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## MILITARY REQUIREMENTS FOR MOBILIZATION

773

21 November 1950

### CONTENTS

	<u>Page</u>
INTRODUCTION--Colonel A. N. Niemi, USA, Member of the Faculty, ICAF.....	1
SPEAKER--Colonel Curtis M. Anderson, USAF, Chief, Requirements Division, Munitions Board.....	1
GENERAL DISCUSSION (was not reproduced)	
CHARTS--Total National Potential.....	13
Requirements to be Reported.....	14
Requirements Cycle.....	15

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Washington, D. C.

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Colonel Curtis M. Anderson, USAF, was born in McPherson County, Kansas, on 20 October 1906. He was graduated from the University of Wichita in 1929, B.S. degree. He served with the Civilian Conservation Corps from 1934 to 1940 in various capacities covering command and supply activities. He completed the Senior Officers Staff School in 1946 and the Air Command and Staff School in 1947. From April 1946 to August 1949 he was a member of the staff and faculty of the Air Command and Staff School of the Air University. He served as Commanding Officer of the 51st Materiel Squadron and S-4, of the 38th Air Service Group from September 1940 to November 1942. During the North African, Italian, and Southern France operations, he served as depot commander as well as A-4 of the XII Air Force Service Command. On graduation from the Industrial College of the Armed Forces in the 1949-1950 Class he was assigned to the Munitions Board. His present assignment as Chief of the Requirements Division covers the establishment of Munitions Board policies relative to requirements.

RESTRICTED

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775

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COLONEL NIEMI: General Holman, gentlemen: In the Department of Defense the agencies that are concerned with the development and evaluation of requirements are the Joint Chiefs of Staff, the Munitions Board, and the three military departments. Last week you heard from Colonel J. S. Cook, who covered the requirements for the Joint Chiefs of Staff. As you recall, those requirements pertained primarily to the consumer logistics phase. This morning we will consider requirements from the viewpoint of the Munitions Board.

The Munitions Board is responsible for securing, analyzing, consolidating, and reviewing both material and personnel requirements. Their interest is primarily in the producer logistics phase. Discussing this problem with us this morning we have Colonel Curtis M. Anderson, USAF, Chief, Requirements Division, Munitions Board. He was a student here last year and immediately upon graduation was assigned to the Requirements Division of the Munitions Board. That assignment came at a time when requirements for mobilization in the present war assumed a very important position. Therefore, he is in a position today to give us the current thinking of the Munitions Board on this subject and also the action that it is now taking.

It is a pleasure to introduce to you Colonel C. M. Anderson and to welcome him back to the Industrial College.

COLONEL ANDERSON: Thank you, Colonel Niemi. General Holman: In order to effectively cover this broad subject, "Military Requirements for Mobilization," in the time allotted, I propose to focus my discussion on five questions which are of vital concern to those of us engaged in requirements work and which, I believe, should be of both concern and interest to each of you.

These five questions are:

1. What is the Munitions Board-National Security Resources Board problem that affects requirements determination?
2. What are the objectives which stem from this problem?
3. How are these objectives accomplished?
4. What is the present status of mobilization requirements determination and current programmed procurement?
5. What is the projected program in the foreseeable future?

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You will note that the first two questions are relatively elementary; thus, they can be answered quite briefly. In fact, these two questions-- "What is the problem?" and "What are the objectives created by the problem?"--if answered correctly and effectively, form the foundation on which we can answer the third question--"How are the objectives accomplished?"

Let us take up the first question--"What is the Munitions Board-National Security Resources Board problem that affects requirements determination?"

Chart 1, page 13.--This chart depicts the breakdown of our total national potential during periods of peace. In peacetime, the military fits and trims its procurement according to the annual military budget. Based on the annual military appropriation, the "military take" approximates 15 to 18 percent of the total national product or about one-sixth of that consumed by the nonmilitary. After we have fulfilled the needs of both the military and the civilian, we find that there is an unused potential. This unused potential is in the form of idle plants, shorter working hours, and an expansible labor force. It is difficult to measure the exact quantity of this unused potential as its expansion and contraction is guided by many factors. War itself stimulates increased activity which has a bearing on the potential. Although we cannot measure this unused potential to the Nth degree, we can approximate it. We can approximate it under varying conditions, which serves our purpose in mobilization planning.

