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THE TECHNICAL SERVICES AS
PROCUREMENT ORGANIZATIONS

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The basic division of procurement responsibility within the Army Service Forces - and within the War Department as a whole except for the Army Air Forces - was by seven technical services, each specializing in particular types of commodities. This was an organization which had grown up in piece-meal fashion for more than 100 years. The seventh of the technical services, the Transportation Corps, was a product of World War II. Three of the services, on the other hand, traced their origins back to the first years of the Republic.

Any discussion of procurement organization within technical services must be considered in the light of the War Department itself. For a long time War Department organization did not give any tangible recognition to procurement as a function. Rather, each technical service at any particular time followed its own inclination in organizing its procurement operations. The importance of commodity differentiation outweighed any attempt to think of procurement as a single problem. While the chiefs of technical services were responsible to the Secretary of War, the Secretary had no organization enabling him to deal effectively with the technical services in their procurement operations. Apparently no need for any such organization was felt for a long time.

Our war experience increasingly revealed that supply was a vital and even crucial phase of military operations. As such it could not be separated from all the other problems which the military commander of every echelon faced. The failures of performance in the Spanish-American War and the insistence of Elihu Root as Secretary of War produced the War Department General Staff. Whatever the faults of its early experimentation, the General Staff brought with it a recognition of procurement as a function. World War I saw the fruition of a tendency. The Director of Purchases, Stores, and Traffic became in effect a Director of Procurement Operations for the War Department as a whole.

In the years intervening between World War I and II, the procurement function as a function was divided organizationally between the General Staff and the Office of the Assistant Secretary of War. In World War II a single command, the Army Service Forces, recognized the procurement operation as an important phase of military activity. Only the procurement of aircraft and other items peculiar to the Army Air Forces was exempt from this command. And even so, the Office of the Under Secretary of War provided a convenient channel for communicating many of the policies of the Army Service Forces to the Army Air Forces for execution.

The details of War Department organization are not immediately relevant to a review of technical service organization. What is important is to remember that commodity differentiations represented by the technical services have been counteracted by a supervisory organization for the War Department as a whole which emphasizes procurement as a function.

Perhaps a word should be said to make clear what we mean by procurement as a function. If one thinks for a moment of the military units employing the equipment purchased by the War Department, commodity specialization fades in importance. For example, no division is complete which has all of its small arms and ammunition but lacks communications equipment. No division is prepared for combat which has its food and its clothing but lacks trucks for transportation. No division can go into combat with its artillery but without its engineer equipment for special assault tasks. The corps and the army demanded even greater varieties of equipment for their many different units. Thus procurement becomes first of all a problem in providing the many different types of supplies in the quantities required to equip complete fighting units. Therefore any procurement program, however it may recognize commodity specialization, must make sure that it is purchasing supplies for the same number and types of troop units and for approximately the same time schedule.

Nor is the problem of supply requirements the only phase of the procurement function as a function. The War Department has found it desirable to have common contract procedures, common legal provisions, and common pricing policies. The demands for raw materials arise from many different types of commodities. Copper is equally important to the wire of the Signal Corps and to the automotive equipment of the Ordnance Department. Steel castings and forgings are vital to the trucks procured by the Ordnance Department and to the caterpillar tractors procured by the Corps of Engineers. Conservation of raw materials involves a decision about the relative importance of raw material demands regardless of the individual procuring agency. The determination of necessary production facilities and the establishment of priorities among such facilities is also a problem which must be settled on the procurement front as a whole. These are sufficient illustrations to demonstrate the meaning of the procurement function.

The Army Service Forces as a command recognized this procurement function. The large staff of the Commanding General provided a means for bringing together as a whole the many common threads extending through the procurement operations of seven technical services based upon commodity specialization.

There is one other consideration which should be mentioned before procurement as a function is dismissed. In the evolution of War Department organization during the last 45 years procurement as a function was satisfied by an overhead organization in Washington which recognized the responsibilities of the War Department as a whole. Each technical service then proceeded to carry out its own duties within the broad framework of programs and policies established by the War Department. That procurement as a function might have a counterpart outside Washington within specific geographical areas was a lesson demonstrated by World War II alone. At one time in the 1920's the Office of the Assistant Secretary of War experimented with the idea of procurement zones. At one time the possibility of establishing a common field pattern for the procurement organization of technical services was considered. These ideas were abandoned in the 1930's.

