

Northern Virginia Transportation Commission

4350 N. Fairfax Drive • Sulta 720 • Arlington, Virginia 22203 (703) 524-3322 / Fax 524-1756 / TDD 800-828-1120 VA Relay Service

NINTH ANNUAL REPORT:

TRANSPORTATION SERVICE COORDINATION PLAN

--NOVEMBER 1993--



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ABSTRACT

This ninth in the series of reports on the Transportation Service Coordination Plan (TSCP) of the Northern Virginia Transportation Commission reviews the institutional setting within which transportation policies and programs are implemented in Northern Virginia. Scores of agencies and organizations are working to gather data, define problems and opportunities, and craft solutions to the region's mobility needs. The TSCP also assembles performance data for the region's public transit systems and reviews ongoing studies, plans and demonstration projects. The report concludes with a set of issues and recommendations for action to guide NVTC and its jurisdictions in improving the coordination of the region's transportation network. Finally, a set of appendices provides supporting data on transportation agencies and organizations, public transit ridership and routes, taxi services, park-and-ride lots, transit fares, and NVTC's ongoing interjurisdictional bus study.

Money is scarce, congestion is getting worse, and existing transportation facilities are in need of immediate repair. Northern Virginia's jurisdictions face a financing shortfall of \$657 million over the next six years, including \$260 million for transit projects included in the Commonwealth's approved six-year program. Another \$442 million is needed for transit operating costs.

Daily public transit ridership in Northern Virginia is about 230,000, on several regional and local systems varying in size from 321 peak-hour Metrobuses and 180 Metro railcars in Virginia to two small buses performing the Tysons Shuttle service. Both public agencies and private firms provide these services. While most encourage transfers between systems, no uniform regional transit pass yet exists that would reduce the cost and increase the convenience of travel by public transit.

Among the studies and new initiatives underway in the region are efforts to implement new rail service in the Dulles corridor and provide high-speed rail service to Richmond. NVTC's interjurisdictional bus study is seeking to identify ways to improve the efficiency and quality of routes that travel between localities. The new regional paratransit system, initiated to meet the requirements of the Americans with Disabilities Act, will begin to phase-in service in March, 1994.

Recommended actions to improve coordination include local efforts to encourage employer-sponsored programs boosting transit and ridesharing, state and federal programs to complete interconnected HOV networks and financing plans for transit improvements, and unified regional efforts to complete transportation and air quality plans. Given enormous financial shortfalls, new state revenues are needed, as well as a revised process for allocating revenue to support public transit. In addition, enhanced public involvement and more public-private cooperation can help to leverage scarce transit resources.

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SECTION I

INTRODUCTION

BACKGROUND

History of the Planning Process

In early 1984 the Northern Virginia Transportation Commission initiated a formal process to create a Bus Service Coordination Plan by adopting a set of goals:

- Improve transit information sharing within the region;
- Provide better coordination of bus planning and services; and
- Improve bus service benefits relative to costs.

This is the ninth in the series of reports on NVTC's Bus Service Coordination Process. Since the focus of the planning process has expanded beyond buses to include passenger rail and other High Occupancy Vehicle (HOV) strategies as well as related highway improvements, the report has been renamed to reflect the broader emphasis on surface transportation services.

NVTC's Transportation Service Coordination Plan is not a typical government plan, in which routes are drawn on a map or specific equipment needs identified. Rather, the commission's plan is part of a process which seeks to accomplish improvements by changes in the way local and state governments and the private sector think about, analyze and solve transportation problems. Thus, the NVTC plan can never be "complete;" the process must be continually enhanced and revised to accomplish steady progress toward its objectives. The annual reports that describe the process and the progress are, therefore, more on the order of dynamic proposals rather than static blueprints. The reports set forth strategies across a broad front for coping with congestion and coaxing more productivity from scarce transportation resources, through improved coordination and communication.

The genesis of the commission's planning process was Virginia Senate Resolution #20, passed in 1983, that directed NVTC and the former Virginia Department of Highways and Transportation (now the Virginia Department of Transportation---VDOT) to conduct a thorough study of bus transportation in Northern Virginia. The resulting 1983 study (Report on the Feasibility and Desirability of Locally Sponsored Bus Service in Northern Virginia) concluded that while NVTC should not promote decentralization of bus service within the regional network operated by the Washington Metropolitan Area Transit Authority, it should take an active role by developing a bus service management plan. That plan should examine feasible options for planning, routing, scheduling, establishing fare structures for, operating, marketing, and coordinating a diverse set of public transportation services in Northern Virginia.

It is toward those goals (expanded to include other transportation modes) that NVTC's series of reports on its Transportation Service Coordination Plan is focused.

Role of the Northern Virginia Transportation Commission

NVTC was created by the Virginia General Assembly in 1964, and consists of 19 commissioners representing six Northern Virginia jurisdictions and the Virginia Department of Rail and Public Transportation. **Figure 1** shows the current membership.

NVTC provides a transportation policy forum, and is charged with allocating as much as \$100 million in state and federal aid each year among its member jurisdictions. The commission also appoints Virginia's two principal and two alternate members of the Board of Directors of the Washington Metropolitan Area Transit Authority (WMATA or Metro). WMATA operates Metrobus and Metrorail service in the District of Columbia, Maryland and Northern Virginia.

NVTC has sponsored numerous demonstrations to improve coordination among transportation services, such as private taxis serving Metrorail stations in lieu of more expensive bus service. As evidenced by this Plan, the commission has assumed an active role in coordinating transportation services in Northern Virginia, and is working with local governments to maintain stable and reliable funding for these services. NVTC also seeks to improve transit connections and provide better information for passengers, while upgrading performance of transit operators. Marketing transit services is an area of intense current interest on the part of the commission, as is leveraging public transit assistance through cooperation with the private sector.

Since 1984, NVTC has been working to implement commuter rail service in two congested corridors. With its partner agency, the Potomac and Rappahannock Transportation Commission, NVTC in mid-1992 initiated service between Manassas and Union Station in the District of Columbia, and also between Fredericksburg and Union Station.

More information about NVTC, its statutory mandate, history and accomplishments, as well as a detailed listing of its 1993 work program, is available in the commission's 1993 Handbook. This document, as well as the earlier reports on the Transportation Service Coordination Plan, are available on request to the commission.

Figure 1

NVTC OFFICERS AND COMMISSIONERS --1993--

John Mason, Chairman Patricia S. Ticer, Vice-Chairman Robert E. Harris, Secretary-Treasurer

Arlington County

City of Alexandria

Ellen M. Bozman⁴
Albert C. Eisenberg
Mary Margaret Whipple¹

T. Michael Jackson² Patricia S. Ticer

Fairfax County

City of Fairfax

John Mason

Joseph Alexander^{1/3}
Ernest J. Berger
Sharon Bulova³
Katherine K. Hanley²
Elaine McConnell³

City of Falls Church

.

Phillip J. Thomas

Loudoun County

Charles D. Grant

Virginia Department of Rail and Public Transportation

Leo J. Bevon

General Assembly

Senator Joseph V. Gartlan, Jr. Senator Edward M. Holland Delegate James F. Almand Delegate Bernard S. Cohen Delegate Robert E. Harris

Principal member of Metro Board

² Alternate member of Metro Board

Principal member of VRE Board

⁴ Alternate member of VRE Board

OVERVIEW OF THE 1993 REPORT

Northern Virginia's citizens and institutions are presented with a very complex set of transportation coordination issues. Traffic congestion is a serious problem (ranked first in most attitude surveys), and is expected to worsen as growth continues at suburban job locations not well served by traditional public transit. Financial resources are severely constrained, reflecting enormous needs and the ravages of the prolonged economic recession. Serious air pollution requires immediate remedial measures, as mandated by federal law. Accessibility to transportation facilities must be improved for persons with disabilities. New federal cooperative planning requirements must be met.

Traditional public transit solutions must be altered to meet these new challenges. Scores of federal, state, regional and local entities are charged with anticipating serious transportation problems and forging solutions, but the playing field on which these organizations operate has a new set of ground rules. For example, important new federal legislation, the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), offers new flexible funding opportunities to encourage compliance with Clean Air Act mandates, while requiring greatly enhanced cooperation among all levels of government.

Given the growing seriousness of transportation problems, shrinking financial resources, and greater institutional complexities, the need for a plan to achieve improved coordination is evident. Section II of this plan reviews the institutional setting in which regional transportation policies and programs are determined. Section III describes the performance of the region's transportation system in meeting the region's transportation goals and objectives.

Section IV lists ongoing studies, plans and demonstration projects designed to improve the performance of the region's transportation system. In Section V, issues and recommendations are reported, with an action plan for improved transportation coordination. A lengthy set of appendices provides supporting data.

Money is scarce, congestion is getting worse, and existing facilities are in need of immediate repair. This is the serious challenge to which the Transportation Service Coordination Plan is addressed.

SECTION II

THE INSTITUTIONAL SETTING

WHO IS WORKING ON CONGESTION PROBLEMS?

Scores of agencies and organizations meet regularly, adopt policies, define programs and work diligently to improve the mobility of people and goods in Northern Virginia. Because problems persist, many individuals have called for additional agencies or organizations to be created. For example, some have advocated a new regional transportation agency for Northern Virginia (or even for the entire Metropolitan Area) that would have the power to cut through red tape and to get new projects planned and built with its own independent source of revenue.

As an example, Congress created the Interstate Study Commission to report by December, 1994 on funding possibilities and institutional reforms by which interstate transportation in the congested D.C. area can be improved. The 16 members include state secretaries of transportation, members of Congress, and private citizens appointed by the Governors of Maryland and Virginia and the Mayor of the District of Columbia. Among the concepts that may be examined are ways to cooperatively plan and finance eastern and/or western bypasses, complete improvements to the Wilson Bridge, and combine the operations of the Virginia Railway Express and Maryland MARC commuter rail systems.

Regardless of any government mandates, before projects can be successfully built, today's institutional setting requires that consensus must be achieved among agencies and individuals. In June of 1990, the Metropolitan Washington Council of Governments created a task force to pursue such a consensus-building process. Later, participants in a 1992 conference on land use and transportation sponsored by the Northern Virginia Planning District Commission, NVTC, and others concluded that MWCOG's Task Force (known as the Partnership for Regional Excellence) should be vigorously supported as part of a major effort to educate elected officials and citizens about related transportation and air quality problems and desirable solutions. That Task Force reported to MWCOG in July, 1993 regarding a sustained role for MWCOG in building consensus. The report called for greater emphasis on integrating land use and transportation policies, as well as encouraging the development of a comprehensive funding strategy to finance mobility improvements.

Clearly, to craft effective new solutions to the region's complex problems, a full understanding of efforts already underway should be achieved. Who is doing what? What has worked and what has not? If a citizen has an idea for improvement, where can he or she turn for advice and support?

As a first step, one needs to be aware of the wide array of agencies and organizations already actively engaged in transportation planning, financing, constructing, regulating, and advocating change. In many cases, coalitions of these organizations form to provide greater leverage to achieve shared objectives. When pursuing new programs, it is essential to notify these groups to avoid misunderstandings and duplication of effort.

Appendix A gives names, addresses and telephone numbers for the most important agencies and organizations currently involved in transportation (and related air quality) endeavors in Northern Virginia and the Metropolitan Area. For each, a brief synopsis of their current activities is given. The appendix is organized by federal, state, regional, local, and private sector. Figure 2 shows the major local governments and populations that comprise the Washington Metropolitan Area. Figure 3 lists the names of the agencies and organizations included in the appendix.

As the lengthy list suggests, areas of responsibility often overlap considerably, despite each of the entities trying to define its individual role in relation to those of the others.

Throughout this report, many of the agencies listed in Figure 3 will be referred to by their acronyms. Please remember to refer back to this figure to help recall the full names, and refer to Appendix A for more information.

Figure 2

1990 CENSUS POPULATION OF THE
METROPOLITAN WASHINGTON AIR-QUALITY
NON-ATTAINMENT AREA

1.1.	JURISDICTIONS	1990 POPULATION
NVTC:		
•	City of Alexandria	111,183
•	Arlington County	170,936
•	City of Fairfax	19,622
•	Fairfax County	818,584
•	City of Fails Church	9,578
•	Loudoun County	86,129
	Subtotal:	1,216,032
PRTC:		
•	City of Fredericksburg	19,027
•	City of Manassas	27,957
•	City of Manassas Park	6,734
	Prince William County	215,686
	Stafford County	61,236
	Subtotal:	330,640
DISTRICT	OF COLUMBIA:	606,900
SUBURBA	N MARYLAND:	CORST -
	 Montgomery County 	757,027
	 Prince George's County 	729,268
	Subtotal:	1,486,295
	Calvert County	101,154
	Charles County	150,208
	Frederick County	51,372
	Subtotal:	302,734
	TOTAL:	3,942,601

FIGURE 3 TRANSPORTATION AGENCIES/ORGANIZATIONS

FEDERAL/NATIONAL

Congress

Executive

U.S. Department of Transportation (USDOT)

Office of The Secretary

Federal Transit Administration (FTA)

Federal Highway Administration (FHWA)

Federal Railroad Administration (FRA)

Environmental Protection Agency (EPA)

Army Corps of Engineers

National Park Service

General Services Administration (GSA)

Transportation Research Board National Research Council (TRB)

American Association of State Highway and Transportation Officials (AASHTO)

American Public Transit Association (APTA)

STATE

Governor

Secretary of Transportation

Virginia Department of Transportation (VDOT)

Commonwealth Transportation Board (CTB)

Virginia Department of Rall & Public Transportation (VDR&PT)

State Corporation Commission (SCC) Division of Risk Management (DRM)

Virginia General Assembly

Virginia Association of Counties (VACO)

Virginia Municipal League (VML)

Virginia Association of Public Transit Officials (VAPTO)

George Mason University (GMU)

REGIONAL

Northern Virginia Transportation Commission (NVTC)

Potomac and Rappahannock Transportation Commission (PRTC)

Virginia Railway Express (VRE)

Northern Virginia Planning District Commission (NVPDC)

Transportation Coordinating Council (TCC)

Washington Metropolitan Area Transit Authority (WMATA)

Metropolitan Washington Council of Governments/Transportation Planning Board (COG/TPB)

Metropolitan Washington Air Quality Committee (MWAQC)

Metropolitan Development Policy Committee

Baltimore/Washington Regional Association

Greater Washington Board of Trade

Federal City Council (FCC)

Maryland National Parks and Planning Commission

Washington Suburban Transit Commission (WSTC)

Maryland DOT

Maryland Rail Commuter Service (MARC)

National Capital Parks and Planning Commission

LOCAL

Offices of Transportation, Finance Planning and Public Works

Citizens Transportation Advisory Boards

Transit Operators

DASH (Alexandria)

CUE (City of Fairfax)

CONNECTOR (Fairfax County)

CRYSTAL CITY TROLLEY (Arlington)

RIBS (Reston)

TYSONS SHUTTLE (Fairfax County)

Transportation Management Associations

Ballston Area Transportation Association (BATA)

Dulles Area Transportation Association (DATA)

Reston Area Transportation Association (LINK)

Transportation and Environmental Management, and Planning Organization Alexandria, Inc. (TEMPO)

Tysons Transportation Association (TYTRAN)

PRIVATE

Toli Road Corporation of Virginia Washington Private Operators Council

Washington Area Bicyclists Association American Automobile Association (AAA)

Sensible Washington Area Transportation Coalition

Northern Virginia Transportation Alliance

League of Women Voters

CONSENSUS-BUILDING ORGANIZATIONS

Among the major participants in Northern Virginia's efforts to improve transportation coordination are, in addition to NVTC and PRTC, the following three organizations:

- 1) Transportation Coordinating Council (TCC): Includes separate policy, technical and citizens groups, with a work plan that features regional consensus-building to establish transportation priorities. TCC is staffed by the Northern Virginia District Office of VDOT. The policy group, consisting primarily of elected officials from NVTC and PRTC and chaired by Northern Virginia's member of the Commonwealth Transportation Board, meets at least quarterly. The technical and citizens committees meet monthly. Currently, TCC is considering ways to develop closer ties to the Transportation Planning Board and to provide better representation for town governments in the regional allocation process for transportation funds. TCC's Technical Committee initiates the annual process of allocating flexible federal ISTEA funds available to Northern Virginia, and provides recommendations to the TCC policy group, which--when adopted--are forwarded to the Transportation Planning Board. TPB's actions are in turn forwarded to the Commonwealth Transportation Board.
- 2) <u>Transportation Planning Board (TPB)</u>: Designated as the metropolitan planning organization (MPO) for Northern Virginia, suburban Maryland and the District of Columbia, TPB adopts annual lists of projects to receive federal funding and produces long range transportation plans. Members of the board consist of elected officials from the two states and the District of Columbia, as well.
- 3) Commonwealth Transportation Board (CTB): The policy-making body which allocates state funds (and federal funds channeled through the state) for transportation projects. Virginia's Secretary of Transportation chairs CTB; the board's 16 members are appointed by the Governor. The group adopts a six-year program, which is updated each year.

Also emerging as important parties to the region's planning process are the following two organizations:

Metropolitan Washington Air Quality Committee (MWAQC): This group, which consists of elected officials from localities, states, and the District of Columbia, has been given the authority by the governors of Maryland and Virginia and the Mayor of the District to develop specific recommendations for a regional ozone control strategy in the Washington non-attainment area. Once final, these recommendations will be folded into Virginia's State Implementation Plan, to be submitted to the Environmental Protection Agency. The committee works closely with MWCOG and state and local staffs, as well as with the Air Quality Public Advisory Committee (AQPAC), which was created by MWAQC in order to enhance citizen input into the process.

2) Metropolitan Development Policy Committee: One of five policy committees which advise the MWCOG Board of Directors, the Metropolitan Development Policy Committee makes recommendations regarding regional forecasts (which are closely linked to the region's transportation planning process) and works to facilitate and oversee interjurisdictional agreements. Currently membership consists of approximately 45 locally elected officials; in January, 1994 the group will be reconstituted to include other types of members, and will most likely be renamed.

As one example of the complexity of transportation decision-making processes in Northern Virginia, refer to Figure 4, which was compiled for the Dulles Task Force. The two-page figure lists the names and telephone numbers of "designers and decision makers" in the Dulles Corridor. For major projects such as new rail service in the Dulles Corridor; the proposed interchange improvements at the Capital Beltway and Shirley Highway (I-95, 395, 495); proposed Wilson Bridge improvements; or HOV lanes on the Beltway, consensus building prior to acceptance and implementation of improvements requires careful attention to including all of the appropriate participants.

Figure 4

DESIGNERS AND DECISION MAKERS IN THE DULLES CORRIDOR

Committee for Dulles

Joe Drake, President - (703) 481-4278

Commonwealth Transportation Board/HOV Task Force

Mark Warner, Chairman - (703) 519-3581

Dulles Area Transportation Association (DATA)

John Corbett, President

Eddie Byrne, Executive Director - (703) 689-9589

Dulles Task Force

John F. Boland, Chairman - (703) 790-1911

County of Fairfax

The Honorable Thomas M. Davis, III, Chairman of the Board of Supervisors - (703) 324-2321

County of Loudoun

The Honorable George Barton, Chairman of the Board of Supervisors - (703) 777-0204

Fairfax County Chamber of Commerce

Pete White, Manager of Business Development - (703) 749-0400

Herndon Chamber of Commerce

Janet Kreutter, Executive Director - (703) 437-5556

LINK

Karl Ingebritsen, Director - (703) 318-9663

Loudoun Chamber of Commerce

Susan Home, Executive Director - (703) 777-2176

Loudour County Dulles Toll Road Extended Plan Technical Committee Jerry Sardone, Chairman - (703) 450-4600

Loudoun Partnership

Jim Gahres, Executive Director - (703) 450-1782

Reston Board of Commerce

Karl Ingebriteen, Vice President - (703) 860-5353

Chairman, Transportation Committee

Route 28 Highway Transportation Improvement District Commission The Honorable Roger Zum, Chairman - (703) 777-0204

Route 28 District Advisory Board

Francis Steinbauer, Chairman - (703) 378-8698

Toll Road Corporation of Virginia

Gen. Charles E. Williams (Ret.)

