Problems of Command and Logistics

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Admiral Cooley, students of the College: It is a great privilege for me to come here this morning. I want to assure you that no one appreciates more than I do the contributions to the national security that have been made and are being made by this organization. I was just an ordinary line Naval officer until I was called into the logistic game in the middle of war—much to my personal disappointment because I was called in from an extensive sea command—but my resulting experiences certainly intensified my interest in and appreciation of the vital importance of sound logistics planning and implementation. I am glad that we in the higher echelons of all our Military Services have finally come to realize that a knowledge of the principles of logistics is a necessary qualification for command of military forces.

World War II really brought that about. Speaking of the Navy, we had a fine Supply Corps before World War II. The officers were men who had a good knowledge of how to get things, when to get them and how to distribute them. But the average line officer had but little interest in such matters. When World War II came, the situation was different from World War I in a manner not generally appreciated but which forced appreciation by all of the importance of logistics.

World War I was, in many circles, considered an all-out war. Actually, it was a war with one major theater. The production...
capacity of the United States was fully loaded but was, in general, adequate to the needs of that war. But when World War II came into the picture, there were 11 major theaters. Inadequacy of the production of the United States was felt in every high planning agency in this country. Teamwork and unification of effort became essential. We found that, instead of having plenty, in order to carry out our planned operations (even to a degree of 50 per cent of the desired effort), we had to exercise the greatest economy during war.

Therefore, my talk this morning will emphasize not only the need for knowledge in the high command of the principles of logistics but a few facts in regard to the relationship between efficiency and effectiveness and economy in planning and execution. I also want to emphasize the avoidance of certain practices such as unilateral and badly considered demands, in order that we may successfully fight a future world war with which we may well be confronted.

Before World War II, since logistics had been a fairly simple, one-theater, one-pipe-line business, with a possible feeling of adequacy of the production capacity of this country, the need for logistics planners taking a proper place in the sun was not brought into the foreground. The imagination and the ideas of the operational and strategic planners were considered paramount and all that was necessary. The fellow carrying on supply, production and distribution existed just to carry out these imaginative and possibly well-considered plans.

We found that we could not fight World War II in that manner. We found that, instead of having supermen who could tell us what to do without serious reference to logistics, one of the things of first importance was the consideration of the plan from the point of view of feasibility—feasibility of support, production,
shipping, and so on—together with consideration as to the timing of the execution of the various operations in order that big operations should not unduly overlap. It became evident that shipping, for instance, could be used to support more than one operation by staggering deliveries, rather than being overloaded as the result of an overlap. It became immediately evident, not only that the closest coordination between our strategic and logistics planners was required, but that they, in fact, had to have a perfect unity of thought. Any attempt to carry on a modern war without the application of that principle will result in fatal inefficiency and inadequacy of support for operations.

Therefore, the first thing that I want to emphasize is that logistics considerations belong not only in the highest echelons of military planning during the process of preparation for war, but may well become the controlling element with relation to feasible and successful operation.

I have mentioned the word “feasibility.” I will use a few examples because I consider that to be a very important word. The thought behind it must be present in the minds of every military commander.

In my opinion, the principal duty of the controlling logistics agency is to ensure that the operational and strategical plans are feasible.

There are two kinds of logistics agencies. One is the top agency, the one that determines or approves operational plans so far as logistics is concerned. The other type of logistics agency is the implementing agency, which takes part after the operation has been approved. Although the former may oftentimes control the approval of operational plans on a basis of feasibility or infeasibility, the latter is always the slave of approved plans and must implement them in an adequate and timely manner.
As an example of the first or high echelon type of logistics agency, we will consider the big meetings at Cairo. At Cairo, a great many strategic and operational plans were submitted. As you know, operational planning during the war was decentralized; plans were submitted to the JCS by the theater commanders. The operational and strategic members of the JCS staff jointly with the logistic members looked them over from the broad angle of: “Does this suggested operation in such and such a theater take a proper and advantageous place in the early and successful completion of the war?” If, from a strategic and operational viewpoint, and the objective viewpoint, there was approval, then it was laid aside as an approved strategic or operational plan for the Joint and Combined Chiefs. I cannot tell you the exact number of such operations that were approved at Cairo from this objective viewpoint, but my guess now would be that there were approximately 28 to 30. After that consideration was completed, the Joint and Combined Chiefs took 36 hours leave and went to Memphis. Before leaving, they turned these approved operations over to the logistics staff at Cairo and said, “Examine these for feasibility and timing. When we return, let us know what you recommend that we carry out.”

