

*Address - 26*

ARMY INDUSTRIAL COLLEGE.  
(Course, 1927 - 1928)

OFFICE OF THE ASSISTANT  
SECRETARY OF WAR  
OCT 25 1927  
PLANNING BRANCH  
PROCUREMENT DIVISION

*file of*

ORGANIZATION AND FUNCTIONS OF THE SUPPLY DIVISION. G-4.

Lecture by  
Colonel John L. DeWitt, G. S.

October 10, 1927.

GENERAL PRINCIPLES GOVERNING THE ORGANIZATION

of the

WAR DEPARTMENT GENERAL STAFF.

Broadly speaking, the fundamental principle underlying the creation and organization of a General Staff is based on the necessity of coordinating and controlling all the means at the disposal of the Government to insure the successful accomplishment of any plan of military activity that may be dictated by the National policy.

As an immediate corollary, it follows that all efforts looking toward the full use of these means must also be coordinated and controlled.

These efforts, considering the task of the War Department, may be grouped under two heads:

- (1) The industrial effort;
- (2) The Military effort.

The World War illustrates the operation of these two efforts at their maximum intensity, for the magnitude of the military operations carried into execution and contemplated during that war, together with the character and variety of the requirements necessary to meet the needs thereof, were such as to completely dominate the industrial energy, activity and economical resources of the nation. When the decision was made to place armies in Europe we had at once to take steps to direct the industries of the country toward the manufacture of munitions of war, and as these munitions included raw materials of all kinds, many articles manufactured for commercial use, and in addition a vast number of articles to meet military requirements solely, the war became the greatest of industrial efforts.

This great industrial activity, or effort, was therefore created for but one purpose, i.e., the supply of the military establishment created or enlarged to meet the military situation existing or foreseen; in other words, to support the military effort.

Into the manufacture of the vast number of articles pertaining to the several classifications enter raw materials and commodities common to all - labor, factories, and other industrial activities that must be divided, distributed and allotted so as to permit a production in accordance

with the importance of the needs of the several classes of supply to keep pace with and support the military effort. This is the task for which the Office of the Assistant Secretary of War was created under the Act of June 4, 1920, wherein he is charged with the assurance of adequate provision for the mobilization of material and industrial organizations essential to war-time needs.

If we consider that there is a strategy of supply, just as we divide military operations into strategy and tactics, we can better conceive of the functions of the General Staff with reference thereto, for while the General Staff is charged with the coordination, supervision and control of supply, it concerns itself more with the strategy than with the tactics thereof. Tactical features, and especially the details thereof, can best be worked out by the supply branches themselves, but the strategical problems must be solved by the General Staff and between the sub-divisions thereof, the one charged with the supervision of supply of men and material and the other charged with the formulation of plans for the accomplishment of the mission toward which the military effort is directed. We arrive then at the main line of cleavage between the two main sub-divisions of the General Staff duties.

It has just been stated that the General Staff must be charged with the coordination, supervision and control of supply. In using this expression I desire to make clear what is meant by it. Coordination should be understood in the sense of assurance of cooperation, that is cooperation implies the responsibility incumbent upon the General Staff of seeing that the proper assignment of duties is made to the branches in order to assure that cooperation, not only as between themselves but as between their own functions and duties and those elements or units that they serve in accordance with a general plan of policy. Supervision implies the responsibility of seeing that the duties assigned are carried out. In order to make the coordination and supervision described effective, the General Staff is held responsible by the Secretary of War for the issuance of proper orders in his name to the branches concerned. This responsibility constitutes the control. It is not in any sense the control exercised by the Secretary of War himself under the authority of the President, or by a commander of troops, or the chief of a branch within that branch. It is simply the application of delegated, legal, authority. This task of coordination, supervision and control by the General Staff, so far as it concerns supply, is divided into three phases. First, that necessary within the War Department or Zone of Interior in war; Second, that necessary within the

28

Theater of Operation; and Third, that necessary within the armies and the sub-divisions thereof. It is the first phase only with which we are concerned here, and the General Staff performs these functions within the War Department in order to insure coordination between the industrial and military effort. This is the great and initial function of the General Staff and presupposes constant study in time of peace in order that during times of peace, at the outset of a war, or when war is threatened the agency created for the purpose, (the office of the Assistant Secretary of War), may have the necessary information upon which he may make provision to have available in such proportion as they may be required the necessary resources for the production of the munitions of war necessary to equip, maintain and support the military forces being or to be created for the accomplishment of the military effort.

Supply then may best be defined as the machinery of procurement (manufacture and purchase), storage, issue and transportation (distribution) with their attendant activities, and must as true as it is that success in battle can not be assured unless all the armies are properly linked together for the accomplishment of the armies' mission, so it is that the supply groups must be linked together also, and not permitted to operate independently; that is, these activities cannot be permitted to operate as independent agencies, competing one against the other as a group of race horses, but must be controlled as a team running neck and neck.

Analysis of the National Defense Act, Section 5, shows the duties of the War Department General Staff to be divided into two categories - First, the duty of mobilizing the manhood and resources of the nation and their preparation, training and delivery to the field forces; and Second, the use of these forces in the National defense, that is actual employment against the enemy.

