

1950

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Eccles, Henry E. (1950) "Theatre Logistic Planning," *Naval War College Review*: Vol. 3 : No. 8 , Article 2.
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THEATRE LOGISTIC PLANNING

A lecture delivered by
Capt. Henry E. Eccles, USN
at the Naval War College
March 28, 1950

I—INTRODUCTION

An understanding of theater logistic planning is based on the understanding of:

The nature and structure of Logistics; the art of command; and the nature of war.

These subjects are all so intertwined that there is no advantage in trying to decide which comes first, the hen or the egg.

Furthermore, we are not so much concerned with the manifold details of planning and planning forms as we are with the major elements, problems and relationships that confront the theater commander in planning his logistics. So I shall dismiss details and forms with the statement that planning forms are in a process of development in all our major military colleges and many important details of theater logistics are ably discussed in Chapter VII of "Joint Overseas Operations". Rather than go into detail in these matters let me take my cue from the 3rd Chapter of the Second Epistle to the Corinthians where St. Paul says—"Not of the letter but of the spirit. For the letter killeth but the spirit giveth life." Let us therefore try to develop the basic spirit or philosophy of theater logistics.

Captain Eccles is Head of the Logistics Department at the Naval War College.

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II—DEFINITIONS.

First, a definition of Logistics:

“Strategy and Tactics provide the scheme for the conduct of military operations. Logistics provide the means therefor.”

This broad and simple definition has the great advantage of expressing a relationship between the three major elements of war. Every problem in war contains these three elements in varying degrees. Perhaps it will help us to consider them as three intersecting rings. (Illustration No. 1).

Logistics itself can be said to have three basic elements:

The Determination of Requirements; Procurement and Distribution, and the aspects of Organization, Planning, Execution and Supervision. These elements and aspects all enter into every problem in logistics and they blend and overlap in manner and degree which varies greatly according to circumstances.

In general, logistic problems fall into the six broad categories of Personnel, Supply, Maintenance, Medical, Transportation and Base Development, or simplifying it greatly, Men, Material and Services.

III—THE UNIFIED COMMAND

Theater Logistic Planning derives directly from the concepts of Unified Command as established by the Joint Chiefs of Staff. If we study their directives we see that in effect the Joint Chiefs have said,

