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USAF LOGISTICS

1958-1959

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by

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## FOREWORD

USAF Logistics, 1958-1959, is an account of Air Force efforts during these years to improve the quality of its logistic system to meet the rapidly changing military situation. Since time and space limitations did not permit a thorough discussion of all important aspects of the USAF logistic system, this study concentrates on certain issues that reflect changes in basic policy. These include logistic planning to provide the optimum in war readiness, the relationship between the Air Force and American industry, and certain significant efforts to streamline the supply, maintenance, and transportation capabilities of the Air Force. This study does not consider the development of ballistic missile logistic support, which will be covered in a forthcoming study prepared by this office.

Prepared as a chapter for inclusion in the History of Headquarters USAF, Fiscal Year 1959, this study is being issued separately to make it more readily available throughout the Air Force. As with all studies issued by the USAF Historical Division Liaison Office, this one is presented with an invitation for suggestions from its readers.

This document is classified SECRET to conform with the classification assigned to sources of information used herein.

## C O N T E N T S

I.	Readiness Before the Fact . . . . .	1
	Mobilization Planning . . . . .	3
	War Readiness Materiel Planning . . . . .	6
II.	The Air Force and American Industry . . . . .	11
	Industrial Readiness Planning . . . . .	11
	Reduction of Industrial Facilities . . . . .	14
	Procurement Problems . . . . .	17
	Procurement and Employment . . . . .	18
	Spiraling Costs . . . . .	19
	Weapon Systems . . . . .	21
	Production Problems . . . . .	24
	Aircraft and Missile Schedules . . . . .	24
	Ground Support Equipment . . . . .	29
	Achievements . . . . .	29
III.	USAF Consumer Logistics . . . . .	31
	Improvement of Supply Management . . . . .	31
	Depot Management of Weapon Systems . . . . .	32
	Interservice Supply . . . . .	33
	Supply Automation . . . . .	34
	Phased Procurement of Spares . . . . .	35
	Maintenance of Modern Weapon Systems . . . . .	37
	Maintenance Problems . . . . .	37
	Depot Maintenance . . . . .	40
	Improvement of Transportation System . . . . .	42
	Logistic Capability for Local Wars and Emergencies . . . . .	44
	Air Force Policy. . . . .	44
	Supply Capability Under Stress . . . . .	45
	Effect of 1958-59 Operations . . . . .	47
	NOTES . . . . .	52
	GLOSSARY . . . . .	59




## I. READINESS BEFORE THE FACT

The Air Force, of necessity, subscribes to readiness before the fact rather than mobilization after the fact. As one Air Force officer put it: "We will have what we need here when we need it, or we'll meet and talk it over in the hereafter."<sup>1</sup>

During the 1950's, overall logistic planning began to undergo a vast readjustment. The introduction of thermonuclear weapons, mated to fast aircraft and ballistic missiles, was rendering archaic the logistic system of the past. As recently as World War II and Korea, time was available after the outbreak of hostilities to set the wheels of American industry in motion for grinding out the weapons of war needed by the troops in the field. Prearranged production schedules, industries earmarked for the fabrication of military items, and stockpiled raw materials all played a part in the mobilization scheme. But in 1959, with the expectancy of thermonuclear attack as the first overt move of a general war—a war in which the decisive period might be over within a matter of hours or days rather than weeks or months—the value of such planning was subject to detailed scrutiny.

The Air Force led the three services in the drive for a new and more efficient system. The entire USAF strategic concept hinged on the principle that we must be prepared to fight a general war with the forces and weapons actually on hand. In the event that general war was preceded by a period of localized conflict, the Air Force planned to support its combat



forces from the general war reserve. This, it was agreed, could be accomplished with a minimal calculated risk, and any production prior to D-day could be used as replenishment for the items consumed and for improving the general war posture.<sup>2</sup>

Because of its vital concern that logistic planning be wholly realistic, the Air Force stated wartime requirements in accordance with basic planning data and assumptions contained in USAF and Joint Staff war plans. It developed aircraft and missile inventories from current programming documents based on the premise that no reliance could be placed on post-D-day production except for the limited number of weapons obtainable by production compression\* techniques.<sup>3</sup>

The Army and, to some extent, the Navy held to a more traditional position. They emphasized the need for logistic support for a longer war—a war composed of a series of localized actions rather than one all-out decisive battle. The Army did not recognize force losses, whereas the Air Force applied attrition factors to the post-D-day period. In the event of localized conflicts prior to general war the Army planned for the immediate replacement of losses with a buildup to D-day and a constant level thereafter. In complete contrast with the Air Force, the Army plans called for a higher level of equipping in wartime than in peacetime.<sup>4</sup>

