

The State of Public Transportation in Houston
By
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Thank you for that kind introduction.

I am reminded of a story recently told about a High Court Judge in England who entered his court and found that there were three barristers waiting there. The first arose and said, "My Lord, I appear for the prosecution." The second stood and said, "My Lord, I appear for the defense." Then with considerable dignity, the third barrister arose and said, "My Lord, I appear to be in the wrong court."

Fortunately, your introduction assures me that unlike the third barrister, I'm in the right place today.

I am here to bring you a status report on METRO and how we as one of Houston's key transportation providers-plan to meet the challenges of the twenty- first century.

● Many of you in this room may remember in the early years of METRO's beginning, the Houston Chronicle ran a box score on the front page of the newspaper telling how many buses pulled out each morning and how many limped back to our one-that's right, one-garage in the afternoon. That old Milby bus barn had originally been a trolley car repair garage.

*Those were frustrating times, but they also were the start of our phenomenal climb to the number one spot in the industry which was formally accorded us by our peers in 1985. Many improvements have been made in the short 15 years since METRO began. We have grown to a first-class transportation system built to evolve and keep up with the needs of Houston's citizens. We are a mass transit agency, BUT we are also a major builder of high occupancy vehicle lanes and streets; and an innovator in mobility technology and operations and alternative fuels We are unique in the transit industry with this broad transportation mission.

And we have the program to move into the next century with METRO's Community Transportation Plan-a total package of services including buses and bus facilities, HOV Lanes, street and other infrastructure improvements and high technology regional traffic management. We are already building the plan to carry us to the year 2010, and are now in planning for a design year of 2020.

*One particular telling example:-Two weeks ago, along with the Texas Department of Transportation, the City of Houston and Harris County, we turned the first shovel full of dirt on the Greater Houston Transportation and Emergency Management Center-a facility that will put Houston transportation ahead of just about all cities in the world.

How can I say this?

-I have just returned from the first World Congress on Intelligent Transportation Systems held in Paris France. I attended the meeting in my role as a board member of this country's Congressional Transportation advisory group called the Intelligent Transportation Society of America.

*One evening during the conference, I was talking with the minister of transportation from the Netherlands. He was in envy of Houston METRO both for the role we play in general transportation and for the cooperative role that exists between the city, the state, the county and METRO. The idea that METRO is involved in all facets of moving people is absolutely intriguing to members of the international transportation community. Several of the people I spoke with said they would like to emulate what Houston is doing in their own cities. But the first thing they run into is a political blockade. Houston is held up as THE model for cooperation.

We in Houston are fortunate to have this joining together of agencies for the good of the community. What many in the European community find to be political obstacles, we jump right over, and, in so doing, become political trailblazers. Representative Tom Delay at the national level and Mayor Bob Lanier, both nationally and locally, have been political trailblazers for the coming-together of agencies to promote the cooperative projects that are so envied in the United States and abroad.

*We often hear about the high tech advances in Europe and Asia. Yes they have them. They even have a few things that we don't have. But I am here to tell you that the concept of sharing information and our working cooperation puts Houston in particular far ahead of the curve.

*For example: we've designed and, along with the Texas Department of Transportation and the federal government, constructed the largest system of barrier-separated HOV lanes in the world in the middle of five Houston-area freeways.

- Besides buses: carpools and vanpools also take advantage of our already 65-mile high occupancy vehicle lane network for commuter travel. Within the next few years, we will have 1.04 miles of high occupancy vehicle lanes available for use by multi-occupant vehicles.

Our per-passenger trips are very low in cost and we think that this has been an excellent government investment for transportation. We already move more people on our buses and HOV lanes than are moved on the combined bus and rail systems in either Miami, or San Diego or Atlanta-three cities with whom we are frequently compared.

-To this equation of high occupancy vehicle lanes, we are now adding Intelligent Transportation Systems technology. Among the many advantages of these advanced transportation elements is the way they will attract more riders to our bus system. We already have proven that if we can save about eight minutes on a trip to work, we will see a major jump in ridership.

-One way we think we can shorten trips is by building smart intersections. METRO has begun a 120 million dollar program (80 percent funded by the federal government) to have our intersections evaluate their own traffic situation with computer intelligence; and have those traffic lights talk to each other and automatically adjust movements in traffic corridors and cross-corridors.

