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THE ARMY INDUSTRIAL COLLEGE
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Course 1937-1938

ORIENTATION TALK

by

Colonel Harry B. Jordan, O.D.
Director, Army Industrial College

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Gentlemen:

It is my privilege to extend the greetings of the faculty to you and to say we are glad to have you here. It is my duty in this talk to orient you, as far as I am able, in the year's work ahead of you.

There were questions that arose in my mind when I entered the College some years ago and I feel the same ones arise today. Some of them are:

Why was this College established?
What is its mission?
What is the College trying to do?
Why is the College trying to do it?
What methods are pursued?

Numerous other questions may arise in your minds; but if I can answer those above to your satisfaction I shall be content.

Some historical background is necessary to a complete understanding of our College and its mission. At the outbreak of the World War, and continuing throughout its duration, great difficulties arose in the -

a. Procurement of Munitions

in quality,
in quantity, and
in deliveries in time for their urgent use.

b. Assurance of provision of ample necessities of life for civilian population.

The following facts relative to the war are incontrovertible:

(1) The Army sailed overseas largely in Allies' ships and to a great extent fought the war with certain vital items of arms and equipment purchased from the Allies.

(2) Confusion and sky-rocketing of prices occurred due to shortages, actual or alleged, and to bidding against one another by the Army, the Navy, and the Shipping Board and, still worse, by the supply services of the Army among themselves.

(3) In an effort to bring order out of confusion and to accelerate the industrial effort in support of the military, the President called in men prominent in the economic life of the country and organized the War Industries Board with practically dictatorial powers.

(4) One result of failure to plan for World War procurement was the spending by the Government, not of millions but of billions of dollars more than would have been necessary to spend if planning had been done in advance.

(5) Another result was that the Government, since the war, has been involved in litigation running into vast sums of money.

[War procurement in the Army during the World War was carried on under General Staff supervision which was largely inexperienced in that function. Congress, whether justly or unjustly, was dissatisfied with this system and, soon after the war, began investigating and legislating along procurement lines with the result that it removed this supervision from the General Staff and placed it in the hands of a civilian, the Assistant Secretary of War. The theory on which this action was based was that matters to be handled concerned big business and therefore should be handled by a man prominent in the business world. The pertinent congressional legislation on this subject reads as follows:

Section 5a of the National Defense Act -

"Hereafter, in addition to such other duties as may be assigned him by the Secretary of War, the Assistant Secretary of War, under the direction of the Secretary of War, shall be charged with supervision of the procurement of all military supplies and other business of the War Department pertaining thereto and the assurance of adequate provision for the mobilization of matériel and industrial organizations essential to war-time needs."

Under this law the Assistant Secretary of War is assigned two distinct, but closely related missions.

The first mission is plainly stated -

a. "Supervision of the procurement of all military supplies" in peace and in war. It naturally follows that if he has supervision over procurement in war he has it over peacetime planning for that procurement. In other words, he supervises the supply arms and services in the preparation of their current plans for the procurement in war of all items of Army requirements.

b. The second mission is not so clearly stated, that is, "the assurance of adequate provision for the mobilization of matériel and industrial organizations essential to war-time needs."

Three questions immediately arise concerning this second mission:

(1) What is meant by "the assurance of adequate provision"? Making plans in advance and testing them as well as we can under peacetime conditions.

(2) What are those "matériel and industrial organizations essential to war-time needs"? The answer is: All industrial organizations directly or indirectly. It is even broader and should be correctly stated as all elements in the economic sphere including service industries, agriculture, labor, financial institutions, and commercial institutions participating in domestic and international trade. Action in one part of the economic field produces reactions in all other parts. The operation of one industry requires the support of other industries, of labor, of finance, etc. The economic structure of the country must be considered as a closely knit, integrated whole.

(3) "War-time needs" of whom?

The Army alone?

The Navy?

The Army, Navy, other Governmental Departments, and the civilian population?