Indecision at the top levels of Government as to the nature of a future war made it difficult to resolve the differences among the services. National Security Council (NSC) statements permitted widely varying interpretations of planning requirements for post-D-day mobilization and industrial

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\*For a discussion of the compression technique see below, pp 12-14.

readiness by the military services and the Department of Defense (DOD), which was responsible for coordinating logistic planning. The Air Force held that a single DOD policy could not cover all of the services. This position, based on the USAF strategic premise, was at the root of the controversy in 1958-59 between the Air Force and the Office of the Secretary of Defense (OSD) and resulted in certain contradictions between USAF and DOD directives.<sup>5</sup>

#### Mobilization Planning

Differences were most pronounced in the area of mobilization planning. The disparity between the guidance from OSD and the concepts inherent in the USAF war plans placed the Air Force in an untenable position when attempting to comply with DOD directives. The Air Force, for example, objected to OSD requests for lists of required items to be produced by U.S. industry during a short pre-D-day mobilization period or after absorbing a massive nuclear attack. The Air Force held that no significant production could be obtained during the limited pre-D-day period; little or no reliance could be placed on production after D-day; and in the absence of specific production-planning guidance for the post-D-day period, the current production and development programs provided a sufficient basis for any desired extended planning. Consequently, it requested relief from the mobilization requirement lists on the grounds of inconsistency with strategic thinking.<sup>6</sup>

In response to repeated requests for lists of such required items as petroleum, machine tools, aircraft, and aircraft engines, the Air Force

maintained its stand. In each instance it provided the current requirements and appended the following statement:<sup>7</sup>

In the absence of agreed bomb damage assessment data, particularly as this would apply to Post D-Day projection of force tabulation, neither Joint Plans nor Air Force Plans provide any basis at all for determining a list of military items required from production in the period D/6 to D/30. Since these plans stipulate that no reliance will be placed on production during the first several months following D-Day, the Air Force is unable to identify any specific requirements for the production of military items during the period D to D/6.

Assistant Secretary of Defense (Supply and Logistics) E. Perkins McGuire interpreted this response to mean that the Air Force desired the discontinuation of mobilization planning. This was not the case. To clarify the misunderstanding, in October 1958 the Assistant Secretary of the Air Force (Materiel) Dudley C. Sharp, summarized the Air Force position. He strongly affirmed the USAF belief in post-attack mobilization planning but suggested to the Secretary of Defense that such planning be based on valid post-attack studies that would determine the status of the mobilization base and evaluate the damage to forces. With such studies as a basis, the production requirements of those military forces remaining after a nuclear attack could be determined--weighed against the needs of the civilian population for survival--and allocated so as to marshal our greatest strength for the subsequent phases of a general war. To insure that guidance pertaining to the recovery period was consistent at the national level, Sharp believed direction should come from the National Security Council rather than the Department of Defense.<sup>8</sup>

The need for NSC direction had been voiced by the Director of the Office of Defense Mobilization in April 1958 when he pointed out that

"ODM's planning with respect to the industrial and civilian aspects of the mobilization base is closely dependent on military planning." Without proper coordination the civilian agency was handicapped in the performance of its responsibilities, and it was suggested to Robert Cutler, Special Assistant to the President for National Security Affairs, that the Department of Defense make a presentation on the subject to the NSC.<sup>9</sup>

On 18 December 1958 representatives of the Secretary of Defense briefed the NSC on mobilization and production planning. The disagreement between OSD and the Air Force came into clear focus at this time, for the point was raised that mobilization was a strategic matter and any change in concept would fall under the authority of the JCS and NSC. Thereupon, OSD sought to divorce the issue from military strategy by modifying the existing mobilization concept under the guise of providing<sup>guidance</sup>/for the development of materiel requirements for fiscal years 1960 and 1961. The Air Staff objected to this action on the ground that any mobilization concept change would have to be submitted to the JCS and considered in the development of the appropriate Joint Strategic Operational Plan. Also, a similar recommendation would have to be forwarded to the NSC for incorporation in the Basic National Security Policy.<sup>10</sup>

Early in 1959 the Air Force presented this position--along with a recommendation for a new mobilization concept--to the Joint Staff, which was in essential agreement with the Air Force. The JCS approved the joint position and forwarded it to OSD on 18 March. The military elements of the Department of Defense won a "signal victory" in April when the Secretary of Defense notified the services that the proposed OSD guidance on materiel requirements for fiscal years 1960-61 was being withdrawn.<sup>11</sup>



