

JOINT PUB 3-04



DOCTRINE FOR JOINT MARITIME OPERATIONS (AIR)



31 JULY 1991



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CHAPTER I

INTRODUCTION

1. Purpose. This publication establishes joint doctrine guiding the activities and employment of the Armed Forces of the United States when two or more Services, or Service elements, acting as part of or in support of a joint force, conduct or provide tactical or strategic air support for joint maritime operations.
2. Scope
 - a. The doctrine established herein applies to the unified and specified commands, subordinate unified commands, and joint task forces (JTFs). The broad doctrinal concepts apply to joint force air operations conducted to achieve military objectives in the maritime environment. This publication also addresses the maritime threat in general terms. It does not seek to establish a primary foe or set parameters for future conflicts. The concepts presented below recognize that circumstances will demand flexible application of doctrine for joint maritime operations (air) (JMO(AIR)) in order to make the most effective use of military capabilities and thus achieve victory.
 - b. This doctrine applies to the exercise of C2 by joint force commanders (JFCs) engaged in maritime operations and applies to operations, exercises, and training conducted in the maritime environment. Specific tactics and procedures for JMO(AIR) are not addressed.
 - c. When a force consists of elements of the Navy and the Marine Corps only, that force will be governed by regulations of the Department of the Navy.
3. Objective. The objective of JMO(AIR) is to destroy, degrade, or neutralize enemy warfighting capabilities in the maritime environment and to increase the combat effectiveness of the joint force through optimum use of all available JMO(AIR) forces.
4. Terminology. Definitions contained in Joint Pub 1-02, "Department of Defense Dictionary of Military and Associated Terms," are applicable to this document. A glossary is provided for clarification of pertinent abbreviations and

definitions. The discussion below clarifies the usage in this publication of other general terms and concepts.

a. The commander exercising combatant command (COCOM) or operational control (OPCON) of joint forces in accordance with Joint Pub 0-2, "Unified Action Armed Forces," is the JFC. Such forces include unified commands, certain specified commands, subordinate unified commands, and joint task forces composed of significant elements of the Army, Navy, Air Force, and Marine Corps, or of two or more of these Services operating under a single command designated by proper authority.

b. The term JMO(AIR) refers to the employment of joint force air efforts to achieve military objectives in the maritime environment. JMO(AIR) are employed to destroy or reduce to an acceptable level the enemy air, surface, and subsurface threat to friendly forces and to suppress enemy commerce; to gain and maintain local air superiority in the maritime environment in order to protect vital sea areas and sea lines of communication (SLOCs); and to support land-based operations as directed and guided by the JFC. To enhance the combat effectiveness of the joint force, JMO(AIR) forces may have to integrate their operations with the uniquely interdependent air, surface, and subsurface operations of naval task forces. It is equally important to integrate JMO(AIR) with other operations designed to accomplish theater campaign objectives. Essentially, JMO(AIR) will be employed to support two interrelated operations: sea control and maritime power projection.

(1) Sea control is achieved through destruction or neutralization of hostile aircraft, ships, submarines, and space- and land-based weapon systems that threaten US or friendly forces operating in vital sea areas. Sea control includes:

(a) Direct action to locate and destroy hostile combat units on, over, and under the high seas and shore-based weapon systems that threaten or are attacking naval or other maritime forces.

(b) Barrier or blockade operations to deny enemy naval forces access to open ocean areas and other maritime areas, taking advantage, where possible, of natural chokepoints.

(c) Moving screen operations involving the use of joint force assets to clear the seas surrounding friendly ships.

(d) Offensive and defensive mining operations to restrict the freedom of movement of enemy naval forces in areas such as harbors and chokepoints and mine countermeasures to permit freedom of movement of friendly naval forces.

(2) Maritime power projection in and from the maritime environment includes a broad spectrum of offensive military operations to destroy enemy forces and logistic support and to prevent enemy forces from approaching within enemy weapons' range of friendly forces. Maritime power projection is accomplished by:

(a) Amphibious operations.

(b) Attack against targets ashore.

(c) Support of sea control operations.

(d) Strike warfare.

c. The fundamental purpose of JMO(AIR) is to enhance the combat effectiveness of the joint force. The effective execution of warfare missions and tasks in the maritime environment requires responsive, centrally controlled but decentrally executed operations. JMO(AIR) requires forces to operate in an environment hostile to communications. Planning, coordination, and training to support JMO(AIR) should emphasize prompt, effective, unified effort with little or no advance notice and should ensure that the effectiveness of operations is not overly reduced by communications failure or degradation.

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CHAPTER II

EMPLOYMENT AND CAPABILITIES

1. Threat. The JFC must consider the potential impact of enemy forces on the accomplishment of the overall objectives. Enemy forces can interfere not only with US combat forces, logistics, and C2, but also with freedom of action and access. The current threat to US forces operating in a maritime environment includes highly mobile, technologically sophisticated surface, subsurface, air, and space forces. These forces vary from enemy fleets to individual units, a variety of land-based aviation, missile, and rocket forces, and space-based systems. The threat from forces of less-developed nations might take more elementary forms. The capability of the enemy to project forces will depend on an operationally secure network of communications, intelligence, C2 systems, and logistics. Therefore, the threat must be analyzed in detail to discover enemy strengths and vulnerabilities. The threat posed by enemy special operations forces, airborne forces, and naval heliborne forces needs to be considered in the light of the inherent flexibility of these forces and their ability to operate independently.

