ARMY SUPPLY PROGRAM

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CONTENTS

THE INDUSTRIAL COLLEGE OF THE ARMED FORCES

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GENERAL McKINLEY:

Gentlemen, this afternoon we are particularly fortunate in having with us General Lutes who probably needs no introduction because people who are interested in the field that we are interested in know all about General Lutes and what he did during the war.

General Lutes comes to us from the Artillery and graduated from the Command and General Staff School in 1930. On the way over here, we were talking about our experiences at this College; he was a student here in 1935.

As you know, General Lutes has had particular interest in problems of supply and distribution and when General Somervell was commanding the ASF, he was one of the pillars of strength there, later himself to succeed to the Command of the ASF.

General Lutes is now the Director of Service, Supply and Procurement in the War Department General Staff, which to me is still G-4. I am old-fashioned.

The subject on which he will speak to us today is the matter of a technique which was perfected under his immediate supervision, that of the "Army Supply Program."

I take great pleasure in presenting General Lutes.

GENERAL LUTES:

Thank you very much, General McKinley. Like you, I feel that there is still a G-4 Section. I am old-fashioned also.

The subject which General McKinley selected for me is the "Army Supply Program." My comments today would have been more appropriate earlier in your course as they merely introduce the broad subject. However, other engagements prevented my addressing you before now.

In a restrictive and literal meaning of the words, the Army Supply Program was simply a printed document which periodically set forth, throughout the course of World War II, the requirements of the Army for supplies and equipment. In a broad sense, however, the phrase, "Army Supply Program", embraces the system that was developed during the War for estimating the future needs of the Army for supplies and equipment, correlating these needs with the assets already in the hands of the Army, and coordinating them with production capabilities in terms of facilities,

raw materials, components, manpower; governing and scheduling purchasing and production; adjusting pricing; and controlling stockages and stock levels.

It is to this system that my remarks will be directed today. Unfortunately, it is a subject lacking in glamour. It is complicated, involved. It cannot be made amusing. All I can try to do is make it intelligible. But the importance of this subject cannot be overemphasized. It is the life blood of the supply process. It is the first step in that process and the one that governs all its phases. It demands most serious attention and particularly here at the "Industrial College of The Armed Forces."

Let us first look at the situation that existed on 7 December 1941 when the Japanese struck at Pearl Harbor. At that time, G-4 of the War Department General Staff had a procedure for the preparation of so-called "Equipment Expenditure Programs." In effect, these programs were a break-down of the monies appropriated by Congress for supplies and equipment for the Army into specific items or categories of items and quantities. They were prepared by the various Technical Services of the Army and consolidated by G-4. They were not a complete statement of the needs of the Army, but were rather a statement of how to spend the limited funds that had been secured. After approval by G-4, they became the basis of procurement for the Technical Services. These expenditure programs were deficient as a means of governing the supply program of the Army. They were limited in scope and did not cover all necessary items. They did not indicate when the items would be needed and therefore were not phased in time. They were inadequate as a basis for production planning and scheduling or for determining the Army's needs in terms of raw materials and industrial facilities. They were a meager but important beginning in determining the requirements of the Army and translating these requirements into feasible production schedules.

It is true that in July 1941, after Germany invaded Russia, the President directed the Secretary of War to explore the "over-all production requirements to defeat our potential enemies." In response, the General Staff prepared a troop basis indicating the size and composition of the force considered necessary to defeat Italy, Germany and Japan. This was the foundation on which weapons, vehicles, uniforms, all the hundreds and thousands of items necessary to equip and maintain an adequate force were to be determined. This troop basis and computation of munitions based thereon was completed in October 1941. It was known as the Victory Program. It did not, however, become the basis for actual procurement until after Pearl Harbor. It was the first program which gave consideration to the productive resources of the country.

At the time of Pearl Harbor, supply, using the term in its broadest sense to include all activities from the factory to the front lines, was divided between two independent offices in the War Department. The Office of the Under Secretary of War was responsible for procurement and

related activities and in this capacity dealt directly and separately with the Technical Services. G-4 of the War Department General Staff, was responsible for requirements, storage, transportation, distribution and issue of supplies and equipment and likewise dealt directly and separately with the Technical Services on these phases of the supply process. On the one hand, G-4 was trying to determine requirements and furnish supplies to the Army. On the other hand, the Office of the Under Secretary of War was trying to determine what should be purchased and getting it produced. The coordination and correlation between these two offices was inadequate. The Technical Services had two bosses for supply. While theoretically there was correlation bottom-side in the Technical Services, there was no well established procedure for correlation top-side. It was not uncommon for a Technical Service to play one office against the other. This situation was clearly recognized by General Somervell when he became G-4 in November 1941 and he immediately initiated steps with the Under Secretary of War to bring about a better integration of the various factors involved in the supply process. At the same time, steps were initiated to prepare a more comprehensive Army Supply Program setting forth more fully the needs of the Army for supplies and equipment and correlating these needs with procurement.

