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DUTIES OF A DISTRICT PROCUREMENT PLANNING OFFICER

by  
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Colonel Jordan and Gentlemen

As Colonel Jordan has said I was an Instructor here for four years. I have been on this platform many times but never before as an outside lecturer, so to speak. This morning I wish you would receive me as an Instructor back for a day's duty - an assistant to Major Best on this problem.

I have not prepared a formal talk. I would like to have you consider this session as informal as your ordinary conferences. If you wish to interrupt at any time to clarify some point do not hesitate to do so. We will have a question period later and if you are interested in any points which I do not bring out or want to have something explained in greater detail I will be glad to do that.

There has to be a starting point to this talk so I have to make some assumptions covering your preparation for the topics I shall present. Having read your current Problem No. 18 it is assumed offhand that you have read and know something of the plans forming the background, namely, the War Department Mobilization Plan, Industrial Mobilization Plan, the Basic Plan of the Office of the Assistant Secretary of War, your Supply Arm or Service Mobilization Plan, and perhaps many of you have had the opportunity to examine a Unit Mobilization Plan pertaining to some procurement district. I assume, also, that you know all of the ramifica-

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tions of the zig-zag lines involved in the standardization as to types (not commercial standardization) so this part of the picture will be omitted. I assume, too, that you know something about requirements, their basis and all factors entering into their determination. We will not discuss these factors.

We will devote ourselves this morning to the problems pertaining mainly to the districts. While it is true that all the Ordnance District Executives acquire some knowledge of the common and special problems of other districts gained through discussions at our semi-annual meetings it will be better for me to deal largely with the work of the Detroit District. It may seem platitudinous to mention the mission of a district office since you are familiar with the underlying principles of decentralized procurement but I state it nevertheless, namely, the mission of the Detroit Ordnance District is to purchase Ordnance materiel prescribed as to type, quality, quantity, and delivery rate by the Chief of Ordnance. Please note that the mission is not procurement in the broad sense of preparing designs, specifications, etc. but is confined to such functions as constitute the ordinary work of purchasing.

In our operation we have to be governed, of course, by certain instructions and policies emanating from various sources and I want to say at the outset that I cannot find any basic defect, in my opinion, in any policy under which we are working. The policies are purposely flexible so that every situation can be met in spirit if not according to the very letter of the law.

We will go first into the matter of apportionments. This is where the district work actually starts. What is done in the Washington offices of a supply arm and service in respect to apportionments needs

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some explanation. You know the governing policies - an equitable distribution of the load in the country - apportioning quantities of an item to appropriate sections where the industries most nearly allied to that item are located. Other factors exert their influence too, but we will start now with apportionments from the district viewpoint.

In some cases apportionments are received without any preliminary notice, but usually a letter is received asking what the district can contribute toward the production of a specific item, and from the data contained in the district files it is usually possible to make a preliminary report thereon without consulting facilities. When the canvas of the districts is completed the formal apportionments showing production requirements by months for two years is sent <sup>to</sup> ~~by~~ the district office.

The monthly requirements under the apportionment are not to be interpreted as logical or even possible monthly production rates. Take for example the apportionment to the Detroit District for automatic pistols which runs something like this: M-1 - 33,000 units, M-2 - 19,000, M-3 - 23,000, and from M-5 to M-24 only 2000 to 3000. Well, you know very well that you cannot get production of any item like this in one month. Consequently, the district office has to break down the apportioned requirements and set up a logical production schedule. First, in the normal case of our specialized Ordnance production we can write "zero, zero, zero" for the first three months' production. Then selecting, to the best of our judgment, the month in which production can start, we strive for a particular maximum monthly production, scaling up the rate gradually from the first month of production to the month of maximum

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production and retain that maximum through a certain balanced period, then reduce it toward the end of the second year.

Of course the production rate so estimated might exceed the planned, converted capacity of any available facility. In this case we carry on negotiations to determine just what quantity and what rate of production can be reasonably attained, and estimates are revised accordingly. It is usually found that the apportionments have to be divided between several producers and, in fact, it is the policy in the Detroit District, with the exception of two or three items, purposely to use two or more facilities for the production of any item. Naturally, you can see the wisdom in this.

Right at this time we are speaking of contacting manufacturers, and let us see what facilities we have at our disposal. When this game was first started there was a scramble for facilities for allocations based in most instances upon our record of the war work done by the different companies. There have been many changes since these first allocations were made because a lot of the companies have gone out of business or have combined with others, or the products currently manufactured have changed to such an extent that the equipment is unsuited to produce the desired munitions item. Today, however, we have an up-to-date list of going concerns which have been allocated singly, jointly, or held as reserved against which capacity credits may be requested, and approved by the action of the Office of the Assistant Secretary of War or the Army and Navy Munitions Board.

The easiest contact is with the singly allocated facility. In all other cases consideration has to be given to the schedules placed or the contemplated schedules of other purchasing agencies. After

mulling over these problems a selection is made of the plant most suitable and available for the negotiation of the new schedule.

In making the first contact with a facility it is good policy to consult the head man of the concern in order to familiarize him with the intent of procurement planning and to secure his willingness to cooperate. Also, from time to time, and certainly when a new District Executive arrives on the scene, it is expedient to see the highest man in charge to determine the willingness of the company to continue its contribution to the cause.