2. Maritime Confrontation. A maritime confrontation with threat forces could occur when there has been little or no preparation time. The resulting conflict could last from several hours to months against theater or global forces. To meet all contingencies, US forces must be prepared to conduct JMO(AIR) over the entire operational continuum. The maritime confrontation will most probably be a part of a larger scale conflict. Theater US forces will normally be employed under a single unified command composed of component commands, JTFs, and subordinate unified commands. The coordination and employment of joint force air efforts in the prosecution of joint maritime military operations could occur in numerous ways. The objectives and composition of the joint force will be strongly influenced by geography, climate, political considerations, and the resources available. When faced with a significant enemy air threat, overall joint force air efforts will assist in gaining and maintaining the freedom of action (i.e., air superiority) necessary for JMO(AIR) to achieve assigned missions. Concurrent, aggressive antisubmarine, antisurface, and interdiction operations could permit freedom of movement of surface forces and delay, disrupt, divert, and destroy the flow of enemy naval

combatant and support forces. These efforts need to be supported by surveillance, reconnaissance, and defense suppression operations. The relative weight and timing of the effort committed to each task within this maritime confrontation will vary according to the enemy threat, objectives of the JFC, and opportunities available for the employment of assigned and supporting forces. To accomplish JFC objectives, a favorable surface, air, and subsurface situation needs to be maintained through the successful employment of naval forces in conjunction with other assigned and supporting joint force elements.

3. Capabilities. JMO(AIR) can be used throughout the operational continuum to enhance the combat effectiveness of the US response to threats worldwide. The employment of joint forces having interoperable elements, such as aircraft, manned and remotely piloted vehicles, space systems, ground weapon systems, surveillance systems, air defense systems, and C2 platforms, together with naval forces, should enhance the effectiveness and flexibility of joint maritime operations and improve the ability of the joint force to achieve JFC objectives.

CHAPTER III

COMMAND, CONTROL, AND COMMUNICATIONS RESPONSIBILITIES

1. General. The unique nature of the maritime environment, characterized by vast distances, wide force dispersion with attendant C3 challenges, and the complexity of fighting a multidimensional threat (air, space, surface, and subsurface), strongly influences the selection of a C2 structure and the assignment of responsibilities. The Navy's composite warfare commander (CWC) doctrine (see Appendix) is a proven method for employing forces in a maritime environment that should be given careful consideration by the JFC when organizing assigned and attached forces for maritime operations. The organizational integrity of the Service components should be maintained to the extent practical to fully exploit their inherent capabilities and facilitate logistic support and C3. Because naval air elements play a prominent and integrated role in the successful accomplishment of every naval warfare task, delegating OPCON of naval air elements to other than the at-sea naval commander can, in effect, pass control of other functions of the naval task force. The JFC must weigh decisions to employ air elements for collateral functions in terms of the impact on the accomplishment of missions of other joint and component forces.

2. Command, Control, and Communications Systems. C3 systems supporting JMO(AIR) are critical to JMO(AIR)'s timely support of strategic and tactical operations and must be interoperable among all forces involved. The dispersed nature of maritime operations and the hostile environments in which they take place dictates that maritime forces use redundant control systems. Effective C2 of the diverse weapon systems utilized by the joint force is enhanced by the capability to transmit, receive, process, display, and communicate large amounts of information. Communications systems, including space-based systems, employed by or supporting the joint forces, need to be capable of providing secure, jam-resistant, near-real-time exchange of essential information between the JFC and subordinate commanders. Such systems should be sufficiently flexible and responsive to allow timely redirection of forces, even airborne forces. Communications systems, both secure and nonsecure, need to be sufficiently capable, jam-resistant, and survivable to accommodate information exchange between levels of command even if an intermediate level has been eliminated or

disabled. Degradation of these systems is likely during various stages of the conflict, and provision for decentralized execution of JMO(AIR) should be integrated into all plans, training, and operations. Backup C2 procedures should be established by the JFC for use when equipment is degraded, not interoperable, or malfunctioning. US Message Text Format reporting should be used to the maximum extent possible to facilitate data exchange among participating elements.

3. Coordination and Integration of Sea- and Land-Based Air Efforts. Both sea- and land-based air efforts should be integrated into the JFC's concept of operations. Defensive counterair (DCA) operations are an integral part of land operations in much the same manner as antiair warfare operations need to be fully integrated with antisurface warfare and antisubmarine warfare operations. Therefore, the limitations and capabilities of each element of the joint force should be carefully considered during detailed planning. Effective and responsive airspace management is paramount because the environment associated with war at sea (whether or not coordinated with joint operations ashore) is noted for its lack of predictability and its dependence on a variety of controlled and uncontrolled factors. The effect of the maritime environment is that often only the at-sea naval task force commander knows the location and detailed intentions of friendly at-sea forces. Each area commander needs to be kept apprised of the presence, mission, movement, and duration of stay of transient forces within the AOR. The area commander should also be apprised of the command channels under which these transient forces will function. The authority directing movement of transient forces is responsible for providing this information, which is used to coordinate air-, surface-, or subsurface-launched cruise missiles targeted against land targets. Detailed rules and procedures, in accordance with the basic guidance, should be issued by appropriate commanders to all related commands that might operate in the area concerned.

4. Airspace Control During Amphibious Operations

a. Airspace control during amphibious operations is guided by approved joint doctrine in the Joint Pub 3-02 series.

b. When amphibious operations end, the amphibious objective area (AOA) is deactivated and control of airspace is assumed by the commander tasked with responsibility for the area.

5. Command Relationships. The JFC determines the command relationships and organization appropriate for each joint force operation. The organizational structure of forces will be influenced by the mission, threat, manner in which the mission is to be accomplished, capabilities and strengths of the forces assigned, phasing of operations planned, geography, and weather in the AOR. The arrangement and grouping of assigned forces should be flexible enough to carry out all phases of the operation and respond to any development that might require a change in plan. To ensure unity of command, the JFC exercises OPCON of assigned forces and the authority granted by a superior commander over supporting forces. The JFC may delegate OPCON or tactical control (TACON) as necessary. Joint Pubs 0-2 and 3-0 provide basic guidance for organizational authority and options available to JFCs in organizing their forces to best accomplish their assigned missions.