-Since our buses travel on arterial streets in stop/start traffic, their speed will be tremendously facilitated by these signals, especially with automatic preemption assistance, which we will install. Our intersections will actually be responsive to the flow of traffic, with a capability for override because of the monitoring from the central control facility. Obviously, the automobiles and trucks on those streets benefit from this service, as well. The city and county are also working on this program.

-We already have 38 intersections computerized and by the time the permanent central control facility comes on line a year from now, we'll have almost 600 intersections modified and functioning. Ultimately, some 2,800 key arterial intersections will have these intelligent traffic signals.

We have been placing sensing TV cameras or in-the-road loop detectors at major intersections-sensors that tell traffic lights whether traffic is moving normally or if an accident or some other incident has caused a slowdown or backup. This traffic information is also relayed to our computerized central control facility-the Greater Houston Transportation and Emergency Management Center, which I mentioned earlier.

*We, together with the Texas Department of Transportation, are working on high technology solutions not only on streets, but also on HOV lanes and to highway mainlanes, too.

*Loop detectors and cameras will give us instant information about HOV lanes and freeway **traffic condition**,. **You've probably seen the television cameras and electronic sign that the** Texas Department of Transportation and METRO have been installing on all the major HOV lanes and freeways in Houston.

Together, METRO and the state highway department have some 500 million dollars committed to these and other traffic control technologies.

*This Traffic Management Center is already functioning on an interim basis out of the Texas Department of Transportation and Texas Transportation Institute's offices on North Post Oak.

*Personnel from the four different governmental agencies are already monitoring traffic on freeways and many major thoroughfares. Throughout the freeway network, we are reading the electronic toll tags issued for the county toll road system, and we use those readings for traffic flow interpretation.

We have installed similar automatic vehicle locators on our METROLift fleet.

From the permanent center, we will oversee and adjust traffic on an up-to-the-minute basis and authorities already can respond more quickly to incidents that slow traffic. This coordinated system is called the "Houston Intelligent Transportation System," or HITS.

To carry all this complex information in its ultimate form, the Texas Department of Transportation is installing fiber optic cable and METRO is contracting with a private fiber

optic provider to link other various components to the Greater Houston Traffic Management Center.

*Included in this computerized transportation management system, in addition to the loop detectors, closed circuit television and ramp metering signals, are electronic message signs to provide immediate information to drivers about traffic conditions ahead and possible alternative routes if problems develop.

Much of that is already operational today. Similar information will also be provided by radio and cellular phones.

-In yet another "intelligent" project, METRO and the Texas Department of Transportation are joining hands on another "intelligent" experiment call the "Smart Commuter."

-As part of this smart commuter project, on the north side of Houston, we are linking electronic communications systems in homes and in downtown offices to alert travelers to real time traffic conditions. Commuters can learn the exact, current traffic status on their planned route. Is it congested or not? Are there weather or accident or construction problems on the route? When will the next bus arrive at the nearest location?

*With this information, commuters can make informed choices about whether they should drive a car in traffic-perhaps to encounter a wreck on the freeway-or carpool or board a convenient bus which will speed past the traffic jams to their jobs by using our high occupancy vehicle lanes which move faster.

Right now we are putting together a small group to perform a first test that will provide access to immediate traffic information for a group of drivers who commute from north Houston to the central business district.

*On the west side of town, we are going to test an instant carpooling plan that will match commuters with riders, instantaneously, on demand, so both can travel speedily on the Katy HOV lane to the Galleria without much advance planning. This project will get underway soon after the one on the north side.

Participants in the demonstration portion of these projects are being identified through private company Employer Trip Reduction Plan coordinators.

-TheSmart Commuter program is about providing options or transportation choices to the consumer who is trying to get to work. Because this Intelligent Transportation system program will foster high occupancy vehicle use, it will meet the need of companies trying to implement employer-trip-reduction plans called for by the Clean Air Act. METRO actively seeks out and consults with Employer Trip Reduction Coordinators to help them formulate the best choices for their companies' workers to meet the mandates of the Clean Air Act through our RideSponsor and RideShare programs.

*By far the largest investment by our agency will be not only a cluster of high-tech solutions to traffic congestion that rely on smart buses, but also our extensive Regional Bus Plan.

*We are already using electronic registering fareboxes that accept decrementing fare cards that subtract the appropriate fare for the route and tell the passengers how much remains in their accounts.

While electronic registering fareboxes can tell us when patrons are boarding the bus, automatic passenger counters linked to automatic vehicle locators can register the location where passengers get on and off. Knowing both "when" and "where" helps us correlate our service precisely to the origins, destinations and time needs of our customers.