Of course, the Assistant Secretary of War has not the slightest control over Navy planning or over industry or over the civilian population, yet he is charged with an economic mobilization which will permit satisfying their needs. But remember, back of the procurement of every finished item of Army supply or equipment there are many contributory requirements:

Raw materials
Semi-finished products
Power
Labor
Money
Transportation, and so on

Can the Assistant Secretary of War or any living man, however able, make a plan for labor, for example, and confine his effort to the labor required in the production of Army items alone? Manifestly such a plan would be worthless unless it were based upon and a component of a national plan for labor. Therefore, somebody has to make that national plan and the Assistant Secretary of War is the only man or agency that has a legal mandate to make it. But it is a logical conclusion that no such plan would be acceptable to the President and the Congress unless it were acceptable to other Government departments, to industry and to labor; in other words, to the American people. Both the Army and Navy have come to realize this and, in consequence, while each is making its own specific procurement plans cooperating with each other, they must make their industrial mobilization plans in collaboration. We all realize that in order that these latter plans, national in scope as they are, shall be sound and that they can be put into effect when needed, the Army and Navy must get together and stay together. That is the fundamental reason why we are so glad to have the Navy and Marine Corps officers here with us.

The Assistant Secretary of War, then, is charged with supervising procurement and procurement planning and with economic mobilization planning. It should be clearly understood that we mobilize economically, so that the economic life of the country can make its full contribution to the prosecution of the war. One element of that contribution is Army and Navy procurement.

But war-time procurement must be based on war plans for military operations; therefore we must have some knowledge of the whole war planning picture.

In the War Department the General Staff is charged with the formulation of war plans for military operations and the Assistant Secretary of War with the supervision of war-time procurement plans. In the Navy Department the office of Naval Operations is charged with both of these functions. There are various joint agencies to effect coordination in the plans.

Thus the Secretary of War has:

a. On the Command and Military Side

The War Department General Staff. Officers are prepared for serving thereon by graduation from the Army War College where studies in strategy and tactics involving high command and staff are pursued.

b. On the Procurement and Industrial (Economic) Side

The Planning Branch, Office of the Assistant Secretary of War. Officers are prepared for serving thereon by graduation from the Army Industrial College.

The Secretary of the Navy has:

a. On the Command and Military Side

The War Plans Division, Office of Naval Operations. Officers are prepared for serving thereon by graduation from the Naval War College which studies problems of strategy and tactics involving high command and staff.

b. On the Procurement and Industrial (Economic) Side

Fleet Maintenance Division, Office of Naval Operations. Officers thereof charged with procurement planning may be prepared for such service by graduation from the Army Industrial College.

The Secretaries of War and Navy have for coordinating all Army and Navy action:

a. On the Command and Military Side

The Joint Board. This Board consists of:

Army Representatives

Chief of Staff
Deputy Chief of Staff
Assistant Chief of Staff, W.P.D.

Navy Representatives

Chief of Naval Operations
Assistant Chief of Naval
Operations
Director, War Plans Division,
Office, Chief of Naval
Operations

Under the Joint Board is the Joint Planning Committee composed of selected officers from the War Plans Division of the General Staff and from the War Plans Division, Office of Naval Operations. In the Army, officer personnel of the War Plans Division are usually graduates of both the Army and Naval War Colleges. In addition, in cases involving procurement and the allocation of industry, one officer of the O.A.S.W. and one officer of O.N.O. become members of this committee.

b. On the Procurement and Industrial (Economic) Side

The Army and Navy Munitions Board consists of:

The Assistant Secretary of War
The Assistant Secretary of the Navy

Under the Army and Navy Munitions Board is the Executive Committee consisting of:

Army Representatives

Executive to The Assistant
Secretary of War
Director, Planning Branch
Representative from G-4 Division,
W. D. General Staff

Navy Representatives

Director, Fleet Maintenance Div.,
Office of Naval Operations
Chief of Section, Material Procure-
ment Planning, Fleet Maintenance
Division, Office of Naval Opera-
tions
Representative from Bureau of
Supplies and Accounts, Navy Dept.

These officers are usually graduates of the Army Industrial College.

To sum up the picture as I have tried to present the relative functions of:

The Army War College, and
The Army Industrial College

The Army War College instructs in the "Strategy of Men and Matériel after the Matériel has been delivered to Army Control."

The Army Industrial College instructs in the "Strategy of Matériel through all its phases up to its delivery in suitable condition for use in the Army."

Returning to the Army

As the Planning Branch, Office of The Assistant Secretary of War, on the industrial and economic side, is parallel and

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analogous to the War Department General Staff on the military side, so is the Army Industrial College to the Army War College.