The USAF recommendation for a new mobilization concept also won the approval of the Joint Staff and, as of the end of June 1959, was being proposed for inclusion in the Basic National Security Policy. Adoption of the USAF concept was expected to (1) limit post-D-day force augmentation to feasible and authorized goals; (2) require use of bomb-damage assessment data in computing attrition to post-D-day forces; and (3) produce guidance for reconstitution of post-D-day forces, including a truly "agonizing reappraisal" of the DOD \$19 billion standby plant program for production of combat items after D-day.<sup>12</sup>

#### War Readiness Materiel Planning

While recognizing that general guidance for the recovery phase of a general war had to come from the National Security Council, the Air Force did take unilateral action during 1958-59 to determine its post-attack needs and capabilities--particularly in relation to the War Readiness Materiel (WRM) Program. There was increasing concern among both Air Force and government leaders--including the President--over USAF planning for the post-D-day period. It was felt that current plans did not offer sufficient guidance on Air Force operations for the period nor did they realistically show what the actual logistic requirements would be. In January 1959, USAF planners were directed to develop an Air Force Logistics Estimate of the Situation assuming a D-day of 1 July 1962 and evaluating the probable course of events from D-day to D+30 days. This study was to consider the effects of nuclear damage to forces and their logistic support and provide initial guidance to the Air Staff in determining the support needed for the reconstitution of military forces during the subsequent phase of general war.<sup>13</sup>

Along the same line, in the fall of 1958 the Vice Chief of Staff, Gen. Curtis E. LeMay, directed that a formal task group be established to evaluate total WRM Program requirements. This group undertook a comprehensive review of all aspects of the WRM Program, including the ground rules on which it was based, the policies and procedures by which it was carried out, and the cost of the materiel involved. The basic data investigated were the sortie and attrition rates used in the computation of the WRM requirements. The end result was to lower the amount of war readiness materiel to be held in storage.<sup>14</sup>

Based on the premise that the major activity of a general war would take place during the first few days, the WRM study group realistically recommended applying attrition rates at D/5 days as well as at D/30 days--the former practice. Equally realistic, recognizing that this nation would absorb an all-out nuclear blow, was the recommendation to reduce Strategic Air Command sortie rates by 50 percent, Air Defense Command by 60 percent, and the tactical forces by 10 to 45 percent. The study group also recommended computation of wartime requirements at wartime rates and peacetime requirements at peacetime rates, instead of following the current policy prescribing computation of all requirements at wartime rates. A final recommendation suggested giving major commands the authority to redistribute their WRM assets to locations where they could best be used in conducting limited wars.<sup>15</sup>

After General LeMay approved these recommendations in March 1959, the Air Force took priority action to adjust the war plans and the budget and buying programs. It anticipated that the task group's efforts would

result in substantial reductions in future procurement for WRM, help conserve vitally needed resources, reduce costs, and improve the combat readiness of the Air Force.<sup>16</sup>

In cutting war readiness stocks to the minimum, it was clear that essential items had to be protected to insure their availability following a nuclear attack. Unfortunately, a number of USAF bases and depots were in highly vulnerable locations, and 1958 studies indicated that the danger would mount as enemy capability increased through the 1962 period. As early as 1956 the NSC had directed the Department of Defense to provide means for protecting WRM during the initial stage of a general war. During the mobilization planning presentation to the NSC in December 1958, Assistant Secretary of Defense McGuire presented the OSD view on the subject and, in light of damage assessment studies, expressed the need for dispersing these stocks. The Air Force agreed with this position but insisted on being free to devise its own dispersal methods.<sup>17</sup>

In February 1959, General LeMay directed the Air Materiel Command to develop a plan for the orderly relocation and preservation of WRM stocks needed by SAC to support its wartime objectives. Headquarters USAF considered construction of facilities to protect war stocks impractical because of the high cost and rapid change in weapon location. Consequently, multiple dispersal in areas of low vulnerability appeared to provide the best guarantee of sustained logistic support in time of nuclear war. This accorded with SAC's concept of dispersing aircraft and its recommendations for WRM provisioning. The plan was to be ready for use on an emergency basis under strategic warning conditions by 1 July

1959 and, when completed, was to serve as the basis for similar action in support of tactical and airlift forces.<sup>18</sup>

AMC prepared a progress report in June 1959 describing the concept for the preservation of the WRM in support of SAC. This material was presented in July to General LeMay, who authorized further planning. AMC was directed to survey several sample areas to determine the magnitude of increased requirements that would result from adoption of the dispersal concept.<sup>19</sup>

Along these same lines, in February 1959 the Air Staff proposed that ADC take action to redistribute its war readiness stocks, particularly those on bases that the defense units shared with SAC. ADC opposed this suggestion, arguing that the short time that would be available to its squadrons to resortie against the enemy would not allow dispersal and, even if it did, the cost of storage facilities for dispersal of nuclear weapons would be prohibitive.<sup>20</sup>

