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20 August 1959

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REVIEW ON

NOTE BY THE SECRETARIES

to the

JOINT CHIEFS OF STAFF

on

TARGET COORDINATION AND ASSOCIATED PROBLEMS (U)

The enclosed memorandum by the Chairman, Joint Chiefs of Staff, dated 17 August 1959, is circulated for information.

H. L. HILLYARD,
J. O. COBB,
Joint Secretariat.

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ENCLOSURE

THE JOINT CHIEFS OF STAFF

CM-380-59
17 August 1959

MEMORANDUM FOR THE SECRETARY OF DEFENSE

Subject: Target Coordination and
Associated Problems (U)

1. On 28 July 1959, at the Armed Forces Policy Council meeting, you asked for my views on procedures for coordination of atomic strike plans. This memorandum presents, for your information, a resume of what we are currently doing and a discussion of controversial issues which must be resolved in order to improve our effectiveness. If the Joint Chiefs of Staff are unable to reach agreement on any aspect of this problem area, you will be advised.

2. Target coordination and associated problems have received more and more attention during the past few years not because of unacceptable weaknesses in our present position -- but, rather, because of the impact of decisions in this area on future Service programs and on the allocation of resources available to the Department of Defense. We do have weaknesses in our system today, and these weaknesses should be eliminated as rapidly as possible. However, the major impact of our current examination of this problem will be on future posture and future capability, and we must expect that attitudes and judgments on these issues will be somewhat influenced by the budgetary implications.

BACKGROUND

3. Before 1952 there were so few atomic weapons in the stockpile and such limited capability outside the Air Force

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that coordination presented no significant difficulties. Early in 1952, as the stockpile became larger, and delivery capability of other than Air Force forces increased, the Joint Chiefs of Staff set up machinery to coordinate atomic targeting. Two types of procedures evolved: planning coordination and operational coordination.

4. Planning coordination stems from the requirement by the Joint Chiefs of Staff that commanders develop and dove-tail with other commanders the individual strike plans which are spelled out in their atomic annexes, which are prepared in support of the JSCP. Up to the present time, this initial coordination of plans between commanders has been somewhat spotty. It is rather good between some commands; inadequate between others. Following individual coordination between commands, the plans are further coordinated at conferences at which all commanders are represented.

5. Prior to 1955 this coordination was accomplished at conferences held at SAC. Since 1955, this coordination has taken place at World-Wide Coordination Conferences (WWCC's) held at the Pentagon. The last two of these were monitored by a senior member of the Joint Staff and the next conference is scheduled to be monitored by J-3. This is in line with the new operational responsibilities of the Joint Chiefs of Staff.

6. Following the World-Wide Coordination Conferences, the plans are submitted to the Joint Chiefs of Staff for review and approval, at which time the Joint Staff reviews each plan and the combined plans as a whole.

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7. So far I have been dealing only with planning coordination. To effect operational coordination the Joint Chiefs of Staff have established Joint War Room Annexes (Pentagon and Fort Ritchie) and the Joint Coordination Centers (JCC's) [located in the United Kingdom and in Hawaii]. These centers screen all atomic strike plans, and, based on targets and routes thereto, identify potential conflict situations. Actual conflicts develop only when actual strike timing is made known. Representatives of the commands, permanently stationed at the JCC's, are charged with monitoring execution of the plans and resolving conflicts as they develop. Communications exist so that recommendations on conflicts which cannot be resolved can be referred to the Joint Chiefs of Staff, and agreed resolutions can be flashed to commanders for implementation. Joint exercises are held periodically to test the effectiveness and exercise the procedures of this system. The last of these exercises, DICE CUP, was held between 27 February and 2 March of this year. While these exercises have resulted in some improvements, they have also defined more clearly certain fundamental weaknesses in current procedures.

8. The procedures outlined above are elaborate, well-established and sophisticated systems which over the years have effected a substantial measure of target coordination. Out of a total of about 2,400 targets, something over 300, or about 13%, have been labelled "duplications." Whether or not these are in fact duplications is a matter of judgment entailing such considerations as the degree of destruction required on a target, the reaction time of the various forces, the attrition of delivery vehicles, and other operational factors. Furthermore, an overlap in scheduling because two or more

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commands consider the destruction of a single target essential to the accomplishment of their missions does not necessarily mean that there will, in fact, be a duplication in execution. Once it has been determined that a target has been neutralized or destroyed the procedure is that messages will be dispatched to preclude a second and unnecessary attack. However, an elaborate world-wide communications system is required to effect the coordination. In maneuvers and exercises communications frequently lag too far behind. Under combat conditions the system would undoubtedly be degraded and might function with considerably reduced effectiveness.