I hope you realize the implication of the importance of logistics under those circumstances and the control that the logistics people exercised in the final decisions of the Joint and Combined Chiefs.

I will review, briefly, the suggested operations. Mind you, these were not Combined Chiefs’ plans. These were from the theaters:

Normandy—fourth of May, 26 divisions. South of France—10 divisions, simultaneous landing on the same day and hour. Italy—to proceed at its existing rate. Amphibious operation of
about 14 divisions into the Aegean. The supply to Russia of 5.5 million tons over the Caspian route, including the provision of tugs and barges built in the United States and shipped to the Persian Gulf and to the Caspian. The landing at Moulmein of about 10 divisions to break the Japanese lines of communication to the Malay Peninsula and Burma. Incidental operations on the Malay Peninsula, including an amphibious landing. The Pacific—to proceed according to a schedule which I have forgotten, but which included the Philippines campaign, MacArthur having recommended a landing on Mindanao on the first of July. In addition, there were innumerable smaller plans and OSS activities. Et cetera, et cetera.

This is not complete. It is a rough outline.

When the Joint and Combined Chiefs returned, they found the following recommendations:

Normandy—okay; but instead of the Fourth of May, the fifth of June, because of the need for that time in the supply of certain critical items, the most important of which probably was landing craft. South of France—because of the insufficiency of air facilities available and because of the logistics consideration of not wanting to divert air from England to the support of that operation, to delay it 15 days—or 45 days from the original date—instead of making it simultaneous, and to make the landing in darkness instead of in full moonlight. Italy—to proceed. The Aegean—eliminated entirely due to lack of logistics facilities, primarily landing craft. Moulmein—after considering the failure of the Indian steel industry to produce steel plate locally, we had to abandon Moulmein for the same logistic reasons. MacArthur’s landing on the first of July in Mindanao was too close to the fifth of June landing and, therefore, we could not build them both up simultaneously with the industrial capacity and shipping available. MacArthur’s plan was delayed to any time after the first of Oc-
tober so that the entire production of the United States could be devoted to his support from the 15th of March and all available shipping, except for the normal support of Europe, could be diverted in that direction. The Pacific Fleet operations were generally restricted, if I remember correctly, to the 135th meridian prior to the landing of MacArthur in the Philippines.

I merely mention that as a general outline to show the place that logistics planners assume during war.

I sometimes read with a great deal of interest about the troubles we are having in order to maintain an Army, Navy and Air force in peacetime with 15 billion dollars. Maybe it is difficult. But, I want to say that the training, planning, and consideration involved in bringing the essentials into the picture under the peacetime money limitation are not unlike the war requirements. In war, we do expend many times more than 15 billion dollars a year, but we never have enough, and one of the most essential things to be carried in the mind of the logisticians and the military commander is the exercise of economy. I have just pointed out to you that, because of the inadequacy of logistic support, we had to abandon vitally important strategic objectives during the war. If we had not exercised the strictest economy and unification of thought and effort, we would not have been able to carry out successfully even those objectives designated for accomplishment.

Therefore, I want to impress upon you gentlemen, as one of the lessons that I have learned, that wastage of material or production effort due to indifferent planning and consideration or the unilateral demand of one agency without consideration of the teamwork necessary between agencies has no place in military planning. It is a fatal defect.

We had an example of unilateral planning during the war which might interest you. It brings out another point, that when
we talk about unification of the Army, Navy and Air Force, that is the least we can expect. We must go further than that. We must not forget that during the war we had to allocate steel, machinery, and engines to the Department of Agriculture and to all the other supporting civilian agencies that provided us with food and the other essential requirements not only of the armed but the civilian forces of the United States. So that unification of effort of the Armed Services is the minimum requirement. It is expanded in time of war, and directly affects military planning by affecting the availability of men, materials and facilities.

