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PACIFIC LOGISTICS

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"Strategy and Tactics provide the scheme for the conduct of Military Operations, Logistics provides the means."

In the past there was a tendency on the part of Naval Officers to take Logistics for granted, to relegate it to officers who were not considered suitable material for combat command, or else, and this at times was more serious, to say, "Oh that's the supply officers' business!" A striking example of this superciliousness occured in 1944 when a very able Captain from the staff of this War College reported for duty with the Service Force at Pearl Harbor. At the Officer's Club he met a classmate who asked him where he was on duty. When the Captain said "Service Force," his classmate said, "I did not know you had been passed over!" There was very little in the education and training of Naval Officers from 1920 to 1941 to indicate that Logistics is the business of every officer in the armed forces. True, the Supply Corps must be primarily occupied with Logistics but just as the Supply Officer, the Civil Engineers and all other specialized officers do better jobs when they understand Strategy and Tactics, so the Line Officers cannot expect to exercise command jobs unless they have a thorough knowledge of Logistics. Just as the conduct of any engagement involves the coordination of many specialized efforts, so does the conduct of Logistics involve the coordination of many specialized duties. This coordination requires the same qualities of intelligence, training and education, sound judgement, moral courage and other military

characteristics that are required for combat command. Furthermore a major operation in modern war presents Logistics problems which surpass in complexity any other field of comparable human activity.

You have had the opportunity to study the various component parts of the Logistic work of this past war; you are familiar with the work of Squadrons, Ten, Six and Eight of the Service Force, Pacific Fleet; you know the tremendous Base Development that took place in the Pacific with construction of great air fields, supply depots, repair facilities, hospitals, rehabilitation and restaging facilities for troops, and you are acquainted with the problems of loading and unloading ships. In addition you have had presentations of the general organizations and command structures which coordinated and directed this effort.

But unless you were on the logistic section of a staff you probably are not so familiar with Service Squadron 12, the "Harbor Stretcher" and its work in harbor development, nor are you at home in problems involving Echelon Schedules and the complexities of shipping allocation and shipping control, the lead time required for the procurement of material and training of personnel. Few of you have delved into the complexities which confronted Commander Western Sea Frontier. Unless you had specialized duty in Washington you may not be aware of the problems of raw material and man power allocation involved in a change in tactical or strategic concepts. Of course the supply of fuel and lubricants was vital to your every move, but

probably few of you know the problems of refining, storage and transportation presented by the necessity for maintaining an economical balance of production in the face of variations in the demand for high octane gasoline.

Probably you know the value of chilled and refrigerated food to the combat forces, but you may not be so familiar with the difficulties involved in its transportation, apportionment, storage and distribution. Some of you may be acquainted with the problem of ship and small boat repair, the repair of transportation and construction equipment, the repair of aircraft and aircraft engines, and the special facilities for the repair and maintenance of Electronic and Ordinance equipment, all of which maintenance tasks require the construction of shore facilities and the provision of floating shops and above all the procurement, transportation and distribution not only of these critical spares, but of the personnel specially trained to handle the material and perform the maintenance.

These are a few of the specific tasks and problems that confronted the Logistics Officers of World War II. When we add to them the task of developing new methods for the transfer of cargo of all sorts at sea, for increasing the speed of handling cargo over beaches, the spectacular development of Airfields, and most important of all, the establishment of Command structures and organizations to direct and coordinate this multiplicity of logistic effort, we reach the conclusion that logistics is not the sole province of any corps.

An important factor in the success of Pacific Logistics

was the fact that the Japanese apparently never realized the importance and relative vulnerability of our logistic forces and supply lines. Their submarines did not attack our tankers aggressively but were primarily used against combat ships, and for reconnaissance and for supplying by-passed bases. Their aircraft, especially early in the war passed up many chances to hit our support shipping.

