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THE POSITION OF THE SPECIFIC PROCUREMENT PLAN IN
PROCUREMENT PLANNING.

Lecture by

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PROCUREMENT PLANNING

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Purpose of this talk.

For some four months now we have been studying the general subject of Procurement Planning. We discussed in Problem No. 3 our experiences during the World War in the procuring of munitions and found out the general difficulties encountered during that period and the remedies applied. We also summed up at the end of that problem the steps that appear to be necessary in providing, in another national emergency, the assurance of industrial mobilization which is the statutory duty of the Assistant Secretary of War. In problems Nos. 4 to 8 inclusive we discussed the subject of the organization now existing for the solution of the problems developed in the preceding part of the course and some phases of the inter-relationship of the parts of this organization. In other words our work up to this time has been largely analytical. Our analysis of the general problem of war procurement is now fairly well completed however, and we have reached the point where we must begin to think constructively and build up a scheme or plan that will in an emergency assure the supply of the articles with which the War Department is charged. The purpose of this talk is to discuss in a very broad way this process of synthesis, or the building up of a plan, to show the inter-relationship of the various elements into which we have divided the subject and, in particular, to bring out the leading part which the Specific Procurement Plan plays in the general scheme of war procurement.

The Elements of War Procurement

Our previous studies have indicated quite definitely the main factors which must be taken into consideration in any general plan for procurement in war. We have found, to mention only a few of these factors, that requirements must be known, that specifications must be available, that certain production facilities must be assured to the man who will be responsible for obtaining the item, that supplies of raw materials, some of them imported, power, fuel, labor and transportation must be provided to the facilities, that priorities as between conflicting demands both within the War Department and in civil life must be decided, that conservation, price fixing and other economic control measures must be adopted and so on. Some of these factors are clearly within the control of chiefs of the Supply Branches, others, beyond Branch Chief control can be cared for by the Assistant Secretary of War, while still others that are nation-wide in their scope will require the action of higher agencies possible set up in time of emergency especially to take care of them. We will start at the bottom and try to discover how these factors are tied together to make a complete plan of War Procurement.

The Specific Procurement Plan.

Our Problem No. 6 on Integrated Industry gave us a start toward the solution. The problem as it was presented to the class made an analysis of a typical Specific Procurement Plan and showed that these plans, taken as a whole, form the real nucleus of the scheme of procurement and that the exercise of the functions of allocation, priority, conservation, price fixing, commodity control and so on are necessary, from a War Department standpoint,

only insofar as their exercise facilitates the obtaining of the individual items covered by the Specific Procurement Plans. We can say then that the Specific Procurement Plan integrates, or combines into a harmonious whole, all of those factors which are necessary to the procurement of the individual items charged to the various Supply Branches, and that, taking these Specific Procurement Plans as a whole, we have the center of the procurement scheme. We can go further and say that when workable Specific Procurement Plans have been prepared for all necessary requirements and the needed auxiliary or supporting plans have been drawn, the Assistant Secretary of War will have that "assurance" which the National Defense Act requires him to obtain.

History of Specific Procurement Plans.

When we look back to the origin of the Specific Procurement Plan we find, of course, that it had no counterpart during the World War. Everyone was so busily engaged in producing that there was no time to do more than day-to-day planning. It was not until G. O. P. 41 was agreed upon in 1921 that the duties of the Assistant Secretary of War became clearly defined and the effort of his office was directed along the lines which it is following at the present time. As a result of a study of the problem at that time by Colonel Ferguson and his assistants, there emerged a chart very similar to the condensed one which is placed on the board (Exhibit A, O. A. S. W. #426, Feb. 1928). You will at once recognize the similarity of this chart to the one prepared in connection with

the Problem No. 6 on Integrated Industry. The thought is the same in both, viz., to show the factors which enter into Industrial War Plans, and how these factors are interrelated and integrated by the Specific Procurement Plans. The thought at the time this chart was prepared was that all the supplies of each of the Supply Branches could be classified into say, 10 groups each. This classification could be in accordance with any arbitrary grouping desired by the Branch but would include somewhere within the 10 groups every finished article required by the Branch. As work has progressed, however, it has been found desirable to depart from this group idea to a considerable extent so that we now have Specific Procurement Plans for many individual items as well as for groups. The fact remains, however, that this scheme of war procurement as visualized about five years ago still furnishes the general directive on which we are working today.

