JOINT PUB 3-01.1

DEFENSE OF THE U.S. AGAINST AIR ATTACK

1 FEBRUARY 1982

JCS PUB 3-01.1
1 February 1982

THE JOINT CHIEFS OF STAFF
WASHINGTON, D.C. 20301

DOCTRINE FOR THE UNIFIED DEFENSE OF THE UNITED STATES AGAINST AIR ATTACK

This is an administrative update of and supersedes JCS Pub 9, 9 September 1964.

For the Joint Chiefs of Staff:

/Signed/
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Colonel, USA
Secretary, JCS

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CHAPTER I - INTRODUCTION

100. Purpose. This publication prescribes the doctrine for the unified defense of the United States against air attack.

101. Definitions. The following definitions have been extracted from JCS Pub 1, "Dictionary of Military and Associated Terms".

a. Atmospheric environment. The envelope of air surrounding the earth, including its interfaces and interactions with the earth’s solid or liquid surface.

b. Air defense. All defensive measures designed to destroy attacking enemy aircraft or missiles in the earth’s envelope of atmosphere, or to nullify or reduce the effectiveness of such attack (this includes the tactical warning/attack assessment function).

(1) Active air defense. Direct defensive action taken to destroy attacking enemy aircraft or missiles, or to nullify or reduce the effectiveness of such attack. It includes such measures as the use of aircraft, interceptor missiles, air defense artillery, nonair defense weapons in an air defense role and electronic countermeasures and counter-countermeasures.

(2) Passive air defense. All measures, other than active defense, taken to minimize the effects of hostile air action. These include the use of cover, concealment, camouflage, deception, dispersion, and protective construction.

102. Scope. This doctrine:

a. Provides basic guidance for employing military forces to reduce the effectiveness of attack by hostile air vehicles operating in the atmospheric environment. Reduction of attack effectiveness involves detection and warning to deny an enemy the advantage of surprise, assessment of the attacking force objectives and targets, and destruction of the attacking force to the maximum extent possible.

b. Applies to elements of the Air Force, Army, Navy, and Marine Corps engaged in planning for and conducting the air defense of the United States as prescribed in JCS Pub 2, "Unified Action Armed Forces (UNAAF)", 1 October 1974.

c. Provides guidance for defense elements of other nations committed through mutual defense agreements in planning and conducting air defense operations in support of or closely related to air defense of the United States. The characteristics of airpower and the geopolitical implications of the evolving atmospheric threat dictate that air defense of the United States be viewed from a perspective of defense of the North American Continent.

103. Authority. This document was prepared in accordance with subparagraphs 20405e, f, and g of JCS Pub 2.

CHAPTER II - ROLE OF AIR DEFENSE

200. Strategic Defense.

a. US military policy must support the following:

(l) Deterrence of aggression, and, if deterrence fails,

(2) Control of escalation of hostilities and termination of war as early as possible on terms favorable to the United States.

b. The strategic defense of US strategic retaliatory forces and vital C3I elements is essential in maintaining a credible offensive force retaliatory capability.

201. Air Defense.

a. Air defence of North America and the capabilities necessary to support it (strategic and tactical warning, C3I, and active/passive defense systems) are linked to the overall strategic policies of deterrence, strategic defense, and civil defense.

b. Air defense is vital to the protection of the United States. Not only does air defense maintain the continuum of deterrence, but, in the event deterrence fails, it reduces damage by diluting the effects of the hostile attack force.

c. Timely and reliable strategic and tactical warnings of an air attack are essential elements in the protection and effective employment of.strategic offensive and defensive US forces.

202. Credibility of US Deterrent Posture to National Policy Stability.

Potential enemies can be deterred from acts of aggression against the United States and its allies only if they believe that US and allied military power and national resolve are such as to inflict sufficient damage to outweigh potential gains. Survivable air defense systems capable of providing detection and warning, attack assessment, and active protection of national resources and assets help enhance the perception that such power and resolve exist across the spectrum of conflict by:

a. Demonstrating to the enemy that it cannot successfully posture or employ an air attack that would seriously impact on the US means of retaliation--or reduce elements of that retaliatory capability to a level that would preclude vital damage to or destruction of the enemy’s national strength and will.

b. Lending credence to the US resolve to intervene on behalf of its allies despite the risk of possible escalation of a conflict.

203. US Ability to Prevail in War. If deterrence fails, air defense forces can contribute significantly to the US ability to prevail in war by:

a. Enhancing US military force survival because of reaction to the enemy through warning and attack assessment and allowing active protection of the installations and forces required for retaliation.

b. Destroying the effectiveness of enemy offensive atmospheric forces.

c. Insuring survival of the United States by limiting the damage inflicted on the basic elements of national strength.

CHAPTER III - FUNCTIONS OF AIR DEFENSE

300. Air Defense Functions.

a. The air defense system of the United States must perform the following functions:

(l) Early detection of potential threats or attacks.

(2) Timely assessment of detected potential threats or attacks.

(3) Timely notification of potential or actual attack to NCA and appropriate United States and Allied military commanders.