Our campaigns were successful and our Logistic system met the tremendous demands that were placed on it. But we must not let those facts lull us into any false sense of security as to the future. In this past war our Armed Forces had three major advantages which cannot be assured for the future. In the first place we had time to build up and prepare our forces and their equipment. In the second place our home land was immune to enemy attack. In the third place our bases in the forward areas, once consolidated, were relatively immune to attack and at those bases we were able to concentrate vast forces and support facilities with impunity. Furthermore, our control of the sea and ability to attain air superiority, and in most cases local domination of the air, enabled us to isolate the battlefield and to concentrate overwhelming power upon any objective. This power was based on such a great margin of material superiority that inefficiency in the Logistic system was tolerable. For example, contrast the care with which Rommel's Army in Africa set up a material salvage system, with the thousands upon thousands of tons of valuable supplies and equipment that were lost through weather damage, pilferage, careless handling and poor operation,

and misconsignment or nondelivery, in the Pacific Theater. True; war is waste and there was much unavoidable waste, but there was also much avoidable waste.

The development of modern weapons is such that we must assume that in a future war the United States will have none of the advantages of time and immunity from attack, either at our bases or at home, that we enjoyed in the past war.

It is not possible to cover all aspects of Theater Logistics in one discussion; however it may be helpful to examine certain portions of the Central Pacific Logistic picture to see if we can detect favorable and unfavorable elements therein.

Let us start with the Navy Department. Without disparaging any other officers let me say that Mr. Forrestal, Vice Admiral Farber, Vice Admiral Moreell, Commodore R.W. Carey, and the late Capt. Terry Thompson were outstanding in their early recognition that we were fighting a Logistic War and in their appreciation of the interlocking aspects of the various branches of the Logistic effort. The reorganization of OP-12 and its designation as the Logistic Planning Division of Operations which became effective in early 1943 was a wise measure of great importance. This resulted in a greater coordination of Strategic and Logistic Planning with a resulting improvement in the forecasting of long range needs.

I urge you all to study the organization and work of the office of Commander Western Sea Frontier after its reorganization in late 1944. Previous to that time the Commandant of the

12th Naval District, who was naturally immersed in the problems of Administration of his already complex activities, was the only coordinating agency on the West Coast. There were many offices which were doing difficult and important work and I admire the manner in which most of these discharged their responsibilities. For example the Port Director San Francisco was a vital element in Pacific Logistics and throughout the war this office displayed cooperation, flexibility, imagination and initiative, to an outstanding degree. However, lines of authority and responsibility between many activities were not clearly drawn, at times there were uncertainty and duplication. Among the major agencies in the 12th and 11th Naval Districts were the Port Director, the Naval Supply Depots, the Service Force Pacific Fleet Subordinate Command, the Director of the Pacific Division of the Bureau of Yards and Docks, the Advanced Base Depot at Hueneme, the Acorn Training Detachment at Hueneme, the Advanced Base Training Depot at San Bruno, the Director of Advanced Base Office Pacific, the Ship Repair Activities at various points and the Receiving Stations and Training Camps at Treasure Island, Camp Parks, etc. Coordination with the Army and problems of rail transportation and Petroleum Supply posed major problems.

With the appointment of Admiral Ingersoll as Deputy Cominch and Deputy CinCPac, all these offices were drawn together for planning and control with the result that a definite improvement was noticeable in early 1945.

The control of Central Pacific Logistics was centered in the CinCPac-CinCPOA Joint Staff. As you know, the Army and Marine Officers on that Staff were not merely liaison officers or representatives of their respective branches of the service but were working members dovetailed into a truly joint organization. Army officers dealt with Naval matters and vice versa. The fact that the Army and Navy worked together, lived together and played together, created a deep understanding and a sense of mutual respect that could have been attained in no other way. This does not mean that there were not strong differences of opinion -- it does mean that the differences were brought out into the open and settled in a fair and objective manner. Furthermore each service learned much from the close contact with the other Service. A factor of the greatest importance was the ease with which the members of the Type Commanders' Staffs could gain access to the members of the CinCPOA Staff. The constant interchange of information, and estimates permitted the timely submission of invaluable forecasts and also greatly aided the flexibility of plans.

