UNITED STATES AIR FORCE
ASSISTANT CHIEF OF STAFF,
STUDIES AND ANALYSIS

A STUDY OF RESERVE FORCES IN THE STRATEGIC MISSILE MISSION

FOUR SQUARE

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STUDY
OF THE
FEASIBILITY OF USING RESERVE FORCES
IN THE
STRATEGIC MISSILE MISSION

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SUMMARY

1. This study examined the feasibility of substituting Reserve Forces for active forces to accomplish the entire USAF strategic missile mission without alert degradation. On examining the utilization of voluntary and part time Reservists or mobilization augmentees, it was concluded that the Reserve program was incompatible with the alert and reaction time of the missile systems. Maintenance of strategic alert commits the entire missile force to an execution plan and requires practically an instantaneous response, 24 hours a day throughout the year. In addition, there was a lack of Reservist resources for manning the strategic missile units.

2. However, after surveying the Air Reserve Technician program, mission accomplishment was considered to be conceptually feasible for the following reasons:

a. Since it was assumed the Reservists were fully trained in strategic missile systems, they were considered equally effective as active duty personnel.

b. Air Reserve Technicians are full-time employees of the Federal government with Reserve appointments.

c. Using Air Reserve Technicians was considered legal under the Articles of the Geneva Convention.

d. Custody of nuclear weapons by Reserve personnel was considered legal since the Reserves are a Federal component of the Department of Defense.

e. A method of administering the Human Reliability Program to Air Reserve Technicians could be provided.

f. There is no appreciable cost difference between the active military personnel and a force composed predominantly of Air Reserve Technicians. Initial and recurring training costs were not considered.

TABLE I

ANNUAL PERSONNEL TOTAL COSTS

(Dollars in Millions)

	Officers	Airmen	Civilians	Total
Active UMD	$ 7.2	$17.3	$ 3.3	$27.8
Reserve UMD	$ 6.4	$17.7	$ 2.9	$27.0

3. A limitation of the ART feasibility concept was noted in the area of recruitment for both the initial manning and the attrition replacement requirement. The Minuteman missile wings are located in predominantly sparsely populated sections of the United States. For this reason it was concluded that ART recruitment would have to be nationwide in scope.

4. Even though it is conceptually feasible to use ARTs to man strategic missile units, this would not be compatible with the current concept of the Air Reserve mission, which, in time of national emergency, is to augment, supplement or support the Active Duty establishment. The proposed Reserve UMD using ARTs would merely supplant active military personnel with Federal Civil Service personnel to accomplish the same mission.

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PART I

BOUNDARIES OF THE PROBLEM

CHAPTER I

INTRODUCTION

A. STATEMENT OF THE PROBLEM

1. Agenda Item 21 of the 41st Meeting of the Air Reserve Forces Policy Committee, titled: Requirements and Operations - Utilization of Reserve Forces in Missile Programs, requested "a study be made to determine the feasibility of using Reserve Forces in support of the strategic missile mission of the Air Force, and that this study give full consideration to operational responsiveness as well as to any possible savings."[1/]

2. The Under Secretary of the Air Force approved the Committee's request for the study.[2/]

3. The Assistant Chief of Staff, Studies and Analysis as office of primary responsibility,[3/] sponsored a series of study conferences to explore the subject in detail. Air Staff offices of collateral responsibility represented at the conferences and Major Air Command Headquarters which contributed to the study are shown in Attachment 4.

4. To gain background material for analysis members of the study group visited:

Headquarters Strategic Air Command

Whiteman Air Force Base, Missouri

Vandenberg Air Force Base, California

Little Rock Air Force Base, Arkansas

Nike-Hercules Battery, Lorton, Virginia

1/ See Attachment 1.

2/ See Attachment 2.

3/ See Attachment 3.

B. MISSION DEFINITIONS

1. The Strategic Missile Mission - is to destroy those targets designated by the Joint Chiefs of Staff when directed by Presidential execution authority. For mission accomplishment, the entire missile force is maintained in an alert[1/] status, which permits response to an execution order within a prescribed minimum reaction time.

2. The Air Reserve Force Mission - is to develop, maintain and provide the active Air Force, either in partial or general mobilization, or at any other time as needed, those trained operationally ready units and individuals to (i) augment the active Air Force, (ii) replace attrition or combat losses, (iii) build new combat and support forces, and (iv) expand the training base in such numbers and kinds as are required for any foreseeable operations (paragraph 4-119, USAF Planning Concepts (Short Title: The Plan)).

C. CURRENT SITUATION

1. Air Reserve Forces Personnel Strength

TABLE II

AIR RESERVE FORCES[2/]

PERSONNEL CATEGORY	STRENGTH[3/]
Air National Guard (Flying and non-Flying Units)	82,000
Air Force Reserve (Flying and non-Flying Units)	41,000
Ready Reservists (Not assigned to units)	165,000
Standby Reservists	144,000
Retired Reservists	60,000
Total	492,000

1/ Called strategic alert hereafter.

2/ Management Summary of the Secretary of the Air Force, dated 21 March 1967.

3/ Rounded

a. The flying and non-flying units operated and maintained by the Air Reserve Forces (123,000 personnel) include a full-time Technician complement, which is not available as a personnel resource at the present time for manning strategic missile units.

b. The 165,000 Ready Reservists shown in the table above are the only available Reserve personnel considered as resources for manning the strategic missile units. These personnel are mobilization augmentees and reinforcement designees. However, these personnel resources would have to be:

(1) Relocated to areas close to strategic missile units.

(2) Retrained in missile oriented AFSCs.

2. Missile Units. The strength of the strategic missile force is given in the following table:

TABLE III
MISSILE UNIT STRENGTH

	Wings	Squadrons	Strength[1/]
Titan II	3	6	4,000
Minuteman	6	20	18,000
Total	9	26	22,000

D. FACTORS BEARING ON THE PROBLEM

1. Facts

a. Weapon Systems

(1) Titan

A Titan II Wing (18 missiles) has two operational squadrons. Each squadron has nine missiles installed in individual, dispersed, hardened, underground launch complexes, all located within approximately a 50 mile radius of the home base. Each launch complex is an individual weapon system, manned 24 hours a day by an operational crew. To accomplish limited site maintenance and to supervise other maintenance, a missile crew chief is on

1/ Rounded

duty at each launch complex eight (plus) hours each week day. Maintenance personnel on dispatch usually return to their home base upon completion of the duty period. However, the duty period may be greater than eight hours according to type of malfunction or extent of maintenance work required.

(2) Minuteman

The Minuteman is a much more complex organization. Each wing has 150 to 200 missiles assigned. Each missile is emplaced in an individual, unmanned, hardened, underground Launch Facility (LF). These LFs are dispersed within an approximate 50-75 mile radius of the support base. Ten LFs comprise a flight which is monitored and controlled 24 hours a day by an operational crew located in an underground Launch Control Center (LCC). Five LCCs with 50 missiles make up a squadron and 3-4 squadrons make up a Minuteman Wing. Unlike the Titan II, there are no maintenance personnel assigned to the Minuteman LCCs or LFs. Because of distances involved, maintenance personnel are dispatched from the support base to complete a job regardless of job duration.

b. Reserve Program

(1) Composition - Reserve components consist of:

(a) Air National Guard of the United States (ANGUS) which are Federally recognized units of the Air National Guard (ANG) (10 U.S.C. 8077). (Guard members have dual status: membership in the ANG and the ANGUS.)

1. Air National Guard. The ANG is a component of the state militia. The militia is provided for by the Constitution and has existed since the first days of the Republic. These militia forces did not have a Federal Reserve status prior to 1933, and therefore could not be used by the Federal Government except under limited conditions specified in the Constitution.

2. Air National Guard of the United States. In 1933, Congress established the National Guard of the United States as a Reserve component with membership identical to the National Guard as a means of imposing

uniform Federal standards on the different state guard organizations and as a means of ordering them into Federal service whenever needed.