I have used the term "mobilizing the manhood and resources of the nation" and I want to quote in that connection the provision of the National Defense Act with reference to that duty of the General Staff as well as that of the Assistant Secretary of War.

"The duties of the War Department General Staff shall be to prepare plans for national defense and the use of the military forces for that purpose, both separately and in conjunction with the naval forces, and for the mobilization of the manhood of the Nation and its material resources in an emergency".

"\* \* the Assistant Secretary of War, \* \* shall be charged with supervision of the procurement of all military supplies and other business of the War Department pertaining thereto and the assurance of adequate provision for the mobilization of material and industrial organizations essential to war-time needs".

When the Secretary of War directed that studies be made, in compliance with a request of the Chairman of the House Military Affairs Committee last year, with a view to presenting to that Committee a report as to whether or not the National Defense Act was satisfactory or in what respects it should be amended, it was recommended from several sources that the words "material resources in an emergency" (insofar as they pertained to the General Staff) be eliminated from the law in that they were in conflict with the provisions of Section 5a which charged the Assistant Secretary of War with that duty also. Personally I oppose that action, because I think the law is correct and means exactly what it says. The word used in Section 5a is "materiel" and as used in Section 5, "material". The fact is that the War Department General Staff must be charged with the duty because it must furnish the Assistant Secretary of War a statement of requirements which, in the end, is a statement of requirements of material. It sets forth the units to be mobilized, the time and periods over which they are to be mobilized, and the equipment that is necessary, the maintenance rate thereof, etc. The General Staff has a very definite responsibility in that matter and there is no conflict at all with the duties of the Assistant Secretary of War in that respect.

A fundamental test of sound organization requires that each sub-division of the organization be made on clear-cut functional lines. If we apply this test to the War Department General Staff it appears that the line of demarkation between the first two great sub-divisions is to be found between the function of mobilization of men and material and the actual employment of these forces against the enemy. This sub-division of duties of the General Staff did not exist prior to the World War, and the defects of the organization then in existence were magnified tremendously when the country entered the World War. The organization of the General Staff built up within the War Department to meet the problems presented at that time, though unavoidable and necessary to meet the demands of the moment, was nevertheless unwieldy and productive of many faults, particularly the assumption of administrative duties that should have been performed by operating agencies then in existence. The present organization of the War Department General Staff, under the provisions of Section 5

29

of the National Defense Act, divides the General Staff into five divisions. The first four, Personnel Division (G-1), the Intelligence Division (G-2), the Operations and Training Division (G-3), and the Supply Division (G-4), deal with those questions as indicated by their designations, that affect the mobilization of men and material in time of war and with those duties of a routine and continuing nature necessary in peace and war, the last named branch working in cooperation with the Office of the Assistant Secretary of War; the fifth Division, known as the War Plans Division, is charged with the formulation of plans for the actual employment of the armed forces in the National Defense, this last Division constituting the nucleus for the General Headquarters of the field forces.

Relationship between the Office of the  
Assistant Secretary of War and the Chief of Staff.

The relationship between the Office of the Assistant Secretary of War and the General Staff was defined by what is known as the Harbord Board and was published to the Army on October 17, 1921, copy of which you undoubtedly have. This study goes into sufficient detail to make clear the relationship and it is unnecessary for me to attempt to enlarge upon it. However, I would like to invite your attention to the address of the Chief of Staff before the War College on the subject of the duties of the Chief of Staff of the Army, delivered June 17, 1927, in which he describes clearly and definitely his conception of the relationship that does exist:

"It has appeared to me since entering upon the duties of the Chief of Staff that the delimitations of functions under the supervision of the Assistant Secretary of War for procurement and those of the Chief of Staff with respect to purely military matters are not so well understood as are the delimitations between the functions of the lower administrative echelons. The division of responsibilities is in reality quite simple, the Chief of Staff presenting to the Assistant Secretary of War a statement of military requirements, with appropriate priorities, which the Assistant Secretary of War through the agencies under his supervision in this respect satisfies; or the Chief of Staff informs the Assistant Secretary of War that an installation or certain commodities are no longer

necessary for military purposes, in which it devolves upon the Assistant Secretary of War to dispose of such installations or commodities. These delimitations appear in Orders "J" of the Secretary of War, dated December 11, 1926, with which all officers joining for duty with the General Staff should be thoroughly familiar."

#### Organization of G-4.

G-4 is organized into six branches, as follows: Finance, Equipment, Construction, Supply, Transportation and Planning. The names of these branches indicate, in a general way, the duties assigned to them. In addition, there is an Aviation Section to which is referred all questions pertaining peculiarly to that Branch. These branches are not independent of each other. Most questions referred to this Division affect more than one of these branches. The rule is to assign a subject to the branch primarily concerned with the question under consideration. Other interested branches are always consulted in the preparation of the action recommended. Many questions under consideration in the Division also affect other Divisions of the General Staff or the Office of the Assistant Secretary of War. In such cases the proposed action is always referred to the Division or Office concerned for comment or concurrence. In case there is a conflict of opinion which cannot be reconciled, the matter is referred to the Deputy Chief of Staff, the Chief of Staff, the Secretary of War or the War Council for decision.

Finance Branch - This branch is charged with the preparation of all plans and policies relating to financial questions (Budget).