In March 1942, as you all know, the War Department was reorganized into three major commands, Ground, Air, and Service Forces. In this reorganization, certain procurement and planning functions from the Office of the Under Secretary of War and certain supply planning functions from the Office of the Assistant Chief of Staff G-4, War Department General Staff, were combined and integrated in the Headquarters of the Services of Supply, later known as the Army Service Forces. This bringing together of the major phases of the supply processes under one top management had a tremendous influence on the Army Supply Program.

The first comprehensive Army Supply Program appeared in April 1942. It set forth the procurement objectives of the several Technical Services by calendar years in terms of end-items. Requirements for the Navy and Lend-Lease, as well as for all elements of the Army, were included. Each Technical Service prepared its arithmetical computations by electric tabulating machines in accordance with standard Army Service Forces instructions. Computations were based upon troop lists, tables of equipment and allowances, replacement factors and other strategic planning data furnished by the General Staff. The program was then translated into terms of raw materials and facilities and furnished to the civilian War Production Board. The War Production Board, after taking into account other programs contributing to the war effort, determined that it was unrealizable due to limitations of productive capacity. Accordingly, the Joint Chiefs of Staff revised the strategic plans, which were geared to the program and ordered a reduction in requirements which was reflected in the Army Supply Program in November 1942. This program represented for the first time a correlation of strategy, requirements and productive possibilities.

Requirements are never static, particularly during war. Consequently, the Army Supply Program was reissued periodically throughout the War and interim, almost daily, revisions of the published program were made.

Now, let us examine in a little more detail the system behind the Army Supply program - how well it worked (and its deficiencies also).

In the first place, the program had to be based on the plans for prosecuting the war. The most important planning document for supply purposes was the troop basis prepared by the War Department General Staff. Knowing the number of units of various types, i.e., F.A., Air, etc., knowing their tables of organization and equipment, we could compute the amount of initial equipment that these units would require. Tables of allowances, replacement factors, in addition to the troop basis determined the amount of replacement supplies and equipment. Navy requirements and requirements of our Allies had to be added. Then there were the so-called operational requirements determined by the strategic and operational plans. These were requirements over and above any tables of equipment and allowances to meet specific needs; materials and equipment to rehabilitate the port of Cherbourg, well digging equipment for an island in the Pacific, or landing craft for the Normandy beach would be examples of operational requirements.

From the computed figures, there had to be subtracted the amounts already on hand in the Army. This sounds like a simple procedure, but it had its complications. To be absolutely accurate, all the supplies and equipment in the hands of all troops both in the United States and overseas, in storage in overseas depots and dumps and at posts, camps and stations in the Zone of the Interior, as well as amount in the depots of the Zone of the Interior should have been considered. To secure such a world wide inventory of all items was an impractical task. In general, the Army Service Forces had to adopte the practice of assuming that once an item was issued from its depots in the Zone of the Interior it was no longer an asset in the estimating of future needs. This policy led to difficulties towards the end of the War and had to be modified for redeployment planning to take into consideration returns to depots, and stocks overseas.

The next step was the translation of the procurement objectives (as determined by the methods I have just outlined) into raw material requirements. One of the most vexatious problems in the early stages of the War was that of controlling the flow of materials in short supply, such as aluminum, copper ans steel, into essential war programs. An attempt was first made to do this through a priority system. This attempt failed as could have been expected. No priority system can be successful when there is an actual shortage to meet all programs. In such cases, the programs with the highest priorities get all the materials while essential programs with lower priority get little or no materials. The next effort was the Production Requirements Plan which attempted to allocate materials on the basis of manufacturers' estimates instead of on the basis of end item programs. As pointed out to the War Production Board by the Army Service Forces at that time, this scheme was doomed to failure since it did not properly correlate the flow of materials with

the various war programs. The final solution was found in the Controlled Materials Plan which provided for an allocation of materials down through claimant agencies in accordance with scheduled programs of requirements. In general, this plan solved the materials problem. It necessitated a thorough translation of the Army Supply Program into scheduled quantities of the various controlled materials. From the second quarter of 1943 to the end of the War, the Army Service Forces quarterly issued a document known as the "Army Requirements for Controlled Materials" as a direct supplement to the Army Supply Program.

