Jet train studied

Project suggests new transportation systems

By Bob Horvitz

Editor's Note: This is the second in a series of three articles on Project Transport, Project Transport, as was explained in last week's issue of The Tech, is a comprehensive study of the technological potential for high speed transportation in the Northeast Corridor.

A 200 mile-per-hour jet propelled "train" which connects the entire Northeast Corridor and never slows down or stops because it accepts "cars" rather than individual people into its system is one of the concepts now being studied by the participants of Project Transport.

The project's main concern, according to its director, Prof. Robert J. Hansen, "is the evolution of an entirely new system to transport people at high speed from door to door in the region between Boston, Mass., and Washington, D.C., through 1980."

Any transportation system should meet the requirements of speed, accessibility, comfort, low cost, frequency and safety, while being readily adaptable to alterations necessitated by increases or shifts in population.

To best meet these objectives, Project Transport has studied a great number of alternate possibilities in each area, a few of which are presented here. These ideas are merely suggestions, and are by no means considered as actual solutions to the transportation problem.

First of all is the network system itself. Existing rail facilities might be upgraded to yield potential rates of about 120-130 mph. However, such improvements would probably decrease terminal to terminal travel time by no more than a half-hour and would not significantly alter railroad transportation without major improvements in passenger facilities and services.

Another possibility for the network would be a direct path from Washington to Boston, with turnoff tracks at intermediate cities, such as Baltimore, Philadelphia, New York, Hartford and Providence. This system would necessitate a new or greatly improved right-of-way.

A great deal of time could be saved if trains on the main track ran continuously, for most time is now lost in acceleration, deceleration, and time actually at rest. This wasted time might be eliminated by either a) transferring the passengers in transit to a local vehicle which runs parallel to the through vehicle during the transfer, or b) switching parts of the through vehicle to the local loops where it becomes the local vehicle.

In the former possibility of high speed "capsule" transfer, through the vehicle would consist of a number of passenger and/or freight capsules and an appropriate number of empty slots. The through and local trains run side by side and exchange capsules, leaving no time in the process. Similarly, the local train stops just long enough to release and obtain capsules, saving the time required to let passengers to exit and enter. During the vehicle operation passengers are seated, and only passengers newly arrived on the through vehicle who want to exit at intermediate stops have to transfer along a passage to the appropriate capsule. Loading would similarly be handled in capsules.

The second possibility includes a high speed through vehicle which consists of a number of local vehicles which could be detached from the end of the vehicle and could then use their own propulsion for local stop-go operation. The designing of individually owned vehicles which would run on streets and highways and could also become both the through and local vehicles of a new transportation system is also a possibility.

Intimately connected to the network system is the type of vehicle which is to run on it. These vehicles may be considered under three basic headings: a) propulsion, b) suspension and guidance, and c) control. Suspension systems are of three basic types: mechanical, fluid, or a combination of them. Mechanical systems consist mainly of wheels, with lateral reactions provided by friction forces. The speed limitations of present tires are primarily due to friction forces. The speed limitations of present tires are primarily due to friction forces. The speed limitations of present tires are primarily due to friction forces. The speed limitations of present tires are primarily due to friction forces.

"Whether it's the fishing or basketball season, I always carry 'Chap Stick'," says the L.A. Lakers' star. "During the winter, I leave a heated gym and go into the cold night air. That's when my lips used to get sore. And out fishing under the summer sun, they dried out—even cracked. But now, summer or winter, 'Chap Stick' does the job—soothes my lips and helps heal them fast!"

"They're ironing while they're drying."

When Jerry West goes fishing...