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# ORIENTATION

By

COLONEL IRVING J. CARR, S.C.

ASSISTANT DIRECTOR

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"The Army Industrial College has an important part to play in connection with the industrial side of the War Department in time of war. Just as our service schools are developing officers for General Staff duties and tactical command, so this school was created by the Secretary of War for the purpose of instructing officers of the procurement branches in the higher duties of their profession in connection with procurement in time of war." (Extract from the address of the Honorable Dwight F. Davis, Secretary of War, at the graduating exercises, June 26, 1924.)

The purpose of the lecture this morning is to give the class a general idea of the mission of the Army Industrial College and to indicate how it is proposed to carry out that mission during the present school year. It will give a brief outline of the course, with the organization and methods of carrying on the work.

I. Mission of the Army Industrial College.

The college was established by General Orders No. 7, War Department, February 25, 1924 which reads as follows:

"1. A college, to be known as The Army Industrial College, is hereby established for the purpose of 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 materiel and industrial organization essential to war-time needs.

2. For the present such parts of the Munitions Building, located in Washington, D. C., as may be available and necessary will be assigned to its use.

3. Direct supervision and control of The Army Industrial College are vested in the Assistant Secretary of War."

The announced duties of the college are, therefore,

1st - Training officers for supervision of procurement in war.

2nd - Training officers in planning for the mobilization of industry in an emergency.

It is a well recognized principle in the service that the personnel which prepares a plan is best fitted to execute that plan and we, therefore, find that these two functions of the Army Industrial College - instruction in planning and in the operating of those plans - carried forward at the same time. There seems to be little question but that the graduates of this institution will, in another emergency, be found occupying key positions in the War Department Procurement Organization for, as General Summerall stated in the opening exercises of the College, September 5, 1928:

"I believe it just as impossible for a business man who is not trained in military methods and technique to function for the supply of an army as it would be for a military man who is not trained in business technique to function in the operation of a great industry. * * * Our leaders of industrial supply in the future must be soldiers and they must be trained in industry."

Briefly, then, the purpose of this institution may besaid to be

to study how best to direct our material resources to meet the needs of a national emergency. The many ramifications of this directive need not be enlarged upon at present as they will become apparent as the cousse is outlined.

2. The members of this class are selected officers of proven efficiency. The course here is not intended in any way as a test of relative efficiency, but for the improvement of your knowledge on the subject of war procurement and with a view to giving you an opportunity to meet other mature men.with common aims and common interests for the study of this complicated problem. The closer we can come to the idea that all the members of the college, regardless of rank, arm of the service or position in the institution, are working together in the pursuit of a common aim, the closer are we going to come to a complete and successful accomplishment of the purpose of the college.

It is hoped, therefore, that the work of the Planning Branch of the A.S.W., the faculty of the school, and the students will be so closely interwoven that all will get the benefits of the experience of the others. Aside from the course itself, the bringing together of so many men from all the activities of the Army and Navy cannot help but be stimulating and helpful.

3. It is of first importance in an institution of this kind to encourage initiative and original thought and to give full recognition to individual opinions and ideas provided they are based on sound reasoning and a full consideration of all the facts. Hence, the instruction at the college is indirect rather than direct. It is not the function of the faculty to formulate set opinions and to lay down hard and fast rules but

to plan courses for study and investigation and to supply sources of information and then allow individual students and committees full latitude in arriving at their own opinions, conclusions and recommendations.

4. The spirit of the institution is one of cooperation between faculty and students, independent of rank and position, in seeking practical results through free and full discussion of known facts. There is, then, no place in this institution for academic competition or for the blind acceptance of a principle or idea expressed by any member of the college.

II. The Course.

We do not attempt to lay down before the beginning of the course a schedule which must be rigidly followed throughout the year. We do, of course, prepare a general program outlining the principal subjects to be studied and schedule approximately the time allowance and the number of men required on the various problems, but this is subject to revision during the year. The course is today, and probably will always continue to be, in the process of development and it has been found undesirable to establish any set curriculum except along broad lines. And we have not yet found it practicable to separate the course into large subdivisions, such, for example, as is followed by the War College. Our problems here are all so intimately related that it has seemed desirable to make them follow one another in sequence in such order as will present the whole subject most logically and clearly.

The outline of the course, which I will now take up, is that which was followed in the last session of the college. In its main features you may accept it as the course which will be followed this year, with possibly the introduction of a few other problems, the omission of still

others and some slight rearrangement in the order of presentation. I might add that a copy of this schedule of studies is posted on the Bulletin Board and will, I believe, prove valuable to you as a reference in showing the principal subjects which the course will include and enable you to avoid a too detailed study early in the course of certain subjects which will be covered completely at a later date.

