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PROCUREMENT PLANNING

by

Lt. Col. Oscar J. Gatchell, O. D.  
Chief, Procurement Plans Division, O.A.S.V.

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I. INTRODUCTION

- 1. This lecture is divided into four parts
  - a. Peacetime Duties of Procurement Plans Division, O.A.S.W.
  - b. Management of Procurement Planning.
  - c. Value of Procurement Planning
  - d. Wartime Duties of Procurement Progress Division, O.A.S.W.

II. PEACETIME DUTIES OF PROCUREMENT PLANS DIVISION, O.A.S.W.

1. General Duties

Briefly, the job of the Procurement Plans Division, O.A.S.W., is to carry out those statutory duties of The Assistant Secretary of War prescribed in Section 5a of the National Defense Act which pertain to the "supervision of the procurement of all military supplies, and the assurance of adequate provision for the mobilization of material essential to wartime needs", in so far as they apply to completed items or their components. It is not directly concerned with commodities such as wool or steel or contributory items such as fuel or power. These matters are specifically the duties of other divisions of the office, A.S.W. and will be covered by separate lecture.

2. Specific Duties.

More specifically the peace-time duties are:

- a. To supervise and coordinate the procurement planning activities of the supply arms and services
- b. To review, analyze and coordinate the procurement plans prepared and submitted by the supply arms and services.
- c. To coordinate plans for classes of material involving more than one supply arm or service.
- d. Prepare plans for supervision of War Procurement.

### III. MANAGEMENT OF PROCUREMENT PLANNING

#### 1. Responsibility.

Whereas the law provides that chiefs of supply arms and services are responsible for their procurement activities, and those of course include procurement planning, nevertheless, the Assistant Secretary of War is charged with the "supervision of procurement" and he does just that. Planning Branch Circular No. 2 promulgates policies and general instructions regarding Procurement Planning and prescribes the methods of computing Procurement Requirements based upon Supply Requirements prescribed by the General Staff. From time to time special studies are requested or special instructions issued common to all Supply Arms and Services. In General, however, effort is to assist the branches in their problems without intruding or attempting to run their jobs.

#### 2. Personnel Engaged.

The chiefs of the supply arms and services maintain organizations for the preparation of procurement plans. These organizations consist of the personnel in the offices of the chiefs of the supply arms and services, plus district organizations, planning organizations at arsenals, proving grounds and similar field agencies. Today there is a total of approximately 85 regular army officers and 152 civilians engaged in securing production data, computing requirements, and other activities connected with procurement plans.

#### 3. Basic Questions to be Answered.

Before a sound war procurement plan for any item can be prepared, data must be available which will furnish satisfactory answers to the following basic questions:

- What is wanted?
- How many are needed?
- Where can the item be procured?
- At what rate can it be procured?

##### a. What Is Wanted

##### (1) Two Viewpoints.

In determining what is wanted there are two distinct and separate viewpoints, namely, the supply

viewpoint and the procurement planning viewpoint.

(2) Supply Viewpoint.

From the supply viewpoint it is necessary to know just exactly what is to be issued to troops. This may vary from a very simple commercial article like an aspirin tablet to a complicated piece of mechanism like an anti-aircraft height finder. But every important article must be clearly identified either by commercial specifications or by detailed specifications and drawings for non-commercial items. Supply lists of important items are prepared by the supply arms and services under the supervision of the General Staff. These total at present over 7,000 items.

(3) Procurement Planning Viewpoint.

(a) Two General Groups.

For the purpose of the supervision of procurement planning all supply list items are placed in two general groups

Those for which procurement plans are unnecessary.

Those for which plans are prepared.

Planning Branch Circular No. 2 places the responsibility of choosing items for which plans are written upon each chief of a supply arm and service by stating:

"Each chief of a supply arm or service will prepare plans for the procurement of those items, components, materials, equipment and operations which he considers necessary to fulfill his war procurement mission."

This office is interested only in those items which present procurement problems.

(b) Kinds of Items for Which Plans are Prepared.

