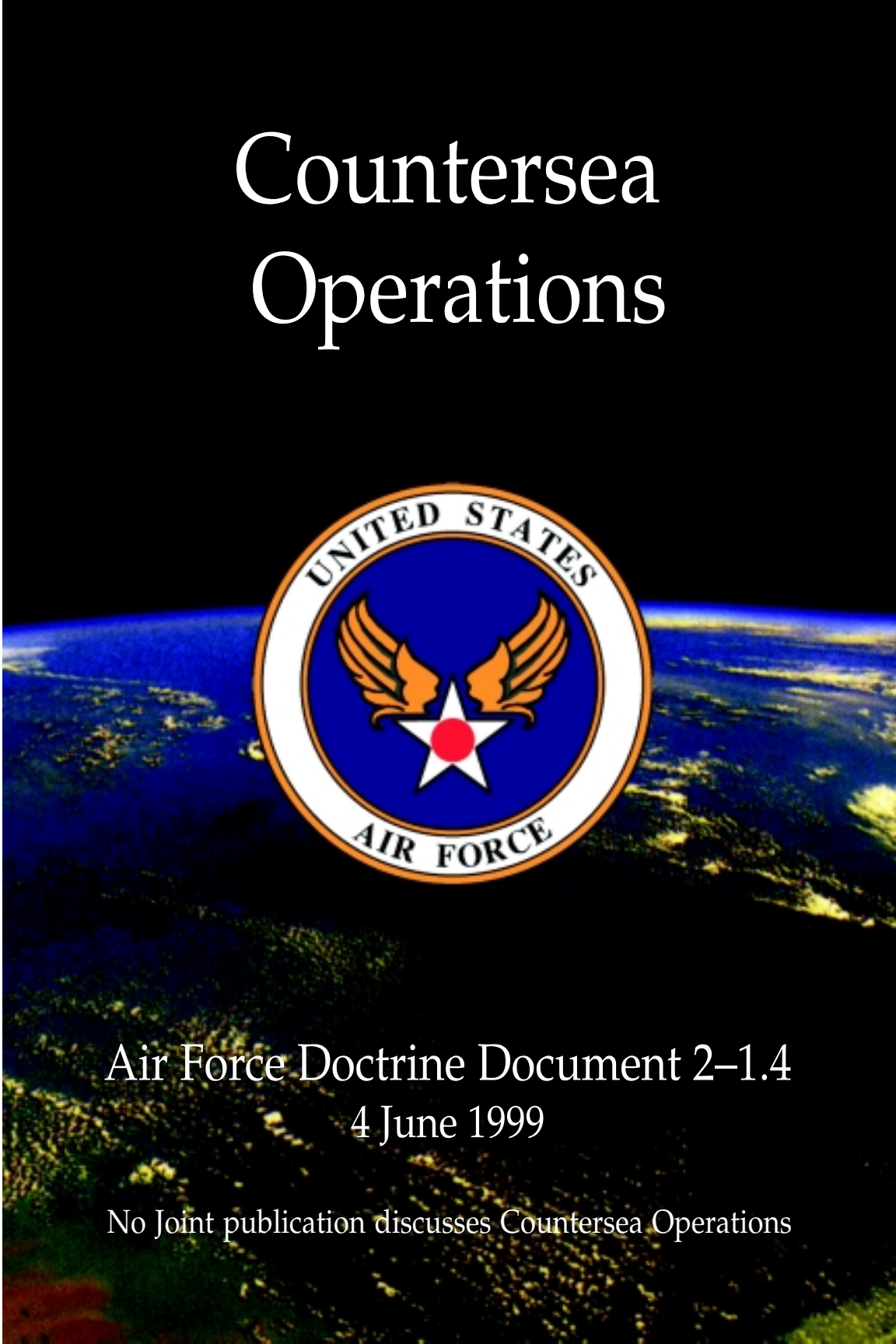
Countersea Operations



Air Force Doctrine Document 2–1.4

4 June 1999

No Joint publication discusses Countersea Operations

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FOREWORD

Countersea functions are an extension of Air Force operations into the maritime environment. Countersea is a collateral mission for the Air Force. This includes missions such as sea surveillance, surface warfare, protection of sea lines of communications (SLOC), aerial minelaying, and air refueling in support of the Navy or Marines. Many of these collateral missions translate to primary functions of aerospace forces such as interdiction; counterair; intelligence, surveillance, and reconnaissance (ISR); and strategic attack. The objective is to gain control of the medium either in support of naval forces or independently. Aerospace forces, with their responsiveness, range, and unique ability to exploit the third dimension, can transcend normal operating limitations imposed on surface forces. The aerospace forces of the US Air Force, working as part of a joint team which includes the air arm of our Naval forces, make a significant contribution to US forces' dominance of the maritime environment.

TIMOTHY A. KINNAN
Major General, USAF
Commander, HQ Air Force
Doctrine Center

4 June 1999

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INTRODUCTION

PURPOSE

This document establishes doctrine guiding the employment of Air Force assets in countersea operations. It describes how US Air Force functions, such as counterair and interdiction, enhance operations along the littoral and on the open seas. It provides guidance for conducting US Air Force operations as part of a joint or multinational effort or, if necessary, independently.

APPLICATION

This Air Force Doctrine Document (AFDD) applies to all active duty, Air Force Reserve, Air National Guard, and civilian Air Force personnel. The doctrine in this document is authoritative but not directive. Therefore, commanders need to consider not only the contents of this AFDD, but also the particular situation when accomplishing their missions.

SCOPE

This doctrine guides the Commander, Air Force Forces (COMAFFOR) in planning and conducting countersea operations in support of national strategic and joint force commander (JFC) campaign objectives.

CHAPTER ONE

COUNTERSEA OPERATIONS

IMPACT OF LAND-BASED AIRPOWER IN THE MARITIME ENVIRONMENT

Between 1939 and 1943 German U-boats sank 2,284 British and neutral ships, severely restricting Britain's import of vital war material and threatening its very survival. *Luftwaffe* use of long-range Focke-Wulfe (FW) 200 Condors to shadow convoys and provide information to German U-boats played a vital role in the success of the German attacks. The FW-200 itself enjoyed remarkable success in the war at sea by sinking 20 ships compared to the 21 ships sunk by U-boats in January 1942. February saw the Condors sink another 27 ships. Only 21 FW-200s assigned to *Fliegerfuhrer Atlantik* [Air Commander, Atlantic] achieved this success. Even with limited assets, land-based airpower has had a significant impact on warfighting in the maritime environment.

THE MARITIME ENVIRONMENT

The *Department of Defense Dictionary of Military and Associated Terms* (JP 1—02) defines the maritime environment as "the oceans, seas, bays, estuaries, islands, coastal areas, and the airspace above these, including amphibious objective areas." This environment encompasses the high seas, the littoral, and the waters in the vicinity of the littoral. Seventy one percent of the Earth's surface is covered by water (mostly ocean) and seventy five percent of the world's population lives near the sea. The littoral encompasses many potential trouble spots that may threaten the interests of the US and its allies. Recent US Navy operational concepts lead to an increased emphasis on "operating in and from the littorals." The unique nature of aerospace power encourages Air Force operations in this environment.

THE COUNTERSEA FUNCTION

The countersea function is an extension of Air Force functions into the maritime environment. Countersea is a collateral function which is defined by JP 1—02 as "a mission other than those for which a

force is primarily organized, trained, and equipped, that the force can accomplish by virtue of the inherent capabilities of that force." Identified specialized collateral missions are sea surveillance, surface warfare (SUW), protection of sea lines of communications through undersea warfare (USW) and air warfare (AW), aerial minelaying, and air refueling in support of naval campaigns. *The Air Force fulfills these collateral missions through the primary functions of aerospace forces, such as interdiction, counterair, ISR, and strategic attack.* As with the other aerospace functions, countersea operations are designed to achieve strategic–, operational–, or tactical–level objectives in the pursuit of joint force objectives in the maritime environment.

