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# INTRODUCTION TO REQUIREMENTS

Colonel L. R. Wurak, USA

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INDUSTRIAL COLLEGE OF THE ARMED FORCES

WASHINGTON, D. C.

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10 November 1955

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INDUSTRIAL COLLEGE OF THE ARMED FORCES

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# INTRODUCTION TO REQUIREMENTS

10 November 1955

COL WIRAK: First, a happy birthday to the United States Marine Corps.

Welcome to Unit V. During the next two months with us you will be introduced to the subjects listed there on the flannel board:

Requirements, with three study areas;

Supply Distribution, with two study areas; and

International Logistics,

Foreign Aid,

Transportation, and

Telecommunications, each with one study area.

Now let us look at the titles of the nine study areas that collectively cover those subjects.

(SLIDE 1)

The study areas in Sections A, B, and D are essentially in the field of requirements. In Section C, on Foreign, Aid, you also go into the requirements aspect, but the scope is broad enough to give you an understanding of the philosophy behind our aid programs, whether military or civilian. Hence we treat foreign aid as a separate study. Sections E and F cover supply distribution. Section G is in the international logistics field. Sections H and I deal primarily with the mobilization of the transportation and telecommunications industries

for war.

The class is divided into nine groups. Each group will have one or more representatives in each of these sections. Assignments to sections will be made by your student group leader at the first group meeting.

The section representatives, after researching in these areas, will come back to the groups and report their findings; and we hope they will be in a position to spark the discussion.

There also are a number of people in the class who left key jobs in these fields to come to the college. We expect to take advantage of their specialized knowledge for our benefit as well as yours.

After you have heard authoritative speakers on these subjects, and have had the benefit of the group discussions, you will have a better understanding of the mobilization process and the agencies concerned. You will find out something about the many problems involved in the formulation of requirements, which are the basis for our mobilization program. You will also have an opportunity to learn how the military supply systems are organized and operated. You will have a look at the management techniques and controls which are indispensable to efficient supply operations.

One of your classmates wrote his term paper before coming to the college. Here it is--a weighty and excellent treatise on "Military Materiel Requirements." There is also a member in your class, a graduate from the short course here in 1942. He is now back here

doing his post-graduate work.

At this time I should like to present the members of the Requirements Branch, and the other faculty members temporarily assigned to this branch. First, our capable secretary, Mrs. Elizabeth Brundidge. Next, the faculty advisors in the three study areas on Requirements--Mr. Lowell Henkel, better known to you as "Pop." Captain George Lautrup, on loan from the Manpower Branch, and myself. Working with you on Supply Distribution and International Logistics: Colonel Elmore Seeds; Dr. John Lackas, Colonel, United States Army; and Captain Carleton Mott, on loan from the Mobilization Branch. In the fields of Foreign Aid, Transportation, and Telecommunications we have two very articulate gentlemen, Captain Charles Gerlach and Lieutenant Colonel Robert Pike. Also, we are fortunate in having Mr. Michael Poluhoff, from the Manpower Branch, assist us on a part-time basis as a Group Advisor.

Now let us return to "Requirements" and see what we mean by that word.

(SLIDE 2)

The Joint Chiefs of Staff Dictionary defines "Requirements" as: "the need or demand for personnel, equipment and supplies, resources, facilities or services, by specific quantities, for specific periods of time, or at specified times."

It is most significant that, before you can state these needs or demands meaningfully, you must determine your strategy; that is, the

forces you will use, what they will be equipped with, how they will be deployed, and how they will be supplied; who your enemies are, and where they will strike, and what damage they will do. This determination must have the support of our democratic society, which has to pay the price of meeting the requirements.

As we study the complicated process by which requirements are developed, there is a danger of not seeing the forest on account of the trees. Here is how the bits and pieces go together.

(SLIDE 3)

The development of requirements begins at the very top. The National Security Council develops national objectives and statements of national policy for consideration and approval by the President. When approved, they form the first guide lines, or policy statements, for the development of plans, whether they be military, civil defense, research, expansion of facilities, or dispersion of industry.

All mobilization planning, whether by government agency, or through its influence on industry, stems from this initial guidance.

(OVERLAY 1 OF SLIDE 3)

The Joint Chiefs of Staff devise strategic plans in support of national policy and national commitments. Each strategic plan is given a broad logistic implications test to determine if the plan is approximately feasible before it leaves the Joint Chiefs of Staff.