Equipment Branch - This branch is charged with the preparation of plans and policies and supervises activities concerning types and quantities of supplies and equipment furnished the Army, and has supervision of performance specifications by the branches for types of equipment.

Construction Branch - This branch prepares policies and supervises activities relating to construction, repair, maintenance and improvements of buildings (including utilities pertaining thereto), used for shelter of troops and storage and issue of supplies. It is also charged with policies connected with the leasing of War Department facilities and lands and the issuing of revokable licenses, permits, etc. It also recommends priorities for repairs, improvements and new construction.

30

Transportation Branch - is charged with preparing plans and policies concerning transportation by land and water of personnel and supplies. It supervises and coordinates the activities of the different branches to insure the most efficient and economical use of water, rail, motor and animal transportation.

Supply Branch - This branch has to do, primarily, with the preparation of plans and policies and the supervision of activities concerning the distribution, storage and issue of supplies, declaration of surplus, and matters relating to auditing and property accountability.

Planning Branch - Supply Division, is charged, in general, with those duties of the Supply Division which relate to the preparation of plans for mobilization, including the supervision of the supply features of all plans pertaining thereto, the preparation of which are the duties of other agencies of the War Department, Corps Areas and Departments.

#### General and Specific Duties of G-4.

The general duties of G-4 are set forth in Army Regulations 10-15, as follows:

Supply Division, general duties -

(a) the Supply Division is charged, in general, with those duties of the War Department General Staff which relate to the supply of the Army.

(b) The Supply Division is specifically charged with the duty of preparing basic supply plans in such detail as will enable the several supply branches of the Army to prepare detailed plans for the accomplishment of their several missions and with the adjustment of such basic plans to meet the changing military needs and the limitations of appropriations or procurement possibilities.

In the development of the detailed plans the branches will request decisions on military questions from the Supply Division, General Staff, and decisions on business or industrial questions from the Assistant Secretary of War (See paragraph 11b, A.R. 10-15). In order to insure coordination where military and industrial questions are involved in the procurement and production of military supplies, all communications involving such questions forwarded by Chiefs of the supply branches to the Adjutant General for the action of the Secretary of War will indicate clearly that so much thereof

as pertains to the duties of or are under the supervision of the Assistant Secretary of War has been authoritatively acted upon by him.

(c) The Supply Division is also charged with the preparation of plans and policies and the supervision of activities concerning:

- (1) Distribution, storage and issue of supplies.
- (2) Transportation by land and water, including ports of embarkation and their necessary auxiliaries.
- (3) Traffic control (the police of roads and routes to be ordered by G-3 on plans formulated by G-4).
- (4) Tables of Equipment, the quantities and types of military supplies required for the use of the Army and essential to the military program, time and priorities of delivery pertaining thereto, types and priorities to be determined in agreement with G-3 and in the case of major items in consultation also with War Plans Division; Tables of Equipment to be in agreement with G-3 insofar as concerns allotment and distribution of major items.
- (5) Inventions.
- (6) Leasing of War Department facilities and issuing of revocable licenses.
- (7) Hospitalization and evacuation of men and animals, including such agencies or parts of agencies as may be wholly devoted to hospitals and medical relief work.
- (8) Distribution and movement of supply, technical and labor troops not employed as combat troops (orders for movements to be issued by G-3 on request).
- (9) Property responsibility and accountability.

~~(c)~~ The Supply Division is further charged, in coordination with other divisions of the War Department General Staff, with the determination and statement of plans and policies governing the preparation of estimates for funds for military purposes and priorities pertaining thereto, and, when necessary, with the restatement of such priorities to govern the expenditure of all funds appropriated.

3/

(e) The Supply Division is also charged with the formulation of policies and projects governing:

- (1) The procurement of real estate in connection with the training, shelter, and housing of troops, and with the storage, distribution, and issue of supplies.
- (2) The procurement (not involving the procurement of real estate), construction, maintenance, repair and disposition of buildings and all utilities connected therewith (except insofar as relates solely to procurement).

#### Duties of the Equipment and Planning Branches.

The duties of the Equipment and Planning Branches and the relationship between them and the Mobilization Plan are as follows:

##### Equipment Branch.

This Branch is charged with the preparation of plans and policies and the supervision of activities concerning the types of supplies required for the use of the Army, the basic allowances of each article or item, and the equipment and supply tables for all organizations. Types of equipment and tables of allowances are determined in agreement with G-3 and, in the case of major items, also in consultation with the War Plans Division. Policies pertaining to the handling of inventions are a part of the responsibilities of this Branch.

Tables of equipment which pertain to one branch only are prepared by the chief of that branch; all others are prepared by the Equipment Branch. These tables show for the organization the total equipment and its distribution and are approved only after they have been checked in the Equipment Branch to see that each article has been

- (a) Tested and found suitable for the Army;
- (b) Agreed to by the using branches;
- (c) Shown to be procurable in necessary quantities in time of war;
- (d) Agreed to by the procuring branches; and found to be
- (e) In accordance with authorized Tables of Basic Allowances.

One of the most important features in connection with the development of new or improved military equipment is the establishment of a clear-cut statement of military requirements which the item in question must meet before it can be considered as suitable. A great deal of time and money has been wasted in the past through development proceeding along improper lines. Much greater progress would have been made if there had been kept as a goal a statement of the desired performance and limitation of the item.