TYPES OF OPERATIONS

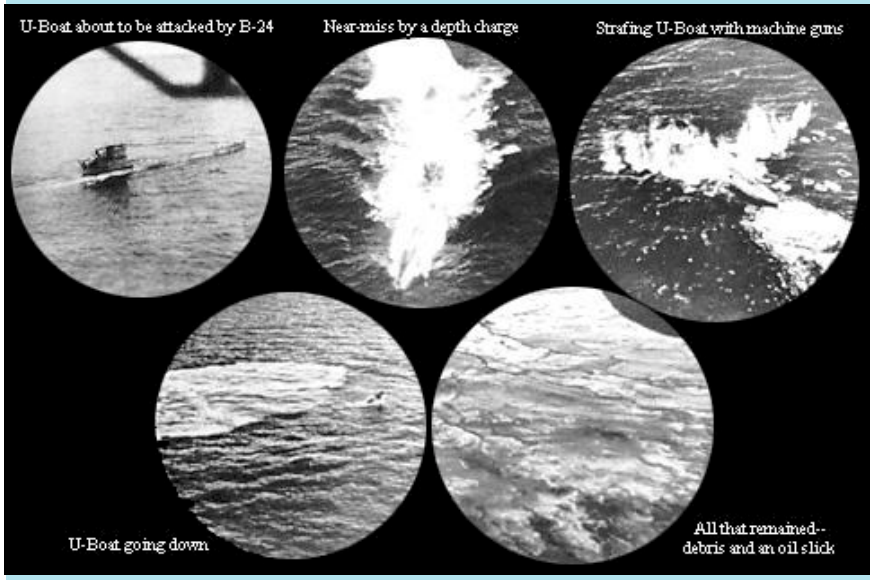
Aerospace power can support independent, joint, and multinational operations. Independent operations involve only Air Force assets. The Royal Air Force sinking of the German battleship *Tirpitz* by Lancaster bombers in 1944 is a good example of an independent Air Force countersea operation. A joint operation is one in which elements of more than one Service of the same nation participate in a maritime effort. During Operation EASTERN EXIT in January 1991, Air Force KC–10 aircraft refueled Marine helicopters carrying evacuees from Mogadishu to waiting ships. A multinational maritime operation involves two or more forces or agencies of two or more allies or coalition members participating in maritime activities. The Normandy invasion during the Second World War is an excellent example of a multinational maritime operation. Land, maritime, and air forces of several nations combined their efforts for this successful, massive amphibious assault.

Today's aerospace power possesses the capability to dominate warfare in the maritime environment. Aerospace forces can destroy or reduce to an acceptable level the enemy air, surface, and undersea threat to friendly forces. At the same time, it can suppress enemy operations and capabilities. Successful operations require aerospace forces to gain and maintain air superiority in the maritime environment to protect friendly forces and to permit freedom to conduct military operations. Aerospace operations need to be integrated with other operations to accomplish the JFC's objectives. The Air Force tenet of **centralized control and decentralized execution** is vital to the success of all operations in the maritime environment. Planning, coordination, and training to support countersea

operations should emphasize prompt, effective, and unified effort with maritime and land forces.

THE BLACK PIT

When the war began, Germany had 56 seaworthy submarines. By 1943, however, they had more than three hundred, many of which were patrolling in the mid-Atlantic just south of Greenland. Known as the "Black Pit," this arena was free of Allied air coverage. Because of the submarine's great successes, Churchill told an anti-U-boat committee in October 1942 to find better methods of fighting this menace. One recommendation focused on converting B-24 Liberators into long-range antisubmarine aircraft and deploying them into the Black Pit.



Three months later, 11 Liberators from the Royal Air Force (RAF) Coastal Command's 120th Squadron landed in Iceland. From here they flew into the Black Pit and began patrolling. Armed with machine guns, acoustical homing torpedoes, and fifteen hundred pounds of depth charges, each Liberator had a range of over twenty-three hundred miles and could remain on station for about three hours.

Because Great Britain and the Allies successfully defended several of her convoys, May 1943 became a key turning point in the Battle of the Atlantic. One particular convoy, SC-130, departed Halifax, Canada, on 11 May, with 37 merchant ships and six naval escorts. Proceeding toward England, they sailed for eight days unthreatened through the North Atlantic. The Germans, however, were aware of the convoy's route and prepared for an assault. With approximately 30 submarines in the Black Pit, they planned to coordinate their strikes by using *Rudeltaktiks*, or wolf-pack tactics.

On 19 May, the convoy sighted a distant U-boat and detached naval escorts to drive it underwater. At about 0400, the first RAF B-24 arrived over the convoy. Using airborne radar, it discovered a surfaced submarine and forced it to submerge. Diving down to one hundred feet, the plane crossed over the enemy vessel and dropped three 250-pound depth charges and two acoustic homing torpedoes. After an explosion, U-boat 954 became the B-24's first confirmed kill.

Continuing its patrol, the Liberator sighted five more U-boats. It successfully forced four to crash-dive and then flew over one submarine that remained on the surface. After the plane sprayed it with machine-gun fire, the U-boat submerged. In each attack, the aircrew marked the spot and called in naval escorts to continue the pursuit. By the end of the three-hour patrol, the Iceland-based B-24 had destroyed one submarine and forced five others to submerge.

During the rest of the day, five more aircraft rotated in and out of the Black Pit. Upon arriving over the convoy at 0915, the second B-24 attacked one submarine and forced six others to crash-dive. In the afternoon, three more planes continued the surveillance.

Air coverage was suspended during the night and restored at first light. During the two-day battle, seven Liberators sighted 24 U-boats and forced 16 to submerge. Of the eight submarines attacked, three were destroyed. When results of these air attacks reached Germany, the high command decided to withdraw their submarines from the Black Pit. Thus unopposed, Convoy SC-130 arrived in Great Britain four days later.

Dr. Donald R. Chipman
"Airpower: A New Way of Warfare (Sea Control)"
Airpower Journal, Fall 1997

CHAPTER TWO

AIR FORCE COUNTERSEA EMPLOYMENT

> ***The argument has been advanced that the Air Force should be concerned with land objectives, and the Navy with objectives on and over the water. That distinction is to deny the peculiar quality of the air medium, the third dimension. The air is indivisible; it covers land and sea.***
>
> **General Carl A. Spaatz**

GENERAL

The vigorous debate over airpower's role in the maritime environment began in 1915 when Major "Billy" Mitchell first advocated the use of aircraft for coastal defense. Military leaders struggled for the next thirty–three years to define Service functions in the maritime environment. The Key West and Newport agreements in 1948 laid the foundation for the publication of Department of Defense Directive (DODD) 5100.1, *Functions of the Department of Defense and Its Major Components*, in 1954. The maritime functions assigned to the Air Force in this directive are current today.

The sinking of the German battleship *Ostfriesland* in July 1921 by a Martin MB-2 bomber during a test off the Virginia capes demonstrated that an airplane could sink a capital ship.

DOD–DIRECTED AIR FORCE MARITIME FUNCTIONS

DOD Directive 5100.1
[SOME OF] THE PRIMARY FUNCTIONS OF THE AIR FORCE ARE TO

- *Organize, train, equip, and provide forces for strategic air and missile warfare; organize, equip, and provide forces for joint amphibious, space, and airborne operations;*

Collateral functions of the Air Force include:

- *Surface sea surveillance and surface warfare through air operations,*
- *Undersea warfare and air warfare operations to protect sea lines of communications,*
- *Aerial minelaying operations, and*
- *Air–to–air refueling in support of naval campaigns*

DODD 5100.1 divides Air Force functions into two categories—primary and collateral. Primary functions serve as the main focus for organizing, training, equipping, and providing forces for air operations. The Air Force is not primarily organized, trained, or equipped to accomplish collateral functions. Rather, the Air Force carries out these functions by virtue of its inherent capabilities.

AIR FORCE FUNCTIONS IN THE MARITIME ENVIRONMENT

Primary Maritime Functions

The Air Force has **two primary functions** that relate directly to maritime operations. ***First****, the Air Force will provide forces to support joint amphibious operations as needed.* ***Second****, the Air Force will develop tactics, techniques, and equipment of interest to the Air Force for amphibious operations in coordination with other Services.* Joint doctrine states that an amphibious operation is an attack launched from the sea by naval and landing forces, embarked in ships or craft involving a landing on a hostile or potentially

hostile shore. As an entity, the amphibious operation includes the following phases:

- Planning—The period extending from issuance of the initiating directive to embarkation.

- Embarkation—The period during which the forces, with their equipment and supplies, are embarked in the assigned shipping.

