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JAN 11 1961

Lt General J. H. Atkinson
Air Defense Command
Ent AFB, Colorado

Dear Hamp

1. I appreciate your comments on John Gerhart's presentation to the November Commanders' Conference and am gratified to know that we are in complete accord as to the increasing importance of aerospace defense to a war-winning capability -- particularly as pertains to the counter-military strategy.

2. The counter force strategy becomes both increasingly difficult and more important during the next several years particularly should the Soviet choose to build large numbers of missiles, individually dispersed and hardened. However, as you point out, the BAMBI concept may very well provide the technological breakthrough which will help us retain a credible counter force capability during this decade. Accordingly, I agree that it must be given the highest priority.

3. Your comments are particularly timely in that this Headquarters is currently in the process of reviewing a revised Objective Force Structure. This structure essentially contains the forces expressed in the projection which you submitted. It is intended that this force will be published and distributed in the form of an Air Force Objective Series paper along with a revised statement of Air Force tasks. This Headquarters is also in the process of developing a Communications and Electronics Force Structure which will contain the many necessary ground environment and associated support systems which are beginning to consume a major portion of the Air Force Budget but which are a vital aspect of present and future capabilities. The draft version of this structure also supports the requirements you have expressed in your letter.

ADC

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By <i>[Signature]</i>		AFKSS
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4. Your long-range objectives plan, "ADC Aerospace Objectives 1965-1975" will be most helpful not only in corroborating the objective force but also in providing inputs for the formulation of Joint Strategic Objectives plans.

Sincerely

THOMAS D. WHITE
Chief of Staff

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NOTED BY GENERAL [Signature]

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REPLY TO
ATTN OF:

SUBJECT:

HEADQUARTERS
AIR DEFENSE COMMAND
UNITED STATES AIR FORCE
ENT AIR FORCE BASE, COLORADO

*Best PRP
guarantee
W/MGT 3-29
18*



21 DEC 1960

TO: General Thomas D. White
Chief of Staff
Headquarters, USAF
Washington 25, DC

Dear Tommy

John Gerhart's fine talk at the 16 November Commanders' Conference on Army and Navy Strategic Objectives made it quite clear to me that the USAF will have a continuing fight on it's hands to maintain a "be able to win the war" defense strategy. In this connection, I have steadfastly held a firm belief that air defense -- and now aerospace defense -- is an inseparable partner with SAC in making up the aerospace force necessary to achieve the military dominance required for peace and war. I am not convinced that the Air Force, as a whole, sincerely sees it this way.

To me, counterforce is applied against the enemy wherever and whenever we engage him -- on the pad -- in the air over his bases -- or enroute to his targets. If we can't engage him on the pad or on his airbases (and there are many problems in this) we must engage him in the aerospace medium. Our counterforce weapons in the years ahead can not be limited to one locale of employment or one philosophy of fighting. I believe our force objectives must clearly include all types of weapon systems capable of destroying or neutralizing the nuclear threat to our country and our allies. In this regard, the aerospace defense role is growing in importance rather than diminishing.

Because I believe so firmly that aerospace defense must be co-championed with SAC, I would like to set forth my evaluation of major aerospace defense systems now available or under development and our required force structure through 1970.

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By *[Signature]* Date *11/10/88*

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a. Evaluation of available weapon systems:

(1) F-106 -- When current modifications are complete, this weapon system will be effective against bombers with performance up to Mach 1.5 maximum speed and 70,000 feet maximum bombing altitude within 400 nautical miles of the bases of these interceptors. The F-106 will not do the job against bombers of greater performance or against ASMs having greater than 400 miles range and small radar return cross section.

(2) F-101B -- Essentially the same as the F-106.

(3) F-102 -- Useful against lower performance bombers, if nuclear armed. Cost of operation, even by the Air National Guard, cannot be justified if nuclear armament is not provided.

(4) IM-99A -- Marginal usefulness by reason of limited range and lack of capability below 10,000 feet. This weapon system should be replaced as soon as possible with the IM-99B.

(5) IM-99B -- Effective from sea level to 80,000 feet against targets with speeds up to Mach 2.5 to a maximum range of about 365 nautical miles. It will become obsolescent sometime after 1965 due to the speed, altitude and stand off capabilities of the bomber threat expected to emerge about that time.

(6) RC-121 -- Time has caught up with this aircraft. Cost of operations plus altitude limitations dictate modernization of this off-shore control and warning system in the mid-1960s.

(7) BMEWS -- A necessity, but the first step only, in transition of the air defense system to an aerospace defense system. BMEWS can be modernized to assimilate space object data -- not just ballistic missile data.

(8) MIDAS -- An urgently needed warning element of the future aerospace defense system. It is an important step, but not the final solution, toward countering the ballistic missile threat.