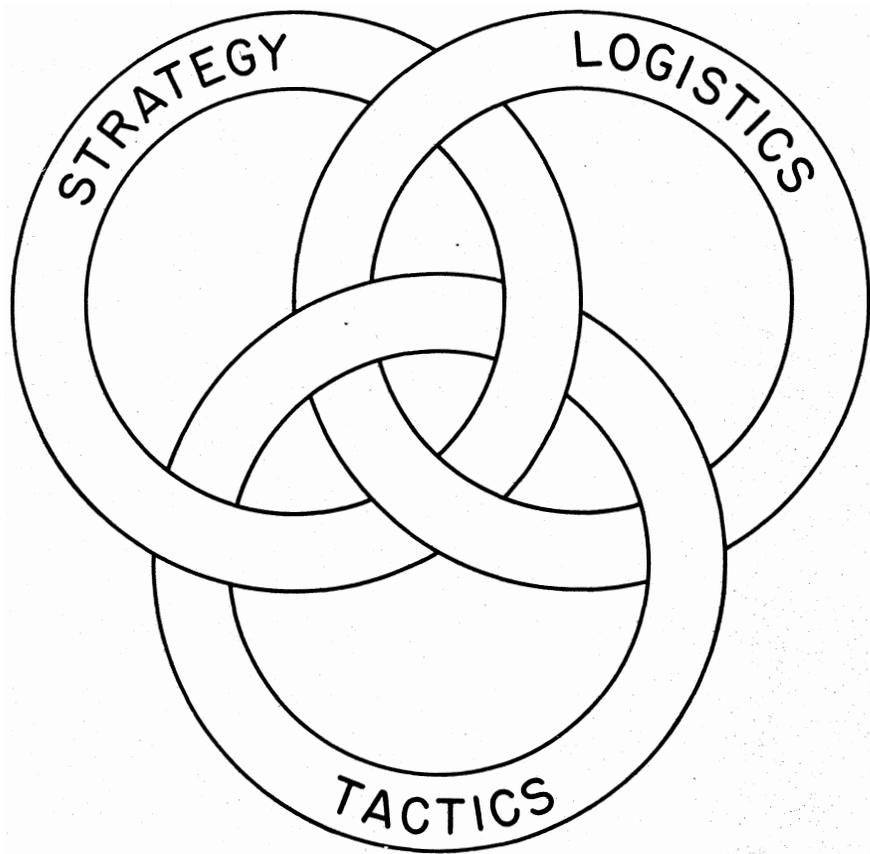


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“In the future, theaters of war will be organized as Unified Commands. In so far as practicable each service will handle its own logistics under broad coordinating policies established by the Unified Commander. But when the Unified Commander sees the need for the consolidation of logistic activity he will tell us and we will order it. Furthermore, the Unified Commander by reason of his authority of review of requirements and recommendations of priorities and programs, has the power to exercise direct logistical control almost as he sees fit just so long as he keeps out of operating detail.”

If we examine the proposed draft of “Joint Action Armed Forces,” Chapter III Section VII “Logistics (Wartime),” we see that the conferees who may have been at odds in many other instances, agree on the nature and degree of control the theater commander may exercise in war. Theater Commanders will have the authority to exercise a very high degree of control in that they are specifically responsible for policy and coordination in distribution, supply build-up, maintenance, salvage, base development, transportation, port operation, medical and dental service and military government. Thus we have real unification in the theater of war.

IV—THE NATURE OF WAR

A few words on the nature of war as it affects theater logistic planning. It is a truism to say that the only constant in war is variation. War is the constant interplay of variables. In general it is fought in accordance with campaign plans designed to accomplish specific objectives, the selection of which is the task of strategy. The campaign plan for the Central Pacific was originally drafted in late 1943 and given the code name Granite. In its or-

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iginal form it contemplated five separate major amphibious operations—Gilberts, Marshalls, Eniwetok, Truk and the Marianas. This was amended in June 1944 to abandon Truk, and extend the offensive through Palaus, Mindinau, Luzon, and Formosa and Amoy on the China Coast. While this campaign plan was not followed precisely, it nevertheless provided the foundation for the logistic support of the actual operations we did undertake.

Campaigns are usually made up of a series of operations which themselves may be either simple or complex, brief or protracted, depending on the characteristics of the theater of war, the capabilities of the opposing forces and other variables. All wars seem to have one common characteristic, i. e., they consist of long periods of comparative inactivity interspered with short periods of violent conflict. However, this period of comparative quiet is actually the period of logistic build-up. The process may be likened to the charging and discharge of an electrical condenser.

This is very well illustrated by a graph of cargo and personnel shipped by the Army to overseas Atlantic areas in the last war. (Illustration No. 2) Note particularly the expanding scale of activity and the build-up before each operation.

Looking at this from a purely theoretical point of view we may analyze the chart somewhat as follows: (Illustration No. 3) A steady expansion of theater forces engaged in routine operations such as patrols, reconnaissance and defensive actions, a progressive build-up of supplies and equipment for a campaign, and special build-up and measures for specific operations.

Actually, the build-up prior to each operation only partially supported the operation it was intended for. In the Pacific we found often that we were financing one operation with the material and men originally assembled for the previous one, but which