- Rehearsal—The period during which the prospective operation is rehearsed for the purpose of: (1) testing adequacy of plans, the timing of detailed operations, and the combat readiness of participating forces; (2) ensuring that all echelons are familiar with plans; and (3) testing communications.

- Movement—The period during which various components of the amphibious task force move from points of embarkation to the objective area.

- Assault—The period between the arrival of the major assault forces of the amphibious task force in the objective area and the accomplishment of the amphibious task force mission.

Air Force support of amphibious operations may include Air Force functions such as **counterair** to provide air superiority, **counterland** for interdiction and/or close air support, **airlift** for air assault or resupply, and **ISR** from aerospace assets. Close coordination during planning and execution is vital to the success of the operation.

Collateral Maritime Functions

Activities on the high seas fall within the scope of assigned collateral functions. All Air Force collateral functions in DODD 5100.1 explicitly apply to the maritime environment. *This directive requires the Air Force to support:*

- *Surface sea surveillance.*
- *Antisurface ship warfare through air operations (now called surface warfare (SUW).*
- *Undersea warfare (USW).*
- *Air warfare (AW) operations to protect sea lines of communications.*

- *Aerial minelaying operations.*
- *Air–to–air refueling in support of naval campaigns.*

The *Chairman of the Joint Chiefs of Staff Report on the Roles, Missions and Functions of the Armed Forces of the United States* (1993) recommended an additional collateral function requiring the Air Force to provide fixed–

ATTACK ON THE *HMS SHEFFIELD*

The British Task Force that deployed to retake the Falkland Islands was centered approximately 100 miles south of Port Stanley in the Falkland Islands on the morning of 4 May 1982. An Argentine Neptune of the 1st Naval Reconnaissance Escuadrilla had been shadowing the fleet and periodically reporting the fleet's position. Later that morning, two Argentine Super Entendards armed with Exocet missiles launched from Rio Grande Air Base. After a brief refueling from a KC-130 Hercules tanker, the two aircraft continued eastward toward the Falklands and their target, the British fleet, all the while maintaining radio silence and listening to broadcasts from the Neptune.

The Super Entendards descended to low altitude as they approached the target area. In the reported vicinity of the warships, they climbed to about 120 feet, turned on their radar to locate the targets, launched the Exocets, descended, and withdrew rapidly.

The *HMS Sheffield* was on radar picket duty approximately 20 miles west of the main body. Its radar briefly picked up an incoming aircraft at low altitude, but it disappeared from their radar shortly afterwards. Two minutes later, officers on the bridge noticed a trail of smoke followed five seconds later by the missile impacting the ship with a dull bang. Many believe the warhead never exploded, but the remaining rocket fuel started a fire that forced the crew to abandon ship. Eventually the ship sank.

With only four operational Super Entendards and few Exocets, the Argentines flew a total of 12 sorties that launched five missiles. Of these, two missiles hit their targets. Due to this threat and lacking an effective early warning capability, the British shifted their aircraft carriers further to the east, forcing their Harriers and Sea Harriers to operate close to their maximum combat radius, reducing the amount of support they could provide to British surface forces in the vicinity of the Falkland Islands.

Long range bombers, such as the B–1 Lancer, are capable of searching large portions of the ocean and locating surface ships.

wing close air support (CAS) to amphibious operations. DODD 5100.1 uses the following Navy terms:

Surface sea surveillance involves the systematic observation of ocean areas to detect, locate, and classify selected air, surface, and subsurface high–interest items and provides this information to users in a timely manner. Sea surveillance provides timely updates of the current operational setting. Electronic intelligence (ELINT), electro–optical sensors on board aircraft, unmanned aerial vehicles (UAV), and space platforms can rapidly locate, identify, and track items of interest in vast ocean areas.

Surface warfare (SUW) is an operation conducted against enemy surface forces. These operations are conducted to destroy or neutralize enemy naval surface forces and merchant vessels. The area of attack and other factors that influence tactics, weapons mix, and support requirements should be clearly identified. Primary targets should be specified especially when surface combatants are escorting amphibious craft and supply ships.

Undersea warfare (USW) operations are conducted with the intention of denying the enemy the effective use of submarines. USW includes searching, locating, classifying, and attacking submarines and their support assets. *The Navy also places mine warfare (MIW) in this category.*

Mine warfare is the strategic, operational, and tactical use of mines and mine countermeasures (MCM). Mine warfare is divided into two ba-

sic subdivisions: minelaying for area denial degrades the enemy's capabilities to wage land, air, and maritime warfare; and countering enemy–laid mines permits friendly use of land or sea areas. Mine warfare 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. The most expedient minefield laying operations are accomplished by aircraft. Mine countermeasures prevent the enemy from laying mines and involve actions to reduce or eliminate mines already laid by an enemy.

Air warfare (AW) is a US Navy/US Marine Corps term used to indicate the action required to destroy or reduce to an acceptable level the enemy air and missile threat. It includes such measures as the use of interceptors, bombers, antiaircraft guns, surface–to–air and air–to–air missiles, electronic attack, and destruction of the air or missile threat both before and after it is launched. Other measures which are taken to minimize the effects of hostile air action are cover, concealment, dispersion, deception (including electronic), and mobility. Air Force doctrine and joint doctrine iden-

EFFECT OF MINES

From 1943 through 1945, US land-based bombers conducted aerial minelaying operations against Japanese shipping in Burma, the East Indies, the Solomon Islands, the Bismarck Archipelago, Thailand, and other locations around the South China Sea effectively closing the area or severely restricting barge and ship traffic. Beginning in the Spring of 1944, B-29s operating from the Marianas Islands began aerial minelaying in the waters surrounding Japan. B-29s flew 1,529 missions and dropped over 12,000 mines. This effort complemented the submarine campaign being waged by the US Navy. According to the *The United States Strategic Bombing Survey,* **" mines dropped by B-29s in Japanese harbors and inland waterways accounted for 50 percent of all ships sunk or damaged. In isolating areas of combat from ship-borne reinforcements land-based aircraft also sank large numbers of barges and vessels smaller than 500 tons gross weight, not included in the tabulation provided by the Survey." Mines dropped by B-29s are credited with sinking 287 ships and damaging another 323 from April 1945 until the war ended. Shipping in and around Japan was either stopped or severely restricted to the point that industry was paralyzed due to severe shortages of coal, oil, salt, and food.**

tify this function as **counterair**.

Air–to–air refueling in support of naval campaigns provides the capability to refuel aircraft in flight, which extends presence, increases range, and weapons payloads and allows air forces to bypass areas of potential trouble. This function is vital over the long distances that must be traversed to operate in many maritime areas.

To fulfill the requirements of DODD 5100.1, the Air Force will provide the following specific functions in support of countersea operations.

Counterair. Depending upon the proximity of a forward operating location to an objective area and the availability of air–to–air refueling support, commanders may employ Air Force fighter aircraft in the maritime environment to gain some degree of air superiority. Additionally, fighters and long–range strike aircraft can be used in an offensive counterair role against enemy air assets or threats to friendly air activities. Counterair is divided into offensive counterair (OCA) and defensive counterair (DCA). Suppression of enemy air defenses (SEAD) is a component of OCA. Air Force forces can provide defensive counterair measures to thwart enemy air and missile attacks against maritime forces. Counterair activities support the collateral function of **air warfare (AW)**.

Strategic Attack. Strategic attack is defined as those operations intended to directly achieve strategic effects by striking at the enemy's center(s) of gravity (COGs). During the Second World War, Japanese merchant shipping was identified as a COG for the sustainment of Japan's war effort. In addition to the efforts of Navy submarines, land– and carrier–based airpower successfully targeted Japanese shipping through direct attack and indirectly through aerial minelaying operations. The resulting shortages of food, fuel, and other resources severely hampered Japan's efforts to effectively counter Allied forces at the strategic, operational, and tactical levels of war. Strategic attack missions support the collateral function of **surface warfare (SUW)**.

Counterland. When employed against maritime assets, the US Air Force counterland function may support the collateral missions of surface warfare, undersea warfare, and/or air warfare (depending on the intended effect). Specific traditional functions associated with the aerospace counterland function that are applicable to countersea operations are **interdiction** and **close air support**.

