

# transportation

Gathered at the annual meeting last week of the Highway Research Board in Washington, D.C.

## MASS TRANSIT

### Research is unimaginative

The research and development effort proposed under new urban mass transit legislation (SN: 12/19/70, p. 464) is "extraordinarily circumscribed," and too strongly emphasizes conventional modes, claims William F. Hamilton II of General Research Corp., Santa Barbara, Calif.

"This research focuses on incremental and relatively minor improvements to conventional mass transportation, and makes no mention whatever of the major conceptual innovations which are now within reach."

Hamilton particularly emphasizes the need for automated guideway systems to accommodate a variety of types of vehicles, including both conventional public transit vehicles such as buses and private automobiles. Such systems, he says, will compete with the present automobile in terms of speed, plus provide major increases in area coverage and convenience.

Hamilton regards most systems proposed under the new legislation as essentially of the old, fixed-rail type, similar to the 80-year-old Boston subway system.

## INNOVATIONS

### Staggered work hours reduce loads

Commuter congestion in downtown Manhattan can be significantly reduced by altering the working hours of certain employes by only 15 minutes, reports Brendan O'Malley of the Port of New York Authority.

O'Malley described an experiment in New York City that began last April. It has already resulted in reduction of passenger discomfort in subways, trains, buses and elevators.

With the cooperation of 50 public and private employers in New York City, the work schedules of 50,000 employes were moved ahead or behind 15 minutes from the usual 9 a.m. to 5 p.m. work hours.

Results so far indicate that employes are willing to work the changed hours and that these hours are feasible on a permanent basis. There were "perceived improvements" in commuting, says O'Malley.

Plans now are to get another 50,000 employes—of a total commuting downtown Manhattan work force of half a million—on the altered schedules.

## AIR POLLUTION

### Urban planning can reduce emissions

A coordinated approach to urban transportation planning and urban planning in general can greatly reduce air pollution levels even within the context of the existing automobile-dominated transportation system, says Salvatore J. Bellomo, a transportation engineer. He suggests a variety of expedients:

- Transportation corridors which would concentrate auto traffic and which would have buffer strips on either side to isolate these heavily air-polluted routes from human habitation. The corridors would replace

slow-moving urban traffic lanes which are even more heavily air polluting.

- Use of smaller cars which discharge smaller volumes of air pollutants.

- Creation of satellite cities around a central city to lessen the concentration of traffic into the central city.

## AUTOMATED TRANSPORTATION

### System possible in Columbia

A mass transit system using private, automated six-passenger vehicles on guideways, probably elevated, is technically and physically possible for the new planned city of Columbia, Md., report Bendix Corp. researchers. But they add that the system would have to be subsidized to be economically feasible.

George J. Bacalis and Robert D. Stevens of Bendix say the system they envision would have vehicles responding to calls from riders. The vehicles would then use guideways to take passengers directly to their destination without intermediate stops.

The system was one of three alternatives examined for Columbia. The other two would both use conventional buses. The automated guideway system would provide the highest levels of convenience and service, but "would not be supportable from farebox revenues." However, a prototype test section will be built in Columbia.

## PLANNING

### Prediction of high-speed rail usage

Two researchers with the New York Department of Transportation have devised an analysis technique that they say will allow prediction of the economic feasibility of proposed new high-speed rail passenger routes.

John F. DiRenzo and Louis P. Rossi have divided travelers into three "diversion classes," indicating the degree to which they would be amenable to accepting the rail transport over other means of getting to their destinations. Some of the factors weighed were location of the destination, reason for the trip, size of a group (if travel is by group) and total cost.

## RAIL COMMUTER SERVICE

### Local and express trains combined

A Canadian researcher has proposed a novel rail commuter service that would combine the advantages of local and express trains.

In the scheme outlined by T. A. Harmathy of the National Research Council of Canada, passengers would board a rail car at a station. Then the car would be accelerated up to the speed of a continuously moving train on a main track, and would be connected with the train.

When a passenger wanted to leave the system, he would move to a car scheduled for detachment from the main train to go to a particular station.