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DOCTRINE FOR STRATEGIC AEROSPACE
OFFENSIVE OPERATIONS

MAJOR THOMAS E. ANGLE

88-0120

"insights into tomorrow"

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PREFACE

Strategic bombing was the primary air mission envisioned by early air power advocates. Since it was the only air power role not in direct support of ground forces, these men used it to justify an independent air force. Although since World War II, the effectiveness of strategic bombing has been questionable, its basic concept has changed little since Giulio Douhet first wrote Command of the Air.

This study examines strategic bombing, now called the strategic aerospace offensive mission, in light of the current destructive power of air weapons and the range of political objectives motivating modern warfare. It assesses the need for a new manual stating strategic offensive doctrine and provides a recommended version of this doctrine.

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INTRODUCTION

The United States Air Force needs a new manual to state its operational doctrine for the strategic aerospace offensive mission. This is one of the Air Force's interdependent missions designed to deter or, if necessary, fight wars (10:3-2). A clear statement of official beliefs about this mission will help commanders effectively conduct strategic operations. New operational doctrine is also needed because of confusion about the nature of strategic operations and because inappropriate doctrine in Korea and Vietnam led to unsatisfactory results in strategic air operations. Finally, the lack of an operational doctrine which included joint operations further contributed to indecisive strategic operations in these two wars. Since no recently written manual fulfills these needs, the Air Force should adopt Appendix A as its new operational doctrine for strategic aerospace offensive operations.

AIR FORCE MISSIONS AND DOCTRINE

The strategic offense has always been one of the Air Force's primary missions, and basic doctrine illustrates the significance of this mission. Due to the importance of strategic operations in history and doctrine, commanders need operational doctrine to provide guidance for accomplishing this mission and for efficiently employing strategic air assets.

Historically, the concept of strategic offense has been a mission and responsibility unique to air power. Early air advocates envisioned aerial bombardment of the enemy's homeland as the primary mission of air forces. Italy's General Giulio Douhet, Britain's Marshal Sir Hugh Trenchard, and the United States' General "Billy" Mitchell advocated vast bomber fleets to destroy an enemy's industrial power, terrorize its people, and bring rapid victory in any war. Today, the United States Air Force calls this the strategic aerospace offensive mission. AFM 1-1, Basic Aerospace Doctrine of the United States Air Force, lists this as an "... assigned military responsibility] ... for which the Air Force must prepare forces" (10:3-2). The stated objective of this mission is "... to neutralize or destroy an enemy's war-sustaining capabilities or will to fight" (10:3-2).

Since this is one of the Air Force's assigned responsibilities, commanders must know how to accomplish it.

Doctrine should provide this guidance. AFM 1-1 calls doctrine "... a statement of officially sanctioned beliefs and warfighting principles which describe and guide the proper use of aerospace forces in military action" (10:v). AFM 1-1 further states "... doctrine is an accumulation of knowledge which is gained primarily from the study and analysis of experience" (10:v). In other words, doctrine is not just theory, but represents study and interpretation of what the Air Force actually does and what works best in combat. Beliefs about the most fundamental principles for the use of aerospace forces is known as *basic doctrine*. The application of these fundamentals to a broad mission area, such as the strategic aerospace offensive, is called *operational doctrine* (10:v-vi).

AFR 1-2, Assignments of Responsibilities for Development of Aerospace Doctrine, further shows the usefulness of doctrine. Simply, AFR 1-2 states:

US Air Force Doctrine:

- (1) Describes aerospace missions and tasks.
- (2) Guides combat commanders.
- (3) Guides weapons development programs and force planning.
- (4) Guides the relationship with other Services.
- (5) Provides a point of departure for every activity of the Air Force (12:1).

In summary, operational doctrine is needed because it provides the commander with the Air Force's accumulated knowledge, experience, and beliefs on how to carry out one of its basic responsibilities. This doctrine will provide commanders with basic concepts necessary to train, organize, equip, and employ forces to accomplish the strategic aerospace offensive mission.

This argument illustrates that since the strategic aerospace offense is one of the Air Force's primary missions, it is logical the Air Force needs an operational doctrine to guide this mission. But there are also concrete examples of problems caused by poor doctrine. The first problem is caused by a poor understanding of what comprises the strategic aerospace offensive mission.

THE STRATEGIC AEROSPACE OFFENSIVE MISSION

The Air Force needs operational doctrine for the strategic offense because of confusion about the nature of this mission. Recent attempts to write strategic operational doctrine contribute to this confusion, and this confusion can lead to failure to implement the strategic mission in some types of conflict and thus to a poor use of aerospace assets.