When we compute our military requirements for war, we are guided by military necessity, rather than peacetime budgetary limitations. As shown on this portion of the chart, this results in the military absorbing this, heretofore, unused potential and mushrooming out beyond the borders of the Nation's potential. We are also cognizant of the fact that the "civilian take" can be cut back to what we term "Essential Requirements" with no ill effects. This, then, is the problem: In coordination with the National Security Resources Board, to determine how much the civilian economy can give up to the military and just how the military can fit its mobilization requirements to the wartime take of the national potential. A proper solution of this problem will yield an adequate and justifiable division of our national potential to the military and to the civilian, as illustrated on this chart.

This brings us to question number 2--"What are the objectives which stem from this problem?"

The objectives are:

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1. To secure military requirements data.
2. To review and consolidate the military requirements data.
3. To present balanced military requirements to the civilian control agencies as a basis on which resources are to be allocated.

Having disposed of questions 1 and 2, we now have a foundation on which to build the answer to question number 3, namely, "How are these objectives accomplished?"

We will answer this question in two parts: First, we will discuss the requirements program, that is, the procedures or ground rules, as established by the Munitions Board; and, second, by conducting you on a brief tour through a requirements cycle.

Chart 2, page 14.--The Requirements Program is made up of categories of requirements, as shown on this chart. These categories were developed by consultation with the military departments and with the National Security Resources Board.

The first two categories--manpower and equipment and supplies, including components--are fundamental. The others, although ancillary, are vital. They are vital as to a well-balanced mobilization program.

The "manpower" category includes requirements for uniformed personnel and civilian employees working directly for the Department of Defense. These requirements are broken down into occupational specialties for those occupations which are expected to be critical in the industrial economy during war. Manpower requirements are the first to be developed.

It is estimated that there are over 5 million items of equipment and supply in the system. You can readily visualize that it would be impossible for us to compute and compile requirements for each item in the system, down to and including the last shoe lace. Therefore, we have worked very closely with the military departments in determining what items of supply and equipment are indispensable in war and of prime importance in mobilization planning. We have compiled these items in this publication, identified as the "List of Equipment and Supplies."

There are approximately 3,000 items listed. We estimate that these 3,000 items account for approximately 80 percent of the dollar volume of procurement and for about the same percentage of the steel, copper, and aluminum used in the manufacture of military items. This list is

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under constant revision to reflect changing strategic concepts and technological progress. This list is divided into two parts. Part I contains items of the six major claimant programs or groupings, consisting of (1) aircraft, (2) ships, (3) tank-automotive, (4) weapons, (5) ammunitions, and (6) guided missiles. Part II contains such groupings as (1) medical supplies and equipment, (2) electronic and communications equipment, (3) industrial equipment, (4) construction equipment, and (5) photographic equipment. Part I, primarily contains those items used exclusively by the military, whereas, Part II generally contains items used by both the military and the civilian. Part II is being expanded to include other groupings, such as "clothing and equipage."

All other requirements for the operation of the armed forces stem from either personnel or equipment and supplies. One of the earliest and most important of these ancillary requirements is that of construction. The development of requirements for industrial construction, either to be sponsored or operated by the military departments, requires detailed and thorough study of existing convertible capacity.

Closely related to the equipment and supplies category is materials. Under this category we include materials consumed in the manufacture of military items and materials used as such in military supply. Initially, steel, copper, and aluminum requirements, according to forms and shapes, are determined. Conditions dictate the requirements determination of other materials. If it is anticipated that any material will be in short supply, requirements are then determined for that material.