FAR EAST AIR FORCES (FEAF) AND INCHON (AUGUST - SEPTEMBER 1950)

As the date for the Inchon landing approached, FEAF began its part of the operation. Photographic reconnaissance units flew across the Inchon-Seoul area to provide the Navy with desperately needed photos of the sea walls at high and low tides that would have to be scaled at Inchon. The photos also provided the Navy with the information needed to orient the landing crews. FEAF Bomber Command bombed the enemy's rail lines north of Seoul beginning 9 September. B-29s bombed bridges, marshalling yards, tunnels, trestles, and track leading into the landing area. Armed fighters sought out and attacked enemy airfields and aircraft that could threaten the landings.

The X Corps surprised the Communist troops when they went ashore on 15 September. On 17 September, the Marines took Kimpo Airfield with minimal damage. On 19 September, FEAF Combat Cargo Command landed the first C-54 at Kimpo, followed by additional C-54s and C-119s loaded with troops, supplies, night lighting equipment, and cargo handling equipment. A 24-hour operation began with incoming cargo aircraft bringing troops and supplies and outgoing aircraft providing aeromedical evacuation of casualties to Japan.

Interdiction. Commanders may employ aerospace forces for maritime missions to divert, disrupt, delay, or destroy the enemy's military potential before it can be used against friendly forces. A B–52 Harpoon mission flown against an adversary's supply vessels is an example of a maritime interdiction mission. Interdiction is not restricted to "at sea" operations. Port facilities, bridges, shipyards, or other surface structures are examples of additional targets.

Close Air Support. Air Force forces may be required to attack hostile targets in close proximity to friendly forces operating in the maritime environment. Air Force CAS missions can provide lethal firepower for amphibious forces. CAS assets may require a forward operating location in proximity of the area of operations and the availability of air–to–air refueling support. Normally this is a part of the Air Force counterland function and will require close coordination with surface forces.

Air Refueling. Most aircraft conducting long–range maritime operations require air–to–air refueling. Because maritime support aircraft missions generally begin from locations outside the area of operations, air refueling

becomes critical to extend the operating radius of aircraft. Air refueling provides the flexibility and range for aircraft to conduct global maritime support.

Space Support. Air Force space assets greatly enhance maritime operations. Space–based forces provide a significant capability to characterize threats and identify an adversary's strengths, weaknesses, and vulnerabilities for our national leaders to use in diplomatic, political, and economic efforts. Data and information derived from space forces are often critical decision–making elements that can provide global situational awareness and diplomatic advantage and can permit the US to respond effectively to evolving crises. Satellite maritime support may include global communications links, intelligence data, ballistic missile early warning, sea state status, navigation, weather, and multi–spectral imagery. Information operations (IO) and command and control (C2) rely heavily upon space assets to provide support for maritime operations.

The remaining Air Force functions (airlift; IO; special operations (SO); C2; ISR; combat search and rescue (CSAR); navigation and positioning; and weather services) are able to provide support to the countersea function as needed.

JOINT AEROSPACE OPERATIONS IN THE MARITIME ENVIRONMENT

Joint aerospace operations in the maritime environment are employed to destroy or reduce enemy air, surface, or subsurface threats, and suppress enemy commerce. Additionally, aerospace operations are employed to gain and maintain local aerospace superiority in the maritime environment to protect vital sea areas and sea lines of communication (SLOCs). Aerospace power supports amphibious operations as directed by the JFC. The Air Force can support two interrelated maritime operations—sea control and power projection.

Sea Control

Naval Doctrine Publication 1 (NDP 1), *Naval Warfare,* states: **"Control of the sea is fundamental.... It supports directly our ability to project power ashore by encompassing control of the entire maritime area: subsurface, surface, and airspace, in both the open oceans and the littoral regions of the world."**

Control of the sea allows us to:

- Protect sea lines of communication.
- Deny the enemy commercial and military use of the seas.
- Establish an area of operations for power projection ashore and support of amphibious operations.
- Protect naval logistic support to forward deployed battle forces.

Control of the sea can be accomplished through decisive operations by:

- Destroying or neutralizing enemy ships, submarines, aircraft, or mines.
- Disabling or disrupting enemy command and control.
- Destroying or neutralizing the land–based infrastructure that supports enemy sea control forces.
- Seizing islands, choke points, peninsulas, and coastal bases along the littorals.
- Conducting barrier operations in choke points that prevent enemy mobility under, on, and above the sea.

> ***By using his strategic air force, the enemy can strangle one's supplies, especially if they have to be carried across the sea.***
>
> **Field Marshal Erwin Rommel**

By establishing control of the sea in every dimension, thus ensuring access to an adversary's coast from the sea, we open opportunities for power projection, insertion and resupply. Control of the sea, however, has both spatial and temporal limits. It does not imply absolute control over all the seas at all times. Rather, control of the sea is required in specific regions for particular periods of time, to allow unencumbered maritime operations. Control of the sea is usually a prerequisite for larger strategies involving a land–based objective.

Air Force forces exert sea control through counterair, surface warfare, and aerial minelaying operations, and the other Air Force functions. Air Force forces may conduct antisurface operations, to in-

clude strategic attack and interdiction, to degrade or destroy enemy maritime forces and support systems. For instance, a commander may direct aerial minelaying operations to restrict the enemy's naval movement or to facilitate movement of friendly forces.

Maritime Power Projection

NDP 1 mentions that **"power projection takes the battle to the enemy. It means applying high–intensity, precise, offensive power at the time and place of our choosing."** Maritime power projection includes amphibious operations, attacks against targets ashore, support of sea control operations, and strike warfare. Aerospace forces provide a significant capability to support all facets of maritime power projection. Air Force power significantly enhances the capabilities of already potent maritime forces. The speed, range, flexibility, and lethality of aerospace power, coupled with highly effective support systems, enable Air Force assets to meet their primary and collateral responsibilities.

Support

Because land–based Air Force forces can directly enhance naval forces, **the JFC may use support relationships to create unity of effort in maritime operations.** Frequently, Air Force air refueling assets are required to enable Navy power projection assets to reach their targets. Air Force forces providing counterair support to amphibious forces while naval units fly power projection strike missions is an example of mutual support. Air Force forces render general support when forces are dedicated as a whole to a supported force. An example of direct support is when an F–16 unit responds directly to a maritime force commander's assistance request. Finally, Air Force forces furnish close support when their operations require detailed coordination with a supported force, e.g., CAS missions to assist the Marines.

BATTLE OF THE BISMARCK SEA (1-4 MARCH 1943)

Throughout July and August, Allied aircraft that had survived the Japanese invasion of the Philippines were now operating out of Australia. During the summer of 1942, Japanese forces landed on New Guinea's Papuan peninsula and began a drive toward Port Moresby. Ground fighting was fierce and, because of limited numbers operating from far away, air support was sporadic. Allied aircraft were unsuccessful in their attempts to counter Japanese shipping because they were using high level bombing techniques, which proved to be very inaccurate against ships at sea. Fifth Air Force was organized in September 1942. Due to the archipelagic nature of the Southwest Pacific operating area, General George C. Kenney, Fifth Air Force commander, realized that the means to successfully attack shipping had to be developed.

Fifth Air Force began experimenting with different ideas to improve their lethality. Their A-20s were modified by the addition of four .50-caliber, forward firing machine guns in the nose and two 450-gallon fuel tanks to extend their range. Parafrag bombs were acquired. The A-20s then enjoyed remarkable success against targets in the jungles of New Guinea. Kenney then directed that several B-25Cs be modified in a similar fashion. Since they were to operate at low altitude, the tail and belly turrets were removed. Fifth Air Force shifted from the traditional high altitude bombing to low altitude bombing. American and British tests of skip bombing showed promise. Eventually, the bombers of Fifth Air Force perfected the technique of two aircraft attacking at masthead height. One aircraft would strafe to reduce the antiaircraft artillery (AAA) coming from the ship under attack, while the other would strafe and bomb at mast height.