On the whole, the computations from these data produced requirements figures of sufficient accuracy to insure a high degree of satisfaction in the supply of the Army. In effect, they produced a pool of supplies and equipment which was drawn on to meet the requisitions originating in the Zone of the Interior and the overseas theaters and to meet the assignments of munitions to our Allies.

However, certain difficulties arose. Instead of one authoritative troop basis from which to compute requirements, several troop lists were being prepared by different Divisions of the War Department General Staff which were in many particulars inconsistent with each other. One troop list prepared by G-3 showed the activation of units, another prepared by the Operations Division showed the contemplated deployment, and still another planned sailing of units overseas. There was a tendency to buy on one basis and try to supply on another. Army Service Forces kept insisting that one complete authoritative troop basis was essential for the proper computation of requirements. While the situation was improved duringthe War, the end of the War still found us with more than one troop basis.

Not only were there major inconsistences in the troop bases, but troop bases when secured from the War Department General Staff were not supplied sufficiently far in advance to allow for the proper computation of requirements and the implementation of procurement programs. It just seemed impossible to get the Staff to understand the importance of lead time in production. This was also true of strategic and operational plans which affected in a large measure the supply of equipment in addition to the basic troop equipment. Firm decisions on these plans were seldom made sufficiently far in advance to meet the required lead time for production. It was necessary for Army Service Forces to do its own strategic and operations planning in an attempt to out-guess the Joint and Combined Chiefs of Staff; otherwise we would not have been in a position to meet supply requirements of the operations finally decided upon.

Another problem in the computation of requirements was that of replacement factors. Of course, the Army had some experience on how

fast supplies and equipment were used and had to be replaced at the beginning of the War, but this experience was extremely limited in comparison with the problem presented. Originally, the majority of the replacement factors had to be determined on a theoretical basis. Manufacturers were asked, for example, to estimate the items and quantities of spare parts that would be needed for automotive equipment. The day of fire for ammunition had to be continually adjusted, generally upward.

There is an interesting story concerning the supply of artillery ammunition which illustrates the necessity for careful forward planning by combat commanders. In the Italian Campaign the artillery expenditure rates were estimated upon the experience developed in North Africa. However, the rugged mountain chains in Italy formed fortresses which had to be blasted. Also, these mountains required high angle fire at extreme ranges which in turn burned up more supercharges and burned out more artillery tubes. Week by week the Theater raised its expenditures and estimated future requirements. We would translate their requirements into production only to find that they must be raised again and again. We went to the maximum production that could be reached for artillery ammunition with facilities then available and initiated expansion of facilities. Later, when the European campaigns were planned we suggested that the Italian Campaign be used as an example and that artillery ammunition expenditure rates be estimated with maximum Italian rates as a minimum. These recommendations were not accepted by combat commanders as necessary and the campaigns in Europe started with lower rates which began to rise and rise as they did in Italy. I then went to Europe to consult with the Army Group and Army Commanders. The maximum production rates and rounds available were explained and the question asked whether the ammunition that could be supplied would be sufficient to support the all-out offensive. The answer concerning some calibers such as the 105 mm howitzer was that the rate would have to be doubled. This meant a billion dollar expansion in facilities and I returned with that message. We issued directives to effect the facility expansion but Germany collapsed before the expansion was well launched. Thus -- we see the effect of battle field requirements upon production and the necessity for ample lead time for manufacture.

The main difficulty in the original system, however, was one of phasing by period of time. The original system of determining requirements was by calendar years with no intermediate phasing by months or quarters. As a result, production schedules did not adequately reflect the phasing of the actual demands and too often actual production schedules were based on production factors without regard to military needs. The computation of raw material requirements under the controlled materials plan was, therefore, based on production schedules which did

not reflect the true needs of the Army. While every attempt was made to secure delivery as early during the year as possible, there was a decided tendency to keep rolling back schedules to the last months of the year. Even if deliveries were accomplished during the early part of the year, the problems of retention of necessary facilities for the succeeding year's program created by this method of scheduling were serious and far-reaching.

This failure to base requirements on a monthly schedule of estimated issues to fill requisitions resulted in a paradoxical situation. On the one hand, we were insisting that Technical Services and depot commanders keep their stock levels down in the United States to a 60-day level for Zone of Interior supply and a 90-day level for overseas supply. On the other hand, supplies and equipment were rolling out of the factories into the depots on schedules that had no direct relationship to these stock levels. This is an excellent illustration of one of the most important lessons about Army supply; that is, that the supply process is an indivisible entity and cannot be broken down into uncoordinated phases such as production, stock control and distribution.