An examination of AFM 2-11, Strategic Aerospace Operations, and a recent Strategic Air Command (SAC) draft of AFM 2-XB, the preliminary designation for strategic operational doctrine, point out the poor understanding of this mission. AFM 2-11 is the last official Air Force strategic offensive operational doctrine. It was published in 1972, but has since been rescinded. It described the strategic mission in terms of "strategic aerospace forces" (intercontinental missiles and bombers) and the capabilities of these forces (11:1). In other words, the weapons used rather than the mission objectives determined the applicability of this manual. Additionally, AFM 2-11 focused almost exclusively on global nuclear warfare. It briefly mentioned lower levels of conflict, but gave no guidance for strategic operations in these types of war (11:--).

SAC's recent draft of AFM 2-XB contains many of the same deficiencies as AFM 2-11. The draft is inconsistent in its view of "strategic." At times the draft defines it in terms of mission objectives, while at other times it views the mission as what long range nuclear forces do. Also, while the draft covers the global nuclear aspect of strategic operations, it barely addresses theater or conventional war (14:--; 15:--).

But these views of the strategic mission do not agree with Air Force basic doctrine. AFM 1-1 defines strategic offense in terms of the objective, namely ". . . to neutralize or destroy an enemy's war-sustaining capabilities or will to fight" (10:3-2). It does not limit strategic operations to nuclear wars, but states it is applicable ". . . at all levels of conflict. . ." (10:3-2). This means strategic aerospace offensive operations may be conventional or nuclear and employ a variety of weapon systems at any intensity of war. What does distinguish strategic operations is the objective: destroying the enemy's capability or will to fight.

Misunderstanding the strategic offensive mission can cause problems for an operational commander. If he thinks of strategic operations only in wars threatening national survival, he may not employ strategic operations in a counterinsurgency or anti-terrorist campaign. If he thinks of strategic operations only at the nuclear level, he may not employ his forces against the enemy's will and capability in a conventional theater war. If he thinks of strategic operations as something SAC's bombers and missiles do, he may not see the best way to use his forces when SAC assets are not available.

Clearly recent doctrine statements demonstrate poor understanding of the nature of the strategic offensive mission, and this misunderstanding can limit an air commander's effectiveness. Poor doctrine caused problems with the strategic mission in our last two wars, Korea and Vietnam.

KOREA AND VIETNAM: STRATEGIC OPERATIONS

Deficiencies in air operations in our last two wars also point out the need for operational doctrine for the strategic offense. Strategic campaigns in Korea and Vietnam were based on inappropriate doctrine which led to indecisive results.

Entering the Korean and the Vietnam Wars, the Air Force's basic beliefs about strategic air power had changed little since the time of General "Billy" Mitchell. These beliefs advocated strikes against an enemy's means of industrial production to destroy his ability and will to wage war. Such attacks could be decisive by themselves, and this was the primary mission of air power. Following World War II, the atomic bomb reinforced this belief. Nuclear weapons provided sufficient shock and destruction to decimate any enemy's industrial base, war-fighting capability, and will to resist (5:3-4). Since the US had overwhelming nuclear superiority, no other country would dare oppose American interests.

This was the basic belief with which the Air Force entered the Korean and the Vietnam Wars. Strategic doctrine emphasized nuclear strikes against an enemy's industrial and military strength; and by 1964, Air Force basic doctrine ". . . suggested that nuclear strength could deter lower level conflicts" (10:A-4). But in both these wars, political constraints prevented nuclear employment. Likewise, the objectives of repelling North Korea's attack (3:39) and preserving South Vietnam's independence (5:8) made nuclear strikes inappropriate. Also, neither North Korea nor North Vietnam had an extensive industrial base, and both depended on outside sources for their warfighting materials.

Clearly, the US had not designed its strategic doctrine for the sort of wars fought in Korea or Vietnam, but the Air Force still conducted strategic campaigns in both these wars. During the Korean War, SAC B-29s attacked North Korean chemical, industrial, and rail facilities. Later in the war, targeting expanded to include hydroelectric generating facilities. The goal of these attacks was the destruction of North Korea's will and ability to fight (8:Tab 13, p1-3). This goal made the B-29 campaign a strategic mission. Over a decade later, the Vietnam War provided another example of US air power in a strategic offensive role. Air Force and Navy units conducted air campaigns called ROLLING THUNDER and LINEBACKER I and II against North Vietnam. Targets during ROLLING THUNDER included electric production facilities, a steel mill, and a cement plant (4:42). LINEBACKER targets included port facilities, petroleum storage areas, military storage areas, rail complexes, and warehouses (2:42,101,124; 9:34). Although these campaigns primarily employed F-4 and F-105 fighter bombers originally designed for

tactical missions, their objectives were to end North Vietnamese support for the war in the South and to force the North Vietnamese to the conference table (6:8). The mission objectives, not the weapon systems used, made these strategic campaigns.