(4) Interception of enemy forces.

(5) Disruption or destruction of hostile weapon systems.

b. Air defense forces must be equipped, trained, and employed to carry out these functions by detecting and engaging the enemy as early as possible and as far from the assessed target area as operationally feasible; by subjecting the enemy forces to pressures of increasing intensity and diversity as they approach the assessed target area; and by keeping them under-r attack/observation as long as they constitute a threat.

301. Early Detection.

a. Strategic warning of an imminent air attack supports deterrence by depriving the enemy of the element of surprise and permitting these timely actions:

(l) Political activity by the NCA to persuade an aggressor that the cost of an attack outweighs the perceived benefit.

(2) Reposturing of US and allied military forces to improve force survivability and combat effectiveness.

(3) Focusing warning and related sensor systems for earliest possible tactical warning that an attack has been initiated.

b. Tactical warning and assessment of an actual air attack are essential so that timely actions can be taken to:

(l) Alert and protect national leadership and military authorities.

(2) Alert, protect, and selectively employ appropriate US and allied military forces.

(3) Alert civil defense authorities.

c. Accordingly, air defense forces must maintain continuous surveillance to permit the earliest possible detection, warning, and assessment of unknown airborne objects that could pose a threat to the United States. Air defense forces must be alert for enemy deceptive and evasive actions against US warning sensors, thus denying the enemy the advantage of surprise.

302. Assessment. Timely assessment is the process by which distinction is made between hostile and friendly forces and provides the basis for strategic defense decisions.

a. The initial steps in assessment are discerning any hostile deception attempted against the air defense system and identifying hostile airborne objects to enhance air defense mission effectiveness and maintain the identity of friendly airborne forces. Object identification is currently carried out using one or more of the following techniques:

(1) Direct inspection.

(2) Electronic interrogation/discrimination.

(3) Management of friendly forces.

(4) Correlation with intelligence and information from other sources.

b. Airborne objects that are identified as constituting a threat are declared hostile by a conscious, authoritative decision in accordance with established rules of engagement.

303. Notification. Timely notification of potential or actual airborne attack is essential to the NCA and force commanders. Timely, unambiguous warning and assessment of airborne attack are essential to the survivability and employment

of strategic forces and the protection of critical command and control nodes. Transmission of tactical warning and assessment information to force commanders and the NCA must be carried out with maximum speed and accuracy.

304. Interception. Early intercept of hostile forces precludes forfeiture of time and distance.

a. To exploit the dimensions of time and distance, initial engagement of enroute enemy aircraft must be carried out as far away as possible from potential target areas. This aspect of air defense becomes more critical with the advent of new technologies and capabilities that permit release of powered airborne weapons, such as cruise missiles, at distances remote from target areas.

b. Engagement should ideally continue with increasing intensity along the route of attack to achieve the maximum probability of destroying the enemy force.

c. Air defense forces employ a family of weapons to provide this in-depth defense. Each type of weapon is deployed and committed in a manner that makes best use of its inherent capabilities. Air defense weapons are committed to engage the enemy force as far from the target as operationally feasible. Surveillance and control systems, particularly those on airborne platforms, are forward deployed to fully exploit the capabilities of all air defense weapons.

305. Neutralization. Hostile weapons neutralization is a primary objective of air defense.

a. Successful air defense is achieved when attacking forces are destroyed, diverted, or neutralized before they can achieve their objectives.

b. The lethality of thermonuclear weapons dictates measures to prevent their detonation over North America. Since the probability exists that the full yield from such weapons may be achieved after carrier kill, the warheads must be either destroyed or neutralized. With the probable advent of new weapon carriers and

longer range, advanced technology air-to-surface weapons, the air defense problem becomes more complex. Therefore, it is imperative that air defense forces have the weapons to achieve destruction or neutralization of multiple hostile weapons and their carriers as far from North America or potential target areas as possible.

CHAPTER IV - CHARACTERISTICS OF AIR DEFENSE FORCES

400. General Characteristics. The Services achieve air defense of North America by equipping, training, deploying, and sustaining forces to provide strategic and tactical warning, attack assessment, and defense against enemy attack. Air defense forces must reflect the following general characteristics (presented without regard to priority):

a. Readiness to effectively respond with minimum warning.

b. Reliability to perform and sustain without system failure.

c. Flexibility to meet varied and changing threat situations.

d. Survivability to continue functioning during and after enemy attack.

e. Kill Effectiveness to destroy or neutralize hostile airborne objects.

f. Tactical Autonomy to permit independent operations when required.

q. Control to insure validation of the threat and effective employment of forces under the rules of engagement.

401. Readiness.

a. Readiness is the ability of air defense forces to detect and effectively react to a wide range of threat and attack situations despite enemy efforts to achieve surprise. To this end, warning systems must be capable of performing continuous air defense surveillance and of recognizing deception activities.

b. C3I systems must be capable of processing, exchanging, displaying, and forwarding air defense situation data to regional ground and airborne control centers continuously. This information must be evaluated and synthesized so that it can be presented meaningfully to the appropriate CINCs and the NCA through the National Military Command System. The C3I systems must he maintained at and supported in a high state of readiness.

c. Weapon systems must be maintained to meet operational needs with minimal advance warning.

d. Implicit in force readiness are all aspects of support for the warning, command and control, and weapon systems. Support systems must be maintained at a high degree of readiness.

e. Readiness of trained air defense forces and supporting systems must be continuously evaluated by status reporting, simulation, and live exercise of the system and subsystems.

402. Reliability.

a. Air defense forces must be able to sustain their operational capability without significant interruption caused by system failures, i.e. they must be reliable.

b. The close interdependence of sensors, weapons, and C3I makes it essential that each element function properly in order for the defensive activities to be valid and effective.

c. Design engineering, equipment maintenance, logistics support, and personnel training directly influence the operational reliability of air defense systems and must be considered when assessing sustainability.

403. Flexibility.

a. Flexibility is the ability of air defense forces to counter a variety of threat situations under all environmental and conflict conditions.

b. Flexibility permits decision authorities to move quickly over a wide range of options and adapt to changes in enemy readiness, capabilities, objectives, tactics, and penetration techniques. It also permits concentration of forces at crucial locations and rapid restoration of capability in degraded areas.

c. Flexibility of air defense forces is achieved by fully planning for and exploiting the qualities of speed, range, mobility, endurance, automation, and diversification.

d. Force level and structure are factors impacting on flexibility. Where feasible, a mix of weapons is employed to offset the limitations of a single system.

404. Survivability.

a. Survivability refers to sustained air defense operations to counter enemy attack and provide a residual capability for continued defensive operations across the conflict spectrum.

b. Facilities may be subjected to chemical, biological and radiological contamination as well as physical damage. Additionally, sensors and C3I systems may be temporarily or permanently neutralized by electronic countermeasures or the effects of high-altitude nuclear bursts. It is imperative that defense forces be structured to maintain operations under degraded conditions.

c. Air defense forces employ passive measures in conjunction with active defense to enhance their survival and insure continuity of essential functions. Such measures include dispersal, hardening, mobility, redundancy, and fallout protection, as well as camouflage, concealment, and deception.

d. Strategic retaliatory forces must be afforded adequate air defense for survivability across the conflict spectrum. The survival of a credible offensive force, with retaliatory capability, supports the fundamental objective of deterring aggression by requiring a potential aggressor to reevaluate the consequences of any contemplated strategic first strike attack, trans-attack or post-attack scenario .

405 Kill Effectiveness

a. Kill effectiveness is a measure of an air defense system’s capability to destroy or neutralize enemy offensive forces with a minimum of defensive force expenditure before enemy forces can accomplish their objectives.

b. Kill effectiveness is achieved by selecting, maintaining, deploying, and employing air defense systems and forces required to counter estimated enemy capabilities.

c. The effects of nuclear weapons require a high kill potential against hostile offensive weapons instead of only against their carriers. Therefore, air defense systems must be designed, maintained, deployed, and employed for maximum weapons kill effectiveness.

406. Tactical Autonomy.

a. Tactical autonomy is the capability of individual elements of the air defense system to continue operations despite the absence of other elements. Autonomous operations occur when appropriate authority directs or when an air defense force or unit, through loss of communications, can no longer receive weapons assignment and control instructions. In such an environment, the capability to operate autonomously may be the major contributor to the air defense mission.

b. Air defense force planning and execution is geared toward autonomous operation in a major contingency. Planning and conducting air defense exercises both with and without ground and airborne command and control centers enhances this capability.

CHAPTER V - ORGANIZATION OF AIR DEFENSE FORCES

500. Operational Control.

a. Air defense forces are composed of many diverse elements performing a variety of tasks to accomplish a common mission through a single, integrated system. To permit the air defense system to function as a cohesive force, operational command of those forces must be centralized at the highest military echelon that can effectively assess the situation and direct the employment of forces and resources.

b. Authority for execution of air defense functions must be decentralized on a geographic regional basis in accordance with the policies and employment procedures established by the centralized control authority. Accordingly, operational control of forces may be exercised by combined, specified, or uni-Service command structures. The exercise of command and control at all levels is in accordance with the provisions of JCS Pub 2.

501. Air Defense Organization.

a. Air defense forces must be responsive to operational requirements and in consonance with national policy. Changes in system capabilities and employment concepts must be accommodated in the organizational structure to insure the most effective use of available forces.

b. The military forces committed to air defense are composed of dedicated and designated forces and resources under various major Service commands. Air defense, air traffic control, and intelligence operations, managed by different agencies of the Government, must be appropriately integrated. Accordingly, each element of the air defense system must be organized in a manner that enhances close coordination with the operational activities of those agencies. Such planning is especially critical when autonomous operations may be necessary.

502. Evaluation.

Air defense forces must be continuously evaluated to insure their effectiveness against the atmospheric threat. This process produces quantifiable requirements for changes in the air defense system to counter changing threats. Programmatic actions to effect changes in force structure and system capability require close Service and Defense agency coordination.