INTRODUCTION TO ECONOMIC MOBILIZATION

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COLONEL BARNES: Admiral Hague, gentlemen: It is our practice here for each branch chief to use a full period at the beginning of his course to explain the details of the course and the class organization to undertake the problems that are assigned. Since we have no written committee or individual problems in the Orientation Course, I am going to be very brief this morning. I assume that the information that has been published in your curriculum books, supplemented by the conferences that you have had and will have with your faculty associates, gives you sufficient information on the program and the scope of the Orientation Course and the administrative practices of the College so that I won't have to dwell on it any further.

In addition to that, the Commandant, the Deputy Commandants, and the Executive Officer have addressed you and explained our policies and how we operate so I am not going to waste your time attempting to develop those matters any further.

There is one point, however, in regard to the Orientation Course that I want to emphasize. It is not a detailed course in any subject. It is for orientation only. The scheduled lectures and the reading in organization and management and in economics are planned chiefly as an opportunity for you to refresh or broaden the information that you have acquired prior to being selected for this detail. We have to assume that you have that background before coming here.

What we actually try to do in the first three weeks is to give you a background so that you will be in a good position to jump off in your detailed studies which follow with a fairly clear understanding of where you are heading. We think that an over-all look at what our economic mobilization experience has been in the past, a "once over lightly" treatment of the principles of management, and the principles of economics accomplish this purpose the best way it can be achieved.

Now I would like to say a word on a matter that may apply to some of you. There are always a few in each class who feel rather frustrated in the early weeks of this course. The technical jargon of the speakers is new to them. They may be less familiar than some of their classmates with the prescribed reading, or they have been so long out of an academic atmosphere that they find it difficult to break into the routine and concentrate and assimilate. If any of you feel that way, I just want to say a word of encouragement. Don't worry; don't fret about falling behind. Just do the best you can. You will find that gradually things will take on a familiar look and you will be settled in the groove along with everybody else. Just remember you are not alone in finding it hard

to return to the student routine. It happens every year. You have classmates in the same boat. You will look back later, I predict, on these easy days and wonder how they ever could have seemed hard. So much for that.

Now the Mobilization Branch which I head is responsible for putting on, as you know, this orientation period. The branch also has two other curriculum responsibilities, the vertical lecture program and your final committee thesis. The vertical lecture program is a series of intermittent lectures which will take place generally on Fridays throughout the course, covering subjects that are broader than the particular field of any single instruction branch. The final committee problem is always designed to be very comprehensive, something that will stimulate constructive and original thinking in the field of economic mobilization and at the same time pull together all the material that you previously had in your academic year here. We will present to you that final committee problem sometime the latter part of January to give you plenty of time to think about it, although actual work time for it will not be assigned until early May.

Now to proceed with the program scheduled for this period. I feel pretty sure that Father Walsh's lecture yesterday has given you a feeling of real concern over the international situation and the problems that are confronting us today and for the foreseeable future in national security. You must realize also that many of you will be responsible in a large way for some part of the solution of these problems.

What does the solution to these problems mean? One thing on which we will all have to agree and will admit is that it means preparing ourselves for war. No one can be sure that war will be avoided no matter how much we hope for it. What does preparing for war mean? Reduced to a simple term it means economic mobilization. For the next 10 months you will be studying one phase or another of economic mobilization. We are starting out with it this morning with Dr. Hunter's lecture which is designed to introduce to you its underlying philosophy. He will follow this tomorrow and Friday with two additional lectures, presenting briefly our past experience with economic mobilization.

I think we are especially fortunate in having Dr. Hunter as a member of our faculty. He is one of those rare birds who can be a college professor and just a "run of the mill" guy at one and the same time. You drop around to his office any time you want any help and you will see what I mean. He will be able to give you a scholarly discourse or just "shoot the breeze," whichever you prefer.

Louie, I hope I haven't taken up too much of your time. The platform is yours. Louie Hunter.

DR. HUNTER: Admiral Hague, General Greeley, General Hovey, gentlemen: Yesterday morning you were inducted in a masterly manner into the mysteries of moral middlemen and geopoliticians. Earlier this morning you were given a high level preview of the fundamentals of national strategy. At the present moment some of you may be thinking that a lecture which is only an introduction to something assumes the character of anticlimax. I can assure you that this is far from being the case. I regard the several preceding lectures simply as opening paragraphs inserted to prepare the way for my remarks.

Be that as it may, this morning I take up the first of three introductory talks on the subject of our course, "Economic Mobilization." This first talk is called "An Introduction to Economic Mobilization." Actually all three of these talks are introductory in character.

Now, to introduce is to lead into and that is all we're trying to do, really, in the whole of this Orientation Unit. We're not trying to give you a condensation or digest of the whole course. We do want to give you some notion of what economic mobilization is all about, some conception of its character and significance and of its relation to military operations.

This morning I want to discuss with you some of the major characteristics, problems, and conditions of economic mobilization. While I will, in the course of this discussion, give a considerable amount of explanatory detail, this detail is not important in itself. I would like to have each of you carry away from this room a few main points--a few big ideas about economic mobilization. The details are useful only to the extent that they help get the main points across.