When World War II began, and even during the war, little excitement was occasioned by the fact that six of seven technical services had their own separate procurement offices located in New York City, or that five of them had procurement offices in Chicago and five likewise in San Francisco. The location of individual procurement offices in the same city meant some duplication in administrative overhead and perhaps some inconvenience to contractors. As long as each procurement office was seeking production facilities, there was duplication in making facilities surveys. Apparently contractors complained but little. Most business establishments were accustomed to selling to many buyers and found small reason to remark upon an arrangement whereby three or four different War Department offices were seeking supplies at the same time in the same locality.

Considerations of administrative overhead and possible inconvenience to individual contractors were not sufficient to bring about any geographical procurement organization as a whole in World War II. The labor supply problem was the one force which produced a new organizational pattern. As handled during the war, labor supply was peculiarly a local problem. Adjustments in housing, community services, transportation, and the many other phases of labor supply had to be accomplished on a local basis.

The War Manpower Commission and the War Production Board in 1943 inaugurated an area approach in meeting the labor supply obstacles to war procurement programs in five west coast centers. By common agreement this approach was extended to some 100 communities early in 1944. The War Department then had to have a regional and local organization to work as a part of the system of production urgency committees and manpower priorities committees set up by the WPB and WMC. ASF Circular 85 on 27 March 1944 established a regional procurement organization for the first time. Thirteen regions were created following WPB regional boundary lines. Each region was headed by a regional representative with an assistant designated as labor advisor. These regional representatives were appointed by the ASF but were selected from among technical service officers in the region. Thus in New York City the ASF regional representative was the Commanding Officer of the Ordnance District Office. In Kansas City the ASF regional representative was the Commanding General of a Quartermaster Depot. In Denver the ASF regional representative was the Commanding General of the Rocky Mountain Arsenal of the Chemical Warfare Service.

ASF Circular 85 was superseded by War Department Circular 173 on 4 May 1944. This confirmed the already established regional organization for handling labor supply problems and made it War Department-wide in effect. In other words, Army Air Forces labor supply problems in the procurement field were made a part of the same organizational pattern. Where any disagreements in the field might occur between procurement representatives of the technical services and of the Army Air Forces, the dispute was to be brought to Washington and settled there.

There is not time here to discuss the problems encountered by this regional organization. There were divided loyalties. The geographical

pattern did not fit other geographical boundaries used for procurement and administrative purposes in the War Department.

The point is that labor supply recognized no commodity differentiations. When there were shortages in any given area, production urgencies had to be established among various programs regardless of the procurement agency. Manpower priorities were then settled in accordance with these production urgencies. All of the procurement activities of an area had to be brought together and surveyed from the point of view of the procurement program as a whole. It was difficult to work out a common regional approach to labor supply problems, and this whole experience deserves very careful study.

As early as December, 1942, an arrangement was made between the Army Air Forces, the Ordnance Department, and the Navy Department for the creation of audit coordination committees in certain selected metropolitan areas where plants had cost-plus-a-fixed-fee contracts with two or more of the procurement agencies. A representative of one single procurement office would then audit the overhead in these plants. Generally the agency with the preponderant interest assumed audit responsibility. As preparations were made for handling termination of contracts, the War and Navy Departments in September, 1944 made an agreement to extend audit coordination committees into additional areas to provide a single audit of work in process and other items of plant cost. Termination coordination committees were established in 16 metropolitan areas by early 1945.

More informal and individual arrangements were made in many instances to eliminate duplication of inspection activities by various procurement agencies in plants producing for more than one technical service or Navy bureau. The War Department at no time established such a central inspection service as that of the Navy Department. Nonetheless, some local cooperative arrangements were put into effect. Thus in the audit of terminated contracts and in the inspection of products, geographical arrangements were made for handling certain phases of the procurement operation regardless of commodity differences.

In the years ahead, the geographical phase of the procurement function may demand more and more attention. This is at least a part of the problem of procurement organization which remains relatively unexplored. The procurement function for the War Department as a whole may be adequately recognized by a competent staff in Washington which incarnates the responsibility of the Secretary of War and the Chief of Staff. But there is a corresponding procurement problem as a whole within geographical areas of the United States. This is yet to be met with a satisfactory organizational arrangement.

Supervisory Organization in Washington

As already mentioned, the technical services divided the procurement responsibility among themselves by type of commodity purchased. Their names largely indicated the type of supply which was bought. The Ordnance Department procured small arms, artillery, fire control instruments, ammuni-

and all types of wheeled vehicles including tanks and motor gun carriages. The Quartermaster Corps procured food, fuels, and lubricants, clothing and all general supplies. The Signal Corps bought communications equipment; the Corps of Engineers construction equipment and supplies, demolition supplies, and assault boats for local river crossings; the Medical Department all types of medical supplies; the Chemical Warfare Service incendiary bombs, chemical agents, protective clothing and supplies, and smoke equipment; the Transportation Corps railway rolling stock, rails, and harbor equipment including small marine craft.