(OVERLAY 2 OF SLIDE 3)

The strategic plans approved by the Joint Chiefs of Staff are

them passed to the three military departments for the development of supporting plans, in detail, and for determination of specific quantities of selected end items.

(OVERLAY 3 TO SLIDE 3)

The material requirements derived by the departments are transmitted to the Office of the Assistant Secretary of Defense (Supply and Logistics) for review. When approved by the Secretary of Defense, the military requirements, in terms of selected resource needs--for example, aluminum, copper, and steel--are passed on to the Office of Defense Mobilization, or "ODM," as we call it.

(OVERLAY 4 TO SLIDE 3)

Here the military, foreign aid, and civilian requirements are combined and matched against our industrial capacity to see if we have over-obligated our ability to produce.

If the two are not in balance, an adjustment is necessary. If our productive capacity exceeds our planned requirements--a most unlikely happening--perhaps we should "soup up" the military effort in an attempt to shorten the war. If our productive capacity falls short of our requirements, we must either revise our plans and commitments downward, or expand our production. In any case, a significant imbalance which leads to an adjustment of plans will necessitate a recomputation of requirements and a repeat of this process.

Well, that is a quick general view of the forest. You should keep this picture in mind as we move along in the course; so that, when

you study one segment in the development of requirements, you will know where it fits into the overall picture.

For example, those of you in Section B who study the development of material requirements in the Department of Defense--and later explain the process to your group--will not only study the planning in the services, but will find out how planning is linked to programming and finally to the budget, which you studied recently in Economic Stabilization. All of this related to the third and fourth blocks there on the chart.

In your Manpower Unit you have already studied problems related to the nation's requirements for manpower in a mobilization. In our study of requirements, therefore, we will emphasize material requirements and not repeat what you have already learned.

Concurrently with requirements you will study natural resources. There is an important link between the two which is worth mentioning here, and which can be illustrated by this slide.

(SLIDE 4)

We show here a medium tank, but any major item needed in war could have been used. When our plans evolve requirements for tanks, this creates in turn a requirement for the materials which go into them. Now, among these materials, those shown in the chart are critical ones, which must be imported.

You see, for example, that most of the chromium, nickel, tin, and manganese required in the tank are not available from domestic

sources. Thus, a knowledge of our natural resources is necessary to determine what we have--and have not--towards meeting our material requirements.

Having located our deficiencies, we can seek to increase our domestic supply, or to find substitutes among more plentiful materials, or to stockpile. All of these approaches are used.

Next spring you will examine the economic potential of other countries. We are interested here in the college in the economic potential of friendly or neutral countries, because, among other things, they may be able to supply some of our deficiencies. Then, too, we want to know about the economic potential of our enemies, so that we can bear down on their weak points.

(SLIDE 5)

Item 17 of your essential reading is a vital document which explains the Joint Chiefs of Staff program for planning. This slide shows the three plans involved or outlined in the program. They are a long-range estimate, a mid-range, and a short-range plan.

This program was modified recently, and copies of the new program are in the classified library.

Although the time periods are changed slightly, the point I want to stress is the significance of the Mid-Range, or, more precisely, the Joint Strategic Objectives Plan. It provides the basis for military mobilization planning, which, in turn, provides the basis for a good deal of our national mobilization planning.

Now, although the program for planning was started in 1951, no finalized mid-range plan has been developed until this year.

Meanwhile, what was going on in military mobilization planning? Well, essentially it has been done unilaterally by the departments, as was true before the program for planning was conceived.

The full implication of mobilization planning on this kind of basis was brought home four years ago. The Korean War forced the issue. It then seemed that M-Day might be pretty close.

In 1951, in response to a call for wartime needs, the military departments submitted to the Munitions Board a set of mobilization requirements which in some instances exceeded the capacity of the nation to produce by several times.

To get planning back into the realm of reality, ODM, in conjunction with the Munitions Board, developed a reverse approach to the problem. In brief, here is what was done.

(SLIDE 8)

The maximum gross national product was estimated, in terms of dollars, for the first three years of a war, approximating the mobilization period in the mid-range plan. Then ODM, with due regard for adequate but minimum home front needs, and for required exports to support our allies, cut the pie to give the military the biggest feasible slice of hard goods production.

