The GAO has scored the Army for lack of overseas supply control, attributing it mainly to the philosophy of "command prerogative." The Army has committed itself to greater efforts to obtain visibility of assets, particularly overseas, with the Air Force recoverable asset management system (AFRAMS) as a model. This system gives visibility to some 129,000 items on a daily basis. The Army began experimenting with a pilot program which provided similar visibility to 1,800 items. Progress was slow, due to multiple and inefficient computer systems and the apparent reluctance of overseas commanders to yield some control over theater stockage. The eventual result was the selected item management system (SIMS), which allows ownership of stocks to remain as before, but gives the manager visibility over these stocks through periodic transaction reporting. In special cases, where other needs are urgent or stocks exceed the "requisitioning objective," the wholesale supply manager can order the transfer of theater stocks rather than fill requisitions or initiate a procurement. At present (July 1, 1970) 4,620 lines, accounting for about 50 percent of demand, are covered by SIMS. General Heiser observed that as many as 26,000 lines could be included in such coverage but that beyond 10,000, the economies were questionable. Unfortunately, the model Air Force system cannot be of assistance in this regard, since it has never been evaluated in terms of the costs occasioned by demands on logistics personnel and on the communications and data processing facilities.

To place this problem in perspective, it is useful to recall that there are some 4 million items in DOD supply systems, of which the Army purports to use about 1.2 million, managing 367,000 in a $30 billion inventory and depending on integrated managers, principally the Defense Supply Agency, for the remainder. Some 6,700 of the Army-managed items are identified as major items—trucks, tanks, artillery pieces, and the like. Of the major items, about 1,200 are controlled at the Department of the Army level by an organization which has the power to redistribute them among the major commands of the Army. These items are important enough and visible enough so that they do not generally get "lost" in the complexities of the supply system.

Management of secondary items, especially the repair parts used to maintain the major items, poses a much thornier problem. There are so many different parts and such quantities of each that the specialized attention given to major end items cannot be exerted here. These are the items which are the subject of efforts to attain greater visibility of assets.

Asset visibility need not necessarily be on a daily basis. Many of the Army items are reported to the materiel managers at less frequent intervals, such as monthly, quarterly, or semiannually, depending on the cost and criticality of the item. In our 1969 hearings, General Heiser admitted that these reports, because of the processing delays, are often "ancient history" by the time the item managers received them. At the 1970 hearings, he reported that some improvement had
been made in this regard, although some commands lacked the computer capability to furnish the required data.\textsuperscript{78}

The Defense Department, in 1969, gave the inventory control points authority to extend asset knowledge.\textsuperscript{79} The directive prescribed that each DOD component would be expected to expand its reporting range, depth, frequency and control, dependent on its systems and the availability of automatic data processing capabilities. Secretary Shiltito pointed out the benefit: "ICP's will be in a better position to determine more exactly, materiel requirements; position assets; take redistribution actions; control excesses; improve the budgetary process; and provide maximum support with a minimum investment level." He also said: "Full implementation is to be attained at the earliest practical date."\textsuperscript{80}

It would appear that the major obstacle to worldwide asset knowledge of high-dollar value items now goes less to objections in certain Army quarters than to the hard problems of defining how much visibility and control are needed for efficient and economical management and of adjusting data processing, communications and reporting systems to handle the workload. The committee, without being doctrinaire on the subject, believes the potential for greater visibility over worldwide assets in the Army, and to a lesser extent in the Navy, has not been exhausted and requires continuing close attention. If the other key objective of drastic reduction in overseas stackages is achieved, the problem of visibility will be correspondingly reduced.

\textbf{4. SIMPLIFICATION OF MILITARY SUPPLY SYSTEMS}

In keeping with other recommendations in this report to drastically reduce overseas stackages, improve management control of worldwide assets, and enforce supply discipline in a wide range of operations, the committee believes that rigorous—if necessary, ruthless—measures should be taken to purge and simplify military supply systems in every service and at every level of operations. The military services have grown fat in a supply sense. General Heiser observed that some posts, camps, and stations were stocking as many as 100,000 items. The Army program for reduced overseas stackages applies also to domestic installations and depots. And the other military services, which do not have overseas depot systems, could well look to their own domestic inventories.

The guiding consideration must be not what is available and obtainable, but what is combat essential. The Vietnam experience shows that along with the combat-essential supplies went boatloads and plane-loads of available and obtainable supplies which were not combat essential and which, by their very profusion and bulk, disrupted supply operations, generated vast excesses, multiplied costs, and diminished the effectiveness of logistic support to the troops in combat. New standards of austerity have to be developed which are more in keeping with the disciplines of military life, and new techniques must be developed for insuring that forces are supplied well and promptly at the lowest possible cost.

\textsuperscript{78} 1970 hearings, p. 187.
\textsuperscript{80} 1969 hearings, p. 62; 1970 hearings, p. 51.
Purging and simplification are more than cleaning out old warehouses, disposing of unneeded stocks, and stripping down to essentials. Standardization is needed—and here is where ruthless application is required—to overcome service preferences and prejudices, management arrangements and methods, which contribute to item proliferation rather than to supply effectiveness. It is about time that the oft-mentioned figure of 4 million items in military supply systems be substantially reduced, possibly cut in half, by a standardization program which should check the influx of new technical items with unnecessary variations and reduce common supplies to more easily manageable proportions.

When substantial headway is made in reducing unnecessary variations and compressing commodity listings, it can be expected that large savings will be realized in the reduction of resources for warehousing and inventory management. The number of depot complexes and inventory control points undoubtedly can be cut down and reorganized or consolidated, wherever appropriate, in the interest of more efficient utilization. The committee believes that efforts along these lines should go hand-in-hand with the reduction of stockages.

Assistant Secretary Shillito testified that his office had developed a logistics performance measurement and evaluation system “to concentrate management attention on persistent logistics problem areas,” and that one of the performance objectives being tracked was the elimination of all unessential items from the Department of Defense catalog. The fiscal year goal for 1970, was elimination of 518,000 items, which was exceeded when 654,000 items were eliminated. The elimination program, though commendable, barely keeps up with the influx of new numbered items, so that it amounts to running to stay in one place. Unless rigorous standardization is brought to bear at the outset, the purging effort will not solve the problems of profusion and complexity in military supply systems.

This standardization program must extend to processes and procedures as well as items in the interests not only of intraservice but of interservice coordination. The need for standardization of computer systems exemplifies the issue. A DOD study completed 8 years ago found:

The inability of the variety of makes and models of ADPE in the DOD logistics system to communicate with one another has resulted in the necessity for expensive conversion processes as well as tremendous volumes of paper with no ability to analyze, consolidate, or utilize data contained therein.

Although automation and computer technologies have advanced greatly since that time, and many analytical studies and experiments pointed toward more integration of diverse systems have been made, the committee believes that the finding is still essentially valid today. We recognize that established systems and procedures cannot be discarded or overturned too suddenly lest supply effectiveness be diminished or disorganized to the prejudice of combat readiness. On the other hand, it is apparent that drastic overhauling is necessary, and

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Study cited in footnote 78, p. 30.
until the supporting systems are made adequate, readiness will be limited.

5. ENFORCING SUPPLY DISCIPLINE

The Vietnam experience gives ample evidence that: Vastly greater quantities of supply items were put into the theater than could be reasonably absorbed; these quantities were greatly in excess of actual needs; much was ordered that was not authorized; much was ordered that was not essential; due to errors, much was ordered that was not wanted; inflation of priorities virtually destroyed the effectiveness of the priority system; and reparable parts in many instances were not returned for repair.

The urgency and disorder of war explain some of these deficiencies; others point to defects in concept and methodology, and still others are the result of poor supply discipline, which usually means carelessness, indifference, or neglect in observance of applicable regulations as well as a failure to apply commonsense or ordinary prudence. There is no obvious way to insure that regulations and directives will be followed, or commonsense and prudence employed. The military services repeatedly admonish supply personnel to comport with the dictates of supply discipline, particularly when deficiencies are disclosed and publicized. Still, mistakes recur with discouraging frequency. The committee recognizes the obstacles to enforcing supply discipline in a military environment but insists that sustained and greater efforts in this direction be made.

The Besson Board notes that the term “supply discipline” can have various meanings; it uses the term in the sense of conformance “with those regulations and instructions pertaining to supply procedures.”

The responsibility falls largely on the unit commanders for enforcing supply discipline; and when there is an environment of permissiveness or indifference to applicable regulations, the consequences are adverse. The Besson Board reported:

Unauthorized items often were requisitioned by units in Vietnam without challenge by the local reviewing authorities or the supply system. Unauthorized items, used in this context, are defined as those material not essential or related to mission of the requesting unit or not desired by the Service or area commander to be provided to their units. Pocket-knives, drafting instruments, air conditioners, refrigerators, furniture, plywood, acoustical tile, electric drinking fountains, and hotplates are examples of such items. Ration sundry packs ordered by activities which had access to PX outlets are also examples. They were described as “goodie items” and generally ordered for personal or unauthorized uses.

The GAO had developed information on serious breaches of supply discipline in the two respects noted above: inflated priorities and lack of accounting for reparable assets. The unusual amount of audit at-

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84 Id. p. 305.
Attention given to the excessive use of high priorities, in the opinion of the Besson Board, exaggerated its importance when considering the relatively small proportion of total tonnage moved by air on high priority, and the GAO was criticized for selectivity in reporting instances of abuse of the requisitioning system. Nevertheless, it is plain, and the Besson Board documents, that there were "excessive numbers of high-priority requisitions submitted for items that were not combat-essential." Also, excessive quantities were ordered, there were unauthorized and nonessential items in the orders, duplicate requisitions were submitted, excess stocks were allowed to accumulate, inventory records were inaccurate, and demand history data were erroneous. To say the least, these evidenced, among other things, a lack of supply discipline.

Supply discipline will become more meaningful and applicable as measures are taken along the lines of the committee's recommendations to simplify and improve supply systems and procedures and thereby to engender more confidence in the dependability of supply systems on the part of users. The Vietnam experience demonstrated that supply discipline is lax or lacking when established systems do not work well or get out of control, so that supply requisitioning becomes a game where everyone looks out for himself. The multiple requisitions which compounded the supply problems in Vietnam reflected a lack of confidence in the whole requisitioning and delivery process.

An excerpt from a Besson Board report illustrates the problem:

Failures of the supply system to locate, identify, and provide a required item undoubtedly degraded supply discipline at the using unit level. However, this breakdown made a substantial contribution to the excess in its own right. Rather than using normal follow-up procedures, it was common for the requesting unit to re-requisition the needed items one or more times, thereby bringing unneeded items into country as well as creating inflated demand data at the supporting units and depots. The magnitude of this problem is evidenced by the dues-out reconciliation conducted by the 508th Field Depot in February 1968, when over 80 percent of the dues-out were canceled as invalid. Because of the lack of confidence in the supply system there was a tendency to assign high-priority designators to all requisitions and to hoard scarce items at using unit level.

In sum, improvements in supply systems must go along with insistence that the rules and regulations be followed. Each reacts on the other. The less confidence the user has in the system, the more difficult it is to exploit improvements. And as the difficulties increase, confidence wanes. Supply discipline is a two-way street.

6. UPGRADING LOGISTICS

Logistics are crucial to military operations and involve the management and consumption of vast logistics and supply resources, and yet the logisticians and the supply officer are low men on the military totem

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6 Id. pp. 302-303.
66 Id., p. 225.
pole. When emergencies arise or conflict occurs, they are expected to perform miracles, without glory. Neither are they accorded the instruments and the resources needed to prepare for unusual contingencies, and they are not always consulted in the early phases of operations. The following items, drawn from the Besson Board's findings, suggest rather strongly that the military services do not yet fully appreciate the importance of logistics:

(a) The designation of an experienced logistician to command the in-country effort in Vietnam did not occur until long after the war was underway;

(b) The strains that the logistics system would undergo generally were recognized in planning but ignored in the implementation phase of operations;

(c) While the tactical organization was planned from the top down and staffed accordingly, the logistics effort grew from the bottom up, principally as piecemeal reactions to emergencies of the moment;

(d) No provisions were made in advance for the logistician to maintain control over the flow of material;

(e) Undisciplined and repetitive requisitioning occurred, which proved a major cause of excesses;

(f) Many expensive repairable parts were not returned to the supply system, despite regulations to this effect, until high-level corrective action was taken;

(g) There was no effective planning for logistics communications despite the fact that such communications were the second highest category of communications usage.

The committee recommends that action be taken to give appropriate recognition to the important role of logistics in military operations. The logistician should have more authority to enforce supply system regulations, and he should participate more fully in the planning and initiation of operations to the end that supplies, transportation, communications, and other critical resources are adequately provided.

In his peacetime role, the logistician should be brought more directly into procurement planning and acquisition of weapons systems, so that basic designs and specifications can take proper account of the logistics aspect. The committee recognizes that logistics considerations do enter into the acquisition of specific systems and Defense officials submitted an illustrative list for the record. However, the committee believes that, in view of the large costs, not only of original acquisitions but of maintenance and operations, integration of logistics and procurement considerations must be done on a systematic, carefully planned basis.

7. COMMUNICATIONS FOR LOGISTICS

In the course of its voluminous studies, the Besson Board examined the problems of communications as they affected logistics support in Southeast Asia.\(^7\) What the Board found underlines a concern of this committee that Defense communications lack the capacity and dependability for fully effective response in emergencies. Committee studies over the past 6 years have pointed to many inadequacies and to tardy actions of the Department of Defense in exploiting satellite communications.

and other technologies for efficient and effective worldwide communications for Defense purposes.

Regarding the Vietnam situation, the Besson Board observed that "assessment of communications requirements presented in 1964, prior to major force commitments, were proved valueless by events." Logistics and supply operations were hampered at many places and at many times by lack of sufficient channels of communication. At the subcommittee's 1968 hearings, General Miller commented on the inadequacies of existing communications networks.

We could not send requisitions by transceiver the whole time I was in Vietnam for a year and a half, without losing about 35 to 50 percent of the transmission due to atmospheric interference between Vietnam and Okinawa. If we tried to go to Hawaii it was even worse.

Had the Department of Defense moved earlier to develop its satellite communications programs, in accord with recommendations of this committee, the communications problems in Vietnam would have been much less severe.

The committee is interested to note that among the recommendations made by the Besson Board to improve readiness for contingency operations is that a capability should be developed for the rapid extension of the Automatic Digital Network (AUTODIN) to remote theaters of operations by upgrading the capacity of transportable satellite terminals. The committee has repeatedly called attention to the importance of upgrading terminals and otherwise increasing for military communications needs.

The communications aspect of logistics assumes increasing importance as supply operations become more computerized and direct support operations replace conventional reliance on theater depots. Logistic systems require, as the Besson Board pointed out, high quality circuits for data transmission to handle large volumes of supply transactions, and existing military communications systems have yet to achieve the quality levels required.

The committee is aware of the difficult economic questions involved in choices between circuits dedicated exclusively to logistics and assimilation of logistics communications in multiuse networks. The tendency too often has been for logistics to suffer from lack of communications capacity in times of emergency or other high traffic situations. Communications capacity should be planned and designed to accommodate all legitimate defense needs.

In a report submitted August 1, 1968, the committee recommended that the DOD undertake comprehensive planning to develop concepts, facilities, and methods for emergency communication by satellite. To this it would now add that such planning give due regard to logistics communications requirements.

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88 Id., p. 21.
89 1968 hearings, p. 203.
90 Report cited in footnote 87, p. 70.
In Vietnam the unpreparedness, in a logistic sense, and the failure to fully exploit the capabilities of automatic data processing, exemplifies a major problem—the absence of long-range plans in the logistic area. Looking back, it is obvious that had the dimensions of data processing been analyzed and necessary actions taken, it would have been possible to integrate this capability into supply systems with much less cost and with much more effect. There was and is a need for long-range planning in logistics, planning which anticipates developments in technologies and resources and changes in the nature of the tasks to be performed.

The initiative for long-range planning must come at the OSD level. It is not our intent to discourage or deemphasize planning initiative within the services. The point is that planning for the optimum use of logistic resources transcends the services and may go against the grain of service preference or position. For example, if the management goal is one item—one manager, to eliminate duplication of stockages, or if the goal is depot consolidation and service access on a proximity rather than an ownership basis, it is too much to expect that substantial progress can be made without strong direction from the Secretary of Defense.

At our 1968 hearings, the subcommittee was told by Thomas D. Morris, then Assistant Secretary of Defense (Installations and Logistics) that the Defense Department was beginning to develop a long-range blueprint for military logistic systems.33

In the first phase, DOD staff wrote a series of concept papers which addressed 20 areas in the logistics field and were circulated to the military services for comment. Brief summaries of the subject matters are presented in appendix 2.

At the 1969 hearings, Assistant Secretary Shillito told the subcommittee: "The actual long-range plan should begin to take shape early next year."34 The need for the long-range plan and for a policy group to direct its development had been affirmed by the services. The Logistics Systems Policy Committee was formally established in early 1970.35 Its charter prescribes the Logplan as a defensewide, long-range improvement plan for logistics systems development to complement the force structure plan which is on a 5-year basis. The directive sets forth:

** As a master plan for DOD logistics systems, the Logplan will be a documented collection of logistics concepts, objectives, and subordinate plans designed to achieve the following objectives:

1. Provide a continuing approach to logistics system development.
2. Communicate joint understanding of DOD logistics system objectives.
3. Promote optimum interchange of system design knowledge and techniques at all levels of DOD.

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33 1968 hearings, p. 277.
34 1969 hearings, p. 56.
4. Assure the highest practical level of systems compatibility, interface, and integration consistent with DOD requirements and mission needs of the separate DOD components.

Mr. Shillito chairs the Logistics Systems Policy Committee, which includes the materiel secretaries and the Deputy Chiefs of Staff for Logistics of the military departments. The Marine Corps, Joint Chiefs of Staff, and Defense Supply Agency also are represented. The committee held its first meeting on January 7, 1970, and conducts monthly meetings. Task groups have been started.

Task group 1-70, under Air Force chairmanship, will direct attention to continued development and control of the Logplan and the emerging logistics systems through 1980. Task group 2-70, chaired by the Army, will examine subsistence in the services to determine the optimum management structure. Task group 3-70, chaired by the Navy, will be concerned with developing a standard method for documenting automated logistics systems within the Defense Establishment. Task group 4-70, chaired by the Air Force, will examine telecommunications and ADP planning in relationship to Defense logistics systems. At the time of the August 1970 hearings, a charter was being developed for task group 5-70 to review Defense warehousing and depot structures, and other tasks were being assigned. Mr. Shillito also said, as noted earlier, that the Logistics Systems Policy Committee would spend a significant amount of time considering the Benson board recommendations and monitoring the implementation of those which were accepted. 99

The development of a logistics planning approach is a step toward recognition of the crucial role of logistics in military operations and in achieving efficiencies and economies. This is a vast raw field for management innovation, procedural improvements, and resource conservation.

In the past, many studies have been completed, many problems identified, and many experimental projects undertaken in the logistics area. They have suffered from lack of central direction and integration or resistance on the part of the services. The Logplan will have an advantage lacking in earlier long-range plans in that it was developed in conjunction with the military services and presumably will reflect their thinking and, to a large extent, their acceptance. Lack of followup action in earlier efforts, such as the RAMMS study, had been attributed to the fact that a plan cannot be imposed on the services. The present Logplan has been slow in gestation and subject to much discussion. The committee expects that from here on, Logplan will become an action plan as well as a study plan.

9. TRANSFER OF ASSETS TO SOUTH VIETNAM

The gradual withdrawal of U.S. forces, in keeping with the Vietnamization process, will require the transfer of considerable assets to the South Vietnamese forces. The committee is concerned that transfer be made in an orderly and effective manner, with due regard to the needs and management capacities of the South Vietnamese and the redistribution of movable excesses or other supplies to U.S.

forces elsewhere. It would be mistaken and wasteful, on the one hand, 
to hand over supplies and equipment which the South Vietnamese 
are not trained or prepared to use effectively; on the other hand, to 
withdraw supplies and equipment which have to be moved back in  
a relatively short time to serve the Vietnamization effort.

The subcommittee inquired about this matter at the recent hear­
ings. Assistant Secretary Shillito said the United States has “a 
very substantial program” to improve and modernize the Republic 
of Vietnam’s Armed Forces (RVNAF).97 Planned rates of logistic 
self-sufficiency have been established in such areas as installations, 
communications, supply, maintenance, and transportation, and prog­
ress is to be measured by matching actual accomplishments against 
the schedules.

Gathering the necessary information is a complex process. More 
than 140 American complexes are being inventoried as a basis for 
planning the disposition of installations and facilities. Reports on 
supplies and equipment are developed to determine the appropriate 
equipment allocations between RVNAF and remaining U.S. forces 
and removal of unneeded resources.

General Heiser reported that since the Vietnamization program 
began in 1967, the South Vietnamese Army (ARVN) has received 
more than 800,000 small arms and crew-served weapons, more than 
1,000 artillery pieces and tanks, more than 25,000 wheeled vehicles, 
and more than 30,000 tactical radios, plus various other equipments 
to improve and modernize its forces. Vietnamese personnel are 
trained to operate and maintain the equipment by schooling in the 
United States and through Project Buddy, wherein United States 
and ARVN soldiers work together. More than 2,000 ARVN soldiers 
have been trained in Project Buddy and the program is being in­
creased, according to General Heiser.98

As U.S. units withdraw, fire support bases and other facilities are 
being turned over to the RVNAF. They also receive major items of 
equipment left by the U.S. forces. Efforts are made to turn over equip­
ment which is in good operating condition and therefore will not re­
quire extensive maintenance. A U.S. Army maintenance facility in 
Vietnam supervises the redistribution of equipment. At the same time, 
RVNAF capability to repair equipment is being developed.

As it was explained to the subcommittee, the 2d Logistical Com­
mand at Okinawa, which has many long-supply items retrograded 
from Vietnam, is the primary source for supplying the RVNAF with 
secondary items such as spare parts and consumables. Requisitions go 
from the Vietnamese-based depots to the 2d Log. If the records show 
the stocks not available, other commands in the Pacific are circularized 
before requisitions are forwarded to the United States.99

Although the subcommittee was assured that the necessary steps 
were being taken to prepare the Vietnamese for assuming logistics 
responsibilities, and that the whole matter was receiving high-level 
attention, we must observe that the U.S. role in Vietnam has not been 
a model for care and conservation of resources. Unusual efforts are in 
order to avoid dissipation and waste of valuable assets.

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99 1970 hearings, p. 156.
In this connection, the committee endorses the Besson Board finding that close integration, noticeably absent, between military and civil assistance to South Vietnam, should be brought about in the interests of better use of resources. The problem goes back to the beginning of our Vietnam involvement, when military and civil agencies of the U.S. Government were uncoordinated and therefore the problems such as port congestion were greatly compounded. In mid-1966, for example, 60 percent of the cargo arriving at Saigon carried manifests to civilian rather than military consignees.

Looking to the immediate future, the Besson Board points out that some U.S. military assets in Vietnam may be more appropriately turned over to the Vietnamese Government for nation building rather than to the armed forces. If supplies and facilities on hand can be utilized instead of new AID shipments and new construction, substantial savings will be realized. Lack of coordination in the past has been costly, and the lessons ought to be applied in a forthright way by high-level coordination in Washington as well as in South Vietnam between the U.S. military and civilian agencies.

APPENDIXES

APPENDIX 1.—STATEMENT OF GEN. FRANK S. BESSON, JR., U.S. ARMY, BEFORE THE MILITARY OPERATIONS SUBCOMMITTEE, AUGUST 4, 1970

This morning, I will first briefly describe the organization of the JLRB report and then highlight a few of the most significant findings.

ORGANIZATION OF REPORT

The report consists of four principal elements with a total of 21 separate documents. Volume I, the Executive summary, contains 15 major findings relating to some basic principles of logistics. Volume I also includes the more significant recommendations associated with these findings.

Volume II presents a rather comprehensive history of logistic support during the Vietnam era. It contains five major chapters, titled:

"The Environment."
"The Logistic Posture."
"The Logistics System and Responsibilities."
"Logistic Responses in Southeast Asia."
"Impact of the Vietnam Conflict on Readiness in Other Areas of the World."

Eighteen monographs contain in-depth reviews and analyses together with the recommendations developed in the functional and commodity areas studied by the board. These monographs are listed in the handout. Each monograph has been bound separately to facilitate its use by specialists in the individual areas.

The summary chapters of the 18 monographs are collected in volume III to provide a road map to the more lengthy monographs. Volume III also contains, in an appendix, all of the 261 recommendations developed by the board.

These recommendations cover a wide range of subjects. Some are designed to improve responsiveness of logistic operations but most are centered on ways to increase efficiency and economy. From the standpoint of the combat soldier, logistic operations in support of combat in Southeast Asia were extremely effective—but equal or better support could have been rendered at less cost.

REDUCED REQUIREMENTS FOR IN-COUNTRY LOGISTIC RESOURCES

The root causes for logistical inefficiencies in Vietnam were: First—the need to conduct complex operations with limited, and in some cases, nonexistent facilities. Second—inadequate number of trained supply, maintenance, and transportation units and personnel.
Although some steps can be taken to improve the situation in logistic resources, the hard fact is that logistical resources will always be overtaxed. The board devoted particular attention, therefore, toward reducing requirements for logistic support without impairing the effectiveness of support to combat units. There are clear indications that logistical requirements can be substantially reduced and that, concurrently, the effectiveness of support can be maintained and even improved.

The key to reduction of requirements for logistics resources in-theater is to reduce the indirect labor and facility requirements associated with what might be called the direct requirements to feed, supply, house, and otherwise provide essentials to combat units. Briefly stated, the objective should be "Don't do anything near combat that can be done in a safe, sophisticated area"; or, paraphrased, "Spend the logistic dollar outside the combat area."

One of the most important steps toward minimizing in-country logistic resources is reduction in the range and depth of items stocked in the overseas area. It is obvious that the less there is to manage, the better the efficiency should be.

In the fall of 1966, the Army stock list in Vietnam contained nearly 200,000 line items. Effective management of a stockage list this size with limited resources is nearly impossible. Stocking 200,000 lines generates a large requirement for storage facilities and for data processing capability, creates a huge workload in handling changes in the stockage list, and eventually causes an inaccurate data base because of the difficulty in identifying supplies and in keeping accurate locator records. The end result is saturation of the overseas supply system so that even high demand items cannot be managed effectively.

In a 1st LOG Command summary, the JLRB noted that 5,000 items on the theater authorized stockage list (TASL) accommodated 50 percent of the annual demands. This led to a detailed examination of a typical supply support operation.

**USAREUR DEMAND DATA**

There data were drawn from a study made of U.S. Army demand history for spare parts in Europe where the data were more available and more reliable than could be obtained from Vietnam.

During the data base year, 177,000 different FSN's were demanded at least once and 34,500 tons of supply were required to fill these demands. The question is "What proportion of these items should be stocked in the theater?"

The JLRB prepared analyses that correlated, by means of various computer runs, stockage lists, demands and ability to fill customer's requisitions. One reasonable solution suggested is shown by the following: 20,000 lines will satisfy 65 percent of all requisitions and should be stocked in the theater. These 20,000 lines generate 83 percent of the annual tonnage; 2,200 of these lines, or 11 percent of total demanded, generate 75 percent of the tonnage and should move by surface unless they are high value items.

In suggesting that 25 percent of the tonnage moved by air, it is to be noted that this stockage list discussion refers only to spare parts. The
great bulk of other supplies, i.e., food, POL and ammunition, will be moved almost wholly by surface. Almost all the remaining 17,900 lines on the stockage list and the 157,000 lines that are not stocked should be moved either by air or by parcel post.

STORAGE POLICY—CONCLUSIONS

These data suggest that only truly high demand items should be stocked in overseas areas. Air transportation and parcel post should be relied upon for all infrequently demanded items except those patiently not suitable because of size or weight. Of course, airlift should continue to be used for high dollar and high priority items.

Service decisions to reduce stockage in overseas areas will result in important savings in ADPS, manpower and facilities. We hope that the Board's findings and recommendations in the area of range and depth of stockage overseas will give additional impetus to efforts and studies the services already have underway in the field.

CONTAINERIZATION IN VIETNAM ERA

Containerization will also make a significant contribution to the reduction of in-country logistics workload.

Containerization has already created a revolution in commercial shipping where operators have recently invested several billion dollars in container ships and supporting facilities to reap the significant benefits of increased mechanization. There is also active interest in containers in air transport with the civilian industry forecasting that 80 percent of all airfreight will move in containers by the mid-seventies.

On the military side, at the beginning of the Vietnam buildup, the Army and the Air Force jointly owned an inventory of almost 100,000 CONEX containers. By 1968 the inventory in Vietnam exceeded 150,000 of the total 200,000 units then owned by the two-services. These units in-country provided about 6 million square feet of covered storage compared with the total of about 11 million square feet constructed in the entire theater by the middle of calendar year 1969. CONEX's also provided interim facilities for a wide variety of other functions.

In 1966, some 437 CONEX containers and 70 military van semi-trailers were used to create a prepackaged depot (binned and documented in the CONUS), to provide an initial 60-day stockage level of repair parts at Cam Ranh Bay. It is impressive to note that during the first 10 days of operation, 13,538 material release orders were issued with only 26 warehouse denials—a denial rate of less than two-tenths of 1 percent.

Contractual containership support to military operations was introduced to the Pacific in 1966, first to Okinawa, then to the Navy at Subic Bay, and finally, in 1967, into Vietnam.

In January 1970, a self-sustaining containership was used in a test to move 226 containers of ammunition from the United States to Cam Ranh Bay. Some containers were moved by lighterage to Quy Nhon and then into the interior to Ahn Ke, Pleiku, and forward. The test
went so well that the 1st LOG Command recommended the initiation of regularly scheduled ammunition resupply in containerships to reduce order and ship time with attendant savings in pipeline inventory and also stated that provision of this service would result in phasing down the ammo depot at Qui Nhon.

POTENTIAL SAVINGS WITH CONTAINERIZATION IN VIETNAM

A study made under contract to the JLRB estimated the savings which would have resulted if the principle of maximum use of containerization had been possible in Vietnam. The results are shown on this chart. Although the board did not necessarily completely endorse all assumptions and cost factors, it did generally agree that the figures shown are of the right magnitude—over $94 billion. The computations reflect both equipment amortizations and profit elements and represent net savings without considerations of additional, extremely substantial cost benefits attributable to reductions in loss, damage and theft and to better management.

(The chart referred to follows:)

Potential savings with containerization in Vietnam

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<th>Recurring costs (could have been saved 1965-68)</th>
<th>Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipments (including port handling)</td>
<td>$345</td>
</tr>
<tr>
<td>Depot cargo handling</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total recurring</strong></td>
<td><strong>354</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost avoidance (1-time savings)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipeline reduction (1968 level)</td>
<td>147</td>
</tr>
<tr>
<td>Port facilities</td>
<td>181</td>
</tr>
<tr>
<td>Ship delay billings</td>
<td>90</td>
</tr>
<tr>
<td>Covered storage</td>
<td>87</td>
</tr>
<tr>
<td>Refrigerated storage</td>
<td>23</td>
</tr>
<tr>
<td><strong>Total cost avoidance</strong></td>
<td><strong>528</strong></td>
</tr>
<tr>
<td><strong>Grand total</strong></td>
<td><strong>882</strong></td>
</tr>
</tbody>
</table>

"Everything that fits in a container should move in a container."

CONTAINERIZATION

In the support phase of contingency operations, 80 percent of resupply tonnage will fit in a standard 8x8x20 container. Most of the major logistic problems encountered in Vietnam could have been significantly alleviated by proper systems applications of containerization. For example:

**Inadequate port capabilities.**—Containerships can be discharged seven to 10 times faster than break-bulk ships with fewer personnel on each shift.

**Lack of storage facilities.**—Containers provide immediate covered storage, thereby reducing the requirement for construction of facilities during the critical buildup period.

**Poor identification of supplies.**—The Cam Ranh Bay operation proved that cards prepunched in the United States covering the content of the container can speed up the documentation of assets and reduce errors of inventory and locator records.
Loss and damage of supplies.—All recipients of containerized cargo were enthusiastic about reduction of loss, theft, and damage, particularly for ammunition, perishable cargo, and PX supplies.

Excess echelons of stocks.—Containerization offers real opportunity for direct delivery support from supplier in the CONUS to customer in the overseas areas—particularly for high and stable demands like food, ammo, and packaged POL.

FUTURE DEVELOPMENT OF CONTAINERIZATION

Containers cannot be considered just another means of transportation. The full benefits of containerization can only be derived from logistic systems designed with full use of containers in mind.

The logistic systems must provide for the integration of supply, transportation, and documentation with definition of associated ADPS support and management controls. Standard operating procedures must be devised and requirements established for Government-owned or leased containers (for retention in-theater), for special equipment, and for modifications to military terminals.

The compelling force behind development of containerization must be the logistic users of containers rather than the transportation operators.

Container oriented logistic support systems can be broken down into two basic subsystems—those subsystems that rely on land-water-land movement of containers and those on land-air-land movement of containers. The military efforts toward systems developed should, like those in the commercial world, focus on these two subsystems. Since the Army sponsors two-thirds of the cargo moving overseas by surface means, operates ocean terminals in both United States and overseas, and must clear cargo from those ports, it has predominate interest in the land-water-land subsystem. It would be logical therefore to task the Army to lead a jointly staffed effort to develop the land-water-land subsystem of container-oriented logistics. A similar logic indicates that the Air Force should lead a jointly staffed effort in developing the land-air-land subsystem.

OTHER ACTIONS TO REDUCE THEATER LOGISTIC WORKLOAD

Other major actions that will contribute to reduction of in-theater logistic workload are:

Early introduction of transportable ADPE.

Maximizing the use of preengineered and prefabricated structures.

Changing theater maintenance philosophy from “as far forward as possible” to “as far to the rear as practical.”

EXCESSES

Next I would like to say a few words about excesses and about common supply.

An accurate determination of Vietnam excesses proved difficult to develop. Records on excesses were poor until 1967. The services used
different criteria for determining excesses. Changing deployment and operating patterns further clouded the picture.

The JLRB asked each service to provide a best estimate of the total value of excess materiel and equipment shipped into Vietnam or into other Pacific bases for support of operations in Vietnam. It should be emphasized that the excesses defined in this way are not necessarily excess to the worldwide requirements of the reporting service or of DOD. A large share of the excesses generated in Vietnam and other Pacific areas, for example, were subsequently utilized within the Department of Defense.

There are two general categories of military excess: Unavoidable and avoidable. Unavoidable excesses include those caused by changes in plans, policies, combat operations and equipment.

The JLRB established three major causes of avoidable excesses in Vietnam. They are:

First. The lack of a sufficient logistical base during the buildup was the root cause of excesses.

Second. The lack of control over the movement of supplies into Vietnam during the buildup phase (1955 through 1966) was the prime immediate cause of excesses. The large volume of supplies moved into Vietnam during this period inundated the inadequate receipt, storage, identification, and documentation capabilities and were manifested by congestion of port and depot facilities.

Third. The uncontrolled shipment of supplies coupled with the lack of adequate logistical base, led to breakdowns in supply system procedures. The time required to requisition and receive materiel was lengthened. Countless items were requisitioned several times and many requisitions were given higher priority to demand air delivery. The subsequent shipment of the repetitively requisitioned supplies placed an added burden on the already overtaxed logistic capability.

Push packages have been highlighted as being a major cause of excesses, but push packages were really only one means of providing initial stockage before demand data existed. When major forces are first committed to combat no demand data exists. Initial supply shipments must be either pushed or pulled into the theater, based on planning factors, often obsolete or on pure "guesstimates." In estimating requirements for combat support, it is normal to err on the side of having too much rather than too little. Undoubtedly, push packages contributed to excesses, but, since push packages were stopped in July 1966, and amounted to only 25 percent of all tonnage shipped in the previous 12 months, it is clear that push packages were not a major cause of excesses.

EXCESSES (RECOMMENDATIONS)

While most JLRB recommendations aimed at improved efficiency and effectiveness will serve to reduce excesses in future contingencies, those which will have most significant impact are:

(1) Regulating the input of cargo to that within a reasonable reception capability.

(2) Early introduction of transportable ADPE adequate for effective supply management.
(3) Providing prefabricated functional base components that will expedite provision of the parts and warehouses essential to efficient supply operations.

(4) Minimizing requirements for maintenance in the theater by adopting concepts of modular replacement and revising the philosophy of maintenance "as far forward as practicable."

(5) Exploiting containerization.

(6) Reducing the range and depth of theater stocks.

It is noteworthy that five of these recommendations which will help to reduce excesses cover the same actions designed to reduce the requirement for logistic resources in the combat area.

**COMMON SUPPLY OVERSEAS**

Common supply support worked well in Vietnam for subsistence and selected items of packaged and bulk POL, but was generally unsatisfactory for the limited number of other items to which it was applied. These other items were not critical and they represented a relatively insignificant part of each service's supply support requirements. In the absence of command attention, common supply for these items was not forced to work. Vietnam experience established, therefore, that for selected items with proper planning and authoritative execution common supply support provides an effective means of providing economical logistics support.

Before addressing how concepts of common supply should be applied in overseas theaters, it is desirable to take a look at single manager items, for these are the items which are generally considered eligible for common supply. By far, the great majority of these items are assigned to DSA—some 1.9 million FSN’s as compared to 58,000 vehicular parts assigned to the Army's Tank Automotive Command and 69,000 items managed by GSA. Of particular importance is the fact that over 70 percent of the items managed by DSA are used by only one service. While it is certain that the percent of commonality will increase as DSA files are purified to eliminate inactive items, and cross referenced to increase substitutability, the problem of lack of commonality is a real one. For example, of the roughly 80,000 integrated items stocked on Guam by the Navy and Air Force, only 8.7 percent are used by both services and of the 240,000 FSN’s stocked by the Army, Navy, and Air Force in Japan, only 11.1 percent are used by two or more services.

It seems to the Board that the major advantages in common supply will accrue from applying the concept to items that are actually in common use and that putting the remaining integrated manager items under the same system will introduce more new problems than provide solutions to old ones.

**COMMON SUPPLY OVERSEAS—JLBB FINDING**

The Board believes the case is clear for common supply in overseas areas for high usage, stable, predictable demand items like food, ammunition, and selected items of construction materials, and of bulk and packaged POL.
On the other hand, the Board believes that items used only by one service should normally be supported through service channels from the theater to the single manager inventory control centers in the CONUS. Low demand items, even though used by two or more services, should not, in the Board's opinion, be stocked in the theater either under common supply or otherwise.

The Board knows that there are those who believe that all single manager items should be requisitioned through a single source in the combat theater. The Board urges extreme caution before plunging into the full range of integrated items in such a decision. Applying common supply will tend to complicate in-theater supply channels with few, if any, demonstrable benefits and will serve to counter the Board's emphasis on simplification and reduction of logistics workload in the combat area. The foregoing is in no way an attack on single manager responsibilities in the CONUS. These operations have proved effective and efficient.

JLRB FINDINGS

So far, I have discussed four of the 15 JLRB major findings developed in volume I, that is those related to reduction of logistic workload to containerization, to excesses and to common supply. I will now briefly summarize the other 11 major findings.

RESPONSIVE LOGISTIC PLANNING

The Board found the planning system overloaded and confused by lack of commonality in addressing war reserves. The results were serious gaps in the planning cycle, failure to identify critical war reserves, and destruction of credibility for war reserves by computation of requirements for an unreasonably large range of items.

The Board recommendations expand on the current JCS effort to stratify and simplify the planning effort, provide a suggested uniform stratification of war reserves, and suggest a procedure to establish credible hard core war reserve requirements.

EARLY MANAGEMENT CAPABILITY

The Army developed its logistic command structure in Vietnam on a piecemeal basis and from the bottom up—responding to problems rather than providing the executive leadership capable of anticipating problems. A top-level logistician with broad experience in the support of large-scale operations should have been assigned to the MACV staff in the early planning phase and should have been outside at the beginning of the buildup. He should have had sufficient rank and nucleus staff to ensure authoritative and competent control over support operations until the situation stabilized.

In brief, logistical operations deserve the best possible management and continuity from the outset and preferably before the beginning of a major contingency.

FORCE STRUCTURE

During peacetime, emphasis is placed on maintenance of combat and combat support units without adequate logistic support units and
trained technical personnel. As a consequence, when contingency operations are undertaken without the callup of reserves, serious deficiencies may be expected. Alternatives, to include insuring the adequate training and rotational base, must be developed to enhance our capability to respond promptly to limited wars without mobilization.

TRANSPORTATION

An adequate transportation capability balanced between sealift and airlift is essential to deployment and support of forces overseas. The bulk of material must be transported by surface means—and an adequate responsive capability must be in-being. Such a capability is dependent on a modernized MSTS nucleus fleet backed by access to the resources of an equally modern U.S. merchant marine. Non-self-sustaining container ships in the U.S. merchant marine should include as Defense funded features, ability to accommodate conversion to self-sustaining status.

Even though the primary reliance for movement of large tonnages will continue to be placed on sealift, the services must be prepared for increased capability in air transport. Airlift has already proven its value for movement of high value, critically needed items. With the increased capability of the C-5, it will become even more valuable if properly utilized to reduce the requirement for in-theater logistics resources.

FOREIGN ASSISTANCE

During 1966, when the port of Saigon was grossly overloaded, 2.3 million short tons of AID/Commercial Cargo were discharged compared with 1.7 million tons of military cargo. There was inadequate coordination between these programs. It is clear that U.S. foreign assistance activities require coordination with military operations at the interdepartmental level during planning for and execution of military contingency operations. During the planning progress, it is especially important to define clearly the responsibilities for and the relationships between military and civilian activities.

POL

POL supply was always adequate, but there were many administrative, accounting and contractual problems—most of which resulted from ambiguities in assignment of responsibilities. Three steps should be taken to clarify responsibilities.

DSA's worldwide responsibility for and surveillance over contracts for supply of POL must be made clear and definite.

DSA should provide field assistance teams to routinely survey petroleum operations in order to identify potential POL problems and advise on corrective actions.

Finally, there is a need to reestablish the joint petroleum committee under the JCS to insure prompt resolution of interservice problems.

ADPS AND COMMUNICATIONS

Modern logistic management systems are becoming increasingly automated and dependent on high-speed, reliable communications.
Contingency plan logistic annexes must be explicit as to ADPS and communications needs and provide for the early deployment of transportable, modular-type equipment into the combat area.

ADPS systems must include proven, fully operational programs and adequately trained personnel.

Communication networks must be designed to take maximum advantage of the worldwide Autodin system.

AMMUNITION

While no insurmountable problems resulted from the existing ammunition procurement assignments, the Board noted that the Navy produces most of its conventional bomb requirements whereas the Army produces conventional bombs for the Air Force and some fuzes for the Navy. It appeared evident to the JLRB that single service assignments for procurement and production of common and closely related munitions would result in increased efficiency.

The Board recommended that the Army's mission to produce conventional bombs for the Air Force be transferred to the Navy with appropriate readjustments in facilities and personnel. The Board also recommended study of other munitions to determine possibilities for consolidation of production responsibilities with particular attention to:

- Incendiary bombs.
- Projectile fuzes.
- Small arms ammunition.

CONSTRUCTION

Military operations in any underdeveloped country will generate large requirements for construction. These requirements must be anticipated, and early and specific provision made for centralized coordination and control.

Present military construction programming and funding procedures are not appropriate for wartime construction in a theater of operations. A completely new programming and funding procedure is needed to improve responsiveness, flexibility, visibility, and discipline, with requirements submitted on a gross basis.

A significant contribution to construction flexibility and to reduction in resources are available by exploiting prepackaged and functional component systems.

The JLRB heartily endorses the concept of the Joint Construction Board established a year ago under the JCS. The responsibilities of the Construction Board should, however, be expanded and the Board should be staffed with full time personnel. This is the one area where the Board was not unanimous. A minority of the JLRB withheld their support from a recommendation that these responsibilities include the monitoring of the status of actions taken to improve readiness.

JOINT LOGISTIC RESPONSIBILITIES

Although the basic responsibility for the support and maintenance of forces must remain with the services, unified commands must plan
for and be staffed for active involvement, when required, in the multi-service aspects of transportation and movement control, construction, ammunition and petroleum resupply, communications, and control of critical items.

History clearly establishes that logistic resources will seldom satisfy requirements. It is essential then that procedures and movement control organizations be established and in the command which can or need control the flow of material into an area of operations at a level commensurate with area throughout capability, lift capabilities, and command requirements. The unified command must also be prepared to establish priorities and otherwise control and direct as necessary whenever there is an unresolved interface between the logistic operations of the services.
APPENDIX 2.—SUMMARY OF CONCEPT PAPERS FOR "LOGISTICS SYSTEM BLUEPRINT" STUDY, AUGUST 1969

CONCEPT PAPER I, THE DOD LOGISTICS SYSTEMS BLUEPRINT

This paper provides a proposed methodology for the development, approval, documentation, management, and control of a formalized and open-ended DOD-wide logistics systems improvement plan. The paper gives an overview of the organizational entities, their composition and responsibilities, the management processes and the documentation requirements envisioned in the long-range planning effort.

CONCEPT PAPER II, THE ONE ITEM/ONE FIIN/ONE MANAGER CONCEPT

This concept is aimed at minimizing duplication of management resource investment and promoting more effective and economical logistics support through the: Assignment of one and only one Federal item identification number to each different item of supply; assignment of inventory management responsibility to one and only one organizational entity for any item of supply where feasible, and establishment of effective criteria governing assignments of management responsibility. The concept is consistent with and supports the Federal cataloging program, the Department of Defense/Federal concept of optimum integrated management, and the objective of providing inventory managers with a depth of visibility and a capability for worldwide control of inventories.

CONCEPT PAPER III, WORLDWIDE INVENTORY MANAGEMENT

The purpose of this concept is to improve inventory manager (IM) visibility and control of systemwide stocks. This would reduce management redundancy, minimize stock levels, and reduce inventory pipelines. The goals are to: Extend IM visibility worldwide for primary items and secondary items where economically feasible; expand the role of the IM and permit better use of additional item information; separate the management need to collocate ownership of system stocks with physical stock control. This would permit IM's to make more automatic stock pre-positioning and redistribution.

CONCEPT PAPER IV, ITEM CATEGORIZATION FOR DECISIONMAKING Routines

This paper discusses a concept directed to the development of standard categories of items to be applied to basic materiel management automated decisionmaking routines. The goal to be attained, through development of this concept, is the grouping of items in terms of decisionmaking routines that will be used to manage the items. The categories developed to achieve this goal will be standard throughout DOD. Provisions will be made, however, for multiple coding struc-
tures to allow individual managers to subject their items to the decision rules of more than one category—that is, identification to the appropriate decisionmaking routine for the particular logistics function being processed.

CONCEPT PAPER V, UNIFORM DOD MATERIAL DISTRIBUTION SYSTEM

This concept aims at the development of standard criteria and procedures for making, communicating, executing, reporting, and monitoring material distribution decisions throughout DOD from the time material is procured until it is consumed. Initial emphasis will be toward providing a common decision base for answering such questions as: (a) Where should material be positioned? (b) What levels of supply should be established? (c) How would these levels be maintained and replenished? (d) What form of material management will provide adequate control at each storage site? The concept envisions distribution systems designed to maximize source-to-user economies, incorporating the capability to position material as near to the point of anticipated usage as possible, or, when lacking persuasive evidence as to the point of ultimate use, at the stock point nearest to the point of production, procurement, or transshipment.

CONCEPT PAPER VI, COMMON SERVICE USE OF DOD WAREHOUSE RESOURCES

This concept will enable an inventory manager to position assets at major DOD warehouses irrespective of warehouse ownership or operation and to supply customers for his items from designated warehouses without regard to the service of the customer or the warehouse.

CONCEPT PAPER VII, UNIFORM EMPLOYMENT OF THE STOCK FUND CONCEPT IN DOD

Under this concept item managers (IM) would own within one stock fund division all distribution system stocks from the point of purchase to the last point of storage prior to issue for consumption. Under such a concept the IM would buy from industry, position stock wherever justified by geographical demand concentrations (CONUS or overseas) and issue directly to consumers for reimbursement from operational funds. With items of supply managed vertically by single responsible IMs, as envisioned under this concept, only one buy and one sale stock fund transaction would be incurred as materiel moves from source to user.

CONCEPT PAPER VIII, UNIFORM BUDGETING AND FUNDING FOR DEFENSE EXPENSE-TYPE MATERIEL

Under this concept a uniform system of budgeting and funding for Defense expense-type materiel will be developed to support other DOD logistics systems blueprint objectives, overcome deficiencies in the current system and eliminate the burden of fiscal responsibility from units in a combat theater. Current budgeting procedures and alternative approaches including cash apportionment, total investment apportionment and approval of a supply program will be examined.
Desired characteristics of the uniform system include provisions for controls to take effect before obligations have been incurred, and provisions for automatic adjustments by stock fund managers provided that agreed relationships, standards and ratios are maintained.

**CONCEPT PAPER IX, SYSTEM FOR LOGISTICS SUPPORT OF WEAPONS SYSTEMS**

This concept proposes a compatible and interfaced DOD-wide logistics system to support major weapons and equipments. The objectives are to provide improved implementation of DOD Directive 4100.35 (integrated logistics support); to develop a DOD-wide capability for the military services to perform alternately as a single DOD weapons manager or as a multiservice user without major management system changes; to develop a Defense-wide capability to store and feedback weapon performance information into new weapon design. Standard procedures, formats and data elements would be developed between the logistics managers of the military services and agencies.

**CONCEPT PAPER X, CONSUMER LEVEL SYSTEMS**

The basic aim of this paper is to foster recognition of the impact of the DOD logistics systems blueprint upon the customer. The paper discusses the evolution of the blueprint into a DOD-wide, long-range improvement plan encompassing the full range of logistics systems planning. Recognition of the scope of this effort requires: early, indepth participation by system planners/designers at all levels of management; determination of the need for compatibility/interface/integration between consumer level and inventory manager levels; and, assuring consistency of consumer level systems development actions with blueprint objectives.

**CONCEPT PAPER XI, SUBSISTENCE SYSTEM**

The concept and its attendant organizational revisions are designated to bring together the various subsistence elements in order to provide a unified supply and service system from procurement to consumption. The major objectives of the concept are (1) to optimize integrated management throughout the Department of Defense, and (2) provide for the positioning of materiel at the point of use independent of ultimate ownership considerations. The proposed system specifically would provide the following: (a) standardization of subsistence items; (b) a more accurate base for predicting requirements; (c) more accurate and timely data; (d) availability of subsistence items; (e) a management information system to assist in controlling the food service/subsistence program; and (f) a management system which will realize the efficiencies and economics to be brought about through consolidation, centralization, and standardization.

**CONCEPT PAPER XII, MAINTENANCE MANAGEMENT (TO BE DEVELOPED)**

This paper will include concepts concerned with the future of—

(1) The relationship of maintenance to other areas of logistics management.
(2) Interservice maintenance support.
(3) Maintenance data collection and utilization systems.
(4) Contractor support.

CONCEPT PAPER XIII, NON-STOCK-FUND ITEM MANAGEMENT
(TO BE DEVELOPED)

This paper will complement concept paper VII, uniform employment of the stock fund concept in DOD. It will discuss; (1) criteria for exempting items from stock fund management; (2) methods of accounting for and controlling inventories throughout the logistics systems.

CONCEPT PAPER XIV, PROCUREMENT (TO BE DEVELOPED)

This paper will present concepts related to both acquisition and contract administration. Special attention will be given to potential long-range benefits of increased automation and improved information flows between procurement and other areas of logistics management. This paper will also examine techniques for improving the timeliness, accuracy, and overall effectiveness of the procurement function's performance measures.

CONCEPT PAPER XV, OPTIMUM USE OF DOD DATA BANKS

This concept would develop the broad DOD-wide guidance and programming necessary to properly use data bank technology within the military services and defense agencies. The objective would be to develop a DOD long-range plan to identify and guide the development of new defense logistics data bank efforts and to outline DOD needs for developing improved data bank tools and techniques. Data banks show unified data files being time shared by widely separated, multiple organizations are relatively new business management concepts and along with third generation computers, high-speed communications and planned new software capabilities they offer new logistics systems economies that must be explored and programmed into the DOD.

CONCEPT PAPER XVI, COMPUTER SUPPORT OF DOD LOGISTICS-SYSTEMS

Automated systems based on adequate, responsive and cost-effective computer support form the foundation of the blueprint. This concept aims at advancing the state of computer hardware and software in directions and speeds that will yield the greatest advantage to logistics systems by identifying, developing, and promulgating guidelines for the selection, acquisition and use of hardware and software systems.

CONCEPT PAPER XVII, TELECOMMUNICATION SUPPORT OF DOD LOGISTICS SYSTEM

The purpose of this concept is to insure that telecommunications capabilities are included as an integral part of logistics system design and development. They must be developed concurrently and in-phase with other elements such as computer processing, facilities and training. The goals are to: develop DOD criteria/procedures to insure communications capabilities and limitations are properly considered in
logistics systems design; develop improved procedures to forecast communication requirements; and, develop communication procedures to insure high priority logistics traffic will receive the necessary communications priorities during periods of military emergencies and communications overloads.

CONCEPT PAPER XVIII, THE ROLE OF SERVICE FOCAL POINT ORGANIZATIONS IN THE CATALOGING ENVIRONMENT

This concept addresses the need to evaluate the role of service focal point organizations/programs in the cataloging environment with a view toward determining the optimum role of organizational entities engaged in the collection, maintenance, and distribution of Defense Integrated Data System-type logistics management data. It is the intent of this concept to focus on immediate considerations because of changes currently underway in this area. The related concept paper titled, “Optimum Use of DOD Data Banks” will consider all data banks in DOD with a view toward optimization in the long-range time frame.

CONCEPT PAPER XIX, A DOD-WIDE LOGISTICS MANAGEMENT INFORMATION SYSTEM

The DOD-wide Logistics Management Information System (LOGMIS) encompasses the formal systematized process: (a) for identifying, collecting and storing data; (b) for generating and accessing information from this data for use in evaluating the effectiveness and efficiency of operations; (c) for use in making management decisions. This concept paper proposes to improve the content, mechanics and products for the LOGMIS through greater standardization and compatibility, increased automation and systemwide control. The resulting system will permit a freer, more responsive flow of information to all levels of management.

CONCEPT PAPER XX, LOGISTICS DATA ELEMENT STANDARDIZATION AND MANAGEMENT

The intent of this concept would be to accelerate the current DOD program for standardizing logistics data elements and codes and establish a common base of standard data elements used in DOD logistics systems. DOD-wide standardization actions would be performed in data element management focal points. The objectives would be to: minimize unnecessary data vocabulary variations; exercise improved management control over logistics data changes and their implementations; and establish a computerized file of standard elements.
Department of Defense:
Hon. Thomas D. Morris, Assistant Secretary of Defense (Installations and Logistics).
Paul H. Riley, Deputy Assistant Secretary of Defense (Supply and Services).

Department of the Army:
Hon. Robert A. Brooks, Assistant Secretary of the Army (Installations and Logistics).
Maj. Gen. Joseph M. Heiser, Jr., Assistant Deputy Chief of Staff, Logistics (Supply and Maintenance).
Brig. Gen. John Klingenhagen, Assistant Deputy Chief of Staff for Logistics (Supply and Maintenance).
Wayne A. Smith, Technical Adviser, ADCSLOG (S. & M.).
John Taylor, Chief, Logistics Doctrine and Systems, DCSLOG.
Col. Anthony Daskevich, Deputy, ADCSLOG (S. & M.) for PURM.
Robert Woodside, Office of Deputy Chief of Staff for Personnel.
Col. Noble E. Taylor, Deputy Chief, Materiel-Movements Division, Director of Army Transportation.
Col. J. E. Humphrey, Chief, ADSAF Management Office, OACSFOR.
Lt. Col. Oscar J. Sanders, Staff Officer, Supply Policy and Procedures Division, Directorate of Supply, ADCSLOG (S. & M.).
J. P. Cribbins, Special Assistant for Logistics Support of Army Aircraft, DSCLOG.
W. C. Murphy, Chief, Field Operating Systems, LDSO.
E. E. Seitz, Chief, National Operating Systems, LDSO.
Joseph C. Zengerle, Director of Materiel Readiness and Support Services, Assistant Secretary of Army (I. & L.).
Sherman M. Meiselman, Chief, Maintenance Program Branch, Director of Maintenance, ADCSLOG.
Department of the Navy:
Rear Adm. Paul F. Cosgrove, Jr., Supply Corps, U.S. Navy
Deputy Commander for Supply Operations, Naval Supply Systems Command.

Department of the Air Force:
Brig. Gen. Augustus Riemondy, Director of Supply and Services,
Deputy Chief of Staff (Supply and Logistics).

Defense Supply Agency:
John C. Rimkus, Assistant Chief, Systems Division, Plans, Programs and Systems Directorate.

General Accounting Office:
J. Kenneth Fasick, Associate Director, Supply Management, Defense Division.
Jerome H. Stolarow, Assistant Director.
Marvin Colbs, Assistant Director.
Felix E. Asby, Assistant Director.
John Landicho, Audit Manager.

1969 HEARINGS

Department of Defense:
Hon. Barry J. Shillito, Assistant Secretary of Defense (Installations and Logistics).
Gen. Frank S. Besson, Jr., U.S. Army, Chairman, Joint Logistics Review Board.
Paul H. Riley, Deputy Assistant Secretary of Defense for Supply, Maintenance, and Services.

Department of the Army:
Hon. J. Ronald Fox, Assistant Secretary of the Army (Installations and Logistics).
Lt. Gen. Joseph M. Heiser, Jr., Deputy Chief of Staff for Logistics.
Joseph C. Zengerle, Jr., Director of Material and Readiness Support Services, Office of the Assistant Secretary of the Army (I. & L.).
Wayne A. Smith, Technical Adviser, ADCSLOG (S. & M.).
General Accounting Office:
Charles M. Bailey, Director, Defense Division.
J. Kenneth Fasick, Associate Director, Defense Division.
Marvin Colbs, Assistant Director.
Paul Schnitzer, Deputy Assistant General Counsel.

1970 HEARINGS

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Paul H. Riley, Deputy Assistant Secretary of Defense (Supply Management and Services).

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Joseph C. Zengerle, Jr., Deputy Director for Supply Maintenance and Transportation, Office of the Assistant Secretary of the Army (I. & L.).
Brig. Gen. Robert L. Fair, Director, Management Information Systems, Office of the Chief of Staff.