As an illustration, there is a large company in Detroit with which some planning activity had been carried on prior to my arrival, but in order to satisfy myself that the president of the company knew what was going on I delayed my first contact until an appointment could be obtained with this head official. In discussing our work with him he displayed great interest in the broad picture and made intelligent inquiry into many details. As a result of the meeting he instructed his force to aid us in every way possible and the net result has been the acceptance of about a dozen schedules of production after an expenditure of thousands of dollars by his company.

After this first contact the company usually designates a single representative to deal with planning officers in subsequent negotiations. Thus in Detroit where three Supply Arms and Services are dealing with one facility all representatives negotiate their schedules with the same individual, thus obviating to a large extent interferences which might otherwise arise in such schedules. This arrangement, together with the occupancy of joint office space where

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problems of mutual interest between the planning representatives can be readily discussed, leads to prompt understandings.

Let us consider the situation existing at the General Motors Corporation. We representatives reached an early agreement as to the particular plants of this Corporation which would serve our various needs, as for instance the understanding that there would be no interference in the Cadillac Division by the Ordnance and Quartermaster in order that aircraft engines might be produced there, and another case, where early production of Ordnance material was required by conversion of parts of several plants, the Quartermaster Representative was able to revise his schedule for earlier production of his requirements. When these agreements were transmitted to the General Motors planning representatives our negotiations proceeded with practically no interference. This cooperation between the services rendered unnecessary a lot of correspondence with head offices in Washington.

Another problem arises in the handling of some apportionments. With the exception of ammunition components, which are apportioned separately, other more complex items may be scheduled in their entirety or broken down in such manner that several prime contracts can be placed for the components thereof. This breaking down of complex items is not always prescribed by the Ordnance Office, hence the decision in such cases rests with the Executive. As an illustration, the Detroit District received an apportionment for complete tanks (less armor plate) and, because of reasons which need not be brought out here, it was thought better to arrange for the manufacture of the tank engine separately, thus resulting in having two prime contracts on that portion of the tank

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apportionment made to the Ordnance District.

In the Ordnance procedure, particularly in the Detroit District, it is not the policy to trace down the contributory requirements in any great detail. If this practice were followed greater difficulty would arise in the placing and administration of contracts, so it is deemed better to pass this task - and it is a task, too - along to fewer prime contractors who in turn can arrange to get the contributory goods.

We must be perfectly frank in our discussion this morning. I do not wish to criticize any other Supply Arm or Service but I will say that some of them go into great detail in working out the source of contributory requirements which are normally supplied commercially for a peace-time trade so great that any war load which might arise would make little impression thereon.

In negotiating with a facility for a production schedule it is necessary to have certain information about the item under consideration in order to assure both the manufacturer and the District Office that approved schedules are reasonably accurate. We cannot go to a facility and say, "Can you make 75 mm. shell?" without telling the management in a general way at least what types of machine tools will be required for the work and, too, when it comes to the question of rate of production a company is lost unless it knows what our practice has been in the matter of time of operation of the various components of the item.

We are fortunate in having for many items, unfortunate in not having them for others, the so-called "Description of Manufacture" and/or

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"List of Operations". These descriptions have been of vast assistance to me and while not a single one of these descriptions fits the particular method of manufacture that will be followed by any particular war-time producer, the information does aid materially for purposes of comparing the equipment on which the description is based with the available equipment which the facility has, and from this comparison, if additional equipment is required, machine tool shortages can be based upon modern tools which permit rearranging or combining of operations, and finally to arrive at a fair estimate of the production rate.

We should be able to give all facilities having schedules complete drawings and specifications, and this seems to be an appropriate time to bring up this matter. You might ask the question, "Are we ready today - - can we push a button, so to speak, and get the work started promptly after negotiating the contract in so far as the work is affected by specifications?" Well, the answer in many instances is, "No", because we haven't the specifications in proper form nor are they all up to date. I cannot enumerate item by item how we stand in this respect, as we are fully prepared in some instances and poorly prepared in others. We in the districts are looking to the office in Washington to improve this situation, and conditions are improving all the time.

Another factor in working up a production schedule is to determine how far we should go in the planning. In other words, carrying it to the ultimate, should we strive to complete a factory plan? A factory plan, in my opinion, is the ultimate in planning. In its preparation every component of the item must be studied in detail to determine every operation, the type and quantities of machine tools

and other processing equipment needed; and the arrangement of the machines in the shop setup. A factory plan for an aircraft engine may fill a book this deep and about this square (illustrating). Now, should we ask a facility to go to the expense of preparing such a study? I know what it costs to prepare some of them. We made an estimate with one facility finding that it would involve an expenditure of about \$150,000 to make the detailed plans for five out of twelve items that we had placed with that facility. I think the company would have been willing to do it but I would have been ashamed to be a party to the agreement. You can readily see that progress in design leading to change of types, followed by the standardization of new items, will decrease the value of a factory plan about fifty per cent. Hence, is it worth the trouble and the expense to plan in this amount of detail? I might say, without answering the question "yes" or "no", that so far as the Detroit District is concerned we have not a single factory plan of that nature and it is not likely that we will have unless the Ordnance Office sees it in a different light.

In completing the schedules of production to meet the full apportionment of an item to the district there is an informal agreement reached, usually in writing. In this agreement no question of price is raised but the manufacturers simply state that they will accept the specific schedule, in quantities by months over a period of two years, and that they believe the rate can be met.

Reports on apportionments showing the accepted schedules placed with all contractors for a single item are forwarded to Washington, and upon the receipt of similar reports on the same item from other

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districts the Ordnance Office is then prepared to write the procurement plan on that item.