The Army Industrial College was established in 1924. Its mission set forth in the General Orders creating it is as follows:

"*** training Army officers in the useful knowledge pertaining to the supervision of procurement of all military supplies in time of war and to the assurance of adequate provision for the mobilization of matériel and industrial organizations essential to war-time needs."

The statement of the mission is almost an exact extract from the law setting forth the procurement and industrial functions of the Office of the Assistant Secretary of War.

The College started in 1924 with nine student officers. Since then it has become a General Service School with a full-time faculty of eight officers

6 Army
1 Navy
1 Marine Corps

and a student body this year of fifty-seven officers carefully selected from the Army, Navy, and Marine Corps.

Now for the Course of Instruction -

On the blackboard are the titles of forty-six problems of the ensuing course in the order in which we intend to take them up. It must be distinctly understood that the course here outlined is tentative. Some of the problems may be changed, others may be eliminated or new ones added. The reason for this I think is apparent. We must keep abreast of current affairs; be ever watchful of the changing economic conditions. We know that the Government has taken many important steps in the national economic field, the nature and consequences of which we will have to take cognizance of since, manifestly, they have a vital bearing on our own plans.

Problem No. 1
FUNDAMENTALS OF BUSINESS

Problem No. 1 "The Fundamentals of Business" has for its purpose to acquaint you with the economic principles underlying the conduct of business operations. In this problem, which is an individual problem, you will learn how business is financed, how the business man regulates his operations through

the use of statistics, and how methods of accounting are used by him for control purposes and for determination of cost. This problem will also provide you with a basic knowledge of productive industry together with its important characteristics and its general problems of management.

Problem No. 2
BASIC INDUSTRIES

Problem No. 2 "Basic Industries" is designed to give you a general idea of the organization, operating methods, and managerial problems of an important cross-section of American industry. There are ten industries studied in this problem which are:

Aeronautical
Aluminum
Automotive
Chemical, incl. Paints
Iron and Steel
Lumber & Lumber Products
Mach. Tools & Machine Tool Access.
Rubber
Shipbuilding
Textiles

In this problem the class will be divided into ten committees, and one Industry will be assigned to each committee for study.

Problem No. 3
HISTORICAL STUDY

Problem No. 3 consists of an individual study of the procurement and industrial mobilization in the United States during the World War.

Problem No. 4
WAR AND NAVY DEPARTMENT ORGANIZATION AND PROCUREMENT

Problem No. 4 is an exposition of the organization of the War and Navy Departments and their coordinating agencies, with particular attention to their methods of procurement. It is partly an individual study and partly a committee study.

Problems Nos. 1 to 4 might be called "Introductory Studies." In other words, they are preparatory for and necessary to a clear understanding of the problems of war procurement and economic mobilization.

The remainder of the course is divided into two broad fields.

THE FIRST FIELD

The first field, that of war procurement, consists of planning in time of peace for procurement in war; and the operation of the system in war as far as it pertains to the War and Navy Departments. This field is covered generally by the block of problems Nos. 5 to 16, 17 and 18.

The problems in this block are committee problems and consist of studies of:

- War Plans and Joint Agencies
- Industrial War Load and Allocations
- Utilization of Automotive Industry
- Procurement Districts & Corps Area Procurement
- Inspection of Materials
- Personnel for Procurement
- War Contract Procedure
- Early Production and Improvisation
- Construction in War
- Ships and Shipping
- Strategic and Critical Materials
- Control of Procurement

As you see committee problems 5 to 16 cover special studies in coordinate fields related to the general subject of war procurement. They do not by any means, however, cover the entire field of war procurement.

Problem No. 17

TEST OF WAR DEPARTMENT PROTECTIVE MOBILIZATION PLAN

Problem No. 17, "Test of War Department Protective Mobilization Plan" is an analysis of the War Department Protective Mobilization Plan, to determine how well stocks on hand and estimated production will meet procurement requirements of that plan. Most of the work on this problem will be by committees.

Problem No. 18

WAR PROCUREMENT

Problem No. 18, "War Procurement" is an individual problem in which each student makes a study of the problem of procurement in a major war, together with a critical analysis

and evaluation of the War Department and Navy Department agencies and procedure.