(b) Air Force Reserve (Title 10, U.S.C. and AFR 45-1)

(2) Members of the Reserve components, are assigned to:

(a) Standby Reserve - which comprises individuals available in the expansion of the active force but only in time of war or national emergency as declared by Congress or as may be authorized by law. (There is no ANGUS standby Reserve.)

(b) Ready Reserve - which comprise Air Force Reserve individuals and ANG and Air Force Reserve units available for prompt entry into active military service in time of national emergency as declared by Congress or proclaimed by the President or as authorized by law. The Ready Reserve may in turn be divided into several sub-elements; i.e.:

1. Ready Reserve units.

2. Mobilization Augmentees - assigned to augment major command strength, to replace active force withdrawals, to replace active force personnel withdrawn for higher priorities - JCS, NATO, etc., or to meet active force shortages during early phases of war or general mobilization.

3. Reinforcement Designees - assigned to meet limited or general war attritional requirements.

(c) Retired Reserve - includes all members not in the Ready or Standby Reserves. They are the last called.

c. Air Reserve Forces Technician Program - Technicians who are members of the Reserve who perform full time duty as civilians, either as a Federally supported state employee in the case of the Air National Guard (Air Technician), or as a Federal Civil Service employee in the case of the Air Force Reserve (Air Reserve Technician - ART). In each case, Technicians are also Reservists assigned in the same location where they work as civilians. During the week,

they work as civilian employees - flying, performing maintenance or other duties. Two days a month and two weeks a year, they perform training duties as military Reservists.

2. Criteria

The study of strategic missile unit manning with Reserve forces considered a number of relatively independent factors; i.e.:

a. The strategic missile mission including the strategic alert.

b. The location and size of the missile sites.

c. The question of legality - including:

(1) Provisions of the Geneva Convention.

(2) Federal control of the Reserve forces.

d. Human Reliability Program.

e. Availability of mobilization augmentees.

f. Feasibility of employing Air Reserve Technicians - including:

(1) Comparisons of their performance with Technicians in Army National Guard Nike-Hercules batteries and Air Defense Command Interceptor Groups.

(2) Interpretation of the Reserve mission.

(3) Discussion of recruiting and promotion problems.

(4) Discussion of the role strategic missiles play in deterrence.

g. Cost effectiveness.

3. Assumptions

a. Missile Forces

(1) For the purpose of analyzing use of Reservists in the missile mission, the 351st Strategic Missile Wing at Whiteman AFB, Missouri, was selected as typical of SAC's missile units.

(a) The 351st has characteristics common to most other wings:

1. There are six Minuteman wings versus only three Titan wings.

2. Whiteman AFB, Missouri, is not as remote as Minot, North Dakota, nor as near a population center as Little Rock, Arkansas.

3. The authorized strength of the Unit Manning Document (UMD) is not significantly different from other Minuteman UMDs.

4. The geographical dispersion of missile silos is not unique in comparison with other Minuteman Wing UMDs.

(b) Moreover, there are no other units of any size assigned to Whiteman which would otherwise complicate determination of personnel operating costs.

(c) By the selection of only one typical missile wing for study, the boundaries of the problem are more easily drawn. Any differences between the study of one wing as opposed to the study of all are not of enough importance to affect the results.

b. Effectiveness of Reserve and Active Duty Forces - Since it was assumed the Reservists were fully trained in strategic missile systems, they were considered equally effective as Active Duty personnel.

c. Missile Mission. The strategic missile mission, including the concept of the strategic alert, will not be degraded.

E. THE PROBLEM REDEFINED

1. After examining the study directives[1/] in conjunction with Reserve programs, it became apparent that a force of full-time Civil Service employees with Reserve membership (i.e., Air Reserve Technicians) could theoretically

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1/ See Attachments 1, 2, 3.

maintain a full strategic alert. All other program elements of the Reserve components were excluded for the following reasons:

a. The State Militia (ANG or ANGUS) were excluded by definition and intent of law since these Reserve forces would be federalized only when needed. Maintenance of strategic alert would require full-time federalization of the state militia.

b. The Standby Reserve are available only upon declaration of a national emergency, at which time they become an integral part of the active force and hence were excluded.

c. The Ready Reserve

(1) The Reservist is only in contract with the government on a part-time basis. The strategic alert mission of the missile force would preclude using this Reserve component without degradation of the strategic alert concept. A survey of available Reservists with missile unit experience further substantiates this conclusion.[1/]

(2) The Mobilization Augmentees would probably arrive for duty after the mission of the missile force had been completed. Hence, the assignment of mobilization augmentees would not be effective.

2. For these reasons the remainder of the report concerns the feasibility of having a force of full-time Civil Service employees with Reserve membership (the Air Reserve Technicians-ARTs) maintain a full strategic alert of our strategic missile force. To gain an insight into the ART program and its feasibility for adoption to the missile mission, a more detailed background appears appropriate and is presented in the next chapter.

1/ See Attachment 5.

CHAPTER II

ORIGIN OF THE ART PROGRAM

1. Available records indicate that the Air Technician "plan", as it was then called, was a concept first worked out in the Air National Guard. Its success in the ANG provided the precedent for proposing adoption of the plan in the Air Force Reserve. The record of the transition of the Technician concept into the Civil Service programs warrants consideration.

a. For example, in a 28 May 1955 written reply to certain questions presented by the Assistant Secretary of Defense, Manpower, Personnel and Reserve, the Chairman of the Civil Service Commission discloses that the Department of the Air Force recommended the Plan "...be adopted immediately on a 'calculated risk' basis..."

b. The files also contain correspondence between the Civil Service Commission and such organizations as the American Federation of Labor - Congress of Industrial Organizations (AFL-CIO), the National Federation of Federal Employees (NFFE), the American Legion, and the Disabled American Veterans. The general theme of the correspondence is to coordinate proposals, to seek concurrences, and to give positive assurances that established Civil Service practices and policies will not be abused. In a letter to the president of the AFL-CIO, for example, the Chairman of the Civil Service Commission makes a commitment "to consult if additional proposals (are made to extend the Plan) to other (Air Force) problems." In a letter to the President of the NFFE, 27 June 1956, the Acting Director, Office of Personnel Policy states: "you may be assured that ... provision will be made for the reassignment ... of employees who accept Reserve status but who fail to maintain it for valid reasons involving personal hardship or family problems." Besides the organizations identified above, coordination on the ART plan was also effected with the House Committee on Post Office and Civil Service, and with the Manpower Policy Committee, Office of Defense Mobilization.

c. In addition to the pledges described above, other commitments on the ART plan have been formalized in a CSC letter, Number 57-45, of 28 June 1957. The commitments add further constraints to the transfer of the ART concept from flying to other programs.

(1) In advising central and regional officials about implementation of the plan, the Chairman of the Civil Service Commission states: "The plan was developed by the Air Force to increase the mobilization readiness of Air Reserve flying units."

(2) Other significant points are:

(a) "... each flying unit will be integrated organizationally to provide within each wing a permanent cadre or "hard core" of highly skilled (ART) personnel available for immediate mobilization." Currently, technician strength is about 10% of AR units and approximately 20% of ANG units.

(b) " ... As members of the career service, ART personnel will be free to move to other jobs on the same basis as all other career employees."

(c) " ... Employees (who do not continue) reserve membership may not continue indefinitely in the ART category."