In general, the deficiencies that I have pointed out in the original system behind the Army Supply Program were not as serious in the early stages of the War as they later became. In the early stages of the War, we needed so many items in such large quantities practically at once, that the accuracy of our requirements computations and the controls flowing therefrom made little difference. We could use effectively practically everything that could be produced. The only danger lay in the relative importance of one item against another.

However, in 1944, on the whole, the 8 million man Army had been initially equipped. The principal problem then became one of maintaining this Army and the replacement of equipment. In addition, production rates in most cases had reached the astronomical heights required for the all-out prosecution of the War. This situation necessitated a more careful balancing of supply against demand.

The Army Service Forces met this situation with the so-called Supply Control System, announced in March 1944. This was not a new system; rather it was an extension and a refinement of the system already in effect. One of the most important characteristics of this extension was a phasing of requirements by months for the immediate future and by quarters for the years ahead. Instead of creating a pool of supplies and equipment from yearly procurement objectives against which to fill requisitions, it attempted to project what would be issued from all depots here in the Zone of the Interior by months and quarters.

Secondly, the Supply Control System gave full recognition to the fact that the supply process is indivisable and cannot be segregated into watertight compartments. It assembled in one place, actually on one sheet of paper, for each principal item, all the factors involved in projecting into the future demand for that item and all the factors involved in projecting into the future of supply of that item. By this means an analysis could be made of the balance between supply and demand and adjustments made to bring supply into balance with demand. This is an extremely important point. I invite your attention to the most important of these factors. Let us review - First Demand. The initial equipping of new troops to be activated. Then the replacement requirements to support all the troops. Added were the requirements of our Allies, the requirements for items supplied to the Navy, and the requirements for operational projects over and above normal equipment of troops and normal maintenance. A record of past issues of the item was necessary in order to use that experience in checking the estimates of future issues. To these must be added the stock levels that were to be maintained and any reserves. This gave us the total demand for an item. This demand was then projected into the future by intervals of time.

So much for demand. Secondly, let us consider assets to match against demand. The total supply was based on the stocks on hand, the anticipated returns to stock which, as I pointed out previously, was ignored in the original system and which became of extreme importance after the defeat of Germany. And finally, the factor of deliveries from production with all its attendant sub-factors of raw materials, labor, components, facilities.

These factors for any given item were never static. It would seem that the only consistent thing about war is the fact that plans fluctuate constantly. It is therefore necessary to assemble this data periodically, analyze, and make adjustments, if we are to prevent substantial shortages or substantial excesses. For all the important items, this was done monthly in the Army Service Forces after the inauguration of the Supply Control System. We even introduced into the Supply Control System a disposal level which was determined by estimates of future needs. We started disposing of stocks above this level even while the War was going on.

The third important feature of the Supply Control System was the extension of careful adjustments of supply against demand to the whole range of the 850,000 odd distinct items of supply in which the Army Service Forces dealt. Under the original system behind the Army Supply Program, a great majority of these 850,000 items were controlled only by yearly estimates of funds to be expended for procurement of broad categories. Under the Supply Control System, there were

1900 principal items representing less than one per cent of the total number of items, but accounting for 80 per cent of the dollar value of the entire procurement program. While monthly revision was confined to these 1900 principal items, the Supply Control System was also applied to the remainder of the items at more infrequent intervals in order to more accurately control shortages and excesses in individual items.

With the inauguration of the Supply Control System, it quickly developed that the process of controlling supply was in the last analysis entirely dependent upon basic records and paper work in depots, procurement district offices, and other installations in the field. The data for the supply control form could only be assembled from these sources. There was a great variation in the completeness and adequacy of records in the Technical Services. Some did not provide all the data that was essential; others unnecessarily covered too much. There were varying definitions or interpretations of defintions of such relatively simple terms as "stock on hand". It was clearly evident that uniform methods in extreme detail were necessary for adequate top-side control of requirements, procurement and stocks. Army Service Forces initiated various improved uniform procedures, such as stock status reporting from depots, to meet the unsatisfactory situations revealed by the inauguration of the Supply Control System. These efforts resulted in an adequate implementation of the Supply Control System. On the other hand, we did not reach, by the end of the War, the degree of uniformity and improvement in basic procedures that we would like to have accomplished.

In closing, I would like to summarize for you the lessons that the Army Supply Program taught us during the War.

First, and probably the most important lesson is that the supply process, from requirements through manufacture, to delivery to the troops, must be considered as a whole. Procurement cannot be treated separately from stock control; requirements cannot be treated separately from production; distribution from procurement. To be successful there must be a control system for supply under a single directing head which takes into consideration all the factors involved in the supply process and properly integrates them. This is the only way that the Army can be properly supplied; the only way that we can avoid substantial excesses and shortages and wasteful unnecessary competition.