9. From our experience in this area to date, we can derive at least one fundamental principle. This principle is that atomic operations must be pre-planned for automatic execution to the maximum extent possible and with minimum reliance on post-H-hour communications. However, with respect to the Joint Coordination Centers, I believe that we should continue their functioning even if we make other changes which will be discussed hereinafter. The Joint Coordination Centers are an extremely useful maneuver tool. Even if they never functioned in war, during exercises they isolate problem areas and develop valuable data which is fed back into our operational plans.

10. From our experience to date, I have also arrived at the conclusion that not much more progress can be achieved under the present arrangements for target coordination. Some minor improvements can, of course, be made, but any significant progress will require fundamental changes in our present system. Some of these changes should be made immediately; action on others may be deferred without serious consequences.

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ACTIONS CURRENTLY IN PROCESS

11. In addition to the routine staffing of atomic annexes as described in the preceding paragraphs, two actions are now in process which may contribute toward improvement. These are:

a. The "Optimum Mix Study" being conducted by General Hickey's staff, due date 31 October 1959.

b. JCS study of procedural arrangements for target system analysis and war gaming.

UNDERLYING ISSUES

12. Having described procedures currently in effect, and noted additional actions in process, we should now examine the underlying issues. In terms of these issues, the problem breaks down into three categories. These categories are:

a. The process of targeting which leads directly to consideration of force adequacy.

b. The development of integrated operational plans.

c. The question of operational control of the strike forces involved.

13. In the past there have been basic differences of viewpoint within the Joint Chiefs of Staff on all three of these categories. Unfortunately, it is not possible to resolve the issues by mathematics or precise techniques. Diagnostic studies and mathematical treatment can provide inputs which assist in tackling these problems -- but such analytical work cannot produce a definitive answer. Ultimately, military and executive judgment must be exercised in determining specific policies and programs.

14. The resolution of the underlying issues calls for command decision, and we will never make much more progress in

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this area until these decisions are made and enforced. In order to isolate the specific decisions, which in my judgment are required, I will treat with each category of the problem in some detail.

The Process of Targeting

15. The process of targeting is the most complicated of all the issues. It involves specific sub-issues and problems which are discussed in the following paragraphs.

16. The first problem is -- How many and what kind of targets should be destroyed? The area of disagreement here is exceedingly wide. Opinions vary possibly by a factor of ten. The real question is -- What constitutes an adequate deterrent and an effective counter-force if deterrence fails? What should our targeting philosophy be? Should we plan only for the destruction of population centers and control centers? Or should we keep in being a strong counter-force capability? What constitutes an "optimum mix" of targets of various categories?

17. Those who propose a basically population center target system for the future insist that it will be an impossible task to neutralize the Soviet ICBM system; that we will not know where the missiles are located and, even if we did know, we would never strike the first blow -- hence the Soviet missiles would be on the way before we could counter-attack. On the other hand, if we were to strike certain urban and control centers, the Soviets would be incapable of prosecuting the war, and the United States would emerge on top. Therefore, according to this line of thinking, it is a waste of money to build a strategic delivery system capable of attacking more than a few hundred targets.

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18. Those who propose a strong counter-force capability insist that we must develop the necessary Intelligence; that it will be easier to destroy a missile before it is launched than after; that the Soviets will not be able to launch anything like 100% of their missiles in the first salvo; that, in any case, we must destroy the Soviet capability to re-attack in order to minimize damage to the United States; that a force geared to a few hundred targets cannot survive a surprise attack in strength and thus would not provide a deterrent to Soviet aggression; and that we will have no strength in foreign policy if we lose the capability for pre-emptive action based on strategic Intelligence.

19. My own judgment on this issue is influenced somewhat by our past experience and by my estimate of Soviet philosophy. We have developed a strategic capability to launch, under good to optimum conditions, possibly 2,000 to 4,000 strategic weapons with manned aircraft, and we have, thus far, deterred general war. Soviet military doctrine is based on the Principle of Mass, and I believe that the Soviets will respect only a very powerful force. Further, I believe that they will attempt, over the next several years, to augment their present force of about 1,000 medium and heavy jet bombers with a limited number of manned bombers of advanced design and with an ICBM force numbered in four figures. We have developed our present long-range strategic force during a period of relative Soviet weakness. I would see no logic ⁱⁿ ~~is~~ allowing our own strategic force to decline in power -- actually or relatively -- when we have certain knowledge that the Soviet strategic force is gaining in power. Moreover, I consider that the necessity of prevailing in general war is of such vital import that any error in judgment should be on the safe side. I, therefore, lean to the heavy side on this issue.



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20. From previous experience and study I have always believed that we should adopt a policy along the following lines:

Policy. We should continue to develop and keep up-to-date a target system for strategic attack which includes:

- (1) The critical components of Soviet long-range nuclear delivery capability.
- (2) Governmental and military control centers.
- (3) War-sustaining resources.
- (4) Population centers.