*And, of course it will also enable us to know the precise kind of amenities such as passenger shelters, that are needed at our 10,000 bus stops.

*Two other pay-offs from the automatic vehicle locators are that, with no other capital investment, we will be able to monitor vehicle traffic flow on the arterial streets used by the buses. The other pay-off is that, heaven forbid, if some one should take a bus off its regular route, we will know exactly where to find it.

*While our patrons are en route, automatic annunciators can electronically announce the next stop, while displaying the stop name on interior electronic signs for those who are hearing impaired,

*It is already practical for a smart bus to automatically monitor engine functions like brake conditions and air-conditioning-output. Both the bus driver and the garage can be automatically alerted before problems become critical.

All of these bus enhancements will be easily linked together with the first American industry standard for vehicle communications. This standard was developed by an "ITS"-America committee chaired by METRO's manager of advanced technology programs, Bill Kronenberger. His leadership of the national committee that developed this first key standard was recently honored by an award from the international Institute of Transportation Engineers.

*Let me digress once again to Paris. I was talking with a senior European transportation official. He said: "Oh, you are from Houston METRO. Do you know Bill Kronenberger?" Well of course I do. He's been part of the METRO family for a number of years. My colleague's response was: He really knows his stuff. You have a remarkable organization.

Incidentally, in 1996, Houston will be host to the ITS-America national convention.

*Well...I have told you about lots of high tech things we are involved with at METRO. All of these elements are-step by step-making the business of moving all the area's residents about go more smoothly, whether in buses or private automobiles.

*These ITS technologies promise greater productivity in transportation management, congestion management and bus operations. If traffic flows more smoothly, pollution declines, transit vehicles arrive in a more timely manner, and the whole region prospers from that improvement in traffic flow and decline in congestion.

*Besides all these exciting technological innovations, we've also experienced a pay-off from the implementation of low-tech cooperative traffic management projects at the Astrodome for events such as this country's largest annual Rodeo, the Republican Convention, an international Economic Summit and the Oilers games.

The team work of Astrodome folks, the State, the City, the County, METRO and event personnel has made event traffic flow much more smoothly. We can clear a packed Astrodome stadium in half-an-hour, now.

Based on our successful cooperative event management, METRO was asked to expand into daily traffic management in the Central Business District, the Texas Medical Center and the largest regional retail edge city in Houston-the Galleria/Juptown area. Traffic now flows more smoothly in all those areas.

In December of last year, METRO took over freeway incident management for five freeways in its service area and the 64 miles of barrier-separated HOV lanes in the medians of those freeways. Our police respond quickly to incidents, and either resolve them or divert traffic to lessen congestion.

*In the jointly-sponsored Motorists Assistance Program, Harris County sheriff deputies, paid by METRO, clear minor incidents and breakdowns which account for 65 percent of highway stoppages and slowdowns on our freeways. These functions are already coordinated out of our temporary central control facility.

*Let's shift to the transit side of the METRO house.

*At the center of the community transportation program mentioned earlier is the expanded Regional Bus Plan.

The plan includes a network of transit centers which provide safe, well-lighted, out-of-the-weather shelter for bus patrons to make transfers. It functions like hub airports do in the airline industry. At those 13 locations (which we are expanding to 18 under our Regional Bus Plan) we will use ITS technology to inform waiting patrons about just when the next bus will really

*In addition to transit centers, Park & Ride lots-we have 22 today and will have 30 by the turn of the century-serve the suburban commuters.

Earlier I mentioned the one bus barn METRO inherited at its beginning. Today, we have five modern, state-of-the-art bus operating facilities. And just last week, we broke ground for the sixth on the north side of town at Fallbrook and I-45.

*Another part of our Regional Bus Plan is the expansion of our high occupancy vehicle lanes. As many of you know, the Gulf, Southwest, Katy, Northwest and North freeways all have either completed or partially completed lanes running down the center median. Another HOV lane is under construction on the Eastex freeway as the highway department widens and re-constructs that freeway. And in the next few years, you'll be seeing a similar lane on outer Westpark Drive.

Besides providing speedier transportation for multi-occupant vehicles, these improvements are creating and will create construction jobs and other permanent jobs for this area.

*The Regional Bus plan is designed to meet the demands of a growing number of bus riders-we have about 60 million today, almost twice as many as we served in the beginning year of 1979.