During the summer copies were sent you of a 21-page branch monograph called "Economic Mobilization" (R133), prepared within the Mobilization Branch. Many of you may have found time to read through it--even though it was not required reading. My talk this morning will cover basically the same ground as this monograph--although approached somewhat differently. This reiteration, this repetition is intentional because, when dealing with what will be to many a completely new subject, the stuff simply won't sink in with a single application.

Let me repeat--in the first few days of the course, we're simply trying to get our feet on the ground by getting a general, over-all idea of economic mobilization. Once we get the over-all picture in mind, once we are acquainted with some of the more fundamental considerations, then we'll be in a position to dig into the more specialized aspects of the subject.

My discussion this morning is arranged under five headings as indicated below.

1. Economic Mobilization and Logistics.

2. The Revolution in the Economic Basis of Warfare.

3. The Capitalistic System and Economic Mobilization.

4. The Role of Controls in a War Economy.

5. The Armed Services and Economic Mobilization.

I'm going to start with a definition of economic mobilization and then I shall spend the rest of the period trying to explain just what the definition means.

Economic mobilization is simply the process by which all the productive resources of the economy are organized and directed in support of the armed forces for defense or war. The science and conduct of warfare break down into the three major divisions with which you are all familiar--strategy, tactics, and logistics. These divisions can be likened to the supports of a three-legged stool, each one being essential to the functioning of the whole. Strategy determines the over-all military objectives and plans for the conduct of the war. It supports the political objectives or goals of the Nation. Tactics has to do with the direction and conduct of specific military operations--combat operations. Tactics, in other words, are the methods for supporting and attaining the strategic objectives. Logistics, the third leg of the stool, has to do with providing the supply base, the material ways and means essential to the successful conduct of tactical operations.

Let's stop a moment and take a look at the term logistics. In recent years it has been given a much broader, a much more inclusive interpretation than has been customary in the past. The traditional--and narrow--concept of logistics you will find in Webster. He defines logistics as "The branch of the military art which embraces the details of the transport, quartering, and supply of troops in military operations." In this older concept of logistics, the production and even the procurement of military supplies was customarily ignored or taken for granted. Logistics was pretty much limited to supply operations in the field.

In the past 20 or 25 years, the concept of logistics has been greatly expanded. Today logistics is commonly interpreted to include the entire industrial and economic base of military operations as well as supply activities in the field. Economic mobilization and logistics, therefore, cover pretty much the same ground but there is a different emphasis. The attention in logistics is fixed primarily on the distribution or field supply end of the subject, while in economic mobilization we give more attention to the resource and production base.

Organized warfare has always rested on an economic base. The conduct of war has always required not only fighting men but the weapons, food, clothing, and equipment necessary to outfit them and supply them in the field. And all these men and supplies necessarily come from the economy--the productive system, whatever kind of an economic system it may be--whether this system rests primarily on agriculture or on industry, whether it is a primitive or an advanced economy, efficient or inefficient.

But while this has always been true, it has not been until, say the last half century, that what we call economic mobilization has become essential--that is, essential to provide the supply support of the armed forces. With certain exceptions, one of which, our Civil War, I will discuss briefly tomorrow, economic mobilization is a phenomenon of the past generation. It is as recent as the automobile and the airplane and is, in part, a result of them.

The first general resort to economic mobilization came in the First World War; the second time was in World War II; and during the past two years the United States and some of its allies have been engaged in economic mobilization for the third time--this time, for limited war and, if it should come, all-out war.

Now, just for emphasis, let me repeat my first two main points--I will have a half dozen main points that I will call your particular attention to in the course of my remarks:

1. Economic mobilization is a phase, the major phase of the logistical or supply side of warfare. Its function is to provide the supply base for tactical operations in support of strategic plans.

2. While organized warfare has always rested upon an economic base, economic mobilization as we use that term today is a relatively new phenomenon. It is a development of the past 50 years--and therefore something quite new in the history of warfare.

I want to carry this explanation a step further by saying that economic mobilization is concerned with those measures--both ordinary and extraordinary, but especially the extraordinary measures--that governments in our time have found essential to provide the logistical support of the armed forces in time of major war.

What do I mean by ordinary and extraordinary? By ordinary measures I mean simply those measures which governments prior to our time customarily employed to provide the supply requirements of war. Broadly speaking these ordinary measures fall into three groups:

1. Raising troops by whatever means, voluntary or compulsory--this is the manpower problem.

2. Providing all kinds of military equipment and supplies--this is the procurement problem.

3. Raising money to pay for the supplies and equipment and to meet payrolls--and this is the financial problem.

It is true that in dealing with these several kinds of problems, governments may and often have resorted to unusual, to extraordinary methods--supplies and property may be commandeered without payment, loans may be forced and funds seized to fill an empty treasury, and so on.

