MEMORANDUM

THE WHITE HOUSE

WASHINGTON

ACTION

March 5, 1969

TOP SECRET

MEMORANDUM FOR THE PRESIDENT

FROM: Henry A. Kissinger HK

SUBJECT: Modified Sentinel System

I recommend you read the attached memorandum on ABM issues, which attempts to provide some insights which amplify the presentations you have already heard.

Enclosure
Tab A - Issues Concerning
ABM Deployment

① They have closed the gap —
② they continue to increase —
③ they want to talk —
④ We must see that the gap is not widened on other side

ISSUES CONCERNING ABM DEPLOYMENT

The DOD paper discusses four options for an ABM decision:

1. Defense of cities against the Soviet Union.

2. Area Defense Against Chinese ICBM (Sentinel).

3. Modified Sentinel.

4. No Missile Defense Deployment.

DOD recommends, with the unanimous endorsement of the Joint Chiefs of Staff, alternative 3. This paper discusses (1) exactly how in fact the proposed deployment differs from the Sentinel system, (2) important differences of opinion within the Government about the real reasons for going ahead with this deployment, differences which could create "credibility gap" problems concerning the Administration's real intent, and (3) legitimate issues that can be raised concerning this deployment, issues which we must be prepared to deal with if they arise in public debate.

Differences Between DOD Proposal and Sentinel

The DOD proposal will save about $500 million in the FY 69-70 budget,* will delay initial deployment 9-12 months and full deployment by about 9 months, and will have the following implications for our strategic posture.

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* The FY 70 ABM Military Construction Budget will contain $130 million for Grand Forks AFB, North Dakota; $111 million for Boston; $67 million for Whiteman AFB, Missouri; and $70 million for Washington D.C; plus $79 million for planning, design and survey work at other sites.

Defense of Minuteman

Sentinel

Provided some defense of Minuteman and an option for additional defense by putting radar sites near four Minuteman fields. Additional 264 missiles would be needed for first level of effective defense (other levels could be deployed to meet greater threats by accurate MIRVs)

Modified Sentinel

No real change; fewer Sprints will be deployed in Minuteman fields, but they will be better distributed.

Area Defense

Complete protection against early; unsophisticated Chinese ICBM threat, or against accidental ICBM attack by any country. Protection against more sophisticated Chinese threat.

Provides more extensive area defense in all directions but is thinner in some directions and has some gaps. Somewhat lower growth potential because system has fewer radars.

No significant area protection of bombers or cities against attacks from Soviet ballistic missile submarines (SLBMs) or fractional orbital bombardment systems (FOBS).

By reducing number and relocating radar and missile sites and by enabling radars to look other than Northward, provides protection for bomber bases and cities against Soviet submarine launched or orbital space launched attacks. (Radars and missiles will be relocated away from cities.)

Eliminates defense of Alaska and Hawaii by deleting radars, missile deployments there.

Defense of National Command Authorities

Same as for rest of country.

Adds about 20 Spartan, 50 Sprint missiles to protect Washington, D.C. against moderately heavy Soviet attack. (Protection may also be put in for Colorado Springs.)

Protection or Damage Limitation Against USSR

Very limited and only against attacks from North; not designed for this purpose. However, maintains option of cities defense against Soviet threat.

Still very limited, but better directional coverage.
No rational basis for later installation of a cities defense.

The chart shows that the basic change in the physical system is the improved directional coverage of the radar system, which protects the bomber bases against Soviet SLBM or FOBS attack. Otherwise, the area defense system is somewhat thinner, except around Washington, but with better regional distribution of Sprint missiles. Because the modified system has fewer radars, its growth potential is less than that of Sentinel. The Minuteman defense features and the virtual absence of major damage limiting capability vis-a-vis the Soviets are about the same for both systems.

The relocation of the radar and missile sites away from cities will not in and of itself alter the capabilities of the system if the new sites remain within 50 miles of the cities but will substantially reduce or eliminate the growth potential if the sites are beyond 50 miles.