In January and February 1943, Allied intelligence indicated that the Japanese were beginning to assemble a convoy in Rabaul for the reinforcement of Japanese forces fighting in New Guinea. On 28 February, word came that 14 ships were coming down from Rabaul. On the first of March, a B-24 Liberator spotted the convoy and for the next two days it was shadowed and harassed by the longer-range heavy bombers. Escorting P-38s engaged aircraft from Japan's Eleventh Air Fleet destroying 25 of 30 aircraft. The convoy came within range of the medium bombers on the 3rd of March. Coordinated attacks by long range bombers dropping bombs from 3,000 to 6,000 feet, followed by low-level skip bombing releases from the Beaufighters and B-25s resulted in the loss of eight transports and four destroyers, along with all of the Army Division's equipment and nearly half of the unit's 7,000 men. Japanese ground forces at Lae were not reinforced, effectively ending any chances of a renewed Japanese offensive. The victory confirmed General MacArthur's growing confidence in Fifth Air Force and demonstrated the dominance of airpower in the Southwest Pacific.

CHAPTER THREE

AIR FORCE COUNTERSEA ORGANIZATION

> ***The ability to distinguish essentials from non-essentials, to grasp quickly the elements of a changing situation, and the intestinal fortitude to keep cool and to continue fighting when the going gets tough are required in the successful war commander.***
>
> **Admiral Raymond A. Spruance**

GENERAL

If required by the JFC, Air Force forces can wage an independent maritime campaign (figure 3.1). Without naval support, long-range strike, aerial minelaying, and air-to-air capabilities could be brought to bear decisively against an enemy's maritime assets and facilities. This capability may be critical in the early stages of an operation if naval surface forces are not yet in position. Normally, theater-assigned Air Force forces will operate jointly.

COMMAND RELATIONSHIPS

American military power is employed under the direction of a JFC tasked by the National Command Authorities (NCA). In this context, aerospace forces must organize, train, equip, and plan for application as an integral element of a joint or multinational force. Air Force forces must prepare to operate as a single Service under JFC control, particularly for the attack of strategic targets.

Two central ideas—**the principle of unity of command and the tenet of centralized control and decentralized execution**—underpin the way the Air Force organizes. In order to effect this, the Air Force requires a universally understood organizational structure that can support joint and multinational operations throughout the entire spectrum of conflict. **In any operation, a Commander of Air Force Forces (COMAFFOR) will be designated** and serve as the commander of Air Force forces assigned and attached to the Air Force component. ***Air Force elements deployed in an expeditionary role will be designated as an Aerospace Expeditionary Task Force, or ASETF***. The COMAFFOR, with

The Douglas B-18 equipped with a magnetic anomaly boom and nose radar was a formidable U-boat adversary.

ORGANIZATION AND THE ATLANTIC COAST

Early in the Battle of the Atlantic, Great Britain had recognized the need for close cooperation between sea and air antisubmarine forces at higher as well as operational levels of command. But such cooperation at the higher levels of the [US] AAF [Army Air Forces] and the [US] Navy was frequently elusive, partly because of historical rivalry.

Partially as a result of the ...dispute, multiple headquarters had overlapping responsibility for antisubmarine operations. Since its doctrine emphasized centralized operational control of aircraft, the AAF found this situation objectionable. To achieve centralization, General Arnold in March 1942 proposed to Admiral King the establishment within the AAF of an organization to conduct all air operations against submarines. The Navy did not accept this idea because it would give the Army a traditionally Navy mission and bring naval aircraft under Army control. Most AAF units involved in antisubmarine operations came under I Bomber Command, and, in an effort to reduce organizational confusion, I Bomber Command was placed under the operational control of the Eastern Sea Frontier on March 26. Gradually I Bomber Command reoriented the training of its flying personnel, obtained additional aircraft, and adapted its equipment to the antisubmarine mission. General Arnold, along with most other AAF leaders, believed that progress in bringing the AAF's antisubmarine resources and operations under one headquarters was largely offset by Navy policies. The Navy allocated the AAF antisubmarine squadrons to the sea sector commanders and would not ordinarily allow aircraft allocated to one sea sector or frontier to operate in another. Transfer of aircraft from one sea frontier to another to meet changing submarine threats proved difficult and usually too late.

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the ASETF, will present the JFC a task–organized, integrated package with the proper balance of force, sustainment, and force protection elements. **Commanders should apply sound professional judgment to tailor their organizations and operations for the task at hand and for the requirements within different theaters.**

JOINT ORGANIZATIONAL STRUCTURE

Joint Force Air Component Commander (JFACC)

A single air commander should command all air assets. The JFC should normally designate a JFACC to plan and direct air operations, including those within the maritime environment. *Centralized control and decentralized execution serve to focus these forces on theater objectives and provide commanders flexibility for employment.* The JFACC makes apportionment recommendations to the JFC and will normally allocate aerospace assets. Apportionment of aerospace assets among the various missions such as countersea, strategic attack, interdiction, close air support, or counterair is a JFC decision, based on JFACC recommendations and the conditions in the JFC's area of responsibility (AOR). Apportionment will likely change as the campaign progresses or as the operational situation changes. The JFACC should prioritize support requests and employ aerospace power to effect synergy, balance, concentration, and persistence.

The JFACC should be the component commander with the preponderance of air and in–theater space forces and the capability to control and direct joint air and space operations. The JFC gives the JFACC the authority necessary to accomplish assigned missions and tasks. When designated as the JFACC, the COMAFFOR normally maintains operational control (OPCON) of assigned and attached US Air Force forces and normally receives tactical control (TACON) of forces from other components as directed by the JFC. *When the COMAFFOR is designated the JFACC, the Air Force component staff structure normally forms the basis for the JFACC staff.* In cases where COMAFFOR commands an ASETF, the principal component staff directorates (A–1 through A–6) normally assume parallel JFACC staff functions. Augmentation within each directorate from relevant Service components ensures adequate joint representation on the JFACC staff. In the maritime environment, the JFACC may be a Navy or Marine Corps commander, provided the criteria for being the JFACC is met. At the discretion of the JFACC, officers from other Services may fill key deputy and principal staff JFACC positions. In this arrangement Air Force component and joint air component functions and responsibilities remain distinct; both are essential to successful joint air operations. **When the Air Force component staff assumes JFACC staff functions, the JFACC must provide a clear definition of responsibilities and adequate resources to ensure both Air Force com-**

ponent and JFACC staff functions operate effectively. *If another Service provides the JFACC, the COMAFFOR will relinquish TACON of assigned forces to the JFACC as directed by the JFC.* In addition, the COMAFFOR will coordinate with the JFACC through a liaison officer (LNO) team and fill designated billets within the JFACC staff and joint air operations center (JAOC). However, the COMAFFOR will maintain an A–staff and a command and control function to perform Service specific functions.

If working with allies in a coalition or alliance operation, the JFACC may be designated the coalition force air component commander (CFACC). For very large and complex operations, as might be encountered with large coalitions, the COMAFFOR function might be separate from the JFACC (or CFACC) function. When a separate COMAFFOR is established, a separately manned Air Force component staff is normally appropriate. This provides Air Force elements more focused Air Force leadership and permits the JFACC to focus on joint and multinational issues.

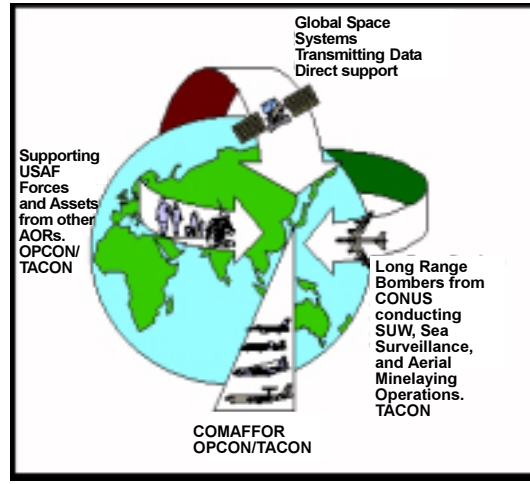
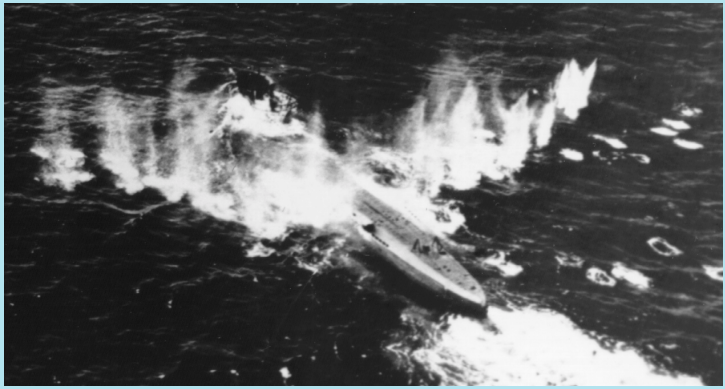


Figure 3.1. Theater Commander Notional Command and Control

For theater operations the JFC establishes the specific command authority for the JFACC to fulfill assigned responsibilities. When air operations constitute the bulk of the capability needed to directly attack strategic COGs, the JFC will normally task the JFACC, as a *supported commander*, to conduct such operations and the overall theater air interdiction (AI) effort. Acting in this capacity, the JFACC can integrate air resources and designate targets or objectives for other components in support of the joint strategic attack and interdiction operations. This centralized command of both air efforts allows the synergies of strategic attack and interdiction to be maximized in attaining national or JFC objectives.