As you might expect, each succeeding year the military slice of the pie was larger. Also, though not apparent from the chart, the

pie itself was larger each succeeding year.

ODM estimated the increase in the total output of the nation, due to the stimulus of the war, at something like 12 percent the first year of war, 9 percent the second, and 6 percent the third--this despite large withdrawals of manpower for the military forces.

The military portion of the pie, in terms of dollars, was allocated to the Department of Defense for planning purposes.

The Department of Defense, after further subdivision of its portion of the pie to the Army, Navy, and Air Force, eventually came up with a program of one thousand major items, which represented about 80 percent of its dollar allocation. The civilian claimant agencies likewise came up with their requirements against their cut of the pie.

This concept of planning against a GNP ceiling was known as the "Mobilization Readiness Program" of ODM. If you are interested in looking at this program, the library has several copies.

The Mobilization Readiness Program provided a more reasonable basis for industrial mobilization planning than any previous approach, and the program did have an element of built-in feasibility.

Theoretically, the demands could not exceed the capacity of the nation. However, as must be apparent to many of you, the ability to get the things you need the first year of war is not solely dependent on having your share of the GNP available. There are considerations such as type of production in being, standby facilities, and other

factors related to lead time. Hence, you might not get the long-lead-time items needed.

In other words, if the military's share of the GNP was, for example, 50 billion dollars--remember, this is hard goods production--the first year of war, possibly only 30 billions could be converted into tangible goods which would meet specific needs.

Well, this year all is changed. We do have an approved mid-range plan, and we do have what appears to be a realistic approach to the tough and complex problem of mobilization planning.

(SLIDE 7)

This is the first part of an ODM schedule. Note the beginning date. Since you will hear much more about this planning, I will only sketch it for you.

As you see, production capabilities are measured against requirements. The military requirements, up here, are in terms of several hundred selected end items, again derived from the approved mid-range plan and then translated into these selected resources; for example, aluminum, copper, and steel.

Now, although the Joint Chiefs of Staff will have made broad checks on the logistic feasibility of the plan on which the military requirements are developed, there is a possibility that gaps will develop when the thing is run through.

If these gaps show up and we can take care of them by, say, Action Plans 1, 2, and 4, then we are all set for a mobilization where

there is no attack on the United States.

Assuming this turns out all right, we next apply bomb damage assumptions.

(SLIDE 8)

Study this picture a minute. Here we really open a "can of worms."

You can imagine the terrific problem of working out the damage assumptions. What are the likely targets, and what kind of bombs are they hit with?

Having solved that difficult problem with your best guesstimates, you again measure requirements against surviving capacity. Perhaps your military requirements have increased because some of your assets disappeared in the bombing.

And now we have a tremendous rehabilitation and reconstruction requirement on top of all our other requirements. No doubt the picture will be gloomy after the end of this schedule is reached in January, 1954. When the gaps are examined, I anticipate some pronounced changes will develop in our objectives relating to stockpiling, dispersion, and mobilization reserves. Remember, this is the first time that a schedule of this kind has been run through.

We may--and I stress the word "may"--be forced to the conclusion that,for the early part of the war at least, we can count on only the forces in being, and such mobilization reserves and other stocks as escape damage.

If this is true, you might well ask, "Why study economic mobilization?" If you ponder the question a while, you probably will come up with about the same answers that we have.

You still must have such planning, but you will put a lot more emphasis on aspects which have been somewhat neglected until now. I mean such things as pre-M-Day precautions, dispersion, civil defense, mobilization reserves, stockpiles, and the like.

After M-Day, such items as rehabilitation, reconstruction, preservation of order, control of manpower, and economic stabilization will need major attention and the finest preparatory planning of the best brains we have, in order to avoid chaos.

Then, too, suppose we have a series of Koreas but no major war. Or suppose we have a major war without the use of nuclear weapons, or with only limited use of them. We must be prepared for these possibilities too. Any way you look at it, I think you see the immensity of the problem from that chart there on the screen.

My feeling is that economic mobilization planning was never more important than it is today. And it was never more difficult than it is today.

(SLIDE 9)

Now, a quick look at supply distribution.

