STATEMENT OF CARLOS C. VILLARREAL, ADMINISTRATOR
URBAN MASS TRANSPORTATION ADMINISTRATION
BEFORE TRANSPORTATION SUBCOMMITTEE
COMMITTEE ON APPROPRIATIONS
HOUSE OF REPRESENTATIVES

April 11, 1972

Mr. Chairman and Members of the Committee

It is again my pleasure to appear before you to discuss the Urban Mass Transportation Administration's programs. I would first like to reiterate our program's objectives which, I believe, have motivated all of our program activities in fiscal year 1972. Then I will describe briefly some lessons we have learned, highlight some of our more significant accomplishments, outline our plans and budget requests for fiscal year 1973, and close my statement by detailing the responses we are making to past concerns and directions of the Congress.

Program Objectives

Several broad objectives are derived from the UMTA Act which generally direct UMTA to promote the "welfare and vitality of urban areas" through the improvement of mass transportation facilities, equipment, techniques, and methods of regional planning. These objectives are to:

-- Provide mobility to urban residents
-- Improve urban transportation systems
-- Encourage areawide urban transportation planning

The resources which we employ to accomplish these broad objectives are delivered through the several major UMTA programs. Let me now briefly describe the primary impacts of each of our major UMTA programs.

The Capital Facilities Activity has three objectives. It provides equipment and facilities to increase the mobility of all urban residents, the "transportation disadvantaged"--that is the young, aged, poor, handicapped, unemployed, and people without cars--and contributed to the achievement of land-use patterns which improve the physical, economic, and social well-being of urban communities.

The Technical Studies Activity provides for improved local planning, and improved transportation techniques and methods which together result in balanced areawide urban transportation systems.

The Research, Development and Demonstration Activity provides both hardware and non-hardware improvements. The hardware improvements become a spectrum of available opportunity for possible implementation through the Capital Facilities funding or direct local action. The non-hardware innovations improve operating and management methods, reduce operating costs, improve equipment utilization and reduce transit time.

The Management Training Activity provides modern management training to present transit employees which in turn results in near-term improved operator productivity.

The University Research & Training Activity provides assistance to academic institutions in supporting long-range urban transportation research and training of professionals who will contribute either directly or indirectly to improved productivity in the transit industry.

What Have We Learned?

Our program is now eight years old. I have been associated with it for the past three years. We have gained significant knowledge about urban transportation problems and mass transit and are using this knowledge to shape our program and provide leadership for the industry.

-- We have learned that improved transit requires reduction of political and institutional constraints and that we need to effect local planning earlier in the process;

-- We have learned that we must put increased emphasis on non-capital actions that can affect transit. Such actions include parking policies, staggered work hours, tax and toll policies, and land use and zoning controls;

-- We have learned that convenient, rapid service which might be described as user control over routes and schedules is far more important than amenities in winning new riders even though there are some basic amenities such as the availability of seats and air conditioning, which do influence decisions to use mass transit.

-- Continuing with the above, we have learned that to increase ridership and improve mobility we need to make transit an attractive alternative to the private automobile through express service, exclusive bus lanes or priority access, better downtown circulation and demand responsive collection and distribution;

-- We have learned that improved transit facilities and services do not attract new riders unless they have access to necessary information about how to reach and use the transit system; and

-- We have learned that when the kinds of improvements I have enumerated are made--when transit is attractive, reliable and competitive with automobile speeds--that people will use it.

Program Accomplishments

We have made good progress in the past year. Our RD&D program is providing increased opportunity for transit improvements, while our technical studies and capital assistance programs provide the means to grasp that opportunity. In that sense UMTA will have impact in a joint venture with communities showing strong local commitment and support for mass transit.

The most permanent benefit of the 1970 legislation may well be the growing attention it has stimulated to the whole question of the role of public transportation in improving the urban environment and serving metropolitan growth and redevelopment objectives. This increasing public awareness and commitment to action is evident from the creation of new State DOT's; enactment of new State transit assistance programs; voter support for new transit taxes; and a growing willingness to consider regulatory, tax and pricing incentives to stimulate transit use.