2. With respect to the last point, other causes for exclusion of an ART from the ART category are:

a. Promotion of: (i) Lieutenant Colonels to Colonel when their assigned positions authorize Lieutenant Colonel (ii) Lieutenants,Captains and Majors to two levels above authorized grades of assigned positions.

b. Reserve retirement

c. Discharge from the Reserve

d. Physical disqualification

(1) Disqualification from the Reserve portion of the ART program does not mean, however, that the individual concerned thereby automatically loses his Civil Service job. On the contrary, under the provisions of the "status quo", the Air Force has an obligation to find another job for him at a comparable grade and,if possible, within the same geographical area when he

loses Ready Reserve standing for reasons beyond his control.[1/]

(2) Extended retention of former Reservists as Civil Service employees in status quo positions acts to defeat the original purpose of the present Technician program. Technicians are authorized as a nucleus of Reserve units to provide stability, continuity, training and a "ready now" response to specific wartime missions or contingencies. The individual who loses his Reserve status for any reason cannot be mobilized. Nevertheless, he continues to occupy his Civil Service position in the UMD. Therefore, he is no longer responsive to the purpose for which originally hired, or for the active duty periods which constitute a measureable contribution to a given mission. Moreover, until another job can be found, the Technician UMD position is not available for hire.

3. Any proposal for transferring the ART concept from flying units to missile wings may magnify the constraints identified above. The commitments of the Air Force to the Civil Service Commission, of the Commission to Congress, to the Unions, and to the ARTs themselves -- could cause a reappraisal of the ART program. Although the original ART plan was justified in order to increase the mobilization readiness of Air Reserve flying units by providing a permanent cadre of highly skilled (ART) personnel there is no comparable argument for the feasibility of ARTs in the missile mission. The reasons for the lack of comparability are: (i) the strategic alert status will not be degraded since this is an offensive weapon system with a quick response requirement; (ii) the permanent cadre requirement is about 87% of wing strength; (iii) the mobilization augmentees would probably arrive for duty after the mission of the missile force had been completed. And, since larger numbers of personnel would be involved, problems would probably be greater

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1/ See Page 23 for further discussion of status quo.

than any presently experienced in the ART flying units because of Reserve promotions and retirements, failure to maintain Reserve membership, or attrition due to prospects in industry for better working conditions or higher wages.

CHAPTER III

THE QUESTION OF LEGALITY

1. Geneva Convention:

As a practical matter, civilians who hold Air National Guard or Air Force Reserve appointments can man missile launch positions in peacetime without presenting critical issues under the laws of war for the following reasons:

a. The personnel concerned are physically located within the United States and are therefore not subject to surprise overrun by the enemy or exposed to immediate capture upon commencement of hostilities.

b. The decision to launch (ICBM) missiles from the Continental United States would involve an emergency in which Reserve forces could be mobilized. Mobilization of personnel at launch sites, either simultaneously with orders to launch or immediately thereafter, would remove any issue of illegality under the laws of war which might be asserted if their status as civilians continued after the commencement of hostilities.

2. Federal Control:

a. Under the Atomic Energy Act, nuclear atomic weapons must be in the custody and control of the Department of Defense. The Air Force Reserve is solely a Federal component at all times under the Department of Defense control. Therefore, Air Force Reserve units could have legal custody of atomic weapons.

b. The dual status of the Air National Guard of the United States is a different matter. The law provides that members of the ANGUS will be administered, armed, equipped and trained in their status as members of the ANG - i.e., in their status as state militia (Title 10, U.S. Code 8079) - when not on active duty. In this capacity, they are (i) not under DOD control, and hence (ii) cannot have custody or control of nuclear weapons.

c. Both the Air National Guard and the Air Force Reserve employ Technicians (see page 6 for definition) as civilian employees, a third status which must be taken into account. Air Force Reserve Technicians occupy a dual status as Federal military Reservists and Federal civilian employees; Air National Guard

Technicians are state militia and state civilian employees, and become Federal military Reserves only when ordered to active duty (see page 5).

d. In addition to the foregoing differences, the absence of or temporary nature of command control is a basic practical reason for retaining custody and control of nuclear weapons by full time active duty personnel. Under this condition, both the Air National Guard and Air Force Reserve might be assigned a strategic missile mission. Members on full time active duty could be assigned to missile sites to maintain custody and control, with supervisory authority over assigned Reservists personnel who would be performing either inactive duty training or short term active duty. Because the Federal government finances and supervises ANG training, its status as state militia would not preclude its use on missile sites in inactive duty training. Dual status is not involved in the case of the Air Force Reserve units.

e. Assignment of a relatively small contingent of active duty personnel[1/] to maintain control and custody of nuclear weapons resolves the problem of state militia status as well as command control including the legal aspects of the Atomic Energy Act. Thus, both Reserve components could be assigned to strategic missile missions for peacetime training and wartime employment.

1/ The contingent would be so small in relation to the total that its cost has been excluded from the cost analysis (Part III).

PART II

COMPARISON BETWEEN ACTIVE AND RESERVE FORCES

CHAPTER I

MISSIONS

A. USE OF TECHNICIANS IN OTHER MISSIONS. To date Reserve forces have not had a mission similar to the strategic missile mission. However, two missions utilizing technicians were investigated: The Nike-Hercules batteries operated by the Army National Guard and the Air Defense mission performed by the Air National Guard. In both cases, no parallels to the strategic missile mission were noted - only differences: geographical differences in respect to cities and manpower pools, in numbers of weapons on alert, in back-up weapons available, in range of weapons, in time of response, and in numbers of personnel involved or available.

1. Nike-Hercules Batteries:

a. The unit most comparable to a strategic missile wing is a battery. Like a missile wing, a Nike-Hercules battery has single-purpose weapons. Like a wing, a battery is geographically removed from its parent unit. However, in every other respect comparisons differ.

b. First, the numbers of personnel are not similar: the authorized Technician strength of a Reserve strategic missile wing would be about 2700[1/] while an Army National Guard Nike-Hercules battery is about 91. (A Reserve wing[2/] would possess an officer strength of about 443, and an airman strength of 2252 while the battery has 3 officers, 4 warrant officers, and 84 enlisted men.)

1/ Excluding non-Technician Civil Service employees
2/ Minuteman Wing, Whiteman AFB

c. Because of its mission, the strategic missile wing exists in relative isolation when compared to a Nike-Hercules battery. Missile wings are considered primary targets and are located as far from major population centers as possible. Nike-Hercules batteries are secondary targets in comparison to the population centers they are designed to defend. Since batteries are located near cities with potential supplies of manpower, a significant difference in recruiting will exist for missile wings.

d. Nine (9) missile wings have a combined military strength of approximately 22,000 personnel (see page 4). In contrast, fifty-four (54) Nike-Hercules batteries have a combined strength of 5,202 Technicians authorized. Personnel attrition f[illegible]-Hercules batteries is approximately 15% annually or some 780 Technici[illegible]nce these batteries are near large population centers, there is no pipeline - recruitment is from the population centers. Missile wings could have a recruitment and pipeline problem since wings are not near population centers. The only other recourse would be tightening the schedule until a replacement is found and trained.

e. The alert status is another area of difference: a strategic missile wing operates at 100% full strategic alert, 24 hours a day, seven days a week, year in and year out. Response time for the Minuteman force is measured in seconds. In contrast, a Nike-Hercules battery in conjunction with three other batteries operating under central control, rotate alert once a week as a general rule, so only one battery is on alert at any one time; the remainder are on a back-up, maintenance or training status. For the battery alert with 18 weapons, the response time is measured in minutes. In short, the missile wing is on practically instantaneous alert 100% of the time with 150 weapons. But only 25% of the Nike-Hercules battalion is on alert with some 54 weapons in non-alert status. This dissimilarity compounds the problem of

maintaining strategic missile wing personnel strength, quality and response time when compared to the Nike-Hercules battery.