The basis for Logistic planning in the Central Pacific was the GRANITE Plan drawn up in 1943 outlining the proposed operations against Japan. While neither the objectives nor the time table were adhered to, it performed the valuable function of enabling the Planners to estimate the total forces required and to prepare reasonably accurate forecasts.

These forecasts were revised constantly as reconnaissance provided new information and as the plans for prospective operations developed and changed.

In addition to the direct requirements for mounting an operation, stocks in advanced areas had to be adjusted to provide for the needs of the required preliminary and supporting operations.

In order to reduce rehandling of personnel and equipment and stores, every effort was made to mount the maximum number of Garrison Units from the West Coast.

There was always a limited number of fast tankers available, therefore, careful advanced planning was required to build up the proper stocks of fuel and aviation gas as far forward as possible. Pearl Harbor was used as a surge tank from which fast tankers could refill without returning to the coast. In no case was it possible to store anything like the full fuel and Av-Gas requirements in the very limited shore tankage of the forward area.

Because of the enormous number of landing ships and other vessels of limited water capacity involved and the length of time troops had to remain on transports in the staging areas, careful planning for water supply and distribution was required.

Dry provisions were seldom a problem. Fresh provisions were important requirements and the number of reefer ships was so limited that their rapid turn around was mandatory.

Ammunition was always a difficult matter; it was used in enormous quantities; it was of infinite variety, and in some instances the rapid development of new weapons and new types of ammunition, made obsolescence a factor. Furthermore, its proportionate expenditure was hard to predict.

Carrier plane replacement pools were built up in the Forward Area. Construction work on uncompleted Bases had to be adjusted and construction forces regrouped.

Combat Forces and troops required rehabilitation, retraining and regrouping.

There was an insatiable demand for tugs, for salvage and rescue and for logistic towing.

Ship repairs and maintenance had to be adjusted to meet readiness dates.

Provision for casualty evacuation required the clearing out of Hospitals to the maximum extent.

An adequate pool of fleet replacement personnel had to be moved forward. This required accurate timing for Washington was always very sensitive to delays in the turn around of large transports.

These constituted the major logistics of the Attack snd Supporting Forces, all of which were spread out in many forward area mounting points. In addition, Units already in the forward area sometimes had to be shifted because of regrouping of forces, and advance elements of the Garrison Force had to be moved to join the assault.

In one instance we backtracked - it was once considered that Eniwetok had passed its peak as a staging point and therefore many of its facilities were reduced, but unfavorable weather conditions at Ulithi and the relative distance to Japan caused CinCPac in 1945 to order a major expansion of shore facilities at Eniwetok to care for a Carrier task force in the

Olympic Operation.

The Garrison or Base Development phase of the operation was also intricate and from the point of view of tonnage to be unloaded, greatly exceeded the Assault Phase.

The CinCPOA echelon conference was the climax of the logistic planning for an Amphibious Operation. It could not be held until the major planning for the assault phase was complete. In the echelon conferences it was finally determined how many men and what material and equipment were to be used to develop a base and when and how each unit would be shipped.

The Amphibious Forces stated how much of the available assault lift could be assigned to the Garrison Forces and the most urgently required elements of the Garrison Force were assigned to this space.

Normally the first Garrison Echelon, after this initial lift, was scheduled to arrive about D-Plus 5 and thereafter there was one echelon each ten days. The amount of cargo assigned to each echelon was determined by the estimated beach unloading and clearance capacity at the time of arrival. Before any units were assigned to an echelon, the tonnage required for the maintenance, resupply, and build up, of the assault forces was deducted from the space available.

In these first echelons, the primary concern was to improve the waterfront, provide cargo handling personnel and equipment and to build roads and fighter fields, to establish base communications to provide minimum medical facilities, to operate and repair boats, and to provide air warning facilities.