It is not always possible to base procurement plans upon the items which are supplied

to troops as items of issue or spare parts, for the reason that the supply arms and services are compelled, in many cases, to subdivide an item of equipment into components when placing orders with manufacturers. Thus, the Ordnance Department in procuring a complete round of 75 mm. H.E. Shell which is a General Staff supply item must plan to procure separately the shell body, the cartridge case, the fuze, the primer, the high explosive filler, and the propellant powder. Then also, there must be separate plans for loading and end assembly. It is also necessary to procure many items which are never issued to troops but which are essential to the manufacture of munitions, such as, for example, gages. Therefore, in setting up a system for procurement planning, it is necessary to depart from the items with which the General Staff is concerned from the supply standpoint. Planning Branch Circular No. 2 states further in connection with the subject of preparing plans for components:

"In case an item is normally broken into components for procurement purposes (example, Guns, Gas Masks) procurement plans will be written for those components deemed necessary.

"If a component is common to more than one item (example, Propellant Powder, Persistent Gas, Batteries) a plan will be prepared for the components based upon the total requirements and will be cross-referenced to the items to which it pertains.

"Plans for the procurement of strategic and critical materials will be prepared in accordance with the current instructions issued by The Assistant Secretary of War.

"If an item is broken into components for procurement purposes, the plan for the assembled item should indicate production by cross-reference to the plans for the several components. The production rate for the assembled item will be shown by stating which component or operation would determine the rate of delivery."

Thus, after plans for the several components have been prepared, a plan is also prepared for each item of issue to which they pertain. The point is that lists of items for which procurement plans are made will not be identical with supply lists prepared under the direction of the General Staff. Some idea of the number of items which appear on the General Staff supply list as compared with the items and components for which procurement plans will be prepared by the various supply arms and services may be obtained from EXHIBIT 1. It should be remembered that this list is not static, but is being changed from time to time as planning proceeds. These lists are as of November 1, 1937. You will note that for the Air Corps, Corps of Engineers, Medical Department, Quartermaster Corps, and Signal Corps, whose supply items are largely commercial, the number of items on the supply list greatly exceeds the number of items on the Procurement Planning List. On the contrary, the Chemical Warfare Service has a greater number of procurement items than supply items because its items are noncommercial. The same would apply to the Ordnance Department were it not for the fact that large existing stocks left over from the World War make procurement planning unnecessary for many items.

b. How Many of Each Item are Needed?

(1) Mobilization Plan as Basis.

When this country declared war in 1917, no mobilization plan existed upon which the requirements of supplies could be based. At that time no definite system existed for computing requirements. Today the Army and the Navy have plans upon which to base the mobilization of industry. In the Army at present all procurement planning is based upon the General Mobilization Plan, 1933, which envisages a maximum military effort or the mobilization of approximately four million men in eleven months. A mobilization plan, to be suitable for procurement planning, must show the rate of mobilization of man power month by month and the rate at which units go from the Zone of Interior into the Theater of Operations. It must also show the maximum ultimate objectives to be achieved and therefore the Protective Mobilization Plan in its present partially completed state is not suitable as a basis for procurement planning. When

the tables for subsequent mobilization are completed, the Protective Mobilization Plan will replace the 1933 Plan for procurement planning purposes.

(2) Method of Computing Requirements

(a) Monthly Troop Requirements.

The method of computing monthly troop requirements is prescribed by the General Staff.

Initial Issues.

The initial issues of military supplies to the organizations prescribed by the General Mobilization Plan are found from Tables of Organization and Tables of Basic Allowances, and include the total in use in the Z. I. and the T.O.

Maintenance Factors.

The maintenance factor for each item is recommended by the chief of the supply arm or service, and when approved by the Chief of Staff, is applied to the monthly troop requirements to determine the monthly quantities required for wastage or maintenance. These wastage or maintenance factors, as would be expected, vary widely with the item, and are based upon experience gained in the last war and peacetime experience in the supply of the Regular Army and National Guard, corrected for probable war effects. It is of the greatest importance that these factors be reasonable and as nearly accurate as possible, for, if unnecessarily large, they will generate excessive total requirements, thus adding to the procurement burden. Different maintenance factors are generally applied for the same item against initial issues in the Z. I. and the T.O.

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Distribution Factors.

Distribution factors are usually expressed as a percentage for the purpose of providing an additional stock to allow for tariff of sizes and the echelonment of stocks in depots. Distribution factors are also determined by the chiefs of the supply arms and services, and approved by the Chief of Staff. The factors range from 10% to 50%, and are applied to the initial issues, plus maintenance, of the first month.