You might have a question in your mind about the difficulties which might arise in the event of changed requirements and apportionments made to the districts. Needless to say, if the War Department Mobilization Plan is changed it will undoubtedly affect requirements, but depending upon the degree of change involved the Supply Arms and Services would determine whether or not an alteration in their apportionments to districts should be effected. What are the factors involved in making such a decision? You must realize that in our whole planning scheme the solution of practically every problem is an estimate, that is what we are dealing with - - estimates. When we speak about a schedule of production negotiated on the basis of manufacturing so many units in the third, fourth or sixth month, etc. there are so many factors involved that we cannot hope to receive anything but a good estimate. In fact, as a basis for the computation of requirements estimates again come into the picture in respect to organization equipment for an estimated mobilization rate of man power, estimated rates of fire, etc. The estimating in the districts is confined to schedules of production and unless revised requirements resulting from a new Mobilization Plan are raised more than ten or fifteen per cent the apportionments to the districts will not be greatly affected. That is just my opinion - - take it for what it is worth.

Many of you undoubtedly will be interested in knowing what effect the adoption of new standards will have on the district planning. This is best answered by remembering the policy outlined in respect to preparing factory plans. There has been a great deal of discussion of

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this subject and where planning is greatly affected, as in the case where factory plans have been made, it has been proposed that a standard be frozen for a specific number of years. On the other hand, speaking for the Detroit District, we are not greatly alarmed about changes in type. Suppose, for instance, that a new standard of a light tank comes out soon. We will know in general what its characteristics will be within fairly narrow limits, namely, as to weight, width, length, armor, transmission, etc. If the new standard has one more wheel here or a new gear there it would not affect our accepted schedule in the slightest degree. Of course we will have to advise the prospective manufacturers of the change and replace the old drawings and specifications in their files. Remember that without a factory plan for the tank it has been possible to place a schedule on the basis of a study of specifications and the examination of about 150 drawings out of many thousands which will be needed when production is initiated. This is as closely as we attempt to approach the planned production of an item of this kind. For a simpler item - the forging and machining of a 75 mm. shell - any minor change in the design would not affect the planning setup. The manufacturers will not have made dies, jigs, fixtures, etc. for the present standard and certainly the same forging equipment, lathes, etc. can fashion any new standard as well as the old. We cannot change from a three-inch to a six-inch shell - that is a different proposition - but for the same type of item the problem of making annual changes is rather insignificant.

Except for the question of personnel, which is an important part of district work, I have covered in a very rough way the work of the district in respect to apportionments, contacting facilities, obtain-

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ing the acceptance of the schedules, etc. Have you any questions in respect to these topics at this point?

Q. You haven't mentioned either preliminary or detailed surveys. The supply arm or service bases its apportionment on the survey and that comes first, is that true?

A. I will speak of that later, thank you. Any other question?

Q. You spoke about the lack of drawings and specifications when they come out, presumably from Washington. Could you tell us something about the prime reason for that - lack of personnel or slowness of standardization of articles, limitation of funds, etc.? Is there any way in which you could suggest that that be corrected?

A. I think you have given the answer. Certainly the Ordnance Office, my own branch, is alive to the necessity of having good specifications. We do not have to be warned about that. It is a matter of necessary time, personnel and funds. For instance, I had a schedule practically placed for a tank before I had any detailed drawings. Later, to make that schedule stand up a little better, we furnished about 150 drawings and went into further detail, but we still could not manufacture the tank with the information we had then. On the other hand, the tanks are being made now at Rock Island Arsenal, and all of the drawings and specifications are available there, so we have no fear that they will be supplied the district when needed.

With reference to standardization, when you start this process you know what time it takes to complete it. But when the stage is reached where the pilot is manufactured every part has to be made to

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specification and after test the drawings require revision before real production can be started. The preparation of the drawings and their distribution for this purpose can proceed quickly.

Q. You spoke as though you thought great improvement could be accomplished along this line. How are you going to do it? Standardization is a slow process and you haven't got the personnel, probably, to do all this drafting, etc.?

A. Of course I have no sympathy at all for this delay in waiting for standardization of new things. We have to fight, as I see it, with the weapons that we have or that we have already proved in production. It would be ridiculous to start a high powered production program of some item unless we have definite assurance that it will perform satisfactorily. We cannot take chances like that. So I think that if we have drawings and specifications of the items which we know will work we will be pretty well off. We never perfect anything - just as soon as a new model is standardized, new minds, or the same minds with more experience and imagination, will start on something else, but we cannot continue that way forever; we have to stop at some point.

Regarding preliminary surveys, I do not know how to describe the difference between a preliminary survey and what might be called a "later survey". I have never made a preliminary survey except of facilities with which we do not plan to place prime contracts. Facilities of this category are held in reserve for assignment to facilities having accepted schedules. The era of making preliminary surveys is practically at an end, since we now have records of nearly all facilities with which we expect to do business. Subsequent surveys are in the nature of negotiating a new or revised schedule. If, however, you want to make

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surveys for the purpose of determining the potential capacity of industry for making a certain class of items, that is another proposition entirely. Personally, I see many objections to that scheme, objections in the way of being impractical to accomplish, not as to the desirability of it. I do not think we will attain that end - not for a good many years anyway.

Any further questions?