There were fundamental differences among the technical services which were not always appreciated. For one thing, procurement was the most important operating responsibility of only three of the seven technical services -- the Ordnance Department, the Quartermaster Corps, and the Chemical Warfare Service. On the other hand, the Surgeon General, the Chief of Transportation, and the Chief of Engineers had other duties which overshadowed their procurement assignments. The Surgeon General was principally concerned with supervision of medical service throughout the Army. The Chief of Transportation operated both inland and overseas transportation service for the Army, while the Chief of Engineers had construction and property maintenance responsibilities of great importance. The Chief Signal Officer stood in between. His procurement job was sizeable and at the same time he operated the Army Communications Service and the Army Photographic Service.

In the second place, as far as procurement was concerned, there were great disparities in the magnitude of the procurement burden of each technical service. In the fiscal year ending 30 June 1945 -- the last complete year of war purchases and the year of largest war deliveries -- the dollar volume of Ordnance procurement came to 11.6 billion dollars, 50 per cent of the procurement of all seven technical services. Purchases by the Quartermaster Corps amounted to 6.5 billion dollars or 30 per cent of the total. Thus two services, Ordnance and Quartermaster, between them accounted for 80 per cent of the total procurement for all technical services. Corps of Engineers and Signal Corps purchases in the fiscal year 1945 amounting to 1.9 billion and 1.4 billion dollars respectively or another 14 per cent of the total. Three technical services, Medical, Chemical Warfare, and Transportation, split the remaining six per cent of all procurement.

These differences in responsibility and in procurement operations were naturally reflected in the internal organization of technical services. Thus, as would be expected, the principal worries of the Ordnance Department throughout the war were the development of new materiel, the procurement of Ordnance supplies, and their storage and distribution. Accordingly the three major divisions of the Office of the Chief of Ordnance were a Technical Service, an Industrial Service, and a Field Service. But even in the Ordnance Department there was a constant pressure for commodity specialization to achieve separate recognition from the procurement function. Thus the Tank Automotive Center located in Detroit and later officially known as the Office, Chief of Ordnance - Detroit, assumed responsibility for the research and development, the procurement, and the storage and distribution of all tank and automotive equipment. In 1945 this field

of procurement alone totalled 40 per cent of all Ordnance purchases. Accordingly the Technical Service concentrated its development work in the fields of artillery, ammunition, and small arms. The same was true of the purchasing work of the Industrial Service.

The Office of the Quartermaster General in Washington went through a different organizational history. Here the situation was complicated by the traditional method of Quartermaster procurement which gave commodity specialization to individual depots scattered throughout the United States. For example, the Boston depot was the center for shoe procurement throughout the country, while the Philadelphia depot was the center of clothing procurement. The Office of the Quartermaster General in Washington early assigned the responsibility for supervision of all phases of depot operations to a single division. Then late in 1942 and early 1943 a functional organization developed, differentiating research and development including the determination of military requirements, procurement, supervision, and storage and distribution supervision.

But commodity pressures once again brought a change in this pattern. Subsistence procurement became so large and so vital that a separate subsistence division was created in Washington. In the fiscal year 1945 60 per cent of the dollar volume of all Quartermaster purchases were for feedstuffs. This subsistence division tended to supervise all research and development, procurement and distribution of food supplies. A major responsibility of the office in Washington was the handling of all relations with the War Food Administration. A Fuels and Lubricants Division was also set up in 1943 to handle the requirements, procurement, and distribution of gasoline and other petroleum products. While in dollar volume the actual procurement was not large, in comparison with other programs, fuels and lubricants presented peculiar problems. Within the United States all purchasing was done on a local basis, the petroleum industry providing the necessary storage and distribution facilities. Even storage for overseas shipment was performed by the petroleum industry. The importance of joint action with the Navy and of cooperative relationships with the Petroleum Administration for War helped to justify the separate commodity recognition of this field of procurement. As a result, the Office of the Quartermaster General continued to handle development and requirements, procurement, and distribution functionally for clothing, textiles, and general supplies.

The Office of the Chief of Chemical Warfare Service was organized functionally, differentiating a technical division, an industrial division, and a supply division.