Defense Projects.

The requirements for known defense projects are also added to the issues of the first month.

Requirements of Navy and Marine Corps.

In many cases the Army procures items for the Navy and Marine Corps and such requirements must also be included.

Total.

The sum of all the above amounts gives the total monthly troop requirements.

(b) Monthly Supply Requirements.

These monthly troop requirements are now shifted forward one month so that the supplies and equipment which are to be issued during any particular month will be available at the beginning of that month. For example, troop requirements needed during the period 60M to 90M must reach supply points during the period 30M to 60M. This conversion of the monthly troop requirements to monthly supply requirements is prescribed by the General Staff.

(c) Monthly Procurement Requirements.

In procurement planning, the Office of The Assistant Secretary of War is concerned with monthly procurement requirements. These are determined by

deducting stocks on hand from the monthly supply requirements and then moving the resulting figures forward an additional month. Thus, if there is a relatively large stock on hand, the procurement requirements of the first several months may be reduced to zero. The reason for moving the monthly supply requirements forward one month is to allow for time of delivery from factory to supply point. For example, troop requirements needed during the period 60M to 90M, which as previously stated must reach supply points during the period 30I to 60M, must be either released from stocks in the Z. of I. depots or accepted from production, during the period M-Day to 30M. When the monthly procurement requirements of an item have been thus computed, we have an answer to the question, "How many of each item must be procured each monthly period?"

c. Where Can the Item be Procured, when Can Deliveries Begin, and at what Monthly Rates Can the Item be Produced?

(1) Approach to Industry.

Furnished with the data as to what is wanted and how many of each item are required, industry can be approached to obtain answers to the above questions. This contact with industry is obtained through the procurement district organization of the supply arms and services. The procurement requirements are apportioned to the various districts, which in turn survey the facilities in their districts, obtain allocations or capacity credits against certain facilities, and finally obtain accepted schedules of production or estimates of production for each suitable facility. Allocations will be the subject of a separate lecture and will not be further discussed now.

d. Form and Contents of Procurement Plans

These reports of monthly production are received by the chiefs of the supply arms and services and consolidated. This brings us to Form 1 and the supporting forms described in Planning Branch Circular No. 2 (See Chart B). As we check the form against the basic data which have been discussed briefly above, it will be seen that the form provides for the assembly of these data. The form

also provides for matching requirements against production to see how we stand in the procurement of any item. The cumulative surpluses or shortages are also called for. If shortages occur in the procurement of an item, then Circular 2 requires that the best known solution to the problem for overcoming these shortages be stated. Under "Remarks" pertinent facts regarding the procurement of an item are entered.

It should be appreciated that a procurement plan as prepared on Form 1 represents a summary of the planning work which has been accomplished for the item for which the plan is written. At the same time this abstract is a succinct account of the actual procurement contemplated. It may represent the result of several years' work in developing and testing the item, preparation of specifications, and in some cases, thousands of drawings, computation of requirements, the allocation of facilities and the obtaining of schedules of production from industry, and the like.

e. Supplemental Plans.

In addition to the plans prepared on the basic Form No. 1, Circular 2 directs that the supply arm or service prepare supplemental plans for such items, materials, equipment or operations as are considered necessary. When a chief of a supply arm or service believes that more detailed information than that shown on Form 1 and supporting forms is desirable or necessary, such information is compiled into a supplemental plan. Usually such plans are written for the use of officers and civilians who will be directly concerned with that activity.

III. VALUE OF PROCUREMENT PLANS.

Assuming that the procurement plan for an item has been written, the question arises as to its value and usefulness in peace and war.

1. Value to the Supply Arms and Services.

a. Status of Plans.