21. On completion of General Hickey's study we may have more definite information on this subject. Once we have adopted a targeting policy, such as the one above, or any other as finally determined by the Secretary of Defense, we will have made significant progress. The questions we next face are as follows:

- a. Who or what agency is going to apply this policy, develop the target system and keep it up-to-date?
- b. What agency will review the target system for consistency with policy and give it the stamp of final approval?

22. My thinking on this is that the commander responsible for the strategic mission should take the initial steps to develop the national strategic target system -- regardless of and without prejudice to what forces might attack what targets. For the development of this national strategic target system, the responsible commander should be provided with an approved targeting philosophy and guide lines. He will, of course, rely heavily on the work of the targeting section of the Air Intelligence staff and the analytical work which has been produced by such agencies as WSEG, DASA and Rand. Since any commander may be expected, at times, to err on the safe

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side in determining his requirements, higher level non-partisan review is obviously necessary. This kind of a higher level review, of the target system per se, is, initially, an Intelligence function. "Intelligence," in this initial review of the target system recommended by the commander, should determine if the system constitutes a suitable basis for further analysis. Is the target system in consonance with approved targeting policy? Will the system, if destroyed, accomplish the commander's mission as prescribed by the Joint Chiefs of Staff? Based on past experience and judgment, does the listing of targets appear excessive, insufficient, or generally in the ball park? In my judgment, this initial review is a Joint Staff (J-2) function. What J-2 should do here is to come out with one of the problem elements which is required in the succeeding steps of operational planning, operational analysis, and war gaming. The J-2 review of the commander's recommended target system should, of course, receive final review by the Joint Chiefs of Staff before the succeeding steps are taken.

Development of Integrated Operational Plans

23. The next major issue with respect to targeting and associated problems involves both intelligence and operations. Once you have an approved target list for further analysis, the question arises as to how many bombs or missiles should be launched against each target. Here we get into the area of the "over kill" controversy. Operational factors such as estimated attrition of the attacking force, weapon yield, CEP, level of destruction required, and surface versus air-burst weapons enter into this aspect of the problem. Do we want a 10% probability of 10% destruction, or a 90% probability of 90% destruction, or something in between? Should we surface burst,

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which gives a higher level of local destruction and fall-out but requires more bombs, or should we air burst? These are complicated problems and the answers are not the same for the various categories of targets. The geography of the problem is also important because it affects friendly or neutral populations. However, in general, it can be stated that the Army and Navy favor a lower level of destruction while the Air Force favors a higher level of destruction. The Air Force favors a higher level of destruction because of their experience that it is almost always cheaper to destroy a target in the initial attack, even if it requires more force, than to have to re-attack the same target.

24. Fortunately, this aspect of the problem can be better handled by analytical and mathematical techniques than can the other aspects of the problem. However, handling this aspect of the problem goes beyond the Intelligence function of targeting. It requires that there be developed an outline operational plan which provides a general plan of attack, to include timing and the characteristics of delivery vehicles and weapons. Working with the operational plan, it is possible to apply war gaming techniques to shed some light on the question of how many bombs or missiles should be launched against the various elements of the strategic target system.

25. In the past and at the present time various commands have been involved in the planned attack of the strategic target system. Hence, the agencies which have conducted war games have had no single integrated operational plan with which to work. They have had to piece together the operational plans of the field commanders and utilize the results of World-Wide Coordination Conferences as a basis for war gaming. One of the problems, then, is: Do we need a single integrated operational

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plan for the strategic attack? In my judgment we do need such a plan. Since CINCSAC is assigned the major portion of forces responsible for the strategic mission, I would think that he should be charged with the responsibility for developing such a plan. His plan should, of course, be reviewed by the Joint Chiefs of Staff.

26. In the development of this integrated operational plan we would have to face up to two questions now and one at a later date.

a. The two questions for immediate decision would be:

(1) Should any force without an all-weather capability be allocated strategic targets?

(2) Should the aircraft carrier forces be taken off strategic targets because of uncertainty as to their location at the outbreak of general war?

b. The additional problem, not requiring immediate decision but continuing attention, is where does POLARIS fit into this scheme of things?

c. With respect to the question of all-weather delivery capability, I would strongly recommend that vital strategic targets, such as enemy long-range nuclear delivery capability and control centers, be assigned only to forces having all-weather capability.

d. With respect to the aircraft carrier forces, the following factors and arrangements should be considered:

(1) In order to provide maximum security to the fleet, it should not be tied down to an area limited by the requirement to remain within aircraft range of pre-selected targets. The fleet should be free to exploit its inherent mobility. In addition, the usefulness of the carrier forces in limited war situations should not be degraded by the requirement to remain on station, on a continuing basis, in order to cover targets of vital strategic importance.