But the significant point is this: The actual working of the economic system, the functioning of the productive resources of the Nation, is, in its essentials, not interfered with. It goes on just as usual. For example, in a country such as ours, with a private enterprise economy, the Government in earlier wars met its supply problems customarily by going into the open market and buying what it needed, at the best prices possible. Getting equipment and supplies was therefore a straight procurement job, carried on under difficulties as we moved from a condition of almost no defense establishment to a large-scale war establishment overnight. No attempts were made to interfere with the normal conduct of business and production, as, for example, by telling manufacturers what they could or could not produce, to whom they could sell, and at what price; or by controlling the sale and use of scarce materials, facilities, and equipment; or by regulating prices, wages, and credit.

With the coming of the First World War, all this was changed. As a result of the new conditions of warfare, there was a tremendous and unprecedented expansion in military requirements--far beyond anything anticipated by the belligerent powers. All the powers were compelled to take extraordinary measures to deal with the supply crises which developed. The belligerent governments found themselves compelled to intervene directly in the actual functioning of the economy. They simply couldn't get the necessary results through the traditional methods of military procurement and war finance. So they established a variety of forms of economic controls, interfering directly and frequently drastically with the freedom of business enterprise, which is the core of a private enterprise economy, that is, capitalism.

Tomorrow morning I shall consider in some detail just why this change took place during the First World War--just why governments found themselves compelled to take extraordinary steps to deal with the supply crises. For the time being let me simply say that this compulsion was the outgrowth of a revolution in warfare which had taken place in the preceding decades but the results of which military and other men were not fully aware until the First World War actually was under way. This revolution was the product primarily of certain new weapons and materiel.

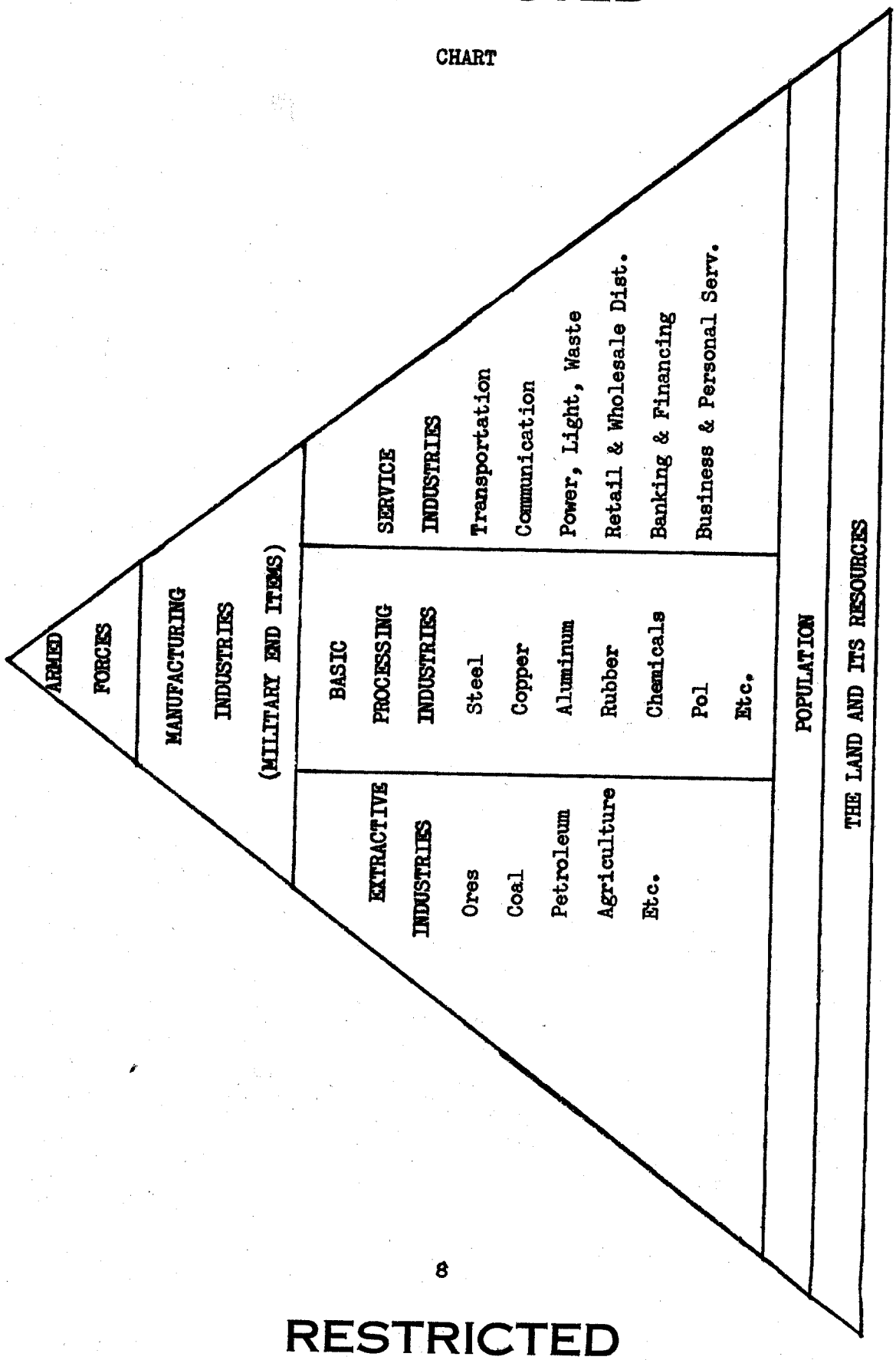
These weapons and this materiel were the product, in turn, of civilian developments of far-reaching importance--in technology, in industry, and in business enterprise.