Maj. Gen. Mark E. Bradley, Jr., Assistant DCS/Materiel at Headquarters USAF, did not agree with the ADC position. He pointed out in April 1959 that the interceptor force would have to absorb the full effects of a nuclear missile attack and then be prepared to launch against the enemy bomber force. If, to reduce losses on the ground, ADC fighter-interceptor aircraft were "flushed" as planned, a portion of the force would have already dispersed from its home base. Many of those remaining--particularly on bases shared with SAC--would be destroyed. Accordingly, considerable nuclear ordnance and WRM would be lost to ADC before its fighter-interceptor force ever met the enemy. Since reducing the probability

of loss would offset the high cost of dispersal, General Bradley recommended that ADC revise its logistic concepts for the 1962-63 period by providing for redistribution of nuclear ordnance and WRM to areas of lesser vulnerability.<sup>21</sup>

## II. THE AIR FORCE AND AMERICAN INDUSTRY

The Air Force has become a major factor in the national economy. With procurement authority of \$8.8 billion during fiscal year 1959—a sum representing 2 percent of the gross national product of the United States—Gen. Thomas D. White accurately referred to the Air Force as "probably the largest business in existence."<sup>1</sup>

The ability of the Air Force—and the nation—to be ready for war is dependent on the capacity of American industry to provide the weapons of war in sufficient quantities and on schedule. Scientific and technological advances over the past few years have resulted in changes in strategic concepts that profoundly affected the Air Force's relationship with American industry. Other factors influencing this relationship involved USAF encouragement to private companies to provide their own facilities, changed procurement methods resulting from the technological complexities of modern weapon systems, and the constantly rising costs of military equipment.

### Industrial Readiness Planning

In an age of ballistic missiles and nuclear warheads, military preparedness is based on a close correlation of national strategy and industrial capability. Recognizing this, the Air Force developed an industrial readiness concept founded on four strategic premises: the decisive phase of any future war will be short; the United States will win or lose the decisive phase with the resources it has on hand; there will be no time to

build up forces after an emergency arises; and besides maintaining the capability to deter general war, the Air Force must have the ability to cope with small-scale wars or periods of tension whenever and wherever they occur.

In line with these four premises, the Air Force Industrial Production Policy called for a flexible industrial base that could satisfy the production requirements of current USAF programs and also provide special capabilities to meet emergency needs. Emergency production capability for USAF items would come through compression and acceleration projects--compression for general war, acceleration for localized war.

"Production compression" means that if an attack appears imminent--or takes place--specified assembly and maintenance plants will devote their entire resources to getting as many aircraft as possible to the using commands as rapidly as possible. All combat-ready aircraft will be dispatched immediately to the using units. All aircraft that can be made combat-ready in a few hours or days will be completed and flown out, and all aircraft that can be assembled--using only parts, manpower, and other resources within the plant or its immediate vicinity--will be assembled expeditiously. When the necessary sets of parts in the plant are exhausted, compression will end. There will be no use of subcontractors, materiel, or transportation outside the immediate control of the assembly plant.<sup>2</sup>

The compression program insures that immediate, productive activity will take place in plants able to operate in the event of war. The number of aircraft that can be produced under compression will vary in accordance with the time available. The optimum period for the compression project

has been established as the two months prior to D-day, during which approximately 100 aircraft would be procured from new production and approximately 600 from maintenance depots. To begin compression earlier would have no real effect on the D-day inventory because accumulated stocks would be used up and production would be delayed until the stocks could be replenished. In the event of a shorter mobilization time the number of aircraft obtained would be proportionately smaller. For example, according to a USAF report of July 1958, given three days the compression project could provide SAC with five B-52's and eight KC-135's. Little reliance is placed on the application of the compression concept after D-day, considering the probable effects of a nuclear attack on both production and deployment. Despite the known difficulties, the Air Force holds that compression is the only realistic production plan in the face of a nuclear attack.<sup>3</sup>

Production acceleration to provide needed weapons for local conflicts, such as Korea, is primarily for selected tactical and air transport units. Should this nation be drawn into a local conflict, specified industrial plants would speed up production at a predetermined rate within a predetermined time period to replace wartime losses. The prime contractors--as well as their subcontractors--would stockpile additional amounts of selected raw materials, raw forgings, semifabricated parts, and certain long lead-time tools to absorb the shock of the initial acceleration. Additional manpower and extended work shifts are scheduled.

The basic difference between the compression and acceleration concepts is that compression is designed for general war, is of short duration, and