# FEASIBILITY TEST OF STRATEGIC PLAN BY THE JOINT CHIEFS OF STAFF

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COLONEL HICKEY: You have heard about feasibility tests from some of our lecturers and in our seminars. You have had one lecture specifically concerned with that problem. Today we have a second lecture on that from the Joint Chiefs of Staff level. Our speaker is a member of the Joint Logistics Plans Group of the Joint Chiefs of Staff, and is intimately concerned with feasibility tests on that level. Our speaker this morning is Captain Thomas U. Sisson.

CAPTAIN SISSON: General Vanaman and other gentlemen: The principle involved in the feasibility test is the same as that involved in making any purchase. All of us would like to buy the best of everything. We may price the largest houses and the most expensive automobiles, but most of us end up buying Oldsmobiles, Fords, and three-bedroom houses.

It is the same with war plans. In fact, we made that mistake right after the last war. Although money is not a major factor, national resources are. Planners like to look at the intelligence reports of enemy capabilities and without regard to our resources draw up a plan that will surely succeed. The Joint Chiefs of Staff would like to have a plan which would, without question, meet every eventuality.

Immediately after the last war that is just about what happened. Each service in effect estimated what it thought it would need in case of war. These estimates were put together in the first attempt at post-war joint planning. Although everyone knew that that plan was infeasible, after much discussion, it was sent to the Munitions Board and the Services for a quick rough check.

Surprisingly enough, although the plan was infeasible, early in the third year of the war it was determined that the tremendous industrial capacity and national resources of this country could meet even that plan. Meanwhile in the Joint Staff work had begun on a joint plan which could be used for mobilization and industrial mobilization planning. You probably saw in the papers a few months ago that that plan has been completed and turned over to the Munitions Board and the Services. It had taken, however, a whole year to complete that cycle between those two plans.

In developing the last plan it soon became evident to the Joint Staff that we required a method for checking the feasibility as the plan was being developed. We didn't need a test that would determine its industrial feasibility. We didn't need even a test that would show us all of the logistic deficiencies. We did need one that would show us that the logistic deficiencies in the plan were such that they could be corrected by a reasonable degree of advance planning and preparation.

That led to the procedure that we now use. Chart I, page 17, shows the organization of the Joint Staff. I would like just to call attention to the three main groups of the Joint Staff, and their parent committees--the Joint Strategic Plans Group, the Joint Intelligence Group, and the Joint Logistics Plans Group.

In evolving any short-range strategic plan, the strategic planners get from the Services an estimate of what forces they can mobilize and start from there. The plans are actually drawn up by planning teams consisting of three officers, one from each Service. The teams have assigned to them one of the project officers from the Joint Logistics Plans Group as liaison officer, and they work very closely together checking the phases of the plan as they go along for logistic feasibility.

When a plan is approved by the Joint Strategic Plans Group, copies are sent to the Joint Strategic Plans Committee and to the Joint Logistics Plans Group simultaneously. While the Strategic Plans Committee is considering that plan, the Joint Logistics Plans Group conducts a limited feasibility test. We say "limited" because the test is definitely limited in its scope. It takes about two weeks of intensive work by the whole of this group to conduct that test.

When the test has been completed and approved by the Joint Logistics Plans Committee, a copy of the feasibility test is sent to the Strategic Plans Committee and a summary and conclusions are sent to the Joint Chiefs of Staff simultaneously. In this way both the Strategic Plans Committee and the Joint Chiefs of Staff have the benefit of the feasibility test in deciding whether or not to modify, to reject, or to approve the strategic plan.

Organization.--Before I go into detail on how we conduct that test, I would like to go over the organization of the group. We have six main sections, consisting of three officers each, one from each Service. These sections are shown on chart I. There are nine project officers, to whom are assigned the tasks of preparing the studies and reports. These project officers sit three in a room, one from each Service; and when an officer is assigned to a study, he is required to consult with the other two in his room so that by the time the study is completed and forwarded to the assistant directors who are in this group, that study has had brought to bear on it the broad experience of an officer from each of the three Services. They are not teams as in the Strategic Group but they are very similar.

All studies are approved by the assistant directors of the Joint Logistics Plans Group. At the present time they are Captain G. B. Parks for the Navy, Colonel E. K. Daley for the Army, and Colonel J. J. O'Hara

for the Air Force. Brigadier General Donald P. Booth is Deputy Director for Logistics on the Joint Staff, and as such he sits as a member of both the Joint Logistics Plans Group and the Joint Logistics Plans Committee. Incidentally, that is a great step forward which was made after the passage of the National Security Act. Before that time close liaison was not obtainable.

Conduct of Test.--As to the conduct of the test, when a strategic plan is received by the Joint Logistics Plans Group, one of the assistant directors and three project officers are assigned to conduct it. All of the technical sections are involved. The first day is spent in reading the strategic plan. At the end of the day the three project officers and the supervising director meet, discuss the plan, and draw up an outline. The next day the six technical sections, the three project officers, and the supervisor meet. Questions on the plan are answered. The plan is discussed and further assumptions are made. There are many assumptions already in the strategic plan, put in by the Strategic Plans Group, but we have to make quite a few more in order to conduct one of these feasibility tests.

One of the main assumptions at this time is a delineation of the geographical overseas areas to be used in grouping logistic support. That is necessary in order to estimate the transportation required by the plan. Some of the other assumptions are such items as: What sea routes are to be open or closed to the United States; the supporting forces that must be added to the combat forces which are listed in the strategic plan; the method of logistic support, for instance, for the Navy whether or not a carrier task group will be supported from shore bases or from logistic support groups, a seagoing group of ships; a typical deployment of Army divisions in each overseas area so that a check can be made of the port capacities and land lines of communication; and what effect the Berlin Airlift will have on air transport availability.

After this conference, the technical sections begin the computation of requirements. Six major logistic features are computed: personnel, tonnage of supply, transportation, POL (petroleum), aircraft, and construction. These six features were selected because they can be comparatively easily computed, they are basic and comprehensive, and are generally major limiting logistic factors.