The formulation and approval of a statement of military requirements are innovations in our service, but it is believed that they are sound in principle and meet a long standing need. Many senior officers can remember when the design and development of equipment were kept almost entirely in the hands of the supply branches and in many instances the using branches were furnished equipment which did not meet their needs. The condition has gradually changed so that in recent years design and development have proceeded in most cases through cooperation between the supply branches concerned, and the most interested using branch. This policy is still being followed in minor cases but for important items it has been felt that the prospect of a satisfactory solution will be furthered by a more general discussion, in advance, of the lines along which development should proceed.

Military requirements may be formulated on the initiative of the War Department General Staff (usually G-4 with G-3 concurrence), a using branch, a supply branch, or an individual. They may originate without any definite idea as to how they will be met or they may result from a realization that some specific invention may be utilized to advantage by the Army. Before any important research or development work is pursued it is highly desirable that the military requirements be determined and approved, so that the ultimate objective will influence all stages of investigation and design. This will tend to prevent the diversion of effort and funds along extraneous lines and should expedite the work. In some cases it will be found desirable to conduct a certain amount of research and development work with no definite statement of military requirements for the purpose of securing data upon which reasonable military requirements may be based. Chiefs of supply branches, however, attempt to keep such work restricted to the greatest possible extent.

Chiefs of supply branches may approve military requirements in minor cases, but such action should always be taken with the concurrence of the most interested using branches. In cases of important items a chief of a supply branch, after coordination with interested branches, will forward

32

his recommendation thereon to the Adjutant General. In this coordination an attempt is made to reconcile conflicting requirements of different using branches so as to reduce the variety of required types to a minimum. Research and development work are functions of the supply branches, although the cooperation of the using branches is essential. Ideas originating in using branches should be brought to the attention of the interested supply branches in order to avoid duplication of effort and to assure that no useful idea has missed consideration.

It is not the policy to limit the research and development work of the supply branches exclusively to items for which the military requirements have been formulated and approved, but it is important that supply branches should limit their activities in such work to such matters as have been assigned to them. Supervision is essential to avoid waste of funds on unworthy or unpromising projects.

In the development of any item a supply branch investigates such work as has been performed along closely similar lines by other supply branches, by other departments of the government, and by other agencies with a view to directing effort along the most productive lines and diverting it from lines having little promise. Analogous development work in foreign armies is followed through the Military Intelligence Division.

After the military requirements for an item have been determined it devolves upon the chief of the supply branch charged with the development of the item to prepare a development program, the nature of which will vary greatly, depending upon whether the item is purely military, purely commercial, or an adaptation of a commercial item to military use. If peculiarly military, the item will be subjected to such tests under the supervision of the chief of supply branch as he may consider desirable before submission to a using branch. These tests will frequently develop the necessity of certain changes in design, or even in the military requirements, before the item is ready to be submitted to the using branches. It has frequently happened that using branches have submitted military requirements which cannot possibly be met in the present stage of advancement of the manufacturing arts, such as high speed, great armor protection and light weight for a tank.

If the item is an adoption of an adaptation of a commercial article, it is frequently desirable to select several samples with a view to conducting a competitive test. No item is recommended for adoption as to type or approval as standard until after it has been favorably reported upon by a

using branch. To provide an opportunity for such a report, experimental items are usually sent to one or more of the using branch boards for test under a program prepared by or under the supervision of the chief of the using branch concerned.

#### Planning Branch.

Preparation of the G-4 Appendices to War Department Mobilization plans and all matters concerning supply, hospitalization and evacuation connected therewith and involved in the preparation, revision or modification thereof.

Supervision of the preparation of the annexes to the War Department Mobilization Plans of the several supply branches and so much of the plans of all other War Department agencies involved in mobilization as affect questions of supply, hospitalization and evacuation.

Maintenance of contact with the Office of the Assistant Secretary of War as to procurement requirements and procurement possibilities.

Studies of rates of expenditures in ammunition, materiel and equipment in combat and war time training to be assumed for computing war production and reserve requirements.

Preparation and collection of statistical data pertaining to the establishment, maintenance and replenishment of war reserve supplies.

In consultation with other agencies concerned, the determination of essential items of war reserves and the preparation of studies affecting increases or deductions therein or quantities thereof.

In consultation with the Finance Branch, the determination of the financial policy of the War Department as affecting the protection and maintenance of war reserves to be recommended for the inclusion in the Annual Program of the War Department.

It will be seen from the above that it is the Equipment and Planning Branches of the Supply Division that are primarily concerned with the formulation of the supply provisions of the War Department General Mobilization Plan.

First, the character and types of supplies and equipment must be determined. Before this can be done, definite determination must be had of the characteristics of the various types of equipment desired by the using Arms or Branch.

Sample, or pilots, must be manufactured and technical tests made by the branch charged with the procurement or manufacture. Then this equipment must be tested out by the Arm or Branch to whom it is to be ultimately supplied. If it is used by more than one combat Arm or Branch agreement must be reached between the two branches in case of differences of opinion as to the requirements and to its characteristics. After this has been determined upon, it must be cleared for procurement to the Office of the Assistant Secretary of War, i.e., it must be determined whether or not the item or article in question can be procured in necessary quantities in time of war. This involves certain investigations in the Office of the Assistant Secretary of War. When all of the above has been finally determined upon and settled and it has been approved by the Secretary of War and adopted as an article of standard equipment for the Army, it then becomes available for incorporation in the procurement plans of the Assistant Secretary.