Gentlemen, I have some success stories here that will highlight the accomplishments and progress of our capital assistance and RD&D activities.

Capital Grants. In the past year, UMTA has preserved essential bus service in 25 cities. We have accelerated modernization of the Nation's bus fleet by assisting in the purchase of more than 2500 new buses. We have reduced operating costs and increased service reliability by supporting construction of modernized bus maintenance facilities. We have substantially curtailed crime against bus drivers and passengers through exact fare plans and installation of locked fare boxes and two-way radio communications. Here are some examples that illustrate the kind of impact we are having.

Last October a $30.2 million grant was made to the Metropolitan Atlanta Rapid Transit Authority for the purpose of acquiring the Atlanta Transit System, Inc., and 490 new buses. The grant was predicated on passage of a 1% sales tax, which was approved on November 9 in Fulton and DeKalb Counties. This tax provides funds for an operating subsidy to maintain a 15¢ fare and for the local share of capital grant funding. These funds will also provide the local share for a 60-mile rail transit and busway system for which Federal assistance has been requested. The assets of the company were transferred to the Authority on February 17 and fares were lowered from 40¢ to 15¢ two weeks later. The first month of operation under the new fare structure, transit traffic increased by 22%--largely in off-peak hours. Saturday and Sunday ridership is up 43% and 35% respectively.

In June of 1971 we made a $5.7 million capital grant to the City and County of Denver for the purpose of purchasing the Denver Tramway Corporation and acquiring 37 new buses. The purchase of the company was accomplished in April 1971, and a 5¢ fare cut was put into effect. Riding has been on the upsurge ever since--17% during 1971, a 25% increase in January, and 30% in February. Some of the old buses previously scheduled for retirement must be retained for the time being to handle the added ridership.

Our $6.3 million capital grant to the Golden Gate Bridge, Highway and Transportation District last December provides funds for setting up a new bus system to replace service formerly operated by the Greyhound Corporation between downtown San Francisco and Marin County. Included were 132 new buses, construction of a new office-shop-garage, and related equipment. Service with the new fleet began on January 1, 1972. There was a 35% increase in riding in the first three months,

to 12,200 daily passengers. In fact, Golden Gate is now seeking 54 more new buses to handle the traffic and eliminate excessive standees. When Greyhound had the service there were 103 buses and 175 jobs--now there are 132 new buses, with 54 additional needed, and 304 jobs in the bus system. The rate of growth has been such that the transit riding expected by July 1973 was achieved in three months.

Last April UMTA provided funds to the City of Madison, Wisconsin for the purchase of the Madison Bus Company and acquisition of 36 new buses. The City assumed responsibility for transit operations on May 1, 1970. In 1971, ridership held its own. Now a strong upswing is starting: January saw a 7% increase; February was up to 13%. With the new bus fleet and new management this medium-sized City's riding pattern should be further stimulated.

A year ago a Federal grant of $400,000 provided funds to Iowa City for the purchase of the bus company, 12 new buses and a new garage. The City took over transit service on September 1, 1971, and reduced the fare from 25¢ to 15¢. On the first day of service 1902 passengers were carried, which later that week grew to about 2500. When the University of Iowa is in session, about 5,000 daily riders are carried. When school is not open, about 3,000 passengers ride each day. This is a growing transit system made possible by UMTA funds.

As a result of our tests of Environmental Improvement Kits for buses, we now require that low sac injectors be installed on all diesel buses purchased with Federal aid. UMTA capital grant funds are also available for installation of kits on older buses which have a reasonable remaining life span. The Alameda-Contra Costa Transit District in Oakland, California, is retrofitting 462 buses; San Antonio 280 buses, and other applications for the complete conversion of major bus fleets are coming in.

In the rail area, the capital grant activity in Fiscal Year 1971 helped finance 315 new commuter rail and transit cars.