The JFACC must, by definition, control and execute the aerospace assets assigned to the joint task force (JTF), in whole or in



ORGANIZATION IN THE GULF OF MEXICO

The formation, equipping, and training of effective sea and air antisubmarine forces against the German offensive on the East Coast required time. The navy, supported by the AAF, gradually progressed with various defensive measures and increasingly effective air patrols forced the Germans to greater caution in the waters of the Eastern Sea Frontier. By June 1942, German submariners had turned to the less dangerous waters of the Gulf of Mexico and the Caribbean Sea.

The shift of the German submarines offensive to the Gulf overwhelmed the resources of the Navy and the AAF, which were barely adequate to defend against submarines in the Eastern Sea Frontier. The Navy had created the Gulf Sea Frontier in February 1942 with minimal surface and air forces, and the AAF had contributed only fourteen observation aircraft and two worn-out B-18s. To counter increased submarine attacks, the AAF, between May 8 and 10, sent a squadron of light bombers (A-29s) to Jacksonville, Florida, and six medium bombers (B-25s) to Miami and on May 20 - 21 sent a detachment of B-25s to Havana, Cuba, to patrol the Yucatan Channel. On May 26, the First Air Force created the Gulf Task Force and stationed it at Miami. This organization, which continued to operate until November 1942, cooperated with the Commander, Gulf Sea Frontier, to provide operational control of all AAF aircraft that flew antisubmarine patrols in the area. At the end of July 1942 the Navy instituted a convoy system in the Gulf of Mexico, and German submarines faced the same dangers they had off the East Coast. On September 4, 1942, the United States lost the last ship sunk by enemy action in the Gulf of Mexico, as Admiral Doenitz withdrew all submarines from the Gulf.

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part, depending on the situation. However, the other Services have developed their air arms with different doctrinal and operating constructs in mind. They have other mission priorities, such as USW or

AW that may constrain their continual availability. Similar concerns also apply to the aviation arms of our allies. The JFACC must consider different philosophies when developing the joint air operations plan.

Joint Force Maritime Component Commander (JFMCC)

The JFMCC is responsible for advising the JFC on the proper employment of maritime forces, and in some situations, may plan and direct limited Air Force support operations in coordination with the COMAFFOR. For instance, a communications support unit operating in the maritime environment may fall under the purview of the JFMCC as might a mining operation where the mines are being released by US Air Force bombers.

NAVY COMPOSITE WARFARE COMMANDER (CWC)

Naval units are deployed tactically in task group organizations that can be tailored to the intended employment of the force. **In each task group the senior Navy officer will normally be designated as the officer in tactical command (OTC), who is responsible for all aspects of operations and for carrying out the missions assigned by the joint force commander.** The OTC typically organizes the force according to Composite Warfare Commander (CWC) doctrine. CWC doctrine represents the Navy's implementation of centralized planning and decentralized execution. This type of planning and execution allows subordinates flexibility and initiative in executing the commander's intent, telling them how their respective warfare areas contribute to overall mission success without specifically telling them how their tasks are to be accomplished. Current doctrine makes decentralized execution of battlespace dominance and power projection tasks possible through subordinate war-

The USS *Blue Ridge* being escorted by the USS *Fletcher*. The *Blue Ridge* is designed to accommodate planning staffs and their associated command and control in the maritime environment

fare commanders who are focused on air (Air Warfare Commander or AWC), surface (Surface Warfare Commander or SUWC), command and control (Command and Control Warfare Commander or C2WC), and undersea (Undersea Warfare Commander or USWC) environments. Standard procedures for the CWC concept are contained in Naval Warfare Publication (NWP) 3–56.

Coordination is required when operating Air Force forces in close proximity to US Navy forces. In some situations, Air Force forces may be placed under TACON of the Navy Composite Warfare Commander (CWC) (i.e. coordinated SUW operations with a Carrier Battle Group). The criteria for either joint force or Service component application are overall effectiveness and availability of appropriate forces for the task at hand. In most instances joint operations will dominate a campaign; however, in selected instances, this should not preclude the effectiveness,C2, and economy of force considerations of single Service operations.

MULTINATIONAL MARITIME OPERATIONS

Air Force forces may also participate in multinational operations. While most of the same basic joint principles apply, there are several considerations unique to multinational efforts.

Command Arrangements and Guidance

Nations may be grouped together as an alliance or a coalition. Alliances, like NATO, are built upon formal agreements. Alliance publications regulate activities such as maritime operations. For example, Allied Tactical Publication (ATP) 34, *Tactical Air Support for Maritime Operations,* provides guidance for NATO air operations in the maritime environment. Air Force forces operating under an alliance structure should be familiar with all maritime–related publications. Coalitions are ad hoc relationships. Because alliance–type standards are generally not available, US forces should seek the means to achieve unity of effort.

Coalition Command Structures

Coalition command structures are usually regulated by agreements and reflect the composition of the participating nations. The selection of the overall commander may be based on the preponderance of a nation's forces, a rotational basis, expertise, or other considerations. *There are three basic coalition command structures—parallel, lead nation, or a combination of the two.* Within a parallel command, the US retains control of

US forces. Though Air Force forces will be operating under standardized joint guidance, they will probably be participating in maritime operations with other nations using different operating procedures. Careful coordination of multinational maritime operations is necessary to preclude conflicting missions. A nation that supplies the preponderance of forces generally provides the overall commander of forces under a lead nation command structure. As such, US forces may fall under the command of another nation and will probably operate under the employment guidelines of that nation. In a combination structure, parallel and lead nation arrangements coexist. Regardless of the structure, it is imperative that US personnel understand the procedures of other nations conducting operations in the maritime environment.

Unity of Effort

Cultural differences, to include language, religion, and other social differences need to be understood and accepted while planning and executing multinational operations. Standardization bolsters unity in alliance structures. As a minimum, coalition forces should strive for compatibility and mutual understanding of each other's capabilities. Interoperable systems will enhance activities in the maritime environment. For instance, interoperability allows a United Kingdom AWACS to provide an "air picture" for a US carrier group.

TEAMWORK AND SEA CONTROL

Attacks by submarines, long-range search and attack planes [such as this World War II B-24], mines, and carrier and land-based planes were mutually supporting and complicated the Japanese defenses. Long-range air search found targets for the submarines; convoying which offered some protection against submarines increased the vulnerability to air attack; ships driven into congested harbors in fear of submarines were easy prey for carrier strikes; and mines helped to drive ships out of shallow water into waters where submarines could operate.

The United States Strategic Bombing Survey

CHAPTER FOUR

AIR FORCE COUNTERSEA PREPARATION

Members of each Service—from warfighter to planner—must be thoroughly trained to gain expertise in each other's doctrine and capabilities. Training, education and experience developed in frequent joint operations and exercises—where we explore and develop innovations and new doctrine—advance our understanding of ways to work with each other efficiently.

Naval Doctrine Publication 1, ***Naval Warfare***

GENERAL

To meet the challenges of the maritime environment, the Air Force should be prepared for all primary and collateral functions. As the leader in the effort to exploit aerospace power, the Air Force organizes, trains, and equips its forces to meet not only the challenges of today, but those of tomorrow.