This revolution in warfare, as revealed in the experience of World Wars I and II, has driven home a point that is basic for an understanding of economic mobilization. It is this: The military strength and capabilities of nations rest no less upon their technical, economic, and industrial resources than upon military effectiveness defined in the traditional terms of size of armies and navies, fighting spirit and ability, and skill and leadership in the tactics and strategy of war.

War has, in fact, become far more than a contest between the armed forces of nations. It is much more even than a conflict between these forces supported by the great manufacturing industries which provide them with supplies and munitions. It is a struggle in which all the productive resources, including the economic systems by which these resources are coordinated and directed, are mobilized in support of the armed forces.

In the past generation the armed forces have become quite literally only the cutting edge of a vast war-making machine, a war-making machine which includes all the resources of the Nation. In many respects the economic and civilian aspects of warfare, in fact, have come to overshadow--quantitatively at least--the military side of war. Indeed, the traditional distinction between civilian and military is coming to have less and less meaning in wartime. In the new age of aerial and atomic warfare, it may have no meaning at all. Now to represent this basic fact about modern war I have had a chart prepared in which the various elements to be mobilized in wartime are represented as layers of a pyramid (see following page). At the top, the apex of the pyramid, are the armed forces--the cutting edge of the national war machine. Traditionally, as I've suggested, the military strength of a nation has been thought of chiefly, if not exclusively, in terms of the size and fighting ability and leadership of these forces. Immediately below the military apex of the national war effort is what we call the industrial backup of the armed forces. This layer is made up of manufacturing industries engaged directly in the production of the wide variety and vast quantities of military end items--not only weapons, ammunition, and equipment, but food, clothing, and innumerable civilian-type goods. This layer of manufacturing industries includes tens of thousands of industrial facilities and business organizations--the prime contractors, the subcontractors, the sub-subs, and so on down the line. However crucial the importance of manufacturing industry in the logistical support of the armed forces, it is obvious that manufacturing industry doesn't stand alone. Manufacturers of end items are dependent upon a wide variety of other industries and services. So beneath the layer of manufacturing industry I've placed another layer--one which is in many respects broader and deeper than the industrial layer which it supports.

CHART


ARMED
FORCES
MANUFACTURING
INDUSTRIES
(MILITARY END ITEMS)
EXTRACTIVE
INDUSTRIES
Ores
Coal
Petroleum
Agriculture
Etc.
BASIC
PROCESSING
INDUSTRIES
Steel
Copper
Aluminum
Rubber
Chemicals
Pol
Etc.
SERVICE
INDUSTRIES
Transportation
Communication
Power, Light, Waste
Retail & Wholesale Dist.
Banking & Financing
Business & Personal Serv.
POPULATION
THE LAND AND ITS RESOURCES

As you see, I've divided this third layer of the logistical pyramid into three major parts: the extractive industries, the basic processing industries, and the service industries.

The extractive industries are the primary industries which supply the raw material needs of the Nation--the metallic ores and nonmetallic minerals; the fuels such as coal, petroleum, and natural gas; the wide range of agricultural products, both foodstuffs and industrial raw materials; the many products of the forest industries.

The basic processing industries include such critical industries as steel, copper, aluminum, and a long list of other nonferrous metals; the heavy chemicals, petroleum products, rubber, and so on.

Then come a whole cluster of what, for want of a better term, we call the service industries: the great transportation systems of the country--rail and steamship lines, truck and bus transport, air transport, pipelines; the communication systems--postal service, telephone and telegraph, radio, newspapers and periodicals; then there are the utility services--power and light, water, and waste disposal. Then last, but far from least, come a variety of business services, including among them banking and financial services; wholesale and retail distribution; insurance, advertising, and scores of others.

Finally, at the bottom of this logistical pyramid, we have the two broad layers representing:

1. The population base which, as the Manpower Branch will demonstrate, plays so fundamental a role in the military potential of a nation.

2. The land itself--the land with its resources, its climatic and geographic features, its locational advantages and handicaps.

As you can readily see, this concept of the logistical pyramid greatly oversimplifies the actual situation. For example, it fails to show the interdependence of the various layers and of different parts of the same layer. The service industries depend on the manufacturing and extractive industries, and the extractive upon the service and manufacturing industries.

But while this chart oversimplifies the picture, it is useful in suggesting how deeply rooted is the military strength of a modern nation. A failure in any major part of this pyramid will be felt, sooner or later, in a slowing down or reduction in the stream of supplies which is the lifeblood of the armed forces. A crop failure, a transportation breakdown, a power shortage, a major strike, any one of these can have serious military consequences. Strike at the foundations, at the roots of military power, and you weaken that power. These are commonplace but fundamental facts in the experience of our generation, which were

not realized prior to our generation; they are relatively new in the history of warfare. There are many today, among both civilians and military, who have not fully grasped their significance.