Chief Operating Officer - (703) 707-8870

Figure 4 continued

Town of Herndon

The Honorable Thomas D. Rust, Mayor - (703) 435-6805

Transportation Coordinating Council (TCC)

Byron Waldman, Chairman - (703) 519-7988

TCC Technical Committee

Carolyn Zeller - VDOT - (703) 934-0600

TCC Citizen's Advisory Committee (CAC)

Margaret Vanderhye - Chairman - (703) 442-0422

Tysons Task Force

Dan Alcom, Chairman

Sterling Wheeler, Staff Contact - (703) 324-1210

Tysons Transportation Association (Tytran)

William Menda, President and Chairman - (703) 903-4038

Mary Anne Thompson, Staff Contact - (703) 765-77

Virginia Department of Rall and Public Transportation

Leo Bevon, Director - (804) 786-1051

Virginia Department of Transportation - (703) 934-7300

Office of the Secretary

John G. Milliken - (804) 786-8032

Ray Pethtel, Commissioner - (804) 786-2702

District Administrator of the Northern Virginia District

Tom Farley - (703) 934-7300

Washington Airports Task Force

Leo Schefer, President - (703) 661-8040

Washington Dulies International Airport

Kelth Meurlin, General Manager - (703) 471-7596

...

Metropolitan Washington Airports Authority - (703) 739-8600 Jim Wilding, General Manager

Northern Virginia Planning District Commission

G. Mark Gibb, Executive Director - (703) 642-0700

Northern Virginia Transportation Commission - (703) 524-3322

Rick Taube, Executive Director

Potomac and Rappshannock Transportation Commission - (703) 490-4811

Leo Auger, Executive Director

Washington Metro Area Transit Authority - (202) 962-1234

David Gunn, General Manager

SECTION III

PUBLIC TRANSIT AND HOV SYSTEM CHARACTERISTICS, FACILITIES AND PERFORMANCE

OVERALL TRANSIT SYSTEM PERFORMANCE

A wide variety of transit options, provided by an array of public and private operators, is available to the traveler in Northern Virginia. These transit services are, for the most part, well-used. For FY 1993, average weekday passenger boardings for all of Northern Virginia's public transit systems totaled about 230,000. This section reviews the services that are now provided, recent or expected changes in service levels, and, when possible, the efficiency of the service.

Data on public transit ridership and routes for each of the major operators in Northern Virginia appear in **Appendix B**. **Figure 5** summarizes the size and scope of these operations, measured in terms of numbers of vehicles, average daily boardings and operating budgets. As can be seen, the regional Metro system far exceeds the size and scope of any of the local transit systems within Northern Virginia.

The Metrorail system provides the core of transit capacity, with Metrobus, local buses, and the regional commuter rail service (VRE) feeding passengers to and from that core.

Estimates for FY 1993 cost per passenger vary by system. For Metrorail, the amount is about \$2.07 with an excellent ratio of fare revenue to operating cost of about 73.8 percent. For Metrobus, the cost per passenger was about \$2.18, with a cost recovery ratio of 34.6 percent systemwide. Overall, WMATA recovered about 54 percent of operating costs for the combined bus and rail systems from fare revenues in FY 1993.

Other estimates of cost per passenger include:

Alexandria's DASH: \$1.46
Fairfax Connector: \$2.06
Arlington Trolley: \$1.51

PRTC Commuteride: \$2.97

Cost recovery ratios for these systems range from 20.2% on the Arlington Trolley to 74.5% on PRTC's Commuteride service.

An October, 1993 working paper prepared by Abrams-Cherwony, Inc. for NVTC contains summaries of the frequencies, fares, span of service and structure of Northern Virginia's bus systems. Copies are available on request to NVTC.

PUBLIC TRANSIT SYSTEMS OPERATING IN NORTHERN VIRGINIA FY 1993

TRANSIT SYSTEM	# PEAK VEHICLES	AVERAGE WEEKDAY BOARDINGS	OPERATING COST	FAREBOX RECOVERY RATIO
Metrobus	321	72,600¹	\$71,838,071 ²	24.4%
Metrorail	180	121,116 ³	\$85,809,8984	74.0%
Virginia Railway Express	425	5,589	\$10,639,321	54.0%
Fairfax Connector	53	9,610	\$ 5,460,200	26.53%
PRTC Commuteride	48	2,730	\$ 3,127,697	74.5%
Alexandria DASH	25	6,900	\$ 2,934,748	48.52%
City of Fairfax CUE	8	3,100	\$ 1,586,446	32.19%
Reston RIBS	4	636 ⁶	\$ 501,000	8.77%
Tysons Shuttle	2	319	\$ 53,132	45.95%
Arlington Trolley	2	611	\$ 469,198	20.20%

¹Virginia Metrobus routes only.

²Estimate for Virginia's operations.

³Virginia Metrorali stations only.

⁴Estimate for Virginia's operations.

⁵VRE has 59 railcars and 12 locomotives.

 $^{^6}$ Includes average daily ridership for RIBS service. The average daily ridership for the Reston Express is 92 passengers.

CHARACTERISTICS OF INDIVIDUAL SYSTEMS

Metrorail and Metrobus

These regional bus and rail systems, which constitute the core of transit services in the Washington metropolitan area, initiated a number of improvements during the past year. For example, effective September 18, 1993, 10-minute frequencies were established on all rail lines between 10:00 A.M. and 6:00 P.M. on Saturdays, with five-minute frequencies through downtown areas. The goal is to achieve a 10 percent increase in ridership (20,000 trips a day) by March, 1995, with fares from additional riders covering the extra costs of the increased frequencies. Metro's marketing of this new service focuses on shoppers, tourists and weekend hosts, and features "Saturday Express" print and radio advertising, Saturday travel guides and train schedules, a Saturday special events hotline, promotions sent to new residents, cooperative advertising with the Smithsonian Institution, and coordinated bus schedules.

WMATA also carefully tracks its success in attracting potential riders; for example, as part of a very detailed monthly report by WMATA's General Manager, local market indicators are compiled and related to public transit ridership. **Figure 6** shows an example taken from the August, 1993 report.

Another new initiative, Metro's "Rail Fast Pass," was introduced at the end of June, 1992. It provides unlimited rail travel for a two-week period for \$50. Metro staff forecast sales of 2,000 passes per two-week period, but actual sales averaged well over 3,000 for the year. For the number of trips provided for persons using the pass, staff concluded that Metro virtually broke even on the over \$4 million in revenue from discount pass sales in FY 1993 compared to full fares that would have been paid for the equivalent trips. Further market research is planned to determine whether new and retained customers were lured by the convenience and discount fares associated with the pass.

Fairfax Connector

Fairfax County supports four types of bus services in addition to Metrobus, Metrorail and VRE. The Fairfax Connector began in 1985, replacing several Metrobus routes. The Fairfax Connector now operates over 24 routes in buses which are owned by the county and managed by a private firm. Reston's RIBS and the Tysons Shuttle are operated for the county under contract to a different firm that also provides the vehicles.

RIBS is noteworthy for its "pulsed" or "timed" transfer system, in which all four routes meet at Reston Town Center in order to minimize waiting periods when making transfers. The 1989 Northern Virginia Transportation Plan recommended an entire system of such routes throughout the region.

Fairfax County also supports a "subscription" bus service for residents of Mantua, which is also managed and operated by a private firm. These services are paid for in advance by patrons, usually through the purchase of a monthly pass.

LOCAL MARKET INDICATORS AFFECTING TRANSIT RIDERSHIP AUGUST 1993

	LATEST PERIOD				PERCENT
	AVAILABLE	1993	1992	CHANGE	CHANGE
EMPLOYMENT (in thousands)					
(preliminary figures)					
Washington D.C. Employment	July				
Private Sector	V.6.W	385.9	391.3	(5.4)	-1.4%
Federal		238.2	235.2	3.0	1.3%
State and Local Government		71.6	65.2	6.4	9.8%
Total		695.7	691.7	4.0	0.6%
Metropolitan Area Employment	July				
Private Sector	S 1558	1,597.9	1,596.3	1.6	0.1%
Federal		389.3	388.8	0.5	0.1%
State and Local Government		231.8	220.7	11.1	5.0%
Total		2,219.0	2,205.B	13.2	0.6%
VISITOR SERVICES					
Smithsonian Visitors	July	3,483,000	3,386,000	97,000	2.9%
National Monument Visitors	July	646,174	658,854	(12,680)	-1.9%
D.C. Hotel Occupancy Rate	July	74.1	71.3	2.8	3.9%
FRANSPORTATION ACTIVITY					
Amtrek Boardings & Alightings	April-June				
Union Station		954,922	886,784	68,138	7.7%
New Carroliton		75,694	75,969	(275)	-0.4%
Commuter Services (average weekday)					
MARC Services	July	20,379	17,445	2,934	16.8%
Virginia Railway Express	July	6,549	3,668	2,881	78.5%
Transit Ridership (total monthly)	July				
Metrorall		13,806,000	13,739,000	67,000	0.5%
Metrobus		11,196,000	11,246,000	(50,000)	
Rido-On		1,446,700	1,406,500	40,200	2.9%
Fairfax Connector		230,918	241,132	(10,214)	
DASH		193,775	178,278	15,497	8.7%
Airport Pessengers	July				
National Airport		1,389,053	1,425,930	(36,877)	-2.6%
Dulles Airport		1,059,659	1,190,039	(130,380)	
COMMERCIAL AND RETAIL ACTIVITY					
Area Retail Sales	June	\$3,174,000,000	\$2,994,000,000	\$180,000,000	6.0%
Area Department Store Salea	400000	\$211,000,000	\$205,000,000	\$6,000,000	2.9%

Average for July 1992 for VRE includes 22 days of Manassas and 9 days of Fredericksburg service.

animg0

Source: WMATA Monthly Performance Report (August, 1993).

Alexandria's DASH

For FY 1993, the DASH system concluded a very successful year with an annual ridership of almost two million passengers and a 48.5 percent ratio of farebox revenues to operating costs. On June 8, 1993, DASH took over operation of Metrobus Route 29L midday service. DASH has altered the route in order to serve the Van Dorn Metrorail station, and is now carrying an average of 350 persons per day on the mid-day portion of the AT8 route, compared to previous Metrobus 29L ridership of 268 daily.

The New Arlington Trolley

On July 1, 1993, the rejuvenated Arlington Trolley began with ceremonies that included hundred of visitors to information booths at the Crystal City Metro and VRE stations. Significant changes in services had been required due to cost cutting measures adopted by the Arlington County Board. Service frequency was improved to eight minutes and the route was made more compact. Trolley service was cut back to rush hours (6:30 A.M. to 9:30 A.M. and 3:30 P.M. to 6:30 P.M.). A new "Crystal Loop" bus provides service between 11:00 A.M. and 2:30 P.M.

Crystal City and Ballston Transit Stores

The transit stores serve as both clearinghouses for public transit information and outlets for fare media for many of the region's transit systems. Together these two stores served 79,180 customers and sold \$1,294,472 in transit fare media during FY 1993. Figures 7 and 8 show monthly data. The concept has been so successful that Arlington County staff are seeking to open a similar store in Rosslyn.

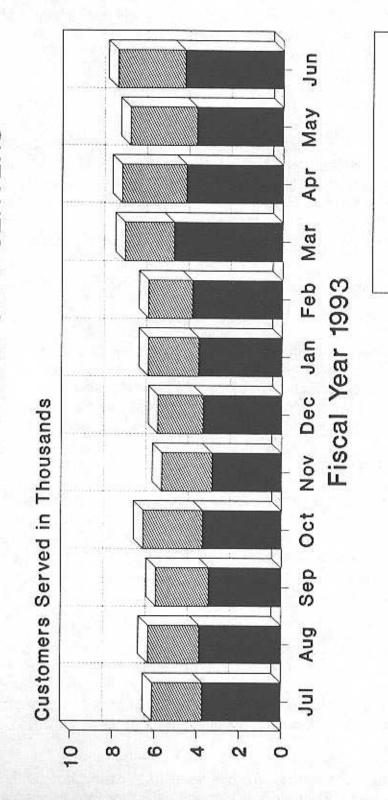
Virginia Railway Express

Northern Virginia's year-old commuter rail system provides almost 100 route miles of peak-period service on two lines linking the cities of Fredericksburg, and Manassas and counties of Fairfax, Prince William, Stafford and others with Alexandria, Arlington and Washington D.C. employment sites. Average system ridership for FY 1993 was 5,000 daily, and during the year the railroad carried a total of 1.4 million passengers an average of over 27 miles per trip. Approximate annual passenger miles for FY 1993 were 38.0 million.

VRE is completing its first federal "Section 15 Report," in which performance and financial measures are reported to the Federal Transit Administration by public transit operators. The preliminary results for VRE for FY 1993 confirm that its performance is outstanding relative to more established commuter rail operators throughout the United States, as well as compared to all public transit systems (buses, subways, light rail and commuter rail).

Because commuter rail systems are designed to transport commuters over long distances in heavily congested corridors, an appropriate measure of comparison is the passenger mile (one person transported one mile). **Figure 9** shows that VRE costs about the same to operate per passenger mile as does the average of well-established

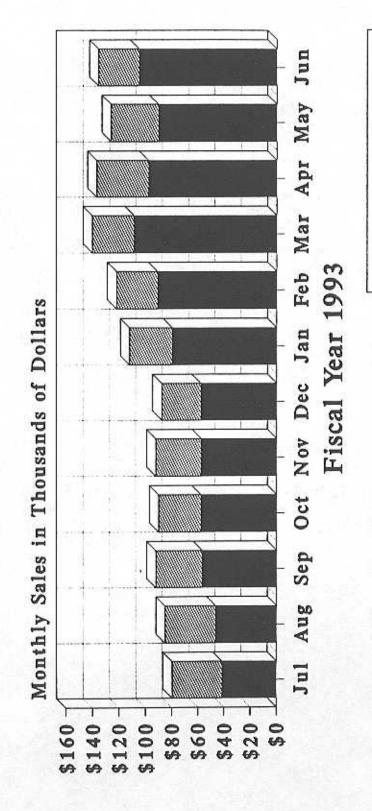
PROGRAM MONTHLY CUSTOMERS SERVED AT THE ARLINGTON CO. COMMUTER ASSISTANCE BALLSTON & CRYSTAL CITY CENTERS



Location: BTS CCCC BTS

Source: Arlington County Dept. of Public Works Traffic Engineering Division Figure 8

PROGRAM TRANSIT FARE MEDIA SALES AT THE ARLINGTON COUNTY COMMUTER ASSISTANCE BALLSTON & CRYSTAL CITY CENTERS



Location:

CCCC B

Source:

Arlington County Dept. of Public Works Traffic Engineering Division

Figure 9

SELECTED COMMUTER RAIL AND PUBLIC TRANSIT PERFORMANCE MEASURES

	VRE (FY 1993)	All Commuter Rail (FY 1991)	All Transit (FY 1991)
Annual Passenger Miles (millions)	38	7,384	37,473
Annual Passenger Trips (millions)	1.4	324	7,735
Operating Expense Per Passenger Mile	\$0.289	\$0.290	\$0.411
Passenger Miles Per Vehicle Mile	40.70	37.29	15.00

Source:

National Summaries and Trends for the 1991 Section 15 Report Year, Federal Transit Administration (July, 1993) and VRE draft Section 15 report for FY 1993 (its first full year of operation).

commuter rail systems, and cost less than typical transit systems do. VRE's rail cars provide over 40 passenger miles for each mile they operate, which is better than average for commuter rail systems and over three times as efficient as the average U.S. transit system. VRE covered 54 percent of its FY 1993 operating costs from fares.

While VRE data are for FY 1993, and the data for the other systems are for FY 1991 (the most recent available), trends indicate that VRE will look even better in comparison to the other systems when their FY 1993 data are published. In addition, VRE's own FY 1994 performance should be even better as ridership improves. VRE carried its two-millionth customer in early November, 1993, and passengers are standing on some of its trains. At current ridership levels, VRE's operating cost per passenger mile has dropped to less than 27 cents, which is very competitive with the out-of-pocket costs of operating private automobiles.

In early 1991, about a year prior to the start of service, VRE consultants provided the results of market research to help forecast ridership by station. Among the information revealed in a telephone survey which totaled 6,000 calls:

- Average household income of those persons who planned to ride commuter rail was significantly greater than those who reported they would not ride commuter rail. For example, 46 percent of potential riders had average household incomes of between \$60,000 and \$100,000 annually, compared to 31 percent of those who commute but would not ride VRE.
- Potential riders of VRE had more instances of two or more cars available (84 percent) than those who would not ride (75 percent).
- Among those who would ride, 63 percent were professional/technical or managers/proprietors, compared to 57 percent of those who would not ride.
- 45 percent of potential riders drove alone to work.
- Persons with long commutes were more likely to choose commuter rail.
 Work trips of 90 minutes or more were standard for 16 percent of those who would use VRE, but only for two percent of those who would not.
- 22 percent of potential riders who drove alone to work reported paying \$5 or more per day for all costs of their commute, while only 9 percent of those who would not use VRE paid that amount.

It is clear that VRE customers typically have choices. They enjoy access to private automobiles and are relatively affluent. To encourage such customers to keep off the roads, careful attention must be given to their needs. This fact is reinforced by in-depth interviews and focus groups, which indicate that VRE service offers improvements in the quality of life of persons who planned to use it. A more relaxed commute and more time with families are very important to VRE customers. Respondents reported that they live in distant suburbs for the lifestyle, and therefore must commute to reach high-paying jobs.

VRE's current customer base is 7,200 daily trips, already a significant increase over FY 1993's ridership. As a result of the surveys, VRE believes that this customer base of 7,200 from the 300,000 families in reasonable proximity to its current stations could grow to 26,000 daily trips, if the potential market is reached through expanded service frequencies and continued safe, reliable, affordable service.

In September, 1992, two months after service started, the Virginia Railway Express surveyed its customers. Almost 94 percent of the 2,300 persons on-board that day responded. Among the information provided by the customers:

- By a margin of two to one over other means of transportation, the previous mode of commuting was the single-occupant automobile (37 percent previously drove alone to work). The next largest group are people who drove to a Metrorail station (15 percent).
- Over 70 percent of customers drive alone to VRE stations each morning and another 15 percent are dropped off.
- Almost two-thirds of VRE passengers are male.
- About 94 percent are 25-64 years old.
- Only 3.9 percent had annual household incomes of under \$25,000, while 38.4 percent had incomes of \$75,000 or greater.
- About a third of respondents gave either major or some consideration to the availability of VRE service in choosing their present home locations.
- Travel times to work were sharply reduced for many customers by choosing the Express. For example, previously over 27 percent of respondents required 90 minutes or more to drive to work, but after using commuter rail only 11 percent required 90 minutes or more.