The Maritime Commission was a separate agency. It had no representative on the Joint Chiefs of Staff. Emory Land, a Naval officer and constructor, of high integrity and ability, commanding the respect of everybody, went to the President and got the President to sign an Executive order allocating 60 per cent of all plate steel to the Maritime Commission for the construction of merchant vessels. Therefore, 40 per cent of the plate steel, which, of course, was a critical item, had to be divided between the Army, Navy and Air Force, and it was inadequate. It was probably one of the most critical items during 1942 and 1943. There was a unilateral decision which was a serious one.

The steel industry resisted increasing the production of plate steel above a million tons a month. Therefore, we were going to Cairo, with 400,000 tons of plate steel, knowing that the war effort was going to be completely curtailed unless the steel industry would agree to increase its production or a change was made in the percentage of steel plate devoted to the Maritime Commission and/or the Army, Navy and Air Force. It was brought into unison by an interesting thing. Since I have gone this far, I will tell you the story.

A proposal was made to the Joint Chiefs of Staff just before we went to Cairo that, in December of that year, the allocat-
tion of steel plate would be the same, 60 and 40; in January, it would be 55 and 45; in February it would be 50-50, and there it would stay. I happened to be in that picture and was asked by the Joint Chiefs, “Is 50 per cent of the steel plate enough for the Maritime Commission?” I said, “No, sir; not 50 per cent of a million tons. But 50 per cent of 1,200,000 tons is adequate and it will be adequate for the Armed Forces.” The attitude of the steel industry was affected in the fact that the principal consumer, the Maritime Commission, was satisfied. Although the Army and Navy were strongly complaining about the production of steel plate, the complacent Maritime Commission was getting enough, was rather silent, was not a party to the effort for increased production. If we put this new order through over the President’s signature, we were going to have the Maritime Commission also protesting strongly. We predicted that under these conditions that before we arrived in Cairo, the steel industry would be under such pressure that it would agree to increase the production of steel plate. The order was signed by the President. We went to Cairo, and the first dispatch on the top of the pile that I found on my desk was one from the deputy in Washington saying that the steel industry had agreed to increase the production of plate steel to 1,200,000 tons in February, in spite of the fact that it was only a 28-day month.

On that basis, we were able to approve, that year, Normandy, the South of France, and the Philippines. Had that increase not resulted, certainly the Philippines and probably Normandy would have had to be reduced below essential requirements or delayed for a period of a year because even with the increase, there was a leeway of only 100,000 tons in the Cairo plans in regard to plate steel.

Therefore, the second thing which I wish to emphasize is the danger of a unilateral demand. It applies equally to the use
of political power, lack of teamwork, and failure to consider the needs of the other fellow in the team and how disruptive it can be to him. Therefore, it is to be avoided because we do not have enough in war; and we must exercise not only economy but teamwork so that distribution is in line with the greatest effort of all concerned.

I will attempt to bring out other important lessons by use of additional examples because I think they are more instructive than generalities.

Superfluous or unnecessary demands by any command are to be avoided. As an example of this, the British came over with a demand in 1943, I think, for 95 repair ships and a 100,000 ton dry dock. We told them, yes, we would give them the necessary support, although it involved a great deal of critical material, but that we would have to break it down to see how much they actually needed in the support of approved operations. Briefly, when we broke it down, we could not justify more than 15 repair ships and no dry dock. There was considerable political pressure on that. As a matter of fact, on that occasion, I was called to the White House and Mr. Roosevelt said, “You are apparently treating the British pretty roughly.” “No, sir,” I said. “We are giving them all that is justified to carry out approved operations and to that they agree.” This was a demand which, in its desire to build up to the possibilities rather than to the realities, represented the difference between approximately 100 per cent and 15 per cent on extremely critical naval construction which affected, in its turn, air and other construction. It illustrates the point that superfluous demands on the part of one military agency may and probably will diminish unnecessarily the capabilities of other commanders elsewhere.