As previously stated, the ultimate objective of procurement planning is to provide plans both in form and contents that will best serve these chiefs in carrying out their procurement missions. One of the objectives in prescribing the simplified form for procurement plans is to insure that

the basic data required in a procurement plan would be clearly stated in the fewest possible words and that all unessential data would be omitted. Today, each procurement plan is signed by the chief of the supply arm or service or a designated representative. Each plan will show responsible officers just how their arm or service stands at the time in regard to the war procurement of that item. Judging from the remarks of the Ordnance District Executives at a recent conference held in Washington, the attempt to meet apportionments made to the districts by production schedules is bringing demands from these representatives for changes in design to permit increased production. In other words, procurement planning in time of peace will indicate the choke points which may occur in a major emergency. When a procurement plan is prepared and the deficits indicated are considered too great, these facts will be brought to the attention of the responsible officers and steps may be taken in peace to improve the situation. In most cases, if Form No. 1 can be satisfactorily completed for an item, it is prima facie evidence that the item can be procured in war, since the basic data required for the procurement of that item have been obtained. If, on the other hand, the plan shows, for example, that drawings are needed and that these drawings have not been completed, this is a warning to all concerned that the chief of a supply arm or service is not yet ready to procure that item in war. Each plan gives other important pertinent data, such as cost data, which will be valuable in preparing estimates for war appropriations, shipping data, status of stocks, and the like.

#### d. Determination of War Reserves

The war reserve of any item which should be kept on hand can be ascertained in an inspection of line 22 of Form 1 by selecting the greatest monthly cumulative shortage. This figure will represent the amount the present stock should be increased if there is to be no shortage of that item in a maximum effort. By adding the stock on hand to this amount, the required war reserve is found. Unfortunately, the General Mobilization Plan, 1933, mobilizes men so rapidly that the resulting war reserve demands are so vast as to be impracticable from the standpoint of cost and maintenance. Hence the expected change to the Protective Mobilization Plan now in preparation to which I have previously referred.

2. Value of Procurement Plans to the Office of The Assistant Secretary of War.

a. Determination of Choke Points.

When the procurement plan is written for an item, it does not necessarily mean that all procurement planning in connection with that item has been completed. Each procurement plan is a summary of the progress of the planning activities for that item up to that time. Procurement plans are never fully completed, but must remain fluid, flexible and subject to change as the factors involved in the plan change. An inspection of a plan prepared on Form 1 will, however, give the Office of The Assistant Secretary of War an accurate picture of the status of planning activities in regard to that item and will show whether the chief of the supply arm or service concerned is prepared to procure that item, or whether important work remains to be accomplished. The progress of procurement planning can thus be accurately evaluated. When a plan indicates that cumulative shortages of an item will occur, it may be necessary to request that the status of that item be reviewed by the responsible chief of a supply arm or service with a view to possible improvement. This detailed analysis in peace of procurement plans forms, perhaps, the most important duty of the Procurement Plans Division. Choke points which will occur in war can thus be discovered, and action can be taken in peace toward a solution of the problem.

b. Determination of Mobilization Possibilities.

When practically the whole procurement program falls short of the requirements generated by the specified mobilization rate of man power, as is the case under the General Mobilization Plan, 1933, this fact can be ascertained from procurement plans. Reports of these facts can then be made to higher authority with recommendations as to the steps which should be taken to remedy the conditions found. Such reports are made to higher authority as secret studies submitted by the Planning Branch.

c. Coordination Between Branches.

There are some items which are procured by one supply arm or service that are related to the items procured by another branch. For example, radios, procured by the Signal Corps, are mounted in tanks which are procured

by the Ordnance Department, searchlights, procured by the Corps of Engineers, are related to sound locators manufactured by the Ordnance Department and both are used in connection with anti-aircraft artillery procured by the latter. Shells manufactured by the Ordnance Department are filled by the Chemical Warfare Service with gas procured by the latter. Such items must be coordinated in procurement to insure that the program of the War Department as a whole is at all times kept in balance. The Procurement Plans Division has lists of these related items and when a procurement plan pertaining to such an item is received, it is analyzed to ascertain whether the supply arms and services have coordinated their requirements. The expected production is also studied and the item which forms the choke point discovered. The chief of supply arm or service responsible for the choke item is brought into balance with the related items. Not much has been done to date by this Division towards this coordination, due to the lack of completed procurement plans, but in the very near future this will become one of the most important peace-time activities of this organization.