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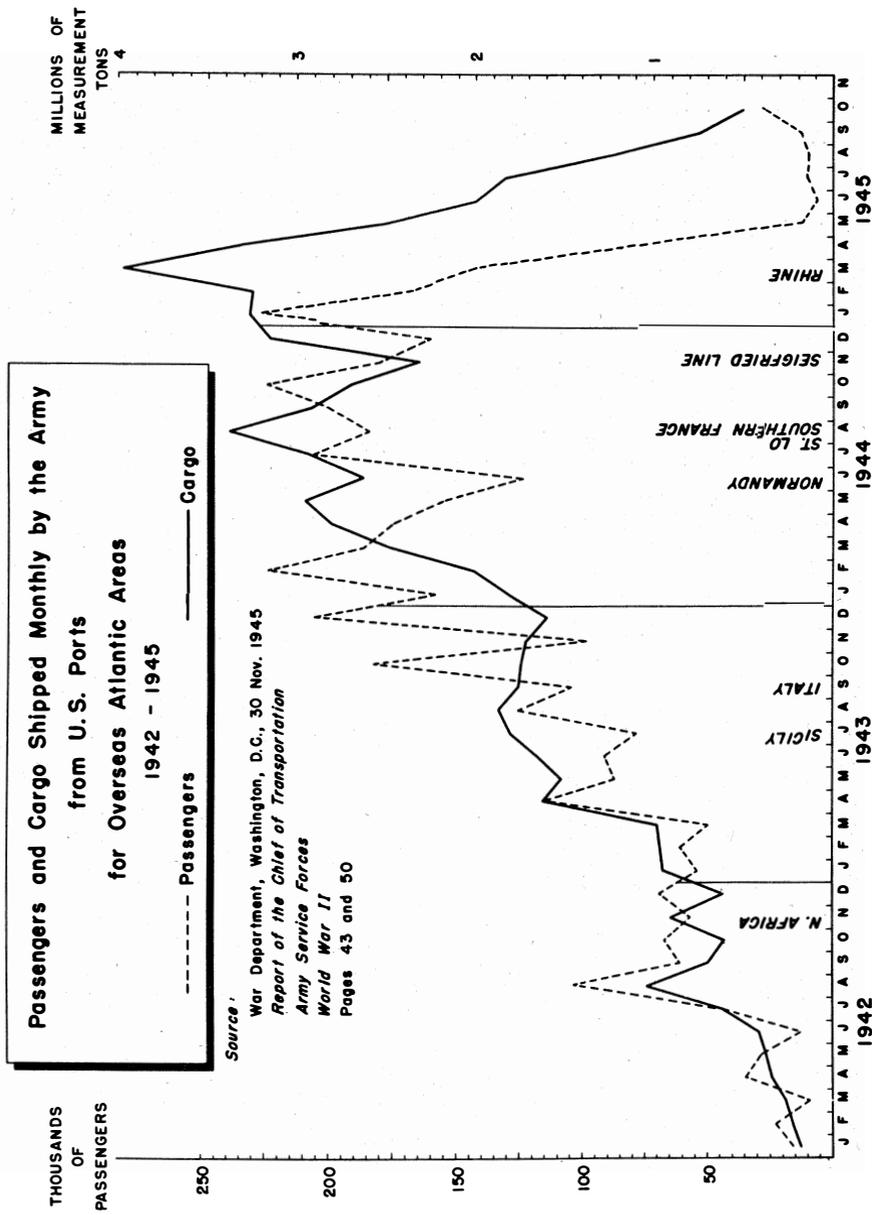


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**SCHEMATIC DIAGRAM OF
AMOUNT OF LOGISTIC SUPPORT
IN A
THEATER OF WAR**

**AMOUNT
OF
LOGISTIC
SUPPORT**

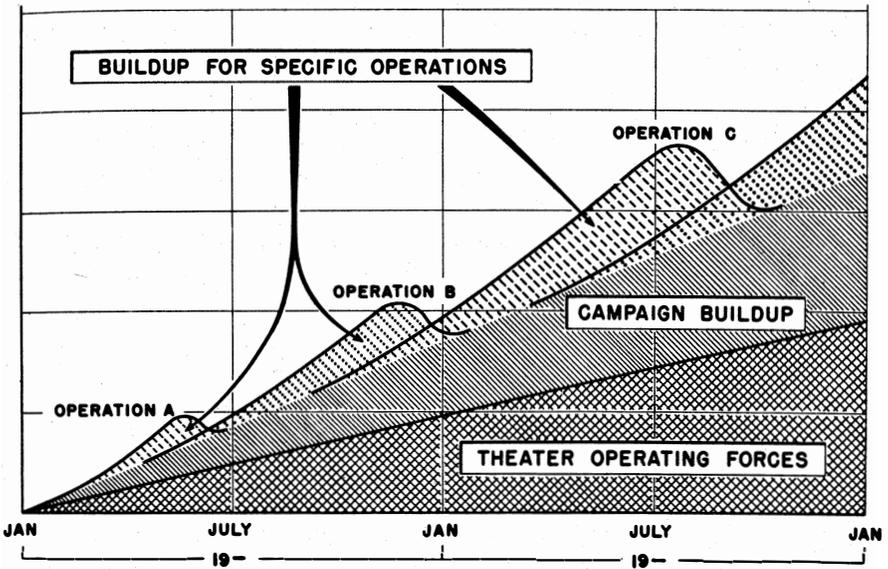


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arrived opportunely enough to be of use in the base development of the island just captured.