The strategic plan, as we receive it, includes tables of combatant forces and the place of their deployment, time-phased throughout the plan. Before computing requirements these forces are grouped into geographic areas previously agreed upon at the conference of the Logistics Group. Requirements, after being computed by the sections, are compared against availability. Availability is a difficult factor to determine. I will cover the methods we use under the headings of the six main features.

After the comparison between requirements and availability, analyses are made of the feasibility of the plan, first, according to these six major features that I have described, and, second, according to the three Services. This leads finally to the conclusions and recommendations which form the first part of the report.

The planning factors used to compute requirements are very important. If a joint planning factor is available, we use it. If a joint planning factor is not available, we use a service-approved factor, one that is published in a Planning Manual. If neither of those is available, we develop our own factor and list it in the plan. In every case all factors are either appended to the plan or indicated in the plan. Several ad hoc committees are working under the Joint Logistics Plans Committee now, on the subject of joint planning factors and very encouraging progress is being made in that field.

Chart II, page 18, is a diagram showing how the feasibility test is conducted within the Joint Logistics Plans Group. I don't know whether it helps or not, but it is an attempt to make it clearer. The input coming in at the bottom consists of "Tables of Combat Forces" from the strategic plan and "Availability of Logistic Support" from various sources which I will cover later. The lines indicate the flow of work, from the computation of requirements to analyses, to the conclusions, and to the recommendations at the top.

The tables of deployment of forces show only combatant units at the time they are to be in the combat areas ready for combat. Units shown are army divisions, naval ships, aircraft squadrons, and air force groups. To these must be added, by the Joint Logistics Plans Group, all supporting forces; and all units must be phased back to allow for training, equipping and transportation.

Personnel.--The first step in computation is made by the Personnel Section of the group, which estimates the personnel required by the Army, Navy, and Air Force in each area and at each phase date, and combines these to give the total personnel required. The tables of forces would show, for instance, an army armored division deployed in the Middle East at D+6. This would not only require 25,000 combat troops in that area, but also 18,000 supporting troops. In the United States there would be required another 17,000 men as part of the general training and support organization of the Army. These men would have to be in place and trained by the date shown in the table in the strategic plan; hence they would all be required in the United States at D+5 or earlier.

For the Navy, for instance, a carrier task group might be shown deployed in the Mediterranean at D+6; and a logistic support group consisting of tankers, supply ships, and so on would have to be available. The personnel of all of these ships would be needed shortly after D+1 in

the United States and must be trained and ready for combat by D+6. Supporting and training forces would be required in the United States. The personnel are estimated by using the war complement of each ship or squadron, for instance, about 3,000 men for a carrier and 300 for each destroyer.

For the Air Force, if a medium bombardment group is shown deployed in the United Kingdom at D+6, this group would have to be in the United States at D-day and trained and ready by D+5 to get to the United Kingdom by D+6. A medium bombardment group is estimated to require 6,000 Air Force and 4,000 Army personnel in the theater of operations and 5,000 Air Force and 1,000 Army in the United States.

Total personnel requirements are compared against availability, which is obtained by a combination of the maximum induction rate as obtained from the Director of Selective Service, and the maximum rate at which it is estimated the civilian components of the Armed Forces can be mobilized. The combination of these two gives the curve of availability.

Supply.--The next step is an estimate of the tonnage of supplies. The Supply Section usually has to wait until the Personnel Section has completed its computations before it can estimate the tonnage of supply needed by the three Services. This is done for all services, in all areas, at all phase dates, using the best planning factors available. For example, all Services use one measurement ton per man per month in overseas areas for maintenance, that is, Class I, II, and IV supplies; yet such factors as ammunition consumption will vary with each service.

The tonnage of supply only is used. It is used to estimate transportation. It is impossible and unnecessary for the Joint Logistics Plans Group to go into detail on end items of supply. The six major logistic features cover feasibility with sufficient accuracy. The details of supply must be considered by the Services and the Munitions Board later on in any case. During the conduct of the feasibility test we do, however, consult the Services for any information on items which they know to be critical. A brief discussion of those items is included in the feasibility test.

Transportation.--Transportation is the next feature. The transportation Section estimates the transportation required, not only for each service, but by land, sea, and air.

The availability of land transportation is checked only in the overseas theaters of operations. We do not make an estimate of the land transportation in the United States. We make an assumption that it is sufficient to meet any plan that we are capable of supporting overseas. There is some doubt as to the validity of this assumption with regard to certain movements in the early days or months of a war, but we accept it because we don't have the time to go into that, and the accuracy of the test is probably no greater in other respects.

In sea transportation we use as an availability guide a paper prepared at the end of the last war, and annually revised, which covers shipping requirements and availability in some detail. Requirements and availabilities are reduced to notional ships. For example, a notional dry cargo ship is a ship of 10,000 measurement tons capacity and a speed of 10 knots. A notional transport has a capacity of 2,400 men and a speed of 15 knots.

In air transport, availability is taken from the inventory of military transport planes. In most cases we are fortunate in having enough military planes. In some cases we have to use civil air transport planes. We have estimates of how many we can commandeer. Some of our overseas air lines, of course, we think can spare some planes in time of war. Air transport requirements are usually estimated at ten pounds per man per month. That is in addition to any special movements by air. Most of our plans have quite a few special air transport movements.

POL or petroleum.--The petroleum Section has to wait for the Personnel Supply, and Transportation Sections before it can complete its work. The petroleum requirements are computed on a crude oil basis only. Requirements are computed for each service and, when combined, are compared against the availability taken from a Joint Chiefs of Staff paper prepared immediately after the end of the last war. This is a very valuable paper and is revised annually.

It is interesting to note that the petroleum available to the military has changed very little since that paper was prepared. The total petroleum consumption in the United States and the world has increased considerably but the amount available to the military is just about the same.

Aircraft.--Aircraft, as you will notice, is the only end item of supply computed. It was necessary to add this item because it was frequently a limiting one of great importance.

The Aircraft Section of the Joint Logistics Plans Group has just recently been formed. Prior to that time, aircraft requirements were computed by the Air Force and the Navy under the coordination of the group. This required a great deal of coordination, and it has been a very difficult item on which to get agreement. So we have an Aircraft Section now which we think will help to coordinate the aircraft requirements problem.