A $68 million capital grant to the Bay Area Rapid Transit District in San Francisco for the first 250 cars for that new transit system is a follow-on to a previous demonstration grant which provided $5 million for building and testing 10 prototype cars. The first prototype was delivered in the summer of 1970, and for well over a year these cars were subjected to thorough and rigorous testing. Testing was completed in the fall of 1971, and work was then commenced on the production model cars, which incorporate the changes and corrections shown to be desirable by the tests. The prototype program should eliminate major problems with the new cars when operations begin. It is an example of how our RD&D and capital assistance activities work together to solve immediate problems.

The South Shore extension of the Massachusetts Bay Transportation Authority, over the right-of-way of the former New Haven's Old Colony Line, came into revenue service during the Fiscal Year 1971. Train service on this Line had been discontinued in 1959. The first day's traffic of 15,000 passengers has grown steadily to about 22,000 per average weekday. This is the fourth major rail rapid transit extension funded by UMTA to open, the Cleveland Airport and Chicago Kennedy and Dan Ryan extensions having preceded it.

Research, Development and Demonstrations. Based on the UMTA objectives I described earlier we have directed our RD&D activity at every area of significant need and we have structured it to accomplish short, medium and long-range objectives. We are making substantial progress in all three program areas: bus, rail and new systems. Let me say a few words about each of these starting first with our bus program.

Bus Technology

UMTA is presently negotiating with three contractors for the production of three different prototypes each of new bus designs. Each contractor will also configure one of his prototypes to meet the specific needs of the elderly and handicapped. The purpose of this project is to choose an improved transit bus design for funding under our capital grant program.

Bus Service Innovations

The Shirley Highway exclusive bus lane will be augmented with more buses to accommodate the rapidly growing ridership. The success of this and the Seattle Blue Streak project have led other cities to follow suit, and Los Angeles is now building an eleven-mile exclusive busway with help from UMTA's capital assistance program and FHWA.

Automatic Vehicle Monitoring

Four competing technologies are now under test and evaluation as candidate systems for the electronic location and tracking of buses. The purpose is to provide transit operators with real time information on schedule adherence and to permit corrections by radio.

... and in the rail area:

Rapid Transit

Our rail effort will produce a best of the state-of-the-art rapid transit car this year. This will be followed by a contract to design an advanced car incorporating improvements now in development.

Commuter Cars

Contracts have been awarded for the revenue operation demonstration of a dual-powered train which was previously under development. This train can instantaneously shift to gas turbine power upon reaching the limit of electrification of a line thus providing continuous service to the rider on the same train. Guideline specifications for future commuter cars are under preparation.

Light Rail

The UMTA light rail or "street car" effort is motivating a successor to the 1935 PCC car by the cooperative production of a common specification by all light rail cities. Thus through commonality these cities can enjoy the economy of scale otherwise unattainable in small lots of custom built cars. Options in key features such as car length and width will of course be provided for.

Rail Supporting Technology

A program of rail technology test and evaluation is underway and will expand at the Pueblo test track. Initial emphasis is being placed on safety, noise reduction, passenger security, and ride quality.

... and in the new systems area:

Personal Rapid Transit

The first Personal Rapid Transit for service use is being constructed at Morgantown, West Virginia. Four different technologies in Personal Rapid Transit will be completed and will begin test and evaluation on the site of the Dulles Airport by the end of this month.

Dial-A-Ride

The first UMTA Dial-A-Ride demonstration is now underway at Haddonfield, New Jersey, with a fleet of twelve vehicles, one of which is equipped to permit easy access by wheelchairs.

Special Services For The Elderly And The Handicapped. In 1970 the Urban Mass Transportation Act was amended to establish as a national policy that elderly and handicapped persons have the same right as other persons to utilize mass transit facilities and services. I would like to outline our efforts in response to this Biaggi Amendment. These activities involve both the capital assistance and the RD&D activities. We have taken a number of specific steps to address the mobility needs of the elderly and handicapped.

1. We have restructured the Service Development activity to provide funds for demonstrations of special services and equipment for the elderly and handicapped.