The industrial equipment category covers requirements for machine tools and other items required in the repair units of the military departments and in the industrial plans operated or sponsored by the departments. Although the military departments have a reserve of machine tools, these will still be items in short supply which must be planned for. Requirements for industrial equipment are among the last to be determined, since it is first necessary to plan for production and ascertain what conversions and new industrial construction will be necessary.

The petroleum category is self-explanatory and its importance is well-recognized.

Utility requirements must be given careful consideration when planning for new construction. Therefore, we have included in our requirements program categories for electric power, gaseous fuel, coal and coke, and water supply. These categories include requirements for industrial facilities which are sponsored by the military. These requirements are determined in accordance with specific locations.

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Communications facilities and transportation are other services included in our program. Requirements for communications facilities, consisting of civilian wire and radio facilities and services, are also determined according to geographic location. Military transportation demands on common carriers are determined by the Joint Military Transportation Committee of the Joint Chiefs of Staff.

With these categories determined and agreed upon by the National Security Resources Board, our next step was to devise a uniform plan for reporting the mobilization requirements of the military departments. Working with the departments, we have devised reporting procedures and forms to be employed. These are published in our "Requirements Manual." Like the "List of Equipment and Supplies," it is under constant revision to reflect the experiences which we gain as we proceed with mobilization planning.

Now we come to that brief tour through a requirements cycle. By discussing such a cycle, I can best give you a picture of the requirements functions of the Munitions Board and its relationship to other governmental agencies.

Chart 3, page 15.--You will note that this chart is segregated into three distinct areas: (1) basic strategic guidance, (2) computation and preliminary adjustment of detailed requirements, and (3) obtaining necessary economic resources.

The cycle begins with the issuance of a strategic plan by the Joint Chiefs of Staff. This is an outline plan and it establishes broad tasks or missions. It establishes the phasing of future operations and the phased deployment of major combat forces. It also provides the basis for the initial establishment of relative military urgencies. This, I shall mention in more detail later. The plan is provided to the military departments and a condensed version of it is received by the Munitions Board.

The Army, Navy, and Air Force Departments translate this broad outline plan into operational and logistical plans. The three departments work together closely in their planning to insure logistic support of joint tasks. On the basis of the operational and logistical plans, the departments compute time-phased requirements. Included in these requirements is foreign aid. While the departments are computing requirements, the Joint Chiefs of Staff spot-check to assure that the requirements are adequate, justified, interrelated, properly phased, and that they reflect the needs of the strategic plan.

Upon the completion of the computations of each category of requirements, the departments transmit this information to the Requirements Division. Also certain computed information is provided to the Joint

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Chiefs of Staff, as indicated by them. Upon receipt of requirements from the military departments and from the Joint Chiefs of Staff, the Requirements Division assumes a coordinative role. There are all these other offices in the Munitions Board manned with specialists on the various categories of requirements. For example, the Requirements Division transmits requirements for materials to the Office of Material Resources which has primary responsibility for technical review and analysis. The Requirements Division prescribes the time schedule for completion of the analysis and works out with them the forms for presentation of consolidated summaries and analyses. The same applies to the other categories such as manpower, petroleum and so forth. The Requirements Division performs the review and analysis on equipment and supplies and on components for which there is no other office holding primary responsibility. In the performance of this function, the Requirements Division leans heavily on the Office of Production Planning for estimates of capacity.

The office of primary responsibility consolidates requirements, reviews them to insure that they have been computed on the basis of like assumptions, and analyzes their probable impact on the economy.

At this point, the National Security Resources Board enters the picture, or should I say cycle? The office of primary responsibility coordinates the requirements with the National Security Resources Board and, in return, receives data on the prospective availability of resources to the military. As information pertaining to the availability of resources to the military becomes available, the Requirements Division notifies the Joint Chiefs of Staff and the departments of the industrial implications of the plan and points out specific areas in which shortages exist.

Category by category, we must reconcile the discrepancies between what the military wants and its probable share of the resources. This adjustment is aided by statements of relative military urgencies. The term "relative military urgencies" simply means a system by which requirements can be broken down into baskets, arranged in order of relative military importance based on planned military end-use.