If we were to express graphically the thought of the central importance of Specific Procurement Plans, it might take the form of a wheel (Exhibit B). The axle of this wheel might be labelled "War Load", the Specific Procurement Plans as the hub, the plans for facilities, raw materials, labor, transportation, power, price fixing and so on, as the supporting spokes and the war posers of the President as the rim making possible the operation of all the rest. Priority would appear as an extra or spare spoke to reinforce any of the others as required. I believe that if we will keep such a picture uppermost in our minds during our studies at the Army Industrial College we will get a clearer conception of the relative importance of the elements that we are studying in detail and avoid much confusion of thought in considering so complicated

a subject as Procurement Planning.

The Preparation of Specific Procurement Plans.

To coordinate the Supply Branches in the preparation of their Specific Procurement Plans and to assure that the Assistant Secretary of War will have available for his use the information needed to permit him to carry on his part of the work, several directives have been given to the Supply Branches. The most pertinent of these, perhaps, are the Check Lists for Specific Procurement Plans. In the original Check List, issued May 2, 1927, (Exhibit C) the minimum requirements for a satisfactory Specific Procurement Plan were given as the following

- (a) Computation of Requirements
- (b) The approved specification
- (c) Apportionment to Procurement Districts
- (d) Placing of accepted schedules of production in sufficient numbers to meet requirements.

In addition to these minimum requirements, a long list was given of additional points which would require consideration. This list still forms an excellent guide for anyone preparing Specific Procurement Plans but was found too elaborate to serve as a directive from the Office of the Assistant Secretary of War and has now been superseded by the new list (Exhibit D) found in Industrial Notes No. 13, which you will study in detail. You will note in going over this check list that, as far as the requirements laid down by the Assistant Secretary are concerned, the information asked for is only that needed by his office to carry on its functions. Of course, Branch Chiefs may insert in the plans any additional data they think necessary or desirable.

Review of Specific Procurement Plans by Office of Assistant Secretary of War

The question of the use made by the Office of the Assistant Secretary of War of the Specific Procurement Plans now being submitted is a most interesting one but one to which no very satisfactory answer is forthcoming at present. One obvious and most important function of these plans is to give the Assistant Secretary assurance that the item has been considered by the Branch and that, in the opinion of the Branch, the requirements will be met by the plan or at least that the difficulties which will prevent securing the item are clearly set forth so that further action can be taken. Obviously the more care and intelligence used in preparing the plan, the greater will be the assurance of its adequacy. An independent check in the Office of the Assistant Secretary of War as to adequacy has been found essential.

It seems obvious that if the Office of the Assistant Secretary of War should have available Specific Procurement Plans covering the bulk of the industrial war load contemplated for a major emergency, much valuable work could be done by that office, based on the information contained in these plans alone, toward coordinating the factors of allocation, priority, transportation, labor, power and so on for the war procurement program. But until plans have been received in such quantity as to represent an appreciable part of the war load, something less ambitious must be accepted or other means of acquiring the desired information must be employed. I will leave further discussion of these means to be brought out by later committees and to the committee on Specific Procurement Plans the subject of how these plans are now reviewed by the Office of the Assistant Secretary of War and the

extent to which they give the information needed by that office. In approaching these studies, however, it is necessary to have a clear understanding of the situation for us to keep in mind that the outline of duties of the various sections of the Office of the Assistant Secretary of War as given in the Unit Plan are ideals toward which to strive that it is impossible, in the present state of progress, for these sections to carry out the full duties laid down for them in the Unit Plan and the Basic Plan.