(2) These conclusions suggest that the carrier forces should not be assigned H-hour responsibility for any pre-planned strategic targets.

(3) Possibly the carrier forces should be considered as having three primary functions:

One: As a strategic reserve for follow-up attack as required.

Two: As a mobile limited war force.

Three: As an element of a unified commander's forces, when on station, with target responsibilities in support of the local commander's plans -- but not to include any targets on the national strategic target list.

e. With respect to the POLARIS submarine force, I would leave this force under naval control until a proven weapon system has been developed. If the POLARIS submarine force develops a significant combat capability (in terms of reliability and weight of effort which can be delivered on target), we may then find that a Unified Strategic Command is required. Such a command eventually might have subordinate component commands for aircraft, for land-based missiles and for sea-based missiles. If a Unified Strategic Command is not established eventually, as a minimum, the targets to be attacked by POLARIS and the timing of attack should be derived from a single integrated operational plan. I therefore believe that an appropriate nucleus of Naval officers should be assigned at an early date to CINCSAC's operational planning staff. For the immediate future these officers would assist in the development of an integrated operational plan, and they would constitute a nucleus of Naval personnel if later decision were made to establish a Unified Strategic Command.

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27. Assuming that for the immediate future we are to take no action on the proposal for the establishment of a Unified Strategic Command, but assuming that we do take action to develop a single integrated operational plan, we would then be in a position to do more effective operational analysis and war gaming, and these exercises could be conducted under varying assumptions.

28. War gaming does two principal things:

a. It provides additional information which tends to validate, invalidate, or modify a target system; and

b. It indicates the feasibility or infeasibility of the operations plan and the results which could be expected from execution of the plan.

29. The policy direction of this type of war gaming should be above Service or command level. There is no capability within the Joint Staff at the present time for this kind of analysis and war gaming. It has been done in the past by Rand, by SAC, by the Air Staff Plans and Intelligence organization, and by the NESC (which relies heavily for support on the Services and DASA). The Joint Chiefs of Staff are currently considering methods by which this type of war gaming could be performed for them. It has been suggested that DASA might perform the function, or that it might be performed by the Air Battle Analysis Division of the Directorate of Plans, Air Staff. Under either solution, the JCS organization should provide the policy guidance and terms of reference for each analytical study or war game which is conducted. The agency making the study for the JCS would not make policy -- but would provide electronic computers and trained personnel for doing the mechanical job of analysis. Wherever this function is assigned, the Joint Chiefs

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of Staff need a war gaming capability which is responsive to Joint Chiefs of Staff policy control. This does not require a large new agency. It does require decision as to what existing agency will do this work.

The Question of Operational Control
of the Strike Forces Involved

30. Up to this point, this memorandum has been focused entirely on resolving the issues associated with the national strategic target system. However, when we get into the question of operational control we must broaden the problem to include an examination of employment of atomic weapons by unified commanders having an area responsibility. These commanders traditionally have insisted that certain strategic targets were of such importance to accomplishment of their local missions that they should have the responsibility for seeing that they were neutralized or destroyed. To eliminate duplication in targeting brought about by this situation the following decision is required: As a general policy, targets on the national strategic target system list will not be included as H-hour objectives of the forces of unified commanders, and forces will not be justified nor programmed for such attack.

31. However, the local area commander has a legitimate concern and responsibility with respect to enemy military forces which cannot strike immediately at the United States, but which have the range and capability to threaten local forces and installations. There may be one or several strategic targets interspersed in the same geographic area. The problem is therefore one of possible mutual interference, not on a single target basis, but on an area basis.

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32. Assuming that the series of decisions which I have outlined were taken, the question of operational control of the various strike forces and the problem of avoiding mutual interference would be greatly simplified. They would be greatly simplified because mutual interference resulting from two or more commands targeting the same objective for H-hour attack would be largely eliminated. We would have an approved national strategic target list and a single integrated operational plan for strategic attack. These documents would provide a sound basis for the necessary coordination of the operational plans of local commanders with CINCSAC's plan. Potential conflicts could be worked out between the commanders concerned by analysis of routes to and from target, by agreement on timing, and by transfers of targets between commands as dictated by good judgment. Conflicts not reconcilable between commanders would have to be solved by the Joint Chief of Staff, but this would be a manageable problem against the background of policy decisions which I have discussed.

33. In my judgment, we should resolve the issues which I have discussed as soon as possible. To that end, I am circulating a copy of this memorandum to the Joint Chiefs of Staff.

/s/ N. F. TWINING
Chairman
Joint Chiefs of Staff

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