Major Differences of Opinion

It is important to recognize that believers in at least two fundamentally different views have united behind the Modified Sentinel proposal.

1. One view is that the Modified Sentinel deployment fills important gaps in the protection of our deterrent and provides options for meeting possible new threats to our deterrent that have not yet appeared, such as accurate Soviet MIRVs. Area protection of our population is a valuable feature of this deployment, but no greater protection of our cities should be contemplated because this would stimulate a costly arms race, increase the instability in U.S.-Soviet strategic relationships, and ultimately leave us no better off.

2. The second view regards the deployment primarily as a useful first step toward obtaining a major damage limiting capability against the Soviet Union as well as a necessary step in maintaining an invulnerable deterrent. Holders of this view fully expect to propose additional deployments for the defense of cities later on unless arms control agreements make such deployments unnecessary. They will do so even if the growth option is eliminated from the Modified Sentinel deployment.

The Modified Sentinel proposal can be supported by both groups as long as the radars and their defending missiles are deployed within 25-50 miles of cities and as long as there are prospects for strategic arms limitation agreements which would make subsequent U.S. defensive deployments unnecessary. Radars located beyond about 50 miles are not as effective for city defense and cannot control the Sprint missiles that would be deployed around cities in a population protection system. Thus, growth to such a system would be virtually impossible without major investments for extra radars.

Thus, some of the Chiefs would probably oppose remote locations for the radars. On the other hand, if the radars and missiles stay within 50 miles of the cities, it would probably be impossible to convince Congressional and other critics of Sentinel that the new system is not also an initial step toward a thick system; the relocations that do take place will probably be viewed by ABM critics simply as an attempt to reduce public criticism of the system. An administration pledge not to deploy a thick system, while leaving the radar/missile sites within 50 miles of cities, would probably both be opposed by some Chiefs and scorned by critics, who will

challenge the Administration to support its pledge by moving the radars and missiles farther out.

Three alternatives are:

1. Preclude growth to a cities defense by placing all sites beyond 50 miles of cities, concede that DOD officials and the JCS may have disagreements on this point, and live with the resulting criticism -- perhaps overt attempts to change the Administration's plan -- from the Congressional Armed Services Committees and others favoring a thick defense.

2. Pledge not to deploy a thick system but leave the option open in fact and face "credibility gap" charges and charges that the site relocations are a cynical attempt to reduce public opposition.

3. Indicate that there are no plans to deploy a thick system, that we now believe it would be self-defeating to do so, but that it would be foolish to throw away the option, since we don't know what the Soviets might do in the future. This rationale would mean continued heavy opposition by ABM critics.

Soviet reactions are likely to be based more on what they learn of the modified system than on the Administration rationale. Whether or not we publicly hold the cities defense option open, the Soviets will note the deletion of the Alaska and Hawaii defenses and the elimination of radar/missile sites near New York, Chicago, and Salt Lake City. Therefore, they can conclude on their own that the Modified Sentinel deployment looks significantly less like a prelude to cities defense than Sentinel.

Key Issues

Command and Control. One particularly thorny issue should be highlighted at the outset. As noted, the major new capability is defense of bomber bases against SLBM and FOBS attack. The DOD paper points out that SLBM warning time would be 3-15 minutes. Thus, because it takes minutes to report a possible attack to the President and get nuclear release authority, such authority for defensive missiles might have to be predelegated to the ABM defense commander. Otherwise, the time between warning and release authority may mean the missiles cannot be intercepted.

It is possible, however, that the nature of the required predelegation authority will not be significantly different from the current situation with respect to our nuclear air defense systems.

Technical Issues. There are two kinds of technical questions that will arise: (1) How well will the system perform in fulfilling its primary missions? and (2) How well will the system perform against threats other than those for which it was designed?