This adjustment process is a complicated one. Every time we adjust requirements in one category, other categories of requirements are affected. For instance, a downward adjustment in the materials program means that the requirements for equipment and supplies, construction, industrial equipment, petroleum products, and components will have to be adjusted to reflect this change. It becomes apparent therefore that the technical review and analysis of all requirements categories must be correlated in one office. It is the Requirements Division which performs that function.

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In areas of critical shortages, however, the departments re-examine their requirements with a view to reducing them or perhaps modifying their time phasing. First of all, they assure themselves that the original requirements submitted to the Munitions Board were absolutely essential. The departments also determine, in collaboration with the Munitions Board, whether it would be feasible to utilize substitutes. They examine the lower priority operational tasks and select those which if rephased, conducted with reduced standards, or eliminated would still permit accomplishment of the plan.

While the departments are checking to determine what, if any, requirements can be reduced or modified, the offices of the Munitions Board are endeavoring to secure allocations of additional resources from the National Security Resources Board.

If unacceptable deficiencies still exist after the departments have tried to readjust their requirements to fit the anticipated resources allotment of the military, they report their revised requirements to the Joint Chiefs of Staff and make alternate recommendations as to substitution, rephrasing, reduction in standards of operation, or the elimination of tasks, evaluating the risks involved.

Committees of the Joint Staff, with the advice and assistance of the Munitions Board, review revised requirements. These Joint Staff committees evaluate the shortages to determine their effect on the implementation of the plan and accept risks or make adjustments in the plan which do not change strategy. Where shortages indicate that a change in strategy is necessary, the matter is referred to the Joint Chiefs of Staff.

The Joint Chiefs of Staff notify the departments and the Munitions Board of the action taken on departmental recommendations and the departments make necessary revisions in their plan and resubmit to the Munitions Board requirements based on the Joint Chiefs of Staff decision.

The cycle for the review of requirements is then repeated. Initial adjustments are likely to be bold, but as the process continues, they become more delicate.

When we believe that we have arrived at a feasible requirements program, we recommend that the Secretary of Defense accept it as the over-all material, manpower, and services requirements for the departments. After the Secretary of Defense approves the recommendation, the Requirements Division arranges for its presentation and justification before the National Security Resources Board in order to receive an allocation of resources. We call upon the departments and the Munitions Board offices of primary responsibility to help present and justify the various categories of requirements.

It is at this time, in the National Security Resources Board, that the total demand--military and nonmilitary--is compared against the total available resources, and an allocation of resources is made to the Department of Defense for division to the Army, Navy, and Air Force, based on their requirements determinations.

The question which in all probability comes to your mind at this time is "How long does it take to complete a requirements cycle?" The operation of the Munitions Board requirements program, as visualized before the Korean incident, was that the departments would receive annually, before the beginning of the fiscal year, a directive on what portion of their mobilization requirements were to be computed and submitted during the ensuing year. Considering departmental personnel available to work on mobilization requirements and the other demands of such personnel, it was established that a normal call upon the departments would require from six to nine months' work. It was estimated that it would take the balance of the year to adjust this portion of the requirements as submitted.

Following this adjustment, it was planned to transmit to the departments a directive calling for the remaining requirements for the mobilization plan. These remaining requirements are primarily those whose determination awaits the computation of requirements scheduled for submission in the previous year--such as detailed construction projects, and naturally the resulting requirements for utilities, additional industrial equipment and transportation service. This concept of mobilization planning would require two years to produce a complete set of mobilization requirements, based on a specific Joint Chiefs of Staff plan. It was recognized that, after such a cycle had been completed, the revisions of strategic guidance would require a review and adjustment of requirements previously submitted.

I would like to interject one thought at this time in reference to mobilization planning. The mobilization program of the Munitions Board can in no way be considered separately from current programmed procurement occasioned by the Korean campaign inasmuch as the present procurement and expenditure activities of the departments drastically change inventory figures which, in turn, affect mobilization requirements. Since 25 June 1950, as a result of Munitions Board initiative, the National Security Resources Board, the National Production Authority, and congressional requests, the Board has prepared estimates of programmed procurements for fiscal year 1951 to be made from funds available or expected to be available this year. This includes the regular 1951 funds and the first and second supplemental appropriations.

