

TECHNIQUES FOR IMPROVING COMMODITY FLOW BY APPLYING CURRENT KNOWLEDGE AND TECHNOLOGY

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The panel discussed ideas that appeared to be achievable in the near future. It was the firm belief of the panel that progress is made step-by-step rather than through any giant stride.

We first attempted to define an overall goal for urban goods movement, applicable to the short-term future, as follows: to provide an adequate level of service required by shippers and receivers of goods in urban areas and to minimize the costs and disbenefits by using current technology. To achieve this goal, we determined the following objectives: reduce interference in urban areas between goods movement and people movement, reduce noise, reduce environmental pollution, reduce costs, reduce social disruption, and effect more efficient land use. We discussed a number of ways of achieving these objectives by applying current knowledge and technology. Some of our recommendations are based on projected research studies and others on specific projects that, we believe, could be implemented.

To achieve the objective of reducing interference in urban areas between goods movement and people movement, we recommend 2 research studies to develop background information and a number of actual programs. The 2 studies include (a) a research study to assist in determining the major areas of concern through cost analysis of the causes, magnitude, and disbenefits of interference, and (b) a research study of the demand in terms of the mix of vehicles, types of goods, and delivery duration for loading docks for various types of buildings. The programs are as follows:

1. In a selected city, consolidate types of shipments such as by the common carriers or by certain types of private carriers. Through a franchise or licensing system, charge a fee to be paid by all vehicles including passenger cars and trucks using designated areas of the city. The objective here is to reduce the number of vehicles in congested areas by forcing consolidation of shipments and reducing the number of private vehicles.
2. To stagger the effect of peak movements of people and peak movements of trucks, undertake a feasibility study of after-hour delivery to stores and office buildings. The study should include the effect on families of employees required to work off-hours.
3. To separate goods and people movements, (a) on a scheduled basis designate streets for goods-movement vehicles by excluding private automobiles; (b) alternatively, on a scheduled basis designate streets to exclude goods-movement vehicles; (c) designate certain lanes on streets for the exclusive use of specified vehicles including trucks; or (d) designate other special traffic considerations within the structural framework of the municipal arterial system.
4. Study separate pedestrian circulation systems such as raising the level of sidewalks and entrances of stores and office buildings at a height above truck level.
5. Study underground or elevated conveyance systems for the movement of urban goods.
6. Encourage nonstreet loading and unloading through the development of adequate requirements in the design of facilities to handle freight in new buildings and in the designs for retrofitting facilities in older buildings.

To assist in the objectives of reducing noise and reducing environmental pollution, we propose that a study be undertaken of the operating characteristics of city trucks in use everyday in order to find the best alternatives of reducing noise and pollution. After the operating characteristics have been determined, solutions may become obvious such as the use of electrical equipment and propane equipment.

To assist in the objective of improving costs, we recommend (a) the encouragement of the use of modern management techniques including industrial-engineering techniques to improve materials-handling procedures, (b) the encouragement of the introduction of new equipment and better maintenance of old equipment, and (c) the development of methods to improve equipment utilization.

To assist in the objective of more efficient land use, we propose that a study be undertaken to identify goods-movement facilities where the disbenefits greatly exceed the benefits and to determine criteria for reclaiming land that is inefficiently used by freight facilities for use by other socially beneficial purposes or to improve the efficiency by exploiting multiple uses of the existing land facility to the extent that this is realistic. The intent is to reclaim inefficiently used land by shippers, receivers, and carriers and to find multiuses for presently dedicated land.