Second, the allowances of each type of equipment are then determined for all organizations of the Army. These steps are all handled by the Equipment Branch.

The Planning Branch considers only articles adopted as standard, except insofar as it may be necessary to consider substitutes until such time as the article can be obtained in sufficient quantities for issue to troops upon mobilization in accordance with allowances and equipment tables.

The Planning Branch is concerned solely with supplies and articles of equipment that have been adopted for issue to the Services for the armament and equipment of all organizations. In the preparation of the supply provisions of the General Mobilization Plan, therefore, it makes no investigation into whether or not the article is suitable or unsuitable for issue, but accepts as final the determination made as a result of studies thereon under the supervision of the Equipment Branch, as approved by the Secretary of War.

The Planning Branch is concerned with the accumulation of statistical data upon which it can base its conclusions as to whether or not supplies or equipment are available or can be made available to meet the requirements of the General Mobilization Plan or the supporting mobilization plan for a specific war plan within the time and in the quantities required. To accomplish this it is essential, of course, that it maintain close contact with the Offices of the chiefs of branches concerned in supply and the Office

of the Assistant Secretary of War. It does this by personal contact and, where possible, by direct communication. When, as a result of its studies, it is apparent that in case of mobilization it will be necessary to supply the Army with an obsolete article of equipment and no definite determination has yet been made as to what the new equipment will be that is to be issued in its place, it is obviously the duty of the Planning Branch to bring this matter to the attention of the chief of the Division, with a full statement of the facts as to what the result of the lack of proper equipment will be and its bearing on the mobilization plan, with a definite recommendation as to what, in the opinion of the Planning Branch, should be done to relieve the condition presented.

For example, the Quartermaster General reported that upon mobilization he would issue a Field Range #1 as a substitute for the required rolling kitchen, stating that he had a sufficient quantity of the ranges on hand to meet the requirements of the Mobilization Plan up to and including M plus 60 days. The Field Range #1 is obsolete and it is absolutely impossible to expect to feed troops under modern marching conditions with a cooking device that has to be carried on a wagon, unloaded each time and a hole dug for a fire before the meal can be prepared. It must be a vehicular contrivance that can be concealed from air observers. To be such as to meet these conditions it must be capable of sub-division into as many parts as possible - to remove the traction power, divide the part that carries the food from the cooking operation, etc. A report made by the office of the Quartermaster General to the Assistant Chief of Staff, G-4, in the form of a study, was forwarded to the Chief of Staff with a request for a definite decision as to type of cooking device to be adapted for the Army. It was finally recommended that a limber type vehicle be approved and the Quartermaster General was charged with preparing plans for and manufacturing the necessary vehicles for tests.

#### Data Required for General Mobilization Plans.

What information is required by G-4 in order to enable that Division to prepare to furnish the Assistant Secretary of War with the information he must have? We must have from G-3 a statement of what troops they are going to mobilize; how they are to be organized; how long they are to be trained; when they are going to be moved to the Theater of Operations; are they to go on an offensive mission, requiring an overseas expedition, or are they to execute a defensive or covering mission? We have to know all that. We obtained from G-3 all the information except that. We felt that we were unable to proceed with the work G-4 had to do in preparing an intelligent

34

directive for the supply branches, and we had to convince G-3 of the fact that it is one thing to mobilize men and equip them and that it was quite another thing to maintain them after mobilization.

We had to know how fast men were going to be sent to the Theater of Operations and mobilized in the Zone of the Interior, and what they were going to do when they got to the Theater of Operations because the decision as to the kind and quantity of material that was to be produced was dependent entirely upon the maintenance rate of the troops in the Theater of Operations. We did obtain this information from G-5, however, at a later date.

You would be surprised if you knew the number of officers of experience that argue that it is possible to send troops into the field on a combat mission without the necessary supporting troops to maintain them on that mission. You will run across that argument all the time.

Take a condition of war that may face us at this moment, one which will require the forwarding of troops to meet a particular threat; we will have to get along as best we can to maintain those troops in action against that threat. It has been the contention of G-4 continually, under our conception of a Mobilization Plan, that that threat must be determined before you can intelligently prepare a plan. You must prepare an estimate of the situation and from that estimate draw as definite and positive conclusions as you can as to what is required to meet the threat that we would most probably have to meet. This thought was concurred in by all branches of the General Staff and the Office of the Assistant Secretary of War, but it was not entirely satisfactory to G-4 so the War Plans Division was asked to make an estimate of the threat - to estimate what we were mobilizing for. Mobilization is a means to the end but not the end itself.

As prepared by the War Plans Division, the Plan created a necessary maneuvering force of twelve divisions, the remaining fifteen of the twenty-seven being employed in covering missions in various strategical parts of the United States, the Northeastern and along the Great Lakes, the Northwestern and around Puget Sound, and the Mexican Border. Having secured that information, G-4 needed to know two other things. It had to know the replacement rate in personnel and determining hospitalization requirement of the plan; it also had to know the animal replacement rate and the veterinary hospitalization requirements. These studies having been made and approved, G-4 was ready to prepare the necessary directive for the supply branches. The studies that I have just referred

to were begun in February and not completed until May. An immense amount of work was involved before we felt that we could give the necessary information to the supply branches. We did not send any information to the branches regarding even the first four periods of mobilization until the thirtieth of August.