The second lesson is that there is no easy way for dealing with supply and its sub-phases, such as procurement. It cannot be handled in a broad way. It is the nature of the problem that you must deal in specific items, in given quantities, by given periods of time.

For example, beautiful dollar statistics can be prepared to show how much of the funds earmarked for procurement are being expended. In fact, such statistics were used early in the war. But they can be very misleading for the very simple reason that the dollars may not be expended to bring the particular end items needed at the moment. The same can be said of tonnage statistics.

A pratical example of the effect of tonnage statistics in the field can be found in observations made on one of my trips to the Mediterranean area. In the winter of 1943-1944, I visited the Italian front. The fighting was in progress in the Venafro Pietro area. I went up to the front areas and found the only shortages complained of were in auto parts. Particularly, brake parts and stearing gear parts, which were being expended rapidly due to the lack of roads and mud. I next went to the Division dumps to see whether there was a mal-distribution between the Division and the Battalion. The Division depots did not have the parts. Next we called at Army Depots. The parts were missing. Then back to the Naples Base. Still the parts were missing. I then flew to the Base at Oran, North Africa which was shipping supplies to Naples. The parts were shipped and were on ships lying at anchor in Naples Harbor. Due to poor manifesting in the Theater shipping documents, the location of these parts had been lost. Although we discovered this in time, the check up focused attention upon two problems, one the tons upon tons of automotive parts stored in the open fields at Oran which were not moving and for which there was no demand and two, the shortage of parts that were in demand and which were being burned up at the front rapidly. On my return I complained to the Chief of Ordnance that his statistics on tons of parts shipped were of slight help - that my own office and all other supply people would have to have statistics on end items. This is also an example of the need for accurate data on maintenance factors. These data for automotive parts used during the early part of the war were based upon experience data of the automotive manufacturers, and the data developed in military campaigns over a different terrain and in a damp winter climate turned out to be erroneous. It is necessary to have some records on a tonnage basis due to the numerous small items involved. But, wherever possible use more accurate data - avoid dollar and tonnage statistics if better statistics can be obtained.

The control of supply is dependent upon basic records. There should be uniformity in great detail in these records and the methods of using them. To the greatest possible degree, the methods should be reduced to routine mechanical processes.

The control of over 850,000 items must necessarily be handled by clerks and lower grade supervisors who cannot be expected to exercise a high degree of initiative and judgment. The ideal would be to use uniform electric tabulating machinery and methods which would

automatically grind out the data on which action must be taken and which would make these actions as routine and systematic as possible. Don't misunderstand me. I am not saying that there is no room for judgment. What I am saying is that the mass of detail that must be handled is so great that as much of it as possible should be handled through system and not through the unguided initiative of thousands of employees.

A third important lesson is one of preparedness for any future war. At the beginning of World War II we did not have a proper system for the control of supply in all of its phases, in effect or even designed. Proper methods for computing requirements were not in use. Our basic stock accounting records had been designed mainly from a property accounting standpoint instead of from the standpoint of their primary purpose of effectuating supply. We had no well designed and tested methods ready to put into effect for the control of the flow of raw materials. These deficiencies were generally corrected during the course of the war. But during the war is the wrong time to design and test the structure through which supply is to operate. It is like trying to build a road under heavy and increasing traffic. We must have ready for any future emergency a tested system complete and uniform in all its details, to include forms, flow charts and tabulating methods, for controlling supply in all its phases.

In my opinion, an outstanding job during World War II in supplying the Army was accomplished. Much of this success is traceable to the Army Supply Program and the system underlying it. That system should not be lost. The lessons which I have outlined should be taken to heart and the system further improved and extended during peace so that we will always be better prepared than we were at the beginning of World War II.

After passing through such a total war as World War II, there can be no question in our minds concerning the supreme importance of industry in modern war. It is obvious . . . Prior to the War, the Army Industrial College contributed much to awakening our Army to the necessity for a strong link between industry and the Army - and also contributed greatly to our victory by training officers for key logistical positions in War. This college can and must continue to be a major factor in our preparations to meet any future threat against our national security. For these reasons, I feel highly honored to have the privilege of addressing you today and wish to state that my staff and I stand ready to contribute to or help in your programs in any way within our capabilities.

If you have any questions of a general nature, I would be glad to try to answer them.

A STUDENT:

These 850,000 items you speak of, were they duplicated in some categories? For instance, several things would be cataloged four or five times.