2. Air Defense Groups:

a. A reasonable basis exists for comparing a strategic missile wing to a Nike-Hercules battery. This is not true when comparing the strategic mission of a missile unit with the defense mission of the Air National Guard. However, since the contemplated use of Reservists in the missile mission does include areas of apparent similarity, comparisons were made with the defense mission's use of Technicians and alert status. Once again, and only for the purpose of the study, geographical removal from the parent unit and single-purpose mission weapon determined the selection of an interceptor group as most obviously the unit of comparison. As opposed to Nike-Hercules batteries with their exclusive use of Technicians, the interceptor group employs Technicians mainly to guarantee continuity of operations. On a part-time basis, the non-Technician Reserve members round out the capability to perform the mission.

b. In this respect, of a total authorized strength of approximately 926 in the interceptor group, 217 are Technicians. These figures stand in sharp contrast to the concept of using Technicians to operate a Minuteman wing where some 2700 would be required.

c. The reaction alert status of the interceptor groups is measured in minutes for three alert aircraft with 15 additional aircraft in non-alert status. In comparison the strategic missile wing's alert reaction time is measured in seconds for 150 scheduled missiles. Thus, the missile wing is on practically instantaneous alert with 100 percent of its weapons while the interceptor group has a reaction time measured in minutes for only 17 percent of its aircraft.

B. Interpretation of Reserve and Missile Missions

1. Reserve Mission

a. Interpretation of the Reserve mission (see page 3, Chapter I) fails to support a concept which, to become feasible, is first complicated by the additional requirement that Reserve forces must also be Civilian employees of the unit in order to be used in the strategic missile mission.

b. Apart from a word by word translation of the purpose and mission, the spirit and intent of the language conveys the meaning that Reserve Forces will augment, supplement, or support the Active duty establishment. Generally, in situations where Air Reserve Forces are now employed, their role is to augment, supplement or support. For example, in the air defense mission, the interceptor groups augment the active duty force. In the military airlift mission, Reserve units support the Air Force in its mission. In e· of these roles, the Reserve forces depend upon the active duty forces for logistics and training. On the other hand, the precedent does not exist for the creation of a unit composed mainly of Technicians in order to take over a primary mission performed by the active duty force.

2. Strategic Missile Mission

a. The strategic missile forces contribute to our military strategy of nuclear deterrence by assuring potential enemies of destruction if they make a nuclear attack upon the United States or our allies. Assured Destruction involves the maintenance, on a continuous basis, of a highly reliable ability to inflict an unacceptable degree of damage, even after absorbing a first strike, upon a single aggressor or combination of aggressors independent of warning and at any time during the course of a strategic nuclear exchange. This capability is the vital first objective which must be met in full by our strategic nuclear forces since it ensures a high degree of confidence that we could

deter, under all circumstances, a calculated, deliberate nuclear attack upon the United States. Although we cannot and need not state with precision what kinds and amounts of destruction we would have to be able to inflict on an aggressor in order to provide this assurance, whatever that level may be, it must be provided regardless of the costs or the difficulties involved.

b. To reiterate, the strategy of Assured Destruction becomes the design not only for the most elementary practices for strategic missile operations but the primary consideration in the study of the feasibility of using Reserve Forces in the missile mission. Before any judgment can be made, the terms of Assured Destruction must first be satisfied. Inversely, any condition which puts the strategy into question must be rejected automatically as infeasible.

CHAPTER II

PERSONNEL FACTORS

Throughout the following discussion the assumption is that properly trained, cleared and certified individuals are equally effective in a missile wing whether members of the active or Reserve force.

A. THE ACTIVE MISSILE FORCE

1. Sources

a. Since each physically qualified male of the United States has a military commitment to fulfill, the Armed Forces have a continuing source of manpower available. Moreover, the military personnel pipeline is committed to filling primary mission (e.g., strategic missile mission) manpower authorizations on a priority basis. Thus the strategic missile mission has an unconditionally guaranteed manpower source. The source is submitted a second time to an individual selection and rejection process before assignment to the missile mission. Once personnel have been trained and assigned, the problem of attrition arises.

b. Again, because the manpower supply is unconditionally guaranteed personnel turnover may be programmed to serve the strategic missile mission on a priority basis.

2. Attrition: Just how important reliable personnel source and programmed turnover are may be seen in two critical areas: doctors and combat crewmen.

a. Employment of doctors and combat crewmen in a Reserve Technician program cannot be guaranteed. In contrast, within the active Air Force, the doctors or crewmen required as attrition replacements are either drafted or assigned to the strategic missile mission by written orders.

b. The constant combat crew personnel requirements are primarily due to the limitations to a maximum four year tour of duty, because of the human reliability considerations, which include unique mental and emotional stresses.

B. A RESERVE MISSILE FORCE

1. Attrition

a. Programmed Attrition. As in the case of the combat crewmen whose attrition is programmed, Reserve crewmen would likewise be subject to the same attrition because of the previous assumption that Reserve and active duty members are equal as individuals,(reference introduction to chapter). Such a policy of programmed attrition in the Reserves will create at the same time, both a personnel surplus and shortage.

(1) Surplus. The surplus will occur because, as Civil Service (CS) employees, ARTs who lose Reserve status through circumstances beyond their control and who continue to meet CS qualification standards must be held in "status quo". The term identifies a government (USAF) obligation to find for them Federal employment.

(2) Shortage. If the Reserve Missile Force continues the SAC policy (based on Human Reliability) of rotating combat crewmen at the four year tour length, then shortages will occur automatically. If the policy is not followed, shortages will not be automatic and are unknown.

b. Natural Attrition:

(1) In the case of the vacancies which result through attrition created by promotions, disability, retirement and death, there is no unconditionally guaranteed source of resupply.

c. (2) In the case of attrition due to discontent and to better job opportunities elsewhere, unpredictable shortages could occur because the incentive for seeking other employment is "encouraged" by two means: (i) within the government by Civil Service or other governmental agency procedures for personnel

assignment, and (ii) outside by the compensation offered by private industry.

(a) An employee can initiate action for reassignment and then await the opportunity which best suits his inclinations without jeopardizing his job in the missile wing.

(b) Or, because of industrial pay scales, the possibility exists that a Technician could better his salary by accepting employment in private industry since industry and not the Government sets the salary pace in the economy.

2. Recruitment

a. The filling of ART positions vacated through any means would be accomplished by normal recruitment methods in contrast to the military policy of assigning personnel according to the overriding priority of the primary mission.

(1) Recruitment would depend upon such outside conditions as the state of the economy, the labor market, and the degree of international tension (draft calls).

(2) Recruitment would also be subject to such unquantifiable factors as to whether wide appeal exists for employment in isolated locations under circumstances generally disfavored by those involved; e.g., launch control officer position.

b. Even under relatively favorable circumstances; i.e., proximity to large population centers, the attrition rate is high, e.g., 15% for the Army Nike-Hercules program. Application of the same attrition rate (15%), and means of replacement (recruitment) to the total strategic missile force of 9 wings (approximately 22,000 military personnel) would result in a need to recruit and train approximately 3000 technicians per year. In the isolated locations of

missile wings, the attrition rate would probably be higher than the 15% for the Army Nike-Hercules program. The problem then could become one of recruiting well over 3,000 technicians per year.

3. Human Reliability Program

Adequate screening methods are available and would be a prerequisite for using inactive duty personnel in positions requiring high levels of human reliability. This would be available through the flight surgeon's office of a Reserve forces activity. Routine medical support would be provided to the Reservists and their dependents by the local civilian medical community. There is no apparent basis for eliminating Reserve personnel from consideration for duties requiring high levels of human reliability on medical grounds inherent in the Reserve components. Therefore, human reliability is not a valid consideration in determining feasibility of missile mission assignment to the Air Reserve Forces.

PART III

COST EFFECTIVENESS ANALYSIS

CHAPTER I

UMD CONVERSION

The conversion of the Whiteman unit manning document (UMD) from Active to Reserve forces was performed at Headquarters Strategic Air Command.