Take "Allocation" as an example. The Unit Plan, Office Assistant Secretary of War gives as the mission of the section "eliminating inter-bureau competition, decentralizing the load geographically, strategically and equitably, preventing the overloading of facilities or localities, gaining an early start on production, preventing congestion in critical raw materials and finished products and establishing a flexible system of planning ahead to avoid the evil aftermath of war." Your studies on this subject have shown you that this section is not now performing all these functions and cannot do so until Branch plans have progressed to the point of furnishing the basic information needed. Much the same comment might be made as regards the other sections of the office. In brief, the process of procurement planning up to the present time has been to concentrate on the preparation of Specific Procurement Plans in the Supply Branches and to develop the supporting plans as rapidly as the Branch studies have furnished the required data. At present we are concentrating our efforts on the hub of our wheel and are gradually extending them outward along the spokes. When all of the supporting plans have been prepared and have a solid foundation of authority, the wheel will

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be complete.

Preparation of Specific Procurement Plans.

Many questions arise in the Supply Branches in regard to the details of preparing Specific Procurement Plans which the committee now studying the subject will no doubt discuss. For example, what items require a Specific Procurement Plan and for what ones if any, is a plan unnecessary? What should be the scope of the plan? What difficulties have the Supply Branches experienced in submitting Specific Procurement Plans as desired by the Office of the Assistant Secretary of War? What part do the Procurement Districts play in the work? And so on. These questions are only mentioned at this time, leaving it to the Committee to discuss them fully in its report.

Summary

The thought brought out by this talk may be summarized as follows

The Specific Procurement Plan is the backbone of the procurement scheme.

The emphasis in procurement planning has very properly been placed upon the completion of these plans in the Supply Branches as rapidly as practicable. Any action taken that would interfere with this work would be detrimental to procurement planning.

The preparation of raw material plans by designated Supply Branches probably is the next logical step in procurement planning, followed, as rapidly as the required information becomes available, by plans for power, labor, transportation, price fixing, priority, conservation and so on, to include the establishment of such super-