Q. Colonel, the thought I have in mind is in connection with the advisability of the Navy obtaining blueprints for allocated aircraft facilities. You stated that there is no factory plan for any facility that has been allocated to the Ordnance Depot in the Detroit District, and that there is a question as to how far we should go in this connection. We know there will be no difficulty in obtaining appropriations and funds for the prosecution of the war after M-Day. The Navy, however, cannot wait until M-Day to start its war-time production schedules without suffering a great handicap in operations. The Navy must be ready to fight on M-Day, especially in a certain color war. Thus the sooner its war-time production schedule is started the better. In your opinion, do you believe the Navy should obtain blueprints of aircraft facilities as far in advance of M-Day as practicable to enable the Navy to be ready as soon as possible?

A. You are referring to the prints, etc., of the factory where this engine or plane will be manufactured?

Q. That is correct.

A. I can give you my own opinion on that, and it is based more or less on a principle. I do not believe in many principles of management, with which text books are replete, but this one is appli-

cable, viz., you must not tell the manufacturer how to do his job.

The question that you have asked falls in that category. You are interested, of course, in knowing whether the plant has space adaptable, perhaps by conversion, for airplane construction, but do you need to know more than that? You give the company some information about the type and size of the plane to be built and it is then up to the manufacturer to arrange production. So what is the need of getting blueprints of that plant? We are assured by every facility having schedules that there is factory space available. We do not care whether the facility lines up equipment and machines here or there. In fact, we could not tell them how to do it best to meet the different conditions in the many plants. That is the principle - we give them the jobs and hold them responsible for results. We are always willing to aid producers of specialized Ordnance materiel when advice along technical lines is requested.

Q. I would like to go back to the matter of lack of specifications. In the matter of tanks, you said you had schedules of production before you received the specifications and drawings (if you have even got them yet I do not know). I would like to know specifically just what you had in your possession, or what would any other procurement officer need to get the article produced? In other words, how do you transmit the information to the producer of what you want unless you have the specification for the item? Just what information is in your possession without those things?

A. That isn't an embarrassing question at all. I will tell you the means I used and if you do not think them proper you may say so.

There isn't necessarily a scramble between all the supply arms and services for facilities and for capacity credits, etc., against reserve facilities, but we do not want to delay. I would not have been able until very recently to negotiate schedules, although I initiated the work two years ago. I had about a half dozen photographs of the tank, I had a few assembly drawings. From the assembly drawings of the transmission the general over-all dimensions, thickness of case, etc., were readily determinable and only one question arose with reference to the ability of the producer to handle the work with available equipment, the question related to the size of the largest transmission gear. Having determined that a gear cutter of the necessary size for this largest gear was available there was no problem remaining so far as the gear situation was concerned. Manufacturers do not care whether there is a bushing in one place or an anti-friction bearing in another - that is just straight every-day work for concerns with which we deal. The same procedure was followed in other components of the vehicle and it is now definitely known, even in the absence of complete drawings and specifications, that that particular tank can be produced at the promised rate.

Q. Yes sir, it answers my question all right, but there is all this fuss over standardization and knowing the peculiarities of the service generally for uniformity and splitting hairs, it seems to me that this thing actually is, in just the words the Colonel has used, a very very rough estimate. After we have gotten all this thing, we are not only estimating what we want, we are estimating whether we can produce it or not. We are not sure what we want and haven't got the drawings made for it. The planning and equipment sections are still arguing over the pitch they will have on a certain thread and a thumb screw some place.

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We talk about factory plans - we haven't got the dope on the item we want let alone the place we are going to build it. We are still going to have a lot of delay and are never going to obtain early production unless somebody gets busy, determines what they want, and puts it in the hands of these people. Early in this course we heard a lot about machining, retooling, time studies for labor; a lot of our men running around on production floors to check up on this and on that, and you bring the photograph of an item and tell them how big the biggest gear is - I still do not see it.

A. Thank you for bringing up that question. I painted the worst picture for you I could. The example given, the light tank, is the latest standard type item apportioned to the Detroit District and my description represented the roughest sort of preliminary planning which has to be undertaken, such procedure is not necessary in the usual case but I wish to reiterate that companies experienced in that type of manufacture are able to make a reasonable estimate which can be backed up later in more detailed planning. The quantity required of any one facility is not large, about 2,500 to 3,000, and the three companies having accepted schedules all agree that with their knowledge of the art they can handle the work properly - and this without much or any additional equipment. If, however, the quantity to be produced by any one facility were 100,000 tanks the situation would be quite different in that a close check would be required to determine the full shortages of machine tools and related equipment. Planning for simpler items, such as forging and machining of the 75 mm. shell, is complete in all details. We have furnished the manufacturers complete drawings and specifications with descrip-

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tions of manufacture and have obtained lists of machine tool shortages necessary to meet the maximum production rate.

Any other questions?

Q. I wish you would say a few more words about allocations in the districts, that is, surveys on which the allocations are based. We understand that practically all the facilities that are desired have been surveyed and are now allocated, so that work is being dropped?

Q. I think that most of the plants have now been surveyed and allocations made or capacity credits obtained to cover present apportionments, although when new items are allocated to the district additional surveys and resurveys might be required. We know the normal products of the facilities and can in the first instance formulate some opinion of the best available facility to approach. For example, a short time ago the Detroit District received an apportionment covering the light lumber. Upon examining the design it was found that two classes of products were needed, namely, the wheels and light pressed steel work. From the records available in our office we knew where to go for the wheels and that phase of the problem is settled, however, the wheel concern could not do the pressed steel work. We know that there are perhaps 20 facilities in the district capable of taking on the order for the steel work but a further survey is required to select the one best equipped for the work. In this case only one prime contract will be involved since the wheels will be purchased under a sub-contract by the prime contractor.