THE SECOND FIELD

The second field of study is that of Industrial and Economic Mobilization. The first problem of the group is No. 19.

Problem No. 19

GOVERNMENT

Problem No. 19 "Government" is designed to furnish background and knowledge of the functions, purposes, and organization of the National Government. This is an individual problem.

The first group of committee problems under this Field of Study, Nos. 20 to 31, covers in part the field of planning for and executing war-time control of economic resources of the nation. These problems are committee problems and include studies of:

- War Powers
- Industrial Mobilization Plans
- Transition from Peace to War
- Licensing of Industry
- Public Relations
- Trade Organizations and Regimentation
- Budgetary Control
- Control of Iron & Steel
- Neutrality
- Economic Analysis of A Foreign Power
- Economic Analysis of A Foreign Power
- War Trade

Problem No. 32

INDUSTRIAL STAFF MEMORANDA

Problem No. 32, "Industrial Staff Memoranda" consists of the writing by individual students of brief reports, prepared as staff memoranda, on pertinent subjects selected by the faculty and assigned specifically to individual students.

The second group of committee problems, under the Second Field of Study are Nos. 33 to 44:

- War Finance
- War Labor
- Communications
- Transportation
- Power and Fuel
- Strategic Industrial Areas
- Economic Planning For Specific Wars
- Economic Analysis of A Foreign Power

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Economic Analysis of A Foreign Power
Priorities
Price, Profit and Production Control
Economic Readjustment

These problems cover special studies in coordinate fields related to industrial and economic mobilization. All of these problems are preparatory to Problem No. 45, in which each student is given a final opportunity to present his personal views as to the method that should be adopted for the most effective use of the Nation's economic resources in war.

Problem No. 46

WAR GAME

Problem No. 46 is devoted to a War Game, designed to give the student officers an opportunity to test, practically, their knowledge of the latest plans for procurement and industrial mobilization.

LECTURES

Throughout the course lectures on subjects pertinent to the problems being studied are delivered before the students by the instructing staff of the College, and by experienced officers of the War and Navy Departments. Lectures are also delivered from time to time by prominent bankers, economists, educators, and industrialists. The College is assured of lectures from a selected group of distinguished men during the coming year.

INSPECTION TRIPS

Inspection trips to leading industrial plants will be made throughout the year.

Let us return to our mission. Remember that in the order establishing the College there were assigned two essential studies in war planning: first, that for procurement; and second, that for industrial mobilization. "Procurement Plans" and "Industrial Mobilization Plans" are not the same at all, although the soundness and workability of the former are absolutely dependent upon the soundness and workability of the latter. It must be borne in mind that although these two problems are not the same they are most intimately related.

Remember that the procurement plans are made by the supply arms and services under the supervision and approval of the Assistant Secretary of War. In war these same agencies

carry out their own plans under the supervision of the Assistant Secretary of War.

In contradistinction the industrial mobilization plans are prepared in the Planning Branch, Office of the Assistant Secretary of War, in collaboration with the Navy through the Army and Navy Munitions Board. In war these agencies do not carry out their own plans. It is contemplated that this will be done by civilian superagencies to be set up by the President under the war powers inherent in his office, or, granted him by the Constitution, or, pursuant to special acts of Congress. No man can say in advance what the plans will be or who will execute them. That will depend on the personality of the President, the Temper of Congress and the psychology of the people at the time. Meantime, it is the Army's and Navy's job to keep the plans up to date and ready to submit to the consideration of Congress and the President at any moment.]

Planning for Industrial Mobilization by the Assistant Secretary of War will never be completed. If steel enters the plan (and it generally does) we have the following problems in our course that touch upon it, i.e.:

- a. Does the question of adequate production and distribution enter the problem? It does-- and Problem No. 27 must be considered.
- b. "War Trade," Problem No. 31, enters into consideration.
- c. "Power and Fuel," Problem No. 37.
- d. "War Labor," Problem No. 34.
- e. "Transportation," Problem No. 36.
- f. "War Finances," Problem No. 33 - and so on.

In our course we finally reach Problem No. 45 which will afford opportunity for each student officer to submit his thesis on his work at the College; a plan with functions and set-up of an organization for the control or regulation of economic resources in war.