GENERAL LUTES:

Yes, they were duplicated, but I wouldn't say seriously so, that is, major items were not duplicated. Minor items were duplicated and minor items are still being duplicated. Just the day before yesterday, I had people concerned with that activity in my office going over a list of 3,500 items which have been assigned for procurement to the various technical services and to the Air Forces. I found duplications in this, in my opinion, although not as serious as they used to be. I found a few. For example, camera equipment is still being procured by the Signal Corps for the Ground Forces and by the Air Forces for the Air Forces. The Air Forces claim they have a peculiar kind of camera equipment but the component parts and the manufacturing facilities for cameras must be the same in general. There may be some differences in some of the component parts of it. There may be some small differences in some of the raw materials, but in general they require the same facilities, the same components and the same materials - different sizes, different specifications probably. We hope to improve that.

We recommended to the Secretary of War that he go along with the Secretary of Navy in assignning procurement in broad categories through the Army and Navy Munitions Board, to the Army and Navy and Air Forces. Also, within the Army we have a committee called the Procurement Assignment Committee which is working now on attempting to eliminate these duplications that you speak of.

Our greatest difficulty is funds for personnel because we have been seriously cut in funds for people who work on cataloging and common specifications. My office has been cut down to two people for that function. I need a minimum of 35 for its staff supervision. I am trying to get now a decision from the Under Secretary of War as to where this activity stands in priority with other activities. If it stands high enough, then we must direct the technical services to let some other activity get into a lower priority, discharge personnel in that activity and utilize the spaces and personnel for working on common specifications, cataloging, common nomenclature, common numbering and so forth, which in turn leads to better assignment or procurement.

Does that answer your question?

A STUDENT:

Yes, Sir.

A STUDENT:

Sir, do you feel that a periodical stock service report from the depot during combat period would have been of assistance to the War Department in the analysis of requirements and production forecasts?

GENERAL LUTES:

Yes, I do. We were trying to get that. It is a question of evolution. Each technical service has what you call, as you know, the "national tape" with a stock control point. They are supposed to get the stock status reports of the depots periodically and know not only what they have in total all over the country in depot stock but actually where it is located. But that doesn't diminish what I say about stock control. We still want the stock control system, and I recommend in your studies you examine some of our stock control sheets and see what I mean by the complete data that is on one of those sheets.

GENERAL McKINLEY:

Colonel, does that answer your question?

A STUDENT:

Yes, sir.

GENERAL LUTES:

Of course, that activity is decentralized to technical services. We keep no stock status reports on the General Staff level; that is a technical service operation; but we keep them under staff supervision in order to insure that proper procedures are established and carried on and that we have a reasonable chance of knowing what our assets are, or what our shortages and excesses are.

A STUDENT:

In future mobilization planning, who will be responsible for compiling the requirements for the War Department - which office in the War Department?

GENERAL LUTES:

Well, the Requirements Branch of my office would review the actual computation of requirements. Computations are done by the technical services which in the Navy are the bureaus similar to the Ordnance Department, etc., of the Army.

The staff supervision of this in the Army rests in the Office of the Director of Supply and Procurement, which is the old G-4 office.

A STUDENT:

During the course of your talk, General Lutes, you mentioned the shortage of brake lining and steering parts in Italy. I just wondered whether there had been any effective means whereby these field shortages of some more or less common items - I know in the Pacific that brake parts, lining, hoses, and so forth, were perpetually short - whether there is any means whereby the reporting back to get those items into production may be expedited. I think it was also brought out in this problem of the manufacturers' parts mortality. I know that took about two years before we got in our own mortality.

GENERAL LUTES:

Well, that all goes back to the old basic question of maintenance factors. When the war broke out, you had certain maintenance factors established by the technical services by and with the advice of the people they were buying the equipment from. As the war wore, we began to collect this data although you would be surprised how difficult it was to get it.

You would think that the overseas theater commander himself and his staff would be highly interested in getting that data back to the United States so that we could translate it into the procurement program, but to the contrary we were radioing and telephoning and begging for this data. We finally had to send a team to North Africa and a team to the Pacific from the technical services sponsored by our office in Washington to try to impress upon the theater commander and his staff the importance of these data; that we could not maintain his equipment properly unless we could get these factors rushed back to us. And some of these teams worked in the field as long as a year.

Now we have very good maintenance data, as a result of this war, for every theater in the world, and the Army should not be caught in that position again. We are now trying to work on these data and assemble them so that if we go to war again in the next twenty, ten, or fifteen years, we will have the benefit of operations in every combat zone in the world in order to apply to these maintenance factors, something that we did not have in the beginning of the war.