Thereafter we tried to augment the construction forces as rapidly as possible. In this connection it is well to note the importance of corelating the estimated construction schedule with the echelon schedule.

There has been much discussion of the CinCPOA policy of centralizing Construction control in the hands of a single commander Construction Troops. This policy was very helpful in echelon planning.

It was found essential to provide a pool of basic construction materials for the discretionary use of the Commander Construction Troops.

One of the most important aspects of the Echelon Conferences was that they gave the representative of the Type Commanders and the Garrison Forces an excellent opportunity to view the problem as a whole and to get to know each other. It is true that some representatives always made excessive demands for space in early echelons on a basis of bargaining rather than need, but they were usually detected and frequently laughed out of court.

CinCPOA exercised a very close control of shipping and an important element of this control lay in the Echelon Conferences. Unfortunately, the great variations which existed between theaters in the terminology of shipping, shipping control, and unloading figures make it extremely difficult to draw accurate comparisons of this type of data. However, there is no doubt that the Central Pacific made a more efficient use of the Merchant Shipping allocated to its use than any other Area in the world.

The system of shipping control in the forward area was not set up until we found ourselves in difficulty in handling the Garrison shipping in the Gilberts and Marshalls Operations. Once established, it, in conjunction with the Echelon system, produced excellent results.

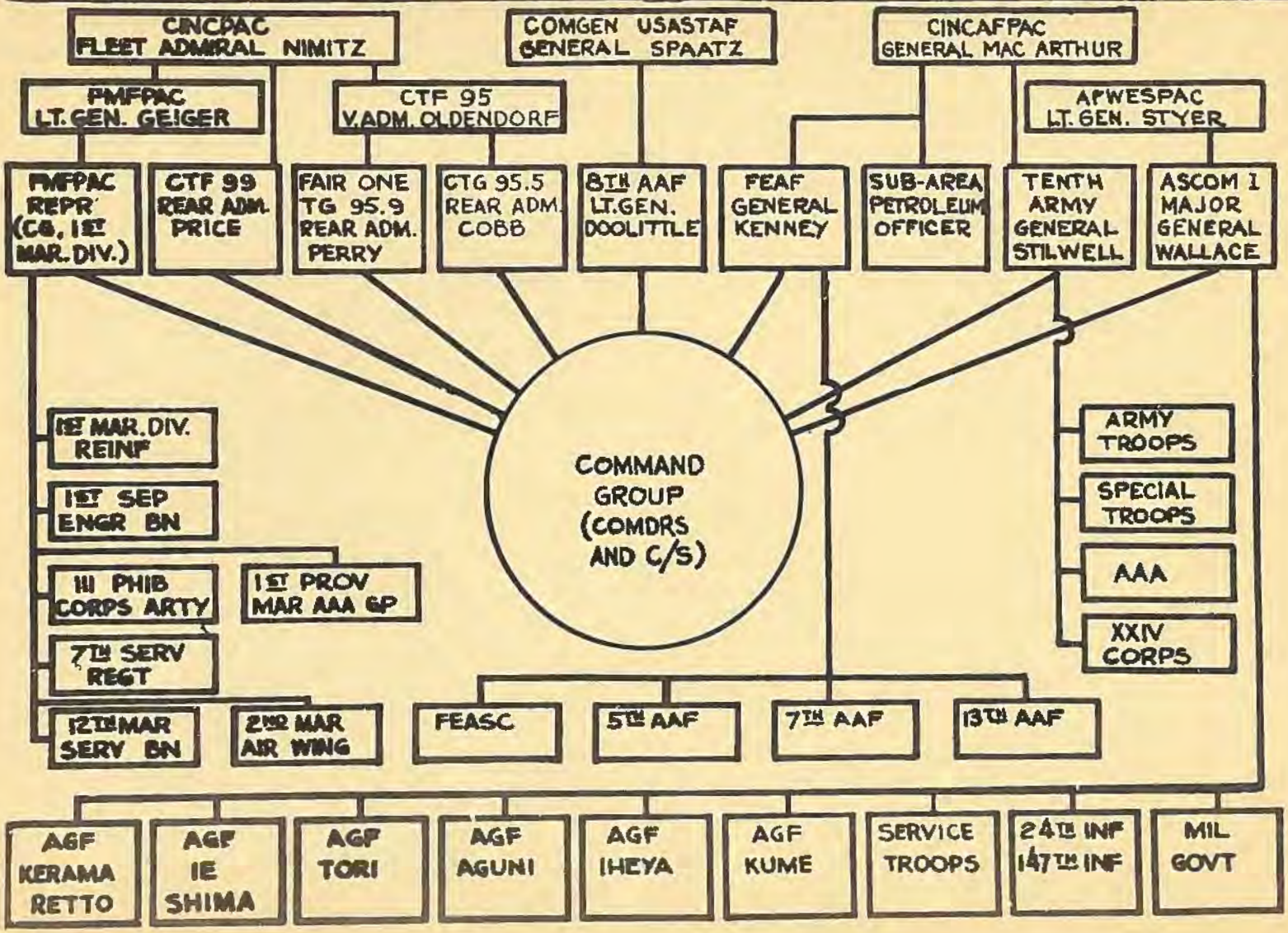
The centralization of Headquarters at Pearl Harbor was a great overall logistics benefit. I am not in a position to comment on the strategical and tactical benefits derived from the establishment of CinCPOA Advanced Headquarters at Guam. I do know that it was detrimental to the logistics efficiency.