Q. This question may be somewhat beside the point, sir, but you spoke of the splendid cooperation between the procurement services in Detroit and then you spoke of the lack of uniformity, that is, going to extremes on breaking down contributory materials. In our study here

we find that the Secretary of War has his War Council; that the Chief of Staff has his General Council, but we do not find where the Assistant Secretary has an S.A.S. Council where we could have a round-table discussion and the Chief of Ordnance and the Quartermaster General, etc., work out some uniformity. Concerning the procurement districts, there is no uniformity there. If we could always go to the business man and be more or less uniform I think it would be much better. Based on your experience here and your experience in the field, will you please tell us what the reaction to that might be?

A. In my opinion, striving for uniformity as an end is a stupid procedure. Why do you want uniformity in anything? It is true that uniformity of action is sometimes necessary. Before you prescribe it you must be sure that the end demands it. If we become standardized in procurement planning and war procurement we will never function efficiently. What are the problems involved and what are the goals to be obtained in the case of all planning and procurement agencies? Is the problem of buying commercial equipment, the leading problem of the Quartermaster Corps, the same as the procurement of specialized Ordnance equipment? You see the tasks are different and the procedure of necessity must be different. The Ordnance Office doesn't insist upon having standardization organizations or methods of operating among our own districts. You must realize that the management for the procurement of automotive equipment and artillery ammunition in Detroit might be quite illogical for another Ordnance District purchasing Small Arms. All of us work under certain basic policies, modified if necessary to fit the task assigned each district.

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I want to take up next the problem of personnel and tell you how the districts have planned both for securing and training Reserve Officers. This matter has received much attention and has been a subject of discussion at the various meetings of the District Executive Officers, consequently I can speak with a knowledge of the situation in other districts as well as my own. Some of the offices are blessed or cursed, whichever way you look at it, in having their full peace-time allocation of Reserve Officers from which not only the key men for the heads of the various divisions of the office can be selected, but junior officers as well have definite assignments. Such districts are able to hold periodic meetings of the whole group, and in addition the heads of divisions meet at other times to work out plans in detail for their specific assignments. This is an extremely fortunate situation when it exists. In the St. Louis District the Reserve Officers are so interested in their assignments, due in a large part to the influence of their Executive Officer, that they go into a plant of an allocated facility and actually manufacture an item which the plant is scheduled to produce in war-time. That is one side of the picture.

My own story is quite different. When I arrived in Detroit there were about 18 Reserve Officers on the list out of a total of 94 required for war operation. Of that number fully 25 per cent were dead-wood and some of the others were not fully qualified for any assignment. To build up the reserve the only means available is to commission R.O.T.C. graduates and other candidates in the grade of Second Lieutenant and through their army training and business experience they may become qualified for assignments to these key positions, but this is looking

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many years in the future. In the meantime the Detroit District will have to obtain civilians for the principal assignments in the organization. This plan is feasible as our District Chief and his assistant are both civilians and wish to remain so during war, and we can requisition other qualified personnel according to job specifications who can, with intensive study, enter the office and perform their work satisfactorily.

In regard to the younger officers now assigned and those who will be commissioned over the next few years it is planned to assign them to inspection work. The Army Inspectors of Ordnance assigned to the various plants with their commissioned assistants constitute the largest group of commissioned officers required by a district office, consequently their training is now directed to that end. The training camp at the University of Michigan is well equipped to furnish this instruction. There is a gage laboratory at the University on loan from the Detroit District used primarily for the training of our officers.

In our Unit Plan it is proposed to move that gage laboratory to Detroit and to secure two duplicate items of the equipment for installation in the three largest facilities and for the purpose of checking inspection gages furnished by the Department.

Stepping forward for a moment I might say that in accordance with our War Plan these inspectors will be called to active duty as quickly as possible after M-day. Then, depending upon their inspection assignment to the various classifications of Ordnance materiel to be purchased, these officers will be sent to establishments where intensive training - probably six weeks - will be given to fit them for their individual assignments. For instance, inspectors of automotive equipment will go to Rock Island Arsenal, for ammunition components to

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Frankford Arsenal, and for small arms to Springfield Armory. Upon the completion of such courses the officers will be assigned to the various plants for the training of civilian sub-inspectors and it is hoped that a trained force will then be available at the time production starts. Referring again to the probable use of civilians in the place of commissioned officers in the Detroit District I think we must use commissioned officers as the Government representatives in civilian plants.

Before turning to the problem of war procurement I want to enumerate the incidental duties ~~to~~ <sup>which</sup> fall upon the shoulders of the Executive. Of course we have a normal correspondence between the Ordnance Office and the district and with facilities. Also, we function as agents, so to speak, for other supply arms and services not represented here in making surveys. As to the reports we are required to make on current planning they are certainly not numerous. It is not <sup>a</sup> difficult task, not too much is asked of us. Aside from such routine as personnel, strength and fiscal reports which we send in monthly, our reports consist of correspondence which keeps the Ordnance Office informed of what we are doing. There are more or less running statistics rather than periodic reports. Some of the district offices of other supply arms and services make weekly reports of activities. I would hate to make a weekly report on my own work for it would not be of value in showing definite progress over such a short period. We make an annual report of the status of apportionments showing where schedules are placed, quantities, month of maximum production, money value, and items of that sort.