#### IV. PROCUREMENT PROGRESS DIVISION (WAR)

##### 1. Objectives and Policies.

In an emergency, the Procurement Plans Division will become the Procurement Progress Division with new objectives. It will take over such of the activities of the peace-time Current Procurement Division as are applicable. The principal objective of the war organization is the supervision of war procurement. As in peace, the activities of the Division are limited to supervision with no thought of interfering with war procurement, which is the responsibility of the chiefs of the supply arms and services. Close supervision of procurement activities is, however, maintained to insure that satisfactory progress is made, that requirements and procurement are coordinated and that war procurement is carried out in accordance with basic laws and instructions.

##### 2. Duties

a. Determination of General Progress of Procurement.

b. Analysis of Procurement to include

Determination of Check Points.

Detection of Unbalanced Production.

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- c. Operation of a contract and purchase information service.
- d. Liaison with other prominent agencies of the Government.

3. Organization and Procedure.

a. Sections.

One of the peace-time duties of the Procurement Plans Division is to prepare plans for the supervision of war procurement. This has been done and our present plans provide that the Procurement Progress Division will be subdivided into three sections in a war emergency as follows:

- The Procurement Review Section,
- The Contract and Purchase Information Section,
- The Procurement Analysis Section.

b. The Procurement Review Section.

(1) Policies.

This Section will take over the peace-time activities of the Current Procurement Section of the Office of The Assistant Secretary of War, but under policies suitable to wartime conditions. While in peace time it is important that the laws pertaining to procurement be carefully followed by each contracting officer and the Current Procurement Section insures that this is done, in war the main objective is to obtain supplies, and to this end the peace restrictions used to regulate procurement agents must be relaxed to the greatest possible extent consistent with orderly and legal procurement. A study of these peace-time procurement regulations has been made with the object of determining just what restrictions should be removed in war and what laws and regulations restricting procurement should be changed on M-Day. In the last war the laws and instructions relating to advertising and competitive bidding were promptly changed, as they will undoubtedly have to be again. However, competitive bidding in the case of strictly commercial articles would be advisable in an emergency in many cases.

(2) Duties.

The Procurement Review Section will:

(a) Determine whether instructions promulgated by The Assistant Secretary of War are being followed.

(b) Be concerned with matters relating to inter-branch procurement and purchases in foreign countries.

(c) Investigate conflicts between procurement instructions of the various supply arms and services and difficulties and obstacles to procurement which are not the direct concern of either division of the procurement branch.

c. The Contract and Purchase Information Section.

(1) Duties.

This Section will be established in order to provide a central source of information regarding War Department procurement procedure, to maintain liaison with the supply arms and services and also with other procurement agencies of the Government. Upon the outbreak of war, thousands of representatives of manufacturers will descend upon Washington looking for war contracts. It is now widely known that The Assistant Secretary of War directs Army procurement. It may, therefore, be expected that these representatives will make their way to his office. The Contract and Purchase Information Section must be prepared to direct these individuals back to the proper procurement district from which they come and to handle special cases and situations which will arise. The Section must be equipped to give necessary information concerning Army procurement procedure, policies, regulations and organization. If any restrictions are placed by the War Department upon procurement, this Section will review such contracts to insure that such restrictions are being followed. Legal phases of contracts, however, will be referred to the Legal Division with which this Section will maintain close liaison.

d. The Procurement Analysis Section.

(1) Objective.

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In peace, the principal objective of the Procurement Plans Division is the supervision of procurement plans, as has been stated. In war, likewise, the principal objective of the Procurement Progress Division is the supervision of war procurement, including analysis and progress. One of the impelling reasons for the adoption of the new form for procurement plans was to set up a system which could be used as a basis for the supervision of war procurement, the follow-up of progress, analysis to uncover choke points and the coordination of the procurement of related items. The Procurement Analysis Section should maintain such statistical records that the progress of the entire procurement program of the Army can be known definitely at all times and The Assistant Secretary of War kept advised as to this progress. This would seem like an impossible task unless analyzed from the viewpoint of procurement plans. It is attempted below to explain briefly how it is now planned to conduct this war procurement supervision and the follow-up of progress.

(2) Revision of Procurement Plans.