ORGANIZING FORCES

The Air Force does not organize or group aerospace forces specifically to operate in the maritime environment. *However, most Air Force forces can fill a supporting role to carry out DOD–directed primary and collateral functions.* While commanders normally employ aerospace power jointly, these forces may also operate independently or in conjunction with multinational efforts. Regardless of the structure or commitment, the Air Force should be ready to make a rapid and effective transition from peacetime to war and to postwar operations.

TRAINING FORCES

The most important aspect of countersea preparation is training. *Training should be realistic, subject to constant review and evaluation, and reflect the range of military operations in the maritime environment. It should balance flexibility and cost, and also emphasize joint and multinational procedures.* Units must train regularly for their countersea mission to gain experience, develop procedures, and streamline integration with maritime forces. For instance, if a unit's Designed Operational Capability

Value of Training

…those air units which had anti-shipping attacks as their prime mission and employed the required specialized techniques, equipment, and training achieved against ships the best results for the effort expended.

The United States Strategic Bombing Survey

(DOC) statement includes a sea surveillance mission, then commanders should train crews to successfully fulfill that function. Unit programs, weapons schools, exercises, and simulations are sources for this training. Joint/ multinational exercises provide excellent opportunities to gain valuable experience and refine procedures for operating together in the maritime environment. Planners should design exercises to closely simulate military operations other than war (MOOTW) and wartime operations in the maritime environment. The Air Force should pursue continued or increased participation in Service, joint, and multinational maritime exercises.

Simulations, to include wargaming, also enhance training by recreating various aspects of maritime operations. Simulations add to realism by incorporating stress factors and varied scenarios. Due to the limited number of maritime exercises, the Air Force should use simulations and wargaming as training options for countersea missions.

Weapons schools should conduct training on the countersea mission. School curricula should include established tactics, techniques, and procedures, as well as insight into future developments.

INTERNATIONAL LAW ISSUES

To effectively conduct countersea operations commanders, planners, and aircrews must be aware of the legal issues that can impact on such operations. *National policy and legal requirements dictate that countersea operations be conducted in compliance with international law.* The law relating to countersea operations is particularly complex in that much of the law relating to these operations is customary international law developed through naval history. In addition, commanders, planners, and aircrews must have knowledge of the air navigation regimes that dictate where aircraft can lawfully overfly. Part of the preparation for countersea operations must be a review of the Law of Armed Conflict

(LOAC) and Law of the Sea requirements, which will effect these operations.

The United Nations Law of the Sea Convention of 1982 has codified customary international law on maritime navigation and overflight rights. Air Force members who are involved in countersea operations must be aware of the rights of aircraft over the various maritime zones. These zones include: the high seas, exclusive economic zones, contiguous zones, territorial seas, internal waters, archipelagic waters, international straits, and archipelagic sea lanes. These zones are important because they determine the amount of control that a coastal state may exercise over foreign aircraft and ships. All these zones are measured from national baselines, hence knowledge of where these baselines are located is essential if aircraft are to be able to assert and exercise their lawful rights in furtherance of countersea operations.

Some nations assert security zones beyond the limits of their territorial sea but international law does not recognize any such zone. Military aircraft generally have freedom of navigation rights outside of territorial seas. Any nation may declare a temporary warning zone including over areas of the high seas. These zones do not restrict the right of navigation but advise ships and aircraft of hazardous (but lawful) activities. These may include such things as: missile testing, gunnery practice and space vehicle recovery operations. In the exercise of their inherent right of self defense under the UN Charter, nations may declare various forms of maritime control areas. These may include: air or maritime exclusion zones, or other types of defensive sea areas in which a measure of control is exercised over foreign ships and aircraft. During times of conflict, Air Force units must be particularly aware of the rights of neutral nations. These rights protect a neutral's sovereignty, which include national ships and aircraft.

In the maritime environment, all general LOAC principles apply. However**, the law relating to naval warfare has some differences, which the Air Force must be aware of. When preparing for countersea operations commanders, planners, and aircrews should revise the applicable LOAC, seeking Judge Advocate (JA) advice as required.** The differences mainly relate to the laws of neutrality, targeting, and minelaying and the use of deception by ships.

SUMMARY

The future success of Air Force maritime operations is based upon today's efforts to effectively organize, train, and equip Air Force forces for the countersea mission. Through proper preparation and foresight, Air Force forces will be capable of meeting all challenges in the maritime environment.

Aerospace power, such as these F–16s operating in the littoral, has a decisive role in countersea operations.

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Glossary

Abbreviations and Acronyms

AAA	antiaircraft artillery
AAF	Army Air Forces
ACC	air component commander
AFDD	Air Force Doctrine Document
AI	air interdiction
ATP	Allied Tactical Publication
AOR	area of responsibility
ASETF	Aerospace Expeditionary Task Force
AW	air warfare [Navy]
AWC	air warfare commander [Navy]
C2	command and control
C2WC	command and control warfare commander [Navy]
CAP	combat air patrol
CAS	close air support
COG	center of gravity
COMAFFOR	Commander, Air Force Forces
CONUS	continental United States
CSAR	combat search and rescue
CWC	composite warfare commander [Navy]
DCA	defensive counterair
DOC	designed operational capability
DOD	Department of Defense
DODD	Department of Defense Directive
ELINT	electronics intelligence
IO	information operations
ISR	intelligence, surveillance, and reconnaissance
JA	Judge Advocate
JAOC	joint air operations center
JFACC	joint force air component commander
JFC	joint force commander
JFMCC	joint force maritime component commander
JP	joint publication
JTF	joint task force

LOAC	law of armed conflict
LNO	liaison officer
MCM	mine countermeasures
MIW	mine warfare
MOOTW	military operations other than war
NCA	National Command Authorities
NDC	Naval Doctrine Command
NDP	Naval Doctrine Publication
NWP	naval warfare publication
OCA	offensive counterair
OPCON	operational control
OTC	officer in tactical command [Navy]
SEAD	suppression of enemy air defenses
SLOC	sea lines of communication
SO	special operations
SUW	surface warfare [formerly antisurface air operation] [Navy]
SUWC	surface warfare commander [Navy]
TACON	tactical control
UAV	unmanned aerial vehicle
USW	undersea warfare [formerly antisubmarine warfare] [Navy]
USWC	undersea warfare commander [Navy]

Definitions

airlift. Operations to transport and deliver forces and materiel through the air in support of strategic, operational, or tactical objectives. (AFDD 1)

air refueling. The capability to refuel aircraft in flight, which extends presence, increases range, and allows air forces to bypass areas of potential trouble. (AFDD 1)

air warfare. A US Navy/US Marine Corps term used to indicate that action required to destroy or reduce to an acceptable level the enemy air

and missile threat. It includes such measures as the use of interceptors, bombers, antiaircraft guns, surface–to–air and air–to–air missiles, electronic attack, and destruction of the air or missile threat both before and after it is launched. Other measures which are taken to minimize the effects of hostile air action are cover, concealment, dispersion, deception (including electronic), and mobility. Also called **AW**. (NDC)

amphibious operation. An attack launched from the sea by naval and landing forces, embarked in ships or craft involving a landing on a hostile or potentially hostile shore. As an entity, the amphibious operation includes the following phases: a. planning—The period extending from issuance of the initiating directive to embarkation. b. embarkation—The period during which the forces, with their equipment and supplies, are embarked in the assigned shipping. c. rehearsal—The period during which the prospective operation is rehearsed for the purpose of: (1) testing adequacy of plans, the timing of detailed operations, and the combat readiness of participating forces; (2) ensuring that all echelons are familiar with plans; and (3) testing communications. d. movement—The period during which various components of the amphibious task force move from points of embarkation to the objective area. e. assault—The period between the arrival of the major assault forces of the amphibious task force in the objective area and the accomplishment of the amphibious task force mission. (JP 1–02)

battlespace. The commander's conceptual view of the area and factors which he must understand to successfully apply combat power, protect the force, and complete the mission. It encompasses all applicable aspects of air, sea, space, and land operations that the commander must consider in planning and executing military operations. The battlespace dimensions can change over time as the mission expands or contracts according to operational objectives and force composition. Battlespace provides the commander a mental forum for analyzing and selecting courses of action for employing military forces in relationship to time, tempo, and depth. (AFDD 1)

close air support. Air action by fixed– and rotary–wing aircraft against hostile targets which are in close proximity to friendly forces and which require detailed integration of each air mission with the fire and movement of those forces. Also called **CAS**. (JP 1–02)