A. PLANNING FACTORS

The manhour work month planning factors employed in the conversion were:

1. Regular Tour of Duty. For a 40 hour week, there are 173 gross manhours available (40 hours per week x 52 weeks ÷ 12 months = 173 manhours). Net manhours available as given in AFM 26-3, Manpower Criteria and Standards are broken down as follows:

Per month	Manhours	
	Civ	Mil
Gross available	173	173
Not available due to:		
Leave, holidays, sickness	22	20
Training, Organization duties	2	13
Net available	149	140

Total available for an Air Reserve Technician is the sum of the net available as a Civil Service employee, i.e., 149, plus the time available as a member of the Reserve; i.e., 16 manhours per month, a value which derives from the requirement for Reservists to perform two days active duty training per month.

2. Standby Tours of Duty. Work hours in excess of regular 40 hour week, which includes substantial periods of standby time, performed by certain types of employees. For this type of duty, employees receive premium pay based on actual hours worked, e.g., Firefighters. (paragraph 9, AFR 40-522).

a. Active UMD. Portions of the units indicated below perform three different standby tours of duty:

(1) Civil Engineering Squadron - 274 hours per month.

(2) Combat Defense Squadron - 420 hours per month; i.e., five tours per month with each tour lasting 84 hours. (Each tour consists

of 72 regular hours + 12 hours for training, travel, briefing and debriefing). Even though 420 hours per month (16 days) would appear unusually arduous and perhaps unjust, nevertheless, there are 14 days remaining in a given month which are considered time off. In other words, the month is split approximately between work and time off for site security personnel and those in food service who provide their meals.

(3) Strategic Missile Squadron - 210 hours per month -7 x 30 (24 hour tours + 6 hours briefing, travel, and debriefing). Only the launch control officers perform standby duty and were converted to Air Reserve Technicians on a one for one basis in this squadron.

b. Reserve UMD

(1) Two alternative methods were considered for converting the UMD from positions now requiring standby time to Technician positions. The alternatives are to take the total manhours presently performed on a standby basis and (i) divide by the manhours available to a Technician on a regular tour of duty basis (165, re para a (2) above) or (ii) divide by the manhours that would be available to a Technician on a standby tour under the firefighter principle. Because the first alternative yields higher costs (for more Technician positions than would premium payments[1/] for standby tours, the second method of conversion was chosen.

(2) In this respect time available to a Technician as a Civil Service employee for a standby tour is 284 manhours per month (AFM 26-3) plus 16 hours per month as a Reserve member for a total of 300 manhours.

c. Conversion. Conversion of the active to the Reserve UMD was made on the basis of:

(1) Regular Tour of Duty

1/ See Page 49.

$$\frac{\text{Active}}{\text{Reserve}} = \frac{140 \text{ manhours/month}}{149 \text{ manhours/month}} = .9$$

b. Standby Tour of Duty

(1) Civil Engineering Squadron

$$\frac{\text{Active}}{\text{Reserve}} = \frac{274 \text{ manhours/month}}{300 \text{ manhours/month}} = .9$$

(2) Combat Defense Squadron

$$\frac{\text{Active}}{\text{Reserve}} = \frac{420 \text{ manhours/month}}{300 \text{ manhours/month}} = 1.4$$

(3) Strategic Missile Squadron

$$\frac{\text{Active}}{\text{Reserve}} = \frac{210 \text{ manhours/month}}{210 \text{ manhours/month}} = 1.0$$

B. UMD CONVERSION

1. Based on the planning factors identified above, the following table reflects the active UMD (as applies to Whiteman AFB) converted to assumed manning by Air Reserve Technicians with the strength differences between the two as indicated.

TABLE IV

WHITEMAN UMD CONVERSION

Unit	Auth Active UMD Strength	Reserve UMD Strength	Differences (+ or -)
Civil Engineering Sq	443 (68)	396 (62)	-47 (-6)
Comm Sq	144	128	-16
Combat Defense Sq	620 (446)	788 (623)	+168 (+177)
Combat Support Sq	302	250	-52
Services Sq	240	111	-129
Medical Group	174	26	-148
Missile Maint Sq	425	417[1/]	-8
Consol Acft Maint Sq	141	---	-141
Strat Missile Sq	330 (306[2/])	330 (306[2/])	n/c
Strat Missile Wg	282	249	-33
Supply Sq	270	248	-22
Trans Sq	177	133	-44
TOTAL	3548 (820)	3076 (991)	-472 (+171)

NOTE: Parenthetical figures reflect standby tour personnel requirements.

1/ 58 Consol Aircraft Maintenance Sq spaces added to Missile Maint Sq for support of base flight and transient maintenance.

2/ 261 are launch control officers; 45 are launch facility managers.

2. A comparison follows of the Reserve and Active UMD strengths by officer and enlisted grades together with the detailed Civil Service grade [1/] structure for the Reserve UMD.

a. Note that the greater numbers lie in the lower ranks and grades for both active and Reserve strengths.

b. Civilian Personnel Division, Headquarters SAC, converted each position retained on the Reserve UMD to the appropriate classification in terms of Wage Board and General Schedule grades.

TABLE V

UMD CONVERSION BY GRADE STRENGTHS

Officers	0-7	0-6	0-5	0-4	0-3	0-2	Total
Active UMD Total	1	11	29	103	230	136	510
Reserve UMD Total	1	10	26	92	197	117	443
GS-16	1						1
GS-15		9	1				10
GS-14		1	1				2
GS-13			22	3			25
GS-12			2	84	9	1	96
GS-11				5	185	104	294
GS-10						5	5
GS-9					1	7	8
GS-8					1		1
W-10					1		1

1/ GS = General Schedule; W = Wage Board (WB); F = WB Foreman; L = WB Leader.

TABLE VI

UMD CONVERSION BY GRADE STRENGTHS

Enlisted	E-9	E-8	E-7	E-6	E-5	E-4	E-3	E-2	Total
Active UMD Total	20	49	144	272	606	586	884	26	2587
Reserve UMD Total	17	48	112	231	481	509	795	59	2252
GS-13	1								1
GS-10	1								1
GS-9	8	23	28	7	3				69
GS-8				2					2
GS-7	2	8	17	49	24	8	2		110
GS-6		3	11	17	3	2			36
GS-5			17	59	59	22	9		166
GS-4				12	164	262	123		561
GS-3					2	11	400	52	465
F-9	1	1							2
F-8	2	7	7	5					21
F-7		1	7	4	1				13
F-6		2		2	1				5
F-5			3						3
W-12	1	1	4	7	5				18
W-11			5	15	5	3	2		30
W-10	1	1	8	35	133	136	95		409
W-9					16	18	39		73
W-8					30	22	5		57
W-6					17	15	46		78
W-5							7		7
W-4					3	10	12		25
W-3							11		11
W-2							44	7	51
L-11		1	2						3
L-10			3	9	12				24
L-6				8	3				11

3. A comparison of the active and Reserve UMD civilian (non-technician) strengths by grades is shown in Table VII below.

TABLE VII

UMD COMPARISONS BY GRADE STRENGTHS

General Schedule Grades

Civilians	GS-13	GS-12	GS-11	GS-10	GS-9	GS-8	GS-7	GS-6	GS-5	GS-4	GS-3	Total
Active UMD	2	7	32	2	17	6	9	13	52	64	18	222
Reserve UMD	2	7	32	2	16	5	9	4	36	75	5	193

Wage Board Grades

	W-12	W-10	W-9	W-8	W-7	W-6	W-5	W-4	W-3	W-2	Total
Active UMD	1	40	44	21	12	37	4	10	39	2	210
Reserve UMD	1	40	40	17	12	36	4	8	10	0	168

	F-13	F-10	F-9	F-8	F-7	F-6	L-10	L-9	L-6	Total
Active UMD	1	1	1	5	6	3	1	0	1	19
Reserve UMD	1	1	1	5	6	3	1	1	1	20

4. The following operational concepts were included in the conversion:

a. Airfield operations seven days a week in direct support of the primary mission.

b. All spaces required in the medical facility at base level for an effective Human Reliability Program.

c. Food Service for personnel working extended hours on standby and other tours of duty.

d. Civil Engineering for airfield and base housing.