Aircraft availability is determined by a combination of operating aircraft, aircraft in storage and logistic support, and aircraft production. The most important item is aircraft production. We used the Air Coordinating Committee's report of January 1947, until recently when at Stanford a study was completed on aircraft production. Two levels of production were estimated: One in which aircraft were given top priority and there was no delay in delivery of materials or parts, while the other

level assumes maximum unfavorable conditions. It is interesting here to note that the Air Coordinating Committee's estimate of production fell just about half way between the two estimates in the Stanford study.

Construction.--Construction is the last item. The Construction Section of the group obviously cannot compute all the detailed construction requirements of a major war. But from examination of a strategic plan certain overseas areas can be determined to be critical from a construction standpoint. Our section, in addition to an over-all general estimate, makes a study of the construction in these areas and estimates the requirements therefor.

These requirements are generally in the form of the number of engineer or CB battalions required. Requirements are compared against the number of engineer battalions of the Army and Air Force and the CB battalions of the Navy that the Services estimate can be mobilized. In that way a fair estimate of the feasibility of the plan from a construction point of view can be made.

Format.--As to the format of the test, it is shown roughly on the right of Chart II. Enclosure C, with its appendices for each major logistic feature, consists of an analysis including charts on which is plotted the relationship of the requirements to availability. Enclosure A is a briefer analysis grouped by Army, Navy, and Air Force. Under each service we discuss the six major logistic features from the point of view of that service. That gives us a sort of cross index system of presenting the analysis. That finally leads to the conclusions and recommendations at the top. They form the first page or two of the report.

Allies.--When allies are considered, we compute their requirements in a manner similar to our own and show them in a separate enclosure D. Incidentally, when we consider allies requirements, we also estimate what contributions they can make to logistic support. So allied requirements and capabilities when combined with our own give the final basis for estimating the feasibility of the strategic plan.

Chart III, page 19, is a typical chart that is shown in the various appendices to Enclosure B. This is the one on personnel. This one is hypothetical, but that is a general picture of the way those charts look. Chart III shows the availability curve. Requirements are shown for each service separately. The total curve is also shown on this chart.

Chart IV, page 20, shows tanker availability versus tanker requirements. This is a little different method of presentation, but the same information in general is shown on that chart.

Conclusion.--In closing I would like to point out that the so-called limited feasibility test is not expected to uncover every logistic difficulty that will be encountered in carrying out a strategic plan. The test is expected to show whether or not a plan warrants the enormous amount of work that will be required from the Services and the Munitions Board in making the necessary estimates, checks, and finally the Mobilization and the Industrial Mobilization Plans.

The test is designed, therefore, so that a strategic plan which passes a limited feasibility test should not have any deficiencies which could not be corrected by a reasonable degree of advance planning and preparatio or by minor modification.

QUESTION: How do you come to a final decision on those lower committees? Is any voting procedure set up, or just how do they arrive at one final decision?

CAPTAIN SISSON: A feasibility test is prepared in the manner I have described. The final wording of that test is first approved by the three assistant directors of the Joint Logistics Plans Group. That is the first approval. Then before it is final, it goes up to the Joint Logistics Plans Committee.

I think I can explain that better by referring to Chart I. In the Joint Logistics Plans Group we have three officers who go over the report. It has to be satisfactory to each one of those officers. If they don't agree, they can send it forward indicating their divided opinion. Right now they are Captain Parks, Colonel Daley, and Colonel O'Hara. When they approve the report, it goes to the Joint Logistics Plans Committee. Righ now that committee is General Whitten, Air Force; Colonel Denson, Army; and Captain Todd, Navy. Brigadier General D. P. Booth, USA, Joint Staff, is a member of both the JLPG and JLPC. If it passes this committee, it is really completed.

QUESTION: You passed very briefly over the personnel. It appears that logistics, transportation, and all other plans depend upon the troop basis for their personnel. Does logistics await a complete personnel pla Or does it have a parallel in the planning on the troop basis? Just how is the troop basis gotten?

CAPTAIN SISSON: The troop basis is arrived at by using the service figures. I have here the Army Manual that covers that. It is FM 101-10, "Staff Officers Field Manual, Planning Data." I think that is the one that has the plan for the Army. There are similar publications for the other services.

It takes the Personnel Section about two or three days to come up with the total personnel. That doesn't mean everyone is waiting on them. For example, the Aircraft Section and the Construction Section go right ahead. The Petroleum Section can begin estimating the fuel for ships and planes without waiting for Personnel. But the Supply and Transportation Sections usually have to wait in that order because after personnel is estimated, we have to estimate maintenance for these people, wherever they are.

I don't suppose we have what you would call a full personnel plan. We end up with a chart, just like the one I showed you, for the total personnel required.

You may be thinking of this: We always have found that the Services are probably going to have a shortage of trained personnel in certain categories. Since the only estimate we can make is sort of an over-all personnel estimate, we have to cover that by one paragraph.

In that connection the civilian components are very important. Right now I believe the Navy has about 1,000,000, the Army 750,000, and the Air Force about 500,000, in round figures. The Navy is pretty well off. The other services feel they haven't quite enough; that they need more. Does that answer your question?

QUESTION: That covers it all right, but I was wondering if there is any realistic liaison between the Services and the group when the plans are being made.

CAPTAIN SISSON: Yes. Our Personnel Section is in close touch with the Service personnel planners. But just for an over-all estimate, we don't go into all the details of the plan. That is being done now however, by the Services with the plan that I mentioned. We feel now that we have passed the ball to the Services and the Munitions Board. There has been a lot of criticism of the Joint Chiefs of Staff and the Joint Staff for not having this Strategic Plan upon which to base mobilization and industrial mobilization. Now they have it.

QUESTION: You said, I believe, that the Construction Section works in terms of construction battalions, that construction supplies may be up to 30 percent or more of your total supplies. Is that handled by your Supply Section?

CAPTAIN SISSON: No. I am glad you brought that up. Our Construction Section does estimate the tonnage of construction supplies and equipment that will be required in these critical overseas areas that I mentioned. That estimate is given to the Transportation Section as soon as the Construction Section determines it. This is in addition to the other supplies that are estimated by the Supply Section. I didn't cover that in the first part of my lecture.