An old advertising proverb says that repetition is reputation, so before going further, let me repeat the third and fourth in the series of five major points around which I'm building my talk this morning. Third, economic mobilization is concerned especially with those extraordinary measures which governments have found indispensable for giving the armed forces adequate logistical support in wartime--measures which go much beyond the traditional war-supporting activities of raising troops, procuring military supplies, and raising money--measures which, as we shall see, include direct government intervention in and control of the economic system. Fourth, the armed forces are but the cutting edge of a tremendous national war-making machine--a machine which includes all the productive resources of the Nation.

This brings me to what is, in many respects, the most difficult and the most complicated phase of economic mobilization. We don't have the whole logistical story by any means when we've listed all the productive components in the logistical pyramid. These productive components--these farms and factories; these mines and mills; all these raw materials and manpower are simply parts or cogs in a vast, complicated and delicately balanced economic system--an economic system which has drive and movement; an economic system which has direction and coordination; an economic system which is subject to disturbances and which can and do interfere seriously at times with its efficiency and effectiveness. It is a system in which balance and stability are very important and very difficult to maintain.

The problem we're faced with in economic mobilization is not simply that of getting production--production in the usual sense, as conducted in mill and factory. We've got to get the entire economic system--of which production facilities and output are only a part--working at maximum effectiveness. To do this gets us into such fundamental considerations, for example, as motivation--why 150 million people behave as they do in economic matters; into such considerations also as individual rights, free enterprise, and public attitudes and morale.

Our economic system is one based on private property and private enterprise--in a word, capitalism. It is a system which contrasts sharply with other economic systems such as socialism and communism. It is a system in which the main driving forces are self-interest and private profit.

We're all familiar with the peacetime achievements of this capitalistic system, this private enterprise system of ours. Operating with the aid of our great wealth of natural resources, it has made us by far

the richest nation in the world. In over-all productivity, in national income, and in standard of living we lead the world. No other major nation comes anywhere near us in economic achievements.

The most distinctive feature of the capitalist or private enterprise system is this: It is a system in which the basic decisions are made by private individuals and private business organizations, operating in the open market, the free market, under the changing conditions of supply and demand. These basic decisions, of course, have to do with such questions as: what goods and services shall be produced; in what quantities and of what characteristics and qualities; for what prices and to whom they shall be sold. All these decisions are made by private individuals or private organizations, whether as producers or middlemen; whether as businessmen or as ultimate consumers.

Furthermore, in this peacetime, private enterprise economy of ours, coordination, that is, the balancing of supply and demand, is provided by the more or less automatic operation of the market. Now, it is right at this point that we get into our greatest difficulties in mobilizing our resources for war. Even under normal, peacetime conditions, this coordination, this balancing of supply and demand throughout the economy has been one of the weakest points in the operation of the private enterprise system. Moreover, the problem of dealing with economic instability, the smoothing out of the often wide fluctuations in business conditions and employment, has become our major peacetime headache. The abnormal conditions of a war emergency serve greatly to accentuate this instability and compel the Government to take positive steps to provide the coordination and stability which are indispensable for getting maximum production.

This brings me to my next major conclusion: In contrast with the free enterprise economy of peacetime, the war economy is a planned, directed, and controlled economy—that is, it is an economy in which the most important decisions are made, not by private businessmen and business organizations, as normally in peacetime, but by government agencies and officials responsible for the direction and achievement of the war production programs. These decisions include decisions as to what kinds of goods shall be produced; of what qualities and in what amounts; when and in what order; on what schedules many key items and materials shall be produced; and for whom they shall be produced; what prices shall be paid and on what credit terms; what wages may be paid and what profits allowed. To make these decisions and to make them stick requires elaborate systems of controls administered by government agencies, usually emergency agencies of great size—the controls we are familiar with—price controls, wage controls, materials controls, credit controls, export controls, and all the rest.

Why is this necessary? Why in an emergency do we interfere so drastically with the free operation of an economic system which has produced such extraordinarily effective results in peacetime? The

answer to this question is not an easy one. It isn't one that can be readily understood—for there is nothing quite so complicated in its organization and functioning as our economic system. We can get some general conception of the answer by disucssing it under three headings: (1) diversion, (2) stability, and (3) coordination.

Let's start with the first: Diversion.—A major objective in a war economy is the maximum diversion of resources from peacetime, from civilian, uses to military operations in order to mount as large a military effort as possible as rapidly as possible in support of strategic plans. This point need not be elaborated. There is only one qualification to the amount of this diversion; namely, the necessity of maintaining the war-supporting economy in a condition of maximum productive efficiency. Don't kill, don't starve, the goose that lays the golden egg.

Now there are two aspects to this diversion problem: We want to get less production of civilian goods and we want to have less consumption of civilian goods, less relatively speaking, if not absolutely.

Let's take a look first at the problem presented by the consumer—157 million consumers today—in a defense or war emergency. Surprising though it may seem, one of the first products of an emergency is a wave of prosperity—which quickly takes on the proportions of a boom. Not only is unemployment virtually wiped out but millions of persons normally not in the labor force are drawn into production. Wage rates and total wage income both rise steadily—especially total wage income—not only as result of increased size of labor force, but as result of overtime pay, upgrading of jobs, and so on. People have a greater sense of security, too, as a result of the prosperity which nearly all soon come to share.