6. JFC Staff. The JFC is assisted in conducting JMO(AIR) by members of the JFC's staff. Staff responsibilities are to advise the JFC on strategy, missions, tasks, deconfliction and coordination procedures and to monitor and keep the JFC apprised of problem areas and status of JMO(AIR).

7. Subordinate Commanders. Subordinate commanders are responsible for the accomplishment of a mission or task assigned by the plans and orders of their superiors. A subordinate commander should be given wide latitude in choosing and changing a course of action in order to accomplish an assigned mission or task relatively independent of other forces. Conversely, when these missions or tasks involve interdependent action between commanders, the subordinate commander's latitude may be limited by the coordinated directive of the superior. When required by a changing situation, a subordinate commander may depart somewhat from the superior's plan if the action will not jeopardize friendly forces and can help to better accomplish the overall mission. Any such departure should, if possible, be coordinated in advance with other concerned commanders and must be communicated to the superior as soon as practical.

8. Control and Coordination. Component commanders coordinate support of JMO(AIR) in accordance with the procedures and the agency or command designated by the JFC.

a. The JFC has the authority to exercise OPCON, assign missions, direct coordination among subordinate commanders, and redirect and organize forces to ensure unity of effort in the accomplishment of the overall mission. The JFC will normally designate a joint force

air component commander (JFACC). The JFACC derives authority from, and is assigned responsibilities by, the JFC. Normally, the JFACC's responsibilities would include, but not be limited to, planning, coordination, allocation, and tasking based on the JFC's apportionment decision. In coordination with the other component commanders, the JFACC will recommend to the JFC apportionment of air sorties to various missions or geographic areas. (For additional details on the organization and functioning of a JFACC, see Joint Pub 3-56.1.) In the maritime environment, if the JFC designates a JFACC, the JFACC will normally be a naval commander and be given sufficient authority to direct the aircraft sorties provided. Normally, operational control of the tactical and strategic forces that may be committed to JMO(AIR), as well as other contributing forces such as Army, Navy, Air Force, and Marine Corps aviation, surface air defense, and electronic warfare (EW), is exercised through the respective Service component commander. The primary purpose for a JFACC is to provide a unity of effort for employing airpower for the benefit of the joint force as a whole; therefore, when designating a JFACC, the JFC should consider:

- (1) Who is providing the preponderance of the air assets to be used.

- (2) The capability of candidates to perform the assigned JFACC duties.

- (3) Tasking all joint force components who either provide or use airpower to provide knowledgeable personnel for duty as members of or liaison to the JFACC staff.

- (4) Collocating the JFACC and JFC headquarters, if viable or appropriate for the joint force mission.

b. A naval component commander could, in some situations, be supporting a force where the existing command and control organization and procedures are different than the maritime structure. In these circumstances, such as combined operations in a continental area, JMO(AIR) may be conducted within the supported command's organizational structure and operational procedures. Detailed coordination and exchange of information are absolutely required to ensure success in these circumstances.

c. Liaison officers are extremely valuable in the JTF headquarters to advise the JTF commander and staff on the capabilities, tactics, level of training, and strengths and weaknesses of the units they represent. This is particularly true when the JTF is formed under the time compression of the crisis action system. These liaison officers can be invaluable in developing targeting strategies, coordinating changes, and voicing their respective commanders' desires.

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CHAPTER IV

OPERATIONS

1. General. Maritime operations generally involve a broad, dispersed, and highly mobile type of warfare. JMO(AIR) are employed consistent with the JFC's concept of operations to accomplish assigned objectives. Air operations require special coordination of sea- and land-based forces. Forces can be massed in different areas in successive phases in response to the overall effort. Requirements for mobility and surveillance range from hundreds to thousands of miles. Within the maritime environment, the threat may come from many directions simultaneously; distances between forces are generally large, and the disposition of friendly forces is not contiguous. Normally, key objectives of maritime operations are the destruction of enemy forces and protection of SLOCs, as well as physical control of key chokepoints, shorelines, and other maritime areas. Gaining control of the maritime environment requires coordinated employment of forces for decisive engagement, attrition, and containment, neutralization, or destruction of enemy naval surface, subsurface, and air forces and their means of support. Accordingly, JMO(AIR) needs to be closely coordinated and integrated with surface, subsurface, and land operations of the joint force. JMO(AIR) normally take the form of executing warfare tasks to achieve the objectives of naval operations and air missions assigned by the JFC. The JFC will apportion the overall theater air resources according to the warfare missions and tasks or by geographic areas. The missions and tasks may be used by joint force component commanders and tasking agencies to allocate and task sorties and facilitate detailed planning. Because terminology differs somewhat among the Services, the following missions and tasks are described in relation to sea control and maritime power projection from a JMO(AIR) perspective.

2. Primary Warfare Missions and Tasks

a. Antisurface Warfare (ASUW). ASUW operations are conducted to destroy or neutralize enemy naval surface forces and merchant vessels. JMO(AIR) for ASUW include, but are not limited to, antisurface action and anticarrier battle group operations, anti-invasion operations, and antishipping operations. Tactical control of supporting forces should normally rest with the at-sea officer in tactical command (OTC) or other

commander being supported. The commander requesting the mission needs to clearly identify the area of the attack and other factors that influence tactics, weapons mix, and support requirements. Primary targets should be specified, especially when surface combatants are escorting amphibious craft and supply ships. An example of missions flown in support of ASUW is a B-52 air strike against enemy naval surface vessels.

b. Antisubmarine Warfare (ASW). ASW operations are conducted to deny effective use of enemy submarines. ASW involves the search for, localization and classification of, and attack on submarines and support assets at sea. The naval battle group antisubmarine warfare commander (ASWC) generally exercises tactical control (TACON) of local, direct support ASW assets such as maritime patrol aircraft, helicopters, towed array ships, and submarines in integrated direct support. Associated support aircraft, surface forces, and submarines generally do not come under the TACON of the battle group ASWC, but remain under the control of the CWC. The ASWC needs to effectively integrate all ASW assets (air, surface, and subsurface) to deal with both the tactical threat to the joint force and the strategic threat posed by ballistic missile submarines. An example of a JMO(AIR) mission to support ASW includes electronic surveillance to aid in the identification of enemy submarines.

c. Antiair Warfare (AAW) and Defensive Counterair (DCA). AAW and DCA are actions to destroy or reduce to an acceptable level the enemy air and missile threat. They include such measures as the use of interceptors, bombers, antiaircraft guns, surface-to-air and air-to-air missiles, and ECM to destroy the air and missile threat both before and after launch. Other measures to minimize the effects of hostile air action are cover, concealment, dispersion, deception (including electronic), and mobility.

