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MEMORANDUM FOR THE DEPUTY SECRETARY OF DEFENSE

SUBJECT: (U) Weapon Systems Information

1. At the briefing on Monday, 13 July, on selected Air Force Weapons and the Objective Force, you evidenced further interest in the Minuteman and F-108 Weapon Systems. The attached inclosures contain the information you requested.

2. In specific regard to the F-108, a more complete briefing has been prepared on the requirement for the system and status of its development. The briefing requires 45 minutes. This presentation can be scheduled for you at your convenience.

2 Incls

- 1. Justification for F-108/CAR-9 Weapon System
- 2. Minuteman Development Objectives

THOMAS D. WHITE
Chief of Staff

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The classification of this Memo is UNCL

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E.O. 12958, Sec. 3.402
By: *MJ* NARS, Date: 5/27/81

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Justification for

F-108/GAR-9 Weapon System

It has been stated repeatedly that too much of our defense budget has been programmed into what appears to be a fading threat, i.e., the manned bomber. The Air Force, in fact, has reduced its goals for manned interceptors drastically. Specifically, in 1957 we were planning on 5200 fighter interceptors for 1963; in consecutive adjustments we have cut from this figure to 2000 in 1963, with further reductions by 1970. For the foreseeable future, however, it appears that there will continue to be, in significant degree, a Soviet bomber threat against this nation. The projected capability of that threat is 65,000 feet altitude at speed of M 2.0 - 2.5. Accordingly, there will continue to be the requirement for a modern manned interceptor to perform those air defense operations beyond the capability of the air defense missile, and to provide flexibility which will allow us to concentrate fire power in areas where missiles have been expended.

What is perhaps not clearly understood is that the F-108 represents a complete departure from contemporary aircraft design. It is constructed to cruise at 2000 MPH (to its full range). By new techniques we are able to make this high performance aircraft behave properly at lower speeds for safe takeoff and landing. Of special interest to you, I believe, is that the basic design of the F-108 permits its use as an offensive weapon as well as an exceptionally versatile defense fighter. In the offense role it can carry the recently developed family of small, high yield weapons, or modern reconnaissance devices. Its missile bay is equal in size to one of the two bomb bays in a B-47 bomber. Here we have additional application to the problem of limited war. The range and speed of the F-108 permits its deployment to Formosa, for example, in 4.3 hours.

You will note there are no funds in our FY-60 program for contemporary interceptors. FY-59 bought out the last of the F-106 and F-101 series. We are placing dependence on the F-108 to meet the requirements for a multi-purpose fighter aircraft for the future. Our funding requested in our FY-60 program provides for development of this aircraft as a long-range interceptor and air defense missile launcher. Its ability to cruise out borders is in consonance with the Air Force approach to air defense in depth. The advanced performance of the F-108 from both military and technical standpoints is also consistent with the vital need for the U. S. to maintain an optimum balance and effective relationship between offensive and defensive air capabilities. In short, the battle against Soviet nuclear offensive forces threatening the West, whether manned aircraft or missiles, should start in Soviet territory, not ours.

In summary, it is the only really new fighter aircraft in the Air Force development program. Its growth to a truly global fighter capable of rapid deployment to fight or to fend off attack makes it, in my judgment, one of our most important new weapons.

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E.O. 12812, APR 24 1973

By

MARS, P-11

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MINUTEMAN WEAPON SYSTEM DEVELOPMENT OBJECTIVES

1. System analyses and parametric design studies were initiated at the Air Force Ballistic Missiles Division in early 1955 to define the basic requirements and capabilities of weapon systems based on solid propellant missiles. This action was taken to exploit the potential logistic and operational advantages of solid propellant rocket engines. Basic research and development of solid propellants, initiated by the Air Force, was expanded at several industrial companies to determine the feasibility of building engines of the required specifications for ICBM application. Concurrently effort was applied in the many other technical problem areas, such as, thrust vector control, thrust termination, solid propellant gas power generators, guidance, etc.

2. The Navy POLARIS and Army PERSHING, as well as the Air Force MINUTEMAN programs have drawn upon these development efforts. At the present time all three services, through coordination and liaison, have integrated their respective weapons system development programs so that there is mutual technical exchange and support with minimum duplication and/or interference. The POLARIS Fleet Ballistic Missile, the first of the current family of solid propellant ballistic missiles, was frozen in design about two and one-half years ago and had to rely on the relatively limited technology and industrial resources of that period.

3. The MINUTEMAN ICBM system has been designed with the philosophy of incorporating maximum performance components in a constant envelope. The currently programmed MINUTEMAN missile, having been configured some 18 months subsequent to the POLARIS, has incorporated the advances in the state-of-the-art made available during this time period. The MINUTEMAN development program has in the past and will continue to rely heavily on the development and testing of the POLARIS system. In addition, due to the very limited industrial capability available at the beginning of the MINUTEMAN Program, it has as a primary objective the development and production of this system without interference to other missile programs.

4. In summary, constant review of activity and interchange of technical data by all three services, provides

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BY *[Signature]*

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MINUTEMAN Weapon System Development Objectives, contd

assurance that maximum advantage is being taken of each other's programs with a minimum of duplication and/or interference.

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