Because the US based these strategic campaigns on inappropriate doctrine, the results were not decisive. Industrial complexes were among the primary targets of these campaigns. The doctrine being used indicated this targeting would reduce the enemy's warfighting capability and sufficiently lower the local standard of living to persuade the enemy to stop fighting. But destroying a chemical facility has no effect on an army supplied by outside sources, and destroying a cement plant has little effect on the morale of an agrarian society. As a result, the strategic campaigns did not bring victory and, with the possible exception of LINEBACKER II, were ineffective in forcing the enemy to a negotiated settlement. If suitable strategic doctrine had been available, these bombing campaigns might have been more productive.

The US could be involved in another conflict like the Korean War or the Vietnam War. Since the strategic offensive mission is applicable "... at all levels of conflict. . ." (10:3-2), the Air Force needs an operational doctrine appropriate to any type of conflict or enemy.

KOREA AND VIETNAM: JOINT OPERATIONS

Additionally, the strategic campaigns of both these wars were joint in nature; that is, they involved more than one branch of service. However, poor doctrine limited the effectiveness of these joint campaigns.

During the Korean War, the United States used air power from the Air Force, Navy, and Marines in strategic operations. As the threat of enemy fighters grew, SAC B-29s moved to night operations with escort fighters from either Fifth Air Force or the Marine Corps. Eventually, the Marines became the sole escort force because their aircraft had a radar better suited for this mission (8:Tab 3, p20). In Vietnam, both the Navy and Air Force bombed targets in the North, but the two could not agree on a single air commander. Instead, they created the Second Air Division/Carrier Task Force 77 ROLLING THUNDER Coordinating Committee (1:65). When SAC began LINEBACKER II it further complicated the process since it first operated as a specified command reporting directly to the JCS (1:69).

Lack of joint doctrine prevented establishment of unified command. This violated the principle of unity of command con-

sidered ". . . imperative to employing all aerospace forces effectively" (10:2-8). While all air assets in Korea and Vietnam were directed towards a common goal, the lack of coordination and cooperation led to the misapplication of air power. In both cases, no single commander in the area of operation directed the joint air effort. This made it difficult to focus air power. Early in the Korean War, Major General O.P. Weyland, Vice-Commander for Operations of Far East Air Forces, noted that when there is a joint operation, there is ". . . the necessity for centralized command and control of air power" (16:1). This centralized command and control did not develop. In Vietnam, the problem was simply a result of interservice rivalry (4:76). The post-Vietnam CORONA HARVEST critique argued that the air war over the North needed a single commander to increase effectiveness. The ". . . control arrangements lacked simplicity and flexibility. . ." (13:3) and the ". . . command structure could not make the most effective and economical use of available resources" (13:3). The result of the committee approach was ". . . varying degrees of confused responsibility, overlapping authority, and inadequate controls" (13:4).

The United States cannot afford to fight another war where rivalry or poor coordination prevents the best use of available assets. Operational doctrine is needed to advocate this.

CONCLUSION AND PROPOSAL FOR AFM 2-XB

There must be a new operational doctrine for the strategic aerospace offensive mission. This paper has demonstrated the need for a new doctrinal manual to effectively carry out this mission. This manual will eliminate confusion of the meaning of strategic operations and prevent a repeat of the unsatisfactory results caused by using nuclear doctrine to wage conventional war. Finally, the Air Force needs new doctrine to improve the results of joint strategic operations. The rescinded AFM 2-11 and a recent SAC draft of AFM 2-XB neither address how to strategically attack a nonindustrialized enemy, nor consider joint strategic operations. Therefore, they are deficient and do not meet these needs.

Appendix A contains a proposed draft for AFM 2-XB. It remedies the deficiencies of past doctrine in several ways. It is consistent with higher levels of doctrine. It clearly defines the strategic aerospace offensive in terms of objectives, not in terms of weapon systems, level of conflict, or type of ordnance. Finally, it is applicable to all levels of war including the type conducted in Korea and Vietnam, and it is applicable to joint operations. For these reasons, the Air Force should adopt this draft of AFM 2-XB, Doctrine for Strategic Aerospace Offensive Operations.