(1) A layered in-depth defense is usually the best way to prevent an enemy from carrying out offensive operations against a maritime force. An optimum defense system might have the following characteristics:

(a) Sea, land, and space-based long- and short-range early warning platforms, complementing one another and capable of detecting multiple targets at all altitudes, speeds, and ranges over land and water. These

platforms will alert defense forces and, if necessary, provide targeting information.

(b) Weapon platforms capable of engaging multiple targets at extended ranges. On-board systems to identify, track, and destroy targets, both outside and within visual range of the launch platform.

(c) ECM and ECCM to deceive, degrade, or divert inbound enemy weapons or weapon systems.

(2) The highest priority of AAW and DCA operations is the actual protection of friendly forces against air attack. Sea, land, air, and space early-warning systems should be closely integrated to detect enemy aircraft and missiles and to direct interception of the air threat far enough from the maritime force or vital areas to permit in-depth defense. AAW and DCA may be conducted simultaneously with other naval warfare tasks, such as ASW and ASUW. Active AAW and DCA may employ defensive systems of all components and include or may be supported by space forces.

(a) Execution of AAW and DCA requires an integrated joint surveillance and reporting system capable of near-real-time production and dissemination of the tracking data necessary for the effective engagement of targets. Track data provided should be sufficiently detailed and timely to permit responsible commanders to evaluate the track, determine the significance of the threat, designate forces for interception or engagement, and advise units of the passage of friendly aircraft.

(b) Control and coordination of active AAW and DCA in the maritime environment may be centralized in certain situations. However, naval AAW and DCA forces generally operate autonomously under the concept of control by negation (see Appendix, paragraph 1b). AAW in the maritime environment is normally controlled by a single commander, designated within the CWC doctrine as the antiair warfare commander (AAWC), who controls both air-to-air and surface-to-air systems. Control by negation normally rests with the AAWC, who is the coordinator of the total AAW and DCA force posture and cognizant of all forces that can be

brought to bear. The OTC may also control by negation. The importance of standardized rules of engagement and coordinated joint training and execution of preplanned responses cannot be overstated. Optimum employment of AAW and DCA systems requires early identification of hostile missiles and aircraft to engage them at the greatest range while avoiding accidental engagement involving friendly forces.

(3) Passive air defense includes all measures, other than active air defense, taken to minimize the effectiveness of hostile air action and improve survivability. These measures include deception, dispersion, and the use of protective construction but do not involve the use of lethal weapons. Survivability is improved by reducing the potential effects of air attack. Depending on the situation and the time available in the area of operations, a variety of actions can be taken to improve the joint force's passive air defense posture. These actions include, but are not limited to:

(a) Providing alert, warning, and all-clear systems.

(b) Adopting a comprehensive electromagnetic emission control policy (including infrared and optical).

(c) Employing operational deception (OPDEC) and identification tactics.

(d) Utilizing operations security (OPSEC) and communications security (COMSEC).

d. Mine Warfare (MIW). MIW is the strategic and tactical use of mines and mine countermeasures (MCM), including all viable offensive and defensive measures for laying and protecting against mines. MIW air operations support the broad task of establishing and maintaining control of vital sea areas. Mining impedes the flow of traffic through a given area. Most minefield laying is accomplished by aircraft. MCM prevent the enemy from laying mines and involve actions to reduce or eliminate mines already laid by an enemy. MCM can be accomplished by either ships or aircraft. JMO(AIR) mining and MCM include aircraft mining, aerial search, detection, and sweeping of enemy minefields.

e. Offensive Counterair (OCA). (Conducted by naval forces as strike warfare) OCA is an operation mounted to destroy, disrupt, or limit enemy airpower as close to its source as possible. OCA is conducted over enemy territory at the initiative of the friendly force. Although detailed planning and execution of OCA operations may be delegated, the overall direction will be established by the JFC. When hostile air forces are capable of threatening friendly operations, OCA operations must be given a major role in tactical operations and should be carefully structured to match the JFC's tactical and campaign objectives. Targets and attack times need to be selected and offensive forces tailored to optimize friendly force offensive capabilities while exploiting enemy vulnerabilities.

f. Air Interdiction (AI). (Conducted by Navy forces as strike warfare) AI is conducted to destroy, neutralize, or delay the enemy's military potential before it can be brought to bear effectively against friendly forces at such distance from friendly forces that detailed integration with the fire and movement of friendly forces is not normally required. Maritime AI operations may include attack against enemy follow-on forces when required to support the JFC's concept of operations. Examples of AI closely related to maritime missions are attacks on ports and harbor facilities; on lines of communications (LOCs); on resupply, POL, and storage facilities; on submarine facilities; and on C3 nodes and networks. AI missions include the launch of cruise missiles by maritime forces.

g. Close Air Support (CAS). (Conducted by naval forces as part of amphibious warfare or strike warfare) CAS is air action against hostile targets that are in close proximity to friendly forces and that require detailed integration of each air mission with the fire and movement of those forces.

h. Reconnaissance (RECCE). RECCE operations are undertaken to obtain information, by visual or other detection methods, about the activities and resources of an enemy or potential enemy or to obtain meteorological, hydrographic, or geographic data for a particular area. RECCE activities of subordinate elements of the joint force and of supporting joint commands must be coordinated to minimize duplication and ensure integration with deception plans. RECCE operations are normally directed toward localized or specific targets and can be conducted

by a wide range of support force assets. Examples of RECCE missions to support JMO(AIR) include:

- (1) Area Search. Search of a specific area to provide new or updated information on general or specific situations or activities. Weather reconnaissance flights help in developing meteorological forecasts that can have a decisive impact on JMO(AIR) in data-sparse maritime areas.
- (2) Probe. Sorties flown for target re-identification.
- (3) Shadowing. Regular observation of a maritime surface force for an extended period to evaluate its mission and intentions. Shadowing can best be performed by aircraft with standoff sensors.
- (4) Reconnaissance Sweep. Missions flown over an area in which major friendly operations may be performed in the near future.
- (5) Post-Attack Reconnaissance and Battle Damage Assessment. A mission flown to determine the effectiveness of previous attacks.
- (6) Armed Reconnaissance. Missions flown with the primary purpose of locating and attacking targets of opportunity. The location of friendly forces must be known.

i. Ocean Surveillance. Ocean surveillance is the systematic observation of ocean areas to detect, locate, and classify selected high-interest air, surface, and subsurface targets and providing this information to users in a timely manner. A target may be any hostile, neutral, or friendly platform. Ocean surveillance provides the current operational setting in which forces deploy for battle.

3. Support Warfare Missions and Tasks

a. C3I. C3I systems are the critical information and control links needed to support command decisionmaking in planning, directing, coordinating, and controlling forces employed to support JMO(AIR). These integrated support systems consist of sensor arrays, communications networks, information processing and display systems, and command facilities. C3I systems should be survivable, secure, and interoperable to maximize JMO(AIR). The

effective conduct of JMO(AIR) requires timely acquisition, analysis, production, and dissemination of reliable and current intelligence and surveillance information. Intelligence and operational entities will coordinate to assess and determine enemy force intentions; the operational impact of the threat to friendly forces; enemy force dispositions; effect of damage to the enemy's combat capability; and effort required to overcome, destroy, or neutralize enemy defenses and targets and benefit friendly operations.

b. Electronic Warfare (EW). EW is military action using electromagnetic energy to determine, exploit, reduce, or prevent hostile use and retain friendly use of the electromagnetic spectrum. EW activities of all forces, including space systems, need to be coordinated to enhance EW effectiveness and avoid mutual interference. JMO(AIR) missions can be flown to support the three main divisions of EW: ESM, ECM, and ECCM. Examples of JMO(AIR) EW operations are the use of Navy tactical aircraft jammers to support air interdiction missions and of Air Force airborne jamming platforms to support ASUW.

c. Suppression of Enemy Air Defense (SEAD). SEAD activity neutralizes, destroys, or temporarily degrades enemy air defenses in a specific area by physical attack and/or EW. Surface and subsurface firepower, including cruise missiles, can be used together to support JMO(AIR) SEAD missions. SEAD missions complement both offensive and defensive operations and may be conducted as a major element of other missions; e.g., AI and ASUW. The goal of SEAD operations is to provide a favorable situation that allows friendly forces to perform other missions effectively without interference from enemy air defenses.

d. Special Operations. Special operations are conducted by specially trained, equipped, and organized US forces against strategic or tactical targets in pursuit of national military, political, economic, or psychological objectives. These operations may be conducted during periods of peace or hostility. They may support conventional operations or may be used independently when the use of conventional forces is inappropriate or infeasible. Special operations are generally unconventional in nature and often covert or clandestine in character. They can aid in accomplishing strategic or tactical objectives and fundamental warfare tasks; they include unconventional warfare, coastal and river interdiction, beach and coastal reconnaissance, and certain tactical intelligence operations. JMO(AIR) that

support special operations must be coordinated with all supported and supporting commanders.

e. Logistics. Logistics operations consist of planning for and carrying out movement and sustainment of forces, including medical support. Logistics is an essential factor in determining the success or failure of an operation. A principle aim of logistics is to make the operating forces as independent as possible of overseas bases. Most movement of supplies to engaged US forces and all other US and allied combat forces is by sealift; however, critical time-sensitive supplies are normally provided by airlift. Airlift supports maritime operations with timely air movement of units, personnel, equipment, and supplies between CONUS and overseas areas and between and within theaters of operations. Air logistic support includes maritime forces engaged in combat operations designed to meet specific theater objectives and requirements. Airlift supports maritime forces via airlanding and airdrop delivery. Airlift is also used for tactical delivery of personnel, supplies, and equipment into objective areas. Successful air logistic support of maritime forces depends on getting properly configured equipment to the right people at the right time and location. Logistic systems and resources employed in support of JMO(AIR) should be responsive, compatible, interoperable, and capable of supporting the readiness and sustainment of all forces concerned.

f. Combat Search and Rescue (CSAR). CSAR is a specialized task performed by rescue forces to effect the recovery of distressed personnel during wartime or contingency operations. CSAR requires specialized equipment, personnel, and procedures to effect successful rescues in hostile territory. The specific method of recovery will be driven by the threat, survivor condition, and types of CSAR forces available to execute the mission. The CSAR effort may include the use of aircraft, surface craft, or submarines to search for and rescue personnel in distress on land or at sea. CSAR operations require immediate consideration. Total force planning and coordination of CSAR coverage for JMO(AIR) are required because of the specialized capabilities and training of the different Service CSAR forces; e.g., Navy CSAR elements specialize in at-sea operations, whereas Air Force and Army elements have greater capability for overland and hostile environment CSAR.

g. Aerial Refueling. Aerial refueling operations extend the range, station time, mobility, and flexibility of the

air elements of the joint force, significantly enhancing their rapid deployment and sustained employment in carrying out missions and taskings. With the maritime environment, aerial refueling may be provided by forces organic to naval task forces or by land-based tankers. For maximum flexibility of joint force operations, aerial refueling forces must be compatible and interoperable with supported Service aircraft.

