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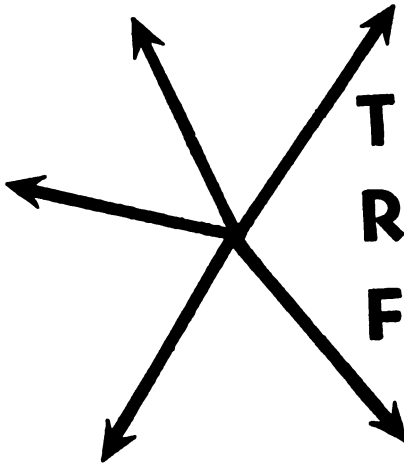
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TRANSPORTATION RESEARCH FORUM

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Role of Containers in Future Logistics Systems

Logistics: n. Military. Business of transporting or quartering troops and supplies. Encyclopedia Britannica.

One of the greatest stimulants in the evolution of mankind over the lesser beasts of this planet has been self preservation. As Homo Sapiens developed into the superior beast, they met their most intelligent foe—themselves. Since that time man has fought wars and maintained military capabilities. The present era contains the largest, most complicated armies ever known. Hannibal's problems at the Alps were a major accomplishment then—daily diet now.

The military logistics system is very similar to the commercial distribution system. The logistics system is a distribution system but with many other responsibilities thrown in for good measure. Because of the duplicate requirements in both systems, both groups can gain through mutual developments. If the transportation medium of both groups are compatible, the savings for both would be substantial.

Since World War II the military has, in many areas, been forced to take the initiative and bear the full cost in developing new means and methods of transportation. The unfortunate part is that the commercial group take the concepts after development and we soon find changes and improvements which create modes no longer compatible with the military.

An excellent example is the military CONEX system. After World War II, the military realized that prepackaged shipments in containers would simplify handling problems and reduce intransit time. The CONEX system has proven the concept. However the CONEX container is obsolete. It now creates a burden on present transportation systems and no longer offers the benefits it was conceived for.

The success of a logistics system lies in having required transport means of type and kind available as, when and where needed. The enormity of such a task appears overwhelming, but then, so does the logistics of General Motors, Ford, Chrysler and many other of our larger manufacturing plants.

The major portion of the supplies required for troop and installation support are standard items such as subsistence, ammunition and POL products. These are standard procurement items, purchased under volume contracts. Procurement and transportation can be programmed months in advance of actual requirements.

*XTRA, Inc.

Using a shipment of ammunition originating at an Ordnance Depot in the midwest, let us compare the present system versus containers. Shipment—160,000 lbs. of small arms ammunition in wooden boxes.

The present system requires two box cars to be made available which would be loaded at the origin depot directly from dump area. The car is then given to the railroad for transportation to POE. At the POE the car is placed on a local siding where the car is unloaded into trucks for pier delivery. At the pier there are at least two handlings before stowage in the vessel. This operation is repeated on the foreign end. The shipment requires 10 handling operations plus the problems of vessel stowage and segregation of the ammunition at destination by type, size and date.

This same shipment could be moved using 4 twenty-foot length containers which would be loaded at the depot and placed on an 85-foot railcar. If the POE does not have rail facilities on the piers there would be three handlings of each container. For a liberal comparison, let us use three handlings in the foreign port also. Delivery to the destination dump would require one handling. The ammunition would already be segregated.

If the POE has rail tracks on the pier, the containers can be lifted directly from the railcar into the vessel. Such facilities are available at most U. S. ports such as Newark and Baltimore.

More important, distribution from the destination dump can be affected by placing the containers on military vehicles eliminating more handlings and reducing time. This recalls many days in Korea watching trucks being loaded using four to six men and thirty to forty-five minutes per vehicle. Also the night runs for the vehicles to the combat lines and the hours spent in unloading the vehicles under darkness, hoping enemy artillery was not working. Imagine loading and unloading trucks in three minutes. Also the quantity of men released for other duties.

This applies to all commodities, subsistence, ammunition and POL.

The military transportation groups are becoming more aware of the need for compatibility of equipment between military and commercial systems. The ability to interchange military containers with commercial systems without forcing non-revenue movements on the carriers will save time and costs. Most important, if standardized containers are used with common handling systems, the military will have an unlimited supply of equipment and services from commercial industry in emergency or wartime periods.

Substantial reductions in costs, intransit times and control problems are available. It is anticipated that studies presently being compiled will clearly indicate the necessity for adopting standard containers in the logistics systems. The use of standard containers will permit complete free interchange between all modes of transportation including air with the new aircraft such as the Lockheed Starlifter. We will see the CONEX unit limited to single carrier routes such as pier to pier cargos.

There has been substantial increase in the use of standard size containers in commercial systems during the last eighteen months. For a change, the military system is lagging behind, but we can expect to see the transportation system modernized to match the data processing systems in the near future.