VRE is noted for its highly automated ticket sales program. Only one ticket vending machine in the entire system (an experimental machine at Union Station in the District of Columbia) accepts cash. All others accept a variety of credit and debit cards. A network of retail outlets near stations also sells tickets for cash. Currently there are about 65 such outlets, including mobile vendors at three stations. Tickets are also available by mail through the automated telephone information system known as TRACS.

After a year of experience with these ticket vending techniques, it is interesting to note that ticket vending machines deliver about half or more of total sales revenue. Telephone sales deliver about 10 percent, with retail outlets (cash) generating about 40 percent. As predicted, customers who do not wish to use credit cards in machines at stations are using other alternatives. Among the most popular retail outlets is the Crystal City Commuter Services Center, which alone provides about 7 percent of sales by value.

Commuter Bus Services

Figure 10 summarizes characteristics of the several commuter bus routes operated in Northern Virginia, primarily by private firms. As can be seen, average daily ridership varies from less than 200 to over 2700. Aggregate ridership approaches 5700, which was approximately the level of daily ridership for the Virginia Railway Express commuter rail line during FY 1993. This suggests that the two services target different commuter markets, as several of the commuter bus lines operate in the same corridors as does VRE. The fares reported for the commuter bus services are about half to two-thirds of those charged by VRE for equivalent distances.

Two new bus services began in September in Loudoun County, replacing the former Sterling Commuter Bus operation.

Another new bus operation is also worthy of note, although it does not serve commuters. The Four Seasons Bus Company has bus service to Potomac Mills during the week and weekends. The bus picks up passengers at four stops--Metro Center, Rosslyn, Crystal City (Marriott Gateway), and Pentagon Metro--with a final destination of Potomac Mills. On Tuesdays, Thursdays, Fridays and Sundays, the bus begins it route at Metro Center at 11:30 A.M. and returns from Potomac Mills at 5:00 P.M. On Saturdays, the bus begins its route at Metro Center at 8:30 A.M. and leaves Potomac Mills at 7:00 P.M. The cost is \$8 one-way or \$10 round-trip. Currently, only one bus is in operation, although more buses may be added when demand warrants.

Washington Flyer

The Metropolitan Washington Airports Authority (MWAA) currently operates this system at an annual subsidy cost of about \$600,000.

Scheduled express bus service operates at one-half hour frequency from a terminal at 15th and K Streets in Northwest Washington D.C. to and from National Airport (\$8 one-way; \$14 round-trip) and to Dulles Airport (\$16 one-way and \$26 round-trip). This service also stops at major Washington D.C. hotels. Express buses connecting National and Dulles Airports cost \$16 one-way (\$26 round trip). Finally, from 10:00 A.M. to 6:00 P.M., seven-passenger vans operate every 20-minutes between Dulles Airport and the West Falls Church Metrorail station at a one-way fare of \$8. Before 10:00 A.M. and after 6:00 P.M., vans operate every 30-minutes.

These scheduled services are operated under contract to MWAA by Pro Drive, which is primarily a safety training company. The firm provides all dispatchers and drivers. MWAA also contracts for most other functions associated with the ground transportation system, including ticket sales (Convention Store), operation of the Washington D.C. terminal (Convention Store), a 24-hour, 7-day per week telephone information system (Ads 1001), nightly washing and bi-monthly detailing, and tires and fuel. The Authority also operates airline diversion charters (for bad weather, mechanical problems) between National, Dulles and BWI airports.

Figure 10

		SUMMARY OF COMMUIER	BUS SERVICES	CEO	
COMMUTER SERVICE	PHONE	SERVICE AREA	VEHICLES	AVERAGE DAILY RIDERS	FARES **
Aries P.O. Box 192 Fredericksburg, Va. 22404	(703) 898-6158	Fredericksburg Spotsylvania/Stafford TO: Fort Belvoir	2 Buses	130*	\$1.90 one-way \$38.00 Every two weeks
Brooks Transil Services 407 W. 15th Street Front Royal, Va. 22630	(703) 635-7644 (703) 635-5148	Front Royal TO: CIA, Pentagon, Crystal Cay, Navy Annex	4 Buses	240	\$32.50
Groome Transportion 5500 Lewis Road Sandstone, Va 23150	(804) 222-7226	Richmond Airport TO: Fredericksburg, National Airport	8 Vans	170	\$19.00 Fredericksburg one-way \$26.00 Nat1 Alrport one-way
Lee Coaches Route 4, Box 259-S Fredericksburg, Va. 22405	(703) 371-6785 (800) 443-4533	Fredericksburg TO: Crystal City, Pentagon, Fort Belvoir	4 Buses	400	\$10.00 round tro \$8.50 one-way \$59.00 Crystal City, Pentagon - bro weeks \$39.00 Fort Behrofr-2 weeks
National Coach Works 10411 Hall Industry Drive Fredericksburg, Va 22401	(703) 898-6959	Fredericksburg TO: Crystal City. Pentagon, Wash. D.C.,	13 Buses	1000	\$70.00 Crystal City, Pentagon-every two weeks \$78.00 Wash. D.C-every two weeks \$50.00 10 one-way tickets \$10.00 round-trip
Passenger Express 44880 Falcon Place, Rm. 107 Stering, Va. 22166	(703) 709-7406	Eastern Loudoun TO: Pentagon, Crystal City, Rosskri, Washington, D.C.	4 Minbuses	109	\$35.00 10-trip booklet (no expiration)
Prince William COMMUTERIDE ATE Management & Serv. Co. 2540 Homer Rd. Woodbridge, Va 22192	(703) 494-9166	Prince William TO: Vienna Metro, Pentagon, Downtown Washington	46 Buses	2730	\$32.50 Ten trip. \$ 5.00 Single Fare
Quick's Commuter Service 41 RV Parkway Fahnouth, Va 22405	(703) 373-6027	Fredericksburg TO: Crystal City, Pentagon, D.C., Rossiyn, Bailey's X-roads, Navy Annex	14 Buses	1000	\$56.00 Every two weeks to Northern Virginia \$60.00 to Wash, D.C. every two weeks
Vighia Coach Commuter C/O Loudoun Rideshare 750 Milet Drive, SE Suite 800 Leesburg, Va 22075	(703) 771-5865	Purcellville, Hamilton, Leesburg, Ashburn, Sterling TO: Rosslyn, Pentagon, Downtown Washington	4 Buses	1	\$40.00 Per 10 one-way tickets. \$.8.00 Single Fare.

^{*} Some figures are approximate. ** Weekly fares unless otherwise indicated.

Began service on September 13, 1993.
 No ridership data available. Began service on September 13, 1993.

Taxicabs

Appendix C gives taxi company names, addresses and telephone numbers by jurisdiction. Licensed cabs by jurisdictions include:

Alexandria: 713Arlington: 605

Fairfax County (including Falls Church and City of Fairfax): 407

Loudoun County: 18

In addition, the Washington Flyer provides 270 taxis for airport service.

In Spring, 1994, VRE will begin an innovative "guaranteed ride home" program. VRE customers will be eligible for significant taxi fare reductions to their origin stations during personal emergencies. The purpose of the program is to encourage new customers for commuter rail who otherwise would be unwilling to accept the fixed transit schedules without the availability of mid-day trains. Guaranteed Ride Home programs are also operated by some of NVTC's member jurisdictions, as well as by local employers.

High-Occupancy Vehicle System

Northern Virginia's system of HOV facilities is listed in **Figure 11**. The express lanes on the Shirley Highway primarily inside the Beltway carry an astonishing 32,796 people each weekday morning in approximately 6,540 vehicles in only two lanes. This represents an average of over five persons per vehicle. In the Washington region, conventional lanes carry about 1.14 persons per vehicle.

The restricted hours and HOV requirements vary between facilities.

Ridesharing

Many jurisdictions in the region actively assist commuters to identify appropriate transit routes or to find other commuters with whom to carpool. The most extensive of the services is the RideFinders Network, coordinated by MWCOG (8-800-743-RIDE). This service processes over 1,500 applications each month for potential car and van poolers. The system maintains a computerized database of people interested in ridesharing, so that potential matches can be easily located. This database, which contains almost 8,000 names, can be accessed by local jurisdictions as well; ridesharing information numbers are listed in Appendix A.

Park-and-Ride Lots

Appendix D lists the park-and-ride lots in Northern Virginia. Figure 12 shows the parking available at Metrorail stations and Figure 13 shows parking (together with feeder buses) available at VRE stations.

The state of the s					***************************************
HOV FACILITY	PERSONS	DIRECTION	RESTRICTED HOURS	VEHICLES A.M. PERIOD	PEOPLE A.M. PERIOD'
(inside d'amond lanes)	F-NO-3	Northbound Southbound	6:00 A.M 9:00 A.M. 3:30 P.M 6:00 P.W.	3.840	14,795″
H395 (Springfleid to D.C.); (reversible lanes)	HOV 3	Northbound Southbound	6:00 A.M 9:00 A.M. 3:30 P.M 6:00 P.W.	6.640	38,928
-66 (I-495 to D.C.): (inside the beltway)	E-VOT	Eastbound Westbound	6:30 A.M 9:00 A.W. 4:00 P.M 6:30 P.W.	4,573	12,898
I-66 (I-495 to Route 50): (outside the bethway)	Z-∧O⊢.	Eastbound Westbound	5:30 A. W. 9:30 A.M. 3:00 P.M 7:00 P.W.	2.975	8,330′
ALEXANDRIA: Washington Stree!	HOV-2 HOV-2	Nerthbound Southbound	7:30 A.M 9:00 A.M. 4:00 P.M 5:00 P.W.	A A	Z Z
Patrick Street/Rte. 1	HOV-2 HOV-2	Northbound	8:00 A.M 9:00 A.M. 3:00 P.M 7:00 P.M.	A/A	N A

Transportation Planning Division, Virginia Department of Transportation Alexandria Transportation and Environments Services Department Source;

[.] Touchs include vans and buses.

Regressmis 1992 volume. These are the latest data for construction along 1-95.

Represents vehicule dounts taken from May, 1992. Setween Synamore Shreet and Falindax Unive.

^{*} Vehicle counts taken from I-495 to Route 243. The number of people is based on an estimated vehicle occupancy of 2.81 obtained from occupancy contractions in 16792

Figure 12

METRORAIL	PARKING IN NORTHERN VIRG	INIA
STATION	LOCATION	SPACES
1. Huntington	Huntington Ave. at Fenwick Dr. Kings Highway north of Fort Dr.	3,090
2. Vienna	Median of I-66 at Nutley Rd.	3,572
3. Dunn Loring	Median of I-66 at Gallows Rd.	1,323
4. West Falls Church	Median of I-66 at Leesburg Pike	1,062
5. East Falls Church	Median of I-66 at N. Sycamore Rd.	422
6. Van Dorn	Eisenhower Avenue in Alexandria	361

Figure 13

PARKING AND TRANSIT FEEDER SERVICES AT VRE STATIONS

STATIONS	PARKING SPACES	DAILY FEE	TRANSIT FEEDER SERVICE
MANASSAS LINE:			
Broad Run/Airport	300	\$1.25/day-\$20/month	F 10 Tab.
Manassas	348	\$1.00 non-residents \$1.00/month-residents	harrer in
Manassas Park	300	\$1.00	The second of th
Burke Centre	400		Metrobus Routes 17L; 26G,
Rolling Road	400		l H
Backlick Road	220	_	Metrobus Route 17L Metrobus Route 18E, Fairfax Connector 401
FREDERICKSBURG LINE:			
Fredericksburg	100	\$1.00 residents \$2.00 non-residents	Shuttle from Lee's Hill in Spotsylvania County
Leeland Road	330		
Brooke	300		
Quantico	50	\$1.25	
Rippon	300	\$1.25	
Woodbridge	588	\$1.25	
SHARED STATIONS:		TRANSIT FEEDER SE	RVICE
Alexandria		Metrorail Yellow/Blue L Dash Route-AT2, 5, an Metrobus Route-28A, 2	d 8
Crystal City		Metrorail Yellow/Blue L Metrobus Route-5N, 9A 23A, 23C, 23T Arlington Crystal City T	A, 9B, 9C, 9E, 10A, 11P, P13,
L'Enfant	3/		orange/ N42, A46, A48, 13A, 13B, 13C, P., 70, 71, 73, 87, M2, P17, V4,
Union Station		Metrorail Red Line MARC Amtrak Metrobus Routes-40, 4 D6, D8, M2, X2, X4, X5	12, 44, 46, 80, 87, 96, D2, D4, 5, X8, 90, 92

To accommodate increasing demand for parking at transit stations, Fairfax County has initiated supplemental parking agreements with the private sector at Vienna. Since all 3,572 spaces at the Vienna Metrorail station fill regularly before the end of the morning rush period, another 450 spaces are being made available nearby. To ensure the Vienna lot continues to fill and yield the revenue necessary to cover debt service on the facility, the private operator must charge fees at least 20 percent above the \$2.25 daily fee at Vienna Metrorail. After the first 16 months, or when pre-opening expenses of preparing the supplemental private lot are recovered, the county will begin to receive a third of the revenue.

In August, 1993 Fairfax County opened a 288-space addition to the Rolling Valley lot, which is served by Metrobus and Fairfax Connector service. This is one of five lots included in a Federal Transit Administration grant. These lots should also serve future express bus and rail service in the Dulles Corridor. Fairfax County has also received preliminary approval of funds to expand the lot at the Burke Centre VRE station, which is now nearing capacity.

VDOT, together with Fairfax and Loudoun Counties, is completing a study on a western regional park-and-ride lot near Dulles Airport. Currently two short-term and two long-term options are under review, with capacity ranging from 350 to 1500. The next phase of the study, which will follow receipt of citizen input, will identify one option for implementation.

TRANSIT FARES AND TRANSFERS

With so many separate transit systems, some of which have relatively complicated fare structures, it is not surprising that passengers who must transfer from one system to another may be confused by both fares and transfer policies.

As is shown in **Appendix E**, each system has its own unique fare structure, and many offer opportunities to purchase fare media for multiple trips, often at a discount. **Figure 14** summarizes the discounts offered on each system.

Fare Media

Unfortunately, no universal pass exists which would offer customers the convenience of a single ticket good on any system. The new Metrochek program, comes closest. Metrocheks, which are offered to employees through WMATA's Metropool program, are special Metrorail farecards with various encoded values of up to \$30 which can be used directly in the Metrorail system, or exchanged for the fare media of 45 other participating transit and vanpool operators in the region.

Currently, 87 federal agencies in the national capital area, covering 25,000 employees, are enrolled. The program helps the region relieve traffic congestion and meet Clean Air Act mandates. For every 1,500 new Metropool commuters who previously used their automobiles, citizens of the region would avoid breathing 15 tons of hydrocarbons, 110 tons of carbon monoxide and 11 tons of nitrogen oxides each year.

The U. S. General Accounting Office issued a report on September 1, 1993 which concluded that this transit benefits program is necessary to meet the nation's environmental, energy and economic goals. Nationwide, federal agencies in 25 cities are participating. Of 30,000 participating employees surveyed by GAO, a fifth had abandoned automobile commuting to use transit. Nationally, almost three-quarters of federal employees receive free parking valued at between \$33 and \$83 monthly, so that the \$60 transit benefits program helps to restore a competitive balance among transportation modes.

The same program is available to the private sector with over 365 companies and 30,000 employees in the region now participating. The \$60 monthly transit benefit is tax-free to the employees and is also a tax-deduction for the employers. Combining the tax-free and tax-deductible features, a typical employee could receive an after-tax benefit valued at up to \$1,120 per year at an after-tax cost to the employer of only \$504, or a two to one ratio of benefits to costs.

From January through August, 1993, the Crystal City Commuter Services Center processed \$113,053 in 5,400 Metrochek transactions, of which over \$62,000 (55 percent) reflected VRE customers. As many as 180 customers of The Express redeem their Metrocheks at the Center each month.

DISCOUNT FARES ON NORTHERN VIRGINIA'S PUBLIC TRANSIT SYSTEMS

- 1993 --

TRANSIT SYSTEMS	DISCOUNTS AVAILABLE
Metrorail ¹	 5 percent bonus on fare card purchase of \$10.00-19.99. 10 percent bonus on farecard purchase of \$20 and over.
Metrobus ²	 Flashpasses, which allow for unlimited use of the bus system for a period of time, are available.
VRE	 30 percent discount on monthly passes. 15 percent discount on Ten-Trip Tickets.
Arlington Trolley	 20 percent discount on a 40-token purchase.
Tysons Shuttle ³	2 one-way tickets for \$1.20.11-trip card for \$6.00.
Reston Ribs	NO DISCOUNTS
City of Fairfax CUE ⁴	\$50 Metrorail Fast Pass plus associated CUE bus rides for \$56.
Alexandria DASH ⁵	 Approximately 20 percent discount on monthly passes.
Fairfax Connector ⁶	NO DISCOUNTS
Prince William County Commuteri	de • 40 percent discount on 10-token purchase.

¹ System provides half fares for elderly/disabled riders all day.

 $^{^2}$ System provides 50-cent fares for elderly/disabled riders all day (on all routes except those that have surcharges--11Y, 5N and 5P).

³ System provides half fares for elderly/disabled riders.

System provides 25-cents fare for elderly/disabled riders.

 $^{^{5}}$ System provides free transfers to any other DASH bus (including return trip) within four hours of first boarding.

⁶ System provides 35-cents discount with Metrorail-to-bus transfers and valid Metro elderly and disabled identification card.

Transfers

Passengers moving to their varied destinations across Northern Virginia often must transfer between bus and rail services or between bus systems. As can be seen in **Figure 15**, about 10 percent of customers of the Fairfax Connector transfer to other buses, and about 15 percent of Alexandria DASH's riders transfer.

Transfer policies are set forth in **Figure 16**. Alexandria DASH has the most liberal internal transfer policy. Customers can ride in any direction on any DASH bus within a four-hour period for one fare.

Given the extent of its route structure, Metrobus has the most opportunities for transfers with other bus systems. Metrobus riders enjoy free transfer privileges on Metrobuses (within the same zone), Reston Ribs, DASH, and the Fairfax Connector. Other bus systems are reimbursed by Metro for the fares of these riders using the results of surveys. Passengers from several local bus systems transferring to Metrobuses receive discounts that vary from 25-cents to the total fare, depending on the level of local fare paid.

Figure 15

ESTIMATED ANNUAL TRANSIT PASSENGER TRIPS AND TRANSFER VOLUMES IN NORTHERN VIRGINIA

-- 1993 --

TRANSIT SYSTEM	TOTAL ANNUAL PASSENGER TRIPS FOR FY 93 (INCLUDING TRANSFERS)	PASSENGERS TRANSFERRING
Metrorail	35,700,000	98,982
Metrobus	22,070,400	7,600²
VRE	1,408,395	14000000
Arlington Trolley	153,307	******
Tysons Shuttle	81,868	72000
Reston Ribs	160,000	2,641
City of Fairfax CUE	818,000	0210200
Alexandria DASH	1,988,910	348,921
Fairfax Connector	2,651,742	202,949
Prince William County Commuteride	677,089	

 $^{^{1}}$ Average Weekday Systemwide; includes transfers from all bus systems (Metrobus, Fairfax Connector, DASH, and all other bus systems).

Transfers from other buses (not Metrorail).

