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(U) Rationale for Concurrent Development
of Titan IOC Force and Minuteman SYSTEM

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1. In response to the need for a rationale explaining the need for concurrent development of the Titan IOC force and the Minuteman system, the following possible arguments are recorded herein. This is not a policy statement and should not be used in the written form outside of this command. Its purpose is to supply the basic arguments to be used in connection with verbal presentations on our programs.

a. Titan is based entirely upon quite well developed, largely existing techniques and equipment. Generally conservative in design, Minuteman is reaching for a major extension in all fields - propulsion, launch technique, GSE, warheads, automation. It is a very necessary step in attempting a real discontinuity -- a radical improvement -- in a military weapon.

b. Titan has an extraordinary growth potential. As a surface-to-surface weapon, it is capable of very large warheads -- up to 5,500 pounds to 5,500 n.mi. or to extraordinary ranges -- warheads up to 1,600 pounds to 8,500 n. miles. Minuteman will carry a minimum size warhead and will rely on large numbers on target to effect damage. It appears today to be able to make a range of 6,500 n.mi. or grow into this capability as the state-of-the-art in solid propellants develops. Minuteman is particularly sensitive to warhead weight and hence lacks the flexibility in trade off in warhead weight for range.

c. The Titan is an ideal vehicle for conducting the early astronautics missions. The two stage design with the large booster permits exploitation of fluorina (?) and nuclear propulsion systems, for example. The two stage technique avoids the contamination problems. In addition to the equipment, all the facilities and trained handling people will be available from the Titan program to accomplish the early astronautics missions.

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d. Titan will be the earliest possible hard based strategic force. The most immediate effect of the Russian ballistic missile capacity is the reduction in effectiveness of SAC as a deterrent; the present exposed aircraft force is particularly vulnerable to attack without warning and without any active defense. The need for a hardened strategic force of significant size which can thwart the Russian ballistic missile is immediate and overwhelming. Immediate commitment to a sizeable Titan force is the only means to satisfy this need.

e. The Minuteman is to be hard based and will eventually supply very adequate survival of a strategic force, but it cannot meet the early need of the 61 to 62 period.

f. The Titan operational force will remain an effective deterrent force for an extended time -- probably 10-15 years. Within the base facilities and the large investment in launch control and guidance equipment as now designed, the full growth and improvement possible for the Titan can be accommodated. It should be possible to prevent obsolescence of this force by continued product improvement. Even long after the advent of the Minuteman system, the Titan force will supply a significant capacity with large yield, good accuracy, and long range which will be available for operational flexibility. In the foreseeable future, the Minuteman will not have effectiveness against the counterforce targets which will be hardened point targets. Large megaton yields in the Minuteman can be available only at great expense in critical material. For these applications, the larger warhead weight capacity of Titan is essential.

g. For certain audiences, it will be appropriate to point out that cancellation of the Titan would inevitable bring extraordinary pressures urging the acceleration of the Minuteman schedules. It is believed that all of the time now scheduled for the development of the Minuteman will be necessary to realize the real advances which we seek in the Minuteman system. There is the additional possibility that requirements to fully develop an IRBM version of the Minuteman and equip some operational units may cause pressures tending to delay the ICBM Minuteman. Should this be the case, the timely availability of the Titan will be important to this country.

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