The extensive changes which took place in the Pacific Command Structure in the summer of 1945 destroyed much of the carefully built up structure of the Logistic system. The Logistic Planning for the invasion of Kyushu was greatly complicated by this step. The physical strain imposed on planning officers by the necessity for frequent trips between Pearl Harbor, Guam and Manila was heavy and it had a marked influence on the quality of their thinking. This separation of Command and the distances between headquarters greatly increased the communication load, retarded important decisions and introduced elements of uncertainty which might well have had serious consequences had that operation been carried out.

SLIDE

As an example of this I urge you to study the Command Structure of Okinawa as it existed in August 1945. I have yet to hear any officers state that he can understand it. From a logistic point of view it is the antithesis of what we

COMMAND & ASSIGNMENT DIAGRAM FOR RYUKYUS AREA EFFECTIVE 1200 31 JULY 1945



should strive to achieve.

An undesirable feature of CinCPOA's Staff was that in certain instances they were operators as well as planners. This was particularly true in the case of Oil. The Area Petroleum Officer, part of the Service Force, succeeded Service Squadron Eight, in charge of Oil Distribution, but CinCPOA sometimes took independent action which was confusing. The question of Construction Battalion assignment was never really settled in accordance with good organizational practice. CinCPOA's Engineer Section, the Director of the Pacific Division of the Bureau of Yards and Docks, and the Service Force all had a hand in this and at times it was rather confused.

Admiral Towers was well aware of these organizational deficiencies and constantly strove to eliminate them.

The Service Force Pacific Fleet was the largest single Logistic agency in the Pacific. Developing from the old Base Force which had consisted of a few tankers, repair ships, tenders, and tugs, etc. chiefly in San Pedro. It mushroomed into a huge organization of more ships and men than could easily be counted. Service Squadron Eight at one time consisted of about two hundred ships with about 40,000 officers and men. Service Squadron Ten had over one hundred and fifty ships, Service Squadron Two had hundreds of small craft. Service Squadron Twelve had probably the strangest conglomeration of floating equipment ever seen, including the famous old battleship Oregon which was towed from her museum berth at Portland to become an explosive storage off Guam.

The Force Supply Office, the Medical Office, the Fleet Maintenance Office, the Advanced Base Office, the Fleet Salvage Office and the Fleet Schools and Utility Squadron, made up the bulk of the remainder of the Service Force. Until the end of 1944 the Service Force Subordinate Command in San Francisco was a large and important office.