Figure 16

				TO TOWN THE	CHOOK	MOTOTO	SULTY OF	AI EXANDRIA	FAIRFAX	PRTC
TO: -	METRORAIL	METROBUS	VRE	TROLLEY	SHUTTLE	RIBS	FAIRFAX	DASH	CONNECTOR	COMMUTERIDE
METRORAIL	FREE	35¢ discount							35¢ discount on express routes	
METROBUS		FREE within zone				FREE		FREE	FREE	
VRE					1		-			
ARLINGTON TROLLEY	-									
TYSONS SHUTTLE		-								
RESTON RIBS		25-cents discount				FREE				
CITY OF FAIRFAX CUE			1				FREE	•		
ALEXANDRIA DASH		75-cents discount						FREE		
FAIRFAX CONNECTOR		FREE or discounted						Free or discounted	FREE or discounted	
BOTO COMMITTEDINE	3000									

SECTION IV

STUDIES, PLANS AND DEMONSTRATIONS

STUDIES/PLANS/DEMONSTRATIONS

With the scores of agencies and organizations working to improve transportation in Northern Virginia, it is not surprising that many important studies, plans and demonstrations are underway to understand and improve the system's performance. Several such efforts are briefly summarized below, organized into categories of bus service, rail improvements, data enhancements, land use, new technologies, system plans, air quality plans, and highway, bridge and HOV studies.

Bus Service

NVTC's Interjurisdictional Bus Study.

The commission has engaged Abrams-Cherwony, Inc. with subcontractors SG Associates, Inc. and McDorman Associates, Inc. to conduct an analysis of bus routes that are candidates for consolidation or restructuring in order to reduce expenses while retaining service quality. The study will also focus on eastern Loudoun County, to identify markets for new public transit services.

A technical committee of jurisdiction staff and citizens is working with commission staff to guide the consultants' work. Figure 17 shows the schedule for the study. The initial study tasks include interviews with staff members, citizens, and elected officials to determine the current status of transit services and goals for the future. Data on the financing of these systems and their performance are also being assembled.

Examples of the early data-gathering are provided in **Figure 18** and **19**. **Figure 18** shows Metrobus operating costs in Northern Virginia since FY 1988, while **Figure 19** shows fare revenues and fare recovery ratios over that period. The percentage of operating costs recovered from farebox revenues has steadily declined in general, although the relative performance of some routes has not deteriorated.

The study will endeavor to identify alternatives that will improve performance of those routes operating between Northern Virginia jurisdictions; these may include opportunities for contracted service with the private sector. Excerpts from the scope of work for the study are included in **Appendix F**.

2. WMATA Proposed Service Plan for Northern Virginia

As part of its proposed bus service plan for FY 1995, Metro staff are considering new and restructured Metrobus routes in the Centreville area of Fairfax County. A comprehensive customer service planning process, neighborhood shuttles and timed-transfers are also under consideration.

DETAILED SCHEDULE OF ACTIVITIES

NVTC INTERJURISDICTIONAL BUS ROUTES STUDY

	ANT. DEC. DAM. FEB. MAR. AP	APR. MAY
1. ASSEMBLE BASELINE DATA 1.1 TRANSPORTATION SETTING 1.2 EXISTING TRANSIT SERVICES 1.3 TRAVEL PATTERNS 1.4 TRANSIT FACILITIES		
2. COMMUNITY LEADER INTERVIEWS 2.1 AGENCY STAFF 2.2 OTHER INTERVIEWS		
3. ANALYSIS 3.1 TRAVEL PATTERNS 3.2 ROUTE DIAGNOSTICS 3.3 SERVICE WARRANTS 3.4 SYSTEM LINKAGES 3.5 PRIVATE SECTOR CAPACITY 3.6 PUBLIC SECTOR CAPACITY 3.7 INSTITUTIONAL ISSUES 3.8 FLEET ANALYSIS 4. SERVICE ALTERNATIVES 4.1 SERVICES		
5. INSTITUTIONAL ALTERNATIVES 6. RECOMMENDATIONS		
	PUBLIC	

Source: Abrams-Cherwony & Associates, Inc. for NVTC.

Figure 18

Exhibit 1

Operating Costs Northern Virginia Metrobus

							Northern	Northern
			City of	Fairfax	Falls		Virginia	Virginia
S. C. C.	Alexandria	Arlington	Fairfax	County	Church	NVTC	Total	Index
Variable Cost								
FY88	\$7,197,114	\$9,325,992	\$95,682	\$22,613,703	\$465,262	266,397	\$39,697,753	100.0
FY89	\$7,604,907	\$10,075,355	\$107,167	\$24,683,397	\$476,376	\$68,505	\$42,947,202	108.2
FY90	\$8,189,600	\$10,345,648	\$0	\$27,201,978	\$502,664	\$80,372	\$46,239,890	116.5
FY91	\$8,247,923	\$10,185,937	. 80	\$27,086,940	\$508,107	\$68,198	\$46,028,907	115.9
FY92	\$9,443,529	\$11,142,568	0\$	\$29,007,560	\$565,451	\$70,432	\$50,159,108	126.4
FY93	\$8,498,390	\$11,465,372	05	\$27,951,123	\$569,475	S	\$48,484,360	122.1
FY94	\$7,910,602	\$11,054,920	\$0	\$25,910,447	\$555,005	8	\$45,430,974	114.4
Fixed Cost								
FY88	\$3,533,370	\$4,578,527	\$46,975	\$11,102,031	\$228,417	S	\$19,489,320	100.0
FY89	\$3,859,598	\$5,113,386	\$54,389	\$12,527,175	\$241,768	S	\$21,796,316	111.8
FY90	\$3,661,135	\$4,624,989	0\$	\$12,160,558	\$224,714	8	\$20,671,396	106.1
FY91	\$3,779,843	\$4,667,992	0\$	\$12,413,353	\$232,854	S	\$21,094,042	108.2
FY92	\$4,506,533	\$5,317,328	08	\$13,842,655	\$269,838	8	\$23,936,354	122.8
FY93	\$4,283,263	\$5,778,648	0\$	\$14,087,610	\$287,020	S	\$24,436,541	125.4
FY94	\$4,716,857	\$6,591,720	\$0	\$15,449,630	\$330,933	8,	\$27,089,140	139.0
Total Operating Cost	g Cost							
FY88	\$10,730,484	\$13,904,519	\$142,657	\$33,715,734	\$693,679	\$66,397	\$59,187,073	100.0
FY89	\$11,464,505	\$15,188,741	\$161,556	\$37,210,572	\$718,144	\$68,505	\$64,743,518	109.4
FY90	\$11,850,735	\$14,970,637	0\$	\$39,362,536	\$727,378	\$80,372	\$66,911,286	113.1
FY91	\$12,027,766	\$14,853,929	20	\$39,500,293	\$740,961	\$68,198	\$67,122,949	113.4
FY92	\$13,950,062	\$16,459,896	\$0	\$42,850,215	\$835,289	\$70,432	\$74,095,462	125.2
FY93	\$12,781,653	\$17,244,020	0\$	\$42,038,733	\$856,495	\$	\$72,920,901	123.2
FY94	\$12,627,459	\$17,646,640	80	\$41,360,077	\$885,938	05	\$72,520,114	122.5

FY94 Source: Adopted Budget, September 1, 1993
Source: Abrams & Cherwony & Associates, Inc. for NVIC.

Figure 19

Exhibit 2

Fare Revenues Northern Virginia Metrobus

	Alexandria	Arlington	City of Fairfax	Fairfax County	Falls	NVTC	Virginia	Virginia Index
Fare Revenues								
FY88	\$4,136,488	\$4,849,226	\$94,406	\$6,532,337	\$453,413	\$19,837	\$16,085,707	100.0
FY89	\$4,239,959	\$4,972,185	\$98,808	\$6,316,602	\$465,255	\$20,387	\$16,113,196	100.2
FY90	\$4,321,036	\$4,640,943	8	\$8,250,172	\$161,274	\$23,627	\$17,397,052	108.2
FY91	\$4,383,736	\$4,708,285	8	\$8,395,512	\$163,614	\$23,970	\$17,675,117	109.9
FY92	\$4,449,443	\$5,259,897	0\$	\$8,154,695	\$224,068	\$20,370	\$18,108,473	112.6
FY93	\$4,219,157	\$5,253,853	0\$	\$8,107,437	\$260,264	80	\$17,840,711	110.9
FY94	\$3,845,768	\$5,254,668	S	\$7,753,627	\$208,664	24	\$17,062,727	106.1
Fare Recovery								
FY88	38.55%	34.88%	66.18%	19.37%	65.36%	29.88%	27.18%	100.0
FY89	36.98%	32.74%	61.16%	16.98%	64.79%	29.76%	24.89%	91.6
FY90	36.46%	31.00%	î	20.96%	22.17%	29.40%	26.00%	95.7
FY91	36.45%	31.70%	ľ	21.25%	22.08%	35.15%	26.33%	6.96
FY92	31.90%	31.96%	1	19.03%	26.83%	28.92%	24.44%	89.9
FY93	33.01%	30.47%	Ť	19.29%	30.39%	j.	24.47%	0.06
FY94	30.46%	29.78%	ï	18.75%	23.55%		23.53%	86.6

FY94 Source: Adopted Budget, September 1, 1993

Source: Abrams & Cherwony & Associates, Inc. for NVTC.

3. Alexandria Study to Develop a Transit Service Plan

In conjunction with NVTC's Interjurisdictional Bus Study, Alexandria is in the process of conducting a study to develop a long-range transit service plan for the city. The study includes examining the long-range operational and capital needs for both bus and rail modes. Study tasks include: analyzing the potential of replacing selected Metrobus service with DASH service, the coordination of bus and rail service to allow for more efficient bus-rail transfers, and developing a list of possible key locations for bus-to-bus timed transfers within the city.

4. Americans with Disabilities Act Joint Paratransit Plan FY 1994 Update for the WMATA Region

The Americans with Disabilities Act requires that transit operators provide equivalent service for persons unable to utilize regular transit services. In the Washington region, this requirement is being met through the actions described in the Joint Paratransit Plan, which is produced by WMATA, with the assistance of the Regional Paratransit Coordinating Committee, which consists of representatives from WmATA's member jurisdictions.

The FY 1994 update of the plan for this system is currently in draft. When completed, it will report how planned ADA activities which are designed to build on existing services and fill in the gaps between them, are progressing. Eleven fixed route transit systems are included in the plan, including six from Virginia (plus Metrorail and Metrobus). Five of the eight participating jurisdictions operate their own paratransit services, which will continue to function as integral core parts of the new regional system. Private providers will then be added to cover those areas and times not served by the core carriers. Figure 20 shows the organizational structure.

A single company will manage the system and the service will be available during all hours in which fixed route systems operate. Service will begin in March 1994 and be phased in to reach the January 26, 1997 target for full compliance. In the meantime, an interim paratransit service has been initiated by Arlington County, and the City of Alexandria has expanded both its service area and hours in order to better match service available through the fixed-route system. In addition, the process by which disabled persons receive certification of their eligibility to use the system has begun, and it is expected that ID cards will be ready for distribution early in 1994. Brochures and applications for this service may be obtained by calling (202) 962-2700.

Paratransit demand is estimated at 1.3 million trips annually. Services already in operation now provide about 824,000 trips annually to ADA-eligible travelers, leaving an unmet demand of approximately 514,000. Total costs to establish and operate the regional paratransit system are expected to equal \$23 million for FY 1994 through FY 1997; once the program is in place, it is expected that annual operating subsidies will grow from \$2 million in FY 1994 to \$8.6 million in FY 1997. These costs are to be shared by formula among participating jurisdictions.

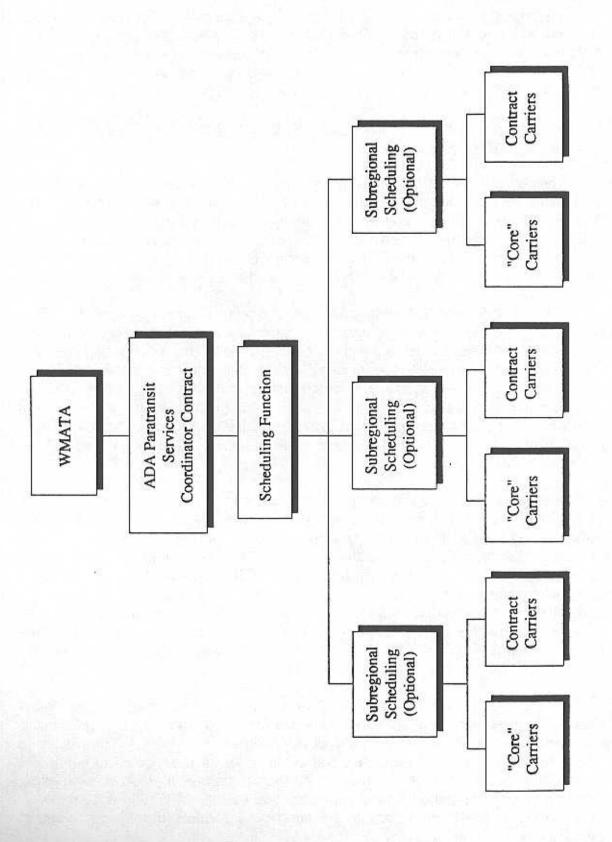


Figure 4-2: OVERVIEW OF WIMATA ADA PARATRANSIT ORGANIZATION STRUCTURE WMATA: ADA Paratransit Plan for the WMATA Region

5. PRTC Bus Study

PRTC is developing an integrated public/private transit system for the transportation district. Currently, PRTC operates Commuteride, a commuter bus system that serves core employment areas in Northern Virginia and the District of Columbia.

The foundation of the new system will be feeder bus networks for 9 commuter rail stations. These will serve as the base from which connected local transit is planned. PRTC has applied for a \$1 million federal grant to purchase feeder buses using flexible ISTEA funds, and will seek more funding in FY 1995. Feeder services to be provided by developers and major employers will also be integrated.

Human services providers will be invited to integrate their services as well in order to provide links to regional transportation centers. These services will help the region comply with the Americans with Disabilities Act.

As the outlines of the PRTC system become clearer, it should be possible to consider links with bus services being provided within the NVTC district.

Rail Improvements

1. VDR&PT Rail Corridor Study

The Virginia Department of Rail and Public Transportation is hiring a consultant to conduct a study of the Washington D.C. to Richmond rail corridor. This study will forecast travel demand and ridership for 1994, 2000 and 2014, taking into account factors such as price, frequency, speed, and quality. The study will also examine possible capacity improvements to accommodate increased freight and VRE service plus additional Amtrak and high speed (125 miles per hour) trains. Costs should be estimated and preliminary engineering performed by the time the final report is due to the General Assembly in January, 1995.

Related studies include:

- a) VRE's assessment of current rail capacity. In conjunction with VDR&PT, VRE has hired Wilbur Smith and Associates, Inc. to develop a personalcomputer based model to determine operating capacity in the corridor. The model will be used to determine investments to increase capacity, reliability and safety.
- b) VDR&PT has hired the Community Design Group to examine land use strategies in the corridor that will improve the viability of high speed rail. Work began in September, 1993 and should be completed within one year.

- c) A preliminary environmental evaluation of the corridor will be performed by VDOT to identify sensitive areas and consider any positive impacts of improved rail service.
- d) VDR&PT is working with the states of North Carolina, South Carolina, Georgia and Florida to conduct a high-speed rail market evaluation of the region.

2. <u>Dulles Rail Implementation</u>

VDR&PT has selected Parsons Brinkerhoff Quade and Douglas, Inc. to conduct feasibility studies and perform preliminary engineering for rail service in the Dulles Corridor. The purpose is to pull together existing studies with some new modelling (including consideration of different possible land use patterns) so the project can qualify for federal funding. In addition to this engineering analysis, two other studies will produce a financial plan and an environmental impact statement.

These studies are expected to take about three years. Six million dollars of federal funds have been authorized (but not appropriated). The Commonwealth Transportation Board is actively supporting the new rail service, and has agreed to provide a portion of the tolls from the Dulles Toll Road to help support the costs of rail and related parking and highway improvements in the corridor. A policy committee consisting of local and state elected officials is guiding the study with a technical committee of local and regional staff also meeting regularly.

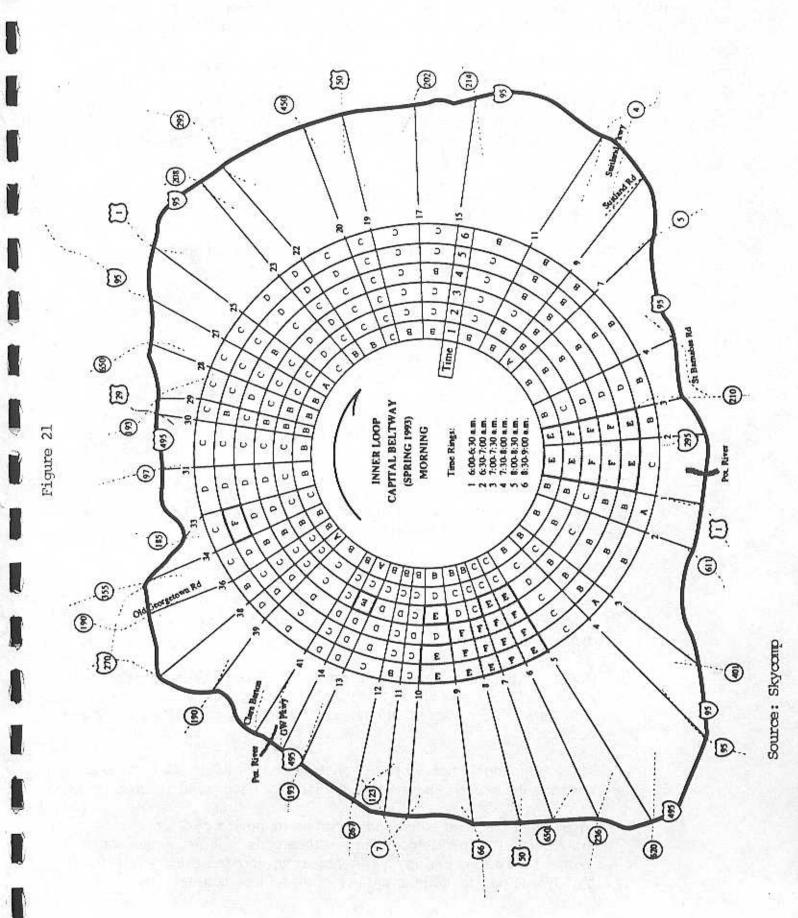
Data Enhancement

 As one example of the several technical studies underway at VDOT, VDR&PT, and MWCOG, the study of "Traffic Quality on the Metropolitan Washington Area Limited Access Highway System" is worthy of mention. The study is using aerial photography to assemble graphic representations of congestion on the region's major highways.

The work is being performed by Skycomp, Inc. of Rockville, Maryland. Excerpts of the final report, which is currently only available in draft, are shown in **Figure 21**. The figure depicts the inner loop of the Capital Beltway, during the morning rush hour, as of Spring, 1993. The figure illustrates how traffic levels vary by segment and time, with levels "E" and "F" indicating particularly severe congestion.

Such data may be useful in illustrating for citizens and elected officials the issues involved in planning HOV lanes for the Beltway, for example.

2. The travel forecasting committee of MWCOG/TPB has provided a final report titled "Summary of Recommendations of Travel Survey Needs" that sets forth in great detail the improvements that are required to travel surveys and other data supporting the region's transportation planning process. It recommends that a



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complete series of new data collection efforts be planned and initiated over the next two to three years. This series would provide information needed to comply with the analysis and forecasting requirements of ISTEA and CAAA.