The Chief of Engineers, the Chief Signal Officer, the Surgeon General and the Chief of Transportation lumped their supply activities as simply one phase of their responsibilities. A supply division and later an Assistant Chief Engineer for Supply handled all phases of research, procurement, and supply of engineer equipment. The Office of the Chief Signal Officer had an Engineering and Technical Service and a separate Procurement and Distribution Service. The Surgeon General's Office had a Chief of Supply Service, while the Chief of Transportation had a

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Director of Supply. Their immediate operating responsibilities other than procurement provided the remaining major units in their offices.

There are three important aspects about the organization of the office of each chief of technical service. Thus even in the office of a chief of technical service the procurement function competed for recognition with commodity specialization. The importance of tank-automotive procurement broke down the functional organization in the Office of the Chief of Ordnance. The same thing happened in the Office of the Quartermaster General in the fields of subsistence and fuels and lubricants.

In the second place, there was a tendency to give separate attention to the functions of research, procurement, and distribution. Even where all three activities were lumped under a Director of Supply, as in the Medical Department and the Corps of Engineers, the next breakdown of responsibility followed this functional differentiation. The Office of the Quartermaster General began with a single unit supervising both procurement and storage operations at depots but ended up with two functional units. Both operations were on such a large scale in the technical services and both presented such different problems -- the one involving relations with contractors, and the other a large materials handling operation -- that functional specialization became necessary.

In the third place, the actual purchase of supplies, involving the letting of contracts, all subsequent relations with contractors, and, of course, the storage operation, were handled outside of Washington. This was different from the practice of the Navy Department, where the individual bureau headquarters in Washington directly let all important Navy contracts. Almost no War Department contracts were awarded from Washington. The office of a chief of technical service was a supervisory office establishing programs and policies for, and following the performance of, field offices.

Field Organization

Geographical decentralization became a fixed pattern in War Department procurement during World War I. In the Civil War the Quartermaster Corps completed a procurement pattern which assigned country-wide procurement on a commodity basis to individual depots. The purchase of all cotton duck, saddlery, and other general equipment, for example, was the responsibility of the Jeffersonville Depot and it remained so even throughout World War II in spite of the inconvenience involved in getting to Jeffersonville, Indiana.

Ordnance procurement was decentralized to 13 district offices in World War I at the special insistence of Edward Stettinius, an advisor to the Chief of Ordnance. This served as a pattern for the procurement operations of other technical services. This field organization provided for the purchase of all types of supplies within an individual technical service on a geographical basis. An Ordnance District Office purchased small arms, artillery, and the component parts of ammunition. The district offices, however, had no responsibility for the supervision of Ordnance arsenals or of government-owned contractor-operated plants.

Powder plants and ammunition loading plants likewise fell outside the jurisdiction of Ordnance district offices. With these exceptions the Ordnance Department maintained its 13 district offices throughout World War II.* On the other hand, the Office, Chief of Ordnance - Detroit bought automotive and tank equipment on a centralized basis throughout the United States. Occasionally it requested the assistance of the district offices in the procurement of particular automotive supplies.

The Signal Corps likewise began with a geographical organization with procurement district offices in Philadelphia, Birmingham, Chicago and San Francisco. The complexities of communications equipment, arising largely out of constant changes in models resulting from technical improvements, quickly brought a change. Instead, three procurement offices were established specializing in different types of equipment. The Philadelphia depot purchased telephone supplies, wire, and radio equipment. Ft. Monmouth became the center not only of electronics research but of electronics procurement. The procurement office in Dayton located at Wright Field specialized in the procurement of all communications equipment for aircraft.

From the point of view of the purchasing responsibility of the Chief Signal Officer this last was a "mistake." The Army Air Forces argued that since all Signal Corps procurement for aircraft was concentrated at Wright Field it had become in effect a part of AAF operations. Accordingly the Army Air Forces requested the transfer of the entire office from the Chief Signal Officer to the Army Air Forces, and this was approved by the Deputy Chief of Staff in August, 1944. The transfer was completed on 1 April 1945. The Signal Corps might argue that the Wright Field office had obtained much assistance from Monmouth and Philadelphia, but the procurement transfer was effected just the same.

As a result, the Signal Corps ended the war with a procurement office in Philadelphia and one at Ft. Monmouth, each for the most part specializing in two different fields of procurement. Procurement inspection zones provided a special arrangement for handling contract administration on an area basis. Production expediting was similarly handled.