5. The following chapter converts the UMD strengths for active and Reserve forces presented above to personnel costs by grade and by kinds of tour, regular and standby.

CHAPTER II

COSTING

A. BACKGROUND

1. Initial assumptions are that the strategic missile mission will not be degraded; i.e., held at 100% effectiveness, and that active and Reserve forces have equal effectiveness under similar conditions.[1/] Since initial and recurring training costs were not considered, the cost effectiveness analysis was confined to a comparison of active and Reserve personnel costs.

2. The cost data presented below are designed to measure the economic impact on the Federal Government of converting a missile wing to manning with Reserve personnel. Included are personnel-related costs which are relevant to determining the impact of this conversion on both DOD and non-DOD agencies. The 1 September 1966 "Cost Panel Report on Economic Impact of Civilianization Actions," sponsored by OASD Comptroller was used extensively in developing these data.[2/] The annual costs were established on the basis of unit manning document position authorized or proposed.

B. COST COMPUTATIONS[3/]

Annual Personnel Costs:

a. Active UMD - To obtain the UMD military and civilian annual costs, computations were made for each grade using the categories listed below:

(1) Military

(a) Basic Pay

(b) Allowances and miscellaneous expenses

1/ See paragraph b & c, page 8.
2/ A forthcoming revision of AFM 172-3, USAF Planning Factors, will incorporate the cost elements developed by OASD(C).
3/ Cost elements and factors are listed in Attachment 6.

(c) Retirement Liability

(d) Other Costs (DOD and non-DOD)

(e) Special Skill Pay

(2) Civilian

(a) Basic Pay

(b) Retirement and Other (DOD and non-DOD costs)

b. Reserve UMD - To obtain this UMD annual costs, computations were made for each grade using the categories listed below:

(1) Air Reserve Technician

(a) Basic Pay (civilian) + 63 days Reserve Basic Pay

(b) Allowances and Miscellaneous Expenses (15 days Reserve)

(c) Retirement Liability (Reserve)

(d) Retirement and Other (DOD and non-DOD Costs) (civilian)

(e) Premium Pay for Standby Duty (civilian)

(2) Civilian - same as Active UMD

C. COST PRESENTATIONS

1. The following table presents the costs derived from the factors and methods of calculation described above:

TABLE VIII

ANNUAL PERSONNEL COSTS [1]
(Dollars in Millions)

ACTIVE UMD	STRENGTH	PAY & ALLOW [2]	RETIRE. AND OTHER [3]	SPECIAL SKILL PAY [4]	TOTAL
Officers	510	$ 5.1	$ 2.0	$ 0.1	$ 7.2
Airmen	2587	11.9	5.2	0.2	17.3
Civilians	451	2.9	0.4	---	3.3
	3548	$19.9	$ 7.6	$ 0.3	$27.8

RESERVE UMD	STRENGTH	BASIC PAY	RETIRE. AND OTHER [5]	RESERVE & PREMIUM PAY	TOTAL
Officers	443	$ 4.9	$ 0.5	$ 1.0	$ 6.4
Airmen	2252	13.5	1.9	2.3	17.7
Civilians	381	2.6	0.3	---	2.9
	3076	$21.0	$ 2.7	$ 3.3	$27.0

2. With regard to civilian costs, the costs for Wage Board employees varies significantly by location. Average Wage Board rates were employed in costing the UMDs. Wage Board costs for Minuteman wing (depending on location) may increase the total costs by as much as $0.2 million for the active UMD and $0.6 million for the Reserve UMD. Thus the average annual cost comparison could be $28.0M (Active UMD) versus $27.6M (Reserve UMD).

1/ For Whiteman Air Force Base (Minuteman)
2/ Basic Pay plus Allowances and Miscellaneous expenses.
3/ PCS, Support (i.e., medical, commissaries, base exchange) retirement liability, educational benefits, etc.
4/ Flying, proficiency and professional pay.
5/ See paragraph 1a (2) (b), page 49.

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ATTACHMENT 1

DEPARTMENT OF THE AIR FORCE
WASHINGTON

OFFICE OF THE SECRETARY

27 October 1965

MEMORANDUM FOR THE SECRETARY OF THE AIR FORCE
THRU: CHIEF OF STAFF

SUBJECT: Recommendations - 41ST Meeting of the Air Reserve Forces Policy Committee, 25-27 October 1965 (Field Trip, 21 October - 24 October 1965)

SECTION I - Authority

The Air Reserve Forces Policy Committee convened at Headquarters USAF by direction of the Secretary of the Air Force under authority contained in Section 8033, Title 10, United States Code, and AFR 45-9.

SECTION II - Purpose

The Committee convened to consider proposed policies and regulations affecting the Reserve Forces and to report thereon to the Secretary of the Air Force.

SECTION III - Attendance

The 41ST Meeting of the Committee was held at Headquarters USAF during the period 25-27 October 1965. The following members and alternate members were present:

Major General Roy T. Sessums, AFRes
Major General Dale E. Shafer, Jr., ANGUS
Major General Thomas E. Moore, USAF
Major General George B. Greene, Jr., USAF
Major General R. J. Clizbe, Jr., USAF
Major General Bertram C. Harrison, USAF
Major General John H. Bell, USAF
Major General Donald J. Smith, ANGUS
Brig General William W. Spruance, ANGUS
Brig General Nicholas E. Allen, AFRes
Brig General Robert W. Smart, AFRes
Brig General George H. Wilson, AFRes
Brig General J. Clarence Davies, Jr., AFRes

SECTION III - Attendance (Cont'd)

Brig General Kenneth E. Keene, ANGUS
Brig General Willard W. Millikan, ANGUS
Brig General Donald J. Campbell, AFRes
Brig General John A. Johnston, ANGUS
Colonel Clinton H. Moyer, AFRes
Colonel Phillip W. Packer, ANGUS
Colonel Tom E. Marchbanks, Jr., AFRes
Colonel Richard H. Ross, USAF
Colonel James S. Edney, USAF

Major General Roy T. Sessums, AFRes and Major General Dale E. Shafer, Jr., ANGUS, the senior Air Force Reserve and Air National Guard members present served as Chairman, and Vice Chairman, respectively.

The following distinguished persons met with the Committee:

Honorable Harold Brown
Secretary of the Air Force

Honorable Norman S. Paul
Under Secretary of the Air Force

Mr. John A. Lang, Jr.
Acting Special Assistant to the Secretary of the Air Force
(Manpower, Personnel & Reserve Forces)

Brig General Jefferson J. Irvin, USA
Deputy Assistant Secretary of Defense for Manpower
(Reserve Affairs)

Dr. Theodore C. Marrs
Deputy for Reserve & ROTC Affairs

Major General J. S. Holtoner, USAF
Vice Commander, Continental Air Command

Major General Curtis R. Low, USAF
Assistant Chief of Staff for Reserve Forces

Major General Ralph A. Palladino, USA
Military Executive, Reserve Forces Policy Board, OSD

SECTION III - Attendance (Cont'd)

Major General Clarence A. Shoop, ANGUS
Member, Reserve Forces Policy Board, OSD

Major General Frank T. McCoy, AFRes
Member, Reserve Forces Policy Board, OSD

Brig General John M. Campbell, ANGUS
Member, Reserve Forces Policy Board, OSD

Brig General Donald S. Dawson, AFRes
Member, Reserve Forces Policy Board, OSD

Brig General I. G. Brown, USAF
Assistant Chief, National Guard Bureau for ANG

SECTION IV - Special Activities

The Committee departed Washington on TDY at 1400 hours, 21 October 1965 for an orientation visit to Headquarters MATS and AFCS Headquarters. This visit consisted of conferences and briefings with the Commanders' and their staffs. The group returned to this Headquarters on 24 October 1965.