4. Amphibious Operations. Amphibious operations consist of attacks launched from ships or craft on the sea by naval and land-combat forces involving a landing on hostile shore. Amphibious operations include phases of planning, embarkation, rehearsal, movement, and assault. The essential value of amphibious operations comes from their mobility and flexibility, which can be enhanced through JMO(AIR). Amphibious operations exploit the elements of surprise and capitalize on enemy weaknesses through the application of force at advantageous locations and opportune times. The closest cooperation and most detailed coordination among all participating forces are essential to the success of amphibious operations. Amphibious elements of the joint force must train together extensively. Mutual obligations and the special capabilities and problems of each Service component must be clearly understood. Because amphibious operations encompass all other warfare areas to some degree, they are perhaps the most complex of all operations and, therefore, require extensive preparation and coordination between joint air elements and the commander of the amphibious task force. Support for amphibious operations can include any or all of the missions and tasks described above. For example, isolation of an objective area may be accomplished in part by air operations that sever LOCs and destroy or neutralize distant enemy forces, thus providing freedom from enemy interference while the amphibious task force is en route to and within the objective area.

5. Force Enhancement of Terrestrial Operations From Space. Operations in support of terrestrial forces can help ensure the success of JMO(AIR). Space systems can provide communications connectivity between friendly forces and C2 centers; surveillance, targeting, and warning of sea, air, and space threats; special meteorological data in support of reconnaissance, strike, and airlift operations; oceanographic information; and precise worldwide, all-weather and three-dimensional navigation, timing, and position data.

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CHAPTER V

SUPPORT REQUESTS

1. Requests. Message text formats and voice templates for requesting and coordinating air support will follow the guidance provided by Joint Pub 3-56.24 (formerly JCS Pub 12, Volume IV, Part 5) and Joint Pubs 6-04.20 and 6-04.61 (formerly JCS Pub 25). Normally, air allocation planning will describe how each subordinate and component command plans to allocate its air effort in response to the JFC's apportionment guidance. Requests for support should be mission-oriented, clearly state the objectives, and establish the limits or controls necessary for coordination. The supporting forces must fully understand the intent of the request and the overall mission of the supported force. Requests for air support from commands not assigned to the joint force command will be channelled as directed by the JFC.

2. Apportionment and Allocation of Resources. The JFC will apportion air resources. Based on the JFC's guidance, and in coordination with other component and supporting commanders, the JFACC or other designated authority will recommend to the JFC apportionment of air forces to various mission or geographic areas. Component commanders are not precluded from providing apportionment recommendations. The actual JFC allocation of air sorties apportioned to perform JMO (AIR) will be prescribed in accordance with Joint Pub 3-56.24.

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APPENDIX A

OVERVIEW OF THE NAVY COMPOSITE WARFARE COMMANDER DOCTRINE AND STRUCTURE

1. General

a. The composite warfare commander (CWC) doctrine allows the officer in tactical command (OTC) to aggressively wage combat operations against air, surface, and subsurface threats while carrying out the primary mission of the force. The CWC doctrine is capable of flexible implementation and application to any naval task force or task group operating at sea. In particular, the doctrine is applicable to the battle force that groups two or more CVBGs and BBGs and associated supporting units.

b. Control by negation may be exercised by a subordinate commander while operating under the CWC doctrine. Control by negation is a C2 philosophy in which the subordinate commander has freedom of action to direct and execute those operations necessary to accomplish assigned and implied missions, unless specific actions and operations are overridden by a superior commander.

2. Command Structure

a. The OTC-CWC exercises overall responsibility for C2 of the force and is responsible for the accomplishment of the mission and allocation of warfighting assets. Subordinated to the OTC-CWC are four principal warfare commanders--the antiair warfare commander (AAWC), strike warfare commander (STWC), antisurface warfare commander (ASUWC), and antisubmarine warfare commander (ASWC) (see Figure 1 and Table 1). The warfare commanders are responsible for collecting, evaluating, and disseminating tactical information and, at the discretion of the OTC-CWC, are delegated tactical authority to use assigned forces to respond to threats. Supporting the OTC-CWC and the warfare commanders are:

(1) The submarine element coordinator (SEC), a cell of the ASWC staff that, when assigned, is responsible for coordinating the actions of direct support submarines

(2) The air resource element coordinator (AREC), who is responsible for managing and coordinating the distribution of carrier aircraft and keeping the OTC-CWC and other warfare commanders and coordinators apprised of carrier air operations.

b. The supporting coordinators differ from the warfare commanders in one very important respect--when authorized by the OTC-CWC, the warfare commanders have TACON of assigned resources and may autonomously initiate action. The supporting coordinators execute policy but do not initiate autonomous actions. In addition to those coordinators discussed above, a specifically identified cell of the OTC-CWC's staff is the electronic warfare coordinator (EWC). This cell plans, and when authorized, implements and executes EW and C3CM policy.

3. The CWC Doctrine. The OTC can implement the CWC procedures outlined in the Naval Warfare Publication (NWP) 10 series to the extent required by the mission and threat. Fundamental provisions associated with implementation of CWC procedures are as follows:

a. The OTC is normally the CWC. Designated warfare commanders are responsible to the OTC-CWC for the conduct of antiair warfare (the AAWC), strike warfare (the STWC), antisurface warfare (the ASUWC), and antisubmarine warfare (the ASWC). Other designated subordinates act as coordinators to assist in the management of specified sensors and warfighting assets of the force in support of the warfare commanders and the OTC-CWC.