What happens when consumer incomes rise sharply and are well maintained? Obviously, people simply itch to spend the contents of their fat pay envelopes. Large numbers find that for the first time certain luxuries are within their reach. Tremendous pressure on the consumer goods' industries for increased production to meet this demand is the inevitable result.

And how does the producer of consumer goods respond to this situation? Does he shake his head and say, "No, the armed services come first"? If the experience of World Wars I and II and the present emergency is a satisfactory guide, he does not, in a large proportion of cases, at any rate, where a major conversion of facilities and equipment is required.

There are many and persuasive reasons why producers are often reluctant to shift from civilian to war production unless compelled to do so. The change-over, the conversion of facilities, is often difficult

and time-consuming; the reconversion at the end of the emergency persents the same problems. The production of unfamiliar military items with their exacting specifications is filled with many headaches. Not only is business booming and profits high in the producer's normal line of business, but he fears the loss of his market if he gives up civilian production while his competitors do not.

What all this adds up to is simply this: Unless compulsory controls are employed, you will not get the diversion of productive resources from civilian to military uses that a maximum war effort demands. Instead of civilian demands giving way to military demands, civilian demands will compete with military demands--the experience of World Wars I and II demonstrate this clearly--and the results will be inevitably to reduce the scale and intensity of military operations. Consequently, we introduce controls to make sure that scarce materials, facilities, manpower, machine tools, and other critically scarce items are diverted from less essential uses and channeled into those fields where they will promote best the war effort.

This brings me to the second of the three points, stability, under which I am trying to explain why a controlled economic system is essential in a major war. This matter of economic stabilization has been on the front pages fairly continuously during the last two years. We are all familiar with it, all concerned about it, and we will hear much more about it during the months ahead.

Let me here simply make a couple of brief points with respect to economic stability. Stability, as I've suggested, is one of the major problems of the private enterprise system even under normal peacetime conditions. The "ups and downs" of the business cycle, the alternation of periods of "boom and bust" are part of this problem of stability. The economic system nonetheless does have stability and to provide this stability it has, so to speak, a built-in stabilizer. This stabilizer is the market operating through supply and demand and the mechanism of prices; through the movement of prices, supply is continually adjusted to demand. An upward trend of prices is followed in due course by an increase in supply; the increase in supply checks the upward trend of prices and, if continued, prices will move downward. In this way the price level, the market, and the economy as a whole acquire stability--not as much as we'd like at times, it is true, but stability nonetheless.

Now what happens when we enter a major defense or all-out war effort? The props are soon knocked out from under this built-in stabilizer of the private enterprise economy. The tremendous requirements of the armed forces plus the rapidly expanding civilian demands build up the demand side of the market so heavily that supply cannot possibly keep pace. In many materials and commodities, the armed services would like to get several times the total existing supply and output. Supply and demand become, in effect, permanently out of joint--for the duration of the emergency, at any rate. The overbalancing of supply by demand is

reflected in price increases and since, from the nature of the situation, supply cannot possibly be increased to equal demand, there is no natural check to price increases. The resulting upward spiral of prices brings inflation with all its disturbing and demoralizing consequences. These are the reasons why a major problem in a defense or war economy is that of providing artificially the stability which the economic system itself cannot provide naturally through the market and prices. So the Government introduces a variety of measures to establish economic stabilization--price control, including wage and rent controls; credit controls, consumer, commercial, and so on; taxation; savings bond programs; rationing.

The third major reason why a controlled and directed economy is necessary in a defense or war emergency, as I indicated earlier, is the need for coordination. Coordination is one of the most sacred words in federalese gobbledygook. An untold number of crimes without doubt have been committed in its name. Let me give you an example of just what I mean by coordination in economic mobilization. Let's start out with the strategic plan which calls, let us assume, for offensive military operations in a given theater at a given time. The plan specifies so many forces--Army, Navy, Marine Corps, and Air Force--and calls for the kinds and amounts of equipment and supplies essential to support the operation. There are not only the tremendous requirements of the regular equipment of each branch of service involved, but special equipment, such as landing craft, shipping, and so on.

Now what happens: Each service gets under the procurement load; goes all out to meet its own equipment and supply requirements. Each is determined to get its own job done, more or less regardless of what happens to the other services' requirements. Interservice competition was a serious problem in both World War I and World War II. Somebody therefore has to coordinate their procurement and supply programs.

Obviously, if the military operations called for by the strategic plan are to be successful, we must have the forces, the equipment, and the supplies in the amounts essential for the conduct of the operation. To have twice as many aircraft and only half the landing craft called for will surely foul up the operation. Now, I think you can see that, just as there has to be coordination within the military establishment, there has to be coordination throughout the entire supporting economy. There has to be a balance established between the requirements of the armed forces and the requirements of the war-supporting economy. If the civilian economy doesn't receive sufficient materials, equipment, and service to keep it in efficient operation, production will suffer and, with it, the war effort dependent on production. There must be balance established not only between industrial capacity for the many kinds of military end items, but likewise between production of end items and raw materials; production and the services which support production--power, transportation, and all the rest. In a tight war economy, too much of anything is almost as bad as too little because too much of one

thing often means there will not be enough of something else. Too much high octane gas may well mean not enough synthetic rubber; too many fractional horsepower motors may mean too few antifriction bearings.