1. For the system to work as advertised, a number of technical problems must be solved. Examples follow:

a. The radiation from a Spartan missile exploding above the atmosphere could "black out" the defense system's radars and complicate the conduct of a coordinated or efficient defense.

b. Similarly, exploding Spartan missiles co[illegible] knock out Minuteman and Titan missiles being fired in retaliation to a Soviet attack. This might require a costly coordinating system or restrictive operational procedures.

c. The system can operate in an "area defense mode" with central direction over the defense operation, in "regional defense mode" with more decentralized control, and in "autonomous mode," with all radar sites operating independently. A problem with the first mode is the rapid and detailed exchange of information about incoming weapons among the various command centers so that missiles aren't wasted. The problem exists for the regional mode to a lesser extent. A problem with the antonomous mode is developing an effective means of defending preferentially against those missiles with the greatest damage potential.

d. Kill assessments, i.e. deciding whether an incoming weapon has been destroyed, must be based on information on how close to the weapon the warhead exploded and on how "hard," i.e. explosion resistant, the weapon is. We have no choice but to make assumptions about weapon hardness. A wrong assumption can mean that a weapon may be allowed to get through to its target.

2. An argument raised by critics is that the system can be defeated by heavy attacks which overwhelm the defending radars and their missiles and by sophisticated attacks using penetration aids. Thus, a

thin area defense system can provide no significant population protection against the Soviet Union and only limited protection against a sophisticated Chinese threat.

Such arguments are generally correct. The Administration can make no claim that the system will be effective against other than surprise attacks on bombers, accidental attacks, or early Chinese ICBM attacks, and very limited attacks on Minuteman.

The remaining issues are discussed in terms of the major missions of ABM systems.

Defense of Minuteman

Why Should We Plan to Protect Minuteman?

The highest Soviet threat currently estimated by the intelligence community would not be enough to destroy our Minuteman force throughout most of the 1970s. However, the Greater Than Expected threat used by OSD in force planning assumes the Soviets deploy enough accurate MIRVs to destroy all of our Minuteman by 1976. Thus, one of the three components of our strategic posture could be taken out, so that our retaliatory capability would depend on the effectiveness of our bombers and our POLARIS/POSEIDON submarines.

The principal argument for buying the option to protect Minuteman now is, first, that we want to buy insurance against two very unlikely but possible events: (1) the greater than expected threat will become the actual threat a few years from now, meaning that our Minuteman force

will become highly vulnerable by 1976, and (2) our bombers and ballistic missile submarines will either become vulnerable to attack or fail to work as expected so that our retaliatory capability isn't assured. That is, we want our eggs in three baskets, not two. Second, we plan to use our Minuteman to destroy Soviet forces and thereby limit damage to us and our Allies. Therefore we want to preserve at least some of the damage limiting capability of our Minuteman force.

However, not a single member of the JCS wants to plan now to take up the option to install a significant Minuteman defense. All want the option to do so, but they also want to wait and see if, how, and when the threat develops.

Is An ABM System the Best Protection for Minuteman?

DOD calculations show that ABM is the cheapest way to protect Minuteman capability (specifically, to insure 300 surviving Minuteman) against the threat of accurate Soviet MIRVs when compared to the principal alternative: placing our Minuteman in hard rock silos and buying no ABMs. However, it is likely that because of technical uncertainties, DOD would not rely solely on ABM to protect Minuteman if the GTE threat emerged; some silo hardening would probably also be done. Also, there are wide differences of opinion about what different options will really cost. It appears that questions of cost are not decisive in choosing how best to protect Minuteman and that active Minuteman defense is a relatively efficient choice for the present GTE threat.

Conclusion.

It is not essential to the maintenance of our deterrent to decide now to buy the option to defend Minuteman if we accept current intelligence estimates of probable Soviet threats. This option should be viewed as an insurance policy against unlikely but possible Soviet threats and as an additional guarantee that our strategic retaliatory posture will perform reliably.

Defense of Strategic Bomber Forces

U.S. bombers and tankers are vulnerable to a surprise attack by Soviet submarine-launched missiles -- perhaps on depressed trajectories -- whose launch could not be known in time to get even our alert bombers off the ground. With the early warning systems DOD plans to deploy, as few as 15% of our bombers would survive a surprise depressed trajectory SLBM attack by 1974, assuming the High-NIPP Soviet threat. At least half of our bombers could survive an attack if the missiles did not come in on depressed trajectories.