2. We are requiring that Technical Study projects include consideration of the specific needs of the elderly and handicapped. In the Capital Grant activity we require that each application show that adequate consideration has been given the needs of the elderly and handicapped and we review project plans to ensure that the facilities being provided meet these needs.

3. We have brought on board an architect trained in gerontological problems to assist transit properties and transportation representatives in planning for the needs of the elderly and handicapped.

4. We have funded five hardware development projects to provide special equipment or improve existing equipment so they can accommodate the elderly and handicapped.

I should like to submit for the record descriptions of representative projects we have funded which are specifically for the elderly and handicapped.

Future Progress: Plans for Fiscal Year 1973

Gentlemen, while our program has continued to produce tangible accomplishments we have also been laying the foundation for even more significant future progress.

In the capital assistance area, a growing number of communities are now giving serious consideration to quantum improvements in their transit systems. Last year when I appeared before you a total of more than $2.2 billion in UMTA funds was requested for capital assistance. The application backlog has increased to more than $4 billion this year, with the filing of applications by Atlanta and Baltimore for new rail transit systems. Our Fiscal Year 1973 plans will allow us to provide an initial Federal contribution for the construction of these systems, as well as allow us to continue funding of the Early Action Program in Pittsburgh. On a smaller scale, we will be providing assistance to several communities that wish to institute manually controlled Dial-a-Ride service, which has been successfully inaugurated in several cities during the past year.

As indicated in our budget presentation, about $27 million will be used to preserve essential transit services that otherwise would be discontinued. The bulk of the authority to commit will, however, be used to improve present services or to provide entirely new services to meet the urgent transit needs of our growing metropolitan areas.

In our RD&D activity, a number of projects that I have enumerated earlier are progressing to the point where they will influence transit planning and will yield useful products for our capital assistance program, if we receive sufficient funding in Fiscal Year 1973 to take them through the demonstration phase.

In the planning area, we will continue development of a computer simulation model which will predict generated traffic and the modal split considering all transit modes for specific urban areas.

In the bus program, demonstrations will include:

1. Operational testing of steam engine propulsion systems.

2. Full scale operational demonstrations of Automatic Vehicle Monitoring.

3. Demonstration of new cost-reduction techniques for transit operations and management.

4. A full scale demonstration of Dial-a-Ride incorporating back-up computer capacity and direct customer input to the computer.

In the rail effort, our Fiscal Year 1973 plans call for:

1. Expansion of the Pueblo Test Center and the testing to be performed there.

2. Demonstration of a newly designed light rail car throughout the U.S.

3. Test and evaluation of the state-of-the-art cars in the five major rail cities.

In the new systems area, we plan to expand our operational demonstrations of PRT systems and to test and evaluate a prototype tracked air cushion vehicle at the Pueblo Test Center. Finally, added emphasis will be devoted to our Service Development activity in general, and to improved means of meeting the special mobility requirements of the elderly and handicapped in particular.

Summary of Fiscal Year 1973 Budget

I would now like to summarize our Fiscal Year 1973 budget request. This budget is designed to continue the momentum that has been generated around the country for mass transit.

Briefly, we are requesting $118 million for our Research, Development and Demonstration, University Research, and Managerial Training activities, $7.1 million for administrative expenses, and $232 million for liquidation of obligations under our contract authority programs (under which we expect to make new commitments of $841 million for capital grants and $33 million for technical studies).

Research, Development and Demonstrations

UMTA's RD&D activity is planned at $115 million in 1973 as an integral part of the President's effort to accelerate the use of science and technology for the service of man. This program will significantly advance the delivery of technology to meet the goal of providing citizens with clean, safe, fast, convenient, and comfortable mass transit alternatives. The funds are planned to be used as follows:

- $18.2 million for bus transit, more than half of which is for the new transit bus and low-pollution propulsion systems;

- $21.9 million for rail transit, including demonstrations of the state-of-the-art rail cars, fabrication of advanced-concept cars, and testing activities at the Pueblo Center;

$66.3 million is for new systems development, including $30 million for development and demonstration of personal rapid transit, $10 million for Dual-Mode prototype development, and $14 million to complete the Morgantown demonstration;

$6.0 million for service development demonstrations emphasizing the needs of the transit deprived, especially the aged; and

$2.5 million for systems analysis and planning.