In peacetime this difficult and intricate problem of keeping the innumerable parts of the economic system in step with each other is accomplished through an elaborate network of business relationships and institutions--the banking systems; the produce and security exchanges, wholesale and retail distribution--the entire marketing system.

But this peacetime system of coordination, of balancing the innumerable parts of the economic system, is not adequate for wartime needs for two main reasons:

1. Because, as we have seen, supply and demand are so far out of balance--with the resulting instability.

2. And because the normal coordination through the market operates too slowly the Government has to take over. The Government must assume responsibility for keeping all parts of the war effort and all parts of the war economy in step and in balance. This includes the job of keeping the various agencies of the Government in step with one another--not the least by any means of the difficulties in economic mobilization. And don't let us fool ourselves about the size and difficulties of this job--without doubt, it is the most difficult administrative job in the world--a job in comparison with which the running of a Socialist or Communistic economic system appears relatively simple.

All right, then--to sum up the point I've been developing the past 15 minutes (my fifth main point): In contrast with the private enterprise economy of peacetime, the war economy is planned, directed, and controlled by the Government--the Federal Government primarily and chiefly--for only through such central direction and control can we secure the diversion of resources and the stability and coordination of economic effort essential for supporting a maximum military effort.

This brings me to the sixth and concluding point that I want to consider briefly in this introductory talk. This is the question of the relationship of the armed services and the military profession to economic mobilization.

My discussion so far this morning has focused on the basic role of economic resources in the conduct of modern war. Now, you may concede everything I've said and yet adopt the view that economic mobilization is a civilian responsibility and something with which the military services need not concern themselves. You may possibly contend that the increasing range and complexity of military operations is such as completely to absorb the time, attention, and energies of the armed forces. Therefore, why bother military men with what are essentially civilian tasks?

This viewpoint is not without some weight, but I think it breaks down under close analysis. The armed services are simply the cutting edge, as I've suggested, of a great war machine embracing all the productive resources of the Nation. Obviously, a primary condition of the successful operation of such a national war machine is the close and smooth coordination of all its parts--not only of labor, management, the farmer, and all branches of the economy, but also between the military and the civilian components of the war machine--of the national team.

Accordingly, it is absolutely essential that the armed services have an understanding at least of the fundamental conditions and problems of economic mobilization. Military strategy, if it is to be sound, must be closely related to the ability of the economic system to support the operations called for by that strategy--support in terms of ships, aircraft, munitions, and men. For the armed services to ask for too little is to risk prolonging, if not losing, the war. On the other hand, to insist on getting more than the economy can supply may result in an overload which may mean getting less rather than more; it may even lead to a serious breakdown in the economy.

But the issue I am pointing up here is far more than an academic one. Much more is involved than mere understanding of economic mobilization by the military in the interest of effective cooperation between the civilian and military arms of the war effort. While we think of responsibility for economic mobilization as being a civilian responsibility, it is far from exclusively so. The fact is that in the United States the armed services have primary, indeed, exclusive responsibility--statutory responsibility--for one of the major functions of economic mobilization, the design, development, and the procurement of all military equipment and supplies. In carrying out their procurement responsibilities in a national emergency, the armed services exercise a very great influence upon the functioning of the economic system. Consider, for example, the tremendous scale of procurement operations during wartime and its impact upon the market. Our total war outlays in 1943 and again in 1944 exceeded 50 billion dollars, or some 43 percent of the national income. Of these astronomical sums the armed services spent about three-fourths. The impact of such colossal operations concentrated in the hands of the military establishment is difficult to exaggerate. Such purchasing power can be compared to economic dynamite in its potential effects upon the stable and efficient working of our economic system. Badly handled, irresponsibly handled procurement, on this tremendous scale can disorganize markets, stimulate speculation, create serious shortages, and accelerate inflation. So long at least as the military establishment continues to have responsibility for procurement, military men must be equipped with the knowledge and understanding of the war economy and its mobilization which is so essential for the wise exercise of this responsibility. The major purpose of this course in economic mobilization is to assist you in acquiring this knowledge and this understanding.

QUESTION: Doctor, don't you think there is serious danger to our democratic form of government in order to carry out this efficient economic mobilization?

DR. HUNTER: There are serious dangers; and these dangers have been present in the minds of the planners in this field ever since the First World War. Here it is a case where you have to balance the dangers against the needs of the situation. One way of protecting ourselves somewhat against such dangers is to be continuously aware of them. There is the old cliché to the effect that a government bureau once given power never gives it up. I think you will find from the experience of World Wars I and II that many government agencies gave up a lot of powers and several government agencies were liquidated very fast indeed, following the close of the war, but the problem, the danger still remains.