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APPENDIX A

AFM 2-XB DRAFT

1. INTRODUCTION

1-1. PURPOSE

The strategic aerospace offensive mission is one of the primary functions assigned to the United States Air Force (10:3-1 - 3-2). This manual uses AFM 1-1 as a guide to describe the fundamental principles of this mission. It is descriptive in nature, but provides the commander with the basic concepts required to train, organize, equip, and employ forces to accomplish the strategic aerospace offensive mission.

1-2. CONCEPT OF OPERATIONS

a. The objectives of strategic aerospace offensive operations are

. . . to neutralize or destroy an enemy's war-sustaining capabilities or will to fight. . . . Attacks are directed against an enemy's key military, political, and economic power base. . . . Targets may include: concentrations of uncommitted elements of enemy armed forces, strategic weapon systems, command centers, communications facilities, manufacturing systems, sources of raw material, critical material stockpiles, power systems, transportation systems, and key agricultural areas. Strategic aerospace offense may involve projection of power, with limited or massive application of force, or merely positioning of force as a threat to achieve a desired objective (10:3-2).

b. While successful strategic attacks against an enemy's homeland will seriously damage the enemy, they may not immediately impact the enemy's forces already engaged in tactical action. Strategic operations do not directly target these forces, and supplies and reserves already in the logistics pipeline may temporarily sustain these forces (10:2-13). However, as strategic attacks become effective, the enemy will not be able to sustain his forces in the field, and he may even be forced to divert forces to defend against further strategic attacks (10:2-14). How quickly strategic operations affect forces in the field is a function of the intensity of strategic attacks. Nuclear operations, for example, will have an almost immediate battlefield affect.

c. Strategic operations are applicable at all levels of conflict (10:3-2). The enemy's economic structure may be highly

industrialized or relatively unsophisticated. The objective may be the modification of the enemy's behavior or his total defeat. Regardless, the strategic offensive mission is applicable to all these cases. The key is to find targets which support the enemy's war-sustaining capabilities or his will to fight and then to threaten or actually destroy these targets.

1-3. CAPABILITIES AND REQUIREMENTS

a. Successful strategic operations require many capabilities. First is the ability to identify appropriate strategic targets and then to develop the means to destroy them. Strategic operations also require flexibility to respond to different targets and support different national objectives. Mere possession of these capabilities may fulfill the strategic objective by deterring war.

b. Forces committed to strategic operations are lucrative targets for enemy attack. These forces often must be capable of quick response and be able to survive or escape an attack. To complete the strategic mission, aerospace forces often must be capable of long range operations, sometimes over intercontinental distances. Strategic forces must be able to penetrate enemy defenses and accurately deliver ordnance. Accuracy is absolutely necessary to avoid the need for restrike.

c. Due to the inherent flexibility of aerospace forces, no single weapon type, military command, or service is exclusively responsible for accomplishing the strategic offensive mission. "Technological advances such as aerial refueling, electronic [self-defense], increased weapon accuracy and improved weapon delivery capability, greater engine efficiency, and standoff weapons have increased the range and combat effectiveness of aerospace systems" (14:2). These improvements enhance flexibility and allow modern aerospace forces to accomplish a wide variety of missions. Bombers, fighters, and missiles controlled by any command or service are capable of conducting decisive strategic operations. The commander must understand this capability and select the systems most likely to achieve success.

II. COMMAND AND CONTROL

2-1. GENERAL

a. Unity of command, the vesting of authority and responsibility in a single commander, ensures unity of effort in carrying out an assigned task (10:2-8). As in any military operation, unity of command is vital for successful and efficient strategic offensive operations. However, strategic operations present unique organizational problems in achieving unity of command. Forces from different services and from different specified and unified commands may be required to carry out strategic operations over global distances. The complicated command relationships caused by employing these diverse forces can make unity of command difficult to achieve.

b. Aerospace forces are capable of extreme violence and destruction. When these forces are employed in the strategic offensive mission, the political consequences can far exceed the military results obtained. Because of this, control of strategic offensive operations is often retained at a level above that required for unity of command. During highly sensitive or visible operations, the National Command Authorities (NCA) may retain control. Regardless of what level of authority is in control, all details of command and control arrangements must be determined before strategic operations begin. Commanders must clearly understand what levels of authority select specific targets and target categories, authorize operations, plan missions, and command forces.