The Chemical Warfare Service began the war with five procurement offices located in Boston, New York, Pittsburgh, Chicago and San Francisco. It ended the war with six such offices, a new one being added in Dallas. Even so, there was a trend toward commodity specialization among these offices. Thus the New York office became the center for relations with the chemical industry as a whole. The other district offices largely became administrative offices handling chemical contracts after they had been awarded. The Medical Department began with four district offices located in New York, Chicago, St. Louis and San Francisco. It

*These district offices were located in Boston, Springfield, New York, Rochester, Philadelphia, Pittsburgh, Birmingham, Cleveland, Detroit, Cincinnati, Chicago, St. Louis, and San Francisco.

ended with a single procurement office in New York City, with the St. Louis depot serving as a sub-procurement office.

Because of the office shortage in Washington the Chief of Transportation had to locate the bulk of his procurement supervisory force in Cincinnati. This became the center directing the procurement of transportation equipment. For the most part New York and Cincinnati divided between them the purchase of rail supplies and boats, with offices in New Orleans and San Francisco participating in the procurement of marine equipment.

The Corps of Engineers did a good deal of shifting around in its field organization. It started the war with supply sections in Engineer district offices in New York, Philadelphia, Pittsburgh, Chicago, Mobile and San Francisco. The district offices were the local offices handling construction as well as civil activities on rivers and harbors. In 1943 the Chief of Engineers established 10 Engineer procurement divisions, still utilizing district office facilities but providing a distinct chain of command. In 1945 procurement was for the most part assigned to division engineer offices. There were 11 such divisions in the United States. Even these offices tended to specialize. Thus the New York office purchased air compressors on a nation-wide basis. On the other hand, boats, tools, bridging equipment and other supplies tended to be purchased on a straight geographical basis. Lumber procurement was separately handled through three offices in Atlanta, Memphis, and Portland, Oregon. This was a joint operation with the Navy Department.

As mentioned previously, the Quartermaster General began the war with a traditional arrangement whereby depots purchased types of commodities on a nation-wide basis. Separate market centers handled the local procurement of food under the general direction of the subsistence office located at the Chicago depot. Interestingly enough, this nation-wide procurement arrangement produced considerable criticism from certain geographical areas. Thus the textile industry in the south was inclined to believe that the Philadelphia depot favored the New England and New York industries over its own area. And there was some complaint about cotton duck procurement from Jeffersonville. A newly developed clothing industry on the west coast felt even more geographically isolated. Such criticism induced the Quartermaster General to establish procurement districts in his more important depots such as Atlanta, Kansas City, San Antonio, and Oakland to serve as administrative areas for local procurement directed by parent depots in Boston, Philadelphia, or Chicago.

This brief review of field experience presents two general subjects for consideration. The first is the problem of reconciling geographical or area considerations in procurement with commodity specialization. The war experience was replete with various adjustments of one to the other.

In the second place, the relation of procurement to depot operations was a constant concern. This became more evident with the introduction in 1944 of the Supply Control System. The essence of this system was the calculation of procurement requirements upon the basis of distribution

experience. The Quartermaster General used depots as procurement centers. The Ordnance Department had almost no organic relationship in the field between procurement on the one hand and storage and distribution on the other. Yet, on one occasion, when ammunition supply became critical, a central ammunition office was created in St. Louis directing the procurement, loading, and distribution of ammunition. For a time in 1945 about 50 per cent of the ammunition shipped overseas went directly from loading lines to ports of embarkation for immediate transport. Bringing about closer relations between procurement and distribution in the field was challenging the organization genius of nearly all the technical services at the end of the war.

Miscellaneous Organization Problems

Two other characteristics of procurement organization by technical services should be mentioned in passing. For the most part, the technical services procured supplies for the use of the combatant arms. This was especially true of Ordnance, Quartermaster and Chemical Warfare supplies. The Medical Department was especially concerned with the procurement of supplies and equipment for use by medical officers, but even it obtained items for issue to and use by individual soldiers. Engineer equipment was used by Engineer units of the Army Ground Forces as well as by Engineer units trained under the Chief of Engineers. This was true also of Signal Corps equipment. Transportation equipment was, for the most part, used by units trained under the Chief of Transportation.

This situation meant that close cooperative relationships had to be developed between the procuring service and the using service. There were occasional instances of disagreement. Certainly there is nothing in the record of World War II which indicates that a procurement service at any time opposed the introduction of new and improved equipment for the combatant forces. Indeed, the Ordnance Department can point to its work in the development of the heavy tank which preceded the final demand for such equipment from ground forces overseas. Ordnance estimates of the need for heavy artillery proved in the long run far more accurate than those of the Army Ground Forces. The combat boot was originally developed by the Quartermaster Corps, rejected by the Army Ground Forces, and later adopted throughout the Army on the basis of need demonstrated overseas. There might be long and even acrimonious debate between the technical services and the using arms about who was responsible for various pieces of equipment. Such debate would be of little usefulness.