These federal requirements place more emphasis on shifting travel from peak to off-peak hours and from single to multiple-occupancy vehicles, while also considering trip reduction measures and land use and economic development implications. In addition, a broader geographic area must be included, as ISTEA requires that planning areas include all localities expected to become part of the metropolitan area in the next 20 years.

Figure 22, which is taken from this study, provides an inventory of the many existing travel surveys, some of which date to 1968.

MWCOG is also considering a complete five-year plan to upgrade its entire package of forecasting models.

Land Use

1. The Northern Virginia Planning District Commission has released a preliminary draft report on "Impact Assessment of the Virginia Railway Express Commuter Rail on Land Use Development Patterns in Northern Virginia." This federally financed study gathered baseline data from 1984 (pre-commuter rail) to mid-1992, the date on which service began. The next phase of the study will examine results several years later.

Among the data examined were land use plans, transportation policies, zoning amendments, residential building permits, employment totals and job categories, all over a series of concentric impact areas.

Among the initial findings:

- 80% of VRE's ridership is within a five mile radius of each station in densely developed suburban areas, and within a 10 mile radius in less dense areas.
- Home purchasers made housing location decisions based on potential access to VRE stations. Up to 43% of those who purchased homes in 1992 listed VRE proximity as having a "major" or "some" effect on their decision.
- Many respondents believe bus or shuttle services to the stations would enhance the attractiveness of nearby land for development purposes.
- VRE initially reduced emissions of carbon monoxide by 9 tons per day and Volatile Organic Compounds (hydrocarbons that are precursors to ozone) by 0.4 tons per day, while increasing nitrogen oxide emissions by 0.6 tons per day (due to the use of diesel locomotives).

INVENTORY OF TRAVEL SURVEYS

BUBUEN	****	
SURVEY COG/TPB TRAVEL SURVEYS	YEAR S	SAMPLE SIZE
Home Interview	1968	1 IN 20 SAMPLE OF HOUSEHOLDS INSIDE BELTWAY 1 IN 33 SAMPLE OF HOUSEHOLDS OUTSIDE BELTWAY (APPROX. 26,000 HOUSEHOLD SAMPLE OVERALL)
Home Interview	1987-1988	APPROX. 8,000 SAMPLES OVERALL (0.6% SAMPLE SIZE VARIES BY COUNTY)
Auto Use	1980	COMPLETED SAMPLE OF 2,000 AUTOS FROM 1,200 HOUSEHOLDS
External	1968	1 IN 5 SAMPLE OF VEHICLES CROSSING CORDON LINE LINE AROUND URBANIZED AREA
External	1980	SAMPLE BY MD DOT AND VDOT
External	1988	SAMPLE AROUND SMSA AREA AS PART OF STUDY OF REGIONAL BY-PASS BY MD DOT AND VDOT (CONDUCTED BY CONSULTANT)
External	1992	SAMPLE AROUND NO. VA AREA ONLY BY VDOT
Truck	1968	4% SAMPLE OF TRUCKS REGISTERED IN AREA (APPROX. 3500 SAMPLES OVERALL)
Taxi	1968	8% SAMPLE OF D.C. TAXIS
Metro Before and After	1977 - 1978	WORKPLACE SURVEY OF CORE AREA WORKERS (APPROX. 20,000 COMPLETED SAMPLES)
Air Passenger Surveys	VARIES	SAMPLE SURVEYS OF AIR PASSENGERS AT NATIONAL, DULLES AND BWI
SUPPLEMENTAL SURVEYS		
Weekend Auto Trips Weekend Other Trips Weekend Out-of-Area Trips Attitudinal Survey	1968 1968 1968 1968	1 IN 60 SAMPLE OF ALL HOUSEHOLDS 1 IN 100 INSIDE BELTWAY
Weekend Visitor Trips		1 IN 100 OUTSIDE BELTWAY SUB-SAMPLE OF OUT-OF-STATE VEHICLES CROSSING CORDON LINE
Census Journey-to-Work (US to Census	CENSUS) 1980 CENSUS) 1990	1 IN 16 SAMPLE OF HOUSEHOLDS 1 IN 8 SAMPLE OF HOUSEHOLDS
Metrorail Passenger (WMATA) Metrobus Passenger (WMATA	1992 ° 1972/1978	VARIES BY STATION AND TIME OF DAY

* MOST RECENT SURVEY

Source: "Summary of Recommendations of Travel Survey Needs" George Wickstrom for MWCOG/TPB (June 21, 1993).

2. The Dulles Corridor Task Force was created by the Fairfax County Board of Supervisors in January, 1993 to study and recommend changes to the county's comprehensive plan in order to "maximize the use of and community benefit from future rail service." Members include representatives of civic and business organizations, plus government agencies.

As part of its work, the Task Force organized a three day workshop in October, 1993 to focus on land use, transportation, housing, amenities and performance standards for the future rail service. The target is to develop a preferred land use scenario that can be adopted and incorporated into the ongoing rail feasibility, environmental and engineering studies.

New Technology

1. PRTC IVHS Study

PRTC has received a \$1.6 million federal grant to help launch "a futuristic bus system that will blend satellite and computer technology." As the results of the ongoing PRTC bus study are developed, plans are going forward to provide "route-deviation" services. Such services feature buses which follow traditional routes, but will also go a few blocks in either direction from the normal route in response to a passenger request. Thus, the vehicle provides convenient service to a wider geographical corridor than do traditional services.

The federal grant will test the concept for the first time in an extensive, low population density market area. Technology developed as part of research into "intelligent vehicle highway systems" (IVHS) and more specifically, "advanced public transit systems" (APTS), will allow state-of-the-art dispatching and vehicle monitoring. Both will be required in order to coordinate passenger requests and flexible routes.

2. <u>Dulles Area Transportation Information System (DATIS)</u>

The Dulles Area Transportation Association (DATA), in cooperation with several agencies and firms, is conducting a federally financed demonstration of "real-time" commuter information systems. Traffic and public transit information, gathered using the networks of Metro Traffic Control and the Fairfax County Police, will be provided to commuters via computer terminals located in office buildings, or kiosks in shopping centers.

VDOT also offers on-line access to its own traffic management data, obtained via pavement sensors, cameras and public helicopters. The costs to display the data include about \$2,000 for software plus appropriate cables and phone lines. VDOT does not charge for the data itself. The system now monitors 30 miles on I-395, I-66 and the Capital Beltway, with future expansion planned for 27 additional miles by 1997.

Systems Plans

The staff of MWCOG/TPB takes the lead for the region in preparing planning studies and changing procedures in order to comply with the new federal planning requirements. Each year a "unified work program" is adopted by TPB after careful review by the technical and citizens committees of TPB. The major current planning activity is the update of the area's long range transportation plan, which was initially required to be completed by October, 1993 but will in fact take several additional months to complete.

For the first time, the plan must be financially constrained, which means that the projects included in the plan must have realistic prospects of being funded and completed as scheduled. In addition, the overall plan must be analyzed for its effect on air quality. The Northern Virginia District Office of the Virginia Department of Transportation also has extensive modeling capabilities and works closely with MWCOG/TPB to analyze the Virginia portion of these regional plans.

Each year TPB adopts a six-year Transportation Improvement Program. Projects in the TIP now must be taken from the financially constrained and air-quality conforming long range plan. Otherwise, federal funds will not be made available.

Air Quality Plans

The Metropolitan Washington Air Quality Committee (MWAQC) has produced a draft air quality plan that is designed to reduce emissions of volatile organic compounds by 15 percent by 1996. Emissions then must be reduced by 24 percent by 1999. The draft plan was available for review, and public hearings were held during November, 1993. The final plan will become part of the required State Implementation Plan for Virginia, which is available throughout the region for public comment as of November, 1993.

The draft plan is not without controversy. Certain contingency measures to apply transportation control measures, such as requirements that employers reduce employee travel in single occupant vehicles, were not approved by the TPB. At MWAQC, however, the measures were not removed and were included in the version of the plan reviewed by the public. It should be noted, however, that the controversial elements of the plan were only considered as <u>contingency</u> measures to be implemented if portions of the base plan are not accepted by EPA.

Another area of controversy within Northern Virginia's General Assembly is the extent to which area vehicle inspection stations will be employed and whether strict vehicle emission standards should be required (i.e. "California cars").

Highway, Bridge and HOV Studies

1. I-95 Corridor Study

VDOT's Northern Virginia District Office conducted this study, which grew out of the 1989 Northern Virginia Subregional Transportation Plan and the desire to find a location for an additional crossing of the Occoquan River. VDOT has worked with local government staff and citizens to examine a wide range of alternatives, including improved transit. Presently, a committee made up of supervisors from Fairfax and Prince William Counties is reviewing the report and its recommendations.

2. I-95/395/495 Interchange Study

VDOT's Northern Virginia District Office has established an extensive series of public advisory groups and meetings to gain consensus on design improvements to the major interchange known derisively as "the mixing bowl." As the result of this process, design alternatives have been narrowed to a preferred set which would separate traffic more effectively into categories (e.g. through versus local).

3. Woodrow Wilson Bridge Improvements Study Coordination Committee

This group was created in August, 1992 to oversee continuing studies of improving the bridge, which now carries 160,000 vehicles per day on a span designed for 75,000. The draft environmental impact statement completed in 1991 called for several 12-lane alternatives, costing as much as \$1.4 billion. Among the concerns with the draft EIS were traffic impacts on local communities and the lack of integrated transit system options.

The committee consists of representatives from Maryland, Virginia and District of Columbia departments of transportation and the Federal Highway Administration and National Park Service, together with local elected officials.

No date has been set for the completion of the final EIS.

SECTION V

ISSUES/RECOMMENDATIONS

COORDINATING TRANSPORTATION POLICIES

Generally, transportation is not an end in itself, but instead serves as a means to accomplish other objectives. However, many regard mobility as a desirable objective in itself, one that enhances quality of life. In fostering mobility; reducing congestion, pollution and wasteful energy consumption; and encouraging economic growth and prosperity; transportation policies play a major role.

Many transportation policies and programs can be pursued independently by local jurisdictions at relatively modest cost. Examples include:

- Encourage Transportation Management Associations to work with employers to sponsor ridesharing promotions, flexible work hours, \$60 monthly tax-free transit incentives, and transit fare media retail outlets.
- Adopt ordinances that require transit friendly designs that provide ready access to transit services without requiring lengthy walking.
- Adopt ordinances that require developers and major employers to seek to reduce single-occupant vehicle use at their facilities through cost-effective actions appropriate to the locality.
- Pursue land use policies that provide for mixed use developments to minimize travel and that cluster development to maximize the effectiveness of existing or planned fixed-route transit services.

Because commuters travel through inner jurisdictions on the way to and from core employment locations, transportation is truly a regional issue. And each year the "region" gets bigger. During its first two decades, NVTC's five original jurisdictions were the only ones in Northern Virginia using public funds for public transit. During the last 10 years, NVTC added a member, and the new PRTC emerged with three cities and two counties as members and its own sub-regional interests to pursue. Among the policies that must be considered in the new, broad regional context are:

- Cooperating to plan and implement transit and HOV systems in major travel corridors that are tied together into a regional system.
- Developing cooperative financing plans that combine resources from those who use the regional facilities and those who benefit in other ways (e.g. reduced congestion, cleaner air, better job market).

Finally, some policies require attention to the "big picture," including:

Complying with federal mandates for clean air and accessibility.

- Evaluating new technologies (e.g. high-speed rail, IVHS, telecommuting centers).
- Competing for funding from federal and state sources.

Given these varying contexts in which transportation policies must be considered, it is appropriate that several different types of institutions have arisen to serve as advocates or brokers. Thus, just because there are scores of agencies with various responsibilities for transportation policy does not mean that policy-making is necessarily balkanized. Nonetheless, the respective missions and performance of these agencies should be continually examined for opportunities for improvement through better coordination.

COORDINATION ISSUES AND RECOMMENDATIONS

Financial Issues

The 1993 Virginia General Assembly authorized issuing up to \$181 million in bonds, to be used to continue work on the Fairfax County Parkway (\$64 million), the Route 234 Bypass near Manassas (\$54 million), and the Franconia/Springfield Metrorail station (\$63 million). Debt service would be covered by recordation fees from Northern Virginia jurisdictions accruing to the Commonwealth.

The available amount of recordation fees returned to Northern Virginia to cover debt service allowed \$131 million of the bonds to be issued; these bonds closed on September 3, 1993 at favorable interest rates. Of this amount, \$45.6 million was made available to NVTC's jurisdictions to support Metro capital costs, including construction of the Franconia/Springfield station.

In 1992, VDOT completed a two-year study, mandated by Senate Joint Resolution 188, of statewide transportation funding formulas. In its SJR 188 report, VDOT proposed a change in the way state transit assistance is provided to localities.

Instead of providing about \$35 million annually from the Highway Maintenance and Operations (HMO) fund and \$38 million from the Transportation Trust Fund (TTF) to support state transit programs, VDOT proposed increasing the amount from TTF while eliminating entirely the amount from the HMO. The net result was a proposed <u>reduction</u> in state funding for transit.

In testimony before the SJR 240 committee (a joint legislative committee formed by the General Assembly to review formula allocations and revenue sources), NVTC and the Virginia Association of Public Transit Officials have advocated the following legislative approach:

- Treat transit capital replacement the same as highway maintenance. Fund both from the HMO fund.
- Convert various transit grant programs into a flexible block grant program, with a common matching ratio (80/20).
- Increase by five cents per gallon the Commonwealth's motor fuels tax to go
 into the TTF, and three cents additional to be returned to localities or
 transportation district commissions, and two cents to be used for specific
 debt-financed projects. Each one-cent increase in the gas tax yields \$36
 million statewide.

In addition, more state bonding for regional priority transportation projects identified by the TCC would be possible with the release of additional recordation fees or transfers to the region from the TTF. Such bonding is needed because the region still requires almost \$300 million to complete its top three priority projects (including about \$100 million for the construction of the Franconia/Springfield Metrorail station). Within the Commonwealth Transportation Board's six-year program for Northern Virginia, a

\$657 million shortfall exists, including \$260 million for transit capital, but excluding \$442 million in transit operating costs. In Northern Virginia's 1989 sub-regional plan, a \$7 billion shortfall was identified through 2010.

Further, new VDR&PT data indicate that about \$2.2 billion over 20 years is needed to meet statewide rail investment requirements. This represents about 5.9 percent of the TTF, yielding about \$25 million annually. The General Assembly may consider creating such a separate rail fund to join the separate modal funds already available for public transit, water ports, and airports, as well as highways.

Public Involvement

Several public organizations are active in seeking to influence transportation decisions in Northern Virginia. Indeed, the federal ISTEA legislation emphasized public involvement as an integral part of improved planning and regional decision-making, and newly released final planning regulations by FTA and FHWA reemphasize enhanced public participation.

Among such groups are the Northern Virginia Transportation Alliance, which has a set of priority projects that it actively supports, including eastern and western bypasses, Wilson Bridge improvements and the Fairfax County Parkway. Moving People of Northern Virginia, another activist coalition, generally opposes HOV facilities that add new capacity to freeways, since they are believed to encourage automobile use. The coalition favors bus and carpool lanes on arterial roads, as well as bus and rail transit improvements and measures to reduce transportation demand.

Citizens advisory committees for the TCC and the TPB meet regularly and provide advice to their parent bodies. For example, the citizens advisory committee to TCC heard presentations in September, 1993 on improving transit connections. The committee stated its intention to "rediscover the transit consumer and reinvent...the concept of what constitutes suburban transit service."

To do this, the committee proposed:

- Surveys of current and potential transit customers.
- Studies of alternatives such as van shuttles in neighborhoods, more parkand-ride lots, new timed-transfer bus systems.
- The Centreville area of Fairfax County as an appropriate test area, given its explosive growth and concentration of commuters.

In response, WMATA staff has proposed several new experimental routes in the Centreville area and NVTC's interjurisdictional bus study consultant will work with the citizens group to examine other alternatives.

Several specific proposals suggested by WMATA staff for more detailed review include:

- Test the concept of neighborhood shuttles on Metrobus Route 18K.
- Restructure Routes 12C and 12S in Sully Station and Centreville.
- Combine Routes 12E and 12C for expanded service to Little Rocky Run and Centreville.
- Add a new route for the Compton area of Centreville.
- Extend Route 22B to the Cherrydale Senior Center in Arlington.
- Reroute 10B, 10C and 10D in Arna Valley (Arlington).
- Widen frequencies and reduce span of service on several routes.
- Provide skip-stop service on some heavily used local routes.
- Coordinate bus service with proposed new Sunday Metrorail schedules.

It is estimated that all of these changes could be accomplished at a net subsidy saving of almost \$1 million annually, including about \$300,000 of new Metrorail revenues resulting from the new and enhanced Metrobus routes.

As another example of growing involvement by citizens, NVTC will offer its draft 1994 workplan for public review and comment before adopting the final version in January, 1994. The commission will also be reviewing other aspects of its work in order to ensure that the public has an adequate opportunity for involvement.

Public/Private Cooperation

Just as processes involving private citizens in public transportation decisionmaking are being improved, so too are areas in which private firms can complement public resources being better defined.

Each year, MWCOG sponsors a public transit forum in which private sector contracting opportunities are identified. Not only does this process help comply with FTA regulations, but it encourages information sharing for the mutual benefit of private and public sector interests. In addition, many private transportation providers are members of the Washington Private Operators Council, which is headquartered in Ballston.

Areas in which excellent cooperation is evident include planning for the regional paratransit network (to be managed by a private contractor), the regional Metrochek program (supported by many private employers), and Fairfax County's proposal to turn

over several Metrobus routes in the Reston/Herndon area to private contractors to operate a 45-bus system. Studies of new bus service being performed by consultants for NVTC and PRTC also have benefitted from consultation with private operators. In addition, the Transportation Management Associations listed in **Appendix A** continue to prosper, primarily with private financial resources.

The Virginia Railway Express, which used \$130 million of government funding to establish the foundation for a successful and growing system, relies on privately owned rights-of-way and contracted dispatching operations and maintenance. Unfortunately, the commissions sponsoring VRE are embroiled in difficult negotiations with one of the private railroads (CSXT), which has prevented VRE from adding trains to relieve standing-room only conditions. This illustrates one of the pitfalls of heavy reliance on the private sector for public transit programs.

After several years of planning and efforts to assemble land and secure financing, ground was broken by the Toll Road Corporation of Virginia in September, 1993 to build Virginia's first privately financed toll road since 1816. The road will link Dulles International Airport with Leesburg in Loudoun County. The "Dulles Greenway" is due to open in March, 1996. The cost is \$300 million, with tolls initially to be \$1.75 for the 15-mile length of the road. After its initial 42-year franchise, the facility will be returned to ownership by the Commonwealth. The median of the facility will be reserved for a future rail line.

Toll road projects elsewhere illustrate the benefits of joining private sector involvement and new IVHS technology. In California, financing was recently obtained for the State Route 91 Express Lanes Project in Orange County. The California Legislature has awarded 35-year franchises to four private developers for toll-road projects. The first toll road project to be built in the median of an existing congested freeway, will be constructed and operated by the California Private Transportation Company.

The new lanes will be free to HOV's with three or more persons, and also to certain disabled operators and "zero emission" vehicles. All toll collection and verification of exemptions will be performed electronically, including video tapes of license plates of violators. Tolls paid by other vehicles will vary with time of day, depending on congestion levels on the parallel toll-free lanes.