Assume that M-Day has arrived and that procurement plans of the various supply arms and services are fairly complete. To make the situation more definite, let us assume that we are discussing the procurement of ordnance. Remembering that the procurement plans are written for all items, components, material, equipment and services which the chief of a supply arm or service believes will cause sufficient difficulty in procurement to warrant a plan, these are the items which will require supervision. As soon as the troop basis for the war in question is known, requirements for that situation may have to be recomputed. This the Ordnance Office will promptly do, using approximate methods. These revised requirements would be then entered on the existing procurement plans, say in red ink, and the plans rebalanced. If the change in requirements are very large, this may require changes in apportionments to districts, and probably the Chief of Ordnance will call in his district executives and consult them in connection with any plans where such redistribution of orders would be required. The revised plans made out on Form 1 could then be brought to the Office of The Assistant Secretary of War and approved. These approved plans would become directives upon the Chief of Ordnance for the procurement of these items, who would, in turn, send them to his procurement districts for execution. The importance

of procurement plans as viewed from this angle of war procurement becomes evident.

(3) Progress.

Now that the war procurement program has thus been put into operation, how can progress be followed? In using these plans, a very simple method is possible. Each plan shows the manufacturers and their expected rate of production. It is visualized that qualified persons in this Division would be assigned in charge of each book of procurement plans. These men would take the books of Ordnance plans to the Ordnance Office periodically and fill in monthly production from the reports of production received from the plants by the Chief of Ordnance. The production figures might be added in red in the monthly production columns for comparison with expected production. When the total actual production started to seriously fall short of the expected production, the plan for the item in question would be removed from the book and placed upon the desk of the Chief of the Procurement Progress Division. This officer would then investigate the situation in regard to this item, and if serious enough, report to the Chief of the Procurement Branch, who in turn might take the matter up with the chief of the supply arm or service concerned, or The Assistant Secretary of War, depending upon the nature and seriousness of the situation discovered. At the same time, close watch would be kept of related items to insure that balanced production was maintained. Charts and diagrams would be plotted of such related items and other important items considered critical. The above system would have the advantage of being simple, direct and flexible, not requiring the submission of any progress reports from the chiefs of the supply arms and services to this office, and would place no additional burden upon these chiefs. Nothing would be heard officially from the Office of The Assistant Secretary of War until the procurement of some important item started to lag seriously. When production did lag, a varying degree of pressure, depending upon the situation, would be brought to bear upon the chief of the supply arm or service, who would immediately take action to overcome the deficiency. Similarly, whenever the study of procurement progress indicated over production of any item, appropriate action would be taken. The Office of The Assistant Secretary of War would thus have its hand on the pulse of the entire War Department procurement program and would exercise proper supervision without interference with the chiefs of the supply arms and services in the accomplishment of their procurement missions.

COMPARISON BETWEEN  
SUPPLY LISTS  
and  
PROCUREMENT PLANNING LIST

BRANCHES	TOTAL ITEMS	
	General Staff Supply List	Procurement Planning List
Air Corps	682	107
Chemical Warfare Service	64	86
Corps of Engineers	119	58
Medical Department	3,196	21
Ordnance Department	663	575
Quartermaster Corps	1,854	262
Signal Corps	650	34
	7,668	1,143

EXHIBIT A

**PROCUREMENT PLAN WDMP**

Group \_\_\_\_\_

1	Date _____	No. of Units in Container _____	Unit _____	M-Day Sup. Req. _____	ITEM _____	EM
2	Revision _____	Weight of Full Container _____	Multiple _____	Stock on Hand _____	Component of _____	
3		Dimensions _____	Unit Cost _____	1st Yr. Proc. Requirements _____	Stand. Status _____	Spec. No. _____
4		Sub. Contents _____	Cost 1st Yr. Prod. _____	2d Yr. Proc. Requirements _____	Drawing No. _____	Complete Yes No
5		No. in Stand. Carload _____	Cost 2d Yr. Prod. _____	Two Years Requirements _____	Descr. of Mfg. _____	

6	Name and Location of Plant	Date and Basis of Data	Can Prod. be increased	PRODUCTION (MONTHS)													
				M + 1	M + 2	M + 3	M + 4	M + 5	M + 6	M + 7	M + 8	M + 9	M + 10	M + 11	M + 12		
7																	
8																	
9																	
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11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19	Total Production																
20	PROCUREMENT REQUIREMENTS			M-Day													
21	Deficit- Surplus +																
22	Cumulative Deficit or Surplus																

23 Remarks \_\_\_\_\_

Approved: \_\_\_\_\_  
Name Bank Page No. \_\_\_\_\_