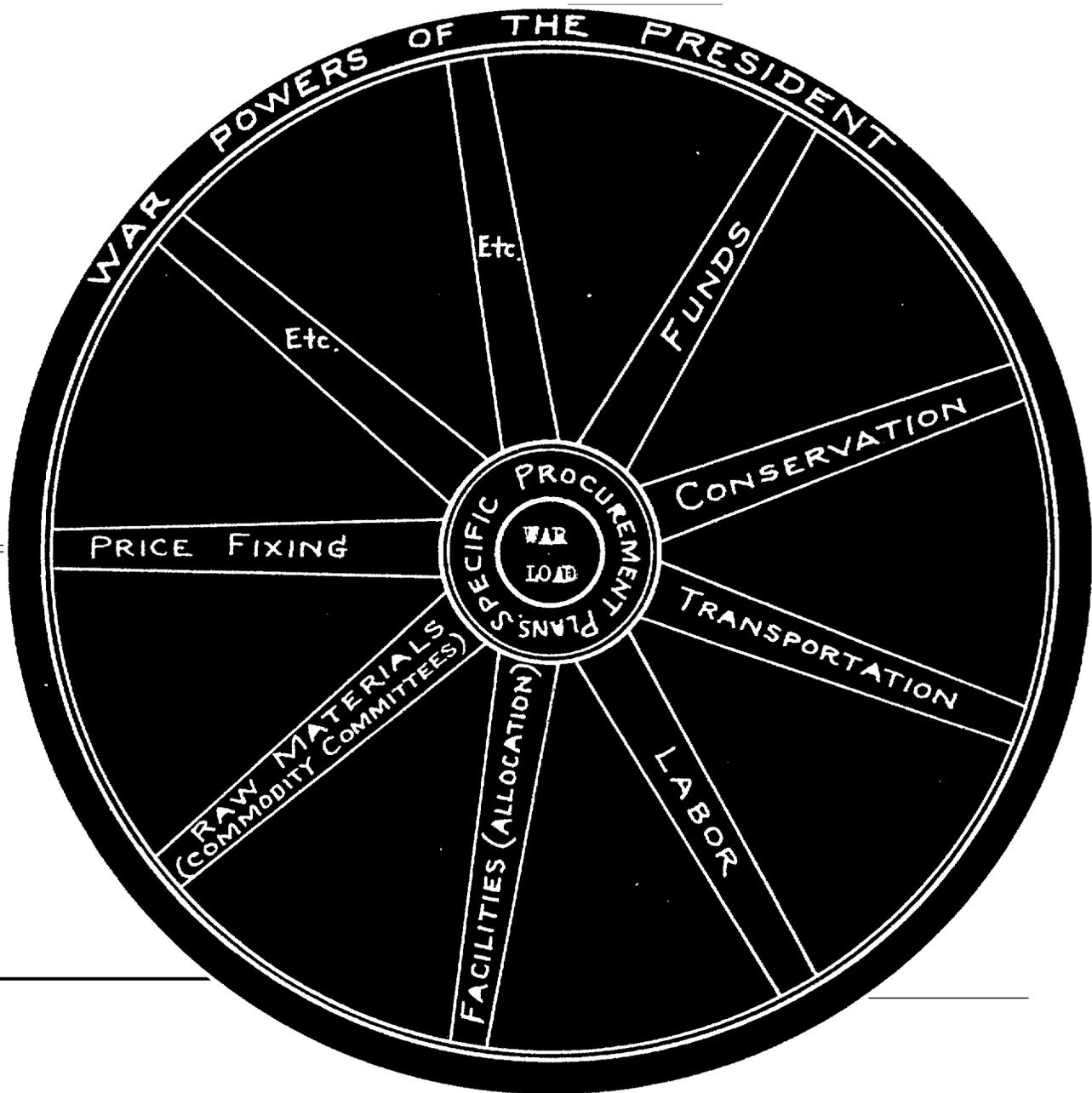
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agencies as may be necessary to make the Specific Procurement Plans effective. It will be understood, of course, that many of these processes can be carried on concurrently in an effective manner provided the necessary coordination is enforced to assure that each plan considers all the factors involved. Otherwise the work must be done over when full data becomes available. (See also Maj. Kelton's talk, January 26, 1928 - A.I.C. files)

CHART TO SHOW A GENERAL SCHEME OF INDUSTRIAL WAR PLANS

ELEMENTS INVOLVED IN PROBLEM AND RESOURCES	QUARTERMASTER CORPS											ORDNANCE DEPT	AIR CORPS	CORPS OF ENGINEERS	MEDICAL DEPT	SIGNAL CORPS	CHEMICAL V S	ASST SEC OF WAR.	NAVY DEPT	OTHER GOVERNMENT DEPTS	CIVILIAN NEEDS	PLANS FOR FEDERAL CONTROL OF INDUSTRY	PLANS FOR PRIVATE CONTROL OF INDUSTRY	
	AIM.	SPECIAL PLANS	GROUP PROCUREMENT PLANS																					
			I	II	III	IV	V	VI	VII	VIII	IX													X
I PERSONNEL																								
II SPECIFICATIONS																								
III REQUIREMENTS																								
IV RAW MATERIALS																								
1 DOMESTIC																								
Ore																								
Wheat																								
Petroleum etc.																								
2 FOREIGN																								
Maniocose																								
Tin																								
Rubber etc																								
Sisal																								
Shellac																								
Wool etc.																								
V MANUFACTURES																								
1. Food and kindred products.																								
2. Textiles and their products.																								
3. Iron and Steel.																								
4. Lumber and allied products.																								
5. Leather and its manufactures.																								
6. Rubber products.																								
7. Paper and Printing.																								
8. Chemicals.																								
9. Stone, clay and glass products.																								
10. Metal and Metal Products, ex- cept Iron and Steel																								
11. Tobacco manufactures																								
Electric Machinery																								
12. Machinery																								
Machine Tools.																								
13. Medical Instruments.																								
14. Transportation Equipment.																								
15. Railroad Repair Shops.																								
16. Miscellaneous Industries.																								
Optical Goods.																								
Photographic Materials.																								
Etc.																								
VI TRANSPORTATION																								
VII POWER																								
VIII LABOR																								
IX FACILITIES, NEW																								
X FACTORY PLANS																								
XI ALLOCATION																								
XII PRIORITY																								
XIII STORAGE																								
XIV FUNDS																								