2-2. GLOBAL NUCLEAR WAR

a. Forces from different unified and specified commands are tasked under the Single Integrated Operational Plan (SIOP) to deter or carry out global nuclear war. Operations under a common plan, the SIOP, is what ensures unity of effort by these forces. The NCA retain authority to employ these forces under the SIOP. All SIOP forces must use compatible command and control procedures to ensure fast and accurate receipt of NCA directives.

b. The NCA must be able to effectively manage SIOP forces at any level of crisis or conflict. Additionally, to ensure deterrence; command, control, and communication systems must be sufficiently fast, reliable, and survivable to ensure the NCA receive timely attack warning and have the capability to pass orders to retaliatory forces. Hardening, mobility, dispersal, and redundancy in communication systems guarantee the NCA's ability to communicate directly to committed forces in all

circumstances and environments through the National Military Command System (14:6-7).

2-3. THEATER OPERATIONS

a. Theater aerospace assets are normally controlled by the theater's Air Component Commander. During a theater crisis or conflict, the JCS may deploy additional forces to support the theater commander. Unless authority is retained at a higher level, "... tasking, targeting, and execution authority . . . is delegated to the supported commander" (14:7).

b. Command and control systems and procedures for theater operations must have the same characteristics as for nuclear operations. That is, they must be fast, accurate, reliable, and protected by hardening, redundancy, and mobility. Additionally, the theater commander must ensure his command and control system is compatible with deploying forces' capabilities. This can be a problem when weapon systems not normally operated in the theater are deployed. Likewise, commanders providing support must ensure their forces are trained in the theater's command and control procedures.

III. PLANNING

3-1. REQUIREMENTS

a. The strategic aerospace offensive objectives are "... to neutralize or destroy an enemy's war-sustaining capabilities or will to fight" (10:3-2). Actual destruction of enemy targets may not be necessary to achieve this objective if merely deploying forces can deter enemy action. In any case, for successful strategic operations, a commander must understand his enemy's source of power and motivation. He must then develop and deploy assets, and coordinate his attack and support functions to effectively neutralize an enemy's war fighting potential. Thorough planning is required to successfully accomplish the strategic mission. The pre-hostility period should be used to prepare strategic plans in as much detail as possible. When hostilities begin, the commander must implement and modify these plans as needed to accomplish our war objectives.

b. It is impossible for the planner to predict with complete accuracy how a potential war will be fought or our precise objectives. Since aerospace forces have enormous destructive potential, political restrictions and public opinion also may influence the use of these forces. Therefore, plans must be prepared with enough options to provide the commander flexibility to carry out the strategic campaign. These options should allow the commander to control the intensity of conflict and select the type of targets to be attacked and delivery vehicles used. Additionally, the planning process itself must remain responsive. Plans may need rapid revision in response to shifts in priorities, objectives, and force availability. Also plans must change as new targets are identified or increase in importance.

c. Planning for strategic operations must be centralized at the appropriate level. Plans for global nuclear warfare are contained in the SIOP. This plan is prepared by the Joint Strategic Target Planning Staff (JSTPS) in accordance with guidance from the Joint Chiefs of Staff (JCS). The SIOP "... assures central control, exploits mutual support, and coordinates the effective use of our forces" (14:9). Nuclear contingency plans are prepared as directed by the NCA. Theater commanders must prepare plans for conventional strategic operations in their area of responsibility (14:10), and if applicable, use a joint planning staff for this purpose.

3-2. TARGET SELECTION

a. The nation conducts war to achieve a specific objective. This objective may range from forcing an enemy's unconditional surrender to encouraging an enemy to modify his behavior. The objective of the strategic offensive mission must support the overall war objective, and specific targets are attacked or threatened to achieve the strategic objective. For instance, if the war objective is to prevent an enemy from supplying ammunition to an insurgency in a third country, the strategic aerospace offensive objective might be the destruction of the enemy's ammunition factories, and specific factories would be selected as targets. Aerospace assets can reach anywhere in the world and make any potential target subject to attack. But the key to success in strategic operations is the selection of appropriate targets (17:--). The planner must concentrate on achieving his objective and not waste resources on targets not connected to his objective (10:2-5,2-7).

b. High quality, near real-time intelligence is the first requirement in planning strategic offensive operations. Intelligence provides an understanding of an enemy's entire war-making structure and political power base. Insights into the enemy's culture and ideological beliefs are especially important when fighting a nonindustrial enemy. The planner uses this understanding to select specific political, military, and economic targets to achieve his strategic objectives.