What is important is simply this. The technical services at all times recognized that the using forces were the final arbiter of what should be procured and on what scale. Relationships were quite close. It is unlikely that any charge will ever be made that the procuring services hampered the development of new military equipment.

The Army Air Forces was an outstanding illustration of a contrary practice in the War Department. It insisted upon its own procurement of aircraft and all vital auxiliary air supplies. The Army Air Forces followed the contracting, purchasing, renegotiation and termination

policies and procedures developed within the Army Service Forces. Otherwise their procurement operation was quite different from that of the seven technical services.

Secondly, the purchasing operations of the technical services were intended to meet virtually all military supply demands. This could not be entirely accomplished. Overseas commanders were encouraged to develop local sources of supply in order to alleviate the demands upon overseas shipping space in the first place, and upon American productive resources in the second place. Local military installations in the United States purchased many types of supplies directly from the local market. This was the established pattern for the procurement of fuel and was so recognized and controlled. The same was true of the procurement of coal. Many building supplies for maintenance operations were purchased locally, and the same was done for automotive spare parts.

This local procurement became a major problem before the war was done. With growing shortages in the civilian economy, much criticism was leveled at military purchase of items on the local market. Such a situation can be anticipated in the event of another war. More and more attention had to be given from 1943 on to the imposition of new controls on local procurement. Oftentimes a malfunctioning of the Army distribution system led individual military installations to resort to local procurement of supplies. This was recognized as an undesirable practice. Fiscal controls, improvements in the Army distribution system, and actual prohibitions upon the procurement of certain types of items had to be used. This whole subject will demand greater attention by the procurement organization of the future.

Conclusion

This present discussion has not dealt with all phases of procurement organization. No attempt has been made, for example, to mention the various problems of procurement cooperation with the Navy Department or of handling procurement relations with the War Production Board and other civilian agencies. Rather, the major issues in the procurement organization of technical services have been briefly reviewed as a basis for more detailed discussion to follow.

It has not been my intention to propose specific answers to the problems which have been raised here or to make recommendations about future procurement organization in the War Department or within technical services. A number of recommendations have already been submitted. The Army Industrial College has made proposals to the Under Secretary, General Somervell when retiring as Commanding General of the Army Service Forces made specific proposals about procurement organization, and the War Department has had other recommendations put forward by an official board presided over by Lieutenant General Patch.

At the same time, there would seem to be at least five principles which must underlie the future organizational arrangements for procurement within the War Department.

1. Procurement must be recognized as a single function. There must be common leadership providing procurement goals and establishing procurement policies and procedures.

2. Procurement organization must continue to recognize commodity differentiations. There is a need for commodity specialization, since there are fundamental differences in the characteristics of such various fields as ammunition, tank and automotive equipment, food, fuels and lubricants, and medical supplies, to mention only a few.

3. There will have to be an improved arrangement made for handling the common procurement problems which arise in production areas outside Washington and which do not follow along commodity lines. The labor supply problem is the outstanding illustration, although undoubtedly much can be done to reduce unnecessary overhead where several procurement offices are located close to each other, and to simplify relations with contractors. The contract termination program and the inspection arrangements, not to mention the 1942 agreement whereby the War Department turned over all facility surveys to the regional offices of the War Production Board, illustrate phases of the procurement operation which can be handled on a common basis within a geographical area.

4. Procurement must be closely tied to distribution. The war experience revealed that there is no clear dividing line between the function of procurement on the one hand and storage and issue on the other. They two merge into the common problem of supplying combatant forces with all that they need for effective operation against the enemy. Moreover, distribution experience must serve as an important element in determining procurement requirements.

5. The experience of the technical services indicates that procurement does not have to be performed by the using arm. Nonetheless, research and development and the determination of requirements must be accomplished with the closest cooperation between the using arm and the procuring service.

Many different arrangements can be made in organizing procurement operations while recognizing each of these fundamental principles. Undoubtedly in the years ahead, all of these subjects will be carefully debated and a number of different proposed solutions tried. Fortunately organization never needs to be a final proposition. There is room for experimentation while searching for satisfactory solutions. Such experimentation, within reasonable limits, should be encouraged in the years ahead.