The arsenals placing contracts in our areas often ask for our services as inspectors. We have plenty of time to perform that work

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and, too, it is educational.

There is scarcely a district that has not some research problem confronting it. In one district it may be one thing - in another something else. It is the desire of my Chief to effect improvement in machine tools better adapted to the manufacture of ammunition than any equipment now used in our arsenals. While it is true that there is plenty of machining capacity in the Detroit area for shell of calibers up to 81 mm. the use of such machinery would be very inefficient. Through the foresight, knowledge, and generosity of Mr. Dow some machine tools of new design for shell turning have been produced in Detroit and after exhaustive tests at Frankford Arsenal were sold to that establishment at the nominal price of one dollar each; Frankford is now in the market for three or four additional tools of these designs. In addition we are trying to develop a source of production of hydraulic presses for forging projectiles, which operation is the choke point in my area in the manufacture of artillery shell.

So far I have said nothing about the organization of the office. You undoubtedly know in a general way what we have. Ordinarily there is a District Chief, an Assistant Chief, and one regular Army Officer as Executive, and one stenographer. This is our entire peacetime personnel. The type of Chief you have is a big element in the success and ease of accomplishing the work. If all districts had the type of Chief I have - a man whose name will open any office door in Detroit - the work would run smoothly. He is a very keen, elderly gentleman who can be depended upon to give excellent advice on any matter presented to him, he does not bother me in the routine work of the office and I try to bother him as little as possible. You must

have Chiefs of that calibre.

To show you what it means to have such a District Chief I will give you an illustration which came up in a meeting where several citizens representative of industry were in attendance for the purpose of discussing revisions of the Adjusted Compensation Contract. In this meeting the question was asked, "Who is going to be the contracting officer?" Mr. Dow replied that as District Chief he would be responsible for negotiating and executing the contract. This comment was then made, "Then there won't be any regular Army Officer around here to deal with? That's fine. If we can get in a room with Mr. Dow in this negotiation and talk with him for half an hour we are sure we can reach an early agreement without any long, drawn-out process involved." There was a general agreement expressed on that viewpoint and I have heard others make inquiries along the same line. I am thoroughly convinced that we need the leading citizen of the community to serve as Chief. Mr. Dow knows everybody of importance in Detroit, they respect him, know his integrity and know that he will deal with them in a business-like way, serving both the interests of the Government and the welfare of his community.

(Despite this civilian viewpoint expressed with reference to dealing with Army Officers we should not have any inferiority complex in dealing with these men.)

Since the purpose of peace-time planning is directed toward the preparation on M-day, or prior thereto, if we can move in advance we should be able to start the negotiation of contracts with little, if any, delay. To effect speedy negotiations we must call to active duty

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immediately a few Reserve Officers (other officers will be mobilized when need for their services develops) together with the employment of a few key civilians as heretofore mentioned. With the peace-time personnel so augmented contractors will be assembled and their minds refreshed on the types of contracts which may be available to them for the production of various items.

Where fixed price contracts are agreed upon some time must be allowed the contractor for the computation of all costs involved and finally an agreement upon the unit prices when the contract is later executed. Where it is necessary to use the Evaluated Fee Supply Contract, or its equivalent, less time will be required, it is hoped, in getting started. Speaking of this latter type of contract, there is bound to be some discussion of its terms, principally the factors of rental and fees. I regret that this new contract as presented to the districts for comment included the proposed specific figures covering these two factors. I believe that when war comes contractors are going to earn what public opinion will let them earn, if public opinion demands that they work for nothing, they will, if everybody is making a lot of money they will be allowed to fall in line.

Despite plans made by any purchasing agency, war procurement will fail unless there is cooperative action by all purchasing agencies, at least those of the military services. Certainly we cannot have any super-policemen in the districts telling the various Chiefs how to run their job. That is out. In the military mind there is frequently a doubt about organizations working independently of each other, with dependence upon cooperation for the avoidance of conflicts. I do not

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hold with that view. As an example, today in Detroit where representatives of the Quartermaster Corps, Ordnance and Air Corps have joint office space many chances for squabbles have arisen but we have had none. The military services must stick together - give and take to obtain best results in the procurement problem as a whole. With sensible men in charge we won't need any policing. We do not need a resident representative of the O.A.S.W.

On the other hand, there might be times when the purchasing agencies of the military services will be in unanimous agreement on a mutual problem, the solution of which is <sup>not</sup> within their power. In such cases they might ask Zone Headquarters or the O.A.S.W. for a representative to meet with the Chiefs and bring back the story to Washington to effect a solution, probably involving some superagency. But even this contingency involving a special representative might be avoided if close liaison is maintained with any superagency's representative in the field. In fact, this function is considered so important in our war-time setup that liaison is a staff function of the

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office of the District Chief.

There are, among other functions planned for joint office space for the military procuring agencies, communications, transportation, traffic management; post-war adjustment; claims, publicity, etc. A justification for including the function of post-war adjustment may need some defense. Very often there is a great objection to any mention of this function since military minds are prone to consider situations outside the main objective of winning a war. I will explain my opinion in this way. It is quite possible to choose from two or three ways of doing anything one which will cause less disturbance of the economic set-up. I am the last one to recommend any delay in action if the time to consider a choice of methods would retard production. However, if economic problems of adjustment after war are given diligent study we might be able to formulate policies of operation which will include cognizance of adjustment without affecting adversely the production of munitions.