The first problem assigned, as shown on the diagram, is a short study of Supply Branch activities in procurement planning. This subject was introduced upon the recommendation of the Advisory Board of the college, consisting of the Chiefs of the Supply Branches, and serves as an introduction to the planning work of your branch and tends to emphasize the importance of the Supply Branches in procurement planning. It is important from the very beginning of the course to realize that the O.A.S.W. is the supervising and coordinating agency, while the Supply Branches are the operating agencies for procurement planning and war procurement and, of course, perform the greater part of the work.

We then spend a short period in the study of how to analyze problems and prepare written solutions. This study is intended to be suggestive only and not as prescribing any set form in which reports shall be rendered.

After these preliminaries are out of the way, we proceed to Problem 3, which is designed to permit you, as a result of your own study, to form an opinion as to what is involved in the general problem of procurement in a national emergency. The industrial records of the World War period is the material which you will study and it is hoped the investigation will indicate to you the principal subjects that must be considered in preparing any general plan of war procurement. The investigation of these subjects in detail forms the basis of the remainder of the course.

Having thus broadly defined the problem on which we are to work during the school year, we next take up the organization necessary to solve it and to put the plan, based on the solution, into operation in war. As a preliminary, we first study Problem 4, the Principles of Organization, Planning and Management, as developed by our large commercial organizations, and then Problem 5, the War Department Organization for War Procurement.

It is intended that these two problems, together with Nos. 6, Integrated Industry, No. 7 the Joint Army and Navy Board and Army and Navy Munitions Board, and No. 8, Relations of the O.A.S.W. to the General Staff, will develop the part played by each agency in our chain of procurement in preparing and executing a plan of war procurement, as well as to point out the methods by which large industrial concerns carry on corresponding activities in commercial life.

The next five problems which we take up, Nos. 9 to 13 inclusive, are designed to bring out certain important coordinating functions which must be exercised in connection with war procurement. You will have already found in Problem 3 how these functions were performed during the World War and now will investigate the organization and methods by which they may be exercised most effectively in another national emergency. These studies lead quite deeply into the present organization and functions of the O.A.S.W. and the remaining functions of this agency will be taken up at appropriate times as the course proceeds.

Problem No. 14, Specific Procurement Plans, is also considered at this time in view of the fact that they form the basis of our present scheme of war procurement.

You will notice from the chart that we have both committee and individual problems running concurrently on these subjects. The individual

problems are assigned to students who have not yet had an opportunity to familiarize themselves with the subjects, while the committee problems, which go somewhat further into detail, are assigned to officers who, through previous experience, are well acquainted with the matter under discussion.

During these studies on organization, we will have lectures by members of the Planning Branch, officers of the General Staff and the Navy to give us authoritative information on the various subjects in addition to what we develop through our own investigations.

At this point in the course, we will digress from a study of the War Department for a period of about five weeks and investigate some of the fundamentals which underlie the business activity of the country. This course is a very brief summary of that given by the Harvard School of Business Administration and will be conducted by Major Rutherford, who is a graduate of that institution. It will include a short study of certain texts on Economics, Finance, Accounting and Statistics followed by conferences on each subject, together with lectures by civilian experts on Banking, The Federal Reserve System, and Contract Law.

The purpose of this study of business fundamentals is to make us somewhat more familiar with the problems, the methods and the language of business men, so that we may talk to them more intelligently and understand them more completely. Furthermore, the texts which you will use will introduce you to the literature on business subjects and make it easier for you to continue any studies you may desire along this line in the future.

From this point on, the course becomes largely a series of committee studies on various detailed problems which we have uncovered in

the earlier part of the school year. All of these studies may be considered as components of one or more of the following:

1st - What will be required.

2nd - How much will be required.

3rd - When and where will it be required.

4th - How can it be procured most efficiently.

Our study of Specifications, Problem 18, will disclose the routine by which we determine what articles or supplies are required. In Problem 19, our investigation of man-power mobilization plans; mobilization rates; tables of organization, equipment and wastage; rates of fire, war reserves, depot stocks, echelonment of supplies and other factors tell us how much will be required as well as when and where it will be needed. Still other studies will indicate where the supplies can be obtained, the methods that will be most effective in securing them, how control of the process of procurement can be secured, what factors may become critical in war and how these critical situations may be avoided.

You will readily perceive how each of the problems listed on the chart ties into this brief outline without further explanation. There are, however, a few studies shown which were made by special request of the upper office which do not pertain to the subject of procurement planning. We have such problems each year and usually arrange that officers assigned to them are those whose previous experience makes it possible that they be excused from certain parts of the regular course.

Inspection Trips.