QUESTION: I have two questions. The first relates to the personnel actually working in the Joint Logistics Plans Group. I understand that there are personnel from the three Services who are either full-time or part-time participants in the actual committee. I would appreciate an explanation of that.

The second question relates to the typical division slice that you mentioned, which I believe was 25,000 combat troops, with, I think, 18,000 support troops in the theaters and 15,000 in the States. I have heard a great many different descriptions of what a typical division slice is and I would appreciate a little further explanation of it.

CAPTAIN SISSON: Let me try to answer the last question first. Those figures I used were just for an example. I checked them with our Personne Section before I put them in this talk. In this Planning Manual that I have mentioned there are several slices. The armored division has so much the Infantry so much, and so on; but in general the one I have shown is very close to the over-all division slice.

It is broken down in that Planning Manual in a little more detail than I gave it to you in this talk. Also I didn't want to go into that, because it would complicate the talk too much. You are right there. The figures are a little different, but in round numbers they are very close.

The other question was about full-time personnel in the JLPG. All blocks that are heavily outlined on chart I are full-time officers. Those blocks lightly outlined are part-time officers. They have a department task and a joint task. Those on the Logistic Committee work part time between the Committee and the Service. I can give you the Navy man's job here. He is head of Logistics Plans under Admiral Carney, under the Deputy CNO for Logistics. The Army and Air Force members of the Joint Logistics Plans Committee have comparable positions in their Departments.

QUESTION: Aren't there any more so-called working members, where the details are handled by individuals from the Services?

CAPTAIN SISSON: No. This is all. We have around twenty-eight officers there. We have, of course, the usual stenographers and clerks, and that is all. There are three officers here in each of these sections. They actually do the computations.

I am sorry that I couldn't bring along and show you one of the full feasibility tests. They are all top secret, but they are rather illuminating to show what we end up with. It is even more illuminating to get back in the sections and see the detailed work that they have done. Some representatives of the Munitions Board have been over recently trying to do their job, which they have been criticizing us for delaying. They were amazed at how much detail we have gone into in making these computati

They are trying to get quick estimates from the Services now. I think they are about to come to the conclusion that quick estimates from the Services on these six items are going to be no better than these feasibility tests. Of course, when they get to the full detailed planning, all these requirements may be changed. But to do it quickly, to make these quick estimates, it wouldn't matter whether we have thirty or a hundred officers. I don't believe it would help any for us to get extra people.

QUESTION: You outlined six factors that are taken into consideration in logistics feasibility. Of these the fourth was POL or petroleum. You also made a statement that the military availability of petroleum is about equal to what it was during the past war.

CAPTAIN SISSON: I didn't say that. I said it is about the same as they estimated it would be immediately after the last war. It is more than what we used in the last war, but it hasn't changed from that estimate. In other words, the consumption of petroleum in the United States and the rest of the world is going right up, but that which will be available to the military appears to be fairly constant, though it is greater than it was in the last war.

QUESTION: During the past war certain areas supplied practically the entire Pacific requirements for at least fuel oil, and perhaps other refined products came in that category. Is any account being taken of the fact that that source may not be available in a future war?

CAPTAIN SISSON: Yes. That is one of the points in our war planning.

QUESTION: Are those figures for tankers, for instance, on that chart the actual ones?

CAPTAIN SISSON: No. Those are entirely hypothetical. The phase dates and the amounts there have no relation to the actual plans at all. This chart is just to show you how a plan looks. The actual figures would be top secret or at least secret. I think generally our requirements on overseas fuel, shipping, and so forth are secret.

I can tell you a little more about that. Most of our plans consider a loss or temporary loss of certain sources of oil. For our planning the availability of oil is based on the Western Hemisphere and certain other areas. Of course, these plans may consider our retaking oil areas or they may not. If we plan on retaking them, then we have other estimates of how soon we can get the wells back into production and things of that sort, which go into our availability studies on oil. So that has not been overlooked. In fact, it is one of the very important points in all of our planning.

QUESTION: You mentioned that in the limited feasibility test you make the test first by the sections and the tonnage appears in appendices A to F. Then there was enclosure C, I believe it was, where they analyze the feasibility from the service standpoint. At what level is that made? At the section level or where?

CAPTAIN SISSON: I think I can show it better here. The Personnel Section does the work indicated on chart II, enclosure B. This section computes the requirements and compares them against the availability. We generally let one project officer take two sections. One of those officer sort of steers the paper, supervises it. When the Personnel Section representatives have completed their estimate of requirements and compared it with availability, they take it to this project officer. He goes over it with them, and they smooth up the analysis. That is the first rough draft of that appendix.

When they get the whole thing done, all these computations made, the three project officers who are working on it at that level get together with the sections and draw up this final analysis which is shown in these appendices. This analysis is then sort of a summary by the main features. They complete that and get it in shape to suit the supervising director that I mentioned, at that stage. Then, when it is smoothed up to that point, it is submitted to the three assistant directors. The paper by that time is in fairly smooth form. They go over it with a fine-tooth comb and cover the whole paper.

The papers indicated on chart II as enclosure A are generally made up by the three project officers. They prepare that information in the section to which they are assigned. The section prepares enclosure B in conjunction with the three project officers; these officers then prepar the briefer analysis shown as enclosure A.

Incidentally, the same computations are used in both. They are groupe in a different way. I tried to show you that on this chart. They are jus grouped in two ways.

QUESTION: Of this troop basis or unit basis, after this job has been approved, one copy goes to the Munitions Board and one copy to the Department. How far down do you go in that troop basis discussion? Do you just say so many armored divisions and so many infantry divisions for the Army, for example, and then the Army weighs that problem and figures whether they are going to be boat-to-shore regiments, bridge-building battalions, and so forth?

CAPTAIN SISSON: If I understand your question, I think you are going further than we try to go. We have, for instance, in our Personnel Sectio an Army officer who is very familiar with the Army personnel planning system. He estimates that personnel. He ends up with just an over-all figure. He does, I think consider what you are talking about, but we don' go into enough detail of the operations in the areas to come up with a fine answer.

QUESTION: In other words, it is the number of slices that goes down?

CAPTAIN SISSON: That is right. I think I have your question now. That is right. We use that slice. We end up with so many Army engineer battalions required, for instance, to support an army in a certain area.