Exhibit A



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"PRIORITY"

May 2, 1927.

CHECK LIST

SPECIFIC PROCUREMENT PLAN FOR FINISHED ARTICLES

1. The fact is recognized that it will be impossible to provide a yard stick suitable for application to all specific procurement plans, but the following check list is furnished as a guide, and it is believed contains the essentials of a specific procurement plan. In the preparation of specific procurement plans there is considerable difference in the details required for those for commercial or non-military items and those for the strictly military items, but no plan should be considered complete unless it contains at least the following:

- (a) Computation of requirements.
- (b) The approved specification.
- (c) Apportionment to Procurement Districts.
- (d) Placing of Accepted Schedules of Production with facilities in sufficient number to meet requirements.
- (e) The approval of the Chief of Branch.

2. In the preparation of specific procurement plans consideration should be given the following points

- (a) A statement of the purpose of the item.
- (b) Requirements.
 - (1) The basis of computations must be clearly stated and the approval of the General Staff obtained, both for the basis of computation and for the types involved.
 - (2) Monthly requirements according to the Basic Mobilization Plan must be shown and total for twenty-four months in a major emergency.
 - (3) Coordination with Naval, industrial and civilian needs.
 - (4) Coordination with other plans for related items.
- (c) Specifications.
 - (1) The approved specifications, with the approved specification for substitutes, must be included. They should be specific enough to assure obtaining the article wanted, elastic enough to permit ready production by all established facilities and to warrant expansion of existing facilities, or the creation of new ones.

(Exhibit C)

- (2) Coordination with Navy specifications.
- (3) All substitutes must have the approval of the General Staff.
- (d) Samples or patterns.
- (e) Tariff of sizes.
- (f) Bill of Materials.
- (g) ~~Time~~ study of production.
- (h) Apportionment of requirements to War Department Procurement Districts.
- (i) Accepted Schedules of Production.
 - (1) Accepted Schedules of Production placed with each facility in each War Department Procurement District.
 - (2) Relative estimated capacity of facility required by the Accepted Schedule of Production.
 - (3) Unaccepted schedules which will be placed in an emergency with those facilities which have refused to accept schedules in time of peace.
 - (4) Amount or quantity of order to be placed on or about M-day. "First Orders". (M-day orders will be limited to quantities sufficient to provide for a period but slightly longer than that required for production, plus delivery).
- (j) Factory plan. Is it necessary? If so, when will it be submitted to the Chief of Branch?
- (k) Statement of strategic and critical raw materials required, and whether or not these estimates have been submitted to the Assistant Secretary. These figures must check with the plans for procurement of the strategic raw material considered.
- (l) Priorities
 - (1) Between Army and Navy.
 - (2) Between branches of the Army where plants are jointly allocated.
- (m) Inspection and Acceptance.
- (n) Designation of tentative delivery points with tentative storage facilities.