QUESTION: You made reference to the constant concern of keeping economic mobilization in balance with civilian requirements. We have often discussed that problem, the United States versus Communist countries like the USSR. They have already a very depressed civilian economy, so depressed that it hardly can go much lower. We are a very highly developed economy. Are there any satisfactory premises in a highly developed economy like ours as to what extent we can depress the civilian economy without ruining the general economy?

DR. HUNTER: You have pointed to one of the shadow zones in the field of economic mobilization. This is one of the areas we know least about because in the last war we made relatively little progress in the direction of determining the minimum level of civilian requirements. The whole subject of civilian requirements was batted back and forth a great deal and efforts were made. There was an Office of Civilian Requirements in the War Production Board which attempted to work out some base level below which civilian requirements should not be pushed.

I suppose the basic reason we didn't get very far in the matter of determining rock-bottom civilian requirements was simply the fact that our productive system during the war exceeded all previous conceptions of its capabilities. We increased production--not in price terms but in physical output--roughly about 50 percent, so that there was not only enough to take care of these extraordinarily great military requirements but there was so much left over that, by and large, excluding certain types of hard goods, the standard of living of consumers rose materially.

Obviously it would be very difficult to establish any fixed bottom limit. How much the civilian population can take depends on how much they feel they have to take in the way of a reduction of their standard of living. We find one situation during the past war in England, another in the USSR, another in Germany, another in the United States, and the whole question of public morale, how much the public will take, how much the public has been accustomed to receive enters into the picture.

QUESTION: To carry that on a little bit further, in times like now where we have limited controls, what factors do you consider--carrying out the other gentleman's remarks there--about what controls should be placed at particular times, say, in the limited warfare that we are conducting? That is, we have controls on certain material; the Government has to wait until a certain point is reached. What factors do they use in determining the point where they may have to put controls on something else?

DR. HUNTER: That is an extremely difficult question to answer. I really can't answer it. There are so many unknown, so many incalculable elements that enter into the picture. For example, take the political factors. Very obviously political considerations have entered into the question of how much control, how soon the controls should be introduced, how long they should be kept. Take the position of the economist in a government bureau which has responsibility in this area. He makes his studies; he plots his graphs; he makes his estimates as to the possible trend, let us say, of prices. Then things happen that completely upset his calculations. For example, I believe it was in the spring of last year that the public, instead of going all out and buying more and more goods that were likely to be scarce, the hard goods, went on a buyers' strike--perhaps that is an incorrect word--buying simply fell off. Hard consumer goods piled up in warehouses. They are still in the process of liquidating those inventories, as you will see by reading the daily papers. This was owing to mainly unforeseen, incalculable behavior of the consumer. Although by all rational standards he should have been accumulating hard goods, he stopped buying.

Now the economist is not God. People don't react in the invariable way that chemicals do. By studying various economic indicators, the economist can anticipate things up to a certain point, but the public tends to be incalculable within variable limits.

Then we have such other considerations as the political ones that operate within the country; and there are changes in the situation abroad with the resulting reactions of public opinion. Public reactions are extremely difficult to anticipate. But we will get to that matter when we get into the stabilization phase of the course and there will be frequent references to it in connection with other phases of the course.

QUESTION: In discussing the fifth point of the armed services and economic mobilization, you mentioned what certainly is a truism, that the military forces may not withdraw from this function and say, "Let us fight a war; give us the materials." There is an opposite to that position, however, which would be control of the economic mobilization by the military, an organization that has administrative practices and procedures built up, internal loyalties up and down, might obviate the trouble in reorganizations that occurs at the beginning of such a period. What would be in your opinion the advisability of having some general in a position comparable to heading the War Production Board in the last war?

DR. HUNTER: Well, if you have reference to having these functions kept in the hands of the military, giving them the responsibility for running the war economy, you raise the basic issue of how far civilian authority should go and how far military authority should go in economic mobilization.

We do not have school doctrines at the Industrial College, but I know no point was stressed more back in the twenties and thirties at the Industrial College than this, that the military services are not responsible for, are not charged with, the mobilization of the industrial resources of the Nation in wartime. In the Defense Act of 1920, the War Department was given responsibility for what was called industrial mobilization. But in making plans and drawing up organization blueprints for mobilization in wartime, they stressed again and again, "This is a civilian job when the emergency comes. The military people have responsibility in wartime simply for procurement." So strongly ingrained in this country is the view that the military will stick predominantly to the fighting end, doing only those additional things, that is, chiefly procurement, that have been assigned to them, that no responsible voice from the military side has taken the position that the military should be given more economic authority. In fact vou will find in connection with the discussions that went on prior to the passing of the National Security Act of 1947, that the military stressed that planning for what we now call economic mobilization, which had been by statute the responsibility of the War Department in the twenties and thirties, should be turned over to a civilian organization because it was pre-eminently a civilian function; that was done in the National Security Act of 1947. The National Security Resources Board was set up and made responsible for advising the President on all matters relating to planning for economic mobilization.

COLONEL BARNES: Well, that is the end Louie. If the class is as much interested in this talk as I was who have heard it for the third time, you've really accomplished your mission.

DR. HUNTER: Thank you, Elmer, but you have a vested interest.

(17 Sep 1952--750)S/ijk.