The choice of specific targets is based upon [intelligence and operational] considerations including the capabilities and limitations of available weapons systems, enemy defensive forces, the level and impact of damage desired, the enemy's offensive capability for strategic response, and time sensitivity (14:10-11).

c. When the objective is the total defeat of a highly industrialized enemy, the strategic planner has a wide choice of targets. Attacks on factories, transportation systems, energy sources, or communication networks could achieve the strategic objective and destroy the enemy's capability or will to wage war. But if the war's objective is limited or the enemy does not have a significant industrial base, target selection is much more difficult. In a limited war, the target selection must not only discourage an enemy from fighting, but also must not provoke an escalation of the war.

d. Suitable strategic targets against a nonindustrialized third world country or against a non-nation state force are the most difficult to identify. Thorough intelligence, especially human intelligence, coupled with culturally sensitive analysts is indispensable (7:27). The planner must thoroughly understand the

enemy's motivation, culture, beliefs, and power structure to establish strategic objectives and targets. Attacking the enemy's war making capability in the traditional sense may not be possible. For example, appropriate industrial targets supporting the enemy's war making capability may be controlled by third parties not directly involved in the war and therefore not be subject to attack. Attacking the enemy's will may also be difficult. Although the US may have limited objectives and commitment, the enemy is likely to be totally committed and motivated by nationalism or by religious or ideological fervor. Due to these many variables, no targeting strategy will work in every case, but several possibilities exist. The following target strategies could affect the enemy's capability to wage war:

- 1) If the enemy depends on the export of a single commodity such as oil to finance his war effort, target the commodity's source (oil fields) or distribution systems (port facilities) (17:--).
- 2) If the enemy's forces are centrally controlled, attack his command, control, and communication network (7:27).
- 3) If the enemy imports his weapons and supplies, target port of entry facilities.
- 4) If the enemy's forces or logistic support must pass through a critical choke point such as a bridge, tunnel, or pass, target the choke point (7:27).

The following target strategies could affect the enemy's will to wage war:

- 1) If a single individual or small group provides the enemy's motivation and direction, target the enemy's leadership.
- 2) If the enemy leadership has weak political support, attacks to disrupt the enemy's normal life style could either destroy the enemy's political support or deter the enemy by altering the leadership's perception of home support (7:27).

However, if the planner is unable to identify and strike lucrative strategic targets, the air commander should not apportion valuable aerospace forces to a strategic campaign.

3-3. PLANNING FOR FORCE SURVIVAL

a. Aerospace forces must be able to defeat enemy defenses to successfully accomplish the strategic offensive mission. Force survival is an important part of the planners job and requires reliable intelligence on an enemy's intentions and defenses. This intelligence helps determine the most effective method to deploy forces and attack targets.

b. Aerospace forces must be deployed to survive an enemy attack. If our aerospace forces can be destroyed before launch, they cannot deter enemy action or neutralize enemy targets. Placing forces on alert, deception, mobility, hardening, dispersal, and active defense aid prelaunch survivability (14:5). Intelligence on an enemy's capabilities and intentions and the warning time of an actual attack dictate the extent to which these survival methods are used.

c. The strategic planner must consider how offensive forces will survive enroute to their targets. Complete air superiority and suppression of ground defenses is ideal but may not be possible. The desired condition ". . . is sufficient control of the aerospace environment to permit successful penetration" (14:5). The planner can consider a combination of ". . . speed, maneuverability, tactics, deception, efforts to dissipate or defer enemy defenses, and weapons characteristics and employment" (10:2-13) as means to evade or destroy enemy defenses. The high speed of ballistic missiles currently makes them virtually immune to defensive efforts. Manned systems can provide their own defense suppression through ECM or lethal attacks on defensive systems. Forces accompanying the attack aircraft can also provide this support.

3-4. FORCE PLANNING

a. The strategic planner must develop an effective aerospace force to accomplish the planned mission. Survival and kill probability are prime considerations for force makeup. Technological advances incorporated into operational weapon systems enhance these capabilities. Major advances in stand-off delivery capabilities, defense suppression, electronic countermeasures, and decreased radar cross section aid survival. Increased accuracy, more destructive conventional weapons, and real-time targeting capabilities enhance current weapons' target killing capabilities.

b. A single weapon system may not be appropriate for all targets. A complicated weapon may not be cost effective against a lightly defended or low value target, but an unsophisticated system may require too many sorties to destroy a pinpoint or

heavily defended target. A missile may be the best weapon when immediate target destruction is required. A manned platform may be necessary to destroy imprecisely located or mobile targets. The planner must recognize the strengths and weaknesses of each available weapon and develop the right force mix to provide mutual support and the capability to destroy all types of strategic targets.

c. The planner must also develop forces which support strategic operations. Aircraft to provide air refueling, reconnaissance, defense suppression, and air superiority may be required to carry out the strategic offensive mission.