These California technologies would appear to be readily transferable to Northern Virginia.

Maintaining Metrochek Availability for Federal Employees

To date, a portion of the success of the Metrochek program has been due to a federal program to provide incentive payments for employees who use public transit. This law that allows this program, (Public Law 101-509), was due to expire on December 31, 1993, but Congress acted in late November, 1993 to renew the program. This law provides authority for federal agencies to provide up to \$60 each month as a tax-free transit incentive to their employees. The new version extends eligibility to uniformed military service personnel, as well. The Metrochek program is described in further detail under "Transit Fares and Transfers."

Customer Information

WMATA's customer information system seeks to make the large transit operator more user friendly. Its automated telephone information system (ARTS) is available from 6:00 A.M. to 11:30 P.M., seven days a week, 363 days a year (202/637-7000). About 2.7 million calls are handled annually by 64 agents.

The ARTS system has the capability to include route, schedule and fare information for public transit systems that connect to WMATA routes, and many such systems are included. However, there is no process for keeping the data current. Metro staff have requested funding in the FY 1995 budget for data-entry to allow all systems to keep their information current.

Remote ARTS terminals can also be made available, and the WMATA Board has adopted a policy for providing access to (or copies of) the database to local and regional agencies and the private sector.

WMATA has 13,000 bus stops in the region and provides detailed schedule information at 1,100 of them, enclosed in cases on the bus stop poles. Two hundred additional cases will be added in FY 1994. Currently about 291 of these cases are in Virginia locations. Staff is requesting funds for 1,000 new cases in FY 1995. In addition, WMATA provided 35 million printed schedules, information brochures and cooperative promotion pieces during FY 1993 at a cost of \$3 million.

Among ongoing market research activities are a market segmentation study, an attitude tracking study, and a tourist market study.

Mid-Day "Metro Mover" Buses in Arlington

For FY 1994, Metrobus Route 38B crossing from Northern Virginia into the District of Columbia was discontinued during mid-days. The District of Columbia provided about 40 percent of the operating subsidy, and Arlington County about 60 percent. At public hearings, many riders testified that they would be seriously inconvenienced by the change.

In response, the Arlington County Board is providing for improved Metrobus service on alternative routes during mid-days along Wilson Boulevard. A special reduced fare applies on mid-day routes 1B and 1C, from 11:00 A.M. to 2:00 P.M. All passengers boarding between Rosslyn and Ballston pay half of their usual fares (generally 50-cents is the new fare). Arlington County compensates WMATA for lost fare revenues. The bus operates at 15-minute frequencies.

Nonetheless, since the 38B mid-day service was discontinued in June, 1993, ridership losses on the route are about 600 per day (150,000 per year), with about 60 percent of these representing riders from Northern Virginia. This is occurring because the alternative Potomac River crossing option requires a transfer to rail at Ballston and back to bus at Foggy Bottom, with a walk of up to four blocks in heavy traffic. Such transit trips take twice as long and deter many elderly, disabled and other customers.

Arlington County staff have requested the support of the District of Columbia for restoring the 38B during mid-days during FY 1995.

Improved Transit Connections Through Coordinated Fares

The WMATA Board acted in September, 1993 to amend its tariff to allow valid Maryland Commuter Rail (MARC) weekly and monthly passes to be accepted as full fare for intra-Maryland bus trips. Thus, MARC pass-holders can travel free in Maryland on connecting Metrobuses, without purchasing separate fare media. Ride-On, Montgomery County's local bus system, also honors MARC passes. Any revenue loss accrues to the Maryland jurisdictions that support the bus routes. Clearly, such a plan would also benefit transit users if it were implemented in Virginia.

At the same time, WMATA is engaged in a research project which will investigate the use of "smart cards" as regional fare media. These cards, with embedded semi-conductor chips, can be programmed to connect directly to user accounts that are reduced with each use of the Metrorail faregates. The smart cards can then be replenished and reused through deposits into the user's account. "Proximity readers" would allow users to keep the cards in wallets and purses as they pass through the gates.

In the meantime, NVTC staff is working with WMATA to examine how combined WMATA/VRE fare media can be designed and used. Currently, customers must purchase VRE passes for that barrier-free system and then buy separate WMATA fare media at full price. An option being explored is for VRE monthly pass customers to receive separate reduced-price WMATA rail passes. If sufficient new ridership is induced, the costs to supporting jurisdictions could be offset by new fare revenue.

Another option being examined is to issue a combined VRE/WMATA farecard, perhaps by developing a machine to print VRE zone fare information on the backs of WMATA farecards. VDR&PT has expressed interest in providing funds for a demonstration of such a combined fare media concept.

VRE/MARC Cooperation

Several organizations and firms, including the Washington Baltimore Regional Association, Charles E. Smith Companies and RF&P Properties are working to explore opportunities for coordinated service between VRE and MARC. The objective is to build new transit ridership by making it possible for Maryland commuter rail customers to move directly to job sites in Northern Virginia, and for Virginia commuters to travel into Maryland, perhaps as far as Baltimore.

In August, 1993, VRE trains traveled to two Baltimore Orioles games, in one case actually carrying MARC cars and crews for the Maryland portion of the excursion. Before such joint "run-through service" could be implemented on a regular basis, however, physical constraints at Union Station in D.C. must be overcome and the implications for ridership on the regional Metrorail system must be thoroughly investigated.

One area in which immediate cooperation is required between MARC and VRE is in locating mid-day storage facilities. Both systems use crowded facilities near Union Station, but Amtrak (which owns the facilities) cannot accommodate the two growing commuter authorities plus its own expanding needs.

Coordinated Parking Policies

Currently fees charged to park at VRE lots are controlled by local governments. At Leeland Road in Stafford County, for example, local residents pay \$1 daily while non-residents pay \$2. In Manassas, residents pay \$1 each month, compared to non-residents who are charged \$1 each day. Prince William County recently raised fees to all vehicles at Woodbridge to \$1.25 daily from \$1.

In each case, these increases were made to support local objectives, but the effect on the competitive fare structure of VRE was not considered. Various options for ameliorating this situation have been discussed and will be considered by the VRE Operations Board in the upcoming year.

Compliance With Air Quality Requirements

As previously explained, Northern Virginia is part of the Metropolitan Washington Air Quality Committee, which has produced a plan to reduce emissions by 15 percent by 1996 as required for the federal Clean Air Act Amendments. Among the proposed measures to reduce emissions are some that would use the public transportation system. Among the measures that were agreed to by TPB and MWAQC are telecommuting centers, expansion of park-and-ride lots, better pedestrian access, and a "cash for clunkers" program, in which older, high polluting cars can be turned in for cash. Following public comments, the final plan will be provided to the Environmental Protection Agency.

While some aspects of the 15 percent plan generated controversy, much of the emissions reductions claimed were in fact due to technological advancement, for example, vapor control at gas stations. The region's task in the upcoming years will be not only to implement the 15 percent plan, but also to develop a plan which reduces emissions still further--by a total of 24 percent by 1999.

To meet these targets, plans may call for reduced transportation demand, and such measures will be an increasingly important facet of these discussions. Many jurisdictions are already beginning to implement programs aimed at limiting demand for highway capacity, or for transportation overall. In October of 1993, for example, the City of Alexandria initiated the Alternative Transportation Program (ATP) to encourage private employers to implement commuting alternatives and trip reduction programs for their employees. The ATP provides employers with planning, marketing, and financial assistance as employers develop and administer transit benefits, guaranteed ride home, telecommuting, and parking management programs.

Compliance with the Americans with Disabilities Act

Public transit systems throughout Northern Virginia have moved rapidly to comply with requirements for improved access for persons with disabilities. Local bus systems are purchasing lift-equipped buses and cooperating in the regional paratransit program. WMATA is considering digital displays in rail stations while VRE has purchased and installed new "talking" fare vending machines with braille keys and a lower height.

At least one area of controversy remains, however. WMATA, which has a system of granite platform edges with flashing lights in all of its rail stations, has requested that the Federal Transit Administration allow its system to remain, without adding tactile edges (strips of specially-textured material that can be sensed with one's feet or a cane). WMATA has provided evidence to FTA that its system has fewer injuries than properties that have installed the tactile edges.

CONCLUSION

Strategies to combat congestion and improve coordination must be pursued at several levels. Locally, ordinances and programs can encourage employers and developers to sponsor benefits to employees that serve as incentives to transit use and ridesharing. Regionally, plans, studies and demonstrations can test new concepts and build consensus for investments that will relieve congestion in the longer term. At the state and federal levels, technical support and new revenue sources, together with citizen input and private sector involvement, can facilitate the decisions being made regionally.

As described above, the most important initiatives to be pursued cooperatively by governments, firms and citizens in the next year to improve coordination of Northern Virginia's transportation system include:

- Seek as much as \$360 million in new statewide transportation revenues from gas tax increases and up to \$100 million more from revised truck taxes, with substantial amounts to be returned to Northern Virginia to support its top priority transportation projects, including Metrorail completion and other transit projects. Transit assistance should take the form of block grants. Additional bonds should be issued to reduce the \$1 billion shortfall of transportation capital and transit operating costs over the next six years in Northern Virginia. If new financing is available, the TCC should identify additional priority projects (including transit), for funding.
- Complete NVTC's interjurisdictional bus study while working with citizens and public and private bus operators to identify new and revised routes and customer services.
- 3) Complete agreements with several private railroads to provide increased levels of service on the Virginia Railway Express commuter rail service, on terms that are fair and affordable both to the public and to the railroads' private stockholders.
- 4) Given reenactment by Congress of the \$60 monthly tax-free transit benefit program for federal employees, actively encourage public and private employers to provide Metrocheks to their employees.
- 5) Work on integrated transit fare media, beginning with a demonstration of a joint VRE/Metro pass to be issued in new vending machines. Extend the pass to other transit operators for the convenience of customers.
- Adopt and implement a regional air quality improvement plan that complies with federal clean air mandates.
- Complete TPB's financially constrained long range transportation plan update, keeping the TCC closely involved in reviewing Northern Virginia's portion of the plan.

- 8) Complete plans for improved mobility of persons with disabilities, to comply with the Americans with Disabilities Act. Among such actions is implementation of the regional paratransit system, beginning in March, 1994.
- 9) Assure adequate compliance on the part of the TPB and the TCC as appropriate and possible, with the requirements of ISTEA--particularly its intent that transit services be enhanced to reduce reliance on the singleoccupant vehicle.

While success in these endeavors will not end congestion, it will enhance the mobility of Northern Virginia's citizens and pay long-term dividends in the form of a better quality of life and an improved economic climate for the region.

APPPENDICES

APPENDIX A

TRANSPORTATION AGENCIES AND ORGANIZATIONS

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NATIONAL/FEDERAL AGENCIES/ORGANIZATIONS

Congress

Senators of Virginia:

John Warner (R) Charles Robb (D)

U.S. Senate

Washington, D.C. 20510

Telephone: 202/224-3121 (U.S. Capitol Switchboard)

Senate Committees:

Senate Appropriations Committee

Telephone: 202/224-3471

Transportation Subcommittee Telephone: 202/224-7245

Senate Banking, Housing and Urban Affairs Committee

Telephone: 202/224-7391

Housing and Urban Affairs Subcommittee

Telephone: 202/224-9204

Senate Commerce, Science and Transportation Committee

Telephone: 202/224-5115

Surface Transportation Subcommittee

Telephone: 202/224-9350

Senate Environmental Public Works Committee

Telephone: 202/224-6176

Water Resources, Transportation and Infrastructure Subcommittee

Telephone: 202/224-6176

Representatives of Virginia:

Herbert Bateman (R)
 Owen Pickett (D)
 Robert C. Scott (D)
 Norman Sisisky (D)

5.	L.F. Payne	(D)
6.	Robert W. Goodlatte	(R)
7.	Thomas Bliley	(R)
8.	James Moran	(D)
9.	Rick Boucher	(D)
10.	Frank Wolf	(R)
11.	Leslie Byrne	(D)

U.S. House of Representatives

Washington, D.C. 20515

Telephone: 202/224-3121 (U.S. Capitol Switchboard)

House Committees:

House Appropriations Committee

Telephone: 202/225-2771

Transportation Subcommittee Telephone: 202/225-2358

House Energy and Commerce Committee

Telephone: 202/225-2927

House Public Works and Transportation Committee

Telephone: 202/225-4472

Surface Transportation Subcommittee

Telephone: 202/225-4472

Legislation:

Senate and House Bill Status

Telephone: 202/225-1772

U.S. Department of Transportation

The Honorable Federico Pena, Office of the Secretary 400 7th Street, S.W., Suite 10200 Washington, D.C. 20590

Telephone: 202/366-1111 Fax: 202/426-4508

Function: Set policy and coordinate activities of the modal administrations.

^{*} The number to the left of name indicates Congressional District.

Federal Transit Administration

Gordon Linton, Administrator Federal Transit Administration, (FTA) 400 7th Street, S.W. Washington, D.C. 20590

Telephone: 202/366-4040 Fax: 202/366-3472

Sheldon Kinbar, Regional Administrator FTA Region III 1760 Market Street, #500 Philadelphia, PA 19103

Telephone: 215/656-6900 Fax: 215/656-7260

<u>Function</u>: Administer grants to support public transit capital investments operations and research.

Federal Highway Administration

The Honorable Rodney Slater, Administrator Federal Highway Administration, (FHWA) 400 7th Street, S.W. Washington, D.C. 20590

Telephone: 202/366-0650 Fax: 202/366-3244

<u>Functions</u>: Administer grants to support flexible investments in surface transportation.

Federal Railroad Administration

Jolene Molitoris, Administrator Federal Railroad Administration, (FRA) 400 7th Street, S.W. Washington, D.C. 20590

Telephone: 202/366-0710 Fax: 202/366-7009

<u>Function</u>: Provide grants, primarily for safety purposes, and regulate safety of railroads. Administer major grant programs to develop new technology, such as magnetic levitation.

Environmental Protection Agency

Carol M. Browner, Administrator Environmental Protection Agency, (EPA) 401 M. Street, S.W., Room 1200 West Tower Washington, D.C. 20460

Telephone: 202/260-8279 Fax: 202/260-4700 Main #: 202/260-2090

<u>Function</u>: Responsible for mandates of the Clean Air Act and establishing regulations to provide state and local compliance.

U.S. Army Corps of Engineers

Lt. General Arthur E. Williams U.S. Army Corps of Engineers 20 Massachusetts Avenue, N.W. Washington, D.C. 20314-1000

Telephone: 202/272-0001 Fax: 202/272-0683 Main #: 202/272-0660

<u>Function</u>: Must award permits to approve surface transportation construction affecting wetlands (e.g. at WMATA's Franconia/Springfield Station).

National Park Service

Roger Kennedy, Director National Park Service 1849 C Street, N.W. Washington, D.C. 20420

Telephone: 202/208-4621

Fax:

202/208-7520

Function: Controls access to certain federal lands, including the George Washington Parkway. Permits are required when encroaching on Park Service land, such as at VRE's L'Enfant station.

General Services Administration

Dennis J. Fisher, Acting Administrator General Services Administration 18th F. Street, N.W. Washington, D.C. 20405

Telephone: 202/501-0800

Fax:

202/219-1243

Main #:

202/708-5082

Function: Helps determine parking and transportation arrangements for federal agencies. Would be involved in a coordinated regional strategy to boost public transit and ridesharing use among federal employees.

Transportation Research Board/National Research Council

Thomas Deen, Executive Director Transportation Research Board/National Research Council 2101 Constitution Avenue Washington, D.C. 20418

Telephone: 202/334-2933

Fax:

202/334-2003

Sponsors cooperative research programs for surface transportation, Function:

and often is directed by Congress to manage special transportation studies.

American Association of State Highway and Transportation Officials

Frank Francois, Executive Director American Association of State Highway and Transportation Officials 444 N. Capitol Street, Suite 249 Washington, D.C. 20001

Telephone: 202/624-5800 Fax: 202/624-5806

Functions: Trade association for state departments of transportation. Very active

in lobbying Congress. Also collects some data from its members.

American Public Transit Association

Jack Gilstrap, Executive Vice President American Public Transit Association 1201 New York Avenue, N.W. Washington, D.C. 20005

Telephone: 202/898-4000 Fax: 202/898-4070

<u>Function</u>: National trade association for public transit operators and suppliers. Several active committees evaluate proposed regulations and advocate legislative positions, including legislative and policy committees as well as modal committees such as commuter rail. Peer review groups are sometimes organized to offer advice to individual operators, such as the group that advised WMATA on its efforts to "winterize".

STATE AGENCIES/ORGANIZATIONS

Office of the Governor

The Honorable L. Douglas Wilder Governor Commonwealth of Virginia P.O. Box 1475 Richmond, Virginia 23212

Telephone: 804/786-2211

<u>Function</u>: Has proposed financing measures for transportation and created Northern Virginia's Transportation Coordinating Council.

NOTE: As of January, 1994, George Allen will be sworn in as Governor. At that time, holders with appointed offices listed below may also change.

Office of the Secretary of Transportation

The Honorable John G. Milliken Secretary Commonwealth of Virginia 9th Street Office Building Richmond, Virginia 23219

Telephone: 804/786-6670 Fax: 804/786-6683

<u>Function</u>: Oversees the Virginia Departments of Transportation and Rail and Public Transportation, serving as chairman of the Commonwealth Transportation Board.

Virginia Department of Transportation

Ray D. Pethtel Commissioner, Virginia Department of Transportation, (VDOT) 1401 East Broad Street Richmond, Virginia 23219

Telephone: 804/786-2700

Claude D. Garver
Assistant Commissioner for Planning and Programming
Virginia Department of Transportation, (VDOT)
1401 East Broad Street
Richmond, Virginia 23219

Telephone: 804/786-2700

Function: State agency responsible for planning, constructing and

maintaining surface transportation improvements.

Commonwealth Transportation Board

The Honorable John G. Milliken, Chairman Commonwealth Transportation Board 9th Street Office Building Richmond, Virginia 23219

Telephone: 804/786-6670 Fax: 804/786-6683

<u>Function</u>: Policy Board for VDOT. Chaired by Secretary of Transportation. Adopts six-year program for highway and transit projects.

Virginia Department of Rail and Public Transportation

Mr. Leo J. Bevon, Director Virginia Department of Rail and Public Transportation 1401 East Broad Street Richmond, Virginia 23219

Telephone: 804/786-1051

<u>Function</u>: Technical and financial assistance to Virginia's public transit, ridesharing, and railroad operators.

State Corporation Commission

Mr. Preston Shannon, Chairman Motor Carrier Division Jefferson Building 1220 Bank Street Richmond, Virginia 23219

Telephone: 804/371-9683

<u>Function</u>: Provides authority to operate and regulates fares for certain privately owned transportation services (e.g. intercity bus service) within the Commonwealth. Must approve tolls to be charged by the Virginia Toll Road Corporation for its Dulles Toll Road Extension to Leesburg. Does not regulate government-owned bus systems nor private carriers operating within the Washington Metropolitan Area Transit Zone.

Division of Risk Management

Mr. Don W. LeMond James Madison Building - 4th Floor 109 Governor Street Richmond, Virginia 23219

Telephone: 804/225-4619 Fax: 804/371-8400

<u>Function</u>: Risk manager for the Virginia Railway Express. On behalf of NVTC/PRTC, manages VRE's insurance program which provides \$200 million of protection and incorporates \$20 million of cash reserves.