I can recall a specific example. We had an army in a certain area; we used a regular slice and came up with a certain number of engineer battalions. We had also analyzed that area with regard to port capacity, roads, highways, and all that sort of thing; we finally came around to the conclusion that they had enough highways in that area to support these troops.

Incidentally, I think we had to deploy them ourselves. The strategic planners didn't do that. We just took a typical deployment, how they would probably be deployed, how many land lines of communication, highways, and so forth they needed. Then we said, "Do we need any more engineer battalions to support these forces than we have on that slice?" The conclusion was that we had enough engineer battalions by means of the slice to take care of any highway construction, etc., in that area.

QUESTION: How do you arrive at the requirements for allies?

CAPTAIN SISSON: I will talk about the British because the Combined Chiefs of Staff have been continued. That is well known, as they have been over here since the last war. We have a table of allied forces in the plan similar to our own. Now, as you know, the British divisions and aircraft groups and even ships are different from ours. We try to reduce those to an equivalent U.S. division and U.S. air group. In aircraft we take the number of aircraft and just divide it by the number we have in our groups and figure support on that basis. On army divisions I think we have given them in general the same, although we feel that theirs are 80 percent of ours. That is what I was told just the other day by an Army supply man in our Supply Section. He believes the British division should be figured about 80 percent of our division. But for our purpose whether it is 80 percent or 100 percent is close enough.

When we get through, we come up with tonnage of supplies, transportation, POL, and aircraft required for allies. We have not up to now figured either any construction or any personnel for them. Of course, personnel is definitely out. The item of supply, as I told you, we can't cover very well. On the other hand, that is a very important one so far as allies are concerned and very critical. The Services are going to have to estimate supply, as to just how much they can furnish. Generally we have a surplus of something they don't want. That is the difficulty with supply.

CAPTAIN ROWLEY: You have given us an idea of how the requirements are computed in the logistics plan and analyzed against these other factor But your feasibility test is based on the accuracy of, first, the requirements side, and, second, the availability side. Several officers, myself and others, have talked about the availability side. I wondered if the Joint Staff has used the same factors of availability or tables or what not which are used by logistic planners in the Services or the Munitions Board, or if you rely on your own determination. You mentioned the aircraf and the general petroleum situation. Do you get your personnel and petroleum and aircraft availability data independently of the Munitions Board and the Services?

CAPTAIN SISSON: I spoke of the Stanford report on aircraft. That will probably be accepted as the best report on aircraft production by all hands. Of course, the problem there is who gets what percentage of that.

We solved aircraft availability in this way: We took what each Service estimated it was going to get from production, and then we added that together and compared it with the Air Coordinating Committee's report At that time the Air Force and Navy were not using the Air Coordinating Committee's report. I think they had forgotten about it. We certainly had them when we put their estimates together, because the sum of what they estimated they would get was less than the Air Coordinating Committee reported. "Well," they said, "that is wrong." Then the Stanford study came out, very nearly the same, and now it is questionable. But I think the Stanford study will probably be the one that will be used.

On oil that availability is, as I say, taken from a Joint Chiefs of Staff's paper; but the paper was prepared in collaboration with the Petroleum Board. The Petroleum Board and the Joint Logistics Plans Committee prepared it in collaboration. Since the Petroleum Board works both for the Munitions Board and the Joint Chiefs of Staff, that paper will be used by everybody.

The shipping paper was prepared by the Joint Military Transportation Committee in collaboration with the Joint Logistics Plans Committee. That one is pretty universally accepted, because the availability there in shipping is based on an inventory of our ships. We have that very concret

On personnel I don't think you can say that everybody accepts our view on availability. I know there was some discussion of our view, which is that availability equals the maximum induction rate from the Selective Service plus an estimate of how fast we can mobilize our Reserves. Some people say the mobilization of the Reserves is going to slow down the Selective Service induction rate and the Services won't be able to take care of the people quite so fast as we estimated. That makes a lot of difference. All that has to be refined by the Services and the Munitions Board as they go further into this plan. In our feasibility test, however

our personnel requirements fall pretty well below our availability and there is still a little leeway in total personnel; so someone can doctor it up a little and still cover most of the plans.

Air transport availability is pretty well set. It is like shipping. You know how many air transport planes you have.

CAPTAIN ROWLEY: I believe that covers it. The point I would like to get, however, is where you obtain that data on availability. Presumably the Munitions Board and the Services will be interested later in more detailed computations of production possibility.

CAPTAIN SISSON: Some of our availability data, I believe, are very good and others are subject to further study.

COLONEL MICKELSEN: I would like to ask one question here. This goes back to material requirements. As I understood it, the reply brought up the question of requirements in tons, including the information from the Engineers in tons of construction. I don't know whether they include POL and aircraft in tons or keep those figures separate. Now, when they make their feasibility checks for their requirements versus availability, do they compare those as added-up tons of requirements against availability of production stated in tons?

CAPTAIN SISSON: No. We do not compare them that way. As I mentioned, we use that tonnage of supplies only to estimate the amount of cargo shipping that we have to use. The details of whether or not we can build all these various things--tanks, ships, guns and so forth--we must get from the Services and the Munitions Board. That has to come later. We consult the Services on critical items only.

The only way we arrive at that is to go to the Services. The Services, knowing they were short of certain critical items, say, "We know we are going to be short of these (tanks, mines, etc.) just by looking at this plan. We don't have to compute these items." We have been unable to go into any more detail on that point.

QUESTION: I have been confused about what is shown in the box of "Availability of Logistics Support." Who puts that in? Is that what you refer to as a check on critical items? (Chart II, enclosure C.)