d. Even if the planner can determine the ideal force to accomplish the strategic offensive mission, this does not guarantee the ideal force will be available for employment. Economic and political restrictions limit force development as well as force employment. Additionally, the actual "[f]orces available to the commander are affected by such considerations as maintenance rates, logistics sustainability, attack warning, prelaunch attrition, and weapon system reliability" (14:14). During actual operations, planners must identify all forces available for strategic operations. These forces include missiles and manned aircraft. However, the planner must consider aircraft traditionally considered "tactical" as well as those considered "strategic". Naval and army aerospace assets may also be available to the commander for strategic operations.

e. Aerospace forces deployed to support the SIOP would be priority targets in an attack on the United States. Therefore, SIOP forces must be developed and deployed with prelaunch survival as a primary consideration. To aid prelaunch survival, some forces can be hidden, as with submarine-launched ballistic missiles (SLBM); protected by hardened shelters, as with intercontinental ballistic missiles (ICBM); or have quick escape capability, as with manned bombers. Basing SIOP forces primarily in the continental US, far from enemy forces, aids their survival. Therefore, these SIOP forces must have global range, and for manned bombers to reach their targets, air refueling tankers must be included in force planning. SIOP forces can expect little help from non-SIOP forces in penetrating enemy defenses; consequently, they must be designed to defeat or evade airborne and ground based defenses.

f. Force planning for theater operations is considerably more complicated. Forces must still be deployed for survival, but limited air refueling assets, high sortie rates, and aircrew endurance may prevent sustained intercontinental operations. Forces conducting theater strategic operations will be integrated with other aerospace assets and may not need to be self-sufficient for penetrating defenses.

3-5. LOGISTICS

a. [The planner needs realistic understanding of logistic requirements and capabilities.] Logistics support and manpower requirements determine the limits of strategic operational capability and provide staying power to our forces in combat. Effective operations require . . . the logistics system be at the peak of readiness. In peacetime, war reserves should be prepositioned and protected in theaters of potential operation for use in the early stages of a conflict. These reserves should sustain the combat force until support channels can be established. It is vital that both the lines of support and the logistics base be responsive to mission requirements and remain secure against enemy action. The commander must, therefore, be able to clearly evaluate the capabilities and limitations of assigned logistics resources and adjust operations accordingly.

b. The nature of modern conflict dictates a rapid response capability and an ability to sustain operations for a prolonged period. The complexity of modern weapon systems has greatly increased the training requirements of combat crews and maintenance personnel. The requirements for sustained long-range, high-endurance missions place a severe strain on available personnel. Further, due to the complexity of modern weapons systems and the extensive training times involved to master them, personnel and equipment lost in combat cannot be quickly replaced. Therefore, support and operations manpower levels must be sufficiently high in peacetime to ensure effective employment during an extended nonnuclear conflict as well as general nuclear war (14:15-16).

3-6. PRIORITIES AND ALLOCATIONS

a. Strategic planners must keep in mind the overall situation. Competing missions, such as interdiction and close air support, may require the same resources as the strategic mission. Planners must coordinate closely with the commander to determine priorities and force allocation.

b. In a global conflict, resources may be in demand in more than one theater. Planners must identify which anticipated resources may not be available and adjust plans accordingly.

IV. EMPLOYMENT

4-1. GENERAL

Employment of strategic aerospace offensive forces is based on the fundamental principles of war stated in AFM 1-1. Strategic offensive employment is relevant to all levels of conflict and involves the application of the appropriate level of violence to achieve the desired objective with minimum collateral damage (10:3-2). Employment of aerospace forces in the strategic mission may be independent of the land and sea campaigns. To accomplish the strategic mission, aerospace forces are employed to destroy the enemy's war fighting capabilities and will to fight. Because of aerospace forces' devastating potential, the threat to conduct strategic operations can achieve deterrence and thus is a form of employment (10:3-2). During all levels of employment, sufficient reserves must be retained to deter escalation or further attacks (14:4).