In the spring of the year, we will spend a week inspecting industrial plants. The first half of the week will cover certain local activities

such as the Bureau of Standards, the Navy Yard and some large power plant. The last three days will be spent in Pittsburgh where we will have an opportunity to study large scale production in several basic industries. I might add that arrangement will also be made for the class to attend the annual meeting of the Army Ordnance Association at Aberdeen Proving Ground in October.

At the end of the course, arrangements will be made for students to spend a period of about three weeks in the planning offices of their own branches. During this time it is expected that you will participate in the work of those offices and observe the practical application of the studies on which you have been engaged during the year. Some further practical work will be given you in the War Game - the final problem in the course. In this game, you will be assigned to key positions in a war procurement organization and required to solve certain problems assumed to have arisen in a major emergency.

III. Organization for work.

1. The organization of the college consists of the Director, who is in immediate charge of its operations, an executive officer and seven instructors. Of these instructors six are active members of the Planning Branch, O.A.S.W., and perform their duties in the college in addition to their other work.

2. The class creates its own organization for the handling of matters not strictly official.

3. As you have already noted, a large part of your work in the college will be performed through the medium of committees and I wish to emphasize here the importance of the part played by the committee chairmen

in making the course of maximum value to the class.

Problems are issued, as a rule, a few days prior to the date on which work is scheduled to begin. During this period, committee chairmen are expected to analyze their problems and make the assignment of the parts which each member of the committee will study. The Chairman will be responsible that the work of the committee is coordinated during its prosecution, that the several parts are woven into a complete report, ready for submission on the due date, and will prepare himself to present the solution in conference to the class as a whole. Since the class, other than the committee, will have little or no opportunity for acquiring familiarity with the subject other than through the conference presentation, the importance of thorough-going committee work, with clear and forcible presentation cannot be over-emphasized.

4. Committee chairmanships will be distributed impartially and each member of the class will have an opportunity to head a committee once if not more during the year. As a general rule, where an officer's experience makes it advisable, for the benefit of all, that he should direct the study on certain problems, he is made chairman of the committee but this procedure is not carried to the point of depriving the less experienced officers of an opportunity to head committees. In assigning men to committees, effort is made to give each officer an opportunity during the year to work with every other officer and only in case of special problems will more than one man from any one branch of the service be designated as a member.

IV. Methods of Work.

1. The problems issued are prepared by the faculty to direct

investigation along certain lines which appear most profitable to the War Department as a whole. Regarding these directives, it may be said that they are intended to be comprehensive and clear and where details are set forth, they are not designed to be restrictive. It is possible that comprehensiveness in these problems may be confused with lack of definiteness and a desire for further instructions as to exactly what is required.may be felt. If there is a hesitation by any one in deciding for himself what is required, or he wishes to have his conception of the problem verified, a consultation with the instructor on that particular problem will clear up the matter. It is always safe and advantageous to consult freely with the instructor at the beginning and at all the stages of a piece of work, and it is the duty of the instructor, whether consulted or not, to keep in close touch with the work on his problem. When mutual action toward this end is taken then there will be no danger of going off on a tangent with the consequent waste of time and the irritation resulting therefrom.

2. Instruction at the college is largely self-instruction, therefore the benefits you secure from the course will depend largely on your own efforts. The faculty will endeavor to do its part to assist you and that to the full extent of their ability. It is expected that students will use their initiative and will not be satisfied with doing merely what is pointed out. Look around and see if you cannot better their work and try to secure good results in going further than they point out.

3. No set form of report is prescribed for the college. In the preparation of a report, it should be submitted to the following test. Is it clear, concise, definite, complete, sound, logical and original? Form and quantity count but little - substance and quality much. Your presentation

of a subject in conference should be calm, logical, dignified and temperate. This applies to all discussion as it is quite necessary to respect the opinions of others and especially to spare personal feelings in the presence of such an assemblage as is found at our conferences and lectures.

4. The question may arise at times as to the short time available for some of our problems. There are reasons why you are not given more time. One is that we have a great deal of ground to cover in the year. Even with more time available it would be well not to give any more time than is absolutely necessary for the work. Much of our work in the service must be done under pressure and it is well to become accustomed to it.

5. To supplant the instruction which you will obtain through your own study, we will arrange for an extensive series of lectures and will hold a conference on each problem shortly after its completion.

a. Our lectures will bring to us experts on various problems from the Army and Navy, other Government Departments and from many educational, economic and industrial organizations. The object of these lectures is to put us in touch with authoritative sources of information and the various opinions of the outside world, to incite interest, stimulate discussion, suggest lines of thought and broaden our viewpoints. The ideas and suggestions presented will aid us materially in forming conclusions of our own, after hearing all sides and running down the clues which have been furnished us. This all tends to a broader education of anyone who takes the course.