We now find ourselves providing a partial answer to question number 4--"What is the present status of mobilization requirements determination

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and current programmed procurement?" The complete answer to this question was provided you as you entered this room. Let us take a brief look at it together.

This brief report of four pages is segregated into two parts. (The four-page report was not reproduced.) The first two pages refer to the status of mobilization requirements and the last pages refer to current programmed data. Referring to page 1, you will note the category listings. These specify the requirements determined as essential to mobilization planning. You will note opposite each category breakdown the month the requirements were processed or are scheduled for processing. Page 2 indicates the status of the various materials reports which have been or are in process of being reviewed, analyzed, and consolidated.

Referring to pages 3 and 4, you will find similar information as pertains to current programmed data.

Before proceeding to question 5, I would like to refer to the statement I made a moment ago, that is, "The concept that it would require two years to produce a complete set of mobilization requirements." Such a concept is not supported by facts. If one is to take all the considerations from the initial basic strategic concept on through to the availability of a program of requirements under peacetime planning conditions, it is, of course, possible to drag it out two years. However, if we should be forced into war, it is obvious that any such cycle is not only unrealistic, but impossible to adhere to. The reason is that by the time a program of requirements was computed, based on any such cycle, the strategic concept on which it was based would have so changed, in a two-year period, that the program of requirements would be well-nigh useless by the time it was available. If world events force a war upon us in the foreseeable future, no one is going to operate on a two-year cycle basis in respect to the computation of requirements. The strategic situation would not permit it; tactical plans would not tolerate it and industrial mobilization would not wait for it. If war comes and mobilization requirements become a living factor overnight, the plan that is then extant will be the plan on which industry goes to work and production will go forth from that point.

Now to answer our last question--"What is the projected program in the foreseeable future?" Let us divide this answer into two parts, namely, (1) mobilization requirements and (2) current programmed procurement.

Mobilization requirements--first we must complete our current cycle by obtaining construction, utility, and transportation requirements which are created by and stem from the requirements previously

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submitted or scheduled for submission. This call is in process at this time.

Second, these requirements, as submitted, must be revised to reflect modified requirements to meet a strategic plan just off the press. The call on the departments for the complete new set of requirements is in draft stage.

At this point I would like to relate that the experiences gained thus far are most valuable. Based on recent experiences, we are in a position to eliminate some requirements data previously called for which have not been utilized as contemplated at the time the call was made. The departments have developed many factors. Such factors can be used to modify previously submitted requirements reflecting needs based on new strategic guidance. This, together with other accelerated methods, will reduce the time element considerably in completing a requirements cycle. It is estimated that it should require no longer than six months to gain a complete set of requirements data based on a specific Joint Chiefs of Staff plan. Perhaps I am optimistic in making such a statement, as current programmed procurement created by world events affects the time schedule of determining mobilization requirements. However, if we are to satisfy the objectives, for which requirements are determined, they must be computed and balanced, category by category, in a relatively short period of time. Even six months is too long.

Current programmed procurement--proposed and programmed procurement is modified according to funds. Requirements thus far received and consolidated by the Munitions Board have been based on fiscal year 1950 and prior year funds, on fiscal year 1951 regular funds, and on the first and second supplemental appropriations. The Munitions Board is now preparing a call on the departments for programmed requirements based on fiscal year 1952 and the 1951 third supplemental appropriation. These requirements must be made available to the National Production Authority immediately upon approval of such funds to enable National Production Authority to take what action is necessary to insure delivery of defense requirements, as determined essential to meet current strategic plans.