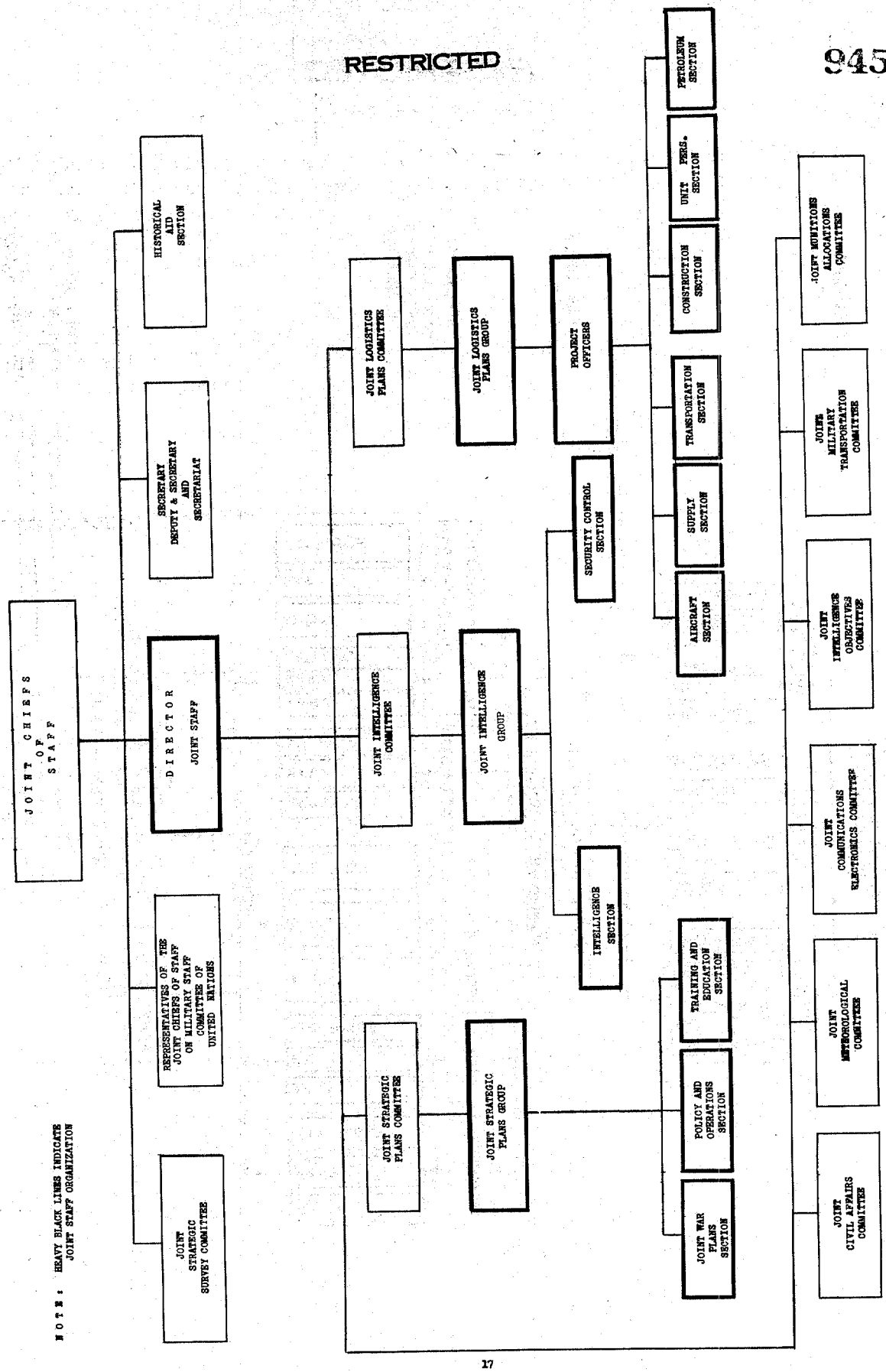
CAPTAIN SISSON: That is covered under each heading (indicating). Remember, I said availability is covered under each logistic feature. For instance, under "Personnel" that availability comes from the Director of the Selective Service plus our estimate of mobilization of the Reserves. Or take "Supply" availability. We just covered that. We don't actually cover supply except by discussing a few critical items with the Services.

The "Transportation" availability comes from: the shipping study I told you about; then there is an inventory of transport aircraft; we study the LOC's in overseas areas and look at the intelligence reports for port capacity and highways in the area. These three items give us the transportation availability. "Petroleum" availability comes from the JCS study of petroleum that I mentioned earlier.

COLONEL MICKELSEN: Captain Sisson, I want to tell you that I think you have delivered a lecture that will give all of us an insight into some things we have all been "burning" to know about. I think you have at least given us an inkling as to the thinking at one of our top levels. I want to express the appreciation of everyone here for the rendition of a very fine lecture.

(4 January 1949--450)S.