SECTION V - Briefings

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SECTION VI - Recommendations

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SECTION VII - Comments

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REQUIREMENTS AND OPERATIONS - Utilization of Reserve Forces in Missile Programs (Agenda Item #21)

The Committee requests that a study be made to determine feasibility of using Reserve Forces in support of the strategic missile mission of the Air Force, and that this study give full consideration to operational responsiveness as well as to any possible savings.

* * * * * * *

The foregoing report of the Air Reserve Forces Policy Committee is respectfully submitted for your approval and/or comments.

SIGNED

CHARLES F. BOCK
Colonel, USAF
Executive Secretary
Air Reserve Forces Policy
Committee

COPY

ATTACHMENT 2

DEPARTMENT OF THE AIR FORCE
WASHINGTON

OFFICE OF THE SECRETARY

18 NOV 1965

MEMORANDUM FOR THE CHIEF OF STAFF, USAF

SUBJECT: Recommendations - 41st Meeting of the Air Reserve Forces Policy Committee, October 25-27, 1965.

The Report of the 41st Meeting of the Air Reserve Forces Policy Committee has been reviewed.

Recommendations 65-10-1, 65-10-2, 65-10-3, 65-10-4, 65-10-6, 65-10-7 and 65-10-9 are approved for expeditious Air Staff action.

Recommendation 65-10-5 should be considered in the light of present Air Staff studies to define the assignment of airlift roles and missions to the Air Reserve Forces. This review should be accomplished at the earliest date possible.

With respect to Recommendation 65-10-8, the objective of providing greater participation by Reservists in the management of Air Force Reserve programs is approved in principle. Adequate authority now exists whereby the Commander, Continental Air Command, may request the conversion of such officer spaces as he deems advisable to Section 265 positions.

The comments of the Committee are noted. The actions requested in the comments on Agenda Items 5, 9, 13, 15, 18, 19 and 21 are approved.

SIGNED

1 Attachment
Committee Report

NORMAN S. PAUL
Under Secretary of the Air Force

COPY

ATTACHMENT 3

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON, D.C.

REPLY TO ATTN OF: AFCCS

29 Nov 1965

SUBJECT: Recommendations - 41st Meeting of the Air Reserve Forces Policy Committee, October 25-27, 1965

TO:

AFAAC	AFODC	AFJAG	AFESS
AFABF	AFOMO	AFSDC	NGB-AF
AFPDC	AFOAP	AFXDC	CONAC
AFPDP	AFOCE	AFXOP	AFFRA
AFPMC	AFOCC	AFXPD	AFIGO
AFPTR	AFRDC	AFXSA	AFMSG

1. Attached for your information and action as necessary is a copy of SAF-US Memorandum, 18 November 1965, subject as above, which directs action regarding comments and recommendations of the Air Reserve Forces Policy Committee 41st Meeting.

2. Reference the attached AFRPC memorandum, action items and offices of primary responsibility are listed below. Other offices having an interest in any of the items should coordinate directly with the designated OPR.

Item		OPR
a.	Recommendation 65-10-1	AFPDP
b.	Recommendation 65-10-2	AFPDP
c.	Recommendation 65-10-3	AFPMC
d.	Recommendation 65-10-4	AFPMC
e.	Recommendation 65-10-5	AFXOP
f.	Recommendation 65-10-6	AFPDP (AFPTR on AFR 50-41)
g.	Recommendation 65-10-7	AFOCE
h.	Recommendation 65-10-8	AFOMO
i.	Recommendation 65-10-9	AFOMO
j.	Agenda Item 5, Page 14	AFPDP
k.	Agenda Item 13, Page 14	AFPDP
l.	Agenda Item 18, Page 14	AFPDP

COPY

m.	Agenda Item 9, Page 15	AFOMO
n.	Agenda Item 21, Page 15	AFXSA
o.	Agenda Item 19, Page 15	AFXOP
p.	Agenda Item 15, Page 16	AFOCC

3. Agencies having primary responsibility will notify the Executive Secretary, ARFPC, SAF-MPR, not later than 15 December 1965, of the specific implementing action being taken on each item in their area of responsibility. This should include the estimated or final date when the action will be completed. A status report will be provided, if appropriate.

4. All actions regarding the above will be coordinated with AFFRA, in accordance with paragraph 4c, HOI 45-4.

SIGNED

HEWITT T. WHELESS, Lt General, USAF
Assistant Vice Chief of Staff

1 Atch
Memo fr SAF-US, 18 Nov 65
w/1 atch

2

ATTACHMENT 4

AIR STAFF OFFICES OF COLLATERAL RESPONSIBILITY AND MAJOR AIR COMMAND HEADQUARTERS WHICH CONTRIBUTED TO THE STUDY

- OFFICES OF COLLATERAL RESPONSIBILITY

  - OFFICES

    - ASSISTANT CHIEF OF STAFF RESERVE FORCES
    - SPECIAL ASSISTANT MANPOWER, PERSONNEL AND RESERVE FORCES
    - SURGEON GENERAL

  - DIRECTORATES

    - AEROSPACE PROGRAMS
    - BUDGET
    - CIVILIAN PERSONNEL
    - CIVIL LAW
    - MAINTENANCE ENGINEERING
    - MANPOWER AND ORGANIZATION
    - OPERATIONS
    - PERSONNEL PLANNING
    - PERSONNEL TRAINING AND EDUCATION
    - PERSONNEL RESOURCES AND DISTRIBUTION (RANDOLPH AFB)
    - PLANS

- MAJOR AIR COMMANDS WHICH CONTRIBUTED

  - STRATEGIC AIR COMMAND
  - CONTINENTAL AIR COMMAND

ATTACHMENT 5

BACKGROUND SURVEY

1. A survey was conducted with assistance from the Directorate of Personnel Resources and Distribution, Randolph AFB, and by the Air Reserve Personnel Center, Continental Air Command, Denver, Colorado, to gain background material for analyzing the utilization of Reservists (Technicians and non-Technicians) in the Strategic missile mission.

2. This survey listed the number of officers and enlisted AFSCs by grade, with experience applicable to missile units who resided within commuting distance of two Titan II and two Minuteman bases, as follows:

TABLE IX

RESERVISTS AVAILABLE

	OFFICER	ENLISTED	TOTAL
a. Davis Monthan AFB Arizona (Titan II)	7	16	23
b. Little Rock AFB, Arkansas (Titan II)	8	50	58
c. F.E. Warren AFB, Wyoming (M'Man)	35	94	129
d. Whiteman AFB, Missouri (M'Man)	145	485	630
TOTALS	195	645	840

3. Analysis of the Reservists in the Whiteman AFB area revealed that of the 145 Reserve officers only 73 could be used in their stated skills because of an excessive number of lawyers (15), administrative (15) and information officers (17). To further complicate the problem of the 73 only 9 were of missile weapon system skills with the majority in the base support functional skills. Out of 485 enlisted, 455 airmen could be used in their stated skills with only

37 having missile weapon system skills. The survey included a 200 mile radius around the Minuteman bases and a 50 mile radius around the Titan bases. These Reservists might be a resource for recruiting and subsequent training of Air Reserve Technicians.

ATTACHMENT 6

COST ELEMENTS AND FACTORS

A. COST ELEMENTS

B. ANNUAL BASIC PAY AND ALLOWANCES FOR THE ACTIVE AND RESERVE PERSONNEL

C. ANNUAL ADDITIVE COSTS FOR THE ACTIVE AND RESERVE PERSONNEL

A. COST ELEMENTS

1. The following primary cost elements are included:

a. Active Forces

(1) Military Personnel

(a) Basic Pay

(b) Allowances and Miscellaneous Expenses

Subsistence

Quarters Allowance

Uniform Allowance

Social Security Contributions (Employer's)

Separation Payments, etc.

(c) Retirement Liability

(d) Other Costs (DOD and non-DOD)

Permanent Change of Station

Quarters

Training (Basic Only)

O & M Support

Medical

Welfare

Legal Services

Commissaries

Base Exchange, etc.