You asked whether we are taking any steps in that direction; we took continuous steps through the war and we still recognize the importance of the problem and are working on it right now. In fact, I will be briefed on that by a member of my staff tomorrow.

A STUDENT:

General Lutes, computation of raw materials, that can be extremely complicated unless there are some thumb rules or short cuts; do you know of any thumb rules or short cuts that could be used, for example, in the cutting of requirements for tin which is so universally used?

GENERAL LUTES:

It is my understanding that they have factors worked out. I haven't worked on that nor have I seen the factors but it is my understanding that they do have factors worked out which would establish shortcuts for computing requirements for raw materials. I would rather you take that up with one of the technical services if you get a chance.

A STUDENT:

General, in the Army Supply program, were the monthly material status reports or battle loss reports reflected in the Army Supply program and what effect did it have on them?

GENERAL LUTES:

Monthly battle losses?

A STUDENT:

And monthly material status reports of end-items.

GENERAL LUTES:

Yes, they were reflected. The only place where we could really translate battle losses quickly was in the items of which there were plenty on hand, such as motor spare parts, if you had them, but you couldn't get any item that required time in the production based upon the monthly battle loss report.

Now I will give you an example of that. When the war broke out, the Ground Forces stated that they did not want any heavy artillery. Now this is off the record.

(Discussion off the record)

A STUDENT:

Several of the items on this stock list have a marked similarity, yet they are not interchangeable. It seems evident that if there is a give and take between services, one item could be modified to suit several services.

GENERAL LUTES:

It would certainly simplify our job. I wish we could bring it about. It is not only between technical services, but between Air Forces and Ground Forces and the Army and Navy, and that is what I meant a while ago in speaking about common specifications as a first step toward common cataloging and common procurement. It is highly essential to simplify storage and distribution and procurement and it saves the tax payer money.

A STUDENT:

Is progress being made on that?

GENERAL LUTES:

Well, we all talk about it and think about it and fight for it, but find a lot of resistance.

GENERAL McKINLEY:

Money right now for employees is the thing that is stopping it; it is coming just at the wrong time to clinch what we learned and what we are doing.

A STUDENT:

Somewhere along that same line, is there anything at present toward further standardization of accounting methods and reporting procedures as between the different technical services?

GENERAL LUTES:

Yes, we are working along that line and there again you meet resistance. There is where you get into constant fights; everybody has their pet system that they want to hold on to. It will take a stuffed club to bring it about but we are working on it.

A STUDENT:

General, in your opinion, do you think the present G-4 is adequate now for another war or would it have to be expanded to the size of the Army Service Forces like we had the last time?

GENERAL LUTES:

Well, you pose a very difficult question. If you could get everybody to understand what the Army Service Forces was organized for, what its job was and its responsibilities to the Chief of Staff, I would say we should return to it in war. I think it was a sound organization. But such is not the case.

The Air Forces considered the Army Service Forces principally a Ground Forces organization which was not true. It was designed by General Marshall to serve the Army across the board completely. It was designed for that purpose. Now if it could be viewed as an over-all Army Service agency, it would be a sound organization, but inasmuch as people did not accept it that way some other organization has to be found.

I would say that the answer to your question depends a great deal upon developments in the future in the organization of the Army, that is whether we have an autonomous Air Force; how much autonomy will the Air Forces have; will the Navy and the Army and the Air Forces be combined under one cabinet member who will referee the appropriations and referee the personnel allocations to the three big components of the fighting services. Will he referee the priorities in which equipment will be needed by the Army, Navy and Air Forces in order to get the most for the money and have your equipment delivered in phases and priorities in which it is needed, or will we have three big competitive services, as we had before, fighting with industry to get what each wants, "to Hell with the other fellow." Those are problems that have to be resolved and you have strong personalities fighting on both sides of the fence.

My belief, of course, is strong unification. I think we ought to go forward. We ought to save the people of the country as much money as we can. We ought to have the most streamlined simple organization we can get. We ought to have common procurement for all items that can be made common to the three great services. We ought to have common specifications to get that common procurement. I am not saying that the Navy doesn't need special equipment, the Air Forces doesn't need special equipment and the Ground Forces; they do. I am talking about common items, common procurement. We must have it. It is extravagant, wasteful, to have it any other way.

And what type of organization we need to bring that about is problematical, but it seems that we should have to have some sort of an office under the cabinet member to staff supervise common procurement. But that is so far in the realm of the future that I won't discuss it now. But if we should go to war tomorrow, with the Army and Navy and Air Forces set up as they are now set up, you asked if the G-4 Section would have to be expanded? My opinion is that it would have to be greatly expanded. I have been cut over 80 per cent in personnel and am now being asked to take another 30 per cent cut on the residue; and as far as I can find out in our current job plus the mopping up of the last war, (which is still a job in our office), our workload has only gone down about 49 per cent.