4-2. GLOBAL NUCLEAR EMPLOYMENT

a. Global nuclear warfare would be implemented through the SIOP. The NCA through the JCS to the appropriate forces would direct SIOP employment. However, the primary objective of SIOP forces is deterrence of enemy attack or intimidation.

b. SIOP forces are made up primarily of ICBMs, SLBMs, and manned bombers armed with gravity bombs and standoff missiles. To achieve deterrence, these forces must be in a constant state of readiness and are deployed to ensure survival. Placing forces on alert, dispersal, hardening, deception, active defense, and mobility aid survival. Additionally, SIOP forces can be placed in varying degrees of readiness in response to changes in threat conditions or the international situation.

c. The SIOP would be employed to destroy targets only in an extreme emergency. Forces committed to the SIOP are prime targets during a nuclear war and can expect to launch while under attack. This severely limits the air commander's ability to select the optimum time or conditions to employ his forces. SIOP forces can not expect a campaign to gain air superiority or suppress enemy defenses prior to employment. Therefore, a portion of the SIOP force must be allocated to destroy enemy defenses. Additionally, SIOP forces use speed, deception, and tactics to evade defenses and mass to overwhelm enemy defenses. Because of the short decision time prior to SIOP employment, SIOP plans will be executed with little modification. Plans must be prepared in sufficient detail to provide mutual support,

defense suppression, and an appropriate response for any conceivable situation.

4-3. THEATER EMPLOYMENT

a. Theater warfare against an industrialized enemy, such as in a NATO/Warsaw Pact conflict, offers a wide range of options as well as problems for strategic offensive employment. The strategic offense may be carried out using nuclear or conventional munitions, manned or unmanned delivery systems, and in-theater or out-of-theater assets. Besides the military objective, political restrictions and possible conflict escalation are among the commander's considerations when employing his forces. The commander must be aware of all aerospace assets available for the strategic mission. Missiles and aircraft controlled by the army, navy, allied countries, and other specified and unified commands should be considered for strategic employment. All forces used for the strategic mission should be coordinated and controlled by a single agency (10:2-8).

b. Employing conventional weapons in the strategic offensive mission may not have an immediate impact on the battlefield (10:2-13). The same aerospace resources may also be required for other missions such as interdiction, close air support, and defense suppression which may have an immediate impact on the battlefield. The commander must apportion his resources to accomplish each of these missions, but strategic strikes against the enemy should be carried out whenever possible (10:2-12).

c. Unlike SIOP employment, theater strategic campaigns are flexible in when and how they are implemented. Therefore, prior to initiating a strategic campaign, friendly forces must gain air superiority to avoid unacceptable losses. This may be done by destroying defenses prior to the strategic campaign or by locally suppressing defenses during strategic strikes (10:2-12). Aircraft for combat air patrol, electronic counter measures, and defense suppression may be needed to allow strike aircraft to reach their targets. Operations must remain flexible to respond to the combat situation and to attain tactical surprise.

4-4. LOW INTENSITY CONFLICT

a. A strategic aerospace offensive may or may not be useful in a low intensity conflict. Our enemy in low intensity conflict may not have an extensive industrial base for strategic targeting, but strategic operations might be effective to influence an enemy leader's perceptions and ability to control his forces. Rational objectives and target selection are vital. An air strike can demonstrate our commitment in a low intensity conflict and cause an enemy to question his ability to maintain

popular support or achieve his objectives. Strikes against the enemy's leadership or headquarters may disrupt the enemy's ability to control his forces (7:25-28). However, very few strategic targets may exist in this type conflict, and they may not be appropriate for air attack. The commander should not waste resources attempting an ineffective or inappropriate strategic campaign.

b. Strategic attacks must destroy their designated targets with minimum collateral damage and losses to the attacking force. This minimizes the enemy's propaganda gain from the attack (7:25). Surprise, supporting forces to overwhelm airborne and ground based defenses, and accurate weapons delivery are vital. The commander should achieve his objective with a minimum number of attacks, preferably one, to avoid the appearance of using excessive force and alienating public and allied support.

V. TRAINING

5-1. GENERAL

Thorough training is vital for success in strategic offensive operations. Training enables the timely and coordinated completion of many difficult and diverse tasks required by the strategic mission. Realistic training prepares strategic forces to transition from peace to war and prepares individuals to effectively accomplish their duties despite the confusion and terror of war. Commanders at all levels are responsible for training and preparing their forces for their wartime mission, and all training must contribute to this fundamental task. ". . . [T]raining programs [must] build required war fighting skills and . . . simulate, as closely as possible, the combat environment in which we expect to fight" (10:4-7). Individuals must learn and practice their wartime tasks prior to the outbreak of hostilities.

5-2. FORCE TRAINING

A major emphasis in training must be placed on coordinating individual efforts to accomplish the overall objective. Exercises involving large or small portions of the force are especially useful for this. Frequent exercises identify coordination problems, lead to solutions for these problems, and identify shortcomings in war plans. They also provide valuable experience to operations and support personnel and enhance deterrence by demonstrating our strategic offensive capability. In designing exercises, commanders should keep in mind their wartime mission and minimize simulation of assigned tasks (10:4-7).