V—THE BASIC THEATER LOGISTIC PLAN

The charts have shown a steadily expanding logistic effort. How do we coordinate this expansion and at the same time provide for the efficient support of our day-to-day operations? Here we come to the philosophic basis of theater logistic planning and again I present a purely theoretical concept: A Basic Theater Logistic Plan—a plan which in actual practice may very well be Paragraph 4 or the Logistic Annex of a conventional campaign plan. This basic plan is the heart and soul of the day-to-day operations in a theater of war and it provides the material build-up for the initiation of offensive operations.

Let us start in the center of the chart (Illustration No. 4) and work out. Every basic theater logistic plan is built on four fundamental considerations. First, the characteristics of the theater, its geography, topography and hydrography, its relative distances and its distance from the continental U. S. Next we have the forces involved, then the nature of the operations contemplated and finally, the requirements for mutual or inter-theater support.

In the second circle we have six functional elements; Supply, Maintenance, Medical, Personnel, Transportation and Base Development. You may choose any functional elements you wish—those shown here are merely representative groupings of the major elements which seem to be common to all theatres.

The theatre commander examines each functional element in the light of the inter-play of variables in the four fundamental considerations and reaches certain types of decisions, which are indi-

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THEATER LOGISTIC PLANNING

SCHEMATIC FLOW CHART (FROM CENTER OUT)

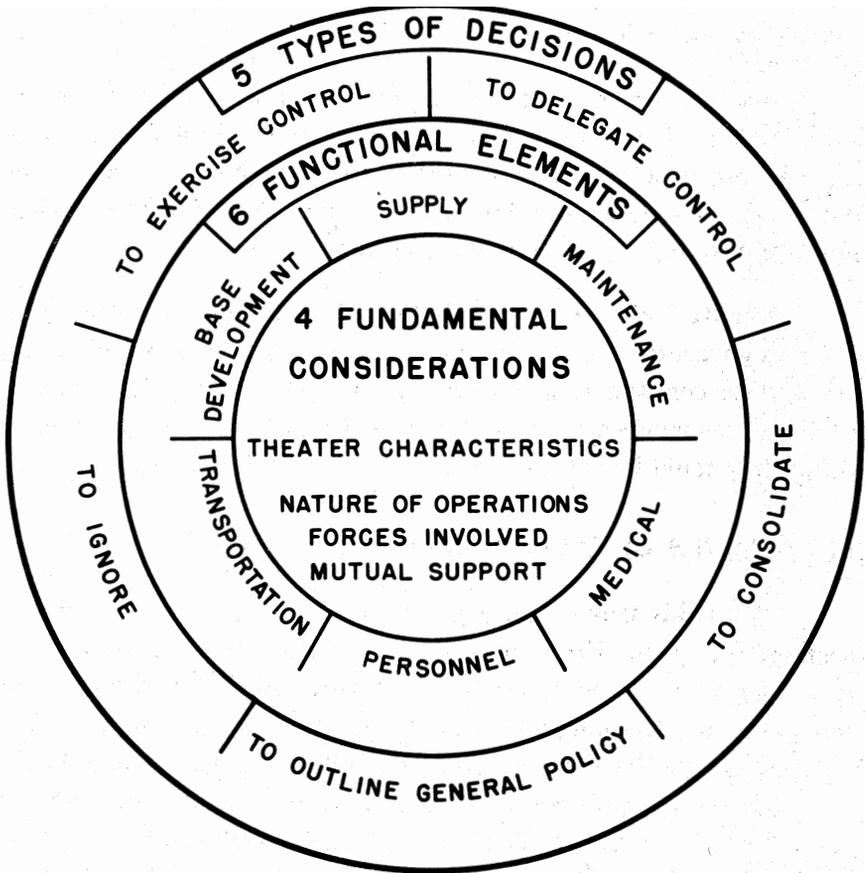


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cated in the outer ring. The theater commander will decide to exercise direct control of certain elements. In other cases he will delegate control to component commanders. In some instances he will consolidate all of certain activities, in other cases he will merely outline general policies. And finally in my opinion he will be wise to ignore certain matters, particularly problems which may work themselves out if left alone.