Briefly summarizing, we have endeavored to answer five questions. We built a foundation by citing and discussing the over-all problem, as it affects requirements determination, and the itemizing of objectives stemming from this problem. In answering question number 3-- "How are the objectives accomplished?"--we took a look at the requirements program, briefly examining the categories of requirements, the "List of Equipment and Supplies" and the "Requirements Manual." We then made a brief tour of the requirements cycle, terminating our tour only after the Department of Defense had received an allocation of the

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total national potential. Following this tour, we looked at the present status of mobilization requirements determination and current programmed procurement and cited the planned program for the foreseeable future.

In conclusion permit me to say this: At the risk of appearing to overemphasize the importance of the field in which I happen to be working at the present time, my observation leads me to the conclusion that the invasion of the Continent over the Normandy beaches, the amphibious campaigns in the Pacific, the strategic bombing of Europe, the combined naval, land, and air assaults that brought success to our forces in World War II in all theaters of war, could not have been accomplished without the proper balancing of all categories of logistical consideration. First and foremost of these is the development of requirements, for without such a program it is impossible to give industry a firm place on which to proceed; it is also impossible to determine the offensive capabilities of any military force required to carry out a specific operation. Therefore, it might well be said that nothing is tactically possible that is logistically impossible. I say this, not as a matter of military doctrine, but rather as a matter of practical consideration. I well know that through improvisations it is possible to do the impossible and to tactically win a battle when problems of logistics indicate that it cannot be done. But in respect to campaigns and long-range planning, the ultimate success of defeating the enemy in the shortest possible time, with a minimum loss of life, must rest on the development of a program of requirements adequate to support the military effort and to provide for the minimum requirements of the civilian economy at home.

COLONEL NIEMI: Colonel Anderson, you certainly have given us a very clear picture of the Munitions Board, especially the requirements cycle on which there was some question; also tying it in with the present Korean situation with respect to the computation of requirements. On behalf of the Commandant, the staff, the faculty, and the students, I thank you very much.

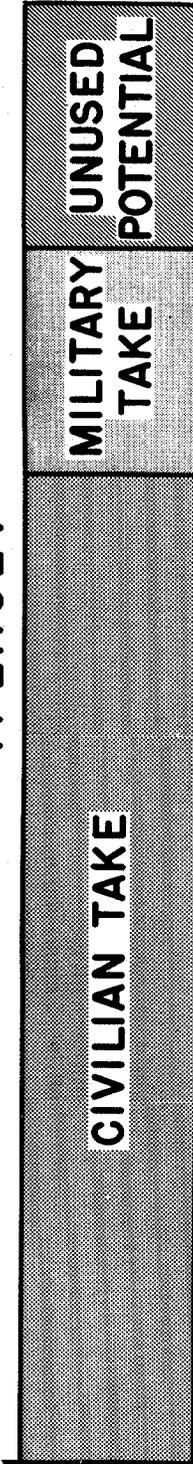
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786

CHART I

# TOTAL NATIONAL POTENTIAL

(PEACE)



13

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ESSENTIAL CIVILIAN  
REQUIREMENTS

MILITARY REQUIREMENTS

(WAR)