In furnishing that information we also had to follow the G-3 directive that the mobilization would be carried on by 15-day periods, i. e., mobilization and movement to the Theater of Operations. Of course we question in no way the information we receive from G-3. We took the units they created in the periods they were created, but we arranged the information we received in 15-day period sheets for the branches. These sheets showed the units mobilized within the period, the Tables of Organization that pertains to the unit and the strength in officers and men, the officers including nurses and the enlisted men including warrant officers. We then showed the units within the Theater of Operations for the period under consideration, also those in the Zone of Interior in process of mobilization and training, the total of officers and men for both. All the information was cumulative, that is to say the troops mobilized within M plus 30 days to M plus 45 days, including all the troops mobilized to that date, plus the troops brought into the Zone of the Interior for training and then forwarded to the Theater of Operations.

The data that we are now receiving from the supply branches gives us the information in 15-day periods as to their estimate of requirements necessary to the mobilization by those periods.

Before this information could be obtained, however, we had to do two things. We had to decide what items were necessary and essential for the equipment of these troops. In determining what an essential item was, we defined it as an item necessary to combat efficiency and one which could not be obtained from commercial sources within the time limit. Having determined upon those essential items, we next had to determine the maintenance rate in the Theater of Operations and the Zone of the Interior. Each supply branch made its study upon those subjects and the studies were approved by the Secretary of War. That gave them all the information necessary to start their work. The work is proceeding as rapidly as can be expected.

The Chief of Staff, when he considered that plan and approved it, looked upon it as an ideal plan - that is to say it contemplates the mobilization over a period of time that will permit us to move trained troops into the Theater of Operations. It contemplates that a division will undergo

35

training for five months before it is moved into the Theater of Operations. However, he feels that is not all we have to know or all we must do.

The Chief of Staff believes that the conditions of the moment are going to determine how long we will be able to train troops before we can send them into battle and, therefore, we must know not only whether or not we can meet the mobilization as laid down but whether or not we can send troops to the Theater of Operations quicker than we have outlined in the Plan. We have never sent trained troops against the enemy in any of our wars and never fully equipped troops.

The Chief of Staff has charged G-4 with having data in such shape that we can tell him not only what the shortages will be on M plus 30, 45 or 60 days, etc., but what the excess will be so if we have planned to send in six or nine divisions into the Theater of Operations during any particular period, we can tell him to what extent a larger force can be equipped if necessary. He wants to know just what those additional troops will be short in the way of equipment. The condition of the moment may demand such action and we will have to be prepared to send troops equipped not with what we think they should have but with what they can actually function until we can furnish them with their full equipment.

We have asked the supply branches to send us not simply a statement that they can meet the requirements of a particular period but also information of what production is possible, this information on production to be approved by the Assistant Secretary of War. If there is any question that the Chief of Staff may ask about those figures, the Chief of branch must defend them. The work is progressing very satisfactorily but not as fast as we would like to see it because it is desired that it be done by the time Congress meets so it can be ready for presentation to the Military Affairs Committees of Congress if necessary.

War Reserve Policy of the War Department for a Reserve of 2 Field Armies or 1 Million Men and Troop Basis for that Reserve Showing relationships to the U.S. N. P.

Intimately connected with this question of mobilization are two other things - the War Reserves and the Ten Year Ordnance Program. The one thing that is showing up now and will always show up as a limiting factor in mobilization is

going to be what the Ordnance Department can do. We can get substitutes for many things that the Quartermaster Corps is required to furnish; we can get substitutes for many things the Engineers and the Signal Corps are required to furnish, but we cannot get substitutes for Ordnance materiel. I will touch on the Ten Year Ordnance Program a little later.

In connection with War Reserves, the Appropriation Acts for the Fiscal Years 1924, 1925, 1926, 1927 and 1928 contain a proviso, as follows:

"Under authorization contained in this Act no issue of reserve supplies or equipment shall be made where such issues would impair the reserve held by the War Department for 2 field armies or 1 million men".

The proviso above quoted is the present legal basis for the War Reserves in Continental United States and the same proviso appears in the bill being considered for the Fiscal Year 1929. Congress has left to the War Department the following details of policy under the Act in question:

- First: The designation of items necessary to retain in a war reserve; these are referred to as essential items, that is items which are essential to the combat efficiency of troops and unobtainable from civil stocks or production within the time and the quantity required;
- Second: Statement of the troops properly balanced in all the necessary echelons that would constitute 2 field armies or 1 million men;
- Third: Tables of Organization and Equipment for the organizations and units included within the statement of troops just mentioned and under which these troops have an allowance of personnel and materiel for their initial organization;
- Fourth: The maintenance basis (expenditure or consumption rate) for the essential items allowed these troops under the Tables referred to. This maintenance basis, of course, must include the time during which the troops are to remain in the Zone of the Interior under

36

Fourth: Cont'd.

training and the time during which their material is subject to the expenditure rate of battle in the Theater of Operations. This maintenance rate must also cover the requirements of distribution.