Virginia General Assembly

<u>Function</u>: Sessions are held for two or three months each year beginning in January, but committee hearings occur all year. Created NVTC in 1964. Designates NVTC's members from the General Assembly and the number of members from each jurisdiction. Specifies the method of sharing NVTC's administrative costs and allocating the majority of NVTC's state aid.

In a special session in 1986, created a new Transportation Trust Fund with public transit to receive 8.4 percent allocated according to a statutory formula. Public transit funding was doubled.

Senator Hunter Andrews
Majority Leader, Chairman of Finance Committee
Virginia Senate 1st District
16 S. King Street P.O. Box B
Hampton, Virginia 23669

Telephone: 804/722-2581

Susan Clark Schaar, Clerk Senate P.O. Box 396 Richmond, Virginia 23219-0396

Telephone: 804/786-2366

Delegate Thomas W. Moss, Jr. Speaker of the House of Delegates Delegate for the 79th District P.O. Box 6190 Portsmouth, Virginia 23705

Telephone: 804/399-3600

Delegate Richard Cranwell
Majority Leader of the House of Delegates, Chairman of Finance Committee
Delegate for the 14th District
P.O. Box 459
Vinton, Virginia 24179

Telephone: 703/344-7111

Bruce F. Jamerson, Clerk House of Delegates P.O. Box 406 Richmond, Virginia 23203-0406

Telephone: 804/786-8826

Virginia Association of Counties (VACO)

James D. Campbell, Executive Director 1001 Broad Street Richmond, Virginia 23219

Telephone: 804/788-6652 Fax: 804/788-0083

D.C. Office:

Telephone: 202/393-6226

<u>Function</u>: Advocacy group for Virginia's County governments. Each year

adopts legislative agenda, including transportation components.

Virginia Municipal League

R. Michael Amyx, Executive Director P.O. Box 12164 (13 East Franklin Street) Richmond, Virginia 23241

Telephone: 804/649-8471 Fax: 804/343-3758

Function: Advocacy group for Virginia's cities and towns. Pursues an

annual legislative agenda.

Virginia Association of Public Transit Officials (VAPTO)

Honorable Joseph Alexander, President 6107 Craft Road Alexandria, Virginia 22310

Telephone: 703/971-6262 Fax: 703/971-3032

<u>Function</u>: Trade group for Virginia's public transit operators and associated suppliers. Primarily focused on state legislation, VAPTO employs a lobbyist and uses VML for secretarial services. Provides annual awards honoring outstanding public officials, transit systems and innovative programs. Sponsors a rodeo for transit drivers and mechanics.

George Mason University

George W. Johnson President George Mason University Fairfax, Virginia 22030-4444

Dr. Roger Stough Northern Virginia Chair in Local Government Public Policy Institute George Mason University Fairfax, Virginia 22030-4444

Telephone: 703/993-2280

Ellie Doyle
Director, Transportation and Land Use Policy
GMU-Alumni House
4400 University Drive
Fairfax, Virginia 22030

Telephone: 703/993-3351

<u>Function</u>: State-supported university located in Fairfax County/City of Fairfax. Has active transportation education and research programs. Emphasis is on Intelligent Vehicle Highway Systems and traveler information systems. Recipient of several federal transportation research grants and active supporters of private-sector involvement.

REGIONAL AGENCIES/ORGANIZATIONS

Northern Virginia Transportation Commission (NVTC)

John Mason, Chairman Richard K. Taube, NVTC Executive Director 4350 N. Fairfax Drive, Suite 720 Arlington, Virginia 22203

Telephone: 703/524-3322 Fax: 703/524-1756

Function: Created by the General Assembly in 1964, currently has 19 members from six jurisdictions. Members are elected officials from local jurisdictions and the General Assembly, with a designee of the Commissioner of VDOT. Concentrates on finance, and allocates \$70 million annually of state/federal funds to assist public transit. Co-sponsor of the Virginia Railway Express. All NVTC Commissioners are also members of the Transportation Coordinating Council. Four NVTC members are appointed by the Commission to the MWATA Board of Directors. Levies a two percent motor fuels tax generating \$12 million annually; the funds are used primarily for Metro operating costs and debt service.

Potomac and Rappahannock Transportation Commission (PRTC)

Terrance Spellane, Chairman Leo P. Auger, PRTC Executive Director 1519 Davis Ford Road, Suite One Woodbridge, Virginia 22192-2737

Telephone: 703/490-4811 Fax: 703/490-5254

<u>Function</u>: Created in 1986 under authority of Section 15.1-1342 of the <u>Code of Virginia</u>: (Transportation District Act). Current members include Prince William and Stafford Counties, and the cities of Fredericksburg, Manassas and Manassas Park. Operates the Commuteride commuter bus system, a ridesharing program, and is a co-sponsor of VRE commuter rail service. Commissioners are appointed from each jurisdiction and the General Assembly including as many of six principals and six alternates from Prince William County. Total commissioners are 15, with 14 alternates. The two percent motor fuels tax levied within PRTC yields almost \$5 million annually.

Virginia Railway Express

Elaine McConnell, Chairman of Operations Board Stephen T. Roberts, Acting Director of Operations 6800 Versar Center at Hechinger Drive, Suite 247 Springfield, Virginia 22151

Telephone: 703/642-3808 Fax: 703/642-3820

<u>Function</u>: Joint operating board created by NVTC and PRTC to manage operations.

Northern Virginia Planning District Commission (NVPDC)

Thomas Davis Rust, Chairman G. Mark Gibb, Executive Director 7535 Little River Turnpike, Suite 100 Annandale, Virginia 22003

Telephone: 703/642-0700

<u>Function</u>: State planning review agency. Conducting land use study of the Virginia Railway Express (VRE).

Transportation Coordinating Council

Byron Waldman, Chairman
Terrance Spellane, Vice-Chairman
c/o Carolyn Zeller
Northern Virginia District Office
VDOT
3975 Fair Ridge Drive
Fairfax, Virginia 22033

Telephone: 703/934-7300

Function: The TCC was created by Governor Wilder in 1990 based on earlier plans by NVTC Chairman John Milliken. Member jurisdictions adopted resolutions to participate. The Council consists of three parts: 1) A policy group with 35 elected officials (plus alternates) from NVTC, PRTC and selected towns. This group is chaired by the Northern Virginia member of the Commonwealth Transportation Board. 2) A TCC Technical Committee with staff representatives of local and regional jurisdictions, chaired by the Northern Virginia District Administrator of VDOT. 3) A TCC Citizens Committee chaired by an appointee (Margaret Vanderhye) of the Secretary of Transportation.

Washington Metropolitan Area Transit Authority

Joseph Alexander, Chairman David L. Gunn, General Manager 600 Fifth Street, N.W. Washington, D.C. 20001

Telephone: 202/637-1234

Metro Bus/Rail Information:202/637-7000Metro On-Call Lift-Equipped Buses:202/962-1825Elderly Disabled Assistance I/D Cards:202/962-1245

<u>Function</u>: Operates the Metrorail and Metrobus systems within a service territory established by an interstate compact; this area includes the cities of Alexandria, Fairfax and Falls Church; and Arlington and Fairfax Counties.

Metropolitan Washington Council of Governments

777 North Capitol St., Suite 300 Washington, D.C. 20002-4201 Telephone: 202/962-3200

Patricia S. Ticer, Chairman (effective 1/94) Ruth A. Crone, Executive Director

<u>Function</u>: In 1966, MWCOG was officially recognized by the federal government as the agency responsible for comprehensive regional planning and agreed with the TPB to use the latter as its Transportation Policy Committee.

National Capital Region Transportation Planning Board

Stephen J. Del Giudice, Chairman (Effective 1/94) Ron Kirby, Director, Office of Transportation 777 North Capital Street, Suite 300 Washington, D.C. 20002-4201

Telephone: 202/962-3200

<u>Function</u>: Serves as Metropolitan Planning Organization and provides extensive database and modeling capability for population, employment and transportation studies. TPB now includes representatives of 18 cities and counties, plus three state transportation agencies, MWAA, WMATA, and five federal agencies. A weighted voting procedure is employed. MWCOG staff operate the Ride Finders network, which provides a centralized carpool and vanpool matching database. A citizens advisory committee is chaired by Ms. Anne Haynes.

Metropolitan Washington Air Quality Committee

Ellen M. Bozman, Chairman 777 North Capital Street, Suite 300 Washington, D.C. 20002-4201

Telephone: 202/962-3200

<u>Function</u>: Consists of elected officials from localities, states, and the District of Columbia. Develops recommendations for a regional air quality attainment strategy for the Washington area; these recommendations become part of the State Implementation Plan, which is submitted to the Environmental Protection Agency.

Metropolitan Development Committee

Albert C. Eisenberg, Chairman, 1993 (1994 Chairman to be appointed in January, 1994) 777 North Capital Street, Suite 300 Washington, D.C. 20002-4201

Telephone: 202/962-3200

<u>Function</u>: Policy committee which advises the MWCOG Board of Directors. Makes recommendations regarding regional forecasts and works to facilitate and oversee interjurisdictional agreements.

Baltimore/Washington/Regional Association

Milton H. Miller, Chairman Transportation Committee Robert T. Grow, Executive Director B/WRA 1129 20th Street, N.W. Suite 202 Washington, D.C. 20036

Telephone: 202/861-0400

<u>Function</u>: Sponsored recent <u>Baltimore/Washington Commuter Rail Accessibility Study</u> which recommends upgraded stations and parking, improved access, more frequent service, better intermodal connections, and cooperative marketing. The Transportation Committee is facilitating cooperation between MARC and VRE to offer through service into Virginia and Maryland for the convenience of riders on both systems.

Greater Washington Board of Trade

Gerald M. Lowrie, President 1129 20th Street, N.W. Washington, D.C. 20036-3494

Telephone: 202/857-5900

<u>Function</u>: Advocates improvements for the regional economy.

Federal City Council

Ann McLaughlin, President 4320 Garfield Street, N.W. Washington, D.C. 20007

Telephone: 202/223-4560

Function: Undertakes studies of regional issues.

Maryland-National Park and Planning Commission

Leroy J. Hedgepeth, Executive Director 6611 Kenilworth Avenue Riverdale, Maryland 20737

Telephone: 301/454-1747

<u>Function</u>: Joint agency for Montgomery and Prince George's County that plans and analyzes transportation improvements.

Washington Suburban Transit Commission

John Davey, Chairman 8720 Georgia Avenue, Suite 904 Sliver Spring, Maryland 20910-3602

Telephone: 301/565-9665

<u>Function</u>: Provides a forum for Maryland's members of the WMATA Board of Directors.

Maryland Department of Transportation

O. James Lighthizer, Secretary of Transportation P.O. Box 8755 BWI Airport, Maryland 21240-0755

Telephone: 410/859-7397

Alex Eckmann, Manager of Washington Area Transit Programs 8720 Georgia Avenue, Suite 904 Silver Spring, Maryland 20910-3602

Telephone: 301/565-9665

Function: Provides most of Maryland jurisdictions' WMATA funding.

MARC

David Nogar, Director P.O. Box 8718 BWI Airport, Maryland 21240-8718

Telephone: 410/859-7400 Fax: 410/859-5713

<u>Function</u>: Operator of MARC commuter rail service. Part of Maryland Mass Transit Administration.

National Capital Planning Commission

Reginald W. Griffith, Executive Director 801 Pennsylvania Avenue, N.W., Suite 301 Washington, D.C. 20576-2604

Telephone: 202/724-0176

<u>Function</u>: Must approve federal construction projects in the District of Columbia, and consider transportation implications.

District of Columbia Department of Public Works

Betty Hager Francis, Director 2000 14th Street, N.W. Washington, D.C. 20009

Telephone: 202/939-8000

<u>Function</u>: Advises WMATA Board members and cooperates in transportation projects such as VRE's L'Enfant station.

Virginia Department of Transportation

Northern Virginia District Office 3975 Fair Ridge Drive Fairfax, Virginia 22033

Tom Farley, Northern Virginia District Engineer Telephone: 703/934-7300

MaryAnn Reynolds, Public Information Officer Telephone: 703/359-1100

Dulles Toll Road Operations Center Telephone: 703/734-9754

<u>Function</u>: The Northern Virginia office manages construction and maintenance of highways in the district and controls ramp meters and other facilities.

Metropolitan Washington Airports Authority

James A. Wilding, General Manager MA-1 44 Canal Center Plaza Alexandria, Virginia 22314

Telephone: 703/685-8100

Washington Flyer: 703/685-1400 703/661-2700

<u>Function</u>: Regional agency operating Washington National and Washington Dulles International Airports. Also offers Washington Flyer bus, van and taxi system serving both airports.

Washington Metropolitan Area Transit Commission

Honorable Howard C. Davenport, Chairman W.H. McGilvery III, Executive Director WMATC 1828 L. Street, N.W., Suite 703 Washington, D.C. 20036-5104

Telephone: 202/331-1671 Fax: 202/653-2179

Function: Created in 1960 as part of the Washington Metropolitan Area Transit Regulation Compact signed by Virginia, Maryland and the District of Columbia. Composed of one member from each of the three jurisdictions, each from the respective regulatory commissions of those jurisdictions. Geographic jurisdiction includes the Washington Metropolitan Transit District. The Commission regulates for-hire transportation between points in the District (or for routes outside zone if operated under Interstate Commerce Commission authority with a majority of passengers in the District), including taxicabs operating between jurisdictions. The Commission does not regulate water, air or rail transit; federal, state, local or WMATA transportation; school transit; or transit solely within Virginia. Examples of regulatory activities include setting maximum interstate taxi rates for D.C. cabs. As of July, 1992, a total of 28 Virginia-based Companies held WMATC certificates, including commuter bus operators, charter buses, and limousine services.

LOCAL AGENCIES/ORGANIZATIONS

OFFICES OF TRANSPORTATION (AND RELATED AGENCIES)

City of Alexandria

City Hall 301 King Street Alexandria, Virginia 22314

Department of Transportation & Environmental Services

Thomas F. O'Kane, Jr., Director (Room 4100)

Telephone: 703/838-4966

Mary J. Anderson, Deputy Director/Administrator (Room 4100)

Telephone: 703/838-4966

Function: Planning, construction and maintenance of streets,

bridges and HOV-facilities.

Office of Transit Services and Programs

Thomas Quigley, Division Chief (Room 5100)

Telephone: 703/838-3800

Valerie Sikora, Transit Planning Manager (Room 5100)

Telephone: 703/838-3800

Function: City agency coordinating information and marketing for

ridesharing, DASH and other transit services.

Arlington Department of Public Works

Sam Kem, Director No. 1 Courthouse Plaza 2100 Clarendon Blvd. Arlington, Virginia 22201-5445

Telephone: 703/358-33711

Function: Planning, construction and maintenance of streets, bridge,

transit and HOV-facilities.

City of Fairfax

10455 Armstrong Street Fairfax, Virginia 22030-3630

Peggy Wagner, Director of Community Development and Planning

Telephone: 703/385-7932

Richard R. Fruehauf, Director of Transit and Utilities

Telephone: 703/385-7920

Paul Briggs, Transit Superintendent

Telephone: 703/385-7827

Telephone: 703/385-7859 (Information for CUE Bus)

<u>Function</u>: City government responsible for planning, construction and maintenance of street, bridge, transit and HOV-facilities, and operation of

the CUE Bus System.

City of Falls Church

Halsey Green, Assistant Director of Financial Services 300 Park Avenue Falls Church, Virginia 22046

Telephone: 703/241-5092

<u>Function</u>: City government responsible for planning, construction and maintenance of streets, and finance.

Fairfax County Office of Transportation

12055 Government Center Parkway Suite 1034 Fairfax, Virginia 22035-5511

Shiva K. Pant, Director Telephone: 703/324-1100

Andy Szakos, Chief, Transit Operations Section

Telephone: 703/324-1100

<u>Function</u>: County agency responsible for planning and coordinating roads, bridges, HOV-facilities and public transit.

Loudoun County

Julie Pastor, Director, Department of Planning 18 North King Street Leesburg, Virginia 22075

Telephone: 703/777-0246

Chief of Transportation Planning (position temporarily vacant) 750 Miller Drive, S.E. Leesburg, Virginia 22075

Telephone: 703/777-0246

<u>Function</u>: County agencies responsible for planning and coordinating roads, bridges, HOV-facilities and public transit.

RIDESHARING OFFICES

Alexandria

Mary Bowler, Ridesharing Coordinator Alexandria Rideshare P.O. Box 178 City Hall, Room 5100 Alexandria, Virginia 22313

Telephone: 703/838-3800

Arlington County

Chris Hamilton Transit Engineer Suite 706 2100 Clarendon Blvd. Arlington, Virginia 22201

Telephone: 703/358-3575 (Business)

703/528-3541 (Rideshare)

Fairfax County

Dorothy Cousineau
Fairfax County Ridesources
12055 Government Center Parkway
Suite 1034
Fairfax, Virginia 22035-5511

Telephone: 703/324-1109 (Business)

703/324-1111 (Rideshare)

Loudoun County

Lynne Roberts
Ridesharing Coordinator
Loudoun County
750 Miller Drive, S.E., Suite 300
Leesburg, Virginia 22075

Telephone: Metro: 703/478-8416 (ext. 5665)

Local: 703/771-5665

Prince William County

Lauretta Ruest Project Director Potomac & Rappahannock Transportation Commission 1519 Davis Ford Road, Suite 1 Woodbridge, Virginia 22192

Telephone: Metro: 703/643-0239

Local: 703/490-4422

Function: Administer local ridesharing services and marketing in cooperation

with MWCOG's regional network, known as the Ride Finders Network.

Metropolitan Washington Council of Governments Ride Finders Network

Jon Williams, Chief, Short Range Transportation Programs MWCOG 777 N. Capitol St., N.W., Suite 300 Washington, D.C. 20002-4201

Telephone: 202/962-3200

LOCAL CITIZENS TRANSPORTATION ADVISORY BOARDS

Fairfax County

Transportation Advisory Commission

C/O Don Emerson, Chairman
Fairfax County Office of Transportation
12055 Government Center Parkway
Suite 1034
Fairfax, Virginia 22035-5511

Telephone: 703/324-1100

<u>Function</u>: Members are appointed by the County Board of Supervisors, with one member from each magisterial district. TAC responds to Board requests for advice.

Arlington Transportation Commission

C/O Mark Kellogg Arlington Department of Pubic Works 2100 Clarendon Blvd. Arlington, Virginia 22201

Telephone: 703/358-3698

Alexandria Planning Commission

W.B. Hurd, Chairman C/O Sheldon Lynn Alexandria Department of Planning & Community Development City Hall, Room 2 Alexandria, Virginia 22314

Telephone: 703/838-4666

Falls Church Planning Department

Citizens Advisory Committee on Transportation Leslie Florance, Chairman C/O City Clerk 300 Park Avenue Falls Church, Virginia 22046

Telephone: 703/241-5014

LOCAL TRANSIT OPERATORS

Arlington Crystal City Trolley

Chris Hamilton Transit Engineer #1 Courthouse Plaza, #706 2100 Clarendon Blvd. Arlington, Virginia 22201

Telephone: 703/358-3575

Function: Serves Crystal City with connections to Metrorail.