The Service Force was the catchall of the Pacific and it grew and functioned without a clear cut organization and without a planning section. At times its authority was not clearly laid down. But it functioned and produced the necessary Fleet support not because it was well organized, but because its staff worked together and with CinCPOA; it was willing to tackle any kind of a job and because its Squadron commanders were men of flexibility of mind who thought primarily in terms of getting the support to the fleet and were willing to accept responsibility and able to meet unexpected plan changes and emergencies. Furthermore Commander Service Force gave them a very free hand and backed them up.

However, had the Service Force not been so deeply involved in matters that should have been handled by the Commandant of the 14th Naval District, and had the Organization been more clearly laid down, the Service Force could have functioned more efficiently.

Furthermore, the Service Force frequently suffered from the fact that cast off officers were ordered to it. It was not until

late 1944 that the necessity for first class officers for logistic work -- particularly in Advanced Bases, really began to sink in.

The personnel problem was neglected in the early phases of the Central Pacific Campaign. There was no organization capable of dealing with matters of classification and the best allocation of officers and men. Certain Commands had very weak personnel sections and there seemed to be little appreciation of the need for adequate Courts Martial facilities for major Advanced Bases. The training of Advanced Base personnel was woefully weak and thousands of negro enlisted personnel who had received very little training and had untrained, and in many cases, incompetent officers, were at Pearl Harbor and in the Forward Area. That serious difficulties arose surprised no one acquainted with the situation. It was only by making major staff expansions and reorganizing many activities that this situation was corrected.

When Admiral Halsey came up from the South Pacific and alternated with Admiral Spruance in command of the Fleet at sea it was possible for the Fleet Commander and his staff to devote more time to the planning of the operations.

Since the scale of operations and the forces involved were expanding greatly, this was very advantageous.

The fueling task groups that had worked so effectively in the Marshalls, Palau and Philippine invasions, were expanded and developed into Service Squadron Six. In the thrust north toward Japan this outfit did a remarkable job of continuous fleet support underway.

After the capture of Okinawa, Service Squadron Ten was reorganized under a rear admiral and divided into four divisions, each under a Commodore. This constituted a belated recognition of the importance of this squadron. However, it is interesting to note that in his report of the Okinawa Campaign, Commander 5th Fleet recommended that a Fleet Service Officer with a small staff be detailed from the Service Force to take part in the initial planning and to accompany the Fleet Commander to the objective area, there to take over fleet logistics.

The question of floating versus shore based Fleet support is important. Early in the war the shortage of ships suitable for conversion to effective auxiliaries was a large factor in our advanced Base program, and in some instances we completed large shore installations after the most critical need for them had passed. Later when the Service Squadrons had been built up, major task forces were maintained at places such as Eniwetok and Ulithi wholly from floating facilities. In the plans for the invasion of Kyushu, CinCPOA projected large Naval shore activities because the Kamikaze attacks made too much dependence on floating support inadvisable.

I believe that the best solution lies in a combination of shore and floating facilities in the advanced area. Every effort should be made to have all floating support self propelled.

There is an interesting omission that is apparent in every study of Central Pacific Logistics. The stated amphibious objective of practically every major operation was to develop a

base for future operations. The CinCPac Analytical Section made exhaustive critical studies of the combat phase of each operation and to some extent commented on the logistics of the combat forces in the mounting and in the combat phases. But at no time was any study made as to the manner in which these Bases, for which we paid such a high price, were developed. Nor was very much attent on paid to the coordination between the Service Squadrons and the facilities established ashore. The Service Force had no responsibility for the operation of Bases; this was a prerogative of CinCPac who worked thru the area and Island Commands. Coordination was achieved but it was frequently by round about means. This situation reflected a fault in CinCPOA's Logistic Administration. The Planning was excellent but there was no provision for the organized and regular supervision of the execution of the plan.