Dependency and Indemnity Compensation

Unemployment Compensation

Educational Benefits (GI bill)

Income Tax Adjustment

(e) Special Skill Pay

Flying Pay

Proficiency and Professional Pay

(2) Civil Service Personnel

(a) Basic Pay

(b) Retirement and Other (DOD and non-DOD) Costs

Overtime & Holiday Pay

Retirement Contribution

Life Insurance

Health Benefits

Terminal Leave

Workmen's Compensation

O & M Support

Welfare

Recreation

Education, etc.

Unemployment Compensation

b. Reserve Forces

(1) Air Reserve Technician

(a) Cost factors are the same as those listed in paragraph 1a (2) above for a Civil Service employee. Premium pay is additive at the rate of 20% of basic salary for standby site security, food service and civil engineering personnel; and 10% for launch crews.

(b) As a Reserve member:

Basic Pay (63 days)

Allowances and Miscellaneous expenses (15 days)

Retirement Liability

(2) Civil Service

This entry pertains to the Civil Service employee who is not an Air Reserve Technician. Cost factors are again the same as those listed in paragraph 1a (2) above.

B. ANNUAL BASIC PAY AND ALLOWANCES FOR THE ACTIVE AND RESERVE PERSONNEL

The tables below reflect annual military and civilian costs to the government broken down into the components indicated for:

1. Military Personnel
   a. Basic Pay
   b. Allowances and Miscellaneous Expenses
   c. Retirement Liability
   d. Other Costs

TABLE X

MILITARY PERSONNEL COSTS

PAY GRADE	BASIC PAY	ALLOWANCES & MISC EXPENSES	RETIREMENT LIABILITY 1/	OTHER COSTS	TOTAL
O-7	$16,618	$ 1,983	$ 3,993	$ 3,470	$26,064
O-6	13,845	2,075	3,327	2,769	22,016
O-5	11,829	2,272	2,843	2,290	19,234
O-4	9,560	2,106	2,297	2,165	16,128
O-3	7,841	1,942	1,884	2,019	13,686
O-2	5,699	1,917	1,370	1,666	10,652
O-1	3,719	1,636		1,432	6,787
E-9	7,239	1,409	2,073	2,095	12,816
E-8	6,178	1,508	1,769	1,967	11,422
E-7	5,250	1,539	1,503	1,802	10,094
E-6	4,466	1,591	1,279	1,633	8,969
E-5	3,779	1,650	1,082	1,437	7,948
E-4	2,870	1,607	82[illegible]	1,193	6,492
E-3	2,008	1,081		1,090	4,179
E-2	1,313	907		1,084	3,304
E-1	1,151	883		1,088	3,122

1/ Retirement Pay Liability. The accrued current cost to the government for military personnel benefit is computed separately for officers and enlisted personnel. The factors applied to the average base pay are 24.03% for officers and 28.63% for enlisted personnel.

2. Civilian Personnel

a. Basic Pay

b. Retirement and Other

TABLE XI

CIVILIAN PERSONNEL COSTS

PAY GRADE	BASIC PAY	RETIREMENT & OTHER 1/	TOTAL
GS-16	$21,894	$ 1,837	$23,731
GS-15	19,721	1,678	21,399
GS-14	16,950	1,475	18,425
GS-13	14,148	1,417	15,565
GS-12	12,029	1,240	13,269
GS-11	10,221	1,088	11,309
GS-10	9,591	1,035	10,626
GS-9	8,583	951	9,534
GS-8	8,040	1,073	9,113
GS-7	7,238	988	8,226
GS-6	6,724	936	7,660
GS-5	6,089	869	6,958
GS-4	5,472	805	6,277
GS-3	4,818	737	5,555
F-13	10,941	1,375	12,316
F-10	9,339	1,208	10,547
F-9	8,819	1,154	9,973
F-8	8,466	1,117	9,583
F-7	8,195	1,089	9,284
F-6	7,904	1,059	8,963
F-5	7,613	1,028	8,641
W-12	7,322	998	8,320
W-11	7,051	969	8,020
W-10	6,781	942	7,723
W-9	6,490	911	7,401
W-8	6,198	880	7,078
W-7	5,928	852	6,780
W-6	5,637	822	6,459
W-5	5,325	789	6,114
W-4	5,179	774	5,953
W-3	4,992	753	5,745
W-2	4,784	733	5,517
L-11	7,758	1,042	8,800
L-10	7,446	1,011	8,457
L-9	7,134	978	8,112
L-6	6,198	880	7,078

1/ Retirement was applied at 6.5% of base pay, which equals the government contribution.

C. ANNUAL ADDITIVE COSTS FOR THE ACTIVE AND RESERVE PERSONNEL

The tables below reflect the components of the additive costs to the government by grade for:

1. Military Personnel - Special Skill Pay

   a. Aircrew Flying Duty

   b. Physician and Dentist Duty

   c. Proficiency Pay

TABLE XII

ADDITIVE MILITARY COSTS

PAY GRADE	AIRCREW FLYING DUTY	PHYSICIAN & DENTIST DUTY	PROFICIENCY PAY 1/
O-7	$ 1,934	$ 4,195	
O-6	2,939	4,195	
O-5	2,928	4,142	
O-4	2,741	3,080	
O-3	2,333	1,515	
O-2	1,707		
O-1	1,288		
E-9	1,260		
E-8	1,260		
E-7	1,253		
E-6	1,150		
E-5	1,012		
E-4	804		
E-3	692		
E-2	639		
E-1	620		

2. Air Reserve Technician

   a. As a Reserve member:

      (1) Basic pay for 63 days. 2/

      (2) Allowances and miscellaneous expenses for 15 days. 2/

      (3) Retirement Liability.

1/ Applicable to Enlisted Personnel only. To be eligible for proficiency rating of P-1 ($30 per month) or P-2 ($60 per month), the airman must be a career airman on active duty and serving in pay grade of E-3 or higher.

2/ These costs were based upon the annual personnel costs for basic pay and allowances shown in Table X, page 50.

TABLE XIII

AIR RESERVE TECHNICIAN

GRADE	RETIREMENT LIABILITY 1/
0-7	$ 586.86
0-6	399.47
0-5	325.36
0-4	231.70
0-3	158.72
0-2	132.34
0-1	118.81
E-9	158.99
E-8	128.92
E-7	113.73
E-6	90.67
E-5	81.19
E-4	67.73
E-3	63.04
E-2	58.68
E-1	56.62

b. As a Civil Service employee - premium pay, at 20% of basic salary for standby site security, food service, and civil engineering personnel; 10% for launch crews.

1/ Source: OSD (Manpower) Mr Glenn.

ATTACHMENT 7

BIBLIOGRAPHY

1. Recommendations - 41st Meeting of the Air Reserve Forces Policy Committee, 25-27 October 1965 to Secretary of the Air Force Agenda Item 21 - Request for Study of Utilization of Reserve Forces in Missile Programs.

2. Memorandum for the Chief of Staff, USAF, from Under Secretary of the Air Force, Norman S. Paul, dated 18 November 1965 - Approving request for study listed above.

3. Letter from Chief of Staff, USAF, to AFXSA, dated 29 November 1965, designating office of primary responsibility for the study requested under Agenda Item 21.

4. USAF Planning Concepts, paragraph 4-119 (Short Title: The Plan).

5. Air National Guard (Title 10, U.S.C. 8077 and 8079).

6. Air Force Reserve (Title 10, U.S.C. and AFR 45-1).

7. CSC Letter, Number 57-45, dated 28 June 1957 - Formalization of Commitments on the ART Plan.

8. A[illegible]-3, Manpower Criteria and Standards.

9. AFR 40-522, Rates of Special Pay.

10. Cost Panel Report on Economic Impact of Civilianization Actions, from OASD Comptroller, dated 1 Sep 1966.

11. Management Summary of the Secretary of the Air Force.