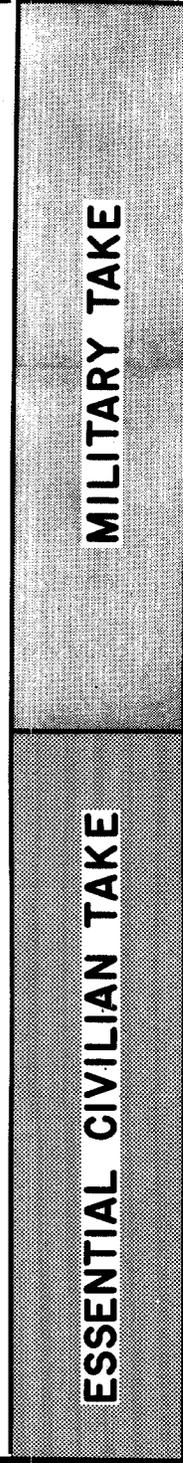


CHART II

# REQUIREMENTS TO BE REPORTED

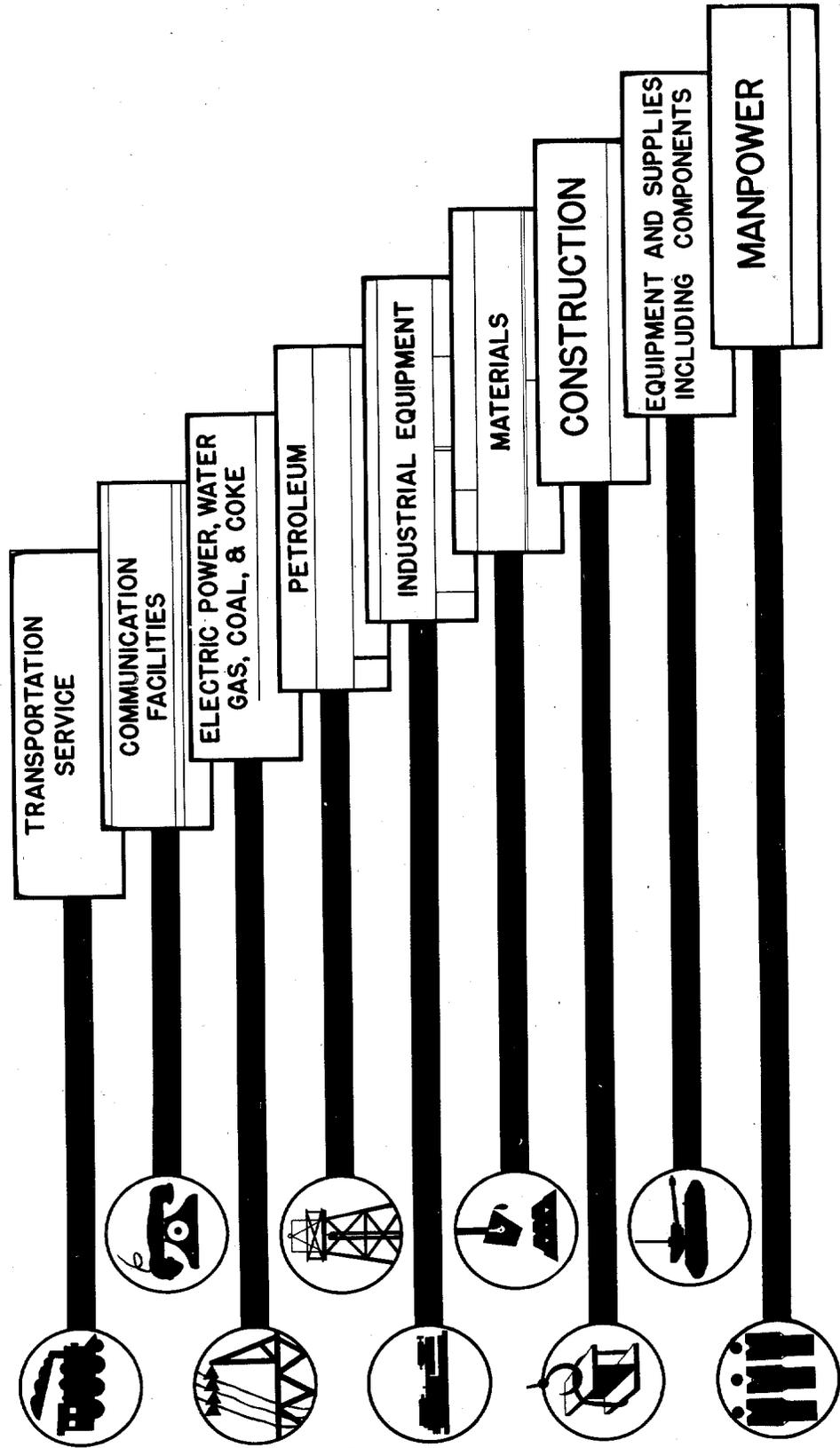


CHART III

# REQUIREMENTS CYCLE