The best Logistic planning will fall down if Fleet, Force and Area Commanders do not appreciate the complexity and importance of this task and devote personal attention to the plans as they are being prepared. There were some interesting contrasts in this respect in the Pacific. Some high officers showed early appreciation of this, detailed excellent officers to this duty, and gave great thought to the logistics work of their staff -- others seemed to take it for granted and did not see the light until the deficiencies began to hurt. In general this staff problem was underestimated and much time was lost in assemblying and educating competent officers for this work.

The handling of cargo was one of the most difficult problems to solve. Initially, it was primarily ship to shore but later the ship to ship problem was serious. In no other area was the rapid resupply of large task groups so important as in the anchorages serviced by Squadron Ten. This involved the work of large numbers of C B specials and later the use of Logistic support companies, working entirely afloat.

These problems pointed up another important aspect of Logistics which was particularly noted in the Central Pacific. The great demands of all theaters for ships caused the Joint Chiefs of Staff to make drastic regulations as to the use of ships and to demand the greatest utilization of shipping space.

Many qualified officers are of the opinion that this lead to such an undue emphasis on the maximum loading of W S A shipping that efficiency of shipping utilization was actually reduced. They feel that if we had not loaded so completely we would have been able to turn ships around more rapidly. Closely allied to this is the Echelon system. As developed in the Central Pacific this permitted flexibility in the dispatch of ships from the West Coast to the forward areas. However, another enemy of shipping efficiency, selective unloading, sometimes defeated the purpose of echeloning. If this be permitted in a large operation, two evils result. First partially unloaded ships swing around the hook for days and weeks, and secondly men and their equipment get separated and Unit efficiency in Base Development is destroyed. This second effect in turn slows down unloading capacity and thus a vicious circle is set up. This occured at Okinawa with serious results. Remember-this was beyond the immediate control of CinCPOA.

CONCLUSION

In conclusion let me summarize what, in my opinion, constitute the basic requirements in Logistic Organization and Planning in a Theater concerned with Naval and Joint Overseas Operations.

The Theater Commander should have a truly Joint Logistic Staff.

This was the case in the Central Pacific.

The task of planning and providing Logistic support for the routine activities of the forces in the Theater should be delegated to the Type Commanders acting under broad general directives of the Theater Commander.

This was usually, but not always, the case in the Central Pacific.

The Theater should be backed up by a strong and centralized Logistic Agency in Washington and in the nearest sea frontier.

This was finally achieved and greatly aided the Central Pacific.

All major Logistic officers and Commands must have early knowledge of operational plans in order to prepare the necessary forecasts.

This was the case in the Central Pacific.

Standard operating procedures and policies should be developed and used to the maximum extent.

This was done in the Central Pacific.

The Logistics Section of the theater staff must have control of the shipping in the theater.

This was the case in the Central Pacific.

The type Commanders should prepare logistics plans concurrent-

ly with the Theater Staff.

This was the case in the Central Pacific.

The Theater and Type Commander should have their Headquarters in the same general location.

This was initially the case in the Central Pacific but later it was changed.

The Operational and Logistics Sections of the Theater Commander's Staffs should be in one spot.

This was initially the case in the Central Pacific but was abandoned.

In joint operations there should be Unified Command.

This initially was the case but was discarded by the Joint Chiefs of Staff.

The Theater Commander should not be an operating agency.

This was not wholly the case in the Central Pacific.

The Theater Commander should supervise the execution of the Logistic Plan and analyze its results with the same care as is applied to the combat plan.

This was not done in the Central Pacific.

Finally let us examine the characteristics of the ideal logistics officer in order that we may in the future select and train officers for this duty. Such an officer will have a broad knowledge of strategy and tactics as applied to all phases of war and all branches of all services. He will have such experience, training and, more important, understanding, to realize that Logistics agencies exist for the sole purpose of supporting the

Combat Forces. He will have a broad knowledge of Logistics in all its varied forms. Above all he will have the same high qualities of health, imagination, character, executive ability, and leadership that we expect in our major commanders; such qualities that he can meet the high challenge of responsibility with assurance and moral courage.