CHART 1




NOTE: HEAVY BLACK LINES INDICATE JOINT STAFF ORGANIZATION

946

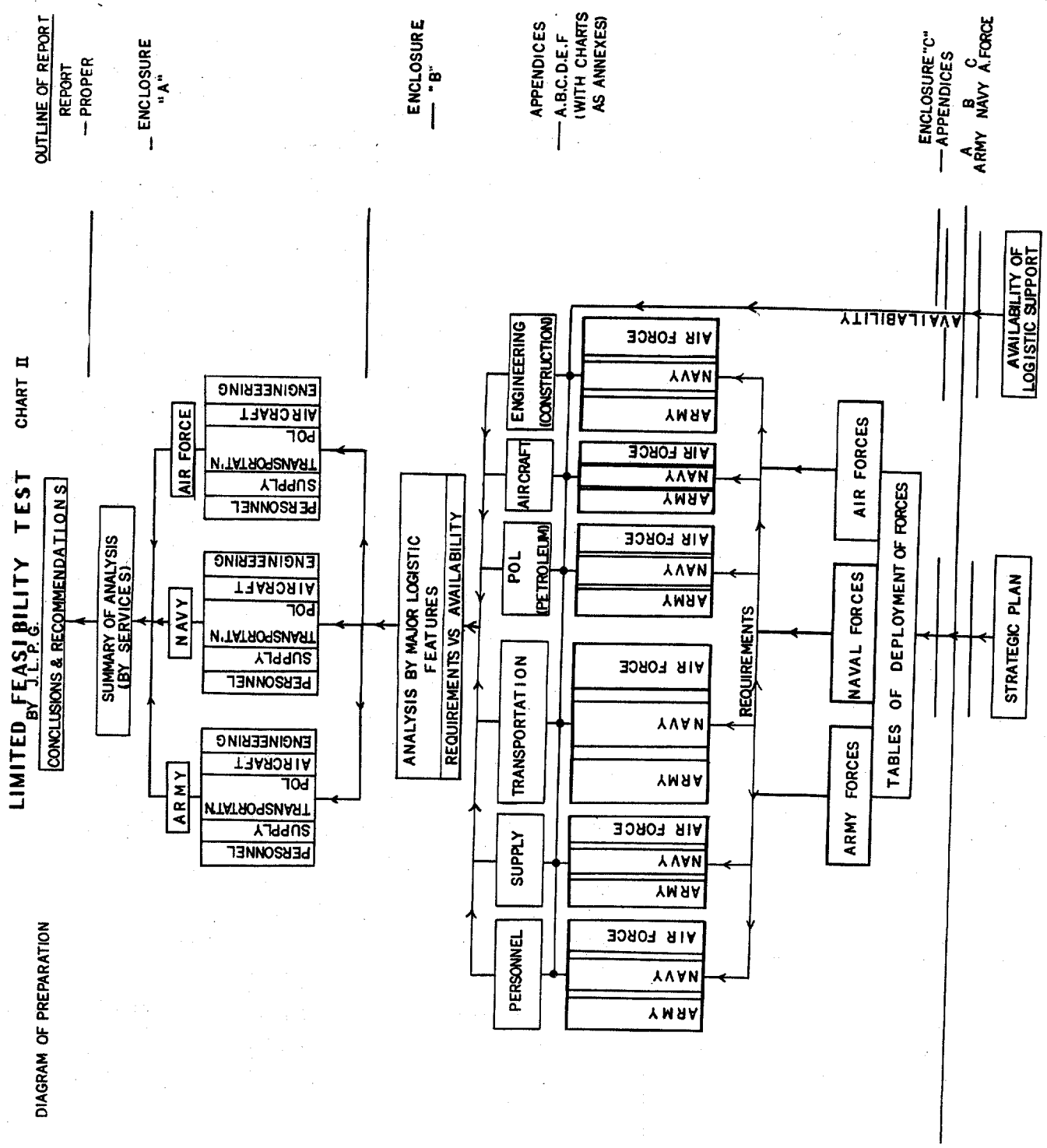
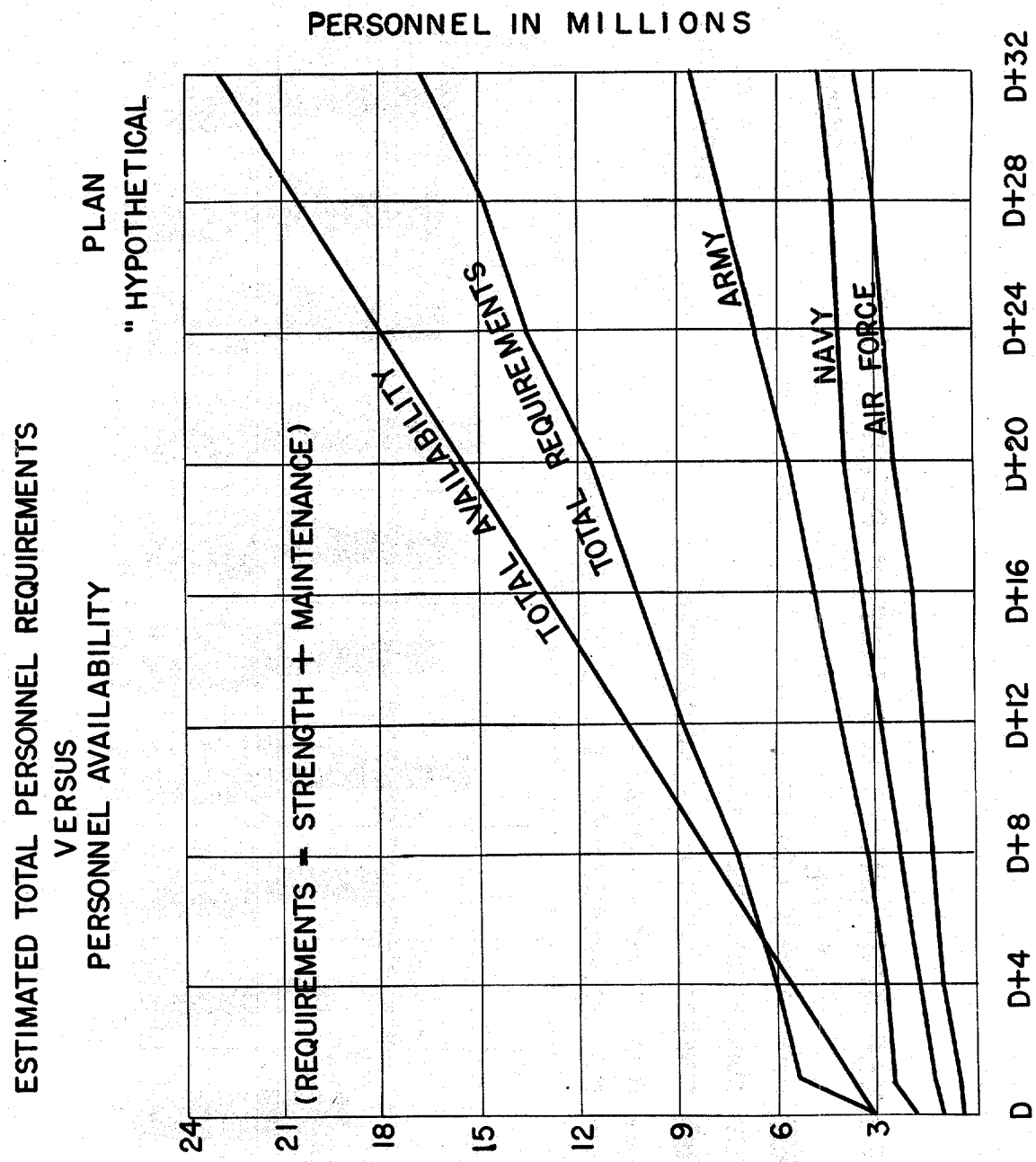
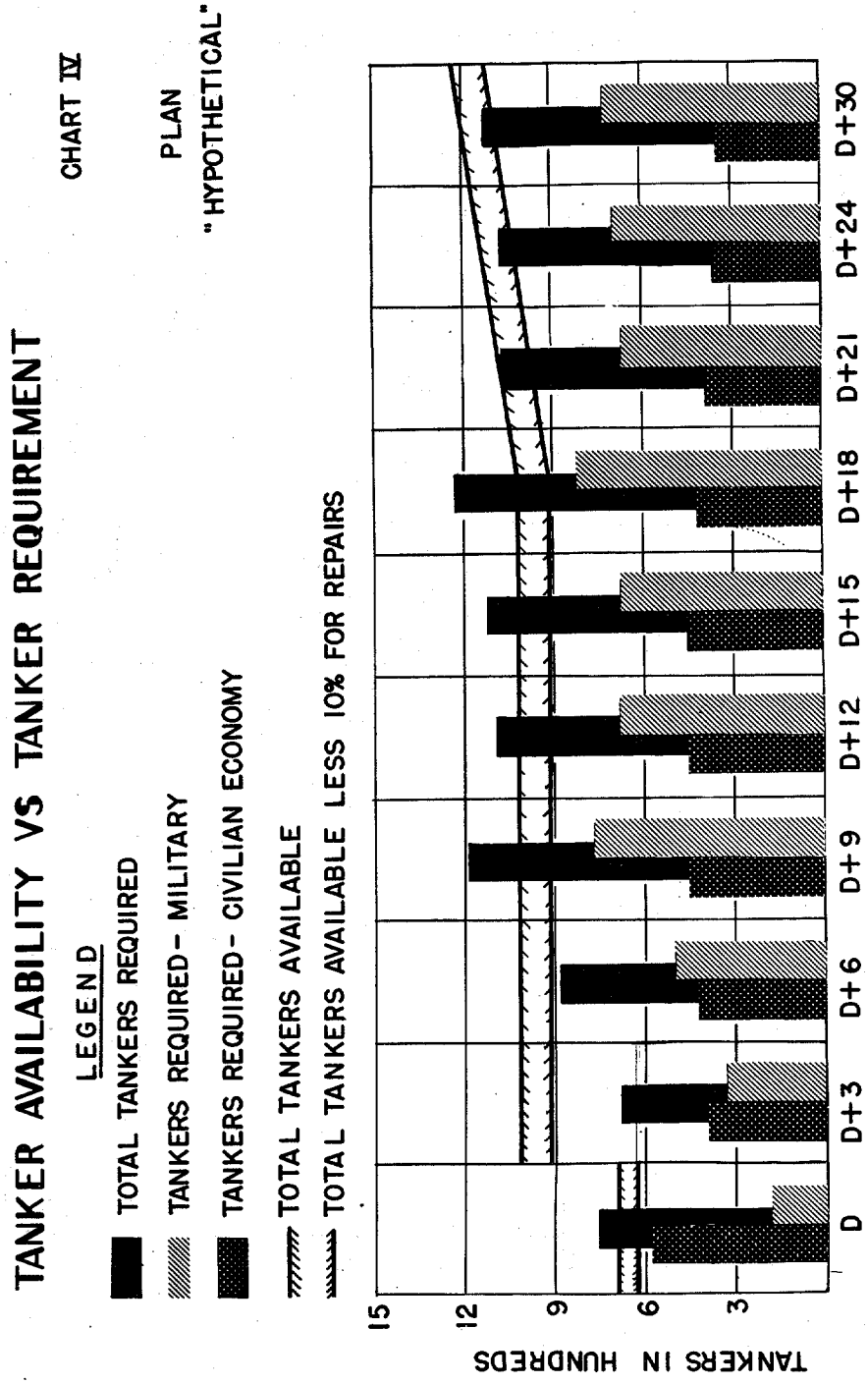