- (o) Financial program.
- (1) Unit cost of finished item.
 - (2) General plan for meeting cost of program as it progresses.
- (p) Indirect requirements.
- (1) Power, basis of computations, kilowatt hours per item, or the average installed kilowatts per item per day.
 - (2) Labor.
 - (3) Transportation.
 - a. basis of computations.
 - b. Cars of finished products.
 - c. Ratio of cars of incoming materials, including fuel, to cars of finished products.
 - (4) Machine tools.
 - (5) Gauges.
 - (6) New facilities.
 - (7) Priorities.
 - (8) The principal materials needed for manufacture, not included in (k) above, and source.
- (q) For each storage and issue item there must be included a chart showing
- (1) Cumulative requirements curve based on War Department Mobilization Plan.
 - (2) Cumulative expected Production Curve.
 - (3) Stock on hand as of date of report (straight line)
 - (4) Stock authorized to be retained (straight line).
- (r) Summary of problems included and steps which will be taken to increase production in cases where production does not meet requirements, or to maintain a balanced program of production.

- (s) Rechecking of requirement and experience tables.

Prepare a statement in each plan requiring recomputation of requirements at some date subsequent to M-dry, based on actual experience in the war in progress to replace those based on experience tables.

- (t) Attention is called to the following statement in AR 10-15, Paragraph 11, Supply Division, General Staff, General Duties.

"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".

A list of these decisions will be arranged in definite, categorical order, and a copy attached to each plan.

- (u) Personal approval of the Chief of Branch.

O.A.S.W.

CHECK LISTSPECIFIC PROCUREMENT PLANS FOR FINISHED ARTICLES

1. Specific Procurement Plans will be prepared for all items on the essential list and will cover the following points, and such additional ones as may be directed by the Chief of Branch. The form and contents of Specific Procurement Plans will follow, as nearly as possible, the form indicated herein

- (a) A statement will be included showing the status of specifications for the item under consideration and giving the War Department index numbers of such specifications.
- (b) A statement will be included giving the basis of computations of requirements. This statement should be clear enough so that if desired the branch computations can be rechecked.
- (c) A table will be included giving the requirements by months, for the number of months prescribed in the current general mobilization plan. (If desired, this table can be placed in an appendix, making proper reference to it in this paragraph).
- (d) A table will be included showing the apportionment of the load to War Department Procurement Districts. (If desired, this table can be placed in an appendix, making proper reference to it in this paragraph).
- (e) Tables will be included showing the Accepted Schedules of Production placed with each facility in each War Department Procurement District. If the item under consideration is a commercial one the percentage of total capacity of the facility required to take care of Government requirements will be shown. (If desired, this table can be placed in an appendix, making proper reference to it in this paragraph).
- (f) A statement will be included showing the estimated time lag between initial production and delivery to troops.
- (g) A statement will be included showing what new facilities will be required and whether they are to be new construction or converted from other lines of industry.
- (h) The branch plans for the inspection and acceptance of the item will be given. These plans should include the plans for the procurement of inspection gages.

(Exhibit D)

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- (i) The unit cost of the finished item will be given and a table will be included showing the cost of the procurement program, by months, for the number of months for which requirements have been computed. (If desired, this table can be placed in an appendix, making proper reference to it in this paragraph).
 - (j) For each item there will be included a chart showing
 - (1) Cumulative requirements curve, based on War Department Mobilization Plan.
 - (2) Cumulative expected delivered production curve. (This curve will be obtained by setting back the initial production curve the amount of time lag shown in (f) above).
 - (3) Stock on hand as of date of report (straight line).
 - (4) Stock authorized to be retained (straight line).
 - (k) A statement will be included showing
 - (1) Weight of article.
 - (2) Number of articles to be packed in one container or package.
 - (3) Weight, size, and cubical content of standard loaded container (if any).
 - (4) Number and weight of loaded containers which can be loaded in a standard box car.
 - (l) The problems incident to the procurement of the item will be summarized and the steps which will be taken to increase production in cases where production does not meet requirements will be stated.