ALTERNATIVE TRANSIT - II

MARK LOVELACE

(This is the second part of an article on alternative transit. The first part dealt with dial-a-ride and jitnies.)

TAXIS

"Taxis are," writes Taxi Project head Emilio Ambasz, "the unsung heroes of urban transportation." In Washington, cabs are especially important and well-used. In DC taxis carry some 96,000 people a day (30% of the average bus ridership), compared to only 22,000 in San Francisco, a like-sized city with more transit options.There are more cabs per-capita in this city than anywhere else in the country.

In fact, the Washington cab industry is perhaps the most innovative in the country for a large city. DC has a relatively open market, with no strict entry restrictions and franchise expenses such as those in New York. The individual owner-operator dominates in Wasington, unlike most cities where fleets such as Yellow and Checker control most operations. Cabbies in the District can work more or less when they wish, providing a good source of part-time jobs for students, retirees and people holding other jobs.

The primary innovation in taxi service in Washington was the institution of shared-ride during the gas crisis of early 1974. A driver can, without asking permission of the rider, pick up extra passengers as long as the original rider is not taken more than five blocks out of the way. Transportation researchers hail shared ride as a more effective and efficient use of taxis, and both the industry and passengers seem content with the system.

But Washington cab service also has its drawbacks. Taxis, here as elsewhere, add greatly to congestion, noise, and pollution in downtown. In Washington, radio-dispatched service does not work well because of the independent nature of operations. Four companies in DC have phone-hail service, but drivers are not obliged to answer the dispatcher's call. Thus, riders are often left for long times, or the requested cab may never show up. The mayor's taxi task force recommended at least part-time mandatory radio service for all drivers who have two-way radios in their cabs.

Also a problem is the undersupply of cabs during rush hours. The zone-fare system used in Washington allows no extra charge for time spent in traffic as do meter systems. Thus many drivers in DC feel that rush-hour driving is not worth the effort, leaving fewer cabs on the street at 5 pm when they are most needed than at 2 pm. The Public Service Commission has imposed an evening rush surcharge to help deal with this problem.

In addition, not everybody in Washington is served equally well by cabs. Taxis are often criticized for providing poor service into and out of lower-income areas. Skin color is considered a clue for some drivers to a person's income, as is age, and young blacks making street hails are sometimes ignored as a result. Drivers fear for their safety in some parts of the city; others may figure a black will not tip as well as a white passenger. People in wheelchairs are also ignored by drivers not willing to take the trouble to assist these passengers. One result of service refusal is that the same people who may need taxi service the most can not always get a cab despite the usually amply supply.

This points to another problem with taxi service, its high cost. The poor, handicapped, and elderly are surely the people in the city who can least afford the cost of taxis while badly needing service. For the elderly, handicapped and poor, subsidies could be made available by the city for regular taxi service, or dial-a-ride can be set up for these groups. If the latter mode is used, reliable phone-hails will be ensured. Also possible is subsidized low-cost jitneys in the poorer areas of the city.

LIGHT-RAIL

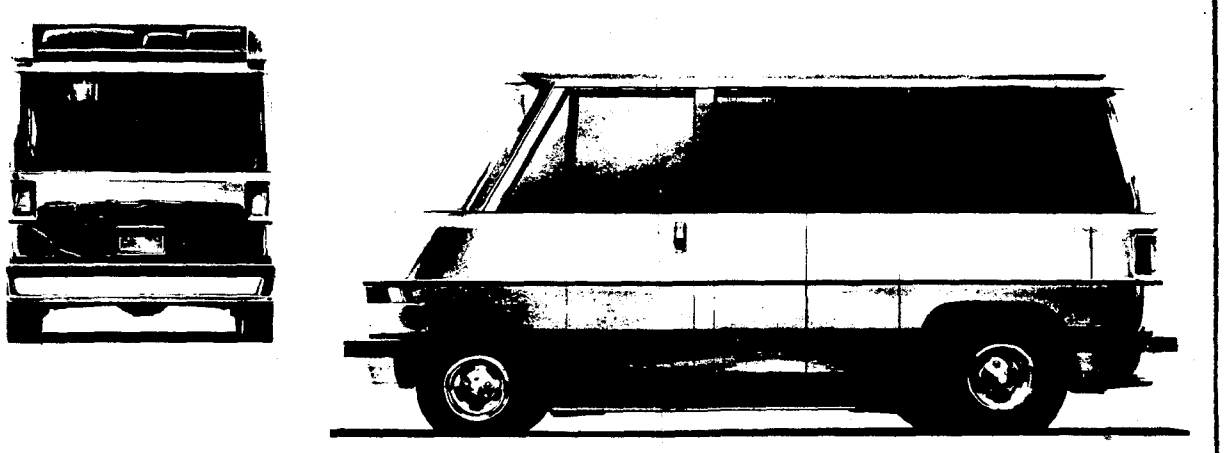
Like the taxi, light-rail is an old form of mass transit that is being rediscovered. Considered outmoded and a nuisance to auto traffic only a few years ago, light-rail is now called "proven technology" and an attractive alternative to private cars. Boston and San Francisco are revitalizing old streetcar systems with new cars, and medium-sized cities like Dayton and Rochester are planning to build light-rail lines.

Light-rail's biggest attraction is its cost advantage over heavy-rail systems like Metro. Light-rail does not require as much tunneling or right-of-way acquisition. Instead, tracks can be laid on streets, either on the side or in the median. The tracks on M Street in Georgetown, for example, if in good enough condition, could be used for even the newest light-rail vehicles. As a result, light-rail construction costs range from $2.5 to $5 million per mile, compared to $45 to $55 million per mile for Metro. Stations, except when underground, do not need to be as elaborate as those for rapid-transit, saving both construction and station personnel costs. Both rail systems can operate with only one driver and no other on-board personnel, although subways in recent years have developed large security force requirements. New car costs are about the same (around $260,000 per vehicle). Operating costs for light-rail are generally low, and on medium to high-density lines can be less than for conventional bus service on the same routes. In addition, much less construction time is required for light-rail than has been the case for Metro, meaning service can begin more quickly.

There are also service advantages to light-rail. Studies show that rail transit in general is able to attract more passengers than conventional bus systems along the same routes. People perceive rail transit (heavy or light) as superior to buses because of the comfort and reduced travel time. Also, because of the lower construction costs, a much denser light-rail network with more interconnection of routes can be built for the same cost as a skeletal rapid transit system. Lines can branch out more, giving more potential riders close access to rail transit and reducing the need for transfer from other modes. Stations are also usually more closely spaced on light-rail systems.

According to transit researchers, however, light rail can not handle the high capacities that are required of transit lines in very large cities. A light-rail line can handle maximum loads of 5,000 to 20,000 passengers per hour past one point, compared to 10,000 to 40,000 for heavy-rail transit. Considering the large numbers of workers in Washington's downtown and federal complexes, a totally light-rail Metro could probably not handle the crunch at rush hour. Heavy-rail has higher capacity because of its higher operating speeds and fewer stops, allowing more cars in service at one time. In addition, light-rail usually requires overhead electric lines, obstructions often considered to be aesthetically displeasing. Pollution and noise levels are about the same for both systems, and are considerably lower than those for conventional buses.

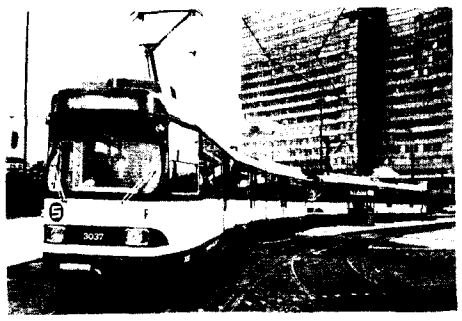
There are several possible applications for light-rail in the Washington area. First, outlying parts of the Metro system, which are also the last ones scheduled for completion, might be better served by light-rail. In these areas high-capacity is not so important because of lower residential densities. On the other hand, these are the same areas of metropolitan Washington from which riders are most needed in order to relieve pollution and congestion in the city. It thus seems that a light-rail network through much of



FIVE prototype taxis have been on display at the Museum of Modern Art's "Taxi Project" exhibit. Three are from European manufacturers (Vovo, Volkswagon and Alfa Romeo) and two, both equipped with steam engines as required by UMTA, are American built (by Steam Power Systems and AMF). In contrast with the standard American taxi, usually nothing more than a sedan designed for family use, these taxis are squarish in shape, being shorter for more maneuverability and higher for more comfort. Seats generally appear to be better designed for passenger and driver comfort. Portable ramps, very wide side doors and ample interior room are built into the vehicles to aid people in wheelchairs or mothers with strollers. Wider, larger windows enhance visibility.

Taxis are serious contributors to pollution in urban areas, and the prototype engines address this problem. The two steam-powered engines are especially low in pollutants, for example, but the Volkswagen engine, built in a modification of the standard minibus body, is a hybrid electric gas system. During acceleration, the gas engine assists the electric motor to save the battery, but at medium cruising speeds (up to 43.5 mph) the electric motor can work alone. Over that speed, the engines again work together and any extra power by the gas engine charges the battery.

Operating and maintenance costs are said to be low for all the vehicles, but this claim is yet to be tested. The vehicles are also said to be affordable to cab companies, but that also remains to be seen. Nevertheless, the exhibit marks the first serious attempt in the United States to design and build a vehicle specifically for use as an urban taxi, a mode of transportation that has potentially far greater importance in public transportation.



WHEN planners talk about reintroducing streetcars to urban areas, they are usually talking about bringing the trolleys of the past out of mothballs to provide the bumpy, rough service that has largely disappeared. Proposed instead is "light-rail," -- new cars, greater comfort and less interference with vehicular traffic.

Modern trolleys, introduced in Europe and now built in the U.S. by Boeing-Vertol, give the passenger a ride that is comparable to heavy-rail subway systems. The smoothness of the ride largely depends on the condition of the rail. Inside, cars could be fairly similar to modern subway cars -- well lit with padded seats and ample legroom. Modern trolleys are not as wide as heavy-rail vehicles, and hold slightly fewer passengers per car.

Electric power can come from one of two sources. Overhead wires are used in most cities, but these need not be as unsightly as in the past. Fewer supports can be used. Underground conduits can provide power along a "third rail."

For safety and shorter travel times, light-rail lines can be placed in protected or marked right-of-way on the sides of streets or in the middle. As much grade separation as possible is desirable. Light-rail street crossings could have flashing gates such as those used for regular railroads as well as prioritized traffic signal lights.

Light-rail is generally even quieter than conventional rail transit, and both are quieter than conventional buses. Visual intrusion is much less for light-rail than for a highway. Light-rail also uses less electricity than heavy-rail, thus reducing costs and pollution at the power source.

the suburbs, could serve as a superior feeder service to main Metro lines.

Second, assuming the entire Metro system is completed, light-rail lines could be laid to serve areas in DC where there is no rapid transit. The purpose is not to compete with Metro, but to supplement it. A proposal for such a system was submitted in March, 1975 by a volunteer group led by Joseph Bosco, a Washington attorney and former US Department of Transportation official. This group suggested a basic light-rail route to run from the Rosslyn Metro station, over Key Bridge and east to 14th Street. From this point, it would run both north and south, almost entirely on 14th, between Carter Barron and the Smithsonian Metro station near 12th and Independence. These lines could bring rail service to Georgetown and the 14th Street riot corridor, perhaps enhancing the redevelopment of the latter. Total construction of this system including 30 new cars would cost from $24 to $30 million, less than an average mile of Metro.

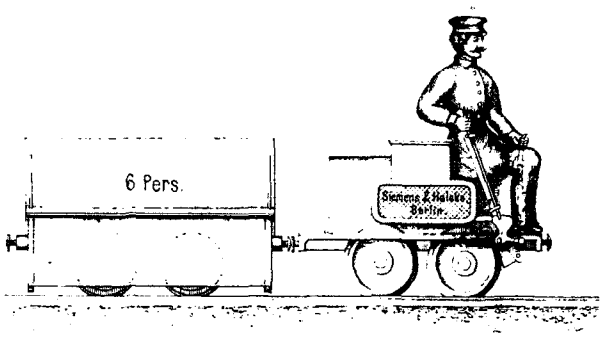
Three other routes were also suggested in the proposal, all in areas not to be served by Metro: a park-and-ride service from Glen Echo, running on the existing old Cabin John trolley line; up Wisconsin Avenue to the Tenley Circle Metro station, serving a high-density residential area; and up Rhode Island Avenue and over to Fort Lincoln. Although the study concentrated more on the Rosslyn-SW Mall-Carter Barron proposal, capital costs for the 13.5 miles for both the Cabin John and Rhode Island routes using new cars was estimated to be a maximum of $58.2 million. A little more than one mile of Metro track could be laid for the same amount.

The Bosco plan was enthusiastically received in some quarters when it was submitted in 1975. Wolf von Eckardt of the Post devoted a column to the possible trolley renaissance, for example. Government officials expressed interest in the proposal, and City Councilmember Jerry Moore's transporation committee took it under consideration. The sharpest reaction was from then-Metro general manager Jackson Graham, who "used a barnyard phrase to describe his own opposition to the reintroduction of modern trolleys in Washington," the Post reported. Since that time, no more action has been taken by local or federal officials on the proposal.

A third possible use of light-rail will be formally proposed later this year by a committee headed by Charles Schneider of the Citizens Association of Georgetown. The plan will propose the reinstituting of streetcar service on the tracks still uncovered on M Street and Pennsylvania Avenue down to Washington Circle. Schneider said he hoped the vehicles used could be refurbished European trolleys of the type that would "blend in with the character of Georgetown." Although the final plan is not yet drafted, Schneider offered a $1 million estimate for capital costs to renovate the track and purchase vehicles. The route would serve people going to Georgetown for shopping and entertainment -- not to further the development of the area, but to reduce existing congestion. The end of the line at Washington Circle would be a block from the Foggy Bottom Metro station. Also under consideration, said Schneider is a loop on O and P Streets from Wisconsin Avenue to the university.

Jitnies, dial-a-ride, light-rail and taxis have great potential for use in this area. All four modes are able to reach and attract more riders than conventional transit, yet do not necessarily cost more and could well cost less to build and operate. Each can work as a feeder to conventional transit, replace buses at less cost, and provide better mobility around the neighborhood or the entire region. Metro has itself expressed little interest and sometimes opposition to alternative transit innovations, but all four modes demand full consideration by this area.

Metro is now looking for funds to complete its system, and will surely go to the Department of Transportation and the local jurisdictions for more contributions. If UMTA is paying any attention to its own staff and consultants, the agency must insist that before any more funds are made available for construction, Metro fully explore use of jitneys and taxis on neighborhood loops or as replacements for some bus routes, use of smaller vehicles to penetrate residential areas for transit riders, and use of lower-cost light-rail where possible, perhaps replacing parts of the proposed Metro system. Local officials, particularly those on the Metro board, must themselves know the possibilities of alternative transit. Board members must also demand from WMATA staff fair analaysis of the potential rolse of the four modes in the total regional mass transit system. Metro can no longer afford to be so stubborn in defense of its plans and operations, which for all their expense could be outmoded by alternative transit.



A fiscal fable for our times

JOHN CRANFORD

(This story is truer than you think.)

ONE day this past June, the Mayor and His Budget Authority huddled in a back room of city hall -- not in The Mayor's plus conference room where someone might overhear them, for the matter was too important: how to save the city from impending financial doom.

Just like New York City and Lockheed, The Budget Authority told The Mayor their city was going under. Unless something was done, the city would be a billion dollars in debt by 1980.

The Mayor stiffled a gasp, deftly muffling the gag in his throat with a slight cough, and suggested the two of them get down to business.

"Well, B.A. is this 1980 estimate really right?"

"Yes, sir, Mr. Mayor. It's clear that we must design a cogent, fiscally sound approach to more complete, more efficient, city-provided services..."

"Save that stuff for the news conference. What do you mean?"

"The key is there, Mr. Mayor, in 'city-provided.' We've got to cut our losses..."

"But if we cut services, they'll cut my throat."

"Exactly, Mr. Mayor. We have to paint DC as a poor, little beleagured..."

"Orphaned?"

"Orphaned, precisely. A poor, little beleagured, orphaned enclave, trying to support three times as many people with half as many resources..."

"You mean, we try the commuter tax again?"

"If we were a state, Mr. Mayor, we would have a commuter tax; but that's just the point, we're not. So, we should have to pay for services a state provides."

"Like what?"

"Prisons, colleges, welfare, unemployment coverage, schools, courts. Boston and Dallas don't pay for those things; no city does. Those services are paid out of state budgets, from state taxes. The cities complain they don't have the resources to pay for those things, so the states pick up the tab. Simple."

"B.A., you're brilliant. We'll say we've been paying this all along, and shouldn't have. It's no wonder we're running up a deficit. If the people want those services, they'll just have to petition the state... Wait a minute, there is no state here; there's just the Feds...I feel sick again."

"No, don't you see. The Feds are our 'surrogate' state. It's their responsibility to foot that bill. If we can just convince them..."

The Mayor began to smile for the first time that day as he and The B.A. began to compile a long list of things to bill to Uncle Sam. Turn over Lorton Complex -- all of it -- to the Feds; no city pays for a long-term prison system, The B.A. argued.

"But if we do that," The Mayor lamented, "they might send our prisoners to Leavenworth instead of Lorton."

The B.A. said the city could retain administrative control, and The Mayor