(9) SPACE TRACK -- The key to control of space. Improvement of Space Track or Space Detection and Tracking System (SPADATS), as designated by the JCS, is one of a series of necessary steps leading to an aerospace surveillance, warning and control system.

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b. Evaluation of future systems under development or study:

(1) BAMBI -- An AICBM system, possessing the capabilities to be found in the Ballistic Missile Boost Intercept (BAMBI) concept, is the most pressing requirement for an effective win-the-war strategy. Actual test or experiments of all likely ideas should be conducted without delay in a feasibility demonstration program similar to SAINT.

(2) LRIX -- A long-range interceptor system with performance better than the F-108 is a must for the late 1960s to counter advanced atmospheric vehicles. We cannot place ourselves, in the future, in the same helpless defensive position relative to possible aerodynamic or semi-aerodynamic threats that we find ourselves in today relative to the ICBM.

(3) SAINT -- A means for inspecting and, if necessary, destroying orbiting vehicles is needed for active defense as enemy satellites become weapon systems. Development should go forward toward an air-launched as well as a ground-launched configuration so that system production can be initiated with minimum delay when warranted. A highly flexible and maneuverable space interceptor must be our ultimate goal. There may be significant advantages to development of this system earlier than indicated by the threat as a cold war action or as the USAF entry into space.

(4) Space Surveillance, Warning and Control System -- The capability for surveillance and weapons direction in space (at least over the Western Hemisphere) is essential to the basic Air Force task of controlling vital aerospace. This system will encompass BMEWS, MIDAS, Improved SPADATS, and the NORAD Control System (425L) to provide volumetric scan, first pass detection, tracking, identification and intercept control against objects in space. We must move forward with new sensor developments, both surface and aerospace borne. The system should serve as the basis for an overall aerospace environment system to provide surveillance and operational direction of defense weapons to counter both space and advanced atmospheric threats. By 1970, it must function as the "SAGE System" of the aerospace age. Today's SAGE can then largely be used by FAA for air traffic control.

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c. Aerospace defense force requirements:

(1) Nearly all programmed improvements to be incorporated into our present manned and unmanned interceptor force will have been achieved by 1965. Rather than attempt further costly modifications of these weapons to counter the advanced atmospheric threat, they should begin phase-out about 1967 with concomitant integration of the LRIX. This program should be completed by end-1970.

(2) Based on the above evaluation of current and future systems, a projection of our force requirements from FY 1965 through FY 1970 are outlined in Attachment 1.

With the U.S. and the USSR reaching parity in deliverable offensive capability, I am convinced that the nation which first gets an effective defense against the ballistic missile will ascend to the dominant military position. As I have stated on previous occasions, a kill-during-boost AICBM capability is our most urgent requirement. When we do achieve such a capability, I believe we must be prepared for a Soviet shift to advanced aerodynamic and space offensive weapons. The decision to develop needed counter systems must be made sufficiently early to permit operational integration as these threats emerge.

A more detailed discussion of the foregoing is contained in our long-range objectives plan entitled, "ADC Aerospace Objectives 1965 - 1975". This plan is now being published and copies will be furnished Hq USAF in the near future.

Sincerely


J. H. ATKINSON
Lt Gen USAF
Commander

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Force Structure
Rqmts (S)

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AEROSPACE DEFENSE FORCE STRUCTURE REQUIREMENTS

FY 1965 THROUGH FY 1970

<u>Type Unit</u>	<u>UE</u>	<u>65</u>	<u>66</u>	<u>67</u>	<u>68</u>	<u>69</u>	<u>70</u>	<u>71</u>
F-106 Sq	24 18	1 13	- 13	- 13	- 12	- 9	- 4	-
F-101B Sq	24 18	10 7	9 8	8 9	4 10	- 11	- 3	-
F-102 Sq	33 26 12	1 5 1	1 2 1	- - -	- - -	- - -	- - -	-
IM-99A Sq	60 30	1 1	1 1	- 2	- 1	- 1	- -	-
IM-99A/B Sq	60A/29B 30A/29B	1 2	1 2	1 2	1 2	- 3	- -	-
IM-99B Sq	49 29	1 2	1 2	1 1	1 1	1 1	1 3	-
AEW&C (ALRI) Sq	10	6	6	6	4	4	3	-
LRIX Sq	18	-	1	4	10	15	18	20
*AICBM Wg	VAR	1	1	1	1	1	1	1
*MIDAS Wg	VAR	1	1	1	1	1	1	1
*SAINT Wg	VAR	1	1	1	1	1	1	1
*SSWACS Wg	VAR	1	1	1	1	1	1	1

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* Specific organization designation and composition not yet determined. Planning is now in progress at this headquarters to establish a subordinate Aerospace Division (Def) at an early date to which these forces would be initially assigned as they become operational. As the systems expand, Aerospace Weapons Divisions (Def) and Aerospace Surveillance Divisions (Def) should be established directly subordinate to Hq ADC.



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