GENERAL McKINLEY:

About one or two more questions..

A STUDENT:

General, you made a statement a while ago that in certain theaters you asked for information on usage and all the theater commanders sent in requisitions to Ports of Embarkation, which were under the Transportation Corps. Those requisitions gave certain data. However, overseas supply was under the Transportation Corps, not the Chief of

Services, and it was very difficult for the Chief of Services, I understand to get that information from the Transportation Corps. Do you think possibly that ---

GENERAL LUTES:

I think that is wrong. I think you have been informed wrong. It was my job to get up the overseas supply plan in February 1942. That is what I was brought to Washington for in the first place. That is how I got mixed up in this business. I was only brought here for three weeks' temporary duty to get up the overseas supply plan. (Laughter) I didn't realize that they were going to put the Ports of Embarkation under the Transportation Corps. I was never in favor of the Overseas Supply Division being a part of the Transportation Corps. I wanted the Overseas Supply Division to be a staff agency in the Ports of Embarkation to represent G-4 Section or whatever supply agency was organized in Washington. When we established the overseas supply plan we put the overseas supply groups or staffs in the ports which were not at that time in the Transportation Corps. Later they organized the Transportation Corps and the Commanding General of the Army Service Forces placed the Ports of Embarkation, or rather gave the Ports of Embarkation, control over all activities in the ports which included the Overseas Supply Divisions of the ports. I objected to that but was overruled, which was all right. The Commanding General had the right to make his own decision. I then told him that the Overseas Supply Division, in my opinion, would not function properly unless the head of that division had complete access to my supply office in Washington direct without going through the Chief of the Transportation Corps, which gave him really two bosses. Unfortunate for him. The Commanding General consented to that setup. I later found the Transportation Corps out loading ships not according to the priorities laid down by the theater commander or by my office, but according to the best scheme that they thought was needed for the loading and movement of supplies like any other transportation agency. But the most efficient system of moving supplies sometimes is not the best system to get the end item needed to the front in time of war.

So I had a knock-down-drag-out on that matter and that fight was settled. From then on out, that was in 1943, maybe the last part of 1942, from then on out, they loaded, of course, in the priorities laid down by the theater commander. I went overseas to Europe to establish the priority systems with the European theater commander and later in all the other overseas theaters. We established a system whereby priorities and priorities within priorities could be laid down to the ports.

Now the replacement data that you speak of could flow into the Army Service Forces Headquarters where it could go to the technical services and did. The technical services didn't like the overseas setup for this reason. They wanted to be able to have direct dealing

with their own quartermaster or their own ordnance officer right straight through, for example, vertically through to Europe, which was dangerous because you would get uncoordinated action. I could stand here the rest of the afternoon and cite hundreds of examples where when they got out of channels we had uncoordinated action. We had cases of long distance calls directly from a staff officer in Europe or Washington for certain items, and if they listened to him, which they sometimes did, depot stocks here would get out of balance. One theater could get more than it was entitled to and somebody else got shortchanged. I won't go into the detail of that, but I know quite a story behind it. It goes into some very serious shortages in Europe which need not have existed, due to the fact that they got out of channels that did not deal through the established overseas supply channels. Fortunately these cases were not numerous.

But we are getting into distribution of supplies now and I think that you gentlemen are probably interested more in the other end of it.

I might say, speaking of requirements and procurement, that we must not forget that the overseas commands must have a tremendous influence on procurement in the United States and do have. The overseas commander and his planning staff have to lay down a large number of requirements and they in turn have to be translated at this end of the line into the procurement program.

GENERAL McKINLEY:

I think General Lutes has been very generous with his time. We will have to break it off here.

I want to impress upon you, if you haven't already realized it, that this has been a very important and enlightening lecture. Maybe I feel it more than most of you will because I lived through everything he recounted in his talk. I saw it from a different level and I saw what a wonderful contribution was made by the metamorphosis of this program in trying to bring some order out of the chaos that really existed.

This system which General Lutes was so instrumental in putting in has been just the crux of the approach to the problem that you will have to deal with here and the problem that we were trying to reach out and deal with when I went through the Industrial College back before the war.

I hope you will get a copy of what he has said today and reread every word of it because every word is worth listening to again. General Lutes, I appreciate very much your coming down here.

GENERAL LUTES:

It was an honor and a pleasure.