An operation planned to demonstrate United States resolve that involves increased visibility of United States deployed forces in an attempt to defuse a specific situation that, if allowed to continue, may be detrimental to United States interests or national objectives.

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

stability activities – 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. (NWP 5-01)

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 warfare – The level of warfare 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 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)

surveillance — The systematic observation of aerospace, cyberspace, surface, or subsurface areas, places, persons, or things, by visual, aural, electronic, photographic, or other means.

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 command (TACOM) (NATO) – The authority delegated to a commander to assign tasks to forces under his command for the accomplishment of the mission assigned by higher authority. (AJP 3)

tactical control (TACON) – Command authority over forces 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 (TACON) (NATO) – The detailed and, usually, local direction and control of movements or maneuvers necessary to accomplish missions or tasks assigned. (AJP 3)

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

target area of interest (TAI) – The geographical area where high-value targets can be acquired and engaged by friendly forces

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

task – A clearly defined action or activity specifically assigned to an individual or organization that must be done as it is imposed by an appropriate authority.

time-sensitive target (TST) – A joint force commander validated target or set of targets 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.

uncertain environment — Operational environment in which host government forces, whether opposed to or receptive to operations that a unit intends to conduct, do not have totally effective control of the territory and population in the intended operational area.

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

A2	antiaccess
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; area denial
ADCON	administrative control
AEF	air and space expeditionary force
AETF	air and space expeditionary task force
AIS	Automatic Identification System
ALERTORD	alert order
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
CNO	Chief of Naval Operations;
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 (Revision)
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)
DRAW-D	defend, reinforce, attack, withdraw, delay
DRRS	Defense Readiness Reporting System
DSCA	defense support of civil authorities
EA	executive agent; electronic attack
EAP	emergency action plan
ECOA	enemy course of action
ECOG	enemy center of gravity
EEFI	essential element 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
FDR	foreign disaster relief
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
FRTP	fleet response training plan
FULLCOM	full command (NATO)
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
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
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	Information management officer; 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
IRC	Information Related Capability
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
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
JIOC	joint intelligence operations center
JIPOE	joint intelligence preparation of the operational environment
JIPTL	joint integrated prioritized target list
JISE	joint intelligence support element
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
JOPP	joint operation planning process
JP	joint publication

JPEC	joint planning and execution community
JPG	joint planning group
JRSOI	joint reception, staging, onward movement, and 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
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
LOGCON	logistic control (NATO)
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 decisionmaking 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 operations; maritime interdiction operations (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 (aircraft) on ground
MOP	measure of performance
MOPP	mission-oriented protective posture
MOTR	maritime operational threat response
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
N-day	day an active unit is notified for deployment or redeployment
NDLS	Navy Doctrine Library System
NECC	Navy Expeditionary Combat Command
NEO	noncombatant evacuation operation
NETOPS	network operations
NGFS	naval gunfire support
NGO	nongovernmental organization
NIOC	Navy Information Operations Command
NMET	Navy mission-essential task
NMETL	Navy Mission-Essential Task List
NMIST	national military intelligence support team
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 area
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 (USAID)
OLW	operational level of warfare
ONI	Office of Naval Intelligence

O/O	on order
OOB	order of battle
OODA	observe, orient, decide, act
OPART	operational art
OPCOM	operational command (NATO)
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
PLANORD	planning order
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; quick response 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	rehearsal of concept; 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)
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
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
TACOM	tactical command (NATO)
TACON	tactical control
TAI	target area of interest
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 Sealift Agreement
VOI	vessel of interest
WARNORD	warning order
WMD	weapons of mass destruction

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