close support. That action of the supporting force against targets or objectives which are sufficiently near the supported force as to require de-

tailed integration or coordination of the supporting action with the fire, movement, or other actions of the supported force. (JP 1–02)

coalition. An ad hoc arrangement between two or more nations for common action. (JP 1–02)

combatant command (command authority). Nontransferable command authority established by Title 10 ("Armed Forces"), United States Code, section 164, exercised only by commanders of unified or specified combatant commands unless otherwise directed by the President or the Secretary of Defense. Combatant command (command authority) cannot be delegated and is the authority of a combatant commander to perform those functions of command over assigned forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction over all aspects of military operations, joint training, and logistics necessary to accomplish the missions assigned to the command. Combatant command (command authority) should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and the Service and/or functional component commanders. Combatant command (command authority) provides full authority to organize and employ commands and forces as the combatant commander considers necessary to accomplish assigned missions. Operational control is inherent in combatant command (command authority). Also called **COCOM**. (JP 1–02)

command and control. The exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. Command and control functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission. Also called **C2**. (JP 1–02)

compatibility. Capability of two or more items or components of equipment or material to exist or function in the same system or environment without mutual interference. (JP 1–02)

counterair. A US Air Force term for air operations conducted to attain and maintain a desired degree of air superiority by the destruction or neutralization of enemy forces. Both air offensive and air defensive actions are involved. The former range throughout enemy territory and are

generally conducted at the initiative of the friendly forces. The latter are conducted near or over friendly territory and are generally reactive to the initiative of the enemy air forces. (JP 1–02) *[A function conducted to attain and maintain a desired degree of air superiority. Counterair integrates and exploits the mutually beneficial effects of offensive and defensive operations by fixed– and rotary–wing aircraft, surface–to–air and air–to–air missiles, anti-aircraft guns, artillery, and electronic warfare to destroy or neutralize enemy aircraft and missile forces both before and after launch.]* (AFDD–1)

{Italicized definition in brackets applies only to the Air Force and is offered for clarity.}

counterland. Operations conducted to attain and maintain a desired degree of superiority over surface operations by the destruction, disrupting, delaying, diverting, or other neutralization of enemy forces. The main objectives of counterland operations are to dominate the surface environment and prevent the opponent from doing the same. (AFDD 1)

countersea. Operations conducted to attain and maintain a desired degree of superiority over maritime operations by the destruction, disrupting, delaying, diverting, or other neutralization of enemy naval forces. The main objectives of countersea operations are to dominate the maritime environment and prevent the opponent from doing the same.

direct support. A mission requiring a force to support another specific force and authorizing it to answer directly the supported force's request for assistance. (JP 1–02)

functional component command. A command normally, but not necessarily, composed of forces of two or more Military Departments which may be established across the range of military operations to perform particular operational missions that may be of short duration or may extend over a period of time. (JP 1–02)

general support. That support which is given to the supported force as a whole and not to any particular subdivision thereof. (JP 1–02)

interoperability. The ability of systems, units or forces to provide services to and accept services from other systems, units, or forces and to use the services so exchanged to enable them to operate effectively together. (JP 1–02)

joint force air component commander. The joint force air component commander derives authority from the joint force commander who has the authority to exercise operational control, assign missions, direct coordination among subordinate commanders, redirect and organize forces to ensure unity of effort in the accomplishment of the 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. Also called **JFACC**. See also **joint force commander**. (JP 1–02)

joint force commander. A general term applied to a combatant commander, subunified commander, or joint task force commander authorized to exercise combatant command (command authority) or operational control over a joint force. Also called **JFC**. (JP 1–02)

joint force maritime component commander. The commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for making recommendations on the proper employment of maritime forces and assets, planning and coordinating maritime operations, or accomplishing such operational missions as may be assigned. The joint force maritime component commander is given the authority necessary to accomplish missions and tasks assigned by the establishing commander. The joint force maritime component commander will normally be the commander with the preponderance of maritime forces and the requisite command and control capabilities. Also called **JFMCC**. (JP 1–02)

maritime environment. The oceans, seas, bays, estuaries, islands, coastal areas, and the airspace above these, including amphibious objective areas. (JP 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. (JP 1–02)

military operations other than war. Operations that encompass the use of military capabilities across the range of military operations short of war. These military actions can be applied to complement any combination of the other instruments of national power and occur before, during, and after war. Also called **MOOTW**. (JP 1–02) *[An umbrella term encompassing a variety of military operations conducted by the Department of Defense that normally complement the other instruments of national power. These military operations are as diverse as providing humanitarian support and assistance (when consistent with US law) in a nonthreatening environment, and conducting combat not associated with war.]* {Italicized definition in brackets applies only to the Air force and is offered for clarity.}

mine warfare. The strategic, operational, and tactical use of mines and mine countermeasures. Mine warfare is divided into two basic subdivisions: the laying of mines to degrade the enemy's capabilities to wage land, air, and maritime warfare; and the countering of enemy–laid mines to permit friendly maneuver or use of selected land or sea areas. Also called **MIW**. (JP 1–02)

mutual support. That support which units render each other against an enemy, because of their assigned tasks, their position relative to each other and to the enemy, and their inherent capabilities. (JP 1–02)

operational control. Transferable command authority that may be exercised by commanders at any echelon at or below the level of combatant command. Operational control is inherent in combatant command (command authority). Operational control may be delegated 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 subordinate joint force commanders and the Service and/or functional component commanders. Operational control normally provides full authority to organize commands and forces and to employ those forces as the commander in operational con-

trol 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. Also called **OPCON**. (JP 1–02)

sea control operations. 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. (JP 1–02)

sea surveillance. The systematic observation of surface and subsurface sea areas by all available and practicable means primarily for the purpose of locating, identifying and determining the movements of ships, submarines, and other vehicles, friendly and enemy, proceeding on or under the surface of the world's seas and oceans. (JP 1–02)

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 the 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. (JP 1–02)

standardization. The process by which the Department of Defense achieves the closest practicable cooperation among the Services and Defense agencies for the most efficient use of research, development, and production resources, and agrees to adopt on the broadest possible basis the use of: a. common or compatible operational, administrative, and logistic procedures; b. common or compatible technical procedures and criteria; c. common, compatible, or interchangeable supplies, components, weapons, or equipment; and d. common or compatible tactical doctrine with corresponding organizational compatibility. (JP 1–02)

strategic attack. Military action carried out against an enemy's center(s) of gravity or other vital target sets including command elements, war production assets, and key supporting infrastructure in order to effect a level of destruction and disintegration of the enemy's military capacity to the point where the enemy no longer retains the ability or will to wage war or carry out aggressive activity. (AFDD 1)

supported commander. The commander having primary responsibility for all aspects of a task assigned by the Joint Strategic Capabilities Plan or other joint operation planning authority. In the context of joint operation planning, this term refers to the commander who prepares operation plans or operation orders in response to requirements of the Chairman of the Joint Chiefs of Staff. (JP 1–02)

supporting commander. A commander who provides augmentation forces or other support to a supported commander or who develops a supporting plan. Includes the designated combatant commands and Defense agencies as appropriate. (JP 1–02)

suppression of enemy air defenses. That activity which neutralizes, destroys, or temporarily degrades surface–based enemy air defenses by destructive and/or disruptive means. Also called **SEAD**. (JP 1–02)

surface warfare. Operations conducted in the air/sea environment against enemy surface forces. Also called **SUW**. (NDC) [This term and its definition were formerly known as antisurface air operation.]

tactical control. Command authority over assigned or attached forces or commands, or military capability or forces made available for tasking, that is limited to the detailed and, usually, local direction and control of movements or maneuvers necessary to accomplish missions or tasks assigned. Tactical control is inherent in operational control. Tactical control may be delegated to, and exercised at any level at or below the level of combatant command. Also called TACON. See also combatant command; combatant command (command authority); operational control. (JP 1–02)

undersea warfare. Operations conducted with the intention of denying the enemy the effective use of submarines. Also called **USW**. (NDC) [This term and its definition were formerly known as antisubmarine warfare.]

"AT THE VERY HEART OF WARFARE LIES DOCTRINE"
General Curtis Lemay