In many cases, the material given us in these lectures is confidential and, of course, should not be discussed outside the college.

b. The conferences are presided over by a member of the faculty. The committee chairman presents the report of the committee, calling upon

the members of the committee, if he so desires, to supplement his statements by a more detailed exposition of points on which the committee member may be better informed. There should be at these conferences a full and free expression of views on the subject at hand. Too often members of the class sit in conference and contribute nothing to the discussion. No officer will do his full duty if, when he hears views that seem contrary to his own convictions, which are based on what seems to him sound reason and mature reflection, he does not give full expression to his own views. Nor is such failure to speak out fair to his associates, if an opportunity has been given him to do so.

In many cases, this failure to take part in discussion is due to excessive modesty. The college offers the excessively modest and those who lack ability to talk on their feet an opportunity to train themselves in putting over their proposition briefly, to the point and with force. Ability to do this is a very valuable asset and you are urged to take advantage of the opportunity. What is wanted is independence of thought, freely expressed. There should be no fear of expressing constructive criticism of any matter brought up for discussion at the college.

The matter of presentation by the spokesman at conference is a subject of importance, since the entire class is involved. The main points of the subject should be indelibly impressed on the class - they should be stressed and pains taken to bring them out. This cannot be done by the reading of any well written essay. It can be done by direct forcible speaking on the high points of the subject. The use of notes, an outline or a brief will be found helpful in securing logical sequence and avoiding omissions. Only as a last resort should the report be read as a whole, and the reading of extracts should be limited to such portions as cannot be expressed more

forcibly otherwise. The speaker must know his subject, believe in his points and should divest himself of all nervous manifestations, such as walking around or jerky, meaningless gestures that are liable to attract more attention from the audience than what he has to say. Restlessness on the part of the speaker is readily transmitted to his hearers.

In general, the purpose of the course is to teach methods - methods of work, study, investigation, organization, deduction and presentation. The teaching of method is simply another way of expressing to learn by doing. A concrete and practical treatment of every subject is desired, for abstractions, though easy to enter upon, give little or nothing of practical value and are lacking in interest because they impose on the student the necessity of supplying the application.

Brevity, with comprehensiveness, is a great virtue and is obtained by recording only those things that have a marked or decisive bearing on the conclusion or decision desired. Lengthy discussions of the obvious, the inclusion of a mass of detail which obscures the main points and often causes them to be omitted are most aggravating causes of waste time and effort. The cause of this, no doubt, is the fear of the appearance of the lack of thoroughness and exhaustive consideration of the report. The use of artificial, high-sounding generalities which convey no clear-cut idea to anyone is another source of lack of clearness. Plain, simple, direct and orderly language is the best and is what is wanted.

V. Sources of Information.

The Library, used jointly by the Planning Branch and the Industrial College, is our principal source of reference material. It contains the records of the War Industries Board, filed on the third floor, and the best references and publications we have been able to find on our problems.

In addition to our own Library, there are available to us the libraries of the Supply Branches and the War College, the Library of Congress, those of various other Government departments and many others. Our Librarian, Miss Williams, will be very helpful in directing you to sources of information and in obtaining any of the publications desired from other Libraries.

The problems, as they are issued to you, will give a number of references. This list, as a rule, does not represent the entire bibliography on the subject but is intended chiefly as a guide to assist the student at the beginning of his investigation. His initiative must be relied upon to uncover other sources of information which may be pertinent. The references referred to in the problem will be prepared for issue to you by the Librarian when you are ready to use them.

Contact with outside sources of information, such as other Government Departments, should be established through the Faculty or the Planning Branch. Officers making such contacts should be prepared to state definitely and briefly what information is desired, remembering that these men are busy and that he will make a bad impression if he is not able to discuss the subject intelligently with them.

As you know, Army Regulations require that the Director render efficiency reports on each of us on the work we do during the year. That report is the only record made of your performance during the school year, so we may rest assured that there will be no comparisons drawn and that no spirit of selfish or unfriendly competition is desired. What it is desired to develop is a sense of responsibility, a feeling of independence and initiative that will make leaders in thought and action on the problem before us. These ends cannot be reached by short cuts, but only by industry, study

and action. If this is realized, as I have no doubt it will be, the coming year will be as pleasant for us as it will be profitable.

In closing, I would like to refer again to the purpose of the college and quote a remark from the address of the Secretary of War, Mr. Baker, at the opening of the War College in 1919 - a remark which also fittingly describes the spirit of this institution:

"It was General Bliss who first determined that this highest of educational institutions was not a school or college in the sense in which we usually apply these words, but that the word "college" was used in the original Latin sense - Collegium - a collection of men; the intention being not that some, more wise, should teach some less wise but rather that a group of men by contact, consultation and conference, evolve the best wisdom of the entire group".