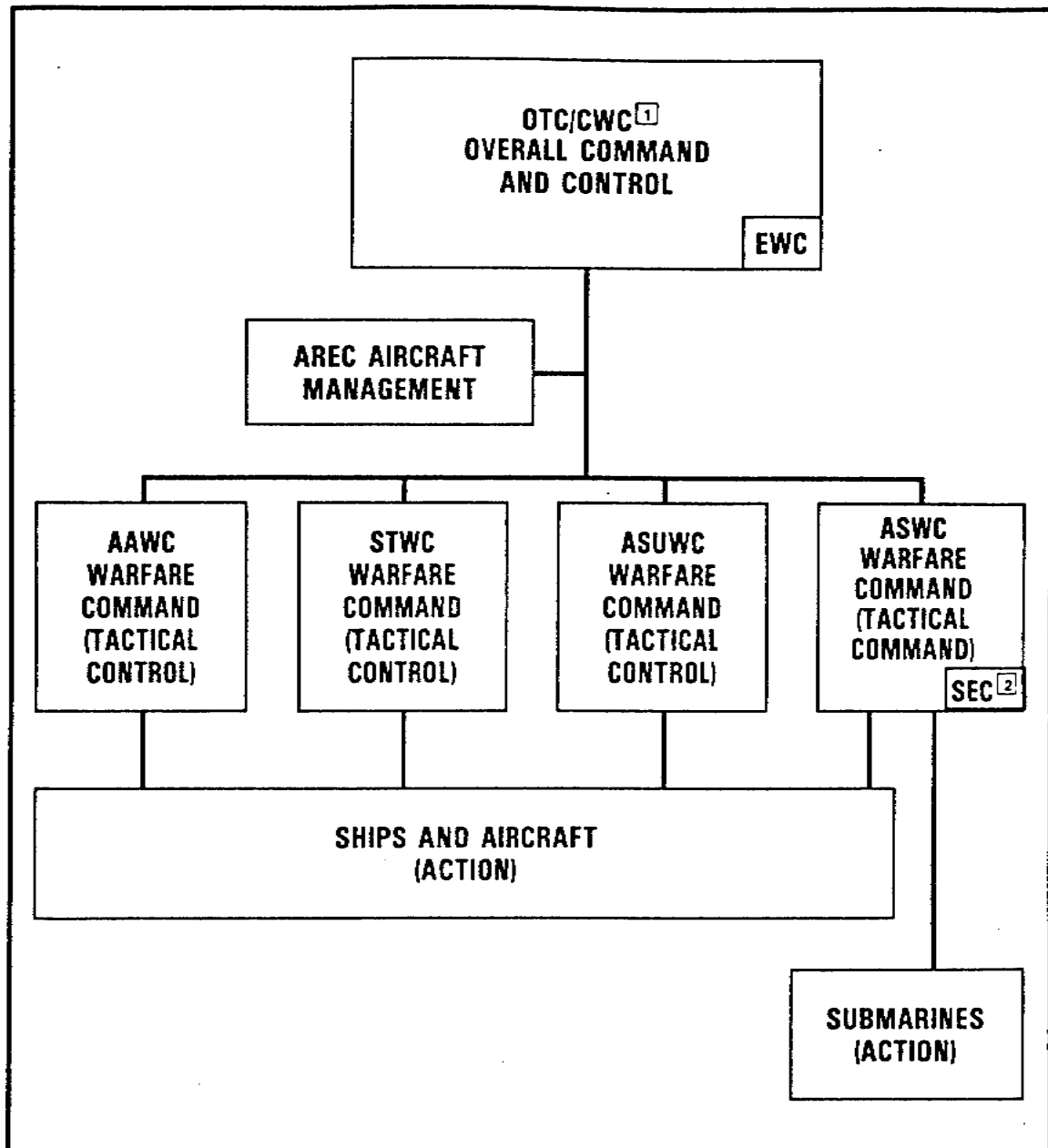
b. A wide range of options are available to the OTC-CWC in delegating command authority to the warfare commanders for the conduct of AAW, STW, ASUW, and ASW operations. These options range from full delegation of authority to no delegation at all, depending on the threat and the tactical situation. The OTC-CWC of a multi-CV battle force might use every element of the doctrine, including supporting CWCs. The OTC-CWC of a small task group, however, might use only a few of the elements; e.g., an AAWC and ASWC. Regardless of the authority delegated, the CWC always retains the option to control by command override.

4. Coordination

a. Requests for Air Support for Land-Based Commanders. Requests for sea-based aircraft are made through the OTC-CWC, who endeavors to meet the requirements of the

joint force commander, as coordinated by his staff or delegated authority. Sortie requirements to support operations conducted as part of a joint force are found in Joint Pub 3-56.24. The OTC-CWC, with support of the AREC, must resolve conflicting demands and ensure that available assets are allocated to mission requirements. This function is tied to the concept of decentralized control and the OTC-CWC's authority to intervene and redirect forces when required. The OTC-CWC must reach a compromise to allocate limited assets to a number of conflicting requests. Unresolved conflicts affecting other joint forces are submitted to the JFC for resolution.

b. Requests for Air Support from Land-Based Commanders. All warfare commanders and coordinators make requests for air assets from external sources through the OTC-CWC or other designated authority. In some situations, the requesting authority may be decentralized. Coordination between warfare commanders and coordinators for dual or shared tasking of external air assets is encouraged. Requests for air support between adjacent theaters are normally made through the affected JFCs.



