Urban transport: Attitudes are changing

Opponents of automobile-dominated systems are finding support at high levels

by Richard H. Gilluly

The groundwork is being laid on high levels for massive changes in urban transportation systems in the United States. The changes will not come without opposition, some of which is already materializing, but the support for their eventual coming is formidable. The supporters range from the National Academy of Engineering to (more predictably) the Sierra Club. Perhaps most surprising, key elements of the Nixon Administration appear to be in favor of the changes. These include the Department of Transportation, the President's Council on Environmental Quality, the Environmental Protection Agency and the White House Office of Science and Technology. At the same time, a battle may be shaping up within the Administration between those agencies and traditionally more conservative ones, such as the Commerce and Interior Departments.

The need for change comes, of course, from the growing pollution, congestion and urban decay caused by the automobile. The need was recognized only by a few environmental activists a year ago. The change in official attitudes during the past few months has been swift and clear, whether the official has been Philip Handler, president of the National Academy of Sciences, or DOT's ex-highway-contractor boss, John Volpe.

The latest events are the release at the end of April of the NAE's study on urban transportation (which is more a statement of beliefs of the participants than an actual study) and a press conference early in May where Volpe, EPA Administrator William D. Ruckelshaus and CEQ Chairman Russell Train announced that they plan to try to raid the formerly sacrosanct Highway Trust Fund to get money for urban mass transit.

The NAE study is frank in its findings and recommendations: "What is new today is the urgency of the situation," it says. "Urban areas have reached the point where worsening physical and financial conditions and the outlook for further growth and transportation needs require a commitment to find better ways to deal with the problem.

". . . Greater effort will have to be expended to reverse current trends in

the United States toward mounting transportation costs, declining standards of public transportation service, and the increasingly damaging side effects of the automobile."

But the report insists that the problems of urban areas are so interrelated that it is impossible to consider transportation as a separate problem. Solving transportation problems is possible only if other problems are solved concurrently; in turn, solving those problems depends on solving the transportation problem: ". . . Many of the underlying causes of the difficulty go beyond the internal problems of the transport system itself and require a frontal attack on slums and blight and on the processes of urban growth."

The report waffles some on the cost data. According to one participant, Herbert Hollomon of the Massachusetts Institute of Technology, some members of the study committee reached an estimate of \$1 as the real cost of a mile's travel in an automobile in the city. The report states only gross costs. A committee staffer says there was some disagreement about the costs, so the \$1 figure was omitted from the final report. But the report still makes clear that costs are high. The direct costs of an automobile-dominated urban transport system, it says, are \$80 billion a year. "The social costs such as the impact of transportation systems on urban esthetics and on the quality of urban life are difficult to measure . . . ," it adds. A key social cost is the immobility of millions of people without the skills or money to drive cars.

The specific recommendations of the report are sometimes radical. They include:

- Placing new housing close to employment to reduce commuting needs.
 Likewise, locating of community and recreational facilities near housing, for the same reasons. In both cases, reducing reliance on the automobile to encourage walking.
- Changing current patterns of land use and transfer to prevent speculation, sprawl and unmanageable suburban development. Public ownership of land in urban areas is frankly proposed.
- Providing high-quality public mass transit to all areas of the urban com-

munity. Placing new developments in compact clusters, separated by open space or parks, these clusters to be connected to each other with mass transit and intercity-type highways, thus reducing road congestion.

• Reducing the percentage of urban areas devoted to streets and ugly commercial encroachments along streets. Replacing these with open space, trees and other nonpolluting uses of land.

The report also links transportation problems with the energy crisis. "... Use... of energy for transportation is forecast to double by the year 2000, and transportation alone by that time is expected to use about one-fourth of the total energy consumed."

But the report's conclusions are unclear in places. It suggests, for instance, that the costs of building high-quality public transit will be very high. Certainly they will be, especially if transit systems are primarily a poverty program, with the average middle-class suburban family still owning two cars. But if the report's recommendation that all parts of the urban community be served by mass transit is to be taken seriously, then certainly the costs, once the systems are built, would be far lower—less by a factor of about 20 for amounts of space required than in an automobile-dominated system, for instance, according to one estimate.

And the report surrenders, to a degree, to the shibboleths of the "convenience" and "privacy" of the automobile and middle-class America's unwillingness to give up these alleged benefits. The report's own data show that typically it requires 73 minutes to travel 14 miles by car in New York City, and when the commuter arrives he still has to find a parking space. High-speed intraurban trains make such a trip in 14 minutes where efficient ones exist. The convenience of the automobile comes high.

One problem, of course, is the mystique of the automobile. Ruckelshaus seemed willing at the press conference to see this mystique attacked. In reply to a question, he agreed that equal time on television to counter automobile commercials, as proposed by the Federal Trade Commission, may be a viable approach in some instances.

science news, vol. 101

The Volpe-Ruckelshaus-Train proposal to raid the annual \$5 billion that now goes to the Highway Trust Fund is revolutionary only in a symbolic sense. Actual dollar levels of funding for urban mass transit under the proposal could possibly be lower than expenditures under the current mass transit program, which expires in 1974. As Volpe pointed out, much will depend on state and local discretion in the use of the funds that would be made available under the new proposal. (The proposal was introduced in the House by Rep. John A. Blatnik (D-Minn.), chairman of the House Public Works Committee.) Given current attitudes of state highway officials, Volpe was not optimistic, although he suggested that local support for public transit may be growing. Maryland and California legislatures have passed laws giving some state tax revenues to mass transit.

The issue of local preference will be a key one if the new proposal passes, and more so if it doesn't. Bonanza to highway builders that the Highway Trust Fund may be, still two-thirds of highway and street money comes from state and local agencies. If mass transit is to succeed, similar levels of funding must come from the local agencies for this purpose, said Transportation Under Secretary James M. Beggs in an interview. So far, he says, the local agencies simply do not have the expertise and vision either to see the immense real costs of the automobile or to venture into urban transit systems that have appeared in recent years to appeal less and less to the public.

Once again the issue boils down to one of public attitudes. DOT plans a motivational study of the San Francisco Bay Area Rapid Transit District (BART) when part of the attractive new system goes into operation in September. If people use it, DOT will learn why. If they don't, at least the reasons may be apparent. This kind of expensive trialand-error testing of systems seems unavoidable, Beggs says. A variety of systems must be tried out on a pilot basis. "But we will have very little luck in getting changes till the local agencies are willing to pay a major part of the costs of the experimentation." It appears, however, that Beggs places more reliance on local contributions than does the NAE report. NAE says a major part of the problem is a need for a far higher level of funding for research, development and demonstration by Dot's Urban Mass Transit Administration.

But UMTA has not been standing still for the past two years. Already a number of schemes have been tried, some with outstanding success. An exclusive bus lane on Virginia's Shirley Highway (Interstate 95) near Washington, D.C., has attracted so much bus patronage it has reduced the number of cars coming

into Washington by 2,800 daily, and similar systems are working in several other cities. The exclusive bus lane system originated in a proposal by the General Motors Truck and Coach Division, incidentally.

Environmentalists, although heartened by the Highway Trust Fund proposal, say it has its flaws. They want not only more urban transit, but also a halt or major slowdown in highway building, according to the Highway Action Coalition, an anti-freeway group. Volpe admitted at the press conference that the new proposal would actually extend the term of the interstate highway construction program and would give additional funds to it. The implication is that gasoline sales, the source of the Highway Trust Fund's revenues, would continue to accelerate until 1980. The environmentalists want a reduction in energy consumption, claiming that an optimum mass transit program would reduce petroleum requirements in 1980 by approximately the amount that would be brought into the lower 48 states from Alaska if the Trans-Alaska pipeline were built. Obviously, a far higher percentage of the Highway Trust Fund would have to be dedicated to mass

transit if a reduction in petroleum consumption is part of changing goals. So far, it seems apparent that such a reduction in the near future is not part of the Administration's plan, especially in view of Interior Secretary Rogers C. B. Morton's May 11 announcement that he plans to issue the Alaska pipeline permit.

There seems to be no doubt that there is a major fight brewing within the Administration. Earlier it was rumored that Ruckelshaus and then Commerce Secretary Maurice Stans were locked in irreconcilable conflict, and their public statements certainly seemed to put them at odds. An event at the May press conference seemed to evidence more of this general sort of conflict. A man who identified himself as a Ford Motor Co. representative approached Volpe after the press conference demanding (in a genial tone) that Volpe back up his statement that Henry Ford II supported the raid on the Highway Trust Fund. Volpe stood by his statement. The Ford man then demanded to know if President Nixon supported the Highway Trust Fund proposal. Volpe said of course he did. But the Ford man seemed to suggest he knew better.

NEW PRODUCTS • NEW MATERIALS • NEW IDEAS

NEW! ELECTRONIC DIGITAL COMPUTER KIT!



COMPUTER KITI

Solve problems, play games, predict weather with this actual working model of giant electronic brains. Amazing new fun way to learn all about computer programming . . logic, decimal, binary systems, Laws of Sets—even do your own programming after completing simplified 116 page instructive assembly diagrams. Cirrform illuminated control from illuminated continut.). Best model we

booklet. Includes step-by-step as cuits easily changed. Readout fr panel. Req. 2 "D" batt. (not in seen—for home, school, industry. No. 71,434Q (11" x 12½" x 4")

GROW FANTASTIC "KILLER" PLANTS



World's most unusual & interesting plants! Each carnivorous plant lures & traps insect victims in own unique way. Glistening red Sundew attracts prey w/odor, holds w/glue-like substance. Purple Pitcher Plant collects moisture, lures insects w/cellerty.

pie Pitcher Plant collects
moisture, lures insects
w/coloring, sweetness;
traps & drowns them.
Tapered hollow tube of Huntsman's Horn snares quarry
in bottom. Incl 1 each, ready to plant, planting mixture,
culture directions.

VENUS FLY TRAP 3-Pack (#60859Q) \$2.00 Ppd.



Frighten prowlers, muggers, victous dogs with 118 decibels. Just press and this Freon powered pocket-sized horn can be heard a mile away to signal for help or fun. Great for boating (it floats), hiking, camping, hunting, seashore, rooting for your team. Can be heard over traffic and congency. Weighs only 3 oz. but contains up to 100 mile-strek No. 41,423Q

2 Refill Cartrs. (P-41,424Q) _____ \$2.75 Ppd

SCIENCE FAIR HEADQUARTERS USA

AMAZING NEW Wankel Engine KIT!



"FISH" WITH A MAGNET



Go treasure hunting on the bottom! Fascinating fun & sometimes profitable! The a line to our 5½-lb. Magnet—drop it overboard in bay, river, lake or ocean. Troll it along bottom—your "treasured" haul can be outboard motors, anchors, other metal valuables. 5½-lb. Magnet is war surplus—Alinico V Type—Gov't. cost \$50. Lifts over 150 lbs. on lemuch greater weights under water. Stock No. 70.571Q 5½ lbs.

Stock No. 60.2150 l½ lbs.

\$5.75
Stock No. 70.570Q 3½ lbs. (40 lbs.) \$8.75
Stock No. 85,152Q 15¾ lbs. (350 lbs.) \$8.75 Lifts over 150 lbs. on land-under water.

MAIL COUPON FOR GIANT FREE CATALOG

148 PAGES! MORE THAN 4.000 UNUSUAL BARGAINS





Address

300 EDSCORP BLDG. BARRINGTON, NEW JERSEY 08007 SCIENTIFIC CO. BARRINGTON, NEW JERSEY 0800' ORDER BY STOCK NUMBER · SEND CHECK OR MONEY ORDER · MONEY-BACK GUARANTEE

333 may 20, 1972