The alternatives for protecting our bombers against depressed trajectories are:

1. Disperse them to many bases to increase and complicate Soviet targeting problem.

2. Buy more capability to detect and destroy Soviet submarines before they can launch a significant number of SLBMs.

3. Put a sizeable fraction of the bomber force on airborne alert.

4. Buy area ABM protection for our bomber bases.

DOD argues against the first three on the basis of high cost and doubtful effectiveness. However, there are a number of shortcomings in their analysis:

1. They do not indicate how much of the cost of their ABM system is incurred to defend the bombers, so comparing the costs of alternatives is impossible. It may be they believe bomber defense is largely a by-product of providing capability for other purposes, e.g. defending against the Chinese threat or the Minuteman option. If not, the bomber defense rationale is open to the charge that other alternatives are potentially more efficient.

2. The bomber alert rate can be changed on short notice. Hence, if we noted Soviet submarines getting in position for possible attack, particularly during a crisis, a large part of our force could be put on airborne alert. This may be adequate insurance against threats to our bombers.

Conclusion.

On balance, the ABM bomber defense is probably justified if it is viewed as a low cost by-product of a system deployed for other reasons. We would probably never justify an ABM deployment solely to defend bombers against SLBMs.

Defense Against Chinese ICBMs

The DOD proposal would provide virtually complete protection against a Chinese first strike with unsophisticated ICBMs in the mid-1970s. However, as the Chinese develop and deploy penetration aids for their missiles, they will be able to inflict some damage on the U.S. The system could be improved later, however, to insure low levels of damage against a sophisticated Chinese threat into the 1980s.

The differences between the DOD proposal and Sentinel are: (a) elimination of protection for Alaska and Hawaii and (b) elimination of three other radar sites, two of which had provided some protection of Chicago and New York against a sophisticated Chinese attack.

By relating our ABM deployment to the Chinese threat, we would be providing a rationale for further growth in the system. For example, both Chicago and New York would be vulnerable under the proposed deployment to a sophisticated Chinese attack. Second, if we tie the deployment too closely to the Chinese threat, we make it difficult to give it up if we should want to in an arms limitation agreement.

The question is, must we justify the proposal as a defense against the Chinese? The answer is probably no for the following reason: if we set out to design a system to defend only Minuteman and our bomber force, we would almost certainly come up with the DOD proposed deployment. There are probably no features of their proposal solely for the Chinese threat. Thus, we can if we want avoid providing a rationale for further growth by not emphasizing the Chinese threat.

Conclusion.

We could justify the deployment as a defense against China with the defense of our retaliatory forces as an add-on. Alternatively we could justify the deployment as a defense of our retaliatory forces and treat the defense against China as an add-on.

Defensive Damage Limiting

A key issue in any ABM deployment is the amount of damage limiting capability intended and actually obtained. Though the Modified Sentinel deployment is not intended primarily to defend U.S. cities, it does provide some protection. For example,

1. The DOD deployment protects against accidental attack from all quarters. Such an attack cannot be deterred and could do serious damage.

2. The deployment also provides significant population defense against a Chinese attack. However, such protection can be considered almost entirely derivative from the ABM deployment required by our strategic retaliatory forces.

3. The deployment provides some defense against a deliberate Soviet attack on our cities, though less so than Sentinel.

The issues are:

1. Is this damage limiting capability useful?

2. If so, do we want to maintain the option to buy additional damage limiting capability at some later time or, alternatively, do we want to

deny ourselves this option on grounds that it is provocative to the Soviets and to domestic opponents of ABM systems.

3. If we elect the option, under what conditions do we take it up -- as a reaction to a visible Soviet threat or as an initiative which we judge will not be negated by Soviet reactions and thus will leave us better off? On what basis shall we make such judgments?