LIMITED FEASIBILITY TEST
BY J.L.P.G.
CHART II
CONCLUSIONS & RECOMMENDATIONS
SUMMARY OF ANALYSIS (BY SERVICES)
ARMY
NAVY
AIR FORCE
PERSONNEL
SUPPLY
TRANSPORTATIN
POL
AIRCRAFT
ENGINEERING
ANALYSIS BY MAJOR LOGISTIC FEATURES
REQUIREMENTS VS AVAILABILITY
PERSONNEL
SUPPLY
TRANSPORTATION
POL (PETROLEUM)
AIRCRAFT
ENGINEERING (CONSTRUCTION)
ARMY
NAVY
AIR FORCE
REQUIREMENTS
ARMY FORCES
NAVAL FORCES
AIR FORCES
TABLES OF DEPLOYMENT OF FORCES
AVAILABILITY
AVAILABILITY OF LOGISTIC SUPPORT
STRATEGIC PLAN
OUTLINE OF REPORT
REPORT — PROPER
ENCLOSURE "A"
ENCLOSURE — "B"
APPENDICES — A.B.C.D.E.F (WITH CHARTS AS ANNEXES)
ENCLOSURE "C" — APPENDICES
A ARMY
B NAVY
C A.FORCE
DIAGRAM OF PREPARATION

CHART III


ESTIMATED TOTAL PERSONNEL REQUIREMENTS
VERSUS
PERSONNEL AVAILABILITY
PLAN
" HYPOTHETICAL
PERSONNEL IN MILLIONS
24
21
18
15
12
9
6
3
(REQUIREMENTS - STRENGTH + MAINTENANCE)
TOTAL AVAILABILITY
TOTAL REQUIREMENTS
ARMY
NAVY
AIR FORCE
D
D+4
D+8
D+12
D+16
D+20
D+24
D+28
D+32


TANKER AVAILABILITY VS TANKER REQUIREMENT
CHART IV
PLAN
"HYPOTHETICAL"
LEGEND
TOTAL TANKERS REQUIRED
TANKERS REQUIRED- MILITARY
TANKERS REQUIRED- CIVILIAN ECONOMY
TOTAL TANKERS AVAILABLE
TOTAL TANKERS AVAILABLE LESS 10% FOR REPAIRS
TANKERS IN HUNDREDS
15
12
9
6
3
D
D+3
D+6
D+9
D+12
D+15
D+18
D+21
D+24
D+30





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