Here you see the elements that make up supply distribution--such activities as inventory control, cataloging, storage, packing, packaging, and so on. These are important but rather unglamorous

subjects. As a consequence, there is a tendency to shun supply duty. A very high-ranking officer of the Army told last year's class that highly trained G-3's were available at a dime a dozen, while highly trained G-4's were the scarcest article in the world.

Where does supply distribution fit into the logistics picture?

(SLIDE 10)

Well, having determined your requirements, you are in a position to go into procurement, which leads to production, which gives you the supplies you need. We consider supply distribution as beginning at that point where supplies are picked up from the producer, and as continuing through final disposition as reclamation or salvage.

The military supply systems are truly big business. There are over three million items involved, and total inventories run in the neighborhood of 190 million dollars. By way of comparison, the total value of inventories of all manufacturers in the United States on 31 July 1963 was 43.9 billion dollars.

It is little wonder that the Congress devotes so much attention to our supply management. I mentioned previously that our supply operations are important but unglamorous. If you have ever been on the griddle over on the "Hill" in respect to real or alleged shortcomings in supply operations, you have no doubt whatsoever about their importance. And they <u>are</u> important. Supply operations are the life blood of our logistics support to our forces in peace and in war.

A few of the Congressional investigations may strike a familiar

chord with you. There were--

The Benner Committee hearings on "Federal Supply Management,"

the Hebert Committee "Chamber of Horrors,"

the Smith Committee hearings on the "Korean Ammunition Shortage,"

and the Richman Committee hearings on "Government in Business."

Such hearings may be expected to continue with more steam than ever. Adding fuel to the fire, we have the five comprehensive staff papers on military procurement prepared by a task force of the Hoover Commission.

These papers are contained in these three volumes (showing books). We will consider certain of them in our Unit. You will also learn more about them in the Unit on Procurement.

There is also the overall Commission Report on the Business Organization of the Department of Defense (showing book).

The Hoover Commission got into all aspects of supply management--the role of the Joint Chiefs of Staff, translation of logistic programs into procurement requirements, contracting policies and administration, coordinated procurement, inventory control and distribution, personnel, overseas economic aid, and so on.

Since only two of the study areas will be delving into these task force papers, I would like to read some highly significant extracts from Volume I.

"Shortly after its organization, the Task Force became con-

vinced that the processes by which strategic objectives are set and strategic and logistics plans are developed are perhaps even more significant to defense procurement activity than are the processes by which supplies are actually procured by the Army, Navy, and Air Force. Thus the National Security Council and the Joint Chiefs of Staff, as the President's principal advisers in such matters, should constitute the keystone of the procurement process. It is evident, to suggest a single example, that varying policy decisions concerning the use or non-use of nuclear weapons should have major effects on procurement programs of all three Services. When clear and sufficient guidance is not provided from the National Security Council and Joint Chiefs of Staff levels, decisions must necessarily be made, by default, at the lower levels."

Jumping now to the Findings and Conclusions:

"It is fairly clear from our own observations and from the comments of the many qualified individuals whom we interviewed, that:

"a. Strategic and logistic plans have not been adequately developed on a timely basis;

"b. There is no adequate system for defining requirements realistically to support future integrated forces:

"e. Service plans are prepared largely on a unilateral basis;

"f. The present system promotes a partisan service view,

rather than a broad national view, on vital questions of missions and force levels;"

These are pretty strong words.

We necessarily have to limit our essential reading, and we could make room for only 34 pages of the Hoover Commission Report. However, I commend the Commission Report and the papers of the Task Force on Procurement as reading which will enhance your professional knowledge, whether or not you agree with the findings and recommendations.

The recommendations that came out of the Hoover Commission studies created quite a stir in the Pentagon. Congress is sure to be interested too.

Some of the controversies generated by Congressional hearings approach white heat. However, here in the serene, untroubled academic atmosphere of our wonderful college I venture to say that Congressional interest in military affairs is a good thing.

As you wade into the studies introduced by this Unit, let me leave you with this thought: I quote from Dr. Arthur Flemming, who is Director of the Office of Defense Mobilization, in regard to the staggering problems in mobilization planning. This also should be an inspiration when you tackle the final problem.

> "It is absolutely necessary for us to rise above these feelings of frustration, and tackle those problems that have proved to be impossible to solve in the past, with a determination that they can be solved."

Thank you.