Another item should be stressed, namely, publicity, we think this matter so very important that it has been set up as a staff function. Poor publicity will certainly work against us while good publicity might be helpful.

Now, as to our organization about two years ago the Chief of Ordnance formed a Board for the purpose of studying and developing what might be termed a typical district organization. I was a member of that Board and we drew up such a typical diagram. The word "typical" is used advisedly as there was no mandate that the organizations be standardized. There was one fundamental idea on which we all agreed, namely, the setting

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up of Materiel Divisions by classification - the head of each division to be held responsible for the management of all of the purchasing functions required. It was agreed, too, that over the Materiel Divisions there would be placed a coordinating officer whom we called Chief of the Purchasing Service or Chief of the Manufacturing Service. The approved diagram furthermore provided for the organization to handle other functions, principally for service to the whole organization but mainly for the Materiel Divisions. On the top of the diagram is the Office of the District Chief, his Assistant, and the Executive Officer (Our plan provides for keeping a regular officer as Executive for six months, with replacement by a reserve officer or a civilian thereafter) After the approval of the diagram each Ordnance District was required to make a chart showing the various divisions and functions pertaining thereto to meet the particular situation of the various districts. In the Detroit scheme we saw fit to place in the District Chief's office such staff functions as have been referred to and on the other hand we have eliminated certain functions appearing in the organization of many other districts. For instance, our district has no Advisory Committee for the reason that we don't want to tell the District Chief how he must operate. If at any time the District Chief needs advice he can easily obtain it from some source and in subsequent needs other sources can be consulted. This seems preferable to having a standing committee which might present ideas which are not asked for or wanted.

In the peace-time functioning of the district the same procedure is followed. Whenever the opinion of industry is needed we invite representatives of industry to study the problem and to assemble

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for discussion. The personnel differs in the various conferences so called. Incidentally, it might be mentioned here that since the Ordnance Department has the only District Chief among the services in Detroit, representatives of the Quartermaster Corps and Air Corps were invited to participate <sup>both</sup> in the choice of industrial representatives and in the conference recently held under the chairmanship of the Ordnance Assistant District Chief for reporting upon the Evaluated Fee Supply Contract.

That covers the scope of the subject as I have outlined it. I shall be glad to answer any questions.

Q. Is any part of industry in Detroit satisfied with the Fixed Price Contract?

A. Yes, industry and the War Department prefer this type. It is planned to use the Fixed Price Contract where prices can be readily estimated and agreed upon, while the Adjusted Compensation or Evaluated Fee type are necessary in the case of complicated items. In the Detroit District the majority of the contracts will be of the Fixed Price type. One objection which might be raised against the Fixed Price Contract is the discrepancy in unit prices of two or more manufacturers producing the identical item. We assume that we will not have competitive bidding, consequently what is one to do when one manufacturer wants \$1.25, another \$1.20, and still another \$1.30 per unit? In the absence of competitive bidding and through necessity of using in most instances more than one manufacturer of a single item we may be obliged to place contracts involving various prices. This is logical too, since it would be only by accident that the costs of production would be the same in any two plants

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so a difference in price does not necessarily mean that one manufacturer will earn any more on his contract than another.

Q. To a Navy man it is rather perplexing to hear that the head of a district is a civilian. How was he procured - through civil service?

A He has such an appointment and gets one dollar a year. It is perplexing to many Army people too. Once in speaking of travel orders I was asked by a high-ranking Army Officer how my travel orders were obtained and I told him that Mr Dow signed such papers. He replied, "But he can't do that." Well, the fact is that the District Chief signs orders for travel within my district, for travel outside the orders must come from Washington - and my mileage vouchers have never been questioned.

Q. I have made a study of the act known as S 25, it is the application of the universal draft act less the labor provision. I wonder if that has been discussed and what the action of industry would be. In short, it takes all the profit out, leaving practically nothing for the manufacturer, it establishes priorities, licenses industry, conscripts management, and has other evil features.

A. I do not know what the reaction of industry is as the question has not been discussed, but my own reaction to it is unfavorable in part.

Q Going back to the question of cooperation, I was delighted to hear of the cooperation between the services. However, from a practical standpoint there is a question that might call for some sort of very benign superagency within the district. You

said the services should be in the same building. Who would arrange for the renting of floor space, would you all get together and decide you were going to take floor space? Will each one of you have a transportation pool or a central one? How do you stand on legal advice? Will each service have an advisor in technical matters and contracts?

A. We must be independent so far as actual operation is concerned. As for joint office space that could easily be arranged with the representative of the Quartermaster Corps since that Corps is responsible for making all leases.

Q. My point is, are you going to have several attorneys who will pass on Air Corps, Quartermaster Corps and Ordnance contracts?

A. Again we must operate independently and each service will have its own legal personnel. The Chief of Ordnance is responsible for delegates the procurement of designated items and he ~~delegates~~ his authority to purchase certain of them to his District Chief who must depend upon his own personnel. Suppose, however, that all the services were having trouble with the manufacturers of the area on some point pertaining to the Evaluated Fee Supply Contract, it might be feasible in such cases to have the legal representatives meet to compare notes in order to recommend some concerted action.

Colonel Jordan: I would like to have you say something about the Zone Advisor and what specifically your objection is to the use of the Zone Advisor.