DASH (Alexandria Transit Company)

William B. Hurd, Chairman Sandy Modell, General Manager 116 S. Quaker Lane Alexandria, Virginia 22304

Telephone: 703/370-3274

<u>Function</u>: Over 60 full and part-time employees operate seven routes and carry about 2.0 million passengers annually. Non-profit corporation with seven shares of capital stock all owned by the City of Alexandria. The Board of Directors is elected annually by the City Council. The Company owns all assets but has no employees. Operations are contracted to the ATE Management and Service Company, which employs the General Manager. All other transit employees work for Transit Management of Alexandria, Inc., a wholly owned subsidiary of ATE.

COMMUTERIDE

Potomac & Rappahannock Transportation Commission 1519 Davis Ford Road, Suite One Woodbridge, Virginia 22192-2737

Telephone: 703/490-4422 Fax: 703/490-5254

<u>Function</u>: Provides cost effective commuter bus service to core locations with connections to Metrorail. Per seat mile cost is approximately \$0.03, and fare box recovery is over 70 percent.

CUE Bus (City of Fairfax)

Paul Briggs, Transit Superintendent 10455 Armstrong Street Fairfax, Virginia 22030

Telephone: 703/385-7827

Function: Provides local transit service with connections to Metrorail.

Fairfax Connector

Andy Szakos, Office of Transportation 12055 Government Center Parkway Suite 1034 Fairfax, Virginia 22035-5511

Telephone: 703/324-1172

Fairfax Connector Information: 703/339-7200

Function: County-owned public bus system.

Reston RIBS

Andy Szakos, Office of Transportation 12055 Government Center Parkway Suite 1034 Fairfax, Virginia 22035-5511

Telephone: 703/324-1172

Reston RIBS Information: 703/548-4545

Function: County-funded public bus system.

Tysons Shuttle

Andy Szakos, Office of Transportation 12055 Government Center Parkway Suite 1034 Fairfax, Virginia 22035-5511

Telephone: 703/324-1172

Tysons Shuttle Information: 703/548-4545

Function: County-funded public bus system.

TRANSPORTATION MANAGEMENT ASSOCIATIONS

Ballston Area Transportation Association (BATA)

Ms. Robin Bard, Transit Store Manager 4301 N. Fairfax Drive, #301 Arlington, Virginia 22203

Telephone: 703/271-5391

<u>Function</u>: Affiliated with the Ballston Partnership. The Partnership co-sponsors the Ballston Transit Store, now located at Ballston Commons Shopping Mall.

Crystal City Commuter Service Center

Bob Stravinski, Manager Crystal City Commuter Service Center 1615 B Crystal Square Arcade Arlington, Virginia 22202

Telephone: 703/271-4287 (Business)

703/271-5391 (Commuters)

Function: Sponsored by Arlington County.

Dulles Area Transportation Association (DATA)

Eddie Byrne, Executive Director 13873 Park Center Road Herndon, Virginia 22071

Telephone: 703/689-9589 Fax: 703/689-2569

<u>Function</u>: Dedicated to improving mobility in the Dulles Airport/Route 28 employment center (Fairfax, Loudoun, Prince William County). Members include employers, property owners, local governments and other groups. Activities include assessing transportation needs, identifying issues, formulating strategies, and providing a forum. Publishes quarterly newsletter "TransActions."

Reston Transportation Management Association (LINK)

Karl J. Ingebritson, Director LINK 11911 Freedom Drive, Suite 530 Reston, Virginia 22090-5604

Telephone: 703/318-9663 Fax: 703/742-6557

Function: Improving mobility in the Reston Area.

Transportation and Environmental Management and Planning Organization Alexandria, Inc. (TEMPO)

Ms. Cynthia Fondriest, Executive Director 1800 Diagonal Road, Suite 600 Alexandria, Virginia 22314

Telephone: 703/519-8970

<u>Function</u>: A private, non-profit TMA founded in July, 1989. The TMA serves as a resource center for transit and ridesharing information.

Tysons Transportation Association (TYTRAN)

A. Edward Knauf, Jr., Chairman and President Tysons Transportation Association P.O. Box 3264 Tysons Corner, Virginia 22103

Telephone: 703/821-3000

<u>Function</u>: Actively works to improve mobility.

Loudoun County Transportation Association

Dave Daugherty, President LCTA P.O. Box 2833 Leesburg, Virginia 22075

Telephone: 703/777-5246

Function: Improve mobility.

PRIVATE COMPANIES/ORGANIZATIONS

Toll Road Corporation of Virginia

Ralph Stanley, CEO 7 East Market Street Leesburg, Virginia 22075

Telephone: 703/478-8815

Fax:

703/777-2082

This private organization has been working for several years to obtain Function: all the approvals necessary (e.g. VDOT, State Corporation Commission) to design, finance, construct and operate an extension of the Dulles Toll Road to Leesburg. The Corporation reports that it is now completing agreements with 25 land owners. Barclays Bank of New York is participating in the \$300 million financial plan.

Following final approval of the loan, about \$80 or \$90 million of construction bids could be awarded about one month later. Opening could then occur about 2 1/2 years later.

Washington Private Operators Council

Kenneth W. Butler, Executive director WPOC 4350 N. Fairfax Drive, Suite 530 Arlington, Virginia 22203

Telephone: 703/527-9820 703/351-7528

Fax:

Function: Created in January 1992, this non-profit association consists of a group of for-profit transportation companies seeking to educate the public and elected officials about the benefits of contracted public transit services. Start-up costs are partially covered by FTA through George Mason University. Has begun to publish a monthly newsletter. Current members include American Contract Management, Inc., Diamond Transportation, ATE Management & Services, Inc., American Coach Lines, Inc., Barwood Taxi, and Transportation General, Inc.

Washington Area Bicyclist Association (WABA)

Ellen Jones, Director 1819 H. Street, N.W., Suite 640 Washington, D.C. 20006

Telephone: 202/872-9830 Fax: 202/862-9762

<u>Function</u>: Promote bicycling.

American Automobile Association

Ron Kosh, General Manager 12600 Fair Lakes Circle Fairfax, Virginia 22033-4904 Telephone: 703/222-4200 Fax: 703/222-4049

Function: Advocacy group for automobile owners.

Sensible Washington Area Transportation Coalition/Moving People

C/O Anne Haynes 310 N. Royal Street Alexandria, Virginia 22314

Telephone: 703/836-0925

<u>Function</u>: Citizens groups working for improved public transportation.

Northern Virginia Transportation Alliance

Ed DeBolt, President P.O. Box 6149 McLean, Virginia 22106-6149

Telephone: 703/883-1355 Fax: 703/883-1850

<u>Function</u>: This non-partisan interest group lobbies for completion of transportation facilities in Northern Virginia and coordinated land use policies. For example, the group strongly supports completion of a western bypass.

Virginia VanPool Association, Inc.

Dick Boyd P.O. Box 1016 Woodbridge, Virginia 22193

Telephone: 202/310-2700

<u>Function</u>: Advocacy group for vanpools.

National Railroad Passenger Corporation (Amtrak)

Ed Walker, District Superintendent-Commuter Rail Service Amtrak 900 Second Street, Suite 111 Washington, D,C, 20002

Telephone: 202/906-2619 Fax: 202/906-3569

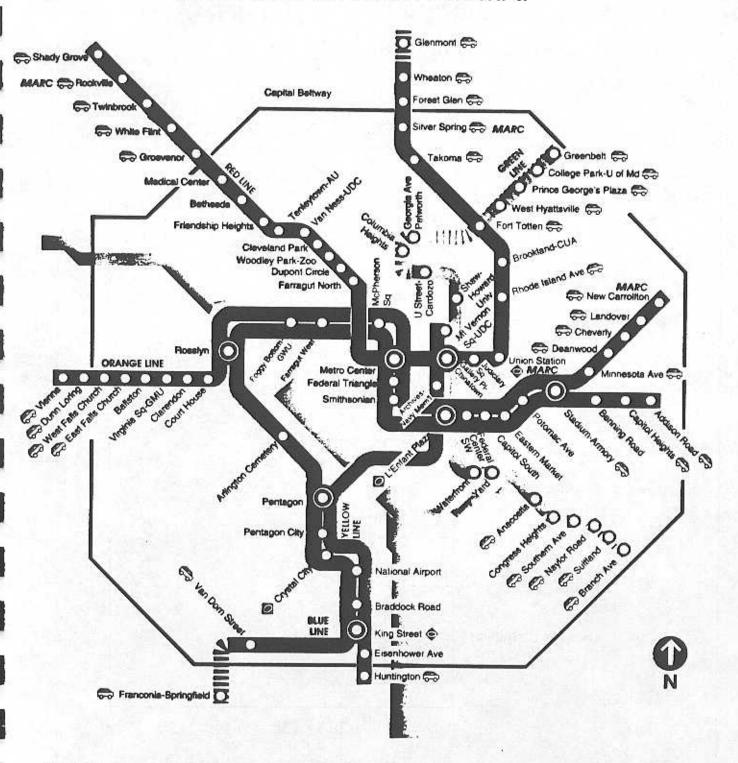
Function: Contract operator for VRE commuter rail service.

APPENDIX B

PUBLIC TRANSIT RIDERSHIP AND ROUTES



METRORAIL SYSTEM MAP



Legend

Red Line - Wheaton/Shedy Grove

Blue Line - Addison Road/Van Dom Street

Orange Line - New Cerrolton/Vienna

Yellow Line - Mt. Vernon Bq-UDC/Huntington

Green Line - U Street-Cardozo/Anacostia

Smoking is not permitted on escalators, elevators, in stations, trains or buses.



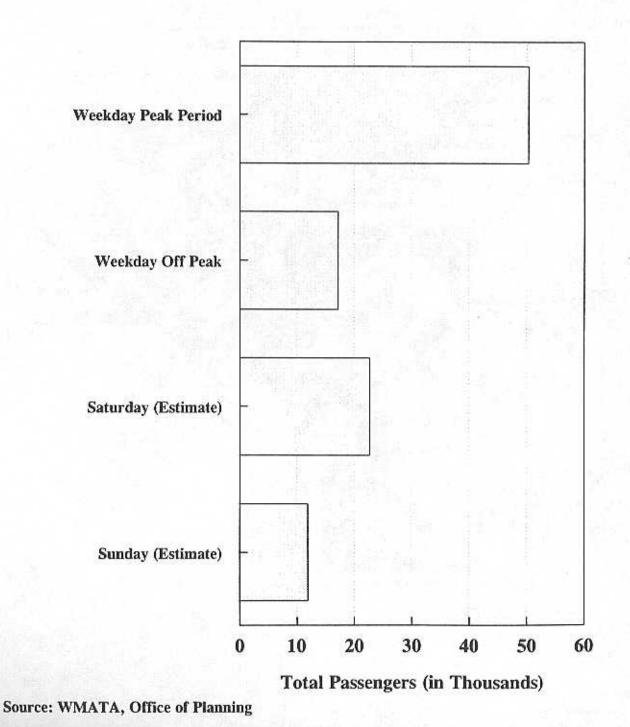




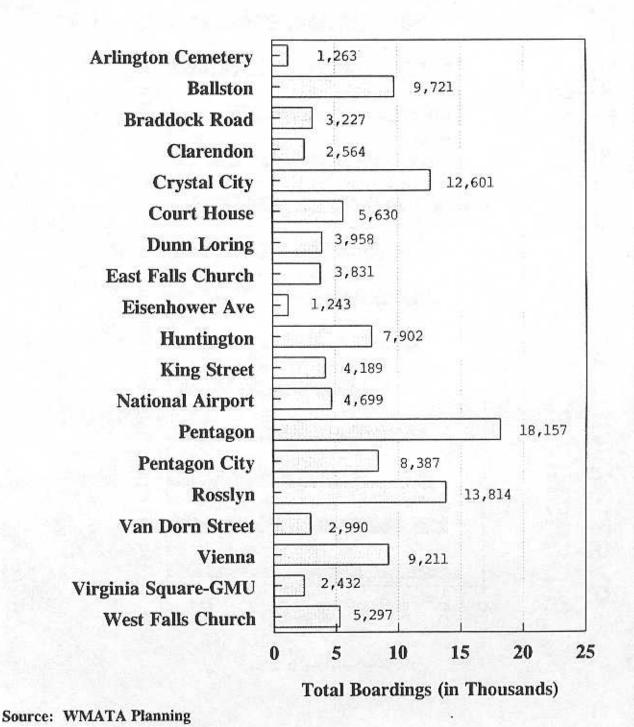
MARC Commuter Rail Services



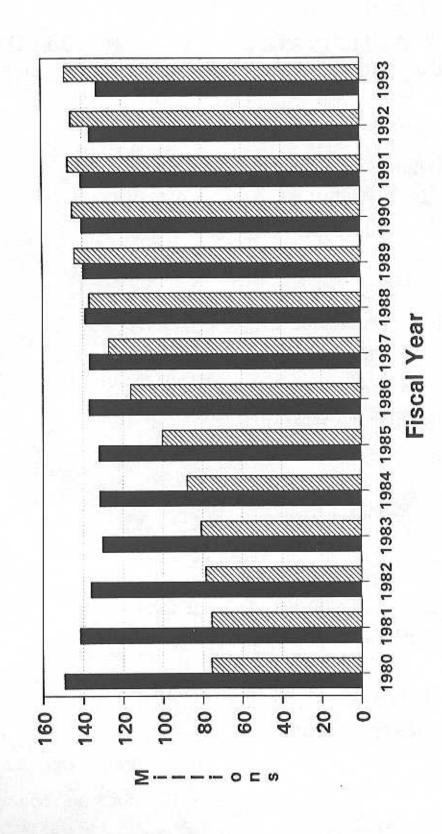
VIRGINIA METROBUS RIDERSHIP Average Daily Ridership for 1993



DAILY METRORAIL PASSENGER BOARDINGS MAY, 1993 VIRGINIA STATIONS ONLY



1993 SYSTEMWIDE METRORAIL & METROBUS RIDERSHIP BY FISCAL YEAR, 1980 -



Source: WMATA Planning

METRORAIL

METROBUS

ALEXANDRIA

1. DASH: (703) 370-DASH

(800) 828--1120 (TDD)

2. DOT: Specialized Transportation for Persons with Disabilities (703) 838-3800 (703) 836-5222

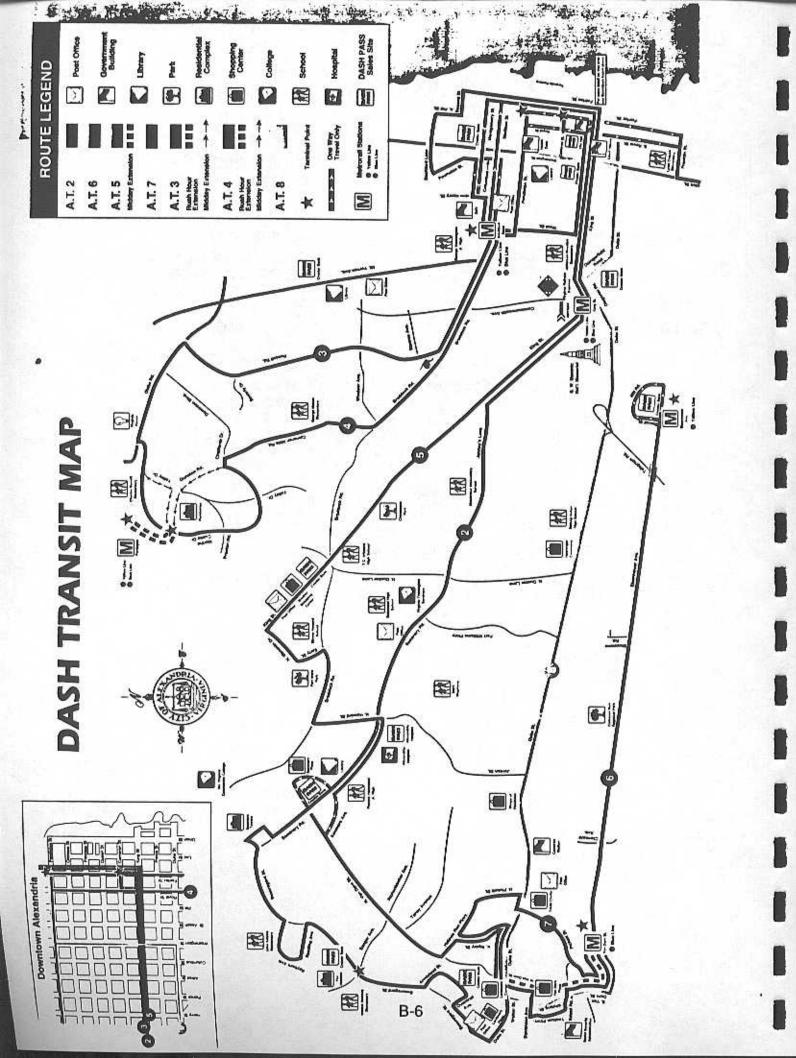
(703) 836-5222 (Reservations)

(800) 828-1120 (TDD)

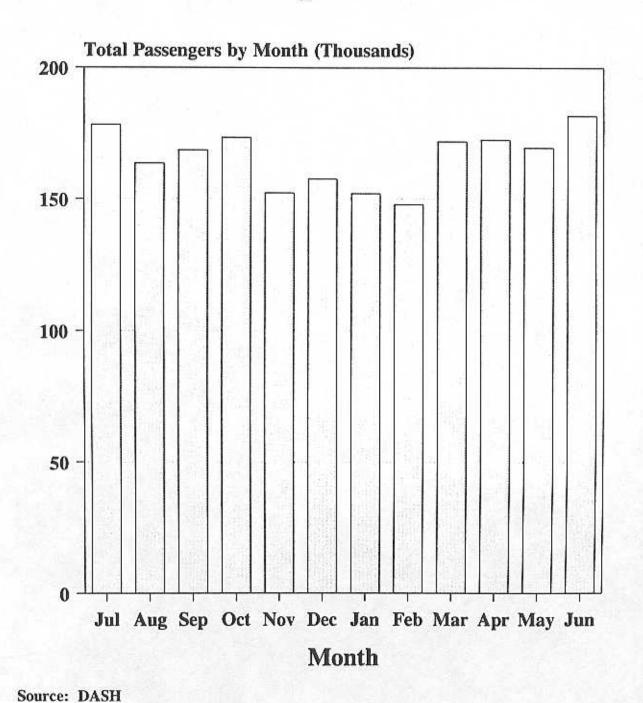
3. Senior Taxi: (703) 836-4414

4. Office of Transit Services & Programs: (703) 838-3800

(703) 838-5056 (TDD)



DASH Ridership for FY 1993

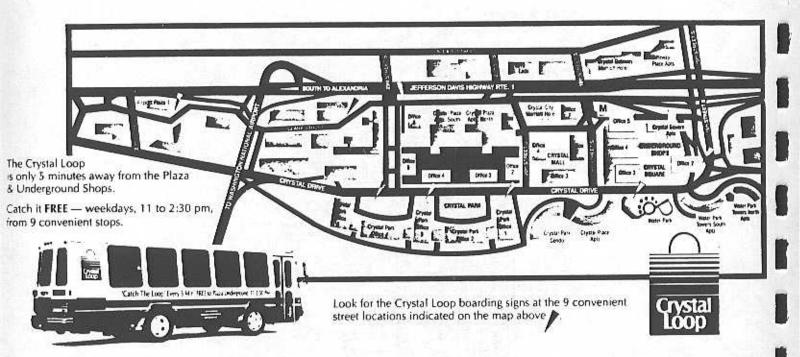


ARLINGTON COUNTY