All of the above details of policy have been determined upon and approved by the Secretary of War. The designation of essential items has been determined upon; approved Tables of Organization and Equipment are available; Maintenance Rates for both the Theater of Operations and the Zone of the Interior for all the essential items have been determined upon and approved, and the Table of Troops which will constitute 2 Field Armies or 1 million men, under the terms of the law, has been determined upon and approved, and have been furnished all supply branches. These branches are now engaged in computing the amount of each item that should constitute its reserve.

When Congress included the authorization quoted above in the Appropriation Act of 1924, it was with the understanding that all equipment and supplies in the hands of troops could be considered and computed as part of this authorized war reserve; consequently in determining upon the Table of Troops which was to form the basis for the computation of war reserves it was necessary that all the troops of the Regular Army and National Guard, active and inactive, and their ultimate organizations into larger units be considered. Eighteen divisions are the number required for 2 Field Armies, but there are in being, wholly or in part, nine divisions of the Regular Army and eighteen divisions of the National Guard, a total of twenty-seven divisions which fill the requirements of 3 Field Armies. The Table of Troops therefore is premised upon the following:

First: Congress has authorized a reserve for 2 Field Armies or 1 million men and therefore the War Department, in view of its commitment to Congress to take into consideration the supplies in the hands of troops in the computation of the reserve in question, must determine the reserve on the basis of 1 million men, limiting only the Army troops and Army Headquarters troops to the requirements of 2 Field Armies.

the actual combat elements included and the troops required in their support.

Third: Troops of all combat units of the Regular Army and National Guard that are actually in existence, whether active or inactive, must be considered. Other troops, combat and noncombatant, irrespective of component, in reasonable numbers as required early in the support of existing combatant elements must also be included. Specifically the Corps Troops should be in support of the 27 Infantry Divisions of the Regular Army and National Guard, while the Army troops and the G.H.Q. troops are furnished only on a 2 Field Army proportion. The 2 Field Army basis with minor exceptions to be applicable also to the Communications Zone and Zone of Interior.

The troop basis for war reserves as evolved under the principles enumerated above, therefore, involves a total of 999,404 men and involves 27 Infantry Divisions; 9 Corps headquarters with corps troops for 9 corps; 2 Army Headquarters with Army troops for 2 Armies; and troops for 1 General Headquarters and the G.H.Q. Reserve, with the necessary supporting troops for the Communication Zone and Zone of Interior to maintain them.

Method of Computation for the determination of the Requirements in War Reserves for 2 Field Armies or 1 Million men.

In the determination of the requirements of the War Reserve requirements for each essential item which should be held in storage within the continental United States it has been directed that the following method of computation be employed:

Requirements will be considered as cumulative, month by month and will include the initial and maintenance allowance for new troops and the maintenance for troops previously mobilized plus any overhead allowance already authorized or considered necessary to insure issues.

Production will be considered as cumulative, month by month, and will be the material which must be actually available when needed (i.e., in storage) and is not the quantity which a factory can turn out at its plant (30 days will be used as the time limit to cover movement from plant to storage).

The requirements for the War Reserve of a given item will be the figures representing the maximum deficit reached when cumulative requirements, month by month, are compared with cumulative production, month by month, both from 1st day to the day when this maximum deficit occurs.

For example:

	<u>Cumulative</u> <u>Requirements</u>	<u>Cumulative</u> <u>Production</u>	<u>Deficit</u>
M Day	5,000	0	5,000
M plus 1	15,000	500	14,500
M plus 2	25,000	2,000	23,000
M plus 3	28,000	4,000	24,000
M plus 4	33,000	6,000	27,000
M plus 5	61,000	14,000	47,000
M plus 6	87,000	38,000	49,000 **
M plus 7	109,000	70,000	39,000
M plus 8	140,000	110,000	30,000
etc	etc	etc	etc

(\*\* - 49,000 the reserve level to be maintained).

In addition to directing that the method of computation for determining the reserve as quoted above be followed, the Secretary of War further directed that each supply branch furnish information as to production data on each item in which a shortage existed, as approved by the Assistant Secretary of War.

Unless the troop basis is changed the requirements will not have to be worked out again. Each year we will have to obtain from the branches a new statement as to what the reserve should be, because unless Congress appropriates money to raise the level of that reserve, unless it appropriates money to maintain the reserve sufficiently, the availability of items each year will be less and consequently the reserve will have to be increased. If Congress ever actually appropriates money at which level of this reserve can be brought up somewhere near the requirements the situation is going to be difficult to handle just the same. As long as we have to consider the supplies in the hands of troops, current appropriations also will have their effect.

#### Ten Year Ordnance Program.

I will now touch on the Ten Year Ordnance Program. I think it is the most important piece of work, the most important subject for the consideration of the War Department as a whole, that we have today.

That program involves the expenditure of little over twenty-one millions of dollars for the purpose of producing a limited number of weapons of new types developed since the World War to get a few units equipped so as to familiarize the troops with the new arms, determine their power and limitations, prepare the training documents necessary, etc. However, the main object of the program is to manufacture a few jigs, gauges, dies, etc., that may be placed in reserve or held by the Ordnance Department in order that when an emergency arises we can go into production of the new weapons rather than the ones with which we came out of the last war. We will also be able to procure production of the new weapons at a much faster rate.