The summation of these decisions becomes the basic theater logistic plan. If wisely developed this not only establishes the procedures and policies governing the normal logistics of the theater but it becomes sound standing operating procedure for the development of the logistics of specific operations.

On 31 October 1945 CINCPOA'S standing operating procedures governing logistic support of theater forces filled 98 pages. These were condensations and revisions of many times that volume of directives which were in effect on V-J Day. By proper planning I think they could have been boiled down to 20 to 30 pages.

VI—DETAILS OF THE BASIC PLAN

With this general background let us discuss some of the aspects of this plan. First, consider the relation between supply and transportation. In any war of the future, American forces must combine great firepower with great mobility. It may well be that an increase in the efficiency and reliability of our transportation and distribution system will permit us to lower our usual levels of supply without danger to our combat forces. This would, of course, increase mobility. In any event we must realize that any unnecessarily high level of supply reduces mobility.

It is very probable that the theater commander will keep a very close watch on his supplies of ammunition. This is a very

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specialized field and with the increasing use of new types of guided missiles and rockets, new problems in storage and distribution will undoubtedly arise.

The very fact that an area petroleum officer is a member of every theater commander's staff indicates that the theater commander actually controls the distribution of petroleum throughout his command. In this connection it is well to remember that when we operate major Naval task forces overseas, the oil requirements are so great that any advanced base storage we can build ashore is merely a surge tank in the supply pipeline of fast tankers.

When we remember that one B-36 bombardment group will burn up a million gallons of aviation gasoline on a single mission, and that our fleet in its operations at Okinawa used twelve million barrels of oil, the importance of close control of petroleum products at the theater level should become very clear. This is especially so since this tremendous bulk must be kept in motion; it may be slowed, or speeded up, but there is no way that any considerable part may be set down to await prospective use. There just never is that much storage capacity. Furthermore any undue retention of fast tankers to build up ready supplies will result in shortages months later.

VII—TRANSPORTATION

In addition to its effect on levels of supply, the subject of transportation raises some very interesting points. From time to time the suggestion is made that ocean transportation will be controlled wholly from Washington. While undoubtedly Washington must of necessity exercise a very important degree of control in world shipping, still we must remember that the theater commanders have the major combat operational responsibility and therefore

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must have commensurate logistical operational authority. Actually a compromise will probably be made but it should be based on recognition of many considerations.

The subject of transportation falls into two main categories; operation and traffic management, and an understanding of the nature of these is important to all who deal with logistics. Operation concerns itself primarily with the most efficient management of the carrier, be it an airplane, a truck or a ship. Traffic management is concerned with the most efficient distribution of the material which is being transported.

It is very important that these two aspects of transportation be considered as separate and that their relative importance be clearly understood. *The proper goal of carrier operation is to serve the demands of traffic management.*

In considering operation we must bear in mind that oceanic shipping is world-wide and so cuts across all theaters of war and that in wartime it involves commercially-manned as well as Navy-manned ships, that it is internationally owned and operated and that it involves so-called strategic shipping and cargoes for the support of allies and neutrals as well as the strictly military or operational cargoes. However, a theater combat commander views his transportation problem as a whole whereas the transportation operation agencies may tend to view their problems from the somewhat narrower aspect of a shipping company, an airline or a trucking company or railroad.

When a theatre commander has this broad point of view he may change the emphasis of his concern from one means of transportation to another as varying needs of the combat situation demand, and make the necessary adjustments.

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If all transportation were to be controlled from Washington, that responsiveness to immediate or vital local needs would tend to become sluggish. On the other hand the theater commander must understand the far-reaching effects of "retentions" on the whole shipping picture.

We may conclude therefore that the theater commander must exercise a high degree of control of all transportation, that the actual carrier operation be delegated, and that the theater commander reserve to himself movement control and traffic management. The control of material flow is best exercised by allocations of cargo space to component commanders. It goes without saying that the commander himself must understand the nature of the problem. In addition he requires the staff assistance of experts in this important and highly specialized field.

In a very real sense we may think of transportation as the mortar, or bond, that ties all parts of the theater logistic system together. All over the theater, men and material are constantly in motion. A bottleneck anywhere inevitably slows down traffic all along the line, and a sudden closing of any valve may well rupture the pipeline. An enormous amount of energy is lost in the inertia of starting and stopping the flow, and it should be the theater commander's objective to keep the flow of traffic as smooth and continuous as his military operations will permit.

The general term maintenance covers a multitude of problems. In a theater in which major naval forces are operating, it includes ship maintenance, repair and salvage. Normally of course such matters are of primary concern to the Navy Component Commander (Fleet Commander) who handles them through the type and task force commanders. However, in such cases we frequently find that the theater commander is a Naval officer and in

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that case, so far, he has always worn two hats, *theater and fleet*, in which case the theater commander is very much concerned with such problems and his plans so indicate.

VIII—PLANNING FOR A SPECIFIC OPERATION

Rather than dwell too long on the basic theater logistic plan, let us pass to logistic planning for a specific operation. It is in connection with these specific operations that we encounter two terms that are frequently misused: "feasibility" and "calculated risk". In some instances it is considered that the logistics section of a staff decides the logistic feasibility of a contemplated course of action. This, of course, is not the case. The logistics section assists the commander in determining feasibility by making a logistic estimate or staff study. This estimate is a calculation of the logistic requirements necessary to support the operation, and a study of how logistic resources may best be employed to fulfill these requirements. The summary includes statements of prospective deficiencies, with estimates as to how these deficiencies may limit the freedom of action of the commander and recommendations as to what can or should be done to overcome or compensate for the prospective deficiencies. The *commander* then decides the logistic feasibility of his course of action and he decides the risk involved, balancing this calculated risk against the gains to be achieved. I know of no finer discussion of the calculated risk than that contained on page 34 of Fleet Admiral King's, "US Navy at War 1941-1945." Calculating risk is an exacting exercise of professional judgment and the term should not be used loosely as a blanket to cover the corpse of sloppy thinking.

Planning for an operation has the same general characteristics as basic planning in that it derives from, and must be con-

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current with, strategic planning, and it is governed by the same basic considerations, and results in similar types of decisions. But in operational planning, most logistic tasks are delegated to task force commanders with the component and type commanders acting in support. However, the need for keeping the enemy off balance requires that offensive operations be launched as rapidly as logistic considerations permit. Since task force planning staffs cannot be rapidly assembled and then quickly start to plan effectively, it is necessary for the theater commander to prepare many of the plans that in theory should be made by the task force commander. There simply is no other staff which can do this work in time to meet target dates.

The most practicable means of "beating" the vital factor of lead time is by submitting long range forecasts. In World War II CINCPOA issued staff studies and general planning directives months in advance of his operational directives and this enabled his component and type commanders to calculate and submit material and personnel forecasts. This combination of staff study and planning directive also permitted concurrent strategic and logistic planning at the operational level. Furthermore, even if the targets and dates were shifted, the logistic support built up by the forecasts usually fitted the new operation very well.

We should never forget the fact that operational logistics actually acquire great and real physical momentum. Thousands of tons of solid material are actually moving. While under favorable conditions we can change the direction of the mass or somewhat modify its composition, there are other conditions where all the orders in the world have no effect. Recognition of lead time, forecasting, decentralization of execution, etc., all contribute to the flexibility we desire. Nevertheless we must understand that a reasonably good plan that is understood and is feasible of accom-

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plishment is far superior to the "perfect plan" which is difficult to understand and issued too late. So there always comes a time when we must say "This is it—Let well enough alone—No more changes!"

I recommend to all of you the study of the plans for the Olympic Operation, the invasion of Kyushu. For while there was in that operation a dangerous lack of clarity in command relations, the plans reflected very valuable experience in logistic planning.

IX—GENERAL PRINCIPLES

Let me offer some thoughts as to certain principles which apply to logistic planning at theater level. But first a word of caution as to the use of the word "principles". Since we are only just beginning to develop logistic theory and principle we should not use the word in its strictest sense but rather in a very broad sense as a statement of something that we believe to be generally true.

First: The combat commander must have control of his own logistic support.

The corollary to this is that he must be competent to and prepared to exercise this control in harmony with the overall war effort—that is to say, in accordance with the principles of mutual support and unity of effort. A further corollary is that he must have a staff which is educated and organized to assist him to exercise this authority. To illustrate the growth of such a staff let us note the growth of the logistic section of Cincpoa's staff from September 1943 to July 1945. (Illustration No. 5)

Second: As long as the supply of an item or a "service" exceeds the requirement for that item or service, strict control is not

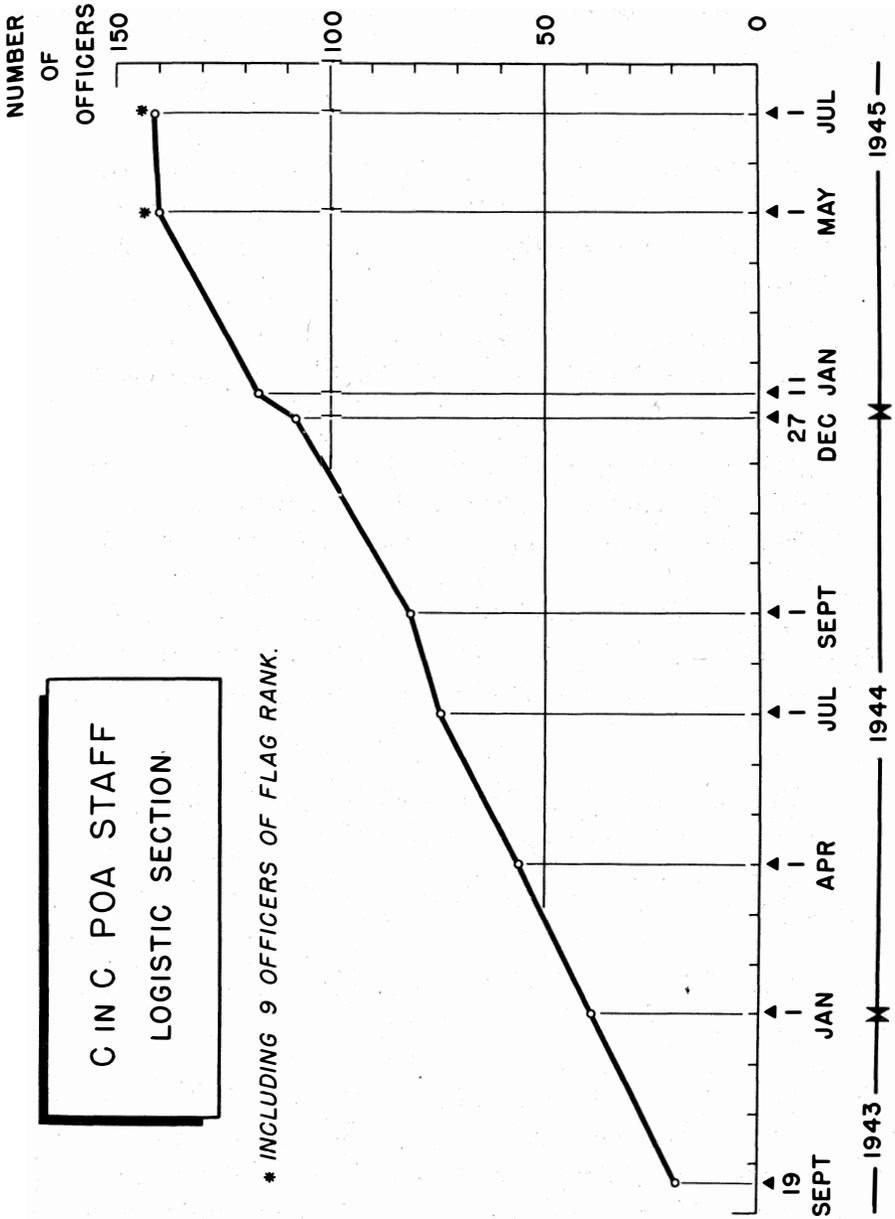


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necessary. When, however, a shortage exists, then theater control is called for.

I suggest three corollaries to this:

(a) The fewer the matters in which the theater commander finds it necessary to exercise his power of control the better the logistic system and situation in that theater.

(b) A major task of the theatre logistics officer is to look ahead and anticipate shortages and the consequent need for controls, before they occur.

(c) Any system of control of short items must be based on allocations in order to be effective. Priorities, except as part of allocations, are ineffective and self-defeating.

Third: The more detail that is put into any plan or order, the shorter the period of time during which that plan can usefully serve and the fewer the number of organizations that can be effectively controlled.

Fourth: The higher the authority promulgating an order, the greater the time and effort required to make a necessary change, and the more serious the consequences of a mistake or error in judgment.

Fifth: Power and authority attract power and authority—They are magnetic.

When the Unification Act of 1947 was first framed this tendency was clearly recognized. The Staff of the Joint Chiefs was limited to one hundred and the Secretary of Defense was prohibited from having a military staff. The Joint Chiefs are now

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permitted a staff of two hundred and ten and the civilian employees of the Secretary of Defense have increased greatly. Furthermore, it would appear that many officers who are carried on the personnel allowance lists of the military departments are actually spending much of their time performing duty with other offices within the Department of Defense.

I mention these matters because I fear the magnetic effect of power in that it will create a tendency in the Department of Defense to encroach upon the prerogatives and functions of theater commanders, and create principalities within the kingdom of the commander.

X—EVALUATION OF LOGISTIC PLANS

Many of you will leave here to assume major planning responsibilities. I, therefore, suggest certain criteria which may be useful in evaluating the logistic plans you may encounter.

But first a caution: We should always remember that any particular logistic plan can be analyzed only on the basis of a full knowledge of the strategic concepts and plans it is designed to support and of the background of the command organization in the command itself. It is vital that all strategic and logistic planning be in fact concurrent, and all strategic plans be kept within the limitations of our logistic capabilities.

When you are sure of these fundamentals you may then ask:

Are the theater command and the theater staff structures both designed for war?

Is the theater staff truly a joint staff?

Are the plans up to date?

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Do the plans provide for the expansion and provision of logistic resources and services prior to the expansion of combat elements?

Are the plans within the limitations of our mobilization capabilities?

Do the plans provide a maximum degree of central policy control with decentralized execution and operation?

Are the responsibilities of the component and type commanders clearly defined?

Do the plans place reliance on standing operating procedures?

Are there provisions for reporting and redistributing excess stocks?

Do they provide for ready cross-servicing and use of common facilities?

Are there provisions for inter-theater mutual support?

If these questions can be answered yes, the chances are that the plans and organizations will function well in war. In all cases, however, beware of a superficial analysis.

XI—CONCLUSION

In conclusion, let me leave you with these thoughts: Theater strategic and logistic planning are inseparable. In addition to growing concurrently with the strategic plans, the logistic plans are intimately related to the command organization. A sound theater staff organization is essential to the formulation of good logistic plans and to their smooth execution.

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Theater logistic planning consists of two main parts: First, the Basic Theater Logistic Plan (Paragraph 4 or the logistic annex of a conventional Campaign Plan), and second, developing from this, the Logistic Plan for a Specific Operation (Para 4 or the Logistics Annex of the Operation Plan).

While good planning forms, factors and usage data are essential tools, they themselves do not constitute nor produce good plans. Good plans are the product of the skilled professional judgment of the planner.

And finally—Don't expect the plan you draw up in peacetime to be the plan you necessarily use in war. Any peacetime plan, when you do not have or exercise the initiative, is merely the foundation and mental preparation for what you must do in war. And that mental preparation is more important than the plan itself. For only when the planning process, its major considerations, and the various relations of cause and effect are clearly understood, can our commanders make the rapid readjustments that are required when the early course of the war follows the enemy's plan rather than our plan.

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