- ¹ OTC & CWC MAY BE SEPARATE ENTITIES AT THE COMMAND LEVEL.**
- ² THE SEC REPORTS DIRECTLY TO THE OTC/CEC FOR MATTERS OF SUBMARINE SAFETY & PREVENTION OF MUTUAL INTERFERENCE.**

Figure 1. CWC Command Structure
Figure 1. CWC Command Structure

Table 1. Naval Warfare Commanders

TITLE	CALLSIGN DESIGNATOR	TYPICAL LOCATION
FLEET COMMANDER, BATTLE FORCE COMMANDER OF AT-SEA COMMANDER	AA	CARRIER LANDING COMMAND SHIP
COMPOSITE WARFARE COMMANDER (CWC)	AB	CARRIER OR CRUISER
STRIKE WARFARE COMMANDER (STWC)	AP	CARRIER OR CRUISER
ANTISURFACE WARFARE COMMANDER (ASUWC)	AS	CARRIER OR CRUISER
ANTI-AIR WARFARE COMMANDER (AAWC)	AW	CARRIER OR CRUISER
ANTISUBMARINE WARFARE COMMANDER (ASWC) DESTROYER	AX	CARRIER OR
ELECTRONIC - WARFARE COORDINATOR (EWC)	AE	CARRIER OR CRUISER
AIR-RESOURCE ELEMENT-COORDINATOR (AREC)	AR	CARRIER
SUBMARINE-ELEMENT COORDINATOR (SEC)		CARRIER OF CRUISER

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GLOSSARY

PART I--ABBREVIATIONS

AAA	antiair artillery
AAW	antiair warfare
AAWC	antiair warfare commander
AEW	airborne early warning
AI	air interdiction
AMW	amphibious warfare
AOA	amphibious objective area
AOR	area of responsibility
AREC	air resource element coordinator
ASUW	antisurface warfare
ASUWC	antisurface warfare commander
ASW	antisubmarine warfare
ASWC	antisubmarine warfare commander
AWACS	Airborne Warning and Control System
BBBG	battleship battle group
C2	command and control
C3	command, control, and communications
C3I	command, control, communications, and intelligence
C3CM	C3 countermeasures
CATF	commander, amphibious task force
CAS	close air support
COMSEC	communications security
CONUS	continental United States
CSAR	combat search and rescue
CV	carrier
CVBG	carrier battle group
CWC	composite warfare commander
DCA	defensive counterair
ECM	electronic countermeasures
ECCM	electronic counter-countermeasures
ESM	electronic warfare support measures
EW	electronic warfare
EWG	electronic warfare coordinator
JCS	Joint Chiefs of Staff
JFACC	joint force air component commander
JFC	joint force commander
JMO(AIR)	joint maritime operations (air)
JTF	joint task force

LOC(s)	line(s) of communication
MCM	mine countermeasures
MIW	mine warfare
OCA	offensive counter air
OPCOM	operational command (NATO Term)
OPCON	operational control
OPDEC	operational deception
OPSEC	operations security
OTC	officer in tactical command
POL	petroleum, oil, lubricants
PSYOP	psychological operations
RECCE	reconnaissance
SAM	surface-to-air missile
SEAD	suppression of enemy air defense
SEC	submarine element coordinator
SLOC(s)	sea line(s) of communication
STW	strike warfare
STWC	strike warfare commander
TACAIR	tactical air
TACON	tactical control
TF	task force
TG	task group

GLOSSARY

PART II--DEFINITIONS*

allocation (DOD). The translation of the apportionment into total numbers of sorties by aircraft type available for each operation/task. (Joint Pub 1-02)

apportionment (DOD, NATO). The determination and assignment of the total expected effort by percentage and/or by priority that should be devoted to the various air operations and/or geographic areas for a given period of time. (Joint Pub 1-02)

blockade. The isolating of a place, especially a port, harbor, or part of a coast, by ships or troops and aircraft to prevent entrance or exit.

joint force air component commander (DOD). The joint force air component commander derives his authority from the joint force commander who has the authority to exercise operational control, assign missions, direct coordination among his subordinate commanders, redirect and organize his forces to ensure unity of effort in the accomplishment of his overall mission. The joint force commander will normally designate a joint force air component commander. The joint force air component commander's responsibilities will be assigned by the joint force commander (normally these would include, but not be limited to, planning, coordination, allocation and tasking based on the joint force commander's apportionment decision). Using the joint force commander's guidance and authority, and in coordination with other Service component commanders and other assigned or supporting commanders, the joint force air component commander will recommend to the joint force commander apportionment of air sorties to various missions or geographic areas. (Joint Pub 1-02)

joint maritime operations (air). The employment of joint force air efforts to achieve military objectives in the maritime environment.

- * Unless identified as extracted from Joint Pub 1-02, terminology herein is not standardized within the Department of Defense and is applicable only in the context of this document.

maritime environment. The oceans, seas, bays, estuaries, islands, coastal areas, and the airspace above these, including amphibious objective areas. (Approved for inclusion in Joint Pub 1-02)

maritime power projection. Power projection in and from the maritime environment, including a broad spectrum of offensive military operations to destroy enemy forces or logistic support or to prevent enemy forces from approaching within enemy weapons range of friendly forces. Maritime power projection may be accomplished by amphibious assault operations, attack of targets ashore, or support of sea control operations. (Approved for inclusion in Joint Pub 1-02)

officer in tactical command (DOD, NATO). In maritime usage, the senior officer present eligible to assume command, or the officer to whom he has delegated tactical command. (Joint Pub 1-02)

operational control (DOD). Transferable command authority which may be exercised by commanders at any echelon at or below the level of combatant command. Operational control is inherent in Combatant Command (command authority) and is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command. Operational control should be exercised through the commanders of subordinate organizations; normally this authority is exercised through the Service component commanders. Operational control normally provides full authority to organize commands and forces and to employ those forces as the commander in operational control considers necessary to accomplish assigned missions. Operational control does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training. (Joint Pub 1-02)

sea control operations (DOD). The employment of naval forces, supported by land and air forces, as appropriate, to achieve military objectives in vital sea areas. Such operations include destruction of enemy naval forces, suppression of enemy sea commerce, protection of vital sea lanes, and establishment of local military superiority in areas of naval operations. (Joint Pub 1-02)

strike warfare. Naval operations to destroy or neutralize enemy targets ashore, including attack against strategic and tactical targets such as manufacturing facilities and operating bases from which the enemy is capable of conducting or supporting air, surface, or subsurface operations against friendly forces.

tactical control (DOD, NATO). The detailed and, usually, local direction and control of movements or maneuvers necessary to accomplish missions or tasks assigned. (DOD note: Also called TACON.) (Joint Pub 1-02)

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