"Procurement Planning" is relatively simple of understanding - that is, in its conception. The mechanics and the final carrying out of the plans are enormous tasks.

On the other hand, even the conception of "Planning for the Mobilization of Industry" is hazy, especially in the

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beginning. What is it, anyhow? Army Regulation 120-10 defines it as follows:

ARMY REGULATIONS)
No. 120-10)

War Department
Washington, July 6, 1934

"3. Mobilization of industry and matériel resources for military purposes. --

a. Mobilization of industry for military purposes during a national emergency is the operation of adjusting peace-time energy and industry to meet the essential requirements of national life and the maximum requirements of military effort, with a minimum disturbance of normal conditions.

b. It involves --

- (1) Readjusting and perfecting industrial organization
- (2) Stimulating production
- (3) Eliminating unessential activities, and
- (4) Diverting essential resources and activities from commercial to military purposes."

Planning for the mobilization of industry in war is nothing more or less than a planned war economy. Since our economic structure is, from its very nature, composed of innumerable interdependent elements, in planning this structure for industrial mobilization in war we seem, especially at first, to have entered a vast cave with endless radiating caverns. There is no end to such planning.

National Defense demands that you gentlemen do considerable research and original thinking in your planning. We know that you have the intelligence, the background, and the will to apply yourselves to the task. That is a simple statement of fact. How the Navy makes its selections for detail to this College is not stated but judging by the general average of past years we expect some splendid results from the Navy and Marine officers in this class. I do know how Army officers are selected. Your efficiency ratings are excellent or superior or you wouldn't be here. You have requested the detail, which is an added reason for our knowing that you are interested in this work. Further, you have proved to your chief of arm or service and to the War Department your adaptability to this work, and that you have some

imagination, a keen sense of individual responsibility and a desire to advance in your profession.

Higher authorities in both War and Navy Departments, therefore, feel justified in looking for great things from this class, and we of the faculty are honored in helping such a body of men to accomplish them. The time has passed when officers of the Army and Navy can sit around the conference table on a question common to both and vital to the National Defense and suspect ulterior motives. We trust that, in our approach to the problems we will, for the time being, forget that we belong to the Quartermaster Corps, to the Ordnance Department, or any other arm or service, or even to the Army or Navy.

Let anything savoring of personal or professional advantage be disregarded and think primarily in terms of the National Defense; let your work be on a high plane.

From time immemorial military men have been planning military strategy and tactics, but this is the first college on earth to concentrate on planning the ways and means of making the matériel plans meet the military plans and supporting both with national economic plans.

In general, instruction here is self-instruction. There are no approved solutions or approved textbooks. You will do your own thinking and arrive at your own conclusions. When we are engaged upon some specific assignments in the service we all know that we must carry out loyally and cheerfully the policies of higher authority regardless of whether we agree with those policies or not. But this is a college and a graduate college at that; and if any officer has something on his mind that he thinks is good for the National Defense, he can present it "without fear, partiality, favor or affection." There are no restrictions on this whatever, except those manifest in any assemblage of gentlemen, viz.: adherence to the subject; courtesy; constructive intent; and, in our conferences, parliamentary decorum.

A word about rank. Of course there are certain customs and traditions of the service which we would not change if we could. All we have in this life is our rank which is attained by growing gray in years and years of hard lines in the service; but, in our academic work, you are all on the same footing exactly. To illustrate specifically- the chairman of a student committee may be the junior officer in rank on the committee but, so far as his status there is concerned, he may as well be the senior.

In this College we make no company of the Navy and Marine Corps officers. We want you to feel absolutely at home. It is your school as much as ours.

Personally I shall be glad to talk over our work with any of you at any time. The Executive Officer is here to help you rather than to watch you. Any instructor on the problem in hand is more than glad to discuss it with you with perfect freedom; but, for obvious reasons, he will never tell you in advance what, in his opinion, the solution may be.

Bulletin No. 1, covering certain minimum requirements both administrative and academic, has been issued to each of you. It will be appreciated if you will study that bulletin carefully and comply uniformly with its provisions.

In conclusion, let me reiterate; this is a graduate college, the only one engaged in instruction work for planning for industrial mobilization in the world; you are graduate students, possessing the confidence of your superiors; and we of the faculty are expecting valuable contributions to National Defense from the officers of this class.