I got into trouble with the Air Force on a question involving faulty planning and thoughtless demands against other programs,
which is to be avoided as poisonous to all-out effort. At one stage of the war, the Air Force and everybody else, realized the importance of the B-29 program. So the Air Force came in and requested that the B-29’s be constructed under over-riding priorities. Under that priority, people interested in a program could go into any factory or any production program, take out any tool, any workman, take over any factory, and divert any material for the construction, in the case I am referring to, of B-29’s. It was not a question of the B-29’s in and of themselves. It was a case of trying to build something without a plan. There was an idea that this privilege of getting these things in this manner without delay would expedite the construction of the B-29’s.

We fellows who had to make the recommendations were strongly against over-riding priorities, but we said, “If you will submit a plan of requirements, we guarantee highest priority of all requirements, and we believe that under such a plan more B-29’s, rather than fewer, will be produced. Furthermore, such a procedure will not affect the programs of other type airplanes which are being utilized and which are, in their particular cases, essential to the pursuit of this war.”

There was quite a fight about that, and it was turned over to the Joint Chiefs of Staff. There were some rather disagreeable words passed at the Joint Chiefs of Staff meeting, but I point again to the teamwork of those individuals in the Joint Chiefs when it was “Hap” Arnold himself, after hearing the case, who said, “You gentlemen go out of here. Get your plan. There will be no over-riding priority for the B-29.”

Results proved that the B-29 program proceeded expeditiously and did not interfere with the production of other essential planes.

I mention that as a reason for not getting too enthusiastic.
about the needs presented by one Service over the needs of another Service, or the demand for one type of ship, plane or whatever it might be, without due consideration of the effect of overemphasis on that type on the other types which, in their minor roles, are nevertheless essential.

In modern warfare, the relationships between operational or strategic planning and logistics planning must be one of the utmost coordination and unity. The high command, and by that term I mean any command that issues operational orders, must insure that all orders are logistically feasible, otherwise, such orders are definitely faulty. Such high command must not only insure that the necessary support can be made available but that it will be made available at the designated times by the implementing logistics agencies. The high command in the issuance of any proper operational order commits himself to this responsibility.

Logistics, on the scale of a World War, is truly a highly complicated subject which involves procedures and operations beyond the ordinary appreciation. On the other hand, the determination of feasibility of plans even on a world wide scale, is comparatively simple because certain essential items are always more difficult to produce in adequate quantity than the others and, therefore, these items become classified as critical and are the ones that form the "bottle-necks," so to speak, in the determination of feasibility.

During World War II there were always between 10 and 20 essential items that were always short of the overall demand. These included shipping, landing craft and engines, steel plate, electronics, aviation fuel, machine tools and a few others. "If these particular items were in shorter supply than all of the thousands of others on the essential lists but nevertheless were available in sufficient quantity to support the plan under consideration, then the responsible commander could be assured of the over-
all feasibility of the operation.” In simple terms, if a landing craft engine was a rarer item than a truck engine, the feasibility study gave consideration to the availability of the former and assumed that the latter could be supplied in sufficient quantity.

In supporting an operation, there should be no such thing as 90 per cent supply of essential items, or 95 per cent, or even 99 per cent. It should be 100 per cent or else the operation can be conducted only at a risk of failure. I have seen, in my experience, officers inclined to boast about Fleet supply ships being sent into forward areas with 93 per cent of the supply items on board. They were surprised when I showed a high degree of dissatisfaction. Experience had shown that the very seven per cent of items that were missing because they were semi-critical and in short supply in the home ports would be the very same items which would be in short supply and most urgently needed by the forces to be supplied.