When we consider that those new weapons are to take the place of those really obsolete or dangerous ones of years gone by, we can realize the importance of the program. When we talk about mobilizing men and equipment necessary therefor, we talk about equipping the men thus mobilized with the supplies and equipment that are on hand from the World War because we cannot get enough money with which to prepare for the manufacture of a more efficient type of weapon. I think that is one thing the General Staff and the Office of the Assistant Secretary of War should constantly study with a view to its accomplishment. If we do not do anything else we should at least accomplish that.

#### Preparation of Specific War Plans.

I have been asked to refer to what the G-4 functions are with reference to Specific War Plans.

The initial directive for the preparation of a war plan goes to the War Plans Division either from the Chief of Staff or from the Joint Board of which the Chief of Staff is a senior member. Though practically all of our plans are joint plans, each Department in the first instance normally prepares a tentative strategical plan of its own after informal conference with each other. The War Plans Division having obtained from G-2 estimates of the enemy situation and from the other Divisions of the General Staff estimates of availability of our own forces, and through its representation on the Joint Planning Committee an outline of the probable Navy plan, prepares a tentative Army strategical plan which is submitted to the other Divisions of the General Staff for their views.

It is then submitted to the Chief of Staff for approval and, if necessary, referred to the Joint Board. If referred to the Joint Board it is again referred by that Board to the Joint Planning Committee for consideration and for the preparation of the draft of a joint plan which will set forth

30

the main decisions, allot appropriate tasks for each service and specify the method to be followed to insure their coordination. When a joint plan has been prepared which is acceptable to the Joint Board and has been approved by the Secretary of War and the Secretary of the Navy, it becomes the Basic Plan for both services. The War Plans Division then drafts a final strategical Army plan in consultation with the other Divisions of the General Staff and in conformity with the Basic Plan.

This plan, when approved by the Secretary of War, is furnished to the Navy Department and to the other divisions of the General Staff for the preparation of what is called the necessary supporting mobilization plan, i.e., the preparation, as far as G-4 is concerned, of the necessary directive to the supply branches as to what steps must be taken to meet the requirements laid down by the strategical plan, such as tonnage requirements, both by rail and water, character and strength of troops to be employed, supply requirements for movement with the troops and subsequent movements to supply points within the contemplated Theater of Operations, the methods and rates of supply between the Zone of the Interior and the Theater of Operations, maintenance rates, special equipment necessary, if any, and any other supply information and instructions necessary for a complete understanding by them of the problem involved. The supply branches concerned prepare their plan based on this directive.

#### The Relationship of Mobilization to War Plan.

The War Department General Mobilization Plan, as now conceived, is designed to provide for the maximum attainable mobilization both in men and material, so it sets procurement objectives for all branches and services and for the Office of the Assistant Secretary of War. As now being revised, it will call for the immediate employment of all Regular Army and National Guard organizations, to be followed at the earliest practicable date by the Reserve Divisions. It is intended to cover the best we can do and to design the machinery for doing it. With this as a basis, the supporting mobilization plan and any particular strategical plan can be readily prepared.

I want to mention one thing that is necessary if we are going to get anywhere, as we must, in this work of cooperation and coordination between the industrial and military effort and its application to the Mobilization Plan. In the accomplishment of the duties devolving upon the Office of the Assistant Secretary of War and the General Staff in

meeting the responsibilities imposed upon each by law it is exceedingly important, the problems under those responsibilities are to be properly appreciated by one another, that each office clearly understand the functions and duties of the other.

In other words, there must be a meeting of minds between the personnel of the two branches. There must be community of interest for the accomplishment of a single purpose. There must be cooperation in its broadest sense. The General Staff, under the law, is charged with the preparation of plans for National Defense, the use of the military forces for that purpose, the mobilization of the manhood of the nation and its material resources, and to render professional aid and assistance to the Secretary of War and the Chief of Staff. It gives no direction, it performs no function unless it does so under the Authority of the Secretary of War. The Assistant Secretary of War, under the same direction, (i.e., the Secretary of War), is charged, among other duties, with the assurance of adequate provision for the mobilization of materiel and industrial organizations essential to war-time needs. The personnel of both offices must understand that there is no overlapping of the duties of the two, but a definite and well defined responsibility for each that dovetail and fit closely together. In the performance of its duties pertaining to the mobilization of the manhood of the nation and its material resources, the General Staff, under the direction of the Secretary of War, sets forth the requirements in materiel which in its opinion must be available to insure the proper equipment and maintenance of the troops in war. The personnel of the office of the Assistant Secretary of War, under the same direction, must assure that the necessary steps are taken for the mobilization of this materiel, and of the industrial organizations necessary to produce it in the quantity desired. The duties of neither can be efficiently performed without the closest personal contact and cooperation and without the clearest understanding. It is not enough for one to say this must be done and another to say it cannot be done. The Chief of Staff, in his address to your College, made the following statement:

"It is not sufficient to say that our efforts must be limited to a given production capacity at any time. Rather the proportion must be adopted that our production capacity must be responsive to our needs. We must create a production capacity that will meet our

needs. If this seems impossible, I must repeat that war is a transformation of the impossible into the possible by the side which succeeds. The side that can't do that will not succeed."

Let me further add that quibbling over minutae of detail is indicative of failure to grasp the spirit.