Our University Research and Managerial Training activities will continue at their present level of $3 million.

Salaries and Expenses

Our request for administrative expenses provides for a staff increase of 35 positions. Five of these are for the management of the expanded RD&D activity and thirty are for our new field staff where most of the day-to-day project administration goes on.

I believe it is prudent and economical management of our growing program to put our administrative people out where their business is. This eliminates a lot of travel expenses and, more importantly, increases our response time and our ability to monitor and audit projects expeditiously. The requested increase will add auditors, engineers, and systems planners who would otherwise have to be added to the Washington staff.

The staff increase for RD&D is to provide project management staff commensurate with the proposed program increase.

Liquidation of Contract Authorization

We estimate we will need $232 million in Fiscal Year 1973 for liquidation of our grants under the contract authority programs. Undoubtedly you are more interested in our plans for new program

commitments under the remaining contract authority. We estimate a program level of $841 million for capital grants and $33 million for technical studies.

Response to Congressional Direction

In closing I would like to call attention to the response we have made to a number of concerns expressed by the Appropriations Committees in the past.

1. You asked us to strengthen our management and provided us with additional staff resources to do so. Our management progress includes:

-- promulgation of a comprehensive set of internal policies and procedures that now control all of UMTA's activities;

-- formalization of a complete system of assistance for applicants and grantees, including codification of all guidelines and procedures into a single grantee operating manual, establishment of a central technical assistance division, and continuation of our field office plans;

-- improvements to our grant management methods through such actions as refinement of grantee procurement practice and procedures, creation of a third-party contract review board, and the establishment of uniform accounting guidelines;

-- completion of our automated UMTA Management Information and Control System which integrates our management information, accounting, and control programs;

-- initiation of action to develop a performance measurement and evaluation system; and

-- expansion of our external auditing capability.

These improvements have assured program efficiency and greater economy as UMTA has made its transition from a $160 million annual program to one of $600 million, and soon to $1 billion.

2. You have asked for follow-up studies on the impact of Capital Grants. We have incorporated requirements for such studies in our new capital grant criteria and will support them as part of the planning process of an area. We are currently participating with other elements in the Department, and with HUD, and the National Science Foundation in a comprehensive study of the impact of BART.

3. You have expressed concern over the possible loss of abandoned railroad rights-of-way to future use by mass transit. We have just completed a survey of this problem and are certain that Federal procedures now give communities adequate notification and opportunity to preserve such rights-of-way. Federal financial assistance is available to help communities buy the land.

4. And you have expressed concern about possible neglect of immediate problems in our RD&D program in favor of high cost demonstrations with payoffs far in the future.

As I have stressed repeatedly, our RD&D activity has been structured to have short, medium and long range goals. We simply cannot afford the luxury of concentrating on mass transit systems for the late '70's and early '80's--rather we must improve today's equipment and we must develop new hardware and software for the mid-range period. To show that we are doing this, I would like to enter into the record this list of our major R&D projects and their anticipated completion dates.

Finally you will notice in our fiscal year 1972 and 1973 funding plans that the Bus and Rail programs each require roughly the same magnitude of funding, whereas the New Systems program requires about three times the funding of the Bus program or the Rail program. I think this clearly illustrates the requirement for development of completely new technology in the New Systems program as opposed to incremental improvement to known technology in the Bus and Rail program. The risks are greater in New Systems, the unknowns are more pervasive, but the potential payoff in improved urban transportation, although it may be in the mid- or longer-term, appears very promising and altogether capable of making a considerable contribution to rejuvenating a presently deteriorating urban environment.

This concludes my introductory statement. I welcome your questions.