A. The first and most potent reason is that I would not like to lose the Detroit District Chief and his Assistant, as both of them would resign if there were any thought of having to serve under a Zone Advisor;

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unless as an advisor we could so write his job specification that he would neither be a policeman nor give orders. An advisor, to be of any value, should be a man of some bigness and I do not believe that there are<sup>a</sup> sufficient number in this country from which to choose who would not attempt to take upon themselves power and the direction of activities.

Q. You place between the Chief of Ordnance and your Chief another link who may change orders which he gives the Chief. Is that not the main objection?

A. If that actually occurred it would be my main objection but I don't think it would have to work that way. The Advisor might report in some manner direct to the O.A.S.W. and at the same time the District Chief could communicate his report to the Ordnance Office and the decision thus made in Washington.

Q. Can't trouble shooters from the A.S.W.'s Office, or others, do it better?

A. It is my idea that according to the present set-up the trouble shooter would come from the Zone Headquarters. That is all the Zone Headquarters stands for so far as I know and we do not need any such headquarters except as residences for representatives of the O.A.S.W. Furthermore, if invited to any district office for consultation it is probable that a Zone Advisor might have a better understanding of affairs in his area than<sup>would</sup> a representative from Washington.

Q. Suppose you are having trouble with the Quartermaster and he calls the Zone Advisor to settle the question?

A. I think that a thing like this should be determined on the facts in the case through the cooperation of the contestants involved. If you are having a scrap and want someone to settle it why call in the

Zone Advisor? If cooperation does not work each service District Chief will make a report to Washington where their respective Chiefs of Service will effect a solution.

Q. What good do you see in the Zone Advisor? Are you putting a link between the Chief of Ordnance and your Chief?

A As I have said, the Zone Advisor should not be a policeman or act as such a link, but I have indicated that the Advisor might be of assistance in representing the military purchasing agencies which are unanimously in dispute with some other agency. The Advisor in this case must come as a friend and only on invitation and not an intermediate or interfering boss between any District Chief and his superior in Washington.

Q. What control do you have over deliveries? If you have an allocation of 50 per cent of the capacity of the company and they find they can make more money making their own product and stall off on your work what recourse have you?

A. We have legal, moral and public opinion to back us up. An existing law gives us power to place a compulsory order, there is a provision that if a concern does not come up to the mark the Government can take over the plant. You threaten them and usually the threat works but if it does not you can take over the plant and turn out the products you want.

Q. You don't offer profit to the man who does better than others?

A. Yes, there is a profit incentive in our contracts.

Q. We had one example of a firm that wanted a year to make delivery

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but when they found out that they might not get the award because of delayed delivery they changed it to six months. We figured maybe they could have made more money by the delay. If you offer enough he grabs the job and gets it in early.

A. There are lots of incentives to speed up work. If the war lasts a long time there will be repeat orders and in the Evaluated Fee Supply Contract the contractor gets a premium for doing the work efficiently. It is up to him to cut down costs; he gets a higher percentage fee for doing so and if he completes it on time or anticipates contracted delivery he has a better chance to get further orders.

Q. When we actually get into war, with your experience do you believe that the automobile industry will actually exceed expectations for production of aircraft according to war plans?

A. In respect to the Detroit District as a whole I do not think that its production potentialities for munitions in general has as yet been tapped. The production, however, of specific items present specific problems and one of these I am sure is the production of aircraft. While I know very little about plane production I have heard by the the matter discussed ~~between~~ Air Corps personnel in Detroit and consequently I am familiar with some details of the difficulty. For the larger planes there are few, if any, suitable plants in Detroit so constructed that the fabrication of the fuselage and the wings can readily be handled, and when it comes to the assembly of the complete plane it will probably be necessary, not only in Detroit but in most other converted facilities throughout the country, to build assembly sheds of

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temporary construction form adjacent to municipal airports. From my knowledge of the allocation made to the Detroit District for engines, production of which will be placed with the automotive industry, I venture the opinion that that industry can more than live up to expectations.

General Tschappat I have been very much interested in the discussion and have been drawing a comparison between our knowledge of procurement now and the status in 1916. I remember as far as the Ordnance Department was concerned we started making a survey in 1916, before the war. At that time the Ordnance Department had had contacts with possibly two dozen manufacturers in the U. S., never any more, and the work done since then creates quite a different picture. A good many things have had to do with that; the World War showed the importance of materiel preparedness and this work has been going on ever since. Educational studies have had a lot to do with it and all agencies of the War Department have been working on it. We are in quite a different status now with reference to the relation of the War Department and industry. I think so far as the work from now on is concerned there will be a continual improvement. I agree entirely with Colonel Quanton in that we ought not to go too far into details in our planning because they are bound to change and it would be more or less waste of time, we ought to hit the high spots, find out the important things and get them lined up. As he said, it does not make any difference just how many wheels or bearings are in a piece of automotive equipment, the important thing is just what industry can do and if we want to be ready to make that thing tomorrow then we have to get busy and work it out. We can't possibly hope to do that in

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peace-time, people just won't do it. However, I do think there is certain general planning that can be done; there are certain general features that can be laid out that will save a lot of time and effort. So far as our work is concerned, I have always considered that our main function in the procuring branch is to place orders and tie them up with contracts and hold the manufacturer responsible. We hold him responsible in inspection and primarily the districts are inspectors. It is not for us to go to a manufacturer and tell him how to do it, if we do that we take all initiative away. It is our job to hold him responsible and make him do what he contracts to do. If he does not, it is our job to make him. That, I think, simplifies the problem a lot. I was very much interested in your talk.

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