I recommend that in your consideration of the relationship between operations and logistics planning and direction you become accustomed to thinking in simple terms. All that I have said regarding command, logistics, feasibility, adequacy and so on, is basic and taken as a matter of routine in our day to day operations of a single ship. For example, the Captain issues orders to get under way at such and such a time for such and such a destination. He has received assurance from his navigator that the distance is within the cruising range of his ship; otherwise, he must provide for refueling en route. He receives a report from his Gunnery Officer, his Engineer, his Supply Officer and other heads of departments, that his ammunition, his fuel, his stores and his personnel are on board, as directed, and sufficient to carry out the operation; otherwise, he must provide for timely replenishment. Here is a simple example of responsibility resting on command with regard to logistics. If you will think along these simple lines in the con-
consideration of more complicated questions, I am sure that you will ordinarily find that the principles involved are the same.

And before I close, I should like to call to your attention one of the most important, if not the most important principle that is involved in the command responsibilities of producing plans and directives that are sound operationally and also feasible of logistics support.

In my opinion, there can be no action or evaluation on the part of any supporting logistics agency that will lead to greater or lesser meticulous care in the support of one part of an approved strategic or operational plan over another. To grant any discretion to such a supporting logistics agency regarding the need for support of any phase or part of such a plan is a fatal defect and, sooner or later, will result in disaster. All approved operations, large or small, regardless of geographical location, must be regarded as essential components in the over-all effort and the means must be provided for timely success in each case. It goes back to the old adage, "For want of a nail, a shoe was lost."

If the occasion arises when the logistics supply agencies find it impossible to render required services at the designated times, they should refer such facts to the responsible command for his decision and action. Obviously, such information affects the determination of feasibility and may require his reconsideration of his plans and of their timing. On the other hand, if he has determined his feasibility properly, such a negative report from a supporting logistics agency may mean a deferment of other projects of less urgency in order to provide the means available to go ahead with the support of his plans.

During the war, such action was repeatedly necessary in all echelons of command responsibility.
As an example, the demands of the Cairo decisions required the increase of landing craft and engine program by about 300% for about four months. When the Bureau of Ships was confronted with this problem they required a very considerable increase in plate steel allocations and engine manufacturing plants and mechanics. They reported their additional needs to CNO who, in turn, took the matter up in the Joint Logistics Staff who, in turn, proposed deferments in programs of trucks and other less critical items, and thereby assured the timely delivery of the required landing craft.

Thus, the final important principle which I wish to emphasize, involves the complete subordination of logistics supply and manufacturing agencies to the meticulous support of approved operational plans. They must be uniformly imbued with a “can do” spirit and must under no circumstances exercise any independent judgment or thought regarding the relative importance of or need for supporting approved operational plans. We found by repeated experience during the War that the exercise of this principle was essential to over-all timing of large and small approved operations, wherever they might be located geographically, in order that the planned effect on the enemy of world wide operations might impose on him the maximum diversionary pressure and the maximum strategic disadvantage. Such considerations properly belong with the high command and under no circumstances can they be justifiably controlled by judgment or actions by any supporting or subordinate agency.

These are the reasons why operational planners and logistics planners must work together, think together and even “sleep together,” in the attainment of the perfect coordination essential to the maximum effort. These are the reasons why any operational plan before approval must be meticulously examined for feasibility and approved only after the practicability of full and complete sup-
port have been determined. This is the reason why the Joint Chiefs of Staff must maintain sufficient controlling influence over the priorities of production and industrial and personnel allocations, to permit the adjustments necessary to maximum military effort; and this is the reason why the Chief of Naval Operations must exercise control over his Logistics Bureaus and Agencies and all Fleet Commanders over their Service Forces, in order that they can assure their subordinate operational commanders an unfailing and adequate supply of facilities and support essential to successful execution and accomplishment of the operations with which they are charged.

These principles apply in my opinion in peace-time when the over-all limitations to the attainment of military readiness for war are expressed in terms of the taxpayer's dollar; as well as in war-time when military accomplishment and intensity is limited by the industrial capacity of the nation. Neither in peace nor in war will these limiting factors permit sufficiency for all the things that we would like to do for the defense and security of our nation. But because these limitations do exist and do constantly impose on us the need for expending our effort in the most constructive and effective manner, our organizations, in peace or in war, must embody the means and determination to attain the maximum coordination between logistics and operational planners. Only in this way can our performances demonstrate that we have “done the best we could with what we had.”