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LOGISTIC PLANNING IN A GLOBAL WAR

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Guest Lecturer

DEPARTMENT OF INTELLIGENCE

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LOGISTIC PLANNING IN A GLOBAL WAR

ADDRESS AT NAVAL WAR COLLEGE

4 APRIL 1951

by

VICE ADMIRAL F. S. LOW, U.S.N.

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)

My assigned subject today is indeed a broad one. I feel assured, however, that since your appreciation and background of the subject is likewise broad, due to the splendid progress made in the "Logistics Course" at the College, I should confine my remarks to emphasizing the most important elements - to highlighting the major logistic problems of the present and, to some extent, the future, as I see them.

This "highlighting" requires a starting point. If, therefore, I outline some things with which you are familiar, my apology is that they constitute an appropriate springboard.

It is only within relatively recent years that there has been a full appreciation of the scope of logistics. Before the extensive technological development of this century, we did not need special detailed plans and operations to provide the means to accomplish a desired military end.

Such new factors as -

Unification with its demands and controls,

Rapid scientific advances in weapons of mass destruction,

Equipment to meet the challenge of supersonic flight,

Arctic implications in current strategy,

Electronics computers to work out logistic programs -

to name only a few - now further complicate the business of logistic planning.

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Detailed definitions of "Logistics" are available to you. In broadest terms - in the College's own language - "Strategy provides the scheme for the conduct of military operations; Logistics provides the means therefor."

It follows that those who work at logistics must not only be well-versed in providing services and facilities, but they also must have sound and extensive operational background if they are to work most effectively with their strategic and operational opposite numbers. I make this point to emphasize that there is no separate compartment labelled "Logistics". Rather, it is simply a particular and most vital part of over-all strategic planning and of execution.

Prior to World War II, the training and education of Naval officers emphasized tactical principles and the application of weapons. "Logistics" was not a familiar term. To most officers, logistic planning and support comprised planning and providing for such necessities as fuel, food, clothing, and ammunition for exercises and operations of short duration.

Today, logistic considerations belong in the highest echelons of military planning for operations which might well be conducted simultaneously in widely-separated areas on the face of the globe.

Postwar study of our World War II experience indicated that the national organization and the military establishment required revision and streamlining from a logistical point of view if we should be forced into future wars. As a result, we recognized and provided in the National

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Security Act of 1947 four planning levels. In each of them there are appropriate strategic and logistic agencies for the resolution and reconciliation of the operational and logistical aspects of war. They can be summarized as:

	<u>With its Strategic Agency</u>	<u>And its Logistic Agency</u>
(First, the <u>National Level</u>)	the National Security Council	the National Security Resources Board
(Second, the <u>Joint Level</u> (Department of Defense))	the Joint Chiefs of Staff, and its Joint Strategic Plans Committee	the Joint Chiefs of Staff and its Joint Logistic Plans Committee, plus the Munitions Board
(Third, the <u>Service Level</u> (Military Department))	the Chief of Naval Operations, and his Deputy Chief of Naval Operations for Operations	the Chief of Naval Operations and his Deputy Chief of Naval Operations for Logistics, plus the Office of Naval Material and the Material Bureaus
(Fourth, the <u>Field Level</u>)	Fleet Commands in their operations aspects	Fleet Commands in their logistic aspects, plus the Shore Establishment

Slide #1

Provision was made in this new structure for participation by the Navy in the formation of logistic policy at the National and Joint as well as Military Department and Field Levels. As we will see later in this discussion, the Navy Planning System is completely integrated into the Joint Planning System.

It would appear obvious that no strategic plan is sound unless it can be supported logistically. While the function of logistical agencies is to support strategy rather than to modify it, there will be occasions when logistical factors may become the governing considerations in strategic planning. If the logistical implications of a strategic plan indicate

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our sights have been set too high, it becomes necessary to inform the strategic planners of the forces and equipment which can actually be made available on a phased schedule after the outbreak of hostilities.

These restrictions bring home the fact that logistical feasibility is an inescapable control. Therefore, I emphasize the cardinal principle that:

"STRATEGIC AND LOGISTIC PLANNING MUST BE INTEGRATED AND CONCURRENT".

Logistic planning encompasses a "producer phase" and a "consumer phase." The consumer phase, in which the Joint Chiefs of Staff have a dominant interest, consists of:

- (a) The determination of requirements and
- (b) The distribution of supplies and equipment to the forces that will use them.

The Munitions Board performs similar functions in the field of so-called producer logistics, including the military aspects of planning for industrial mobilization.

The responsibility of the Munitions Board in the assembly, correlation and review of material and personnel requirements to meet military needs presented by the Joint Chiefs of Staff - - as well as by the production, procurement, and distribution agencies of the Services - - requires close coordination with the joint and Service planners.

The Joint Chiefs of Staff is more than a committee of the three chiefs of Services and a chairman. It is a complex organization which makes use of the experience, skill and technical knowledge of all the Services. As a planning and advisory agency, the Joint Chiefs of Staff

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always function at a policy-making level rather than as an operating agency in the usually accepted sense. Whenever the Joint Chiefs of Staff enter the field of operations, they designate one of the Service chiefs to act as executive agent for them. A unified area commander, for example, conducts his business with the Joint Chiefs of Staff through the Service chief designated as executive agent in his case.

{ Let me illustrate in broad delineation the organization of the Joint
{ Chiefs of Staff.

{ A Director, Joint Staff, acts as the "executive" of the Joint Chiefs
{ of Staff. He is responsible for supervising the work of the Joint Staff
{ and coordinating the Joint Chiefs of Staff Committees. This Joint Staff
{ is a planning agency divided functionally into three groups - the Joint
{ Strategic Plans Group, the Joint Logistic Plans Group, and the Joint
{ Intelligence Group - which together form the staff of their three
{ corresponding Committees .

{ There are other Joint Chiefs of Staff Committees indicated on the
{ Slide, each with a full-time working group. The various Committees are
{ responsible for recommending action to the Joint Chiefs of Staff on the
{ specified functions assigned to them by charter. The total of the duties
Slide #2 { and functions assigned to the Committees covers all the Joint Chiefs of
{ Staff responsibilities assigned by statute or by the roles and missions
{ agreement, except the budget functions. For the purpose of providing
{ assistance in programming and budgeting, each Service chief has designated
{ a senior officer in his Service as his adviser, and together the three
{ officers form a Program and Budget Advisory agency.

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I can illustrate the way in which a representative Committee works relative to joint planning by using the Joint Logistic Plans Committee as an example.

The Joint Chiefs of Staff are charged by the National Security Act with three logistic duties:

- (1) To prepare joint logistic plans.
- (2) To assign to the military Services logistic responsibilities in accordance with the logistic plan.
- and (3) To review major material and personnel requirements of the military forces, in accordance with strategic and logistic plans.

The Joint Logistic Plans Committee is the primary logistic agency responsible for making recommendations to the Joint Chiefs of Staff on the statutory duties noted above, and for advising the Joint Chiefs of Staff of the logistic implications of war plans in order to ensure the integration of logistics and strategy.

The Navy member of the Joint Logistic Plans Committee is the Director of Logistic Plans. Thus, the responsibility for Navy interest in the preparation of joint logistic plans and for the preparation of Navy logistic plans is combined in one individual.

A joint logistic plan treats of logistic responsibilities and relationships between the Joint Chiefs of Staff and the Services, between the Services and the unified commands; and between these commands and forces of allied countries.

The plan includes policies and instructions regarding supply, maintenance, medical services, transportation, construction, personnel

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and administration. Under supply are such matters as allocation of critical items, levels of supply, coordination of requirements, methods of requisitioning and local procurement. Under transportation are the assignment of responsibilities, operation of lines of communication, allocation of shipping, and operation of ports, intransit depots and staging areas. Under personnel are instructions as to allocation of personnel, replacement policies, use and allocation of specialists and use of civilians. Under administrative management are such items as finance, claims, mail service, aid to allies, and military government.

Joint logistic plans are necessarily based, as noted previously, upon joint strategic plans. The force requirements, planned deployments, command arrangement and degree of combat operations are elements which guide the preparation of the joint logistic plan.

There are today three general categories of joint war plans based upon varying assumptions as to when D-Day will occur. These are:

- (1) The Joint Emergency Plan with an assumed D-Day in the immediate future.
- (2) The Joint Medium Term Plan with an assumed D-Day two to four years hence.
- (3) The Joint Long-Range Plan with an assumed D-Day seven to ten years ahead.

The first, or joint emergency, plan is referred to as a "Capabilities Plan" while the second and third are known as "Requirements Plans". The first plan gives emphasis to the means and deployment of forces during the first two years of a war; the other two plans serve as guides in

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the development of the full mobilization potential of the nation and its allies.

Analysis for logistic feasibility of the emergency plan, medium-term plan, and long-range plan is based on different criteria.

The emergency war plan presents the problem of ensuring that the plan can be carried out with the means at hand - in the period before industrial production is effective.

The medium term plan involves elements of both the emergency plan and the long-range plan. Evaluation must be made of current capabilities in the form of resources as they now exist, plus the increased readiness which can be bought in a few years without unduly loading the military budget. For example, a plan for a war beginning in Fiscal Year 1954 could call for D-Day forces higher than those in existence today but not so much higher that the cost could not be borne from funds estimated as reasonable.

In effect, all long-range plans are feasible if we have sufficient build-up during the intervening years. The feasibility test here is essentially an evaluation of the effect on the national economy to reach and maintain the state of D-Day readiness required by the plan. If the economic cost is exorbitant, the plan may be infeasible.

There is constant demand for a simple planning system which will give a correct result, neatly catalogued and indexed, and stowed away for possible future implementation. Even if this were attainable, such a planning system would not solve the problem. Constantly changing

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conditions require a continuing review of the estimate of the situation, and a readiness and ability to modify plans accordingly.

The major material and personnel requirements of each Service are reviewed by the Joint Chiefs of Staff for conformance with joint strategic and logistic plans. By this method, any deleterious effect of unilateral requirements, which tend to demand an unreasonable portion of industrial production and manpower, is minimized.

Further, it may become necessary for the Joint Chiefs of Staff to consider a reduction in assigned tasks which in themselves generate critical areas of requirements - or to reschedule the time phasing for their accomplishment - if increased production or alternative sources or substitutions cannot correct the deficiencies. We therefore go through a series of successive approximations before our plans take final shape.

The Armed Services, under the procedures established by the Joint Chiefs of Staff, derive their missions and general tasks from joint plans. For the Navy, this function is performed in the Office of the Chief of Naval Operations.

There are two classes of Navy plans: (a) Navy Basic Plans, and (b) Navy Code Plans.

Navy Basic Plans consist of:

- (a) The Basic Naval Establishment Plan, which provides for the Naval Establishment in peacetime.
- (b) The Navy Basic Mobilization Plan, which provides, under the same general headings as the Basic Naval Establishment Plan,

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for a phased expansion of the Basic Naval Establishment to the size necessary to prosecute total war.

- (c) The Navy Basic Logistic Plan, which consists of two parts in support of the previous two plans. Part I, Peacetime, supports the peacetime establishments set forth in the Basic Naval Establishment Plan. Part II, Mobilization, supports the Navy Basic Mobilization Plan.

Navy Code Plans consist of:

- (a) Navy Strategic Plans (Code). These are plans based upon the assumption of war with a particular power or combination of powers or upon certain disorders or insurrections. They are given code names, as was the custom during World War II. These plans normally are in support of missions derived from Joint Plans issued by the Joint Chiefs of Staff, but may be in support of missions originated by the Chief of Naval Operations. These strategic plans form the basis for operation plans prepared by senior commanders afloat and ashore.
- (b) Navy Logistic Plans (Code). Although it is expected that the Navy Basic Logistic Plan will provide an adequate guide on which estimates may provide the over-all logistic requirements to support any Navy Strategic Plan (Code), there will be specific logistic requirements for each particular Code situation. Therefore, for each Navy Strategic Plan (Code) there is a corresponding Navy Logistic Plan (Code) in support of which

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Subsidiary Plans are prepared by the Bureaus, Fleets, Sea Frontiers, Naval Districts, and Offices of the Navy Department. Additionally, Supporting Plans of an operational nature, based on the Navy Strategic Plans (Code), are prepared by agencies such as Fleet and other commanders.

Slide #3 (As you know, planning in the Navy Department proceeds from concept (toward implementation by three stages, and the plans of each succeeding (stage are based upon the plans of the prior one. These three stages (are shown on the Slide. I will not attempt to describe the stages, as (they have been included in your curriculum. (

(The stages of Navy planning include procedures for determining (logistic requirements of strategic plans. These procedures fall into (two general categories. The first category encompasses requirements (which are derived directly from over-all strategic plans or from a specific (war plan. Normally these extend only to the phased force requirements for (certain tasks and are translated into ships, planes, bases, and an over-all (personnel and material program to support them. The second general (category of requirements is closely related to the first, and comprises (the detailed items of supply for the maintenance and support of the (operating forces. This category encompasses special support for units (at sea, requirements developed through issue and usage experience, overhaul (schedules, and various stock status, "pipeline" and "reservoir" considerations. (

In the Navy, the "consumer phase" of logistics is the delegated responsibility of the Deputy Chief of Naval Operations (Logistics). The strategic planners furnish basic information as to the probable areas of operation, tasks to be accomplished, and combat forces to be employed.

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As logistic planning progresses, supplemental guidance and information of a more detailed nature is received. The basic information is provided by Navy strategic plans and the supplementary information is provided by concurrent planning by the strategic and logistic planners at appropriate levels.

In the determination of requirements, the logistician uses a series of yardsticks or experience-factor tools such as "how many back-up airplanes are required to keep one in combat," and "how many tons per month of shipping are required to support one man overseas" and many other planning factors of this nature. The slides illustrate certain of these factors derived from World War II experience.

In recent years we have considerably improved the quality of our usage data and other logistic planning factors. However, despite further improvement which may follow the increased use of scientific planning methods and electronic calculators, the logistic planner must always keep in mind that planning factors are merely the tools used in developing plans, and the quality of logistic plans will depend not so much upon the judgment and skill with which the tools are used, but upon the soundness of decisions for which the calculations are employed.

Slides #4 and 5

Time-phasing of tasks also has an important bearing and controlling effect on the determination of requirements. The end-result, then, is a schedule of requirements commencing with D-Day, and building up month by month thereafter. These requirements are listed in terms of major end-items - ships, planes, base construction components, construction battalions to

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construct the bases, man to man the ships, and other various categories of logistic support.

Wastage of material or production effort that results from inadequate planning or from uncoordinated unilateral demands of one Service is a fatal defect in military planning. I will mention a few critical areas in which we are actively seeking improvement.

Some of our weaknesses in the field of distribution, as exemplified by World War II experience, were that:

- (a) Nearly half of all material procured by Military Departments was in the "pipeline" and never was used in combat.
- (b) We had thirteen distribution systems in the military establishments.
- (c) No effective stock inventory or control system existed in any overseas theatre.

Continuous improvement of the basic distribution structures of the military departments is of top importance since it involves expenditures of huge sums of money and the effectiveness of supply in wartime.

Reliability and effectiveness of military transportation services is another essential. Improved methods, mechanical operations, organizations, training, and supply discipline are being constantly sought.

Modern war - even a limited war - is a large-scale business. The size of the Korean logistic effort is an indication of this. For example, in one three-month period, the Navy delivered by sea to the Army, Navy, and Air Force in the Far East over 180,000 personnel, 2,000,000 tons of cargo, and over 7,000,000 barrels of fuel. These personnel and supplies are, in convertible terms, equivalent to a train of 2,000 coaches, 26,000 freight cars, 30,000 tank cars.

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In summarizing at this point, I have discussed in broad outline some of the major aspects of logistic planning at the National, Joint, and Naval Service Levels, with reference to a few of our outstanding problem areas and current developments.

I have indicated some of the measures we can use in achieving necessary flexibility of planning, and have noted that we need this flexibility to insure the effectiveness of our forces when, for example, we do not have the initiative. A situation of this kind was presented to Navy logistic planners early in the current Korean operation. Specifically, I refer to logistic plans for the early activation of certain types of vessels of the Reserve Fleets. Our activation plans were based on the assumption that anti-submarine warfare would be a first priority requirement in any emergency. Since a submarine menace did not present itself, our early ship activations for Korea were modified to give major emphasis to amphibious and mine vessels. This illustrates that logistic planning must be sufficiently flexible to permit rapid change of priority in meeting operational requirements.

I must repeat, however, the inalienable principle that the success of strategic plans very largely depends upon logistic support of the planned forces, and effective operations of these armed forces can not be conducted without coordination of planning to ensure adequacy of logistic support. Further, there must be an assurance that strategic plans are within the limits of logistic feasibility. Weapons and other supplies must be physically present, and industrial mobilization must be realistic and complete. Full provision must be made for medical care. Arrangements must be made to

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transport supplies and personnel quickly to the place where they are needed. Service troops must be ready. Skill and courage are vital, but they are not enough by themselves.

I believe that the higher echelons of all our military Services realize that a knowledge of the principles of logistics is a necessary qualification for command of military forces. The logistician is vitally concerned not only with the process of military planning during preparation for war, but also with responsibilities in the execution of the logistic phases of the plan that may well become the controlling element in its success.

Our logistic planning now is, and will continue to be, on a world-wide scale consonant with our national and international requirements.

As Soviet aggressive intentions have become ever more evident, the United States, and under its leadership other important nations of the free world, have progressively adopted stronger and stronger measures, both to build up their own strength and to reduce the strength of the Soviet orbit. The establishment of the North Atlantic Treaty Organization, the European Recovery Program, and improved international relationships and cooperation in the fields of trade, finance, and economic development have helped constructively to create strength in our allies.

The United States must provide vigorous leadership in Europe and Asia, and follow a "global strategy" to emerge victorious in the conflict against Communism. This struggle cannot be won by any single method - not by military strength only, nor exclusively by economic and social programs, nor by moral force alone. Our enemy has worldwide plans that can only be met and defeated by a global strategy and by adherence to our accepted principle of collective security.

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While the North Atlantic Alliance is military in character, its effectiveness to a very large extent depends for the present upon the economic strength of the United States. Inherent in this allied coordination is the long-term standardization of materials, of training doctrine, and of organizational methods, and also the establishment of equitable control and distribution of critical raw material. There is need for a better stockpile of supplies than we have today. Closely allied to this is the requirement for an industrial mobilization plan geared to our national strategy and to specific strategic plans.

The economy of the Soviet bloc is largely free from major dependence on trade with the non-Soviet world. Segments of its economy, however, and particularly some closely related to the war-making potential, are susceptible to external pressures. Despite strenuous efforts to develop self-sufficiency, the Soviet Union, most of its satellites, and China are in relatively early stages of industrialization. All of them need from abroad industrial equipment, certain vital raw materials and semi-finished goods, "pilot plants", and technological information. Selective controls can be directed at these vulnerable spots.

In order to deny goods at the source we can employ the techniques of embargo and export controls. We can use measures to control funds and to supervise the transportation of goods. We must control the export of technology, design data, manufacturing methods and specialized tools, since skilled manpower and industrial capacity for production are already the greatest single strategic shortage in the Soviet bloc.

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Let us turn now for a few moments to some of the military logistic problems of a World War III.

Obviously, no strategic planner will have complete freedom of action unless there exists prior to the outbreak of war "adequate" military equipment, stockpiles of critical materials, production capacity, and an operational supply pipeline at home and based as far forward as practicable. Planning factors for damage to these logistic assets are necessary in the face of A-bombs, guided missiles, conventional bombing, sneak attacks and sabotage.

To carry our logistic support overseas - and also to ensure that we continue to receive necessary war materials from overseas in the face of attack from our potential enemy - the Navy will need sufficient combatant strength to defend, first, against enemy submarines and mines.

The best defense against enemy submarines is a vigorous offensive against enemy submarine bases and building yards. This envisages use of A-weapons against profitable, large targets, and conventional bombs or other means against smaller and more dispersed targets. Next in our defense against submarines are mines laid to destroy the enemy along his routes of sortie - or entry. Afloat, we will need continued progress in our anti-submarine warfare types and methods to combat modern, Schnorkel submarines. Our routing of convoys and communications control of all shipping will require the most thorough planning and implementation.

As we approach shores which may be subject to more or less continuous attack from enemy aircraft, guided missiles, and submarines, plus mining

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of coastal waters and of harbors, the Navy's problems become more acute. Here, our reconnaissance by aircraft, submarines, and radar must be alert, and our communications control for emergency changes of course and formation - and our counterattack measures - must be most rapid and sure under all conditions of visibility.

When we get into mineable waters, we will require extra protection - detection, minesweeping, safe channels that are free of mines. And as (we close "the beaches," because of the A-bomb and guided missiles, we (must strive for the highest practicable speed in ships and in unloading (methods and facilities, and certainly as much dispersal and reduction (in size of units as may be consonant with our protective forces and the (task at hand. I doubt that we will ever undertake another large, amphibious (operation which will bring shipping like that shown on the slide within (A-bomb or guided missile range.

Slide #6

Strategy will point to the choice of overseas bases. It is probable that in a World War III, we will need as great a number of bases as we can support logistically. This will require close coordination of strategic and logistic plans, so that the greater number of bases will be tailored to fit the most urgent strategic and logistic requirements. Strictest attention must be given to the amount and type of unloading equipment, with stress on speed at those bases subject to repeated enemy attacks.

Because of the probability of the need for more bases, the Navy will plan to have ready an adequate number of "packaged" advanced bases,

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equipped in their components to service the latest offensive weapons, and to render the most rapid medical care in defense against such weapons. Emphasis will be placed on greater numbers of trained personnel - "Seabees", cargo handling battalions, servicing and repair crews, medical personnel.

Our Naval mobile logistic support will require thorough planning and preparedness. We will need the most suitable designed types of ships and craft at "distribution centers", and improvement in our types of ships, methods and speeds for replenishment at sea.

These are a few of the operational logistic problems for which we in the Navy must plan. I have outlined them simply in order to illustrate the need for flexibility and continuous effort in logistic planning.

In conclusion, there are three main logistic factors that I would like to stress as applicable in a global war:

First, that the determination of requirements for fighting a war and the control of distribution for military purposes are prerogatives of military command.

Second, that we must keep strategic and logistic planning thoroughly integrated and concurrent if we are to have optimum chance of success in present-day non-static situations; and

Third, that we must plan to and get the right people and supplies at the right place, at the right time, and in appropriate quantities.

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