Let me take a moment to brag a little about METRO's bus operators...those men and women who drive those millions of people every year.

During the last fiscal year which just ended in September, METRO bus operations completed their safest driving year ever. The new record low accident rate was 1.3 accidents per 100,000 vehicle miles traveled and represents a 21 percent improvement over the already remarkable low record of 1.65 accidents per 100,000 miles for fiscal year 1993.

- By the year 2010, METRO's fleet of buses will be about 1,600 strong and will be fueled by liquefied natural gas. About a quarter of the fleet already runs on this clean-burning fuel.

While it would be cheaper for us to use the "clean diesel" on the market, the State of Texas has mandated that public fleets get off of diesel. We believe LNG is the best alternative available.

*And under a grant from the Federal Transit Administration, Houston and Los Angeles have teamed up to contribute METRO's expertise toward what is being called the next generation bus.

What the transit agencies from the two cities are trying to do is develop an affordable, energy-conserving, light-weight bus. As a platform, we have been testing a carbon fiber, low floor bus that weighs only 16 thousand pounds for a 35-foot vehicle. The federal government wants no more than 19 thousand pounds for a 40 foot vehicle. So we already know we can meet that goal. It is exciting to be picked to work on this important project.

*Taking you back in time once again, in 1979, METRO joined hands with other local governmental entities and began joint projects to improve and add new capacity in the region. These programs have been highly successful and have met with praise by area residents who have seen new streets added, streets widened and reconstructed and traffic signals installed and upgraded-all designed to help move them around the area more smoothly.

*Because of the success of these METRO partnerships with the City of Houston, Harris County and the 14 suburban cities in the METRO service area, a commitment was made by the METRO Board in 1987 to designate 25 percent of METRO's one percent sales tax for regional mobility improvements. This commitment was affirmed by voters of the region in January 1988.

In 1992, it was recognized that maintenance of existing infrastructure was as important as adding new capacity. The METRO Board approved infrastructure maintenance agreements with the City of Houston, Harris County and the 14 suburban cities.

Over the life of the joint projects program, the general mobility program, the infrastructure agreements, and the expanded sales tax money, METRO has already put more than 580 million dollars into improvements that help all residents move around the area streets and roadways.

In fiscal year 1995, an additional 74 million dollars will be spent to improve the way the users of the area roadways move about-including both buses and cars.

*We in Houston have little choice but to improve our traffic conditions. As a severe non-attainment area under the revised Clean Air Act, Houston could be subject to federal sanctions which could lower our growth prospects if vehicle emissions are not reduced. A significant percentage of those emissions are directly related to congestion.

If we are to clean up the air we breathe, we cannot ignore the effects of congestion on our economy and our people. Relieving congestion saves us time and energy and keep Houston a great place to live.

*Houston is the only major city in the nation to have had continuously declining traffic congestion since 1984. We Houstonians want to stay ahead of growth in traffic. This could be a challenge with the projected growth in the Texas economy anticipated to result partly from the NAFTA trade agreement.

*And as we look into the future, 1995-96 are going to become critical years for the development of the re-authorization of the Intermodal Surface Transportation Efficiency Act. We are going to have to take an active role in helping Congress get ideas on what that surface re-authorization act should look like. Early signs are that the federal government will be supporting our intermodal program involving operational tests, assessments and rapid deployment of advanced technology transportation projects with good customer acceptance.

We hope that demonstrating success with the Smart Commuter projects will convince our citizens we are working for the good of the whole area.

Intelligent Transportation Systems will help METRO show smart commuters how to more efficiently use the existing roadways to accomplish their travel goals. ITS will also help the partnership of METRO, TxDOT, the City of Houston and Harris County to accomplish our traffic management goals.

*I would like to close with another story from the world congress I told you about earlier. As I talked with my colleagues from around the world, it became apparent to me that Houston METRO was a very recognizable commodity. As a transportation authority, the pictures of our buses were well known. Our logo, the motif of the clean, uncluttered bus was identified immediately as that of Houston, Texas. And our involvement and leadership in the total transportation program was recognized with envy. I have to tell you that it made me very proud to be associated with this authority and this great city.

*Thank you for inviting me here today. I hope I have not been too technical. My staff often tells me that rather than telling them what time it is...I tell them how to make a watch. But we are moving rapidly into very technical times and METRO and Houston are on the cutting edge of many of these developments.

I would be happy to answer any questions you may have.