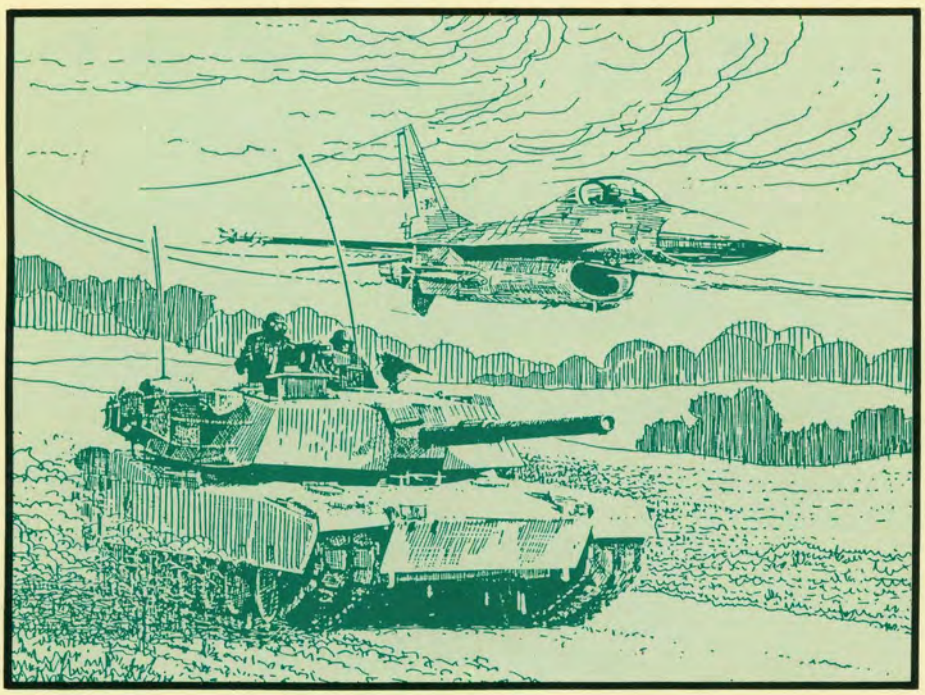
The 31 Initiatives

Richard G. Davis



Office of Air Force History

AIR STAFF HISTORICAL STUDY

THE 31 INITIATIVES:
A STUDY IN AIR FORCE - ARMY COOPERATION

Richard G. Davis

OFFICE OF AIR FORCE HISTORY
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Foreword

For the past eighty years the US military establishment has worked to integrate air power into its doctrine, strategy, force structure, and tactics in order to maximize the nation's security. This study by Dr. Richard Davis highlights one aspect of this process, that of providing the most potent mix of army and air forces to prosecute ground warfare. It also illustrates the impediments to joint action created by the services' separate organizations and distinctive doctrine. In addition, this monograph suggests that changes to improve interservice cooperation are often either forced by combat or imposed from the top down by the highest levels of the service or defense hierarchies. In World War II, Korea, and Vietnam the services developed weapons and systems that brought air power to bear on the battlefield in a relatively quick and overwhelmingly powerful manner. Without the impetus of war, however, the services seem often to fall back on their broader agenda of preparation for future war. In the case of the 1980s, intervention by the Chiefs of the Air Force and Army Staffs forced increased cooperation for battlefield synchronization and integration.

In this instance the two Chiefs recognized the need and acted. Generals Gabriel and Wickham, aided by their deputies for plans and operations, Lieutenant Generals John T. Chain, Jr., and Fred K. Mahaffey, set up a small ad hoc group, bypassing their own services' formal staff structure, to fabricate a new method of mutual force development, including cross-service budgeting and programming procedures. The Chiefs adopted the group's recommendations as the foundation of a continuing joint force development process. Their purpose was to make this innovation permanent by carrying it to the lowest

possible levels of the Air Staff and Army General Staff structures and by introducing it into the professional military education system. The result would be more affordable and more effective army and air forces.

In short, this fine work documents both the development of closer service ties and the success of the efforts of the Chiefs toward that goal.

RICHARD H. KOHN
Chief, Office of Air Force History

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Introduction

"It takes a long time to move a bureaucracy."[1]

General John A. Wickham, Jr., October 1985

This monograph analyzes US military air power - US Army relations from 1907 to the present. It emphasizes one aspect of those relations—how air forces intended for the tactical support of ground forces can best be controlled and integrated into the overall ground battle. After a review of changing air-ground relationships from 1907 to 1982, this work examines the 31 Initiatives, the most recent US Army - US Air Force agreement on developing joint combat forces and battlefield cooperation. It also discusses the process behind the formulation of the 31 Initiatives and discusses how that process provides one example of the introduction of innovation or change into a military organization. In addition, this work details the immediate and longer term response of the two services to the Initiatives.

The importance of this monograph is twofold. It supplies a case study of innovation and, more significantly, it places the 31 Initiatives in their place as the far-reaching and comprehensive end product of a decade of Air Force - Army cooperation. Because of the 31 Initiatives' positive impact on joint Air Force - Army battlefield capability and their visibility as an example of biservice harmony this study should be of value to professional military educators, staff officers wishing to learn more about specific initiatives and their context, and finally, to future Air Force leaders concerned about change within the service and about the background of biservice relationships.

On May 22, 1984, the Chiefs of Staff of the United States Air Force and Army signed a Memorandum of Agreement (MOA) to further Air Force - Army cooperation on the battlefield. Culminating a decade of increasing interest in coordinating battlefield actions, the agreement inaugurated a period of joint consideration of, and cooperation on, war fighting issues affecting both services. The expense of new weapons provided additional incentive

for the services to avoid duplication, as did congressional and OSD pressure for improved efficiency. The MOA detailed thirty-one areas of potential joint action or conflict by providing recommendations (initiatives) to solve them. The 31 Initiatives fell into three categories: initiatives that eliminated duplication of effort or combined complementary programs; initiatives that defined roles and missions; and initiatives that called for joint action and cooperation on specific aspects of combat, doctrine, and funding.

The role of air power in battle has been a contentious issue between airmen and soldiers since military aviation began. Prior to the establishment of the Air Force as a separate service in 1947, General Carl A. Spaatz, Commanding General, Army Air Forces, promised General Dwight D. Eisenhower, Army Chief of Staff, to continue Air Force support of the Army by establishing and maintaining a Tactical Air Command (TAC).[2] However, the two services continued to disagree over the effectiveness of Air Force forces committed to the land battle. Thus, the Army, beginning in 1947, developed helicopters to provide airlift and in the 1950s and 1960s developed air-to-ground combat capabilities it felt the Air Force was unwilling to supply. The Air Force regarded these moves suspiciously, but in a series of agreements in the 1950s and 1960s it conceded the Army's right to develop and deploy rotary-winged systems. The Vietnam War brought closer cooperation between the services in operations, although it also whetted the Army's appetite for more helicopters.

In 1973 the commanders of TAC and the Army Training and Doctrine Command (TRADOC) began staff conversations on battlefield tactical air power. The impetus behind these conversations were the generals' anticipation of restricted funding and their Vietnam War experiences. In addition, the lessons drawn from the Arab-Israeli War of 1973 drove each service to review its role in high-intensity combat. Subsequently, the TAC-TRADOC staffs concentrated on the practical aspects of support procedures and cooperation. In 1975 the commanding generals set up a joint Air-Land Forces Applications Agency (ALFA) to oversee all TAC-TRADOC working groups and other activities. From 1975 to the present

ALFA served as a forum for developing joint TAC-TRADOC procedures and doctrine.

The 31 Initiatives were formulated by the Joint Force Development Group (JFDG), an ad hoc body composed of six majors and/or lieutenant colonels from each service, all of whom were selected for joint backgrounds and orientation toward tactical warfare. The group met in the Pentagon from November 1983 through May 1984. Its charter, the Wickham-Gabriel Memorandum of Understanding of November 8, 1983, set the terms of reference. These terms charged the group with planning for a joint air-land combat force that would be both effective and affordable. The group was instructed to concentrate on the conventional aspects of high-intensity warfare against a sophisticated enemy. Although admonished to consider "sunk costs" (resources already expended on specific programs), they were not to be constrained by traditional service missions. After five months the group produced 32 initiatives and briefed them to the service Chiefs, who accepted all but one. (The Chiefs rejected an initiative to combine battlefield intelligence because of its complexity.) During this time the group purposely maintained a low profile, discussing their internal deliberations only among themselves and with those responsible for supervising the effort. The principals were the Air Force and Army deputy chiefs of staff for operations and plans, respectively, Lieutenant Generals John T. Chain, Jr., and Fred K. Mahaffey. Generals Chain and Mahaffey provided the group unusually close supervision. Each initiative was assigned to an appropriate service proponent for implementation. Three weeks after the release of the 31 Initiatives the two Chiefs of Staff institutionalized this biservice innovation and cooperation process by establishing the Joint Assessment and Initiatives Office (JAIO) in the Pentagon. This office would assist in implementing the initiatives, monitor their progress, and serve as a focal point for future joint efforts.

In the first fourteen months after the promulgation of the 31 Initiatives the service Chiefs directed the Joint Assessment and Initiatives Office to add three initiatives: joint review of future Close Air Support systems, rapid targeting capability, and agreement to have United States Readiness Command evaluate and test new joint concepts.

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During the same period the two services went forward on other initiatives. Of the original 31 Initiatives, 2 required no further action, another 14 had been implemented, and 14 were working toward resolution. By the time of General Gabriel's retirement in mid-1986, the joint force development process seemed well entrenched. Also, it had gained the full-time participation of two regular naval officers, suggesting that the process might embrace all the services. However, the relatively easy issues had been resolved, leaving behind a core of more sensitive items. Future progress would depend on the continued attention of the present service Chiefs and their successors.

Chapter I

The Background of Air Force - Army Force Development

The relationship between US military aviation and US ground combat forces falls into three distinct periods. The first period, from 1907 to 1947, was characterized by the transformation of the US Army's air force from a small section within the Signal Corps, intended strictly for the support of Army's traditional combat arms, to a separate armed service—the US Air Force. During this period, airmen struggled to gain autonomy in order to control their own promotion list, budget, and forces. This, in part, meant the development of an independent strike force and an air force capable of launching sustained deep penetration attacks on vital economic, military, political, and industrial targets within an enemy's homeland. Because of limited funding, an emerging doctrine emphasizing strategic bombardment, and the resentment of many members of the Air Corps leadership toward a combat role that tied them to a ground commander's decisions, the airmen tended to place less emphasis on army cooperation. The Army's ground combat forces resisted these moves in order to maximize the air power available for supporting the troops on the battlefield.

The second period of Army - Air Force relations, from 1947 through 1973, was characterized by the development of aviation within the Army in competition with the air support role assigned to the Air Force. The Army desired direct control over a force of aircraft sufficient to move troops rapidly to crucial points in the battle area. Army requirements for increased air mobility surfaced a concomitant need for airborne fire support for its transports, which was coupled with the Army's traditional desire for control of combat aircraft available for immediate or on-call support. The new US Air Force, which had itself received responsibility for supplying the Army's air transport and airborne fire support needs, resisted the Army's attempt to acquire and arm large numbers of aircraft.

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The third period of air power-ground relations, that of cooperation rather than overt rivalry, began with the end of the Vietnam War. The war had led to increased coordination at the operational level. Its aftermath of decreased funding and renewed interest in planning for potential conflict in central Europe led to more interest on the part of both services in avoiding duplication of effort and in joint operations in a large scale or high-intensity war situation. The Army's preeminent role in ground combat meant that the Air Force, in order to integrate its efforts into the overall scheme of the ground battle, would have to march to the beat of the Army's conceptions of how to fight the next battle. The Army foresaw a combined air and land battle and hence coined the term "AirLand Battle" to describe it. The Air Force Tactical Air Command (TAC) and the Army Training and Doctrine Command (TRADOC), as the major commands of each service most closely concerned with training and doctrine for land combat, exemplified this new Air Force - Army cooperation with their initiation of the TAC-TRADOC Dialogue, in 1973, and the creation of the Joint Air-Land Forces Applications Agency, in 1975. The 31 Initiatives were the culmination of the post-Vietnam War era of Army - Air Force cooperation.

1907-1947

From the creation of an Aeronautical Division in the US Army Signal Corps on August 1, 1907, until the air arm's separation from the Army on September 18, 1947, American military aviation was supposedly a force developed in close cooperation with Army ground forces. In World War I the Air Service of the American Expeditionary Force provided direct support to ground forces by means of observation, reconnaissance, short-range interdiction, and close air support. By the end of the war aircraft with increasing range and carrying capacity enabled air power to conduct limited bombardment operations far beyond the battlefield control of the ground forces. The drive of military aviators to use air power to the ever-expanding limits of its abilities soon ran headlong

into the desires of the ground commanders to retain maximum air support for ground combat.

Early Army aviation manuals, such as War Department Training Regulation (TR) 440-15, "Fundamental Principles for the Employment of the Air Service," of June 1, 1926, limited air power to Army cooperation. A 1935 revision of TR 440-15 established a General Headquarters (GHQ) Air Force, bringing all military combat aviation under the command of a single airman. The manual also allowed the GHQ Air Force to launch deep penetration bombardment against the enemy homeland, when not occupied with its first priority—army cooperation. The onset of the war in Europe in 1939, the realization that the US must prepare for potential war with the Axis powers, and the quick initial victories of the Germans, led to a redefinition of the role of military air. War Department Field Manual 31-35, "The Employment of Air Power," of April 9, 1942, subordinated air to the theater commander, and under special circumstances, allowed him to attach air units directly to ground units. This fit the airmen's conception of centralized control and decentralized execution. It also gave air commanders more control over the execution of their strategic and tactical missions.

Army Chief of Staff George C. Marshall's prewar reorganization of June 20, 1941, established the Army Air Forces (AAF) as an autonomous air arm within the Army. This did not satisfy the desire of all American military air leaders for a completely independent air service. Nor did it lessen the intention of the AAF leadership to emphasize the role of heavy bombers and strategic bombardment in future operations. In July 1941 the Air Staff's Air War Plans Division produced a comprehensive blueprint of how it intended to fight the coming war. This plan, AWPD-1, called for the establishment of large heavy bomber forces in England and the Middle East to bomb the European Axis and for a strategic defensive in the Pacific against Japan. Although overtaken by events this plan indicated the AAF's intentions. Throughout World War II the AAF remained faithful to the spirit of AWPD-1. It spent much time and energy organizing, equipping, and operating strategic air forces. For example, in the European Theater of Operations (the locale of both the AAF's and the ground Army's main effort) monthly totals of heavy

bombers and their escort fighters (P-51s) allocated and on hand in the Eighth [Strategic] Air Force outnumbered the combat aircraft available to the Ninth [Tactical] Air Force for the entire period from the invasion of Normandy to the surrender of Germany.[1]

Because of inadequate training, ignorance of official doctrine, and failure to devote time and attention to establishing a mutual spirit of cooperation by both the Army's air and the Army's ground elements, air support of the ground forces proved a problem for much of the war. Thus, during the Tunisian Campaign, November 1942 to May 1943, the AAF provided unsatisfactory close air support to the Army ground forces.[2] By the campaign's end, however, Allied air power gained air superiority, effectively interdicted the enemy's supply, and reworked its system of close air support. This was achieved through better organization, improved logistics, and numerous reinforcements. The ground forces' only remaining complaints were the paucity of on-call or immediate-response close air support strikes, lack of aerial photographic reconnaissance, and absence of all-night, all-weather support. The AAF incorporated the "lessons" learned in North Africa into War Department Field Manual 100-20 of July 21, 1943. Manual 100-20 represented a unilateral declaration of independence that proclaimed the equality of air and ground forces. It relegated close air support to the third priority of tactical air force tasks and insisted on the principle of the command of air power by an air officer. The Army Ground Forces objected, refused to "sign off," and only grudgingly accepted it.

By most measures the AAF supplied effective close air support to the ground forces for the rest of the war—mainly due to the overwhelming American materiel advantage in airframes over the Axis powers. This allowed the Americans to establish air superiority in the combat theater and then to devote enormous resources to tactical air. Nevertheless, the Army Ground Forces' disenchantment with Field Manual 100-20 foreshadowed future Air Force and Army disputes, in that it revealed the Army's misgivings about the AAF's intentions to furnish support for ground operations.

Immediately after World War II, the US War and Navy Departments began a series of complex negotiations which

led to the creation of the Department of the Air Force and placed all three services under a single Secretary of Defense. During the postwar period the Commanding General of the Army Air Forces, General Carl A. Spaatz, personally promised the Army Chief of Staff, General Dwight D. Eisenhower, that the AAF and its successors would maintain a Tactical Air Command (TAC) to supply the Army's air power needs. The AAF established TAC in March 1946.

1947-1973

The National Security Act of 1947, Executive Order 9877 of July 26, 1947, and the Key West and Newport Agreements of 1948 defined service roles and missions. The Air Force was assigned responsibilities for conducting prompt and sustained combat operations in the air, to include air superiority, air defense, and strategic warfare, and for providing air transport for all the armed services. These agreements required the Air Force to furnish close combat and logistical support to the Army. Close combat and logistical support included airlift, support and supply of airborne operations, aerial photography, tactical reconnaissance, close air support, and the interdiction of enemy land power and communications. The Army, however, retained its own aviation units (light aircraft intended for artillery spotting and liaison work). This continued a practice conceded by the AAF to the Army Ground Forces in August 1945.

Within little more than a year, the Army Field Forces (the successor to the Army Ground Forces) informed the Tactical Air Command that the cooperative air-ground establishment envisioned in the postwar revision of FM 31-35, "Air-Ground Operations," of 1946, was no longer satisfactory.[3] Much of the Army's dissatisfaction stemmed from an Air Force deemphasis of the Tactical Air Command. In December 1948, because of funding constraints, the Air Force had eliminated the independent status of TAC and subordinated it, along with the Air Defense Command, under the Continental Air Command. The Army also wished to expand its own aviation. On

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May 20, 1949, the two services signed a readjustment agreement limiting Army aviation to fixed-wing aircraft, not exceeding 2,500 pounds in weight, and to rotary-wing (helicopter) aircraft, not to exceed 4,000 pounds. These organic aircraft would expedite and improve ground combat procedures in the forward areas of the battlefield; they would not attack enemy forces. The Air Force supplied liaison squadrons and would continue to provide air support.[4]

* * *

The Korean War tested these arrangements and neither service found them satisfactory. The Air Force disliked the lack of "jointness" in the UN Command Headquarters structure. In particular, the Air Force objected to the selection of its individual targets by a UN Command Staff, that, in its opinion, did not include adequate Air Force representation. The Air Force also protested the Army's failure to live up to prewar arrangements providing for an air-ground operations system. For the first six months of the war the Army lacked sufficient signal companies, air liaison officers, air intelligence and operations officers, and photographic interpreters—all of which the Army had agreed to establish for itself. Nor, in the air commander's opinion, did the ground force commanders familiarize themselves with the agreed upon air-ground operations doctrine and responsibilities in respect to those operations.[5] For its part, the Army objected to what it considered a needlessly complex, multicommand, layered air-ground coordination scheme and to the Air Force's inability to supply quickly all its close air support requirements.

Five months after the beginning of the war, Army Chief of Staff General J. Lawton Collins informed his Air Force counterpart, General Hoyt C. Vandenberg, of the Army's dissatisfaction with the coequal status of air and ground forces in the area of close air support (CAS). Collins recommended that each field army commander, and at times even corps commanders, should have direct operational control of the air support elements assisting

them. In addition, Collins requested Army participation in determining requirements for future close air support aircraft. He also asked the Air Force to provide each overseas Army division with a fighter-bomber group.[6] These proposals attacked two tenets held sacrosanct by airmen: the indivisibility of air power over the battlefield and the command of all air assets by an air commander not under the control of the Army. In February 1951, at a meeting to discuss specifications for a light-weight CAS aircraft, Army representatives favored a simple airframe dedicated solely to CAS. They rejected the heavy, multi-purpose jet fighter aircraft usually assigned to the task by the Air Force. This plane, because of its versatility, could and would be called upon to meet other tasks, thus leaving the ground troops unsupported.

The Air Force found the Army recommendations unacceptable, in part because of the tremendous cost involved in fielding the forces required by the Army. Moreover, the Air Force insisted that a modern, multi-purpose fighter aircraft was the safest, most accurate, and the least expensive vehicle for CAS in the long run. Against an opponent like the Soviet Union, with its large numbers of up-to-date aircraft, the Air Force would first have to win the fight for air superiority before moving on to support tasks. In short, the Air Force believed that the Army doctrine predicated on constant friendly air superiority over the battlefield could fail disastrously against a first-class enemy.

General Collins modified his proposals. Collins's new position allowed the senior air commander to centralize control of tactical air when in a conflict with a major power, but he asked the senior air commander to allocate specific air groups to the operational control of field armies or independent corps if the situation permitted. A few days later, General Collins, Army Secretary Frank Pace, and Air Force Secretary Thomas K. Finletter agreed to defer the consideration of a separate CAS force flying specially designed aircraft. However, the two services could not agree on the size of Army organic aviation.

The stresses of the Korean War led the Army to seek an increase of its organic aviation capabilities to supplement its supply airlift, medical evacuation capability, and light liaison type planes. To do this, the Army wished

to purchase larger and heavier fixed-wing and rotary-wing airframes. The Air Force, which planned to increase its own supply airlift and air assault capacity, objected to this seeming infringement upon its mission. Secretaries Finletter and Pace attempted to resolve this friction in an agreement of October 2, 1951. This first Pace-Finletter Agreement did not limit Army planes by weight and permitted the Army to field the organic aircraft necessary to expedite and improve its ground combat and logistical procedures in the combat zone. It defined the combat zone as an area normally fifty to seventy miles deep behind the frontline. The agreement forbade Army aviation to duplicate Air Force combat functions. This included a prohibition against CAS, assault transport and other troop carrier airlift, aerial photography, tactical reconnaissance, and the interdiction of enemy land power and communications.

However, this agreement did not suffice. A year later, on November 4, 1952, at the behest of Secretary of Defense Robert A. Lovett, the two departments signed another Memorandum of Agreement. The second Pace-Finletter Agreement reimposed a weight limit on Army fixed-wing aircraft of 5,000 pounds, subject to periodic review by the Secretary of Defense. This agreement also extended the combat zone of Army aviation operations to 100 miles behind the lines and gave Army air two new functions: artillery and topographic survey and limited medical evacuation including battlefield pick-up of casualties. It retained the first agreement's prohibitions on duplication of the Air Force's missions and lack of weight limit for Army rotary-wing aircraft.

* * *

After the Korean War, both services continued their interest in helicopters and planned to acquire them in larger numbers. The Army hoped to increase its mobility with helicopter air transport. In 1955, at Fort Rucker, Alabama, the Army Aviation School began to test new mobility concepts in war games, such as Exercise Sagebrush, which included "sky cavalry" experiments. "Sky

cavalry," as the name would suggest, was a concept for employing troops transported by helicopter for scouting, raiding, and delaying roles once performed by horse cavalry. Two other Army exercises, Able Buster and Baker Buster, were designed in part to test armed light aircraft in the antitank role.[7] The helicopter performed poorly in these exercises, but the experimentation continued. In June 1956 the United States Continental Army Command issued a training memorandum calling for new concepts of mobility. The Commandant of the Army Aviation School, Brig. Gen. Carl I. Hutton, responded to the request for new concepts by stating that the best solution would be to put the ground soldier in the air. In his view, for the helicopter to be an effective ground soldier transport, it required a fire-suppression capability to inhibit hostile ground fire. Next, Hutton suggested that he be allowed to experiment with existing helicopters, while industry be allowed to begin developing suitable new helicopters. In a parallel experiment the Army Infantry School at Ft. Benning, Georgia, also began to test a "sky cavalry" unit. These experiments at Forts Rucker and Benning began the process which shaped Army aviation from the 1950s to the 1980s.

"Sky cavalry" and other Army intrusions into Air Force missions, as well as the Air Force's refusal to develop aircraft dedicated to ground support, led Secretary of Defense Charles E. Wilson to clarify roles and missions. In a memorandum of November 26, 1956, to the Armed Forces Policy Council, Wilson recognized the impact of newly developed weapons and technology on the services' interests. The memo addressed five issues. Four—Army use of aircraft, adequacy of airlift, air defense, and Air Force tactical support of the Army—bore directly on matters of Army - Air Force concern. Wilson strictly defined the missions and types of aircraft assigned to Army aviation. He expanded the 5,000-pound fixed-wing aircraft limitation to include vertical/short takeoff and landing (VSTOL) aircraft and convertiplanes. He added a 20,000-pound limitation for helicopters. But Wilson also left a loophole allowing the Secretary of Defense to grant a variance for specific aircraft, if they were appropriate to Army needs and did not conflict with Air Force functions and capabilities. He doubled the combat zone,

that area in which the Army was allowed to operate its own organic aircraft, by extending it to 100 miles beyond, as well as 100 miles behind, the frontline.

The memo also noted the Army's aviation experimentation, forbidding Army maintenance of unilateral aviation research facilities and limiting the Army to the development and determination of specific airframe requirements peculiar to Army needs. The memo instructed the Army to make maximum use, on a reimbursable basis, of Air Force and Navy research facilities. Finally, the memo curtailed further Army airframe development by requiring it to use existing Air Force, Navy, or civilian aircraft, where suitable, rather than to create and procure new types of its own.[8]

As for additional Army airlift, Wilson ruled in favor of the Air Force. He noted that the Air Force already provided sufficient airlift, in light of then current, approved strategic concepts. Wilson assigned to the Army responsibility for point air defense, including ground-to-air missiles designed for that function, while giving the Air Force responsibility for area air defense, including ground-to-air missiles necessary for that function. In discussing Air Force tactical support of the Army, Wilson permitted the Army to continue developing surface-to-surface missiles of 200-mile range for close support of Army field operations. However, any support functions beyond those supplied by surface-to-surface missiles remained an Air Force responsibility. As a further disincentive to Army expansion into Air Force roles Wilson asked the Joint Chiefs of Staff to recommend the number of Air Force tactical wings that could be cut because of the additional support capability provided by the Army's new missiles. The Army wanted both its missiles and Air Force tactical wings, not one at the expense of the other.

On March 18, 1957, Wilson issued DOD Directive 5160.22 which repeated the definitions of Army aviation found in the November memorandum, but also included a caveat for the Air Force stressing its responsibilities toward the Army. The Air Force had a continuing responsibility to support Army needs from the onset of hostilities, through all combat operations, and for peacetime training. Furthermore, the Air Force would meet Army needs in accordance with "reasonable" Army

requirements and should be prepared to devote a suitable portion of its assets to such support and to the establishment of any necessary organizations to command and control forces cooperating with the Army.[9] Clearly, Army reaction to the earlier memorandum, which had circumscribed its aviation ambitions, caused Wilson to reconsider.

* * *

The election of President John F. Kennedy in 1960 and his choice of Robert S. McNamara as Secretary of Defense ushered in a reappraisal of Eisenhower's reliance on a policy of nuclear retaliation. Eisenhower's preoccupation with nuclear retaliation had emphasized the Air Force's role in delivering atomic weapons as an economical and effective means of deterring Soviet aggression. Given Eisenhower's determination to reduce the federal budget, the emphasis on retaliation meant reduced funding for Air Force tactical air and Army conventional forces. The Kennedy Administration sought more options and flexibility than that provided by the doctrine of massive retaliation. In particular, President Kennedy and Secretary McNamara sought to deal more effectively with small-scale, or low-intensity, combat. This meant increased funding for conventional and special forces.

After a briefing on Army aviation, Secretary McNamara asked for more information because he was not satisfied with the documentation presented.[10] Army aviation activists, working with sympathetic members of McNamara's staff, prepared and forwarded to McNamara recommendations for increased mobility. They also prepared a personal note from McNamara to Secretary of the Army Elvis Stahr, suggesting the latter abandon conservative approaches and form a special Army board to report directly on Army mobility requirements. McNamara agreed and instructed Stahr to set up the Army Tactical Mobility Requirements Board. The twenty members of the board were either Army officers who supported the idea of an airmobile army or civilians who tended to support their views.[11]

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The president of the board, Lt. Gen. Hamilton H. Howze, was the grandson of a Civil War general, the son of Lt. Gen. Robert L. Howze (who had presided over the Billy Mitchell court-martial), and the brother of Maj. Gen. Robert L. Howze, Jr. Although he had been an armor officer in World War II, Hamilton H. Howze served as the first head of the Army Directorate of Aviation and as the Commanding General of both the 82nd Airborne Division and the XVIII Airborne Corps. An ardent advocate of Army aviation, he placed his personal stamp on the board and its final report. He selected as the majority of the board members supporters of Army aviation and wrote much of the final report himself. Not surprisingly, given the composition of its membership, the Howze Board called for an infusion of air mobility into the Army's force structure.

The Howze Board Final Report, of August 20, 1962, recommended inclusion of attack, observation, utility, and cargo airplanes and helicopters in the Army aviation inventory. Not only would certain observation, utility, and cargo helicopters carry light automatic antipersonnel weapons, but the attack aviation would have an antitank capability and carry large stores of ammunition. This obviously intruded into the CAS sphere reserved for the Air Force. The report favored an option suggesting the conversion of 5 of 16 active Army divisions (2 infantry, 1 mechanized, and 2 airborne) into air assault divisions. These assault divisions would each contain 24 fixed-wing attack aircraft, 6 fixed-wing reconnaissance planes, and 429 helicopters of all types. The report also recommended the addition of 3 air cavalry combat brigades (316 helicopters, including 144 attack models) and 5 air transport brigades (134 aircraft each, including 80 fixed-wing transports) to the Army's force structure. The remaining Army divisions would gain an aviation component augmented by 61 additional aircraft (including 8 fixed-wing and 8 rotary-wing attack aircraft), which brought their total to 164 aircraft assigned. In the course of the suggested five-year expansion program, Army aircraft procurement would climb from a five-year total of 4,887 aircraft to 10,992 aircraft. Likewise, the Army aircraft systems and ammunition account would grow an additional $3.784 billion. The new equipment and five-year operating

expenses of the air assault division would amount to $987 million, compared to $655 million for an airborne division and $863 for an armored division.[12]

The Howze report produced immediate and sharp Air Force reaction. Gen. Curtis E. LeMay, the Air Force Chief of Staff, established the Tactical Air Support Requirements Board, under Lt. Gen. Gabriel P. Disosway, Commander of the Tactical Air Command, to evaluate the Howze report. On September 14, 1962, less than a month after the Howze Board report, the Disosway Board forwarded its findings to Air Force Secretary Eugene M. Zuckert, who sent it with his own added comments to Secretary McNamara. The Disosway Board, with its majority of Air Force officers, not surprisingly, objected to the Howze Board conclusions on five major grounds:

> It was a unilateral attempt to change service roles and missions.
>
> It called for the creation of another air force.
>
> It lacked substantive data to support the proposed concept, the method of operation, and the weapons systems to accomplish the task.
>
> It failed to consider the views of the unified and specified commanders.
>
> It incorrectly appraised Air Force capabilities.

Specifically, the Disosway Board remonstrated that parcelling out air units to individual commanders violated the principle of centralized control of air power, a principle the Air Force had derived from its interpretation of the lessons of World War II. The Air Force believed that only centralized control of tactical air power could ensure the concentration of force essential to unity of action and to the avoidance of defeat in detail. Movement of ground forces by helicopters was considered unrealistic in the face of active, organized enemy air and ground forces. The number of proposed aircraft was excessive. Army research and development duplicated Air

Force and Navy capabilities, while Air Force planes could provide far better logistics support than the proposed Army aircraft. In the area of close air support, the Air Force doubted the ability of both the Army's Mohawk fixed-wing aircraft and its attack helicopters to survive in high-intensity combat and questioned their cost effectiveness compared to the USAF's newest fighter aircraft. Finally, the Air Force objected to the attempt to exploit the emphasis being given to counterinsurgency by the President as an excuse to employ Army aviation in the tactical air support role.[13]

Although Secretary McNamara praised the Howze Board in testimony before the House of Representatives in February 1963, he admitted reservations about a number of its recommendations.[14] These reservations were reflected in the Joint Chiefs of Staff action of January 17, 1963, which directed the US Strike Command (USSTRIKECOM) to test and evaluate both the Army's mobility concepts and the Air Force's capacity to enhance them. At the same time, Army Chief of Staff Gen. Earl G. Wheeler authorized the formation of the 11th Air Assault Division to conduct the Army's portion of the JCS mobility tests. Mr. McNamara supported this initiative by authorizing an additional 15,000 uniformed Army personnel. Once again Army aviation officers occupied key posts. Brig. Gen. Robert R. Williams headed the Army Test and Evaluation Group. Gen. Paul Adams commanded STRIKECOM. Both had long supported Army aviation. Later in February, McNamara requested a joint Army - Air Force study of methods to improve close air support operations. Preparations and reorganizations consumed the next 20 months. In the Fall of 1964 the exercises began.

For each Army test, an Air Force test followed. The separate series of tests concluded by the end of the year. The tests demonstrated the superiority of the Air Force's C-130 transport over the Army's Caribou I and of Air Force tactical reconnaissance over the Army's Mohawk. McNamara deleted the Mohawk from the Army's Fiscal Year 1965 budget and severely cut back Caribou purchases. Within the Army, the Chief of Staff rejected Army aviation's visionary recommendation for several air assault divisions. Although the 11th Air Assault Division (Test) was phased out in 1965, the Army reorganized a standard

infantry division as the 1st Cavalry (Airmobile) and deployed it to the Republic of Vietnam.[15]

Early in 1965 Secretary McNamara directed the Army to review its future aircraft requirements. As part of that review, on February 19, 1965, the Army released contracts for the program definition phase of an advanced aerial fire support system whose main component would be a helicopter with a speed of over 200 knots. Not only the Howze Board recommendations, but combat operations in Vietnam drove the armed helicopter concept forward. Helicopter assaults, with their dozens of troop and supply helicopter transports, crowded the air space over the landing zones, making it difficult for Air Force jets to coordinate and fly suppressive fire missions. Thus, helicopters had to carry some means of self-defense and have their own capability to keep enemy heads down.

On April 6, 1966, the Chiefs of Staff of the Air Force and Army, Generals John P. McConnell and Harold K. Johnson, signed an agreement dividing responsibility for certain aircraft between the two services. General McConnell, who had replaced General LeMay in February 1965, was determined to resolve the differences over tactical aviation between the two services.[16] Unlike his predecessor, who had spent his career identified with strategic bombers, McConnell not only had Strategic Air Command experience but knowledge of the tactical environment as well. In 1944-45 he had served as Deputy Commander of the Third Allied Tactical Air Force in the China-Burma-India Theater. After World War II, he commanded the Third Air Force, a tactical unit of US Air Forces in Europe (USAFE), before spending ten years in the Strategic Air Command. In addition to his experience in USAFE, McConnell served a joint tour as the Deputy Commander of the US European Command.

The two Chiefs conducted their negotiations in private, possibly wanting to avoid resolution of the matter by the Secretary of Defense or by the Joint Chiefs. At those levels the two services might lose control of the process. They met frequently. McConnell briefed his staff on progress, but asked for little input. After completing their draft, the Chiefs sent it to their staffs with instructions that "only constructive comments were wanted."[17] Thus, the impetus came from the top.

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The Army agreed to transfer its approximately 160 CV-2B (Caribou) fixed-wing transports to the Air Force and to relinquish all claims to future fixed-wing aircraft designed for tactical airlift. The Air Force abandoned all claims to helicopters designed and operated for intratheater movement, fire support, and supply of Army forces. In case of need, McConnell agreed to attach light transport units to Army tactical echelons below the field army level. Not just corps or divisions but even lower level Army units might attach Air Force transports. The Army would also have the right of consultation in the design specifications of any new Air Force follow-on light transports intended for Army cooperation. McConnell and Johnson instructed their services to revise all manuals, doctrinal statements, and other material at variance with the agreement. The Chiefs allowed the Army to retain fixed-wing aircraft for administrative support and the Air Force to keep helicopters for its special air warfare units and search and rescue units.

In return for the Army's fixed-wing transports, the Air Force had conceded most of the field of possible operations for rotary-wing aircraft, including direct fire support. McConnell set aside the principle of Air Force control of all its air units by permitting the placement of noncombat airlift units under Army command.

A measure of the McConnell-Johnson Agreement's fairness was the unhappiness it aroused in both services. Army and Air Force officers, who foresaw the need for both fixed- and rotary-wing aircraft in each of their service's inventories, objected to the renunciation of an entire type of aviation by their Chiefs.[18]

The War in Vietnam, while not ending interservice rivalry, forced mission oriented cooperation for ground support missions. It encouraged the use of innovations, such as air mobility concepts and tactics, developed during exercises inspired by the Howze Board. Also, the services improved their coordination for CAS by use of the Direct Air Support Center (DASC). The DASC, which had Air Force strike aircraft available to respond to support requests, allowed Air Force forward air controllers to send air support messages direct to an Air Force center colocated with an Army corps headquarters, while at the same time allowing intermediate level Army units to listen

in and cancel the requests, if desired. Both of these concepts proved useful in the war in Southeast Asia. By 1970 the Army had about 12,000 aircraft and 24,000 aviator-pilots on active duty, more active duty pilots than the Air Force itself.[19]

The war also settled the armed helicopter issue once and for all. On September 7, 1965, after almost a year of heavy combat aided by makeshift armed helicopters, the first Army-designed attack helicopter prototype, the AH-1, made its initial flight. Four days later Secretary McNamara informed the Air Force Secretary, Eugene M. Zuckert, that any aircraft operating in the battle zone should be armed, not only for self-defense, but also to contribute to the success of operations in the manner best fitted to the aircraft's mission.[20] On March 11, 1966, the Army announced it would purchase large numbers of the AH-1 HueyCobra; it became operational in Vietnam in November 1967.

Initially, the Army defined the function of the armed helicopter as direct aerial fire support, a semantic distinction meant to circumvent Defense Directive 5160.22 of March 18, 1957. This did not calm the fears of the Air Force, which apparently realized the potential threat behind Secretary McNamara's support of the armed helicopter—the loss of the entire close air support function to the Army. Led by General McConnell, the Air Force strongly supported the concept of more Air Force responsiveness to the Army's need for close air support aircraft. The Air Force reacted by procuring a tactical attack aircraft, its first departure from the heretofore firm position in favor of a multipurpose fighter plane for ground support. So acute was the Air Force's desire for such a plane that it accepted a Navy design, the Vought A-7A. The Air Force version, redesignated the A-7D, first flew on April 5, 1968, and became operational in Vietnam in October 1972. The Air Force, again at General McConnell's direction, also began developing its own tactical aircraft design—the A-X. The A-X eventually became the A-10.

In July 1966 Air Force concern about an Army takeover of the air support role heightened when the Army let contracts for the prototype AH-56 Cheyenne attack helicopter or Advanced Aerial Fire Support System (AAFSS)

with expensive sophisticated avionics and a much improved ground attack capability. Secretary of the Air Force Harold Brown wrote to Secretary McNamara, that since the main purpose of the HueyCobra and the Cheyenne seemed to be delivery of airborne firepower, they ought to compete with Air Force planes. On August 27, Deputy Secretary of Defense Cyrus R. Vance rejected Brown's assertions. Vance observed that helicopters merely gave the ground commander additional fire power and mobility to use in the battle. He saw no unacceptable interface problems with Air Force tactical strike aircraft.[21]

In 1968 OSD approved an Army purchase of 375 Cheyennes and development of the Air Force's A-X. The two programs progressed for a year until the Army cancelled the Cheyenne because of default by the contractor. However, the Army promptly announced a follow-on program. It had no intention of forfeiting the right to produce a heavily armed helicopter gunship. The OSD continued to support the Army desires. In January 1970 Deputy Secretary of Defense David Packard requested the Army and Air Force justify the need for two separate weapon systems. On March 26, 1970, Secretary of the Air Force Robert C. Seamans, Jr., and Secretary of the Army Stanley R. Resor replied. Their confused response indicated the depth of the services' disagreement on roles and missions. Seamans and Resor defined eight mission requirements encompassing combat air support. They agreed that the two systems were competitive in that they performed the same overall role, but were different in that their particular flight characteristics gave them capabilities suited for specific missions.[23] Unable to agree on the suitability of each airframe for every task, they recommended continued development of both A-X and AAFSS, at least to the prototype stage. The services could agree to disagree in order to save expensive programs, but they could not agree on doctrine.

Yet, the services had progressed far from their positions of 1947. As the accompanying chart shows, Army aviation had grown from a few unarmed "puddle-jumpers," used for artillery spotting and light transport, to a force of thousands of airframes and pilots. Many of its aircraft had some armament; and the Army could expect to receive sophisticated, heavily armed and armored, antitank, anti-

ACTIVE INVENTORY STRENGTHS
1948-1982

	Army Aircraft*			AF Aircraft#
Year	Fixed-Wing	Rotary-Wing	Total	Total
1948	553	2	555	25280
1949	1172	75	1247	23000
1950	1155	56	1211	20970
1951	1599	122	1721	19800
1952	2108	284	2392	21010
1953	2311	807	3118	23550
1954	2593	1145	3728	26870
1955	2424	1226	3650	28420
1956	2157	1497	3654	27640
1957	2650	1951	4601	26670
1958	2857	2237	5094	24780
1959	2981	2489	5470	22600
1960	2913	2656	5569	21690
1961	2867	2753	5620	18770
1962	2881	2811	5692	18180
1963	2940	3106	6046	17950
1964	2944	3595	6539	17830
1965	2755	4412	7167	18300
1966	2670	5632	8302	18380
1967	2546	7115	9661	18510
1968	2414	8239	10653	18910
1969	2297	9328	11625	17580
1970	2248	9918	12166	17150
1971	2228	9681	11709	15570
1972	1424	9056	10480	14880
1973	1038	8823	9861	14370
1974	960	8763	9723	11360
1975	867	8588	9455	9520
1976	824	8471	9295	9290
1977	793	7981	8774	9190
1978	753	7994	8747	9140
1979	550	7831	8381	8960
1980	490	7952	8442	9070
1981	490	8046	8536	9180
1982	505	8080	8585	9270

* Army Aviation figures compiled by Major Items Plans and Program Br., Policy Plans and Program Div., Material Management Dir., US Army Aviation Systems Command, St. Louis, MO. The figures do not include aircraft in the Army Reserve or National Guard.

\# Air Force figures are compiled from USAF Statistical Summaries. They include Air National Guard and Air Reserve planes because those aircraft are a more significant part of the Air Forces' force structure than similar Army aircraft.

helicopter, ground support rotary-wing aircraft in the near future. As long as OSD would approve the hardware and Congress would fund it, the Army could have its own air force. For its part, the Air Force had acquiesced, albeit grudgingly, to the growth of Army aviation. The Air Force abandoned its insistence that only multipurpose fighters should perform ground support missions and it had gained a near monopoly on ground-based fixed-wing aircraft at the cost of giving up most of its rotary-wing aircraft.

1973-1983: The TAC-TRADOC Dialogue and the AirLand Battle

A little more than three years after the Seamans-Resor agreement the services faced a different milieu. The authority for military conscription had expired on June 30, 1973, and an all-volunteer system had replaced it (with the last draft call made in December 1972). The US had withdrawn most of its combat troops from Southeast Asia by March 28, 1973. And both Congress and the Nixon administration gave every indication of their intentions to reduce the level of funds available to the armed services. This raised the specters of uncertain manpower strength and quality and a large reduction in overall military funding, particularly for conventional forces. Perhaps because of those considerations, or because of increased service cooperation at the operational level engendered by the Vietnam War, or because of the need to concentrate on war fighting in central Europe, the two services began to consider the benefits of closer cooperation. Of necessity, this increase in joint activity would have to occur in the area of greatest overlap of Army and Air Force responsibilities: the air aspects of the ground battle. In its turn, this concentration on the ground battle meant that the Air Force and the Army were forced to reassess the issue of how to coordinate air and land power on the battlefield.

Since the ground battle belonged to the Army, the Air Force would have to conform to the Army "system" of fighting if it wished to supply the most effective possible air support. This system was embodied in the Army's war

fighting doctrine and concepts, all of which were undergoing a thorough reexamination in the light of the post-Vietnam War situation. Much of this review took place under the auspices of the Army's Training and Doctrine Command (TRADOC), established in 1973 with Headquarters at Fort Monroe, Virginia. TRADOC was the direct descendent of the World War II era Army Ground Forces. TRADOC's physical location, only a few miles from the headquarters of the Air Force's Tactical Air Command at Langley Air Force Base, Virginia, facilitated cooperation between it and the Air Force's major command for Army cooperation. The colocation of TRADOC and TAC was not accidental. In January 1946, as part of the immediate post-World War II Army reorganization, General Eisenhower, the Army Chief of Staff, placed the Army Air Forces's newly created Tactical Air Command and the Army Ground Forces in the Norfolk area where they could cooperate with each other and with the Navy's Atlantic Fleet.

The first steps toward closer post-Vietnam battlefield integration, however, took place in the Summer of 1973 in Washington, D.C. There the two service staffs began studies to enhance joint capabilities. This resulted in the so-called Bray-Elder Papers, produced by Maj. Gen. Leslie W. Bray, USAF, and Maj. Gen. John H. Elder, USA. These papers were the basis for a proposed agreement between the two service Chiefs, which they reviewed but did not sign. The Bray-Elder Papers aimed at reducing the costs of weapons research, development, and acquisition; at eliminating Air Force and Army duplication of capabilities; and at ensuring both services' ability to operate as an integrated combat team. The key concept of the papers was the idea of "primacy," defined as the authority to approve, disapprove, deny, or delay military combat and support operations (both ground and air) within the area where primary responsibility and authority had been determined to exist. The Army would have had primacy for an area extending from the forward edge of the battle area to fifteen to twenty miles to the front of it. The Air Force would have had primacy for the area beyond.[23]

This work was done confidentially and, although the Chiefs did not formally approve the recommendations, Generals George S. Brown and Creighton W. Abrams did

"endorse" them. Apparently the Chiefs approved of the spirit of Army - Air Force cooperation displayed, but not of the specifics contained in the recommendations. General Abrams sent a copy of the papers to the Commander of TRADOC, Gen. William E. DePuy, noting that both service Chiefs faced the problem of extending the era of Army - Air Force cooperation generated by combat in the Vietnam War into other operational settings and "into the entire fabric of relationships between the two services." The Army Chief of Staff then expressed his conviction that a biservice approach to air-ground problems offered "meaningful promise of constructive resolution of historical differences." Finally General Abrams "enjoined" his subordinate to further the Army - Air Force dialogue at his own level.[24]

These staff actions dovetailed into an initiative already begun by Gen. William W. Momyer, Commander of the Tactical Air Command, and General DePuy. In the summer of 1973 General Momyer had requested increased Air Force participation in a series of Army tests on new Army war fighting concepts. The Army agreed to additional Air Force participation and suggested to the TAC commander that coordination between the two services' inputs into the tests could best be achieved by direct contact between TAC and TRADOC.[25] General DePuy followed up this suggestion by inviting General Momyer to meet with him to discuss matters of mutual interest, such as battlefield reconnaissance, surveillance, and airspace management. Gen. Robert J. Dixon, Momyer's successor, accepted DePuy's invitation and they met two weeks later. This began the TAC-TRADOC dialogue.

General Dixon's acceptance of General DePuy's invitation was partially based on previous discussions with Generals Abrams and Brown. The two Chiefs had stressed to General Dixon their desire to continue the cooperation developed in Vietnam into peacetime and to institutionalize it by an expanded working process within and between the two services.[26] At the initial TAC-TRADOC meeting Generals DePuy and Dixon instructed their staffs to set up joint working groups for airspace management and reconnaissance/surveillance. They also decided that, in the future, TAC and TRADOC would address procedures to improve joint combat capability and to implement existing

doctrine rather than concentrate on creating new doctrine. This sidestepped the traditional interservice disputes over roles and missions, freeing the two commands to seek practical, joint applications to the ground battle. The services would continue to develop doctrine in other settings. Only after it had been agreed upon would TAC and TRADOC jointly define new procedures.

Within a week of the commanders' initial meeting the commands established the two working groups mentioned, augmented within two months by an additional group on electronic warfare. The proliferation of these biservice groups required more supervision than originally provided under the Joint Actions Steering Committee, composed of the TAC's Deputy Chief of Staff for Plans and TRADOC's Deputy Chief of Staff for Combat Developments. Thus, on June 13, 1975, almost two years after the beginning of the TAC-TRADOC dialogue, a joint Air-Land Forces Application (ALFA) agency was formed to handle the working groups and problems related to joint combat capability. ALFA was charged with developing the concepts and procedures necessary to win the current and future ground battle. Composed of five Army and five Air Force officers, the directorship of ALFA alternated annually between the services; the opposite service's commander would write the director's fitness report.[27]

From 1973 through 1976 the doctrinal developments which drove the TAC-TRADOC dialogue were those evolved from the Army's conception of "active defense." Although not distributed in its definitive form until the publication of Army Field Manual 100-5, "Operations," on July 1, 1976, this doctrine represented the Army's first postwar reevaluation of its tactics. TRADOC based this reassessment of doctrine, in part, on the practical results of intensive studies of the Arab-Israeli War of 1973 and consultations with the West German Army. The bleak results of war games, which tested Army forces in potential Mideast and central European scenarios, provided additional theoretical underpinnings for the manual. These sources confirmed the exponentially increased lethality of modern weapons on the battlefield. This enhanced lethality, coupled with the sheer number of such weapons likely to be encountered in any large-scale conflict with the forces of another large, up-to-date army, led General

DePuy and others to devise a new doctrine. Substitution of firepower for manpower, rapid battlefield movement to key points, and the advantages of the tactical defensive posture formed the core teachings of the new FM 100-5 of July 1976. The manual contained the most unequivocal statement of Army - Air Force interdependence of any Army operations manual before or since. It stated, "the Army cannot win the land battle without the Air Force."[28]

As the Army moved toward adopting "active defense," the TAC-TRADOC dialogue continued to provide a forum to coordinate joint actions on the battlefield. The electronic warfare working group, for example, considered mutual problems of jamming and other counter- and counter-counter-measures. It was a field requiring close contact in order to coordinate practices to ensure the services' efforts did not cancel each other out on the battlefield. In 1975 ALFA began its initial consideration of Joint Suppression of Enemy Air Defenses (J-SEAD). It would become a centerpiece concept for future TAC-TRADOC considerations. Without an effective J-SEAD campaign, air power could not operate over enemy or frontline airspace without suffering prohibitive attrition. If the Air Force's and the Army's own attack aviation could not operate at the front, then the ground forces would lack the air support and firepower they required for successful operations.

The working group on airspace management produced the current joint manual, Air Force Manual 2-14/Army Field Manual 100-42, "Airspace Management in an Area of Operations," on November 1, 1976. The manual provided general guidance for Army and Air Force personnel in the field to develop jointly appropriate air control procedures. The nature of the modern battlefield, with friendly and enemy forces interspersed to a far greater extent than in the linear combat era of World Wars I and II, required greater attention to the coordinated use of the air power over the battle. Aircraft could not operate in areas of active artillery fire, lest they fall victim to that fire. Nor could attack helicopters and fixed-wing aircraft, using nap-of-the-earth (low-altitude, terrain-contour-following flight) tactics, fight together without close coordination. For joint operations the manual specified that the theater Air Component Commander be designated the area air

defense commander and the airspace control authority with responsibility for the operation of the air control system according to the desires of the theater commander. The manual further charged the Air Component Commander to be responsive to the needs of all airspace users and to develop procedures to reduce interference between them to maximize the efficiency of all air and ground weapons systems. This manual was typical of the TAC-TRADOC dialogue in that it integrated the then current manner in which aircraft, helicopters, and artillery would fight into a coherent scheme, rather than dictating large changes in employment to fit a preconceived combat role.

TAC and TRADOC continued to cooperate in other fields. On November 10, 1976, they signed a memorandum of agreement to provide close surveillance of joint requirements. This stemmed from the Army's interest in the Air Force's Precision Location Strike System (PLSS), and Air Force interest in the Army's HELLFIRE air-to-ground, fire and forget missile. During the year the two commands further institutionalized their dialogue by setting up command Air-Land Program Offices (ALPOs) to oversee specific programs of joint interest. New studies began on electronic parity in Europe, coordination of Air Force forward air controllers and Army forward observers, close air support, and joint air base defense. For the last concept, the Air Force made an initial compromise of a long held principle: it accepted the preplanned deployment of Air Force personnel, rather than their employment on an emergency basis. The Joint Suppression of Enemy Air Defenses studies deepened and split to consider close air support and battlefield air interdiction (BAI) aspects of the problem. Because of their close proximity to friendly troops, to Army air defense and aviation assets, and to the fire of those units, both CAS and BAI required combined Army - Air Force planning to accurately control the delivery of airborne firepower.

Between 1977 and 1979 cooperation on the above studies and concepts continued. The thrust of the studies shifted, however, because of new factors. In July 1977 General Donn A. Starry replaced General DePuy as Commanding General of TRADOC. General Starry, who had just returned from an assignment as a corps commander in Germany, had his own ideas on how to fight

in central Europe. Of importance to the Air Force was General Starry's belief that too much attention had been focused on how to stop the first wave of attackers, while not enough effort had gone into stopping the second and later echelons of enemy forces. Interruption of those forces before they reached the immediate battle area would require air interdiction—the province of the Air Force, not the Army. Also in 1979, at the urgings of Army Chief of Staff General Edward C. Meyer, General Starry initiated a revision of FM 100-5. The manual had created great opposition from critics who felt its stress on lateral movement along the battle line to concentrate at the crucial point and its discarding of battlefield reserves were impractical and left the ground forces open to secondary enemy thrusts. Other critics objected to the manual's defensive orientation and emphasis on central Europe.[29]

By 1979 General Starry's and others' concern over enemy follow-on troops had become a subject of the TAC-TRADOC dialogue. ALFA began to address the subject of delaying, disrupting, or destroying enemy reinforcements and follow-on troops before they could reach the front line. Since most scenarios developed for central European warfare showed that Allied troops had difficulty dealing with even the first wave of the assault, it was crucial that everything possible be done to deny the enemy maximum use of second and subsequent troop echelons. This issue became known as Joint Attack on the Second Echelon (J-SAK).

An Air Force - Army agreement of May 1981 paved the way for J-SAK progress. In this agreement on Offensive Air Support (OAS), the two services accepted the provisions of a North Atlantic Treaty Organization Allied Tactical Publication (ATP). A key point of ATP 27 (B), published in 1979, was its incorporation of BAI as a new dimension of offensive air support. BAI was a specialized form of air interdiction in which aircraft supported the ground commander by attacking enemy targets directly threatening ground operations, such as enemy reinforcements and lines of communications in the immediate rear of the enemy frontline. This distinguished BAI from other forms of interdiction which attacked targets at distances beyond the battlefield. Unlike close

planning the initial J-SEAD campaign and for setting target priorities. He prepared a list of enemy surface-to-air systems by type and arranged them in a "preferred suppression sequence." The Army had the right to modify the list to meet the needs of its own aviation. The Land and Air Component Commanders also had the responsibility to coordinate their SEAD.

As the TAC-TRADOC dialogue went forward, the Army continued to rework FM 100-5. A new version appeared on August 20, 1982. Instead of "active defense," it spoke of the "AirLand Battle." This manual restored the practice of keeping reserve forces and stressed the offensive aspects of combat. It also viewed the battlefield as extending both beyond the forward line of friendly troops to the enemy's rear and stretching back to the friendly rear areas. In addition to this extended battlefield was the concept of an integrated battle in which conventional and tactical nuclear fire support, maneuver and fire support, and air and ground operations were synchronized to produce maximum efficiency. Thus, the term AirLand Battle encompassed more than the traditional Army and Air Force close air support, interdiction, and reconnaissance relationship. It was meant to convey the interaction between all aspects of air and ground power in a firepower and maneuver context. The new FM 100-5 would form the conceptual basis of the battlefield addressed by the 31 Initiatives.

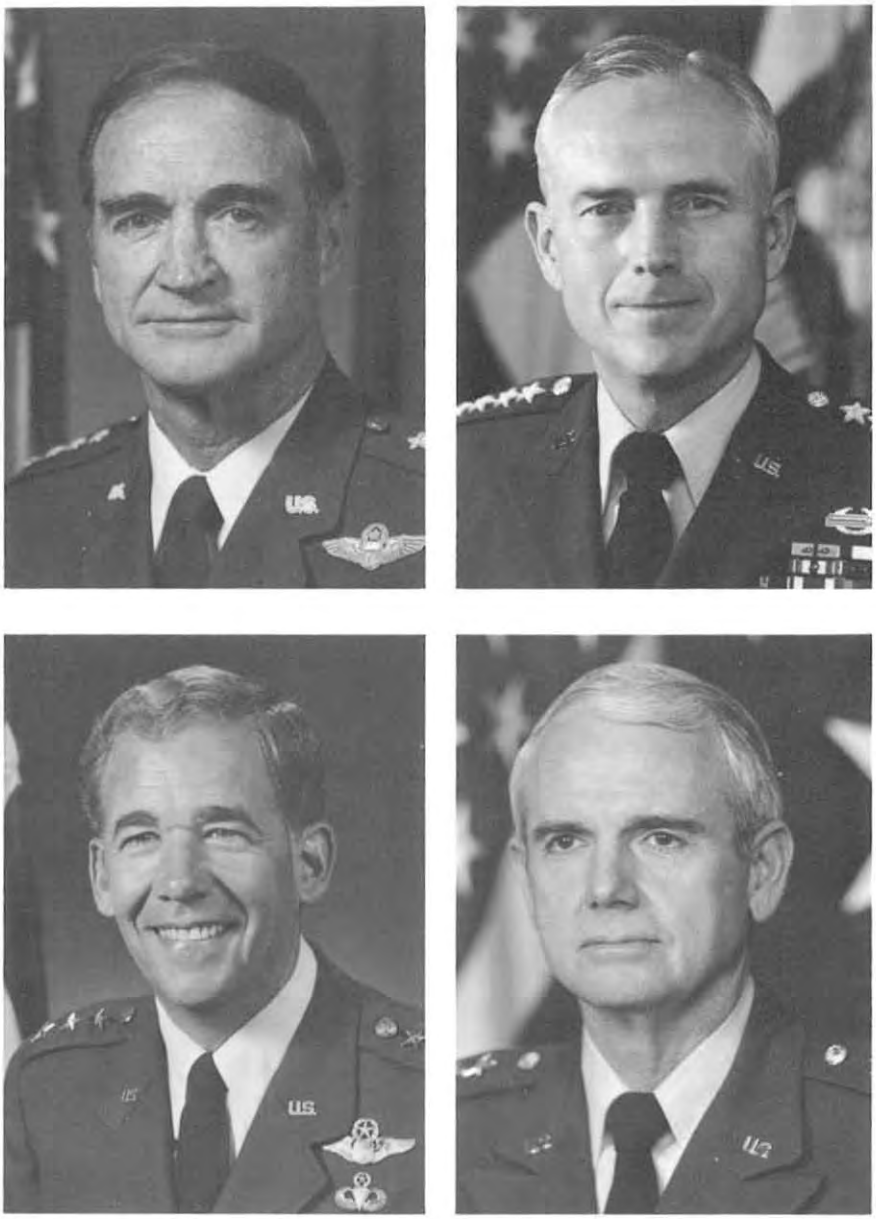
For ten years the TAC-TRADOC dialogue not only stimulated Air Force - Army cross fertilization of ideas, it provided a high level forum for open and frank discussion. At least one critic of the dialogue described it as "competitive and suspicious" and cited it as an example the Chiefs wished to avoid rather than emulate. Nevertheless, hundreds of officers were associated with ALFA or its issues groups and teams, including General Larry D. Welch, Air Force Chief of Staff, General John T. Chain, Commander in Chief, Strategic Air Command, and many members of the the Joint Force Development Group which formulated the 31 Initiatives. The intangible products of the dialogue, whatever its day-to-day nature, should not be discounted; the bonds of mutual faith and respect formed by Air Force and Army officers examining the same issues and learning each others' views on them fostered a

air support, however, BAI missions, once requested by the ground commander, were entirely under the Air Component Commander's direction. ATP 27 (B) enabled a NATO corps commander to engage the enemy's second echelon reinforcements with air sorties before they came into contact with his own forces.[30]

The May 1981 Army - Air Force Agreement on Offensive Air Support also readjusted the roles of the Air and Land Component Commanders in allocating and apportioning air missions. The theater's overall air commander, the Air Component Commander, in coordination with the other component commanders, made recommendations on the apportionment of the total air effort to the theater commander, who apportioned his total effort for a given period of time by percentage and/or priority to various types of air operations and/or geographic areas. Once the theater commander apportioned his forces, the Air Component Commander or a subordinate air force commander, after consulting his ground force counterpart, would allocate specific types of planes and numbers of sorties to individual tasks. Three years after NATO's publication of ATP 27 (B), after more than six years of work and testing by TAC and TRADOC, this concept became the official doctrine of both services when, on November 28, 1984, Chiefs of Staff Gen. Charles A. Gabriel, USAF, and Gen. John A. Wickham, Jr., USA, signed a joint service agreement.

Work on suppression of enemy air defenses advanced in tandem with study of the means to attack enemy second echelon forces. On April 3, 1981, TAC-TRADOC-USREDCOM published a joint pamphlet, "Concept for the Joint Suppression of Enemy Air Defenses." (US Readiness Command [USREDCOM] participation in this pamphlet stemmed from its charter to develop tactics, techniques, and procedures for the joint employment of its assigned forces.) This agreement on the suppression of enemy surface-to-air defenses recognized the Army's primary responsibility for J-SEAD to the limits of observed ground fire and the Air Force's primary responsibility for J-SEAD from the limit of observed fire to the limits of Army unobserved indirect fire. Beyond that, zone suppression was entirely an Air Force responsibility. The Air Component Commander had overall responsibility for

positive spirit that spread far beyond the Virginia Peninsula. The joint airspace management manual and the service agreements on "Attack on the Enemy Second Echelon" and "Suppression of Enemy Air Defenses" have allowed the two services to focus on warfighting, rather than on wrangling over uncoordinated doctrine. Without the foundations laid by the TAC-TRADOC dialogue, the 31 Initiatives might never have occurred.



General Charles A. Gabriel, USAF; General John A. Wickham, Jr., USA; Lieutenant General Fred K. Mahaffey, USA; and Lieutenant General John T. Chain, Jr., USAF (clockwise from top left).

Chapter II

The 31 Initiatives and Their Formulation

The Processes Behind the Initiatives[1]

The public announcement of the 31 Initiatives by the Chiefs of Staff of the Air Force and Army at a Pentagon press conference on May 22, 1984, concluded the formal process that began thirteen months earlier. On April 21, 1983, General Charles A. Gabriel, CSAF, and General E.C. Meyer, CSA, signed a memorandum of understanding on "Joint USA/USAF Efforts for Enhancement of Joint Employment of the AirLand Battle Doctrine." The two services agreed to engage in joint training and exercises "based on the AirLand battle doctrine as promulgated in Army FM 100-5, 'Operations,' 20 August 1982."[2] FM 100-5 is the Army's keystone battle manual, describing how its formations will fight. The two services pledged to commence joint efforts to

> Increase integration of Army and Air Forces in tactical field training and command post exercises.
>
> Continue efforts to enhance interservice communication during the planning and programing processes.
>
> Increase interservice dialogue on AirLand Battle doctrine and related concepts.
>
> Increase cooperation in the development and coordination of deep attack/battlefield air interdiction/interdiction programs.
>
> Resolve any doctrinal and procedural concerns as AirLand doctrine is integrated into joint theater operations.

Three months later, on July 11, the services signed another memorandum of agreement. For the FY 1985-89 defense program, the two Chiefs agreed to submit a single joint package for AirLand programs needed for the attack of enemy follow-on forces. The memoranda of April and July cleared the way for further interservice cooperation.

The public, the Congress, and the Department of Defense had consistently pressured the armed services to cooperate fully and to avoid wasteful duplication. During the summer of 1983 the two Chiefs justified their conventional forces programs before the Defense Resources Board (DOD's highest level of program and budget review). They underwent tough questioning, which helped reinforce their desire for mutual force development. Responding to outside pressure, and more importantly because of their long-standing personal friendship and many years of service in joint and unified commands, General Gabriel and General John A. Wickham, Jr., the new Army Chief of Staff, resolved to implement the April MOU on AirLand Battle Doctrine by initiating a process called, "joint force development of the most effective, affordable forces required for AirLand combat operations."[3]

In July Lt. Gen. Fred K. Mahaffey, USA, and Lt. Gen. John T. Chain, Jr., USAF, deputy chiefs of staff for operations and plans (OPSDEPs), appointed Colonels Raoul H. Alcala, USA, and Howell M. Estes III, USAF, to draw up the terms of reference for a process to initiate the joint development of AirLand combat forces. By August the two colonels completed a preliminary draft. They worked on a "close hold" basis, informing only their deputy chiefs of staff of their progress, withholding the purpose of their work from all others. Generals Chain and Mahaffey approved the draft and directed the two colonels to show it to selected "experts" for comment. Among those viewing the draft were retired General William E. DePuy, who as Commanding General, TRADOC, had begun the TAC-TRADOC dialogue, and General George S. Blanchard, former Commander in Chief, US Army Europe. They supported the concept, but doubted that the effort would result in significant change.

On October 19, 1983, Colonels Estes and Alcala briefed the two Chiefs of Staff on the Terms of Reference (TOR). The Chiefs approved and directed that the terms

be shown to a few key persons in TAC, TRADOC, and perhaps, EUCOM, FORSCOM, and PACAF. On November 2, 1983, the two Chiefs formalized their acceptance of the TOR by signing a memorandum of understanding on "Initiation of a Joint U.S. Army - U.S. Air Force Development Process." The terms of this understanding served as the foundation of the Joint Force Development effort.

The TOR defined the battlefield by dividing it into three parts: the immediate area in which the ground combat formations were engaged and in close contact with each other (the close battle area); the area to the rear of the friendly forces in contact with the enemy, including organizations and facilities supporting the combat operations (the rear battle area); and the area to the rear of the enemy forces engaged, including other forces and installations affecting ground combat operations (the deep battle area). The TOR further subdivided the close and deep battle area into three zones. Zone 1 extended from the line of contact to 20 kilometers behind the enemy front. Zone 2, the nearer reaches of the deep battle area, extended from 20 kilometers to 150-250 kilometers behind the enemy front. Lastly, Zone 3 included the area from the back boundary of Zone 2 to a line 500-1,000 kilometers behind the enemy front.

The TOR noted certain characteristics for each area and zone. In the close battle area, air-ground combat forces fought a continuous battle "requiring the closest possible integration and synchronization of friendly air and ground elements in the execution of the ground scheme of maneuver and support." In the friendly rear area, combat operations were defensive, usually dispersed, and not necessarily continuous. In the deep area, synchronized joint or single service attacks extended the direct engagement to enemy combat formations and their supporting activities and installations in the enemy's rear for the purpose of delaying or impeding enemy movement or of degrading his combat capabilities. In Zones 1 and 2 the primary purpose of friendly units was to defeat the enemy or at least prevent enemy penetration to the friendly rear area. In Zone 3 the deep attack encompassed fixed and mobile targets which over the course of time could influence the close battle area but did not immediately threaten it.

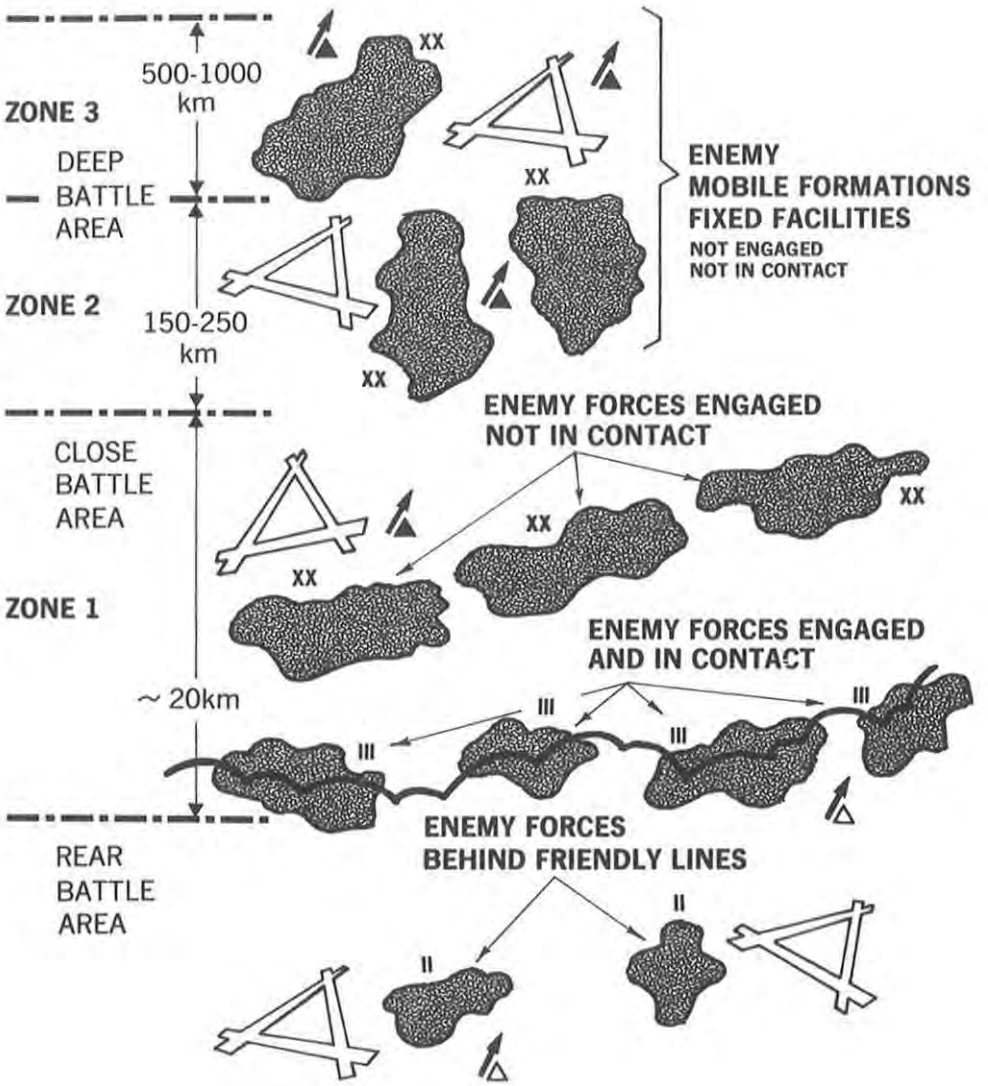
THE 31 INITIATIVES

The discussion of the AirLand battlefield included one important caveat. If the available resources precluded fielding sufficient forces to carry out the entire spectrum of the AirLand Battle, the TOR placed primary emphasis on stopping the most serious and immediate threat—a quick enemy breakthrough. Thus, the TOR required the joint force development process to devote special emphasis to the forces essential for AirLand combat operations in Zones 1 and 2.

The TOR set the objective for joint force development: to create a means to design and field the best affordable AirLand combat force. To accomplish this task, the process would have to identify realistic resource constraints; examine and coordinate service roles and missions; eliminate duplication, particularly in special access "black world" programs; identify affordable systems and forces with which to conduct the AirLand Battle; and design command and control schemes optimizing combat effectiveness. The TOR laid down the scope and limitations of the process. It focused on the conventional aspects of high intensity AirLand combat against a sophisticated enemy such as the Soviet Union. The TOR asserted that the services should avoid buying obsolescence by designing systems to counter the Soviet threat projected for the 1990-95 period. They would consider systems in the context of joint and combined operations. Current programs, including their sunk costs, would not be excluded from examination. Above all, the process would not be constrained by traditional service roles and missions, but would determine the service better suited to carry out each task essential to combat operations.

The TOR specified that the process identify the essentials of AirLand combat by first examining the exact missions to be accomplished. It defined three AirLand operational mission areas: collection of information; fusion and dissemination of intelligence; and command, control, and employment of forces. Next, it gave a short description of the types of missions that might fall into each category, prioritized those missions, and assigned a joint or single service responsibility for each phase of the mission. For example, the planning of a mission would be joint, but the control and execution of the task depended upon its nature and proximity to the line of contact. The

THE AIRLAND BATTLE
(Aerial Schematic)



KEY

Friendly Anti-Aircraft Site

Enemy Anti-Aircraft Site

Airbase

Enemy Ground Forces

Division XX
Regiment III
Battalion II

Line of Ground Contact

(Based on MOU, Army Air Force, Initiation of a Joint U.S. Army-U.S. Air Force Development Process, November 2, 1983)

Air Force would control and execute offensive counter air operations, while the Army would control and execute rear area security operations. Both services would control and execute their respective portions of search and rescue operations, defensive counter air operations, and close air support.

Finally, the TOR set up a Joint Force Development Group (JFDG). It consisted of members of the service staffs and relevant field commands, co-chaired by a colonel from each service, and overseen by a senior advisory group. The two deputy chiefs of staff for operations and plans were the sole members of the senior advisory group. The JFDG would conduct its work in three phases. After identifying the missions required, Phase I would determine the systems needed for their accomplishment. The JFDG would complete the first phase by January 20, 1984. In Phase II the group would analyze current and planned command, control, and communications (C^3) in order to integrate those systems with the systems recommended in Phase I. In Phase III the group would ensure that the programs it recommended did not conflict with existing special access or other programs. The group would complete the last two phases by March 16, 1984.

Immediately after the Chiefs' approval of the TOR, the Joint Force Development Group formed. It had twelve members (mostly lieutenant colonels or majors), six from each service, including a colonel from each service to act as co-chairmen. The Air Force contingent consisted of three officers from TAC (one each from TAC's Force Structure Analysis Division, Air-to-Surface Division, and Weapons and Tactics Division) and three officers from the Air Staff (one each from the Deputy Directorate of Forces and the Directorate of Plans and the Air Force Co-Chairman, Col. Joseph J. Redden, Chief, CHECKMATE Group). The Army contingent included officers from the field (TRADOC and DARCOM) and Army Staff officers from DCS/Research, Development, and Acquisition; from the office of the Director of the Army Staff, Program Analysis and Evaluation Directorate; and from the DCS/Operations and Plans, Force Requirements Directorate.

All the officers were hand picked. Colonels Redden and Alcala selected the members from the service staffs, while the field commands selected their own members. All

the officers selected had extensive experience in joint matters. The Air Force officers, for example, had served in TAC or the tactical air forces and were familiar with the TAC-TRADOC dialogue. The selection process purposely sought to avoid the so-called "Iron Major" syndrome: the staff officer who became such an ardent advocate of his own service program that he would neither compromise on the details of a project nor consider alternatives to it. Instead, by purposely selecting people with joint backgrounds, who lacked a strong identification with a particular system, Colonels Redden and Alcala hoped to assure a group capable of taking a free and open approach to problems it encountered. The selection process assured a membership of individuals familiar with the language and foibles of the other service.

Starting work early in November, the group divided into two teams, one for doctrine and the other for systems. They spent most of the first month framing the problems and hammering together an AirLand battle model based on the Terms of Reference. This allowed the group to separate command, control, and employment of forces into eleven mission areas (defensive counter air, rear area protection, offensive counter air, interdiction, SEAD, electronic combat, close air support, special operations, search and rescue, ground scheme of maneuver, and intratheater airlift). Once the group isolated the issues, they assigned them to two- or three-man mission area teams whose members had expertise in the area. The mission area teams supplemented their knowledge with limited research into current documentation and by obtaining briefings from action officers whose projects fell into the mission team's area of study. When a mission area team developed a proposal, the entire group would discuss it and either accept it or ask for further work. To speed their work the group tackled and solved what they considered the easiest issues first. The group also examined collection of information and the fusion (combining of both Air Force and Army intelligence information) and dissemination of intelligence. The co-chairmen facilitated the group's efforts by arranging the action officer briefings.

The co-chairmen also kept their respective OPSDEPs informed of the group's progress with frequent (sometimes

daily) prebriefings and memoranda. Every two weeks the entire group would conduct an in-progress review with the senior advisory group (the two Ops Deputies). The review sessions demonstrated the depth of the deputy chiefs' commitment to the joint force development process. The in-progress reviews routinely lasted three or more hours and the first of them proved crucially important.

The authors of the TOR had realized the potential importance of the JFDG and tried to convey that feeling to the group members. The group members had quite naturally discounted in advance the importance of an ad hoc assemblage of relatively junior officers hastily called together to improve the war fighting capabilities of two of the armed services. The first in-progress review, however, changed that opinion. During the review Generals Chain and Mahaffey forcefully impressed upon the JFDG that it had carte blanche to rewrite air-ground relations. The two generals convinced the group of their own and the service Chiefs' deep commitment to fielding the most affordable and effective AirLand combat force. Generals Chain and Mahaffey insisted upon an uncluttered look at and wide-ranging consideration of the issues. They wanted straight talk and would allow great latitude, provided the group produced.

The realization they had the power to effect change in the joint arena encouraged the group and overcame their remaining skepticism. Normally, the service staffs engaged in time-consuming and very precise, careful handling of joint issues. Here, however, the group could take an unbiased look at the joint aspects of the battlefield with some assurance their solutions would be accepted. Thus inspired, the group continued to formulate initiatives. As they completed examining current capabilities and procedures, they determined both the necessary requirements and the service responsible for a particular mission. Since the TOR had freed them from traditional service roles and missions, they could determine the responsible service solely on grounds of effectiveness and cost. Most of these initiatives sprang from the group's previous joint experiences, brainstorming, the synergism generated by the constant interchange of ideas, and the Terms of Reference. Although the group did not conduct extensive research, some issues came from earlier

studies, while the generals suggested the group take a closer look at surface-to-air missiles.

Another factor affecting the group was the attitude of the team members toward each other. They genuinely respected one another and, more importantly, subordinated their egos to the goal of effective joint war fighting. Colonel Redden heightened this sense of camaraderie by seating the group members "nose-to-nose" in their work area and by having the CHECKMATE Red and Blue teams play the devil's advocate for some of the group's emerging concepts.

The group's close knit feeling and lack of parochialism did not prevent differences of opinion, nor did group members all share the same viewpoints. For example, there were debates over finding roles for the B-52 bomber and for a technologically advanced manned reconnaissance aircraft. The careful wording of the initiatives reflected the necessity of precisely limiting the compromises and concessions of each service to only the issue at hand.

Although the group called in Air and Army Staff action officers for briefings and all the DCSs and the directors had been briefed on the Terms of Reference, the group kept an extremely low profile. Acting under orders from their OPSDEPs, who echoed the Chiefs' wishes, the group refrained from revealing the initiatives to anyone, save Generals Chain and Mahaffey. This put the group under pressure from their immediate superior officers and from action officers whose programs hung in the balance, all of whom had a stake in the results of the group's deliberations. Conversely, the closely held nature of the work had the advantage of delivering to the Chiefs a set of proposals unfiltered by their staffs. Likewise, the initiatives were not briefed to the Air Force Board Structure. This again prevented the watering down of the initiatives because of a need to build a consensus in order to pass an up or down vote by the Air Force Council. On the other hand, because the initiatives came straight from the hands of the service Chiefs of Staff, they carried the Chiefs' imprimaturs. This meant that most of their staffs would accept the initiatives and work to implement them rather than to subvert them.

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The Joint Force Development Group had a sophisticated view of the bureaucratic process. Formed outside the normal staff processes, the group used its unique position to exploit the system. Instead of the high level of frustration found in many staff officers, the group's personnel had an exciting, stimulating, and possibly powerful job. A key factor in the formation of the Joint Force Development Group was the personal friendship between the Chiefs and between the Ops Deputies. Generals Wickham and Gabriel were West Point classmates (USMA 1950). Their friendship and shared experiences formed the foundation of their relationship. Also, both Chiefs had extensive joint and combined service throughout their careers. General Gabriel had served as Commander in Chief, US Air Forces Europe, and Commander, Allied Air Forces Central Europe, from August 1980 to June 1982. Before that he had served as Deputy Commander of US Forces in Korea and as executive officer to the Chief of Staff, Supreme Headquarters Allied Powers Europe. General Wickham had served as Director of the JCS Joint Staff and as Commander of US Forces in Korea. Generals Chain and Mahaffey not only had the complete trust of their Chiefs, they had been classmates at the National War College where they had attended the same seminars and played on the same softball team. That these four men, all experienced in staff work, should feel it necessary to impose change from the top down and to use an ad hoc group outside their permanent staffs to create that change, demonstrated their realization of the proclivity of bureaucracy to move in its own comfortable, familiar paths and to eschew innovation.

After further in-progress reviews by the OPSDEPs, the group expounded their preliminary recommendations to the two Chiefs on March 22, 1984, missing the original deadline by only six days. A month later, on April 23, the two Chiefs approved the group's final report. Of the 32 initiatives presented, Generals Gabriel and Wickham approved all but one. The rejected initiative dealt with the fusion of Air Force and Army tactical intelligence on the battlefield. Apparently, the Chiefs felt that the intelligence sharing scheme was either too complex or too sensitive for the battlefield. After their first review in March, the Chiefs authorized the release of the Joint

Force Development Group's recommendations to service proponents.

When they approved the group's final report in April, the Chiefs broadened the impact of the group's work beyond that of an isolated, one-time committee. In the covering agreement the Chiefs wrote:

> The Army and the Air Force view this MOA as the initial step in the establishment of a long-term, dynamic process whose objective will continue to be the fielding of the most affordable and effective airland combat forces. Consequently, the joint agreements embodied in the attached initiatives will be updated and reviewed by the services annually to confirm their continued advisability, feasibility and adequacy. We will expand this MOA (and attachments) to include future joint initiatives as appropriate.

Because of the sweeping nature of some of the Initiatives, and of their stated intention of having the process continued, the Chiefs instructed the group to present the results to the Secretary of Defense, the JCS, the unified and specified commanders, commanders of the services' major commands, and selected members of congressional committees on armed services and appropriations.

In the field the Initiatives met with support and some skepticism. The Military Airlift Command was not sympathetic to a proposal to give the Air Force's Special Operations rotary-wing airlift to the Army. The Tactical Air Command worried about the initiative on battlefield air interdiction because it gave the Army too much control over Air Force assets. Army commanders questioned turning over surface-to-air missiles to the Air Force. Unified commanders had a more supportive attitude. CINCLANT remarked "we should have jumped on board," and Gen. Bernard W. Rogers, Supreme Allied Commander, North Atlantic Treaty Organization, spread the word by having his subordinate deputy chiefs of staff and key colonels briefed as well.

Finally, on May 22, 1984, at a press conference in the Pentagon, Generals Gabriel and Wickham announced

their signature of the Memorandum of Agreement and detailed the 31 Initiatives to the assembled correspondents. General Wickham called the Agreement "historic" and "momentous," while General Gabriel spoke of the Agreement as almost "revolutionary." Reporting on the conference, The Washington Post pointed out that, in its opinion, the Initiatives failed to address the "primary area" of Air Force - Army duplication of effort: the Army's purchase of attack helicopters to perform the same tasks as Air Force close air support aircraft. The Post also stressed that the Initiatives faced stiff resistance from officers who either distrusted the other service or feared that their own careers might be harmed.[4] In order to disprove this initial skepticism the services would have to demonstrate their ability and desire to follow through with the 31 Initiatives.

The process which created the 31 Initiatives was an example of innovation imposed from the top down. The two Chiefs of Staff desired closer and more cost-effective Air Force - Army cooperation on the battlefield. In theory this was, and had been since 1947, an overarching goal of both services. In practice, parochialism rather than "jointness" dominated thinking. Given a soldier's or an airman's career-long training, indoctrination in loyalty to his fellows, his unit, and his service, and the perspective of a certain kind of warfare in a particular medium, Army or Air Force parochialism became somewhat more understandable. If nothing else, simple ignorance of the other service's procedures, doctrine, and viewpoints discouraged joint thinking. Not everyone had the vision to look beyond his own niche. Likewise, staff duty placed a premium on advocacy. Action officers resisted innovation because they already had a full-time task and change increased their workload, while forcing them into a new area in which they had neither existing guidelines nor a safe course to follow. Naturally, this created an almost reflexive suspicion of and resistance to perceived threats, such as change and innovation, which may change the rules of bureaucratic engagement to one's disadvantage.

In the case of the JFDG, the Chiefs purposely by-passed almost all the existing decisionmaking machinery. Not until they had personally reviewed the recommendations did they authorize their release inside the services.

At the time of their release the recommendations already had the de facto approval of the Chiefs, undercutting staff resistance in several ways. The weight of the Chiefs' approval made it unwise to take too negative a stance, and affected programs had less time to prepare defenses. The suddenness and nature of recommendations caught the staffs off guard, at the very least producing a realization that the Chiefs were actually serious about joint war fighting. Bypassing the machinery also assured more sweeping suggestions because they did not pass through several levels of control before reaching the Chiefs. Each level of control had its own agenda and had to be propitiated before it passed on a proposal. In all, the Chiefs had staged a well-executed bureaucratic end run.

The 31 Initiatives

The 31 Initiatives addressed seven basic areas of AirLand combat: air defense, rear area operations, suppression of enemy air defenses, special operations forces, joint munitions development, joint combat techniques and procedures, and fusion of combat information (such as reconnaissance and targeting data). Initiatives #30 and #31 covered the areas of intratheater airlift and budgeting for airland battle related programs. Some of the initiatives were so broadly drawn that they fell into more than one of the above areas. As a rule the initiatives called for increased joint Air Force - Army study and development of doctrine, procedures, and requirements. Three of the initiatives, however, cancelled service programs and three more suggested force transfers from one service to the other. Taken as a whole they were a large first step toward the goal of fielding a capable and affordable AirLand combat force.

Air Defense

Initiatives #1, #2, #3, #4, #5, and #12 covered various aspects of the air defense of friendly forces

against enemy air attack. Initiative #1 was composed of three recommendations all dealing with different aspects of area air defense. The first stated that the Air Force would participate in the requirement and development phases of any new surface-to-air missile (SAM) systems. This gave the Air Force a voice in a process that, heretofore, had been an Army province. The air defense Initiatives also instructed the Air Force to lead a joint net sensitivity analysis to determine the optimum program mix of current area SAMs and air defense fighters. At the same time the Army would study the advisability and feasibility of transferring the responsibility for area surface-to-air missiles from the Army to the Air Force. The two studies suggested a major restructuring of the two services' air defense forces. If the first study produced a recommendation to greatly change the current air defense fighter to area SAM mix, one service would gain at the expense of the other. Likewise, a recommendation to transfer area SAMs would shift money and personnel from the Army to the Air Force. General Wickham's acceptance of this aspect of the proposal surprised several members of the Joint Force Development Group.

Initiative #2 contained three recommendations on point air defense. The two services agreed to develop jointly and to review annually a plan to resolve air base point air defense requirements. As part of that task the Air Force would provide the Army with an updated list of outstanding worldwide point air defense needs. Secondly, the two services would develop a joint statement of future rear area point air defense systems. Lastly, the Army agreed to Air Force participation in an Army review of air defense requirements and capability at corps and echelons above corps. The first two recommendations, if carried through, would protect Air Force bases and rationalize point air defense for the Army rear area. The third recommendation allowed Air Force input into the air defense schemes of the chief Army operational command, control, and communications (C^3) centers on the battlefield. Given the importance of those targets to both friendly and enemy ground units, their protection from conventional air attack had utmost priority. Anything that encouraged an integrated point air defense of those headquarters should be advanced.

THE 31 INITIATIVES

The Thirty-One Initiatives

1. Area Surface-to-Air Missiles/Air Defense Fighter
2. Point Air Defense
3. Counter Heliborne Assault
4. Tactical Missile Threat
5. Identification Friend or Foe (IFF) Systems
6. Rear Area Operations Centers (RAOC)
7. Host Nation Support Security Equipment
8. Air Base Ground Defense
9. Air Base Ground Defense Flight Training
10. Rear Area Close Air Support
11. Mobile Weapon System
12. Ground Electronic Combat Against Enemy Attack
13. Airborne Radar Jamming System
14. Precision Location Strike System (PLSS)
15. Joint Suppression of Enemy Air Defenses (J-SEAD)
16. Combat Search and Rescue
17. Rotary-wing lift support for Special Operations
18. Joint Tactical Missile System
19. Army and Air Force Munitions Research, Development, Test and Evaluation
20. Night Combat
21. Battlefield Air Interdiction
22. Joint Target Set
23. Theater Interdiction Systems
24. Close Air Support
25. Air Liaison Officers and Forward Air Controllers
26. Manned Aircraft Systems
27. Joint Surveillance and Target Attack Radar System
28. TR-1
29. Manned Tactical Reconnaissance Systems
30. Intratheater Airlift
31. POM Priority List

Additions After 22 May 1984

32. Rapid Targeting Capability
33. Future Close Air Support
34. Validation of JFDP Procedures
35. Joint Low Intensity Conflict Center

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Initiative #3 addressed the problem of countering heliborne assaults. The large and growing inventory of Soviet attack and transport helicopters and the Soviets' stated intentions to employ them to attack their enemies' rear areas necessitated a coordinated service approach to develop countermeasures. Thus, the initiative directed the Army to lead a joint assessment of the technical characteristics and operational implications of the future heliborne assault threat. Upon completion of the assessment the initiative directed the two services jointly to develop and to field the capabilities to detect and counter the threat. This initiative demonstrated the need for joint response to a mutual problem: the threat to both the rear area and the battle line of helicopter-delivered assault troops and special forces, as well as the antitank and antipersonnel potential of helicopter armament. For the Air Force the protection of base areas from helicopter assault presented a crucial and complex problem that required close coordination between the Army troops assigned to protect the base and the air base's own air defense flights. If those forces could be alerted in time and effectively employed, even their relatively light firepower—given the high vulnerability of the helicopter to defensive fire—could foil a heliborne assault. In addition to protecting its rear installations and logistics and communications lines, the Army had to counter enemy attack helicopters at the front. An integrated Air Force fixed-wing, Army rotary-wing, and Army ground air defense team would obviously be more effective against enemy helicopters than those elements working separately. In the long run, countering the heliborne threat might add a new task to the traditional Air Force air support missions of air superiority, interdiction, close support, and reconnaissance.

Initiative #4 contained two recommendations on the tactical missile threat. The two services would prepare a tactical missile threat assessment, to include an evaluation of the operational impact and technical capabilities of the anticipated threat. Next, the Army and Air Force would establish a joint antitactical missile program. Because of their range, enemy tactical missiles threatened the rear area as well as the frontline. Their range may also permit

them to stand off beyond the range of Army counterfire. To obviate this threat both services must once again arrange an integrated scheme capable of rapidly detecting incoming missiles and destroying or suppressing their launch sites.

The fifth initiative covered IFF (identification friend or foe) equipment. It stated that joint research in cooperative, cost-effective, friendly identification systems and in improvements for the current systems would continue. The initiative also directed the two services to develop an IFF system capable of positive identification of hostile forces to permit the employment of beyond-visual-range weapons. This initiative emphasized the need for the best possible IFF equipment—a necessity in the cluttered air over the modern battlefield where Air Force planes, Army helicopters, allied aircraft, and enemy aircraft must all be distinguished from one another. Development of out-of-sight positive identification would greatly enhance the effectiveness of the American air defense system by giving it more opportunities to strike the enemy, increasing its effective range up its theoretical limits, and by reducing the chances of the fratricide of friendly aircraft.

Initiative #12 pertained to ground-based electronic combat against enemy air attacks. It mandated biservice reconciliation of joint requirements and the restructuring of the Army Air Defense Electronic Warfare System (ADEWS) to meet those needs. The Air Force agreed to terminate its own system, code named Comfy Challenge, while the Army agreed to incorporate the required capabilities of both services into ADEWS. This was one of the three initiatives canceling a program. Eliminating the duplication of ADEWS and Comfy Challenge not only saved millions of dollars, but also provided for a single compatible system. This assured that one service did not inadvertently jam, degrade, or spoof the other because of failure to properly communicate and coordinate between two different systems performing the same function. By committing the Air Force to dependence on an Army-operated system for this aspect of air defense, this initiative made joint integration a necessity and literally compelled the Air Force to trust the Army.

placed the land forces responsible for the defense of an air base or facility under a single commander. The Air Force commander already had control of the Air Force's ABGD flights, which were responsible for air base defense within the installation's perimeter. Since a single headquarters had operational control of all units specifically designated for static air base defenses, their coordination, and therefore their effectiveness, should increase.

Initiative #9 pledged the two services to execute a joint service agreement for the Army to provide initial and follow-on training for Air Force on-site ABGD security flights. This initiative resulted from the common sense realization that the ABGD flights were nothing more than "blue suited" infantry. Because the flights were lightly armed with mostly hand-carried weapons and operated on a small scale, usually platoon-sized or less, they did not need extensive specialized infantry training. Such small unit training could obviously be more efficiently supplied by the Army, whose business it was, than by the Air Force. This training would have the advantage of increasing the capability of the base defenders inside and outside the base perimeter because they would both operate with the same tactics and nomenclature. Separate Air Force training would, in the course of time, inevitably diverge from standard Army procedures and methods, introducing greater possibility of misunderstanding and reducing coordination between the Air Force and Army base defenders. The initiative produced immediate monetary savings because the Air Force cancelled plans to develop a dozen regional training areas for its ABGD Flights.

In Initiative #10 the Air Force and Army agreed to develop joint doctrine and procedures for the employment of close air support (CAS) in the rear area. This initiative was the natural sequel to initiatives #8 and #9. Because the rear area forces, except for combat units diverted from the front, were by design deficient in artillery and other heavy weapons, they would require quickly delivered airborne firepower to tip the scales in their favor. Unless they faced an enemy combat unit that had broken through the Allied lines, the ABGD flight's potential opponents, enemy special forces infiltrated through the lines or inserted by air, would also be lightly

THE 31 INITIATIVES

Rear Area Operations

The next group of initiatives covered specific aspects of rear area defense. In Initiative #6 the Army agreed to increase the manning of the rear area operations centers with full-time personnel as part of an on-going Army Reserve/Army National Guard program to expand Armywide the number of full-time support personnel. This move would upgrade the effectiveness of the rear area operations centers, which served as the tactical command, control, and communications (C^3) headquarters for the Army officer in charge of a sector of the rear area. In Initiative #7 both services pledged themselves to support the equipage of Federal Republic of Germany reserve security units with German equipment and weapons. This initiative would increase the effectiveness of West German territorial units assigned to the defense of US installations by ensuring that they are fully equipped. Because these units were earmarked to help defend American installations, the US, under agreements with the Federal Republic of Germany, had the responsibility of funding the equipment of these units. The US Air Force and Army were each responsible for funding German units assigned to their specific installations. Thus, in this initiative, the two services agreed to jointly fund the FRG reserve security troops. The initiative left for later settlement between the two countries the issue of what proportion of the funding would be spent in each country.

Initiative #8 instructed the Air Force and Army to develop a joint service agreement for Army units to provide air base ground defense (ABGD) outside the base perimeter and for the assignment of operational control of those units to the appropriate air component commander. In addition, the Air Force pledged to transfer Air Force Reserve manpower spaces to the Army if Air Force ABGD requirements exceeded Army capabilities. Lastly, the services committed themselves to develop joint procedures for rear area security based on the previous two recommendations. This initiative should help to provide enhanced air base defense against low threat levels of enemy response, from protection against saboteurs, up to, but not including, battalion level assaults, because it

armed. In addition, both services' ground air base defenders needed a common set of procedures to benefit most from mutual support. Different procedures side by side would needlessly and, perhaps, fatally complicate the provision of rear area CAS.

Initiative #11 terminated the development of the Air Force's mobile weapons system. This system would have been a "Hummer" (the recently introduced successor of the jeep) armed with some combination of a 20-mm automatic cannon, a 105-mm recoilless rifle, Stinger ground-to-air missiles, or TOW antitank missiles. While not a formidable unit in high-intensity combat, it would have substantially augmented the firepower of the ABGD flight's M-16 rifles and M-60 machine guns. The closer integration of the rear area defenders, as envisioned in the preceding initiatives, increased the air base ground defense capability enough to eliminate the Air Force's requirement for the mobile weapons system. In any case, the system duplicated the functions of Army vehicles and its maintenance and employment would have necessitated further complications of the ABGD flight's role, thereby further diverting Air Force resources from the Air Force's primary responsibilities.

If successfully implemented, the six rear area battle initiatives offered an integrated framework in which the two services could provide for joint, effective, and affordable air base ground defense. In addition, the upgrading of the rear area operations centers and the fresh procedures for rear area close air support would improve the Army's overall capability for rear area combat. The initiatives on point air defense, counter helicopter assault, and IFF all had significant applications in the rear area battle. If successfully implemented, they would also enhance the protection of the vital facilities and lines of communication behind friendly lines.

Suppression of Enemy Air Defenses

Three initiatives fell into the area of Joint Suppression of Enemy Air Defenses (J-SEAD). Initiative #13 terminated the Army's Airborne Radar Jamming System

(ARJS) and assigned airborne jamming support to the Air Force. Just as the provision of ground-based electronic combat against enemy air attacks lent itself to the Army's single service proponency, airborne jamming of all threat emitters, (such as enemy air defense, ground control, and search radars) lent itself to the single service responsibility of the Air Force. Because of its long interest in and funding of airborne jamming devices and techniques, the Air Force had more numerous, more powerful, and more sophisticated airborne radar jamming devices than the Army was ever likely to acquire. The Air Force also had larger airframes capable of carrying more equipment than Army aircraft. Therefore, the Joint Force Development Group recommended cancelling ARJS. At best, it merely duplicated existing Air Force hardware. At worst, it further complicated the coordination of all electronic systems by adding yet another ingredient to the stew.

Initiative #14 instructed the two services to develop a joint concept and attendant hardware to broadcast Precision Location Strike System (PLSS) target information to designated Army units in "near real time." The PLSS was an Air Force project still in the development stage in May 1984. When fielded it would be a complex system consisting of TR-1 aircraft flying high over the battlefield with the ability to locate ground-based enemy electronic emissions and to accurately fix their own positions; the transferring of this information to a ground-based data processing center, which would precisely locate the enemy targets; and the transmitting of this targeting data to suitable strike aircraft already in the air. The entire process, from target detection to receipt of targeting data by the strike aircraft, would occur with extreme rapidity. Initiative #14 tied Army artillery and missile units and Air Force strike aircraft into a common targeting system. This allowed the location and suppression of enemy air defense radar within range of indirect artillery fire. It freed Air Force planes to attack other radars deep behind enemy lines while, at the same time, easing the opposition faced by air units flying ground support missions. The cost of adding the Army to the information distribution link would be modest compared to the benefits bestowed by additional destruction of enemy radar.

Initiative #15 directly addressed Joint Suppression of Enemy Air Defenses. It enjoined the Army's analytical agencies to model J-SEAD to determine the overall contribution of an effective SEAD campaign to the AirLand battle and the impact of Army participation in such a campaign on ammunition expenditure rates. The Air Force would provide full time participation in the analysis. Initiative #15 further directed the Army to update its field manuals to address the transmission of PLSS direct to designated Army units. This initiative also sought to foster examination of the operational benefit to the AirLand battle from an effective SEAD campaign. Next, it called for a thorough study of the effects of J-SEAD on ammunition expenditure. Presumably, a J-SEAD campaign would increase expenditure rates. This, in turn, would force increased acquisition, greater stockpiling, and more pre-positioning of the appropriate types ordnance required. The second part of this initiative would seem to belong to the previous initiative. Its placement in Initiative #15 emphasized that, for the Army, one of the primary uses of PLSS will be J-SEAD.

Special Operations Forces

Initiatives #16 and #17 contained recommendations on Search and Rescue (SAR) and Special Operations Forces (SOF). Initiative #16 stated that the Air Force would retain proponency for Search and Rescue with its own Special Operations Forces providing backup capability. In addition, the Air Force would determine its combat SAR objectives in relation to depths on the battlefield defined by capability, after which the Air Force will develop tactics, techniques, and procedures for SAR in Air Force zones. The two services would jointly develop tactics, techniques, and procedures for SOF to conduct Search and Rescue in areas beyond Air Force zones, such as escape and evasion nets run by Army SOF units. When the Joint Development Group first considered SAR, they thought to give the Army the entire function, in part because they envisioned (in Initiative #17) all rotary-wing lift support for SOF as an Army responsibility. Upon reflection,

however, they decided that the morale and customized training advantages of each service "taking care of its own" outweighed the advantages of a rationalized single service C^3 for SAR. In Initiative #17 the Air Force agreed to transfer the responsibility for providing rotary-wing lift support of Special Operations Forces to the Army. This initiative—which provoked great opposition from the Air Force SOF community—was intended to eliminate duplication and to consolidate all SOF rotary-wing aircraft into a single service.

Joint Munitions Development

Initiatives #18 and #19 covered joint munitions development. Initiative #18 contained three recommendations for a Joint Tactical Missile System (JTACMS), stemming from the need of both services for a missile capable of affecting the deep area battle. The Army needed a system which out-ranged its current tube artillery and rocket artillery systems. The Air Force required a stand-off missile capable of attacking air defense units, enemy C^3 elements, and counter air targets, such as airfields and forward area rearm and refuel points. Such a missile would enable aircraft to attack these targets without having to penetrate the massive Soviet tactical air defense system. The initiative directed the two services to develop a joint statement of need for JTACMS and to restructure current tactical missile (cruise) systems' development programs to develop procedures to ensure that the Air Force and Army components of the system were fully complementary. This did not mean that their components would necessarily be interchangeable, but that they did not have a significant overlap of capability. In addition, the Army agreed to "refocus" its development efforts on a shorter range ground-to-ground system, while the Air Force would develop an air-to-ground missile. The purpose of this initiative was to eliminate duplication of capability, to reduce the cost of two separately developed systems for the same job, and to integrate the employment of two complementary systems, including their procedures and target sets, into the AirLand battle.

Initiative #19 addressed Air Force and Army research, development, testing, and evaluation of munitions. It stressed the early experimental aspects of weapons development, by encouraging the two services to develop procedures for a joint and recurrent review of munitions' technical base programs keyed to the annual budget cycle. The review would use the joint logistics commander's structure and include Air Force and Army staff participation. The intent of this initiative was to avoid duplication of basic research applicable to weapons' technology. It did not involve coordination of stockpiles or joint development of specific weapons systems.

Joint Combat Techniques and Procedures

The next group of initiatives covered the area of how the two services would jointly fight on the modern battlefield. Initiative #20 had three recommendations on night combat. The degradation of air power's effectiveness at close support in the hours of darkness concerned both services. They agreed to determine jointly night operations requirements. The Air Force pledged to pursue a spectrum of night capabilities based on the joint night operations requirements and to resolve any joint training issues arising from the deployment of newly created night operations capability. To exploit the Army's advanced progress in the field, the Air Force agreed to designate a single Air Staff point of contact for night systems and to establish a liaison to the Army Night Vision and Electro-Optics Laboratory. This initiative encouraged joint consideration and coordination of night fighting and could result in an increased Air Force capability.

Initiative #21's three recommendations covered the subject of battlefield air interdiction (BAI), that is

> air action against hostile surface targets nominated by the ground commander and in direct support of ground operations. It is the primary means of fighting the deep battle at extended ranges. BAI isolates enemy forces by preventing their reinforcement and supply and

> by restricting their freedom of maneuver. It also destroys, delays, or disrupts follow-on enemy units before they can enter the close battle. BAI missions may be planned against targets on either side of the FSCL (Fire Support Coordination Line) in the ground commander's area of influence. Missions short of the FSCL require close coordination with ground units. Although all BAI missions require joint planning and coordination they may not require continuous coordination in the execution stage.[5]

In this initiative the Air Force and the Army agreed to develop and to test procedures synchronizing BAI with ground maneuver. These procedures would be flexible enough to be adapted for use in any potential theater of war. The Army agreed to automate its battlefield coordination element (BCE), which was an Army liaison and coordination unit colocated with the Air Component Commander's Tactical Air Control Center (TACC), and to connect the BCE commander with the corps and Land Component Commanders via near real time data links. The thrust of this initiative was to further refine BAI interservice procedures and coordination. The test requirement validated the new procedures, while the automation and real time linking of the BCE with its chain of command gave the Air Component Commander quick access to the ground scheme of maneuver and ground target priorities. This arrangement helped to solve the asymmetry between the Air Force's theaterwide view and the Army corps single sector responsibility.

In Initiative #22 the two services were assigned joint target assessment to reach a consensus on attacking enemy surface targets and the consequent development of coordinated munitions acquisition plans. This initiative sought to provide a joint list of tactical targets and to assign to the service most capable of striking them the responsibility for suppressing or destroying each type of target. Once the Air Force and Army agreed on the targets, both would review their tactical munitions acquisition requirements and draw up plans to avoid

duplication and ensure procurement of the necessary mix of munitions.

The subject of Initiative #23 was theater interdiction systems. It reaffirmed the Air Component Commander's mission of directing the theater interdiction campaign. Next, it recommended a joint study, under Air Force leadership, to establish requirements for interdiction systems, define future interdiction requirements, and determine the optimum service proponencies for intermediate nuclear force (INF) systems. Although this agreement confirmed the Air Component Commander's responsibility for interdiction, it also recognized the Army's legitimate need for a voice in planning the campaign. Because of the Strategic Air Command's (SAC) responsibility to assist in deep theater interdiction actions, this initiative brought SAC into the Joint Force Development Process.

Initiative #24 reaffirmed the Air Force's mission of providing fixed-wing CAS to the Army. It required no implementation or development. That this mission required reaffirmation spoke to the traditional distrust the two services felt toward one another on this issue. Yet, its inclusion in a document advocating a comprehensive integration of the doctrine and means with which the Army and Air Force intended to conduct the next battle acknowledged its basic necessity to both. If the two services followed the intent of this initiative, with the Army trying not to acquire or agitate for its own fixed-wing CAS aircraft and the Air Force not only giving to its CAS mission the resources it requires but insisting that its CAS forces display genuine and effective cooperation and coordination with the ground units they support, then this initiative may turn out to be the most far reaching of all.

Initiative #25 consisted of recommendations concerning the vital link between the air and ground combat forces—Air Force air liaison officers (ALOs) and Air Force forward air controllers (FACs). First, the Air Force and Army agreed to provide enhanced training in maneuver unit operations for ALOs and selected FACs. Next, the two services pledged to conduct an indepth review and evaluation of FAC operations and the tactical air control party (TACP) structure. The review would determine the advantages of enhancing ground FAC

capability with organic Army helicopter support, executing ground FAC functions while operating from organic maneuver unit vehicles, and using nonrated Air Force officers for battalion FAC duty. This indepth review and evaluation would begin with an internal review by the Tactical Air Command followed by a joint TAC-TRADOC review. The joint review would develop a joint field test plan of the proposed FAC/TACP concepts. Finally, the new concepts would be tested. This initiative sought to augment the effectiveness of the air-to-ground communication link most directly affecting CAS. The Air Force ground FAC normally was equipped with a jeep and a radio. If he could increase his field of vision from an Army helicopter or heighten his survivability and mobility in the modern intense battle in an Army armored personnel carrier, it would justify the commitment of organic rotary-wing and armored fighting vehicle assets by the supported ground unit. The recommendation for the training of nonrated Air Force officers as ground FACs was designed to enlarge the pool of air officers able to serve as FACs. It also allowed the Air Force to free its highly trained, expensive, and scarce pilots and navigators for the cockpit where they belonged. The initiative further acknowledged that someone other than a rated pilot could, with the proper training, serve as a FAC.

Initiative #26 had implications cutting across the span of Air Force - Army cooperation and coordination. In this initiative, which applied only to aircraft intended to support ground combat operations, the two services agreed to establish specific service responsibility for each manned aircraft system and to establish procedures for the development of coordinated joint positions on new aircraft starts before program initiation. This answered a long-standing Army grievance about lack of input into the design of Air Force aircraft intended for the Army's support. In the future it should eliminate unnecessary overlap of rotary-wing and fixed-wing close support and transport aviation. It would also produce a united Army - Air Force position on such aircraft as the C-17 transport and the follow-on to the C-18 electronic warfare aircraft. The same applied to Army rotary-wing aviation. Full-fledged support of those and successor programs by both services would increase joint AirLand combat capability

and present a doubly strong argument to Congress for continued funding of current systems and new funding for follow-on systems.

Fusion of Combat Information

The next three Initiatives, #27, #28, and #29, dealt with the development and acquisition of aircraft platforms to meet joint Air Force - Army battlefield targeting and reconnaissance needs. In Initiative #27, one of the most significant, the services agreed on a Joint Surveillance and Target Attack Radar System (JSTARS). The initiative reinforced the Joint Memorandum of Understanding of 11 May 1984, in which both services agreed to support the C-18, a modified Boeing 707, as the single platform for the system. Initiative #27 went on to instruct the Air Force and Army to sign a memorandum of agreement which would outline procedures ensuring dedicated support of the ground commander's requirements and provide for the procurement of sufficient aircraft to perform the mission. In agreeing to support the C-18 the Army abandoned its plans for putting a similar system on its Mohawk fixed-wing aircraft. This meant that the Army was dependent on an Air Force - sponsored system for information vital to effective ground combat.

In Initiative #28 both services assented to a joint restructuring of the then current TR-1 (an updated U-2) program to enhance its wartime survivability and effectiveness within the bounds of affordability. This added support for a program nearing the end of its procurement, while upgrading the capability for reconnaissance and target locating systems.

Initiative #29 pertained to manned tactical reconnaissance systems. In it the Air Force and Army would develop requirements for common aerial platforms to meet follow-on manned special electronic mission aircraft and tactical reconnaissance needs. The services agreed that when requirements dictated an airframe for the exclusive use of one service, that service would assume responsibility for development. At the same time, the designated service would jointly develop employment

procedures and procure enough aircraft to ensure dedicated support to meet the other service's requirements. This initiative sought to avoid wasteful duplication in funding tactical reconnaissance aircraft while ensuring that each service's requirements were met. It enjoined the proponent service to procure enough aircraft to "dedicate" sufficient numbers for the other service's needs. In practice, "dedication" would mean giving operational control of the aircraft to the other service, while the proponent service retained legal title and provided aircrew and maintenance for it.

Under Initiative #30 the services would establish a joint office to determine intratheater airlift needs including support movements from the aerial port of debarkation/seaport of debarkation to destination; resupply by AirLand/airdrop; reposition/redeployment of forces, equipment, munitions, and war reserve; and medical/ noncombatant evacuation. In addition, the services were to develop joint positions on intratheater airlift programs. Both services had significant overlapping airlift capability deployed or deployable to a theater of combat operations. Over the years the dividing line between the airlift functions of each service had become scrambled. Thus, Initiative #30 established a joint office to rationalize intratheater airlift operational requirements. Once this occurred the tasks could be apportioned to one service or the other, thereby eliminating redundancy while maximizing carrying capacity. The development of joint positions on intratheater airlift programs would assure continued cooperation within the theaters and the presentation of a joint front to the Congress and to the Office of the Secretary of Defense.

The last of the 31 Initiatives was one of first importance. In Initiative #31 the Air Force and the Army decreed they would henceforth begin formalized cross service participation in the each other's Program Objectives Memoranda (POM) development process. (The POM is the key funding and planning document of each service.) This would include an annual exchange of a priority list of those sister service programs essential to the joint conduct of AirLand combat operations. To create the POM, each service annually went through a lengthy process of examining and rejustifying each current

and proposed line item in its budget. Once a service's analysis was complete, and all the component pieces assembled and approved, the entire document went to the Secretary of Defense. He reviewed it and used it as a basis for his budgetary submission to the President. This initiative assured that the joint AirLand combat needs of both services would be known to each other and factored into the POM process at its inception.

The 31 Initiatives touched upon every aspect of the AirLand battle. Although only three of the initiatives cancelled an ongoing project and only three more transferred forces from one service to the other, the wholehearted implementation of all the initiatives promised increased joint war fighting ability. Thus, the Joint Force Development Group fulfilled its task of developing "in a deliberate manner the most effective, affordable joint forces necessary for airland combat operations."[6] That the Chiefs accepted all but one of their recommendations says much for both the intense desire of the Chiefs to promote joint war fighting and for the Development Group's success in presenting the crucial issues in terms that made them seem plausible and feasible. The ultimate test of the 31 Initiatives, however, was not in their comprehensiveness, but rather in their effect on interservice cooperation and coordination. That will be discussed in the next chapter.

Chapter III

The Impact of the 31 Initiatives

The promulgation of the 31 Initiatives was not the last step in the Chiefs' efforts to promote joint force development and integration. Without the proper follow-through the initiatives might sink into myriad duties and responsibilities of the service staffs without a ripple. Nor did the Chiefs regard the 31 Initiatives as the final and only product of their attempt at innovation. They stated in Initiatives Memorandum of Agreement of May 22, 1984, that they viewed the MOA as "the initial step in the establishment of a long-term, dynamic process whose objective will continue to be the fielding of the most affordable and effective airland combat forces." The 31 Initiatives were the "initial step," while the "long-term dynamic process" became the Joint Force Development Process (JFDP). Thus, the following examination of the implementation of the initiatives delves not only into the fate of individual proposals but with the progress of the biservice (and later triservice) endeavor to facilitate a continuing spirit of genuine interservice cooperation and integration on issues affecting AirLand combat forces.

Within three weeks of the release of the initiatives the Chiefs and their operations deputies acted to ensure oversight of the initiatives' implementation within their services and to foster the Joint Force Development Process that they hoped to perpetuate. On June 1, 1984, Generals Chain and Mahaffey signed a memorandum of understanding on an annual exchange between the two service staffs of six officers per service. Air Staff officers would serve in three Army directorates—Force Development; Strategy, Plans, and Policy; and Operations, Readiness, and Mobilization. Army Staff officers would serve in four Air Force directorates: Plans, Operations, Electronic Combat, and Space. This memorandum reaffirmed the two services' commitment to organizing, training, and equipping a compatible, complementary, and affordable AirLand combat force. The two OPSDEPS added, "ensuring the attainment

of our joint objectives will require a free exchange of ideas and concepts between the respective service staffs."[1]

On June 14, 1984, the two Chiefs created the Joint Assessment and Initiatives Office (JAIO), colocating it with the Air Force's Project CHECKMATE Group, a special Air Staff organization set up by the Air Force Chief of Staff in 1976. In early 1986 CHECKMATE became a separate directorate (XOC) within the Air Staff DCS/Plans and Operations. It assesses, through a Red Team/Blue Team move-countermove approach, the current conventional war fighting capabilities of the US and its allies (Blue Team) versus the USSR and its allies (Red Team). The Director of CHECKMATE wears a second hat as Air Force Co-Chairman of JAIO. The two Chiefs established the JAIO both to "institutionalize" the Joint Force Development Process and to assist in implementing the 31 Initiatives. They further designated the JAIO as focal point for future joint initiatives. Like its predecessor, the Joint Force Development Group, equal numbers of Army and Air Force personnel (three each), under the supervision of a colonel from each service made up the JAIO. The JAIO was responsible for developing independent, operationally based, war fighting analyses and applying those analyses to specific force employment and programmatic issues and problems. Both services would utilize JAIO's work to enhance the joint employment of operational forces and to ensure the funding and implementation of specific program and procurement strategies necessary for joint cooperation. Generals Gabriel and Wickham set the objective of the JAIO as offering new and innovative ideas and approaches to complementary force development and joint service force employment.[2] In effect, the JAIO became the services' staff clearing house for the Joint Force Development Process.

The Joint Assessment and Initiatives Office could not enforce compliance with the initiatives. However, the Air Force and Army colonels who headed the JAIO reported to their operations deputies each month and presented formal updates every quarter. The JAIO also briefed the service Chiefs quarterly. This direct pipeline kept the highest service authorities abreast of the initiatives' progress and allowed them to intervene on behalf of a lagging initiative if they so wished.

At the time of the formation of the JAIO the Chiefs assigned the various initiatives to commands and staff agencies within their services for completion. Within the Air Force, for example, General Gabriel made the Tactical Air Command responsible for implementing 12 of the initiatives. This reflected TAC's inseparable involvement with the AirLand battle. The JAIO received proponency for three initiatives, including the important #31 on the POM process.

In its tracking of the progress of individual initiatives through the service staffs and other service organizations, the JAIO—for management purposes—classified initiatives as either "closed, implemented, or ongoing." A closed initiative had already achieved its original intent and required no further action by the Chiefs, based on the original MOA. An implemented initiative had an action plan and structure in place that would allow the services to meet its spirit and intent, but still required further staff work. An ongoing initiative was one in which the services had not yet come to a mutually satisfactory agreement.

The progress of the 31 Initiatives, from promulgation to implementation, can be divided into two different phases. In the first phase, which lasted approximately fifteen months, the services resolved their differences over those issues which lent themselves to quick action, such as #8 (responsibility for ABGD), #5 (IFF improvement), and #31 (cross service participation in the POM process.) By September 15, 1985, twelve initiatives had been implemented or closed.[3] In the second phase of the services' response to the initiatives, from September 1985 to June 1986, the process continued at a faster pace. By June 1986 an additional fourteen original and three additional initiatives had been closed or implemented. The Joint Assessment and Initiatives Office also began to increase its role as a Joint Force Development Process information clearing house and as an advocate for "jointness." The process became further institutionalized with the acceptance by the Chiefs of four new initiatives. During this period the commanders in chief of the unified commands added their input to the process. Just as importantly, the Joint Force Development Process became even more joint with the added participation of the US

Navy, which in June 1986 joined the process with the assignment of a Navy captain as a co-chairman of the Joint Assessment and Initiatives Office.

The Services' Initial Responses

One of the strengths of the 31 Initiatives, and at the same time one of its weaknesses, was its requirement for the service staffs or major commands to research, study, and develop procedures and doctrine for coordinating the AirLand battle. This requirement appeared in nineteen of the original initiatives. The approach had the advantage of bringing the responsible program elements of each service into the process of cooperation at an early stage. The time and effort invested in an initiative by a service program element monitor tended to create a proprietary feeling and the initiative would then assume a bureaucratic life of its own. Conversely, if the program element produced a study supporting the status quo, then that program element (or office) might escape any further effort to foist the Joint Force Development Process on it. The 31 Initiatives could have supplied detailed new procedures and, indeed, doctrine itself. While having the advantage of conciseness, such detailed recommendations would have denied service components input into the decisions and would probably have invited more opposition from those who resented being "shoe horned" into a predetermined solution.

Two of the initiatives required no additional action. Initiative #24, which reaffirmed the Air Force's responsibility to provide fixed-wing close air support to the Army, was closed when Generals Gabriel and Wickham signed the May 22, 1984, agreement. Likewise, by signing the agreement, General Gabriel cancelled the Air Force's Mobile Weapons System for Air Base Ground Defense. This action involved no Army funding or programs; hence, it closed Initiative #11. Fifteen months later the JAIO reported those two initiatives as the only ones closed.[4]

This did not mean, however, that the Joint Force Development Process had not taken large steps forward. By the end of August 1985 the US Navy and Marine Corps

had become participants in five of the initiatives. The Navy became involved with the initiatives on IFF (#5) and Search and Rescue (#16)--both items of vital concern to naval aviation. The Marines began participation in intratheater airlift, Initiative #30. All four services joined forces for munitions RDT&E (#19) and cross service participation in the POM process (#31). Finally, at the formal invitation of the Chiefs of Staff of the Army and Air Force (and also because of their personal lobbying of the Chief of Naval Operations), the Navy, in July 1985, committed itself to begin participation in the JAIO, promising to assign a lieutenant commander or commander for full time duty by January 1, 1986.[5]

Although the two service Chiefs sent members of the Joint Force Development Group to brief the commanders in chief (CINCs) of the unified commands prior to the release of the 31 Initiatives, the CINCs had not participated in any other way in the creation of the initiatives. Obviously the CINCs, who would direct combat operations in their own theaters, had a vital interest in how the AirLand battle would function in their own particular spheres. The service Chiefs recognized the necessity of involving the CINCs, who were the ultimate consumers of the effective and affordable AirLand combat force to be fostered by the 31 Initiatives, in the Joint Force Development Process. When they established the JAIO, the Chiefs provided for the addition of future initiatives. This allowed the CINCs, and others, to suggest innovations of their own.

The unified commanders responded to the original 31 Initiatives with several suggestions for joint consideration. Some were settled before becoming full fledged initiatives. In this instance the good offices of the JAIO proved valuable in directing the CINCs' suggestions to the appropriate commands or agencies and in providing a forum for Army and Air Force components to compare notes on complementary programs. In some cases the CINCs' suggestions or needs had already been recognized and work commenced on them, but the CINCs had not previously been made aware of it. The first new initiative added (#32) was suggested, in early 1985, by the Commanders in Chief of the US Army, Europe (CINCUSAREUR), and the US Air Force, Europe (CINCUSAFE), and had the support

of the other war fighting CINCs. Initiative #32 required the Air Force and Army to improve procedures and functional organization for rapid targeting and to enhance the compatibility of collection, intelligence, and operations systems. In this initiative the services hoped to integrate the above systems to achieve a nearly instantaneous targeting capability not only for J-SEAD purposes but for all battlefield targets. Field exercises on the rear area battle had revealed an acute need for more intelligence and targeting support for that facet of the AirLand battle in addition to the standing targeting requirements of the battle line and the enemy's rear area.

By June 1985 the JAIO incorporated two more initiatives into the Joint Force Development Process. Initiative #33, suggested by the Army Chief of Staff, committed the two services to conduct a complete review of the Air Force close air support (CAS) mission area, including cross service cooperation in defining expected future replacement CAS aircraft. This initiative sought an across-the-board approach to the question of the Air Force's role in CAS, as opposed to some of the more specific issues treated in earlier initiatives. In April 1985 the two service Chiefs and their service Secretaries signed a Memorandum of Understanding on follow-on CAS aircraft. This MOU reflected the intent of both Initiatives #26 and #33. The services agreed on the need for a new fixed-wing CAS aircraft. The new CAS aircraft, the A-X, would emphasize survivability and day/night, under-the-weather capability. The agreement called for the new CAS aircraft to conduct battlefield air interdiction, particularly attack on enemy second-echelon forces. The A-X would be configured and equipped to attack surface targets in close proximity to friendly troops through coordination with the ground-force scheme of maneuver and fire support. A-X units would "continue the extensive Army - Air Force training program established by the current designated close air support forces and become an integral part of the coordinated surface maneuver plan." Finally, the services promised to exchange information and to jointly monitor any new CAS aircraft program through all phases of funding, development, and acquisition.[6]

Initiative #34, suggested by the Commander in Chief of the US Readiness Command in June 1985, sought to set

nature such a program would include Air Force main operating bases. To support that objective, the two services set up a Joint Air Base Air Defense Working Group, co-chaired by the Air Force and Army Vice Chiefs of Staff. The working group would annually review service air defense programs and ensure mutual support of respective service and joint programs. The working group would complete its review in time to initiate the POM planning and programming cycle. Both services acknowledged that the Army had primary responsibility for air base air defense, and the Air Force promised to endorse the Army's efforts to obtain additional force structure and funding to meet its air base air defense tasks. If, despite its best efforts, the Army could not field adequate air defense forces, the Air Force retained the right (subject to the approval of the Joint Working Group) to organize organic point air defense capability or negotiate agreements with host nations.[7] As for IFF systems, the Navy joined fully in a triservice agreement on management and administration of joint IFF programs, which continued an ongoing joint effort and reaffirmed the Air Force as the lead agency for Combat Identification System Programs.[8]

In Initiative #12 the Air Force cancelled its Comfy Challenge ground radar jamming system and began participation in the Army Air Defense Electronic Warfare System. This was "an act of faith" on the Air Force's part. The Air Force had begun its ground jamming program because of what it considered lack of Army response to its needs. In order to assist the Army in meeting Air Force jamming requirements, the Air Force, by November 8, 1984, delivered to the Army letters stating its needs and priorities for the defense of points vital to its operations and for the enemy capabilities it wished degraded.[9]

The two services resolved several of the Air Base Ground Defense (ABGD) issues. They established a Joint Air Base Ground Defense Working Group. This reported to the Air Force and Army DCSs for plans and operations and served as a forum for the biservice negotiations necessary to develop and implement joint ABGD policies. In addition, the services agreed to develop joint doctrine for the rear battle, including ABGD, and to coordinate proposed changes

up a mechanism to test and evaluate the war fighting procedures produced by the 31 Initiatives and the Joint Force Development Process. It would avoid the pitfall of having good theory result in bad practice. This initiative charged the two services to develop a memorandum of agreement designating the Readiness Command (REDCOM) as executive agent to evaluate and validate—through appropriate exercises—the tactics, techniques, and procedures developed by TAC, TRADOC, and others in the course of implementing selected joint force development initiatives. Next, #34 proposed to obtain JCS endorsement of REDCOM's role. Finally, the Air Force and the Army, in conjunction with REDCOM, agreed to develop a mechanism to allow the two services to jointly consider any recommendations arising from REDCOM's trial exercises. It would supply another avenue for the services to explore joint practices. REDCOM, composed of most of the major active Army and Air Force units based within the United States, had no assigned Navy or Marine forces. Its primary function was to maintain a combat ready reserve force to reinforce other commands located throughout the world. Among its other responsibilities, REDCOM had in its charter the task of developing recommendations regarding tactics, techniques, and procedures for joint employment of its assigned forces. This made it a logical choice to test new Joint Force Development Process concepts, doctrines, and procedures. In addition, REDCOM's then new commander, General Fred K. Mahaffey, one of the 31 Initiatives' "godfathers," would ensure the command's receptiveness to the new ideas flowing its way.

For the first fifteen months after the promulgation of the original 31 Initiatives in May 1984, Air Force and Army elements continued to work toward their implementation. This effort resulted in eighteen formal interservice agreements which marked the completion of various portions of the initiatives.

In the area of air defense, the services signed agreements on Initiatives #2 (Air Base Air Defense), #5 (Joint IFF), and #12 (Ground Based Electronic Combat Against Enemy Air Attack). The Army and Air Force agreed to coordinate air defense plans and programs to improve theater-level, integrated air defense. By its

in ABGD concepts, doctrine, and force structure. The Army, while retaining responsibility for ABGD outside base or installation boundaries, placed under the operational control of the Air Force base commander its forces assigned to defend a specific air base from espionage, sabotage, terrorism, and small-scale enemy unconventional or special-forces operations. Where feasible, the Army would initiate requests for host nations to provide external ABGD. The Army further agreed to supply intelligence on enemy ground forces to Air Force threat assessment and counterintelligence staffs.

In turn, the Air Force pledged to provide physical security and internal defense within air base boundaries. Air base commanders became responsible for local ground defense of their bases, and, governed by the availability of Army or host nation forces, for the employment of external safeguards to provide early warning, detection, and reaction to enemy threats. The Air Force promised to supply sufficient command, control, communication, and intelligence resources to the base commander to enable him to control operationally all ground forces assigned to him and to make those assets interoperable with Army rear area operations support.[10]

In a key agreement avoiding duplication of function and producing substantial savings, the two services gave the Army the responsibility of providing initial combat skills training and sustainment training to Air Force ABGD flights. The Air Force continued to pay for unit and individual equipment, weapons, and munitions. Both services agreed that the training would conform to jointly developed doctrine and procedures for ABGD.[11] As mentioned earlier, this move made it possible for the Air Force to cancel plans to acquire twelve regional ground training centers, which resulted in significant savings, freeing funds for other projects.

Finally, TAC and TRADOC agreed on a concept and procedures for Joint Rear Area Close Air Support. In the course of developing this concept, which both commands viewed as an essential piece of the entire rear area battle, two important lessons emerged. Firstly, an airborne forward air controller (FAC) was an absolute necessity for the efficient employment of rear area CAS. His communications, speed, and mobility gave him the

flexibility and capability of coordinating actions over a large area. Secondly, the rear area battle needed more thorough exercises to test doctrine and to refine the roles of the various participants, particularly the Rear Area Operations Centers.[12] This implemented Initiative #10.

Taken as a whole, the two services made significant progress in integrating their efforts in the rear area battle. While these moves may have been made at some point, their current consideration stemmed directly from the impetus supplied by the Joint Force Development Process.

On Initiative #13, although the Army agreed to cancel its airborne radar jamming program, the services could not develop options or recommendations that would enable Air Force systems to fulfill Army requirements.[13] Initiative #14, based on the Precision Location Strike System (PLSS), proved difficult to implement in part because of PLSS development delays that clouded that system's prospects for future employment. Eventually the Air Force decided not to employ PLSS. By that time, however, the joint targeting concepts of the initiative had already taken hold.

TAC and TRADOC formed a joint working group to meet Initiative #15's goals of modeling J-SEAD and examining J-SEAD's effect on ammunition expenditure rates. This group developed tactics, strategy, and procedures that were evaluated in exercises at Fort Hood, Texas, and Nellis AFB, Nevada. Final conclusions, however, were not consolidated until December 1985.[14]

Nor had the services implemented the Search and Rescue and Special Operations Forces initiatives (#16 and #17). The Joint Assessment and Initiatives Office's August 1985 update briefing for General Gabriel spoke optimistically of progress on the two issues. It mentioned Army - Air Force adoption of a total force approach to Combat Search and Rescue operations, which impacted on both Army Special Forces training requirements and a new Air Force baseline for combat rescue system development. The briefing noted on Initiative #17 that

> The services have developed a long-term plan to complete the transfer from the Air Force to the Army of the responsibility for rotary wing

> support for SOF. This plan consolidates SOF helicopters in the Army, where these assets can best conduct and sustain this aspect of special operations. The Air Force is increasingly concentrating its efforts on support of SOF fixed wing requirements as its rotary wing capabilities are replaced by Army aviation forces.[15]

This description masked the opposition to the initiative within the Air Force Special Operations Forces community. Air Force Special Operations Forces objected to the transfer of its HH-53H PAVE LOW III helicopters to the Army. These specially equipped craft had unique capabilities resulting from their terrain-following-and-avoidance radar, inertial-guidance system, ability to refuel in flight, and forward-looking infrared radar, which enabled them to make low-level penetrations.[16] They also had highly trained crews. Ostensibly, Air Force Special Operations Forces feared that the proposed force transfer would seriously degrade the overall PAVE LOW capability of the two services for a considerable time, while the Army trained crews able to effectively utilize PAVE LOW's assets.

In fact, Initiative #17 had become embroiled in a larger issue: the role of the Special Forces in the US military structure. Questions arising from the performance, advance planning, and command and control of special forces in the Iranian rescue attempt, the Grenadan operation, and for contemplated roles in combating terrorism surfaced in Congress and elsewhere. Congress and the President attempted to solve part of the confusion by passing and signing a law to consolidate all the services' Special Operations Forces into a single new agency. Given this atmosphere of confusion, skepticism, and special interest, the Air Force, although in favor of implementing the initiative, delayed, if not indefinitely postponed, action.

The field of joint munitions development proved more fruitful. Initiative #18, on the Joint Tactical Missile System (JTACMS), produced a joint statement of need and a memorandum of agreement on Joint Missile System Development and Acquisition, both in November 1984.[17] The services pledged to pursue JTACMS development,

recognizing that "extraordinary efforts are required to achieve the goals of an executable program schedule, affordability and required system performance." Both services restructured their development programs to meet their new commitment.[18]

The initial program assessment of munitions RDT&E, conducted in accordance with initiative #19, revealed fifteen potential joint programs and nine "voids" in munitions research. By the end of August 1985, after the Navy and the Marines had begun full participation in this initiative, all four service staffs received recommendations for consideration in their POM cycle for enhancement of antiarmor terminal effects modeling and for a data base upgrade for the fundamental physics of penetrating mechanisms.[19]

Likewise, the Air Force and Army made headway on the initiatives in the area of battlefield coordination. In response to Initiative #20 on night combat, TAC and TRADOC set up a joint night combat working group. The group coordinated both services' night operations concepts, doctrine, capabilities, requirements, and programs and ensured development of appropriate force structure and hardware. In addition, Air Force Systems Command established formal liaison with the Army Night Vision Laboratory, and the Air Staff chartered a point of contact for night combat within the Directorate of Operations.

Initiative #21, on Battlefield Air Interdiction, spurred TAC and TRADOC to publish "General Operating Procedures for Joint Attack of the Second Echelon," (J-SAK) in December 1984. Six months later the two commands tested these procedures (particularly as they applied to synchronization of Battlefield Air Interdiction and ground maneuver) in Exercise Blue Flag 85-3 at Hurlburt Field, Florida. Evaluation of the exercise results was completed in November 1985, when TAC and TRADOC found the procedures supplied adequate interdiction and maneuver synchronization.[20]

Initiative #23, on Theater Interdiction Systems, produced a Strategic Air Command, TAC, and TRADOC agreement on "Theater Interdiction Materiel Requirements with Joint or Multicommand Applications." This MOA set up procedures to identify interdiction materiel programs offering potential for joint development, initiate efforts to

jointly accept and modify new and existing requirements, and ensure interdiction requirements meeting the specific theater objectives of both the U.S. and its allies.[21] The Air Force also led a joint study to develop an agreement to designate a proponent for requirements and operational concepts and to establish a framework for development of complementary theater interdiction systems. This future agreement was further intended to delimit responsibilities for present and future Longer Range Intermediate Range Nuclear Forces.

The response to Initiative #25 on Forward Air Controllers (FACs) and Air Liaison Officers (ALOs) necessitated a series of long resource reviews and option considerations within TAC. TAC completed an internal review by July 1984. In conjunction with TRADOC, TAC completed a joint review of FAC and ALO assets and developed a joint field test plan of proposed FAC - Tactical Air Control Party concepts by December 1984. By June 1985, after polling the National Guard Bureau, the Alaskan Air Command, US Air Forces Europe, and the Pacific Air Forces to determine which Army battalions each could support, TAC had aligned available ALOs against 208 battalions.

The Air Staff demanded more.[22] It pointed out that the training requirements levied on Air Force pilots often left them insufficient time for training with Army units. Additionally, force strength requirements left the Air Force unable to have officers at all desired locations. Consequently, the Air Staff suggested that TAC take a harder look at the possibility of using enlisted personnel with experience similar to that of FACs and ALOs. TAC and TRADOC scheduled tests of the battalion ALO and enlisted ground FAC concepts for late 1985 and mid-1986.[23] As of September 1986 the results of these tests had not been fully evaluated.

The services also attempted to improve their battlefield command, control, communications, and intelligence capabilities. Air Force and Army efforts on the Joint Surveillance and Target Attack Radar System (J-STARS) resulted in a memorandum of agreement on Initiative #27 signed by Generals Wickham and Gabriel on April 23, 1985. The two services confirmed their choice of the C-18 aircraft as the single J-STARS platform and

committed themselves to manage the program jointly. The Air Force agreed to dedicate appropriate parts of the system to the direct support of the ground commander's requirements and to provide enough aircraft to meet its own and the ground commander's needs.

The MOA instructed the Air Force to direct the Theater Air Component Commander to supply continuous wide area radar surveillance and weapons guidance information to corps and other land commanders equipped with the J-STARS ground station modules. The Land Component Commander would designate appropriate subordinate units to receive support. Those unit commanders would determine required area of coverage, employment, times of coverage, and radar priorities. The land unit commander would pass these requirements through the Army Battlefield Coordination Element to the Air Component Commander's Tactical Air Control Center. The Air Component Commander would then determine the number of aircraft and sorties required to meet the land needs. The land commander also had the right to modify priorities to fit changing circumstances and to communicate those modifications direct to the J-STARS aircraft in flight. The two services further agreed to encourage their North Atlantic Treaty Organization partners to acquire similar and compatible systems.[24]

One of the most important features of this agreement was its answer to long-standing Air Force - Army problems. It required Air Force acceptance of Army support requirements, but it allowed the air commander to determine his own allocations and mission specifics. The agreed upon system allowed flexibility between the Air Component Commander's need for preplanned missions to maximize effective crew and aircraft use and the land unit commander's need for instant response to unforeseen battlefield situations. If the services extended the same principles to control of combat aircraft as well as information it would answer one of the essential close air support questions, that of how to mesh air power's theaterwide perspective to the narrower view of the ground commander focused upon the situation immediately to his front.

To further meet Army combat information needs the Air Force increased its procurement of TR-1s (Initiative

#28) and investigated means to increase their survivability based on improvements to the aircraft and to the ground stations processing the acquired information. For its part the Army began to integrate the information supplied by the TR-1 into its operations by defining its materiel requirements, refining deployment concepts, and developing procedures to ensure timely receipt of the information by the appropriate ground commander. In response to Initiative #29 the services conducted an indepth worldwide review of air reconnaissance, surveillance, and intelligence needs of air and ground commanders. Based on those needs the two services began to formulate recommendations for follow-on manned tactical reconnaissance aircraft and sensors.

The services complied with Initiative #30 on intratheater airlift when the Air Force's Military Airlift Command (MAC) and TRADOC established the Airlift Concepts and Requirements Agency (ACRA), a biservice operating agency at Scott Air Force Base, Illinois. This agency would assist in integrating airlift considerations into the Army concept development process; combine service considerations into airlift concepts; coordinate airlift requirements between the service staffs and between the unified and specified commanders; and resolve doctrinal and procedural concerns arising out of implementation of current service doctrine.[25]

On November 29, 1984, the Air Force and Army implemented Initiative #31 by signing an MOA on cross service participation in the POM development process. Five days later the Navy and the Marine Corps joined the other two services in a similar four service agreement. These agreements contained procedures and timetables for cross service POM participation. Every July and August each service would prepare a list of sister service programs essential to the joint conduct of combat operations. These lists would be forwarded to the sister services for inclusion in their planning documents. Through December and January each service would brief the others' Program Review or Program Budget Committees to formalize its input into each other service's POM. In February and March the services would monitor the progress of their input through the others' budget processes. From March to May each service would monitor

the status of programs of interest to it. The Army would go before either the Air Staff Board or the Air Force Council, while the Air Force would go before the Army Program Budget Committee or Select Committee. The service vice chiefs would then consult on issues of disagreement before completing the POM. Then, each service would include programs of sister service interest in its own POM Decision Briefing to its Secretary and its Chief of Staff.[24] These procedures proved themselves in 1985. During a Secretary of Defense - mandated funding cut (or decrement drill), they assisted in the preservation of the core programs essential to the 31 Initiatives.[25]

Thus, by the end of the first phase of their response to the 31 Initiatives, within fifteen months after their promulgation, the services cancelled programs, transferred forces, encouraged biservice cooperation on airlift, focused even more attention on the problems inherent in integrating the efforts of both services into the AirLand battle, and formalized effective cross service input into the budgeting and programming process. In addition, the two services institutionalized the Joint Force Development Process by creating the Joint Assessment and Initiatives Office, by encouraging the development of new initiatives through the participation of the unified commanders, and finally by making the process a real joint process by gaining full-time Navy staffing for the JAIO and Navy participation in several of the initiatives.

The Services' Later Responses

In the second year after the signing of the 31 Initiatives, the Joint Force Development Process made continued progress, while the implementation of the 31 Initiatives moved at a seemingly slower pace. In the first rush after the promulgation of the 31 Initiatives those problems that lent themselves to a "quick fix" were solved. It was relatively easy enough to cancel three programs, set up joint study groups, and conduct studies pinpointing weaknesses. Of necessity the next phase of the Joint Force Development Process attacked more complex issues

that required long-term testing and evaluation and tailoring to specific theater requirements.

The JAIO two-year progress report briefed to General Gabriel shortly before his retirement in June 1986 reflected this change. The two-year report no longer tracked the progress of individual initiatives toward milestones and specific goals. In March 1985 the Army and Air Force DCSs for plans and operations had defined an initiative as "implemented" when it had achieved the spirit and the intent of the Chiefs' MOA and any remaining actions had been institutionalized within the service staffs. Likewise, a "closed" initiative met the spirit and intent of the Chiefs' 31 Initiatives MOA and required no further staff work. By the summer of 1986 the definitions had changed. A "closed" initiative now met the intentions of the Chiefs, but still required tracking for programmatic support. An "implemented" initiative was an initiative with an action plan in place to meet all milestones, but whose procedures had not yet been tested or fully evaluated. The new definition enabled JAIO to implement many of the initiatives.

Here again this seeming sleight-of-hand did not indicate a desire to conceal lack of progress; it reflected the complexity of the issues addressed by the remaining initiatives. The development of procedures and doctrine to coordinate air and ground unit actions over the entire sweep of the battlefield—from defense of key rear installations to interdiction of second-echelon enemy forces beyond the battle line—did not spring fully formed from the minds of a few brilliant officers. Even if a single individual or a small group articulated a doctrinal or procedural solution to a specific aspect of the overall AirLand battle, that solution would have to be field tested and, far more often than not, evaluated, refined, and modified in the light of the practical limitations of weapon systems and command, control, communications, and intelligence capabilities. Having to go through the process for two different services merely compounded the time consumed.

By August 1985 the two services had added three new initiatives to the original 31, and over the next 10 months one more was added. On January 1, 1986, the two services implemented Initiative #35 by establishing a single,

joint center for low-intensity conflict. The Air Force defined low-intensity conflict as

> A continuum encompassing social, economic, psychological, political, and military forms of conflict. Involvement may run from political actions through isolated or trans-national terrorism, state-sponsored terrorism, classic insurgencies, and/or limited confrontations involving regular military forces. Responses require tailored, social, economic, psychological, political, and generally limited military action formulated in a situation-specific mix.[28]

Low-intensity conflict would, therefore, seem likely to be the type of warfare that US armed forces would encounter more often than the cataclysmic, all-out battle anticipated for central Europe. The services set up the Joint LIC Center at Langley Air Force Base, Virginia.

This initiative, suggested by General Gabriel and the Air Staff, illustrated the Chief's continued commitment to positive change. The idea of a LIC center sprang from the Air Force Task Force on Innovation. This was a group chartered by General Gabriel to generate solutions to future challenges and to encourage and incorporate innovation within the Air Force. At the Task Force's suggestion the Air Force established its own low-intensity conflict center at Langley. The concept had such obvious potential for joint action that the Air Force, in addition to setting up its own LIC center, proposed a joint center as well. Army acceptance of the idea resulted in Initiative #35.

Initiative #35 incorporated into the Joint Force Development Process a theme diametrically opposite to its original concentration on a major war in central Europe. This indicated a desire of the service Chiefs, if not the services, to enhance joint combat cooperation at every possible level.

In May 1986 Generals Wickham and Gabriel signed a memorandum of agreement on Manned Aircraft Systems. This agreement fulfilled the terms of Initiatives #26 and #33 and replaced the twenty-year-old McConnell-Johnson Agreement (see Chapter I for a discussion of this

agreement) on the responsibilities of both services toward the various types of aviation. Unlike the earlier agreement, this MOA was not the sole result of personal negotiations between the two Chiefs. Its coordination took more than a year to work through the staffs, major commands, and unified and specified commanders.

This Gabriel-Wickham agreement reaffirmed the primacy of the Army for rotary-wing combat support and that of the Air Force for fixed-wing combat support. It acknowledged

> Army aviation is structured primarily to support air-land combat operations by providing a highly mobile combat arm organic to ground forces. Ground commanders command and employ these aviation elements in synchronization with other combat arms to achieve assigned ground maneuver objectives. . . .
>
> Air Force forces are structured primarily to support global and theater-wide operations as well as air-land combat operations by providing aircraft with speed, range and flexibility to promptly project decisive combat power wherever needed.[27]

The agreement recognized that interdependence of the services in AirLand combat operations necessitated close coordination of acquisition and employment of manned aircraft systems to avoid unwanted duplication of research, development, force structure, and operations. New technologies, such as tilt-rotor aircraft combining characteristics of both rotary and fixed-wing aircraft, would also require close coordination. Thus, the services committed themselves to establish joint positions on manned aircraft systems.

Such coordination would start at a system's conception and would include every aspect of the development and acquisition process. It would focus at the Army - Air Staff level with appropriate input from major commands. Unresolved issues would be referred to an Air-Land Review Group composed of representatives from the service staffs and major commands. This agreement did not focus on technology. Instead it established a doctrinal

foundation upon which the Air-Land Review Group could base its cross service coordination of service concepts and requirements.

Unlike earlier agreements of the 1940s and 1950s, which were the products of interservice rivalry, this demarche sprang from a desire to accommodate the needs of both services. It was yet another example of how the services had come to emphasize joint battlefield action over institutional parochialism, perhaps reflecting a further maturation of both Air Force and Army aviation. Now that both had long-standing, acknowledged, and accepted roles in the AirLand battle, it was no longer necessary to worry about their existence.

Although the Joint Assessment and Initiatives Office continued to monitor the progress of the initiatives, it also began to stress its role as clearing house for joint doctrine and concepts. In its last briefing to General Gabriel, the JAIO did not present a laundry list tracking the individual status of each initiative. Instead, it emphasized the progress the 31 Initiatives, as a whole, had encouraged in integrating the services' capabilities in the rear, close, and deep battle areas. General Gabriel's final Joint Force Development Process briefing also made specific mention of the collateral activities facilitated by the JAIO.

Whereas in the first fifteen months the JAIO had assumed one collateral function—that of oversight of a small biservice staff officer exchange program (six positions limited to operations functions)--in the following months the Joint Force Development Process moved further beyond the battlefield. The officer exchange program expanded to a three service exchange of twenty-one officers with future exchanges scheduled for the areas of intelligence planning and estimates and logistics planning and transportation. The JAIO developed a system to reflect joint duty credit on the officers' service records and to track the exchange officers for future joint assignments.

One of the JAIO's most important tasks was the consideration of possible new initiatives. On the first anniversary of the 31 Initiatives the JAIO had solicited the unified and specified CINCs for suggestions. By the second anniversary the CINCs had responded with 44 candidate initiatives. If nothing else, the number of the

CINCs' concerns about joint war fighting demonstrated the utility of having the services establish a forum like the JAIO to address those concerns. Of the 44 candidate initiatives 19 were resolved outside the JFDP, 8 had been recommended for adoption as new initiatives, and 17 were still under consideration.[30] In assessing the candidates, the JAIO first researched them, including working with and drawing on service subject area specialists. Next, the JAIO presented its findings to the OPSDEPS to obtain their initial guidance and approval. Then, the JAIO refined the candidates meriting further assessment, usually seeking formal CINC/major command approval. Once refined, the candidate initiative was again presented to the OPSDEPs, who decided to either send it to their Chiefs of Staff for approval as a formal initiative or take another course of action on it, such as referring it to a joint agency for more study.[31]

In order to expand and institutionalize interservice cooperation the JAIO undertook several actions. To coordinate the activities of other biservice doctrine and concepts groups, JAIO hosted a quarterly roundtable consisting of representatives from the TAC-TRADOC Air Land Forces Applications Agency, the TRADOC-MAC Airlift Concepts and Requirements Agency, the US Air Force Europe - US Navy Europe Joint Air Naval Applications Directorate, and the US Army Europe - US Air Force Europe Directorate of Air Land Forces Applications. The JAIO created a worldwide Joint Force Development Process teleconference net (JFDPNET) to cross service and command boundaries in order to encourage rapid and efficient dissemination of ideas. Finally, the JAIO, at the direction of the Chiefs and the CNO, initiated steps to insert instruction on the Joint Force Development Process into the professional military education system of each service. In a letter to the heads of the senior service schools the three service heads spoke of their commitment to the Joint Force Development Process, which they noted now extended beyond the specific proposals contained in the 31 Initiatives and its additions. The service heads stated

> full and lasting acceptance of the concept, purpose and goals of the JFDP hinges on our

> commitment to educate our current and future leaders. . . . This educational effort will be, in our view, a critical means for expanding and institutionalizing the development of joint warfighting expertise and capabilities throughout our military structure.[32]

After two years the Joint Force Development Process begun by the 31 Initiatives continued to promote Air Force-Army-Navy cooperation on the ways and means of fighting the combined battle in the air and on the land. Aside from the cancellation of three programs, and a resultant savings of over a billion dollars,[33] which the services reprogrammed for other priority needs, the accomplishments of the 31 Initiatives were not readily quantifiable. The agreements on J-STARS, J-TACMS, Air Base Ground Defense, Manned Aircraft Systems, and cross service POM participation were the direct result of specific initiatives. While accommodations in those areas might have come in any case, they came earlier and probably with less friction because of the initiatives.

Yet, the ultimate effectiveness of those agreements and other biservice doctrine and concepts created as a result of the initiatives have in many cases not been thoroughly tested. Maneuvers, which themselves are subject to manipulation, have only begun to include the new ideas. The services have not completed review and evaluation of the results, nor can maneuvers provide the "ultimate test," which might never come. Still, the type of battlefield integration encouraged by the 31 Initiatives should make the services more effective, if for no other reason than that they will no longer be duplicating each other's capabilities.

The pace of implementing the initiatives has slowed, but not stopped. Cynics might point out that change imposed from the top has a half-life closely related to the job tenure of its advocates. As of July 1986 only General Wickham remained in position. The members of the original Joint Force Development Group went their separate ways, and not one is currently connected to the Joint Assessment and Initiatives Office. The JAIO did not, and does not, have any coercive authority to impose the initiatives on other organizations; it merely monitors and

tracks the pace of implementation. Because it sets the agenda for Joint Force Development Process reporting to the Chiefs and has frequent, direct contact with the Army and Air Force deputy chiefs of staff for operations and plans, it has considerable influence in how its superiors judge the effectiveness of the initiatives. But in the last analysis, it is likely that only the highest levels of service leadership can sustain the momentum generated by the 31 Initiatives.

DOCUMENTARY APPENDICES

Appendix 1

Department of the Army
Headquarters, US Army
Washington, D.C.

Department of the Air Force
Headquarters, US Air Force
Washington, D.C.

21 April 1983

MEMORANDUM OF UNDERSTANDING
ON
JOINT USA/USAF EFFORTS FOR
ENHANCEMENT OF JOINT EMPLOYMENT
OF THE AIRLAND BATTLE DOCTRINE

The Departments of the Army and the Air Force concur that the opportunities are right, the level of joint interest is high and that valid military requirements exist to initiate an agreement of inter-service cooperation in joint tactical training and field exercises based on the AirLand Battle doctrine as promulgated in Army FM 100-5, Operations, 20 August 82. The goal of this effort is to provide operational commanders the most capable, flexible and mutually enhanced mix of forces for joint execution of the AirLand Battle against enemy forces.

The AirLand Battle concept guides forces in the prosecution of the AirLand Battle. To ensure its operational feasibility, each Department will commence joint efforts to enhance their combined effectiveness in AirLand Battle operations. These efforts will, in particular, be directed at increased joint training and exercising, with the following specific objectives agreed to as of this date:

Increase integration of Army and Air Force forces in tactical field training and command post exercises, including JCS-sponsored exercises.

Continue efforts to enhance inter-service interface during planning and programming processes.

THE 31 INITIATIVES

Increase inter-service dialogue on AirLand Battle doctrine and related concepts.

Increase cooperation in the development and coordination of deep attack/battlefield air interdiction/interdiction programs.

Increase cooperation in the development and coordination of airlift requirements to meet battlefield mobility needs.

Resolve any doctrinal and procedural concerns as AirLand Battle doctrine is integrated into joint theater operations.

To implement the actions and overall intent of this MOU, the Service Chiefs will coordinate operational planning and make recommendations to enhance joint capabilities, within their respective Military Departments and within the framework of the Joint Chiefs of Staff.

E.C. MEYER
General,
United States Army
Chief of Staff

CHARLES A. GABRIEL
General,
United States Air Force
Chief of Staff

Appendix 2

Department of the Army
Headquarters, US Army
Washington, D.C.

Department of the Air Force
Headquarters, US Air Force
Washington, D.C.

2 November 1983

MEMORANDUM OF UNDERSTANDING
ON
INITIATION OF A JOINT
US ARMY - US AIR FORCE
FORCE DEVELOPMENT PROCESS

1. The Departments of the Army and the Air Force affirm that to fulfill their roles in meeting the national security objectives of deterrence and defense, they must jointly field and train forces that are able to conduct effective airland combat operations. To that purpose, the Departments agree to initiate herewith a joint process to develop in a deliberate manner the most combat effective, affordable joint forces necessary for airland combat operations.
2. The Departments will establish a joint group to develop a plan that will ensure coordinated programs for the Army and Air Force in the FY 86-90 Program Objective Memoranda. Attached are the terms of reference that will govern the group.
3. This MOU is a further implementing action guided by the principles jointly agreed on 21 April 1983 in the "Memorandum of Understanding on Joint USA/USAF Efforts for Enhancement of Joint Employment of the AirLand Battle Doctrine".

JOHN A. WICKHAM, JR.
General,
United States Army
Chief of Staff

CHARLES A. GABRIEL
General,
United States Air Force
Chief of Staff

TERMS OF REFERENCE
JOINT US ARMY - US AIR FORCE
FORCE DEVELOPMENT GROUP

MISSION

The mission of the joint US Army - US Air Force Force Development Group is to develop a joint plan, leading to coordinated programs for the Army and Air Force beginning with their FY 86-90 Program Objective Memoranda, for the purpose of fielding an affordable, effective force to execute airland combat operations.

BACKGROUND

On 21 April 1983, the Army and Air Force Chiefs of Staff signed a historic memorandum agreeing on the principles that would govern their services' joint conduct of Airland combat operations. The basic concepts to which this agreement applies are contained in Field Manual 100-5, Operations, the Army's keystone manual for combat operations, particularly by corps and lower level organizations.

To use scarce resources efficiently, the two services have agreed to a number of joint weapon system development programs that are necessary for conducting airland combat operations. For the FY 85-89 defense program, the two Chiefs of Staff agreed by memorandum on 11 July 1983 to a single joint package for airland programs that are needed for the attack of follow-on forces. Similarly, in view of their common interest in airlift, the Army and Air Force have designed and continue to support the development of a common system, the C-17. In order to build on these joint agreements and interests, the Chiefs also agreed to expand their services' efforts by establishing a process for developing effective, affordable forces required for airland combat operations. The memorandum establishing these terms of reference initiates that process.

While there are numerous examples of joint programs, members of both houses of Congress and officials in the Office of the Secretary of Defense have encouraged

and prodded the services to do more in order to optimize the use of scarce resources in producing and fielding the necessary combat capabilities. The OSD Interdiction Executive Board was formed for this purpose. Scarce resources and concern at the highest levels of government will continue to highlight the need for joint resolution of common issues. More important, though, is the military effectiveness of airland combat operations which will be determined by the services' ability jointly to field and to train an affordable, effective combat force.

To develop the force requirements for airland combat operations, it is necessary to understand the nature of the battlefield (see figure. page 3). The battlefield in a high intensity conflict would probably extend to the full depth of the opposing sides' homelands. The zone of action for joint airland combat operations would be somewhat less extensive, especially if it were to be in the European and Northeast Asian theaters. For the purpose of the Group's work, there are three parts of the battlefield in which joint airland combat operations would take place: the immediate area in which the ground combat formations are engaged and in contact with each other (the close battle area); the area to the rear of the friendly forces in contact in which organizations and facilities supporting airland combat operations are located (the rear battle area); and the area to the rear of the enemy forces engaged and in contact in which forces and installations that affect ground combat operations are located (the deep battle area).

In the close battle area, air and ground combat formations jointly operate to engage and to destroy the enemy. This zone is characterized by continuous combat requiring the closest possible integration and synchronization of friendly air and ground elements in the execution of the ground scheme of maneuver and support. The rear battle area is characterized by dispersed organizations and installations, continuous force generation activities, and logistical and combat support operations of the services' combat organizations. The combat operations in the rear battle area are characterized by defensive air and ground operations, not necessarily continuously underway. The deep battle is characterized by joint airland combat operations to the depth dictated by the enemy forces'

dispositions, by the ability of the friendly combat forces to engage the enemy, and by the necessity or desirability of engaging them there in accordance with the appropriate commanders' concepts of operations. The deep battle is characterized by synchronized joint or single service operations to extend the direct engagement of enemy combat formations and their supporting activities and facilities into the enemy rear for the purposes of destroying them or delaying, or impeding their movement, and of degrading the enemy's combat capabilities including his ability to launch offensive air operations against friendly forces.

In the close battle area (Zone 1) and the nearer reaches of the deep battle area (Zone 2), the imperative of defeating the enemy ground combat formations or at least preventing their penetration into the friendly rear area is predominant. In the rear battle area, the protection of combat formations and crucial installations from enemy attack is the predominant goal. In the more distant reaches of the deep battle area (Zone 3), the synchronized attack of enemy combat and support capabilities in accord with the relevant commanders' overall theater objectives predominates.

Deep attack in Zone 2 involves those fixed and mobile targets behind the close battle area which include ground and air forces capable of immediately affecting the outcome of the ground engagement.

Deep attack in Zone 3 encompasses fixed and mobile targets further to the rear which over time could influence the close battle area but are not a near term threat to it.

In developing an affordable force to carry out airland combat operations it is possible that resources will not be available to carry out to their fullest extent all airland combat concepts. Should this be the case, primary emphasis should be placed on fielding forces that can blunt the most serious and immediate threat—a quick breakthrough of friendly forces. Emphasis should be placed, therefore, on the forces required for airland combat operations in Zones 1 and 2 first because success in the close battle area and in the nearer areas of the deep battle area are crucial to preventing a quick enemy breakthrough. (The Terms of Reference included a chart of the AirLand Battlefield at this point. See Chapter II

for a chart based on the original.)

OBJECTIVE

The objective of the Group's work, in the broadest terms, is to develop a means of designing and fielding the best affordable airland combat force which minimizes system duplication without jeopardizing force effectiveness. This entails:

- Identifying realistic resource constraints;

- Accommodation, synthesizing, coordinating service roles and missions for airland combat operations;

- Eliminating unnecessary duplication, focusing especially on areas in which service missions and systems overlap;

- Identifying affordable systems and forces with which the two services would conduct airland combat operations;

- Designing command and control schemes which optimize combat effectiveness in conducting airland combat operations;

- Designing, incorporating, and deconflicting with other programs, special access programs that support airland combat operations.

As a first step, this effort should provide recommendations for decision and implementation by 16 March 1984 for inclusion in the FY 86-90 POM. Based on the services' assessment of the value of this initial product, the Group may be tasked to continue its efforts thereby establishing a permanent joint process that would affect each successive POM.

METHOD

Scope and Limitations:

THE 31 INITIATIVES

- The primary focus of the Group's work is the conventional aspects of high intensity airland combat operations against a sophisticated enemy such as the Soviet Union.

- Systems should be designed against the Soviet threat (1990 - 1995) projected for the effective life of the systems (e.g., avoid buying obsolescence).

- When recommending systems, the Group should view airland combat in the context of joint and combined operations.

- Ongoing programs, including "sunk costs", should be taken into account.

- Traditional service roles and missions should not be considered a constraint for this study; emphasis should be placed on determining which service is best suited to carry out the specific tasks essential to airland combat operations.

Approach:

- In determining the requirements for conducting airland combat operations it is necessary first to identify the missions to be accomplished. Some clearly will fall to one service or the other while others will involve some elements of both. Those missions which involve both services are the obvious areas where the Group should concentrate its efforts toward development and procurement of joint systems or of common systems to satisfy both services' requirements.

- For the purpose of this effort, airland operational missions have been divided into three groups: Collecting of information; fusion and dissemination of intelligence; and command, control and employment of forces.

- The following is a brief description of the missions essential to the execution of airland combat operations. Missions which fall to a specific service are identified by an A for Army and AF for Air Force. Those which by

necessity involve both services are identified by a J for joint. To assist in establishing program priorities, the missions involving command, control and employment of forces have been grouped into three priority categories: 1 (highest), 2, and 3. These priorities determine resource allocations.

— Collecting of information:

--- Conduct strategic surveillance and reconnaissance with aerospace assets. (AF)

--- Conduct substrategic surveillance and reconnaissance with primary focus on areas of interest for corps and below. (J)

— Fusion and dissemination of intelligence:

--- Use all source inputs to coordinate assessment, and insure air and land commanders have common perceptions of enemy dispositions, capabilities, vulnerabilities and intentions. (J)

--- In a timely manner, disseminate pertinent information to the right people in a useable format. (J)

— Command, control and employment of forces:

Priority 1:

--- Conduct overall ground scheme of maneuver in depth to maintain or regain the initiative:

o Plan. (J)

o Control and execute. (A)

--- Conduct interdiction operations:

o Plan and control. (J)

oo Zone 2 (support for ground scheme of maneuver).

ooo Execute air operations. (AF)

ooo Execute ground based operations. (A)

oo Zones 2 and 3 (all other).

ooo Execute. (AF)

— Conduct offensive counter air:

o Plan. (J)

o Control and execute. (AF)

Priority 2:

— Conduct close air support - Zone 1:

o Plan and control. (J)

o Execute support directly with fixed wing aircraft. (AF)

o Execute other. (A)

— Conduct suppression of enemy air defenses:

o Plan and Control. (J)

oo Execute in the close battle area - Zone 1. (A)

oo Execute in the deep battle area - Zones 2 and 3. (AF)

— Conduct special operations:

o Plan. (J)

o Control and execute:

- oo Rotary wing, including night, and all weather air delivery. (A)

- oo Fixed wing, including night, and all weather air delivery. (AF)

--- Conduct electronic combat:

- o Plan and control. (J)

  - oo Execute with airborne systems. (AF)

  - oo Execute with ground based systems. (A)

Priority 3

--- Conduct defensive counter air operations:

- o Plan and control. (J)

  - oo Execute ground base joint and area defense. (A)

  - oo Execute air area defense. (AF)

--- Provide battlefield intratheater air transportation for maneuver units:

- o Plan and control. (J)

  - oo Execute support of Army battlefield maneuver directly. (A)

  - oo Execute support of Army battlefield maneuver indirectly. (AF)

--- Conduct rear area security operations:

- o Plan. (J)

THE 31 INITIATIVES

— Conduct search and rescue operations:

o Plan and control. (J)

o Execute. (A, AF)

ORGANIZATION

Three general alternatives were considered concerning the organization of the Group that will carry out this effort: Use of a contractor outside the defense establishment, formation of an ad hoc organization within the two service staffs, and assignment of the study to a Defense Department organization outside the two service staffs. The key criteria for deciding the alternative chosen were: the need for unfettered and timely access to data and to high level Army and Air Force decision makers, the importance of timely completion to permit the least disruptive introduction of results into the FY 86-90 Program Objective Memoranda, and the need for supervision of the study by service decision makers to ensure proper direction and elimination of potential obstacles. On balance, the services decided that the most effective organization would be one formed within the services' staffs, including Group members from these staffs and from relevant field organizations. The Group could best operate under the guidance of a Senior Advisory Group comprising a deputy chief of staff from each service and co-chaired by a colonel from each service.

Task Breakdown

The Group will conduct two simultaneous efforts in Phases I and II: one focusing on normal programs and one on special access programs.

- Phase I - System Analysis

— Revalidate description and prioritization of airland combat missions listed above, ensuring their accommodation, synthesis, and coordination.

-- Determine systems needed for each mission listed

--- Identify systems currently available or being procured foreach mission.

--- Determine new system requirements.

— Determine how best to carry out each mission: assign service unique, common or joint responsibilities.

— Assign priorities for allocating resources for systems within each mission area.

— Estimate cost of each system considered.

-- Estimate amount of budget that is expected to be available for modernizing and expanding conventional forces; exclude funds for strategic mobility, sustainment and readiness.

— Based on the priorities of systems and the resources expected to be available, recommend which systems (including quantities) should be retained or procured to field an affordable airland combat force.

— Identify systems in the POM that are of low priority, based on the Group's analysis, as candidates for being cut.

- Phase II - C^3 Analysis.

-- Evaluate current and planned C^3 including joint procedures, to integrate the systems recommended in Phase I, and to optimize mission execution; recommend modifications as required.

— Ensure C^3 will be available to meet the needs of both services, especially for common or joint interest systems.

- Phase III - Deconfliction.

THE 31 INITIATIVES

— Ensure that normal and special access program systems recommended for development in Phase I are not in conflict.

- Follow-on

— The services will task their combat development agencies to prepare require publications implementing joint agreements.

— Based on the services' assessment of this initial effort oriented on the FY 86-90 POM, continue the process in order to produce refinements and additions for each successive POM.

MILESTONES

The following milestones will guide the Group. These milestones will be adjusted as necessary by the Senior Advisory Group, keeping in mind the need to have the best possible product in time to affect the FY 86-90.

- 31 October 1983: Establish Group membership; begin work.

- 20 January 1984: Complete Phase I.

- 16 March 1984: Complete Phase II.

- 16 March 1984: Complete Phase III (done concurrently with Phases I and II).

Milestones for subsequent work on successive POMs will be established based on the services' assessment of the preliminary effort for the FY 86-90 POM.

Appendix 3

Department of the Army
Headquarters US Army
Washington, D.C.

Department of the Air Force
Headquarters, US Air Force
Washington, D.C.

22 May 1984

MEMORANDUM OF AGREEMENT
ON
US ARMY - US AIR FORCE
JOINT FORCE DEVELOPMENT PROCESS

1. The Army and the Air Force affirm that to fulfill their roles in meeting the national security objectives of deterrence and defense, they must organize, train, and equip a compatible, complementary and affordable Total Force that will maximize our joint combat capability to execute airland combat operations. To that end, broad, across-the-board, warfighting issues have been addressed. We believe the resulting agreements listed in the attachment will significantly enhance the country's military posture and have a major positive impact on the way future combat operations are conducted.

2. The Army and the Air Force view this MOA as the initial step in the establishment of a long-term, dynamic process whose objective will continue to be the fielding of the most affordable and effective airland combat forces. Consequently, the joint agreements embodied in the attached initiatives will be updated and reviewed by the services annually to confirm their continued advisability, feasibility, and adequacy. We will expand this MOA (and attachments) to include future joint initiatives, as appropriate.

3. As an integral part of the joint effort to ensure the development of the optimum airland combat capability, the services will annually exchange a formal priority list of

those sister service programs essential to the support of their conduct of successful airland combat operations, the purpose of which is to ensure the development of complementary systems without duplication. The services will resolve joint or complementary system differences prior to program development. The services will ensure that those programs supporting joint airland combat operations will receive high priority in their respective development and acquisition processes. This MOA confirms our mutual dedication to ensuring that the provision of the best combat capability to the Unified and Specified Commanders remains the top priority of the Army and the Air Force.

JOHN A, WICKHAM, JR.
General,
United States Army
Chief of Staff

CHARLES A. GABRIEL
General,
United States Air Force
Chief of Staff

1 Atch
Initiatives for Action

CSA/CSAF INITIATIVES FOR ACTION

1. Initiatives on Area Surface-to-Air Missiles/Air Defense Fighters:

a. The Air Force will participate in the requirement and development process for follow-on area surface-to-air missile (SAM) systems.

b. The Air Force will lead a joint net sensitivity analysis to determine the optimum program mix of current area SAMs and air defense fighters.

c. The Army will lead a joint effort to study the advisability and feasibility of transferring proponency for area SAMs from the Army to the Air Force.

2. Initiatives of Point Air Defense:

a. The Army and Air Force will jointly develop a plan to resolve air base point air defense (PAD) requirements.

(1) The Air Force will provide to the Army an updated list of outstanding worldwide PAD requirements.

(2) This joint plan will be reviewed annually.

b. The Army and Air Force will develop a joint statement of need for future rear-area PAD systems.

c. The Air Force will participate in the on-going Army effort to review air defense requirements and capacity at Corps and echelons above Corps.

3. Initiatives to Counter Heliborne Assault Threat:

a. The Army will lead a joint assessment of the technical characteristics and operational implications of the future heliborne assault threat.

b. Based on the joint assessment the Army and Air Force will jointly develop and field the capabilities to

detect and counter the threat.

4. Initiatives on the Tactical Missile Threat:

a. The Army and Air Force will complete the tactical missile threat assessment, to include evaluation of the operational impact of anticipated threat technical capabilities.

b. Using this threat assessment as the baseline, the Army and Air Force will establish@h a joint anti-Tactical Missile Program.

5. Initiatives on Identification Friend or Foe (IFF) Systems:

a. The Army and Air Force will continue joint research in cooperative friendly identification systems to identify cost-effective refinements for the Mark XV Question and Answer (Q&A) identification program.

b. The Army and Air Force will develop an IFF system (to include non-cooperative, positive hostile identification) that will enable the effective employment of beyond visual range weapons against hostile aircraft.

6. Initiatives on Rear Area Operations Centers (RAOCs):

a. The Army will increase full-time manning of RAOCs as part of the on-going Army Reserve/Army National Guard program to expand manning by full-time support personnel.

b. The Army will establish the appropriate number of ARNG long tour (OCONUS) positions in each RAOC unit.

7. Initiative on Host Nation Support Security Equipment:

The Army and Air Force support equipage of FRG reserve security units with German equipment and weapons; with US to FRG equipment ratios to be determined in conjunction with overseas commanders.

8. Initiatives on Air Base Ground Defense:

a. The Army and Air Force will develop a Joint Service Agreement for:

(1) Army units to provide air base ground defense (ABGD) outside the base perimeter.

(2) Operational control of Army units performing the ABGD mission by the appropriate air component commanders.

b. The Air Force will transfer Air Force Reserve Component manpower spaces to the Army, if the Air Force ABGD requirements exceed Army capabilities.

c. The Army and Air Force will develop joint procedures for rear area security reflecting these initiatives.

9. Initiative for ABGD Flight Training:

The Army and Air Force will execute a Joint Service Agreement for the Army to provide initial and follow-on training for Air Force on-site security flights.

10. Initiative for Rear Area Close Air Support:

The Army and Air Force will develop joint doctrine and procedures for the employment of Close Air Support (CAS) in the rear area.

11. Initiative on the Mobile Weapon System:

The Air Force will terminate development of the Mobile Weapon System.

12. Initiatives on Ground-based Electronic Combat against Enemy Air Attacks:

a. The Army and Air Force will reconcile their joint requirements and restructure the Air Defense Electronic Warfare System (ADEWS) program accordingly.

b. The Air Force will terminate the Comfy Challenge program.

c. The Army will develop ADEWS to incorporate the required capabilities for both services.

13. Initiative on the Airborne Radar Jamming System (ARJS):

The Army will terminate the ARJS program. The Air Force will provide airborne jamming support.

14. Initiative on the Precision Location Strike System (PLSS):

The Army and Air Force will develop a joint concept and attendant hardware to broadcast PLSS target information to designated Army units in near-real-time.

15. Initiatives on Joint Suppression of Enemy Air Defenses (J-SEAD):

a. The Army's analytical agencies will model J-SEAD to determine the overall contribution of an effective SEAD campaign and the impact of SEAD on ammunition expenditure rates. The Air Force will provide full time participation.

b. Army Field Manuals will be updated to address transmittal of PLSS targeting information direct to designated Army units.

16. Initiatives on Combat Search and Rescue:

a. The Air Force will remain proponent for Air Force Search and Rescue (SAR) with Special Operations Forces (SOF) providing a back-up capability in special situations.

b. The Air Force will:

(1) The Air Force will determine combat SAR objectives in relation to depths on the battlefield defined

by capability.

(2) Develop tactics, techniques, and procedures for conduct of SAR in Air Force zones.

c. The Army and Air Force will develop tactics, techniques, and procedures for SOF to conduct SAR beyond Air Force zones.

17. Rotary Wing Lift Support for Special Operations Forces (SOF):

The Air Force will transfer the responsibility for providing rotary wing lift support for SOF to the Army. A detailed implementation plan will be jointly developed.

18. Initiatives on the Joint Tactical Missile System (JTACMS):

a. The Army and Air Force will develop a joint statement of need for the JTACMS. The restructured program will include the joint development of procedures to ensure that respective service components of JTACMS are fully complementary.

b. The Army will refocus its current development efforts on a shorter range ground-launched system.

c. The Air Force will develop an air-launched system.

19. Initiative on Army and Air Force Munitions RDT&E:

The Army and Air Force will develop procedures for a joint and recurring review of munitions technical base programs keyed to the budget/POM cycle. This review will use the Joint Logistics Commanders structure and include Army and Air Staff participation.

20. Initiatives on Night Combat:

a. The Army and Air Force will jointly determine the requirements for night operations.

b. The Air Force will pursue a spectrum of night capabilities based on the joint requirements and resolve associated training issues.

c. The Air Force will designate a single Air Staff point of contact for night systems and establish an Air Force liaison to the Army Night Vision and Electro-Optics Laboratory.

21. Initiatives on Battlefield Air Interdiction:

a. The Army and Air Force will develop procedures, that can be tailored to theater specific requirements, to synchronize Battlefield Air Interdiction (BAI) with maneuver.

b. The Army and Air Force will field test these procedures.

c. The Army will automate the Battlefield Coordination Element (BCE) and connect BCE/Corps/Land Component Commanders via near-real-time data links.

22. Initiative on a Joint Target Set:

The Army and Air Force will conduct a joint target assessment for use in establishing a consensus on attack of enemy surface targets and development of coordinated munitions acquisition plans.

23. Initiatives on Theater Interdiction Systems:

a. In theater, the Air Component Commander is responsible for the execution of the interdiction campaign.

b. The Air Force will lead a joint study to:

(1) Establish procedures to jointly develop requirements for interdiction systems.

(2) Define future conventional interdiction requirements.

(3) Determine optimum service proponencies for Intermediate Nuclear Force (INF) systems.

24. Initiative on Close Air Support (CAS):

The Army and Air Force reaffirm the Air Force mission of providing fixed-wing CAS to the Army.

25. Initiatives on Air Liaison Officers and Forward Air Controllers:

a. The Army and the Air Force will provide enhanced training in maneuver unit operations for Air Liaison Officers (ALOs) and selected Forward Air Controllers (FACs).

b. The Army and Air Force will conduct an in-depth review and evaluation of FAC operations and Tactical Air Control Party (TACP) structure to include:

(1) Enhancing maneuver unit ground FAC capability with organic Army helicopter support.

(2) Executing ground FAC functions while operating from organic maneuver unit vehicles.

(3) Performance of battalion FAC duties by non-rated officers in order to expand the full time Air Force representation at the maneuver battalion.

c. The review and evaluation will be conducted in the following phases:

(1) Phase I: An internal review conducted by Tactical Air Command (TAC).

(2) Phase II: A joint TAC and Training and Doctrine Command (TRADOC) review, to include development of a joint field test plan of the proposed FAC/TACP concepts.

(3) Phase III: Joint field test.

26. Initiatives on Manned Aircraft Systems:

a. The Army and Air Force will establish specific service responsibilities for manned aircraft systems.

b. The Army and Air Force will establish procedures for developing coordinated joint positions on new aircraft starts prior to program initiation.

27. Initiatives on Joint Surveillance and Target Attack Radar System (JSTARS):

a. The Army and Air Force will support the C-18 as the single JSTARS platform.

b. The Army and Air Force will develop a joint Memorandum of Agreement to:

(1) Outline procedures to ensure dedicated support of ground commander requirements.

(2) Ensure adequate platform procurement to provide required support.

28. Initiatives on TR-1 Program:

The Army and the Air Force will restructure the current TR-1 program to enhance its wartime survivability and effectiveness, within the bounds of affordability.

29. Initiatives for Manned Tactical Reconnaissance Systems:

a. The Army and Air Force will jointly develop requirements for common platforms to meet follow-on manned Special Electronic Mission Aircraft (SEMA) and Tactical Reconnaissance needs.

b. When joint requirements can best be met by a single service platform (Army or Air Force), that service will assume single service mission and development proponency. In parallel with this procedures will be jointly developed and adequate platforms procured by the

responsible service, to ensure dedicated support of the other service's requirements.

30. Initiatives on Intratheater Airlift:

a. The Army and Air Force will establish a joint office to determine intratheater airlift requirements to support movement from Aerial Port of Debarkation/Sea Port of Debarkation to destination; resupply by airland/airdrop; reposition/redeployment of forces, equipment, munitions, and war reserve; and medical/non-combatant evacuation.

b. The Army and the Air Force will develop joint positions, as required, on intratheater airlift programs.

31. Initiative on POM Priority List:

The Army and Air Force will formalize cross-service participation in the POM development process. This formalization will include the annual exchange of a formal priority list of those sister service programs essential to the joint conduct of airland combat operations.

Appendix 3A

[3 June 1985]

Reference msg, XO-JD, 03/1630Z Jun 85, subject: Joint Force Development Initiatives Update.

32. Initiative on Rapid Targeting Capability. The Army and Air Force will improve procedures and functional organization for rapid targeting and will improve collection, intelligence and operations systems interfaces.

33. Initiative on Future Close Air Support. The Army and Air Force will conduct a complete review of the Air Force Close Air Support mission area, to include cross-Service cooperation in defining possible replacement aircraft for those now performing the CAS mission.

34. Initiative on Validation of JFDP Procedures. The Army and Air Force will:

a. Develop a Memorandum of Agreement designating USREDCOM, as executive agent, to evaluate and validate through appropriate exercises the tactics, techniques and procedures developed by TAC, TRADOC, et al., in the course of implementing selected joint force development initiatives.

b. Obtain JCS endorsement of this initiative.

c. In conjunction with USREDCOM, develop a mechanism that allows the two Services to consider resultant recommendations by USREDCOM on refinement of procedures and force development issues.

Appendix 3B

[3 October 1985]

Reference msg, DAMO-ZA, 03/2029Z Oct 85, subject: Joint Force Development Process (JFDP) Quarterly Update

35. The Services will establish a single, joint center for low intensity conflict.

Appendix 4

Department of the Army
Headquarters, US Army
Washington, D.C.

Department of the Air Force
Headquarters, US Air Force
Washington, D.C.

14 June 1984

ACTION MEMORANDUM
ON
FORMATION OF
US ARMY - US AIR FORCE
JOINT ASSESSMENT AND INITIATIVES OFFICE

1. Our national security objectives of deterrence and defense demand we plan, develop, and carry out effective joint airland combat operations. To this end, a permanent U.S. Army and U.S. Air Force Joint Assessment and Initiatives Office is hereby established to both institutionalize the "long-term, dynamic process whose objective will be to continue fielding the most affordable and effective airland combat forces," and to assist in the implementation of the specific initiatives delineated in the 22 May 1984, Memorandum of Agreement on U.S. Army - U.S. Air Force Joint Force Development Process.

2. The Joint Assessment and Initiatives Office (JAIO) will be colocated with the Air Force Project CHECKMATE Group, and will serve as the focal point for future joint initiatives. It will be responsible for developing independent and operationally-oriented warfighting analyses, and then applying these to specific force employment and programmatic issues and problems. The results of JAIO's assessments will be used by both Services to enhance joint operational employment, as well as to ensure we implement those specific programmatic initiatives and procurement strategies which must be identified, supported, and funded on a truly integrated and cooperative bases. The objective of this team effort is to offer new and innovative ideas and approaches to continuing joint service force employment and complementary force development.

3. The JAIO will consist of officers from the Army and Air Force staffs who will be directly responsible to the Army Deputy Chief of Staff for Operations and Plans and the Air Force Deputy Chief of Staff Plans and Operations, respectively. Direct supervision of the JAIO will be exercised jointly by a Colonel from each service.

4. The Army and Air Force Staffs are hereby directed to execute requisite staff, personnel, and administrative actions, to include direct coordination between staffs, necessary for immediate implementation of this initiative. The USA/DCSOPS and AF/XO will act as executive agents in implementing this memorandum.

JOHN A. WICKHAM, JR.
General,
United States Army
Chief of Staff

CHARLES A. GABRIEL
General,
United States Air Force
Chief of Staff

Appendix 5

Department of the Army
Headquarters, US Army
Washington, D.C.

Department of the Air Force
Headquarters, US Air Force
Washington. D.C.

13 July 1984

MEMORANDUM OF UNDERSTANDING
ON
UNITED STATES ARMY (USA) /
UNITED STATES AIR FORCE (USAF)
RESPONSIBILITIES FOR AIR BASE AIR DEFENSE

REFERENCES:

(a) DoD Directive 5100.1, Functions of the Department of Defense and its Major Components, Jan 1980

(b) JCS Pub 2, Unified Action and Armed Forces (UNAAF), Oct 1974

(c) JCS Pub 8, Doctrine for Air Defense from Overseas Land Area, May 1964

(d) JCS Pub 9, Doctrine for the Unified Defense of the United States Against Air Attack, 1 Feb 1982

PURPOSE

1. To outline USA and USAF responsibilities in the mission area of air base air defense.

BACKGROUND

2. Reference (a) thru (d) provide general and specific

guidance to the USA and USAF relating to the air defense mission.

a. The Army has specific responsibility for organizing, training, equipping, and providing Army air defense units in accordance with doctrines established by the JCS.

b. The Air Force has specific responsibilities for:

(1) Organizing, training, equipping, and providing Air Force forces for air defense from land areas, coordinating with other Services in matters of joint concern.

(2) Developing, in coordination with other Services, doctrines, procedures, and equipment for air defense for land areas.

c. As affirmed in references (a) and (b), overall responsibility for air defense is vested in the Air Force.

3. With regard to overseas land areas, reference (c) states: "The influence of the geography of overseas areas, international agreements, enemy and friendly force structures and capabilities, and concepts of operation is such that precise air defense arrangements within various overseas land areas may, of necessity, vary considerably..."Such a variety of arrangements is explicitly manifested within the NATO
Alliance today. Within the Alliance, and also within US forces, air defense is recognized as a joint responsibility. Responsibilities in other theaters are shared by respective Host Nations and by the USAF and USA.

4. To attain a credible worldwide air defense system, which provides maximum deterrence (peacetime) and attrition (wartime), and is adequate in both area and point air defense, a concerted effort to develop complementing Service force structures is required. The Army and Air Force should, therefore, coordinate plans and programs to enhance integrated air defense.

OBJECTIVES

5. The goal in this joint mission area is to enhance the total force capability to provide adequate and effective theater air defense including defense of air bases. In support of this goal, the Army and the Air Force agree to establish a Joint Air Base Air Defense Working Group, to provide oversight of the mission area, and to take the necessary planning and programming actions to achieve the following basic objectives:

a. Adequacy and maximum effectiveness of an integrated air defense system.

b. Adequacy and maximum effectiveness of terminal air defense systems for air base critical facility air defense.

RESPONSIBILITIES

6. To support the above objectives, the Air Force and Army will establish a Joint Air Base Defense Working Group (JABADWG). The JABADWG will be co-chaired by the Army-Air Force (Vice Chiefs of Staff), supported by their respective functional staffs, and will accomplish the tasks identified in para 5 above. The co-chairmen will conduct a yearly review of Service air defense programs. The review will be scheduled for the Jan-Feb time frame prior to the initiation of the DoD POM cycle. This review will establish agreement on specific programming action and ensure mutual support for respective Service and joint programs. Additional reviews many be conducted as required by the co-chairmen.

7. The Air Force and Army are jointly responsible for:

a. Participation in the JABADWG to enhance force planning and programming to develop mutually supportive programs.

b. The coordination of proposed changes in air defense force structure, posturing, concepts, and doctrines.

8. General. Air base air defense at USAF bases is a joint responsibility of the US Army and Air Force. To this end, the Air Force will be responsible for submitting requirements for air base air defense to the Army for support. Air base air defense requirements will be prioritized with other air defense requirements by unified commanders.

a. The Army is primarily responsible for ground-based air defense at Air Force Main Operating Bases (MOBs) worldwide. The Army and the Air Force recognize funding and force structured requirements limit the capability to meet fully this responsibility. Therefore, the Air Force will support the Army's efforts to obtain additional force structure and funding to expand the Army's capability in this mission area to address specific shortfalls (Air Force air base defense requirements). If the Army is unable to provide adequate support, then the Air Force may pursue alternative solutions such as cooperative arrangements with Host Nations or deployment of USAF organic point air defense capability. These alternative programs will be approved by USAF and USA through the JABADWG.

b. The Services agree that the protection of Colocated Operating Bases (COBs) is a Host Nation responsibility. The Air Force will seek Host Nation commitment to air base defense in the COB agreements. If Host Nation protection is inadequate, improved capability will be sought using general guidance in paragraph 8a above.

c. Cooperative arrangements are those whereby air defense is provided by negotiated agreement with a Host Nation. A joint committee with Army and AF co-chairmanship will be established to conduct negotiations.

EFFECTIVE

9. This memorandum of understanding is effective when signed. The agreement will be reviewed every two years and a record of review attached to the MOU. If no review is conducted during a consecutive four years (two review cycles), then the agreement will be considered void.

JOHN A. WICKHAM, JR.
General,
United States Army
Chief of Staff

CHARLES A. GABRIEL
General,
United States Air Force
Chief of Staff

Appendix 6

Department of the Army
Headquarters, US Army
Washington, D.C.

Department of the Air Force
Headquarters, US Air Force
Washington, D.C.

25 April 1985

JOINT SERVICE AGREEMENT
USA - USAF AGREEMENT FOR THE
GROUND DEFENSE OF
AIR FORCE BASES AND INSTALLATIONS

This Agreement sets policies for the Departments of the Army and the Air Force for the ground defense of Air Force bases and installations.

The policies set forth in this Agreement will be used to guide appropriate Army and Air Force regulations, manuals, publications, and curricula. This Agreement also serves as a basis for future development of joint doctrine and supporting procedures for ground defense of Air Force bases and installations. It recognizes the Army's fundamental role in land combat and the need to protect the Air Force's ability to generate and sustain air power for joint airland combat operations. This Agreement is effective immediately and shall remain in effect until rescinded or superseded by mutual written agreement between the Army and the Air Force. It will be reviewed every two years.

JOHN A. WICKHAM, JR.
General,
United States Army
Chief of Staff

CHARLES A. GABRIEL
General,
United States Air Force
Chief of Staff

1 Atch

JOINT SERVICE AGREEMENT ON UNITED STATES ARMY-UNITED STATES AIR FORCE GROUND DEFENSE OF AIR FORCE BASES AND INSTALLATIONS

ARTICLE I

REFERENCES AND TERMS DEFINED

1. REFERENCES:

a. DOD Directive 5100.1, functions of the Department of Defense and its Major Components, January 1980.

b. JCS Pub 1, Department of Defense Dictionary of Military and Associated Terms, April 1984.

c. JCS Pub 2, Unified Action Armed Forces (UNAAF), October 1974.

d. Memorandum of Agreement on US Army-US Air Force Joint Force Development Process, May 1984.

e. AFR 206-2, Ground Defense of Main Operating Bases, Installations, and Activities, 22 September 1983.

f. FM 90-14, Rear Battle, September 1984.

2. TERMS DEFINED:

General: The following terms form the basis for the remaining articles of this agreement.

a. Air Base Ground Defense (ABGD): Local security measures, both normal and emergency, required to nullify and reduce the effectiveness of enemy ground attack directed against USAF air bases and installations.

b. Base or Installation Boundary: Normally the dividing line between internal and external defense. The exact location of the dividing line is subject to minor deviation from the legal base boundary on a case by case basis to accommodate local conditions. Such delineations should be incorporated into appropriate OPLANS.

c. Rear Battle: For the purpose of this Agreement, rear battle consists of those actions taken by all units (combat, combat support, combat service support, and host nation), singly or in joint effort, to secure the force, neutralize or defeat enemy forces in the rear area, and ensure freedom of action in the deep and close-in battles.

d. Base: A locality from which operations are projected or supported, or an area or locality containing installations that provide logistic or other mission support (JCS Pub 1).

e. Base Defense: The local military measures, both normal and emergency, required to nullify or reduce the effectiveness of enemy attacks on, or sabotage of, a base or installation so as to insure that the maximal capacity of its facilities is available to US forces (JCS Pub 1).

f. Installation: A grouping of facilities, located in the same vicinity, which support particular functions. Installations may be elements of a base (JCS Pub 1).

g. Level I Threat: Enemy activity characterized by enemy-controlled agent activity, sabotage by enemy sympathizers, and terrorism.

h. Level II Threat: Enemy activity characterized by diversionary and sabotage operations conducted by unconventional forces; raid, ambush, and reconnaissance operations conducted by combat units; and special mission or unconventional warfare (UW) missions.

i. Level III Threat: Enemy activity characterized by battalion size or larger heliborne operations, airborne operations, amphibious operations, ground force deliberate operations, and infiltration operations.

ARTICLE II

BACKGROUND

The references in Article I provide guidance to the Army and the Air Force on rear battle operations, including the ground defense of air bases and installations.

a. The Army has responsibility for organizing, training, and equipping forces for the conduct of sustained operations on land, specifically to defeat enemy land forces and to seize, secure, occupy, and defend land areas.

b. The Air Force base or installation commander is the officer responsible for the local ground defense of his base or installation (reference c). The forces of Services other than his own, assigned to his base or installation for the conduct of local ground defense, shall be under his operational control.

2. The Army has responsibility (reference d) for the provision of forces for ABGD operations outside designated Air Force base or installation boundaries.

3. Overseas, a variety of existing arrangements for ABGD are explicitly recognized by international agreements. In some countries, both within the NATO alliance and elsewhere, external ABGD is a host nation responsibility prescribed by status of forces agreements or separate negotiation. In other countries, responsibility@is shared between the host nation and US Forces.

ARTICLE III

OBJECTIVE

The objective of this Agreement is to develop combat forces for ABGD to ensure Air Force sortie generation and missile launch capability. ABGD forces must be capable of:

a. Detecting and defeating Levels I and II attacks;

b. Delaying a Level III attack until the arrival of friendly tactical combat elements capable of defeating this level of attack.

ARTICLE IV

RESPONSIBILITIES

1. The Army and the Air Force will establish a Joint Air Base Ground Defense Working Group (JABGDWG). THe tasks of the JABGDWG are to monitor, coordinate, examine, and report to the Army Deputy Chief of Staff for Operations and Plans and the Air Force Deputy Chief of Staff for Plans and Operations on the actions necessary to ensure the implementation of policies and preparation of forces for ABGD.

a. The Army and the Air Force will appoint co-chairmen for the JABGDWG. Support will be provided by functional staffs from the Departments of the Army and the Air Force, and by appropriate subordinate commands.

b. The JABGDWG will conduct a yearly review of ABGD requirements in time for joint recommendations to be made in July of each year prior to the initiation of the following DOD POM cycle. This review will recommend specific planning and programming actions designed to ensure mutual support for respective service programs.

2. The Army and the Air Force are jointly responsible for:

a. Participating in the JABGDWG.

b. Developing joint doctrine for rear battle, to

include ABGD.

c. Coordinating proposed changes in ABGD concepts, doctrine, and force structure.

d. Ensuring the provisions of this Agreement are addressed appropriately in operational and contingency plans to avoid any security degradation.

3. The Army is responsible for providing forces for ABGD operations outside the boundaries of designated USAF bases and installations.

a. When assigned the ABGD mission to counter the level I and level II threats to specific USAF bases or installations, Army forces will be under the operational control of those Air Force base or installation commanders.

b. Within 90 days of approval of this Agreement, the Army will provide a transition plan to the JABGDWG for a time-phased transfer of responsibility for external ABGD. Transfer will start 1 October 1985.

c. The Army will initiate, where feasible, requests for host nations to provide ABGD external to Air Force bases and installations (except as noted in paragraph 4f below).

d. The Army will provide multi-source intelligence on enemy ground forces for Air Force threat assessments and tactical counterintelligence efforts.

4. The Air Force will provide for physical security and internal defense within the boundaries of its bases and installations.

a. Air Force base and installation commanders are responsible for the local ground defense of their installations.

b. As dictated by the threat, environment, and availability of Army or host nation forces provided for external defense, the Air Force, in coordinating with the

local ground force commanders, may employ external safeguards to provide early warning and detection of, and reaction to, enemy threats to air bases and installations.

c. The Air Force will provide the command, control, communication and intelligence (C^3I) resources required by Air Force base and installation commanders to affect operational control of forces assigned to them for ground defense. C^3I provided by both services in supporting rear battle operations will be interoperable.

d. The Air Force will lead in the collection of data and assessment of the overall threat to air bases and installations worldwide. It will retain the lead in Ground Combat Intelligence and Tactical Counterintelligence covering each ABGD area of influence, as defined in reference e.

e. The Air Force will submit requirements for ABGD to the Army, to include a list of locations to be defended, updated as required.

f. The Air Force will seek host nation commitment for ABGD in agreements relating to the use of Colocated Operating Bases (COBs) and Aerial Ports of Debarkation (APODs).

5. Army and Air Force delineation of responsibilities will not preclude the deployment of forces from either Service to support the other should the tactical situation dictate.

Appendix 7

Department of the Army
Headquarters, US Army
Washington, D.C.

Department of the Air Force
Headquarters, US Air Force
Washington, D.C.

18 June 1985

JOINT SERVICE AGREEMENT
USA-USAF AGREEMENT FOR THE
INITIAL AND SUSTAINMENT TRAINING OF
AIR FORCE GROUND DEFENSE FORCES
IN COMBAT SKILLS

This agreement sets forth policy for the Departments of the Army and the Air Force for the initial and sustainment training of Air Force ground defense forces in combat skills.

This agreement serves as an authoritative document to establish responsibility for providing training to Air Force ground defense forces by the Army. This agreement is effective immediately and shall remain in effect until rescinded or superseded bY mutual written agreement between the Army and the Air Force. This agreement will be reviewed every two years.

JOHN A. WICKHAM, JR.
General,
United States Army
Chief of Staff

CHARLES A. GABRIEL
General,
United States Air Force
Chief of Staff

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JOINT SERVICE AGREEMENT USA-USAF AGREEMENT FOR THE INITIAL AND SUSTAINMENT TRAINING OF AIR FORCE GROUND DEFENSE FORCES IN COMBAT SKILLS

ARTICLE I

REFERENCES AND TERMS DEFINED

1. REFERENCES:

a. DOD 4019.R, Defense Regional Interservice Support Regulation, March 1984.

b. DOD Directive 5100.1. Functions of the Department of Defense and its Major Components, January 1980.

c. JCS Pub 1, Department of Defense Dictionary of Military and Associated Terms, April 1984.

d. JCS Pub 2, Unified Action Armed Forces (UNAAF), October 1974.

e. Memorandum of Agreement on US Army-US Air Force Joint Force Development Process, May 1984.

f. AFR 206-2, Ground Defense of Main Operating Bases, Installations, and Activities, 22 September 1983.

g. FM 90-14, Rear Battle, September 1984.

h. AR 351-9/AFR 50-18, Interservice Education and Training, 15 August 1981.

i. Joint Service Agreement, USA-USAF Agreement for the Ground Defense of Air Force Bases and Installations.

2. TERMS DEFINED:

a. Air Base Ground Defense (ABGD): Local security measures, both normal and emergency, required to nullify or reduce the effectiveness of enemy ground attack directed against USAF air bases and installations.

b. Course: Instructional material designed to provide people with the knowledge, skills, and attitudes needed to do selected tasks.

c. Specialty Training: Training provided to an individual for the award of an Air Force Specialty Code (AFSC).

d. Initial Combat Skills Training: Formal resident combat skills training provided after completion of specialty training to qualify an individual to perform the ABGD mission.

e. Sustainment (Proficiency) Training: That unit level training required to maintain skills attained during initial combat skills training.

f. Training Requirements: The number of personnel required to be entered into training.

ARTICLE II

OBJECTIVE

The objective of this agreement is to train Air Force combat forces for air base ground defense to insure Air Force sortie generation and missile launch capability.

ARTICLE III

RESPONSIBILITIES

APPENDICES

1. The Army and the Air Force will:

a. Establish a Training Committee as part of the Joint Air Base Ground Defense Working Group (JABGDWG) established by reference i. This committee will coordinate, monitor, and help develop the plans and programs to implement this agreement.

b. Be jointly responsible for executing agreements providing initial combat skills and sustainment training of Air Force ground defense forces.

(1) Training and Doctrine Command (TRADOC) and Air Training Command (ATC) will execute an agreement providing initial combat skills training.

(2) The Army Deputy Chief of Staff for Operations and Plans and the Air Force Inspector General will direct the execution of agreements by the appropriate commands for sustainment training.

c. Prevent duplication in the programming of resources for training of ground defense forces.

d. Determine respective Service responsibilities for sustainment training.

2. The Army will:

a. Develop and coordinate courses to support initial combat skills training.

b. Provide resources as outlined in reference h to conduct initial combat skills training.

c. Provide resources except unit and individual equipment, weapons, and munitions to meet sustainment training requirements as determined in paragraph 1d above.

d. Provide initial combat skills training to Air Force ground defense forces.

e. Provide sustainment training as determined in paragraph 1d above.

3. The Air Force will:

a. Provide to the Army initial combat skills and sustainment training requirements and tasks.

(1) HQ ATC will provide initial combat skills training requirements and tasks to TRADOC.

(2) HQ AFOSP will define sustainment training requirements to MAJCOMs who will establish appropriate agreements with Army MACOMs.

b. Conduct initial combat skills and sustainment training until the Army assumes responsibility.

c. Transfer resources in accordance with reference h to the Army as it assumes responsibility for initial combat skills training courses.

d. Provide support to training program development.

4. Within 90 days of approval of this Agreement, the Army will submit a transition plan to the JABGDWG for a time-phased transfer of responsibility for training Air Force ground defense forces in combat skills. Transfer will start 1 October 1985.

5. Initial combat skills and sustainment training will conform to the doctrine and procedures jointly developed by the Army and the Air Force for ground defense of Air Force bases and installations.

Appendix 8

Department of the Army
Washington, D.C.

Department of the Air Force
Washington, D.C.

26 November 1984

US ARMY - US AIR FORCE
JOINT STATEMENT
ON
NEED FOR THE JOINT TACTICAL MISSILE SYSTEM

This Joint Statement fulfills the directive of the Army and Air Force Chiefs of Staff in their 22 May 1984 Memorandum of Agreement on the U.S. Army - U.S. Air Force Joint Force Development process, Initiative Number 18a, on the Joint Tactical Missile System.

In any future engagement, the Army and Air Force will jointly conduct airland Combat operations. Soviet tactical warfighting doctrine calls for massive, echeloned force application. To counter this threat, it is essential that we win the close-in battle, which requires that we thwart their plan by the delay, disruption, destruction and diversion of the follow-on forces. Unity of effort requires that the Services be guided by a single concept of the joint tasks to be accomplished, including actions in all parts of the battlefield (rear, close-in, and deep). The Joint Tactical Missile System (JTACMS) will be a family of complementary weapons developed by the two Services to hold at risk and engage enemy targets in the deep battle area.

The JTACMS capabilities will be developed and deployed by the two Services for the following types of missions:

a. Direct engagement of combat formations, command and control elements, communications, fire support units, logistics activities, air defense units, and other supporting activities as well as interdiction by creation of obstacles at choke points.

b. Offensive counterair operations against facilities

supporting the enemy's air forces including airfields, and helicopter units and supporting field activities (e.g., Forward Area Rearm and Refuel Points (FARRPs)).

The two Services will refine their respective components of the JTACMS to ensure that capabilities are complementary and not duplicative. All aspects of the system will be fully integrated, to include a joint operational concept, joint agreement on the target sets to be held at risk, and joint procedures for the employment of the system in support of joint, air, and ground commanders as appropriate. The JTACMS will also be fully integrated with appropriate sensors and command, control, intelligence. and fusion systems.
The Army's part of JTACMS will be oriented towards the attack of combat forces not yet engaged and destruction of enemy capabilities which have an immediate or directly supporting impact on the close-in battle and are beyond the range of available cannon and rocket artillery systems. The Air Forces' part of JTACMS will be oriented towards providing an improved standoff capability to existing and planned aircraft. The Air Forces' concept will be focused on deeper targets than the Army's portion would be able to engage, while retaining the capability of engaging the closer-in targets as well.

It is essential that U.S. Allies also possess the improved combat capabilities afforded by the JTACMS family of weapons. The capability may be acquired through Allied development efforts, in collaborative efforts with the U.S., or through purchase of U.S. developed systems. The JTACMS programs will be structured to support and enhance the allies efforts to achieve a JTACMS capability of their own. The U.S. JTACMS family of weapons will be integrated with those of our Allies in relevant allied commands, especially Allied Command Europe.

FRED K. MAHAFFEY
Lieutenant General, GS
Deputy Chief of Staff
for Operations and Plans

DAVID L. NICHOLS
Lieutenant General, USAF
Deputy Chief of Staff
for Plans and Operations

Appendix 9

Department of the Army
Headquarters, US Army
Washington, D.C.

Department of the Air Force
Headquarters, US Air Force
Washington, D.C.

15 May 1986

US ARMY - US AIR FORCE MEMORANDUM OF AGREEMENT ON MANNED AIRCRAFT SYSTEMS

1. PURPOSE. This memorandum of agreement establishes US Army and US Air Force Service responsibilities to develop, sustain, and operate manned aircraft systems intended to support ground combat operations. The resulting cross-Service coordination will assure acquisition of effective, complementary, and affordable aviation forces to support national security objectives in any type of conflict.

2. SCOPE. This agreement pertains to current and future manned aircraft systems developed by the Army or the Air Force to support air-land combat operations requirements of the Unified and Specified Commanders.

3. REFERENCES.

a. U.S. Code, Title 10, Armed Forces.

b. National Security Act of 1947, (as amended).

c. DOD Directive 5100.1, Functions of the Department of Defense and its Major Components, 10 January 1986.

d. JCSPub 1, Department of Defense Dictionary of Military and Associated Terms, 1 January 1986.

e. JCS Pub 2, Unified Action Armed Forces (UNAAF), October 1974 (w/changes).

f. Agreement Between Chief of Staff, US Army, and Chief of Staff, US Air Force (Johnson-McConnell Agreement), 6 April 1966.

g. CSA/CSAF Memorandum of Understanding on Joint USA/USAF Efforts for Enhancement of the AirLand Battle Doctrine, 21 April 1983.

h. CSA/CSAF Memorandum of Agreement on US Army - US Air Force Joint Force Development Process, 22 May 1984.

i. CSA/CSAF Memorandum of Agreement on Cross-Service Participation in the POM Development Process, 29 November 1984.

j. HQDA Field Manual 100-5, Operations, 20 August 1982.

k. US Air Force Manual 1-1, Basic Aerospace Doctrine of the United States Air Force, 16 March 1984.

4. TERMS. The following terms of reference apply to this agreement:

a. Air-land combat operations. Combat operations by ground maneuver and air forces to achieve ground maneuver objectives of the Joint Force Commander.

b. Deploy. To position initially or relocate manned aircraft systems to desired bases of operation preparatory to employing those systems.

c. Employ. To direct or use a manned aircraft system either into or within a combat zone or objective area to achieve specific combat or support objectives.

d. Executive Service. The Service to which the Army and the Air Force have assigned responsibility and delegated authority—which would otherwise be exercised by each individually—for research, development, acquisition, organization, systems, training operations, and sustainment of a manned aircraft system.

e. Organic element. A force component or weapon system assigned as an essential and integral part of a

5. LEGAL AUTHORITY. The National Security Act of 1947 (as amended) and DOD Directive 5100.1 require the Services to organize, train, equip, and provide forces to fulfill specific combatant functions. JCS Pub 2 allows the Services wide latitude to execute these responsibilities. The Services have traditionally attempted to clarify the division of these responsibilities to preclude unnecessary duplication and promote full utilization of combat power. The Johnson-McConnell Agreement of 1966 divided Army and Air Force aviation responsibilities for the control and operation of certain types of rotary wing and tactical airlift aircraft. This new agreement supersedes the 1966 agreement and broadly defines Service responsibilities for manned aircraft systems relative in air-land combat operations, within the guidelines codified in law and DOD Directive.

6. SERVICE RELATIONSHIPS.

a. General. Joint Force Commanders employ air, land, and naval forces to achieve national security objectives. The inherent speed, range, and flexibility of manned aircraft make them uniquely suited to meet diverse operational requirements of widely separated combatant commanders in a variety of ways across the spectrum of conflict.

b. Service Aviation Requirements. The Army structures aviation forces primarily to support air-land combat operations by providing a highly mobile combat, combat support, and combat service support aviation assets organic to ground forces. Land commanders employ these aviation assets in synchronization with other combat arms to achieve assigned ground maneuver objectives. Consequently, Army forces consist of predominantly rotary-wing aircraft (with small numbers of specialized fixed-wing aircraft), which are normally deployed and sustained within their organic headquarters' area of operations so that they can react immediately to battlefield developments. The Air Force structures

aerospace forces to support global and theater-wide operations that include air-land combat operations by providing aircraft with the speed, range, and flexibility to project essential combat power promptly wherever needed. National Command Authorities or Joint Force Commanders employ these aerospace forces, either unilaterally or in coordination with surface component forces, to achieve national, theater, or land maneuver objectives. Consequently, Air Force forces consist of predominantly fixed-wing aircraft (with small numbers of specialized rotary-wing aircraft) that can rapidly respond to strategic and theater as well as battlefield developments.

c. Complementary Capabilities. Although Army and Air Force manned aircraft systems are developed in response to Service-distinct aviation requirements, these systems provide both complementary and overlapping capabilities for air-land combat operations. Some overlap in Army and Air Force aviation capabilities is inherent in the flexibility and capacity of aircraft and the different Service perspectives on using airpower. Efficient management of Army and Air Force manned aircraft programs will eliminate unnecessary duplication and ensure coordinated priorities and levels of effort to maximize complementary capabilities.

d. Coordination of Aviation Capabilities. The interdependence of air and land forces in air-land combat operations requires close coordination of the Services' acquisition efforts and the employment of manned aircraft systems. To generate effective, complementary capabilities and to avoid unnecessary duplication in research, development, force structure, training, and operations, the Army and Air Force will establish joint positions on manned aircraft systems derived from a common understanding of battlefield-associated airpower requirements and operational concepts of employment.

7. SERVICE RESPONSIBILITIES. The Army and Air Force will determine jointly, through the cross-Service coordination process of this agreement, the appropriate Executive Service for proposed or existing manned aircraft systems required to support air-land combat operations.

a. For operational systems already deployed, the current responsible Service will continue to be the respective Executive Service unless subsequently changed by mutual agreement.

b. For new and developing systems, the Executive Service will be determined as early as possible in the cross-Service coordination process. Based on differing Army and Air Force aviation requirements:

(1) The Army will normally be the Executive Service for manned aircraft systems that are designed to be operated and sustained in units organic to a land force and employed in combat, combat support, or combat service support missions within the land force commander's area of operations.

(2) The Air Force will normally be the Executive Service for manned aircraft systems that are designed to be most effective when organized under centralized control for theater-wide or intertheater employment.

c. When jointly agreed, as appropriate to satisfy expressed requirements, a Service may acquire, operate, and sustain a manned aircraft system for which the other Service either is or would normally be the Executive Service.

8. CROSS-SERVICE COORDINATION PROCESS. The Army and Air Force will exchange information needed to coordinate projected capabilities and missions of a new system with the other Service's existing or planned forces. Cross-Service coordination will be focused between the Army Staff and Air Staff with timely Major Command involvement as appropriate. This Service staff coordination will start at system conception and will include each aspect of the system development/acquisition process. Issues not resolved within the cross-Service coordination procedures will be referred to the Air-Land Review Group, described in paragraph nine of this agreement.

a. Requirements. The Army Assistant Deputy Chief of Staff for Operations and Plans, Force Development (DAMO-FD), and the Air Force Director of Operational Requirements (AF/RDQ), will jointly develop policies and procedures for the documentation, staffing and approval of operational requirements for proposed manned aircraft systems. These procedures will require mandatory development of a joint position for each new system prior to program initiation (Milestone 0) without extending the review process with undue constraints and delays.

b. Concepts. DAMO-FD and the Air Force Director of Plans (AF/XOX), will develop policies and procedures to ensure cross-Service exchange of information needed on operational and support concepts for manned aircraft systems without imposing undue constraints and delays.

c. Programming. During the development and execution of Service Program Objective Memoranda (POM), the Army and Air Force will coordinate programmatic priorities and levels of effort for manned aircraft systems through procedures promulgated in the 29 November 1984 CSA-CSAF Memorandum of Agreement on Cross-Service Participation in the POM Development Process.

9. IMPLEMENTATION. Executive agents for implementation and dissemination of this agreement are the Army Deputy Chief of Staff for Operations and Plans (DCSOPS) and the Air Force Deputy Chief of Staff, Plans and Operations (DCSP&O). The DCSOPS and DCSP&O will:

a. Arbitrate unresolved joint aviation issues.

b. Task DAMO-FD and AF/XOX to periodically convene and co-chair an Air-Land Review Group comprised of appropriate representatives from the Air Staff, Army Staff, and Major Commands. This group will:

(1) Resolve joint positions on manned aircraft

systems prior to starting development.

(2) Identify potential aviation issues.

(3) Assess adequacy and timeliness of the cross-Service interface.

(4) Forward their findings and recommendations to DCSOPS and DCSP&O for their information and approval.

10. ADMINISTRATIVE CONSIDERATIONS. This agreement will be reviewed by the Service staffs no later than one year from its effective date and every two years thereafter. Amendment or terminating this agreement requires mutual DCSOPS and DCS/P&O concurrence. This agreement will be maintained and updated by DAMO-FD and AF/XOX.

JOHN A. WICKHAM, JR.
General,
United States Army
Chief of Staff

CHARLES A. GABRIEL
General,
United States Air Force
Chief of Staff

Appendix 10

MEMORANDUM OF AGREEMENT
ON
JOINT STARS

6 June 1984

(U) The Army and Air Force Chiefs of Staff have agreed that both services will use the C-18 as the single platform for Joint STARS. Army and Air Force users are agreed that, with some modifications to the system specifications to reflect the platform agreement, the Joint STARS programs can be implemented to the satisfaction of both services.

(U) The user requirements are stated in the Joint Statement of Operational Requirements (JSOR), currently in draft. The use of a C-18 single platform requires changes in the specification of mission equipment. This statement is not intended to take the place of developer specifications, rather, it is an aid to the developer in conducting trade-off analyses prior to finalizing the system specification.

SIDNEY T. WEINSTEIN
Maj. Gen., USA
Commander, US Army
Intelligence Center
and School

THOMAS L. CRAIG
Maj. Gen., USAF
DCS/Requirements
HQ Tactical Air
Command

Appendix 11

Department of the Army
Headquarters
Doctrine and Training
Command
Fort Monroe, VA

Department of the Air Force
Headquarters
Military Airlift Command
Scott Air Force Base, IL

16 August 1984

MEMORANDUM OF UNDERSTANDING
AIRLIFT CONCEPTS AND DOCTRINE

The 21 April 1983 USA-USAF Memorandum of Understanding and the Memorandum, of Agreement signed by USA-USAF Chiefs of Staff, 22 May 84, establish close interservice coordination on development of joint concepts and doctrine to support the modern battlefield. The Military Airlift Command (MAC) and the US Army Training and Doctrine Command (TRADOC) agree to cooperate in development of joint airlift concepts and doctrine and will direct their efforts toward the following objective:

Enhance the understanding of current doctrine within the US Army and the US Air Force airlift community.

Integrate airlift considerations into the Army concept development process.

Integrate Army and Air Force considerations into airlift concepts through mutual development and review.

Increase cooperation in the development and coordination of airlift requirements to meet battlefield mobility and sustainment needs.

Solicit inputs from and coordinate with the Services and the unified and specified commanders regarding airlift doctrine and requirements.

Increase interservice dialogue between MAC and TRADOC on current Army doctrine and related concepts, to include organization, training, and materiel.

Resolve doctrinal and procedural concerns arising out of implementation of current Army and Air Force doctrine.

The initiating commands will establish a biservice operating agency and joint action steering committee (JASC) to implement the intent of this MOU.

WILLIAM R. RICHARDSON
General, USA
Commanding

THOMAS M. RYAN
General, USAF
Commander in Chief

Appendix 12

Department of the Army
Headquarters, US Army
Washington, D.C.

Department of the Air Force
Headquarters, US Air Force
Washington, D.C.

29 November 1984

MEMORANDUM OF AGREEMENT
ON
US ARMY - US AIR FORCE
CROSS-SERVICE PARTICIPATION IN
THE POM DEVELOPMENT PROCESS

1. The Army and Air Force affirm that to fulfill their roles in meeting the objectives of the Army -Air Force Joint Force Development Process Memorandum of Agreement, 22 May 1984, they must formalize cross-service participation in the annual POM development process.

2. The attached procedures enable each service to identify the other's key programs essential to the joint conduct of airland combat operations. Our service programmers, the Army Director, Program Analysis and Evaluation and the Air Force Director of Programs and Evaluation are our executive agents to implement this initiative.

JOHN A. WICKHAM, JR.
General,
United States Army
Chief of Staff

CHARLES A. GABRIEL
General,
United States Air Force
Chief of Staff

1 Atch
Implementation Procedures

Implementation Procedures
for
Cross-Service Participation in
the POM Development Process

Jul - Aug

Both Services develop separate lists of those sister service priority programs essential to the joint conduct of airland combat operations:

> Lists should be limited to those programs in the sister service that offer a genuine payoff in joint combat capability.
>
> Lists need not be limited to joint procurement or R&D programs.

The list of Army programs of interest to the Air Force will be included in the Army Plan (TAP).

The list of Air Force Programs of interest to the Army will be included in the Air Force Planning Input for Program Development (PIPD).

Inclusion of both lists in the appropriate planning documents will identify these high interest programs for added consideration.

Dec - Jan

Army will brief the Air Force Program Review Committee (PRC) on its list of high interest Air Force Programs and how they impact the Army's program and warfighting capability.

Air Force will brief the Program and Budget Committee (PBC) on its list of high interest Army programs and how they impact the Air Force's program and warfighting capability.

These briefings should serve as an input for POM development.

Feb - Mar

Monitor progress in respective functional panels.

Mar - May

Air Force invites the Army programmer (GO) to attend the Air Staff Board meeting and Air Force Council Meeting which addresses joint interest Army - Air Force programs.

Army reports on status of programs of interest to Air Force.

Army invites the Air Force programmer (GO) to attend the Army PBC meeting and Select Committee (SELCOM) meeting which address joint interest Army - Air Force programs.

Air Force reports on status of its programs of interest to the Army.

Status of Army programs of interest to the Air Force included as an agenda item in the Army SELCOM meeting.

Status of Air Force programs of interest to the Army included as an agenda item in the Air Force Council Meeting.

VCSA and AF/CV will consult on issues in disagreement before POM finalization.

Final status of Army programs of interest to the Air Force included in the POM Decision Briefing for SA and CSA.

Final status of Air Force programs of interest to the Army included in the POM Decision Briefing for SAF and CSAF.

May - Jul

Army and Air Force programmers work jointly to identify and resolve issues prior to the summer Program Review.

Jul - Sep

Army and Air Force programmers continue process during the summer Program Review and POM to Budget Submit (Army)/ Budget Estimate Submission (Air Force).

Sep - Dec

Programmers continue process through President's Budget submission.

Appendix 13

Department of the Army
Headquarters, US Army
Washington, D.C.

Department of the Air Force
Headquarters, US Air Force
Washington, D.C.

8 April 1985

MEMORANDUM OF AGREEMENT
ON
FOLLOW-ON CLOSE AIR SUPPORT AIRCRAFT

The purpose of this Memorandum of Agreement (MOA) is to outline the Army and Air Force joint position for fielding a follow-on Close Air Support (CAS) aircraft. This agreement is established within the framework of the Joint Force Development Initiatives signed by the Army and Air Force Chiefs of Staff on May 22 1984. It reflects the intent of Initiative 26 concerning service responsibilities for manned aircraft systems and developing coordinated joint positions on new aircraft prior to program initiation.

The Army and Air Force have reviewed Army doctrinal development and the associated threat environment projected through the mid-1990s and agree that improved Close Air Support capability is required to meet evolving Army CAS requirements. An essential element in this capability is a more effective and survivable fixed-wing aircraft to be fielded by the Air Force. The new CAS aircraft (A-X) must be appropriately configured and equipped to attack surface targets in close proximity to friendly forces through coordination with the ground force scheme of maneuver and fire support. A-X units must continue the extensive Army-Air Force training program established by current designated air support forces and become an integral part of the coordinated surface maneuver plan.

THE 31 INITIATIVES

The A-X must be capable of executing the close air support mission on the non-linear battlefield across a broad spectrum of combat scenarios and threats ranging from the friendly rear area to the traditional main battle area and the deep maneuver arena. To be effective and survivable throughout the battlefield, the A-X must possess basic airframe characteristics and complementary systems needed to penetrate and operate within enemy territory in concert with supporting air and land forces. Additionally, the A-X must be able to operate day/night under the weather.

During joint air-land combat operations, the A-X will normally be employed in its primary role as a designated close air support aircraft. Operational characteristics which enable the A-X to perform its primary mission in the high threat battle area environment also provide inherent capabilities needed for air interdiction (AI). The USA/USAF Agreement for the Joint Attack of the Second Echelon (J-SAK) provides doctrinal guidance for employment of the A-X in the AI role.

The timely fielding of a follow-on CAS aircraft dictates that the A-X program focus on existing airframes available for procurement in the late 1980s. The Army and Air Force agree to pursue the A-X program through continued cross-service exchange of information to include joint coordination of operational requirements, Requests for Information (RFI) and Requests for Proposal from industry, and program monitoring through cross-service participation in the Program Objective Memorandum (POM) development process.

JOHN A. WICKHAM, JR.
General,
United States Army
Chief of Staff

CHARLES A. GABRIEL
General,
United States Air Force
Chief of Staff

JOHN O. MARSH, JR.
Secretary of
the Army

VERNE ORR
Secretary of
the Air Force

Appendix 14

Department of the Army
Headquarters, US Army
Washington, D.C.

Department of the Air Force
Headquarters, US Air Force
Washington, D.C.

25 June 1985

MEMORANDUM OF AGREEMENT
ON
USREDCOM'S ROLE IN THE
JOINT FORCE DEVELOPMENT PROCESS (JFDP)

We support USREDCOM's evaluating procedures in the joint readiness exercises of the unified commands. These exercises provide an excellent vehicle to validate the procedures developed by MAJCOMs and MACOMs (TAC, TRADOC, et al.) to help implement the Joint Force Development Process initiatives agreed to in our 22 May 1984 Memorandum of Agreement. In our view, USREDCOM, under its existing charter, is the appropriate command to examine these procedures as an impartial agent and to suggest necessary adjustments and additional initiatives required to fulfill the original objectives of the JFDP. We agree, therefore, to support the designation of USREDCOM as executive agent for evaluating and validating the procedures derived from selected JFDP initiatives.

The Army and Air Force agree further to develop with USREDCOM a mechanism that allows the two Services to consider recommendations by USREDCOM for refining procedures and force development issues. This joint effort (JFDP Initiative #34) will contribute to the fielding of the most effective and affordable airland combat forces.

JOHN A. WICKHAM, JR.
General,
United States Army
Chief or Staff

CHARLES A. GABRIEL
General,
United States Air Force
Chief of Staff

Notes

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Lt Col T. J. McGrath, USAF, Mar 4, 1986
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Abbreviations

AAF	Army Air Forces
ABGD	Air Base Ground Defense
AFM	Air Force Manual
AGF	Army Ground Forces
ALFA	Air Land Forces Applications
ALO	Air Liaison Officer
ALPO	Air Land Project Office
BAI	Battlefield Air Interdiction
BCE	Battlefield Coordination Element
CAS	Close Air Support
CINC	Commander-in-Chief
CINCLANT	Commander-in-Chief, Atlantic
C^3	Command, Control, and Communications
DASC	Direct Air Support Center
DCS	Deputy Chief of Staff
DOD	Department of Defense
EUCOM	US European Command
FAC	Forward Air Controller
FM	Field Manual (Army)
FORSCOM	United States Army Forces Command
IFF	Indentification Friend of Foe
J-SAK	Joint-Attack of Enemy Second Echelon Forces
J-SEAD	Joint-Suppression of Enemy Air Defenses
JAIO	Joint Assessment and Initiatives Office
JFDG	Joint Force Development Group
JFDP	Joint Force Development Process
JSA	Joint Service Agreement

JSTARS	Joint Surveillance Target and Attack Radar System
JTACMS	Joint Tactical Missile System
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
OPSDEP	Operations Deputy
PACAF	Pacific Air Force (USAF)
PLSS	Precision Location and Strike System
POM	Program Objectives Memorandum
RAOC	Rear Area Operations Center
RDT&E	Research, Development, Testing, & Evaluation
SAR	Search and Rescue
SOF	Special Operations Forces
TAC	Tactical Air Command
TACC	Tactical Air Control Center
TACP	Tactical Air Control Party
TOR	Terms of Reference
TR	Training Regulation
TRADOC	US Army Training and Doctrine Command
USREDCOM	US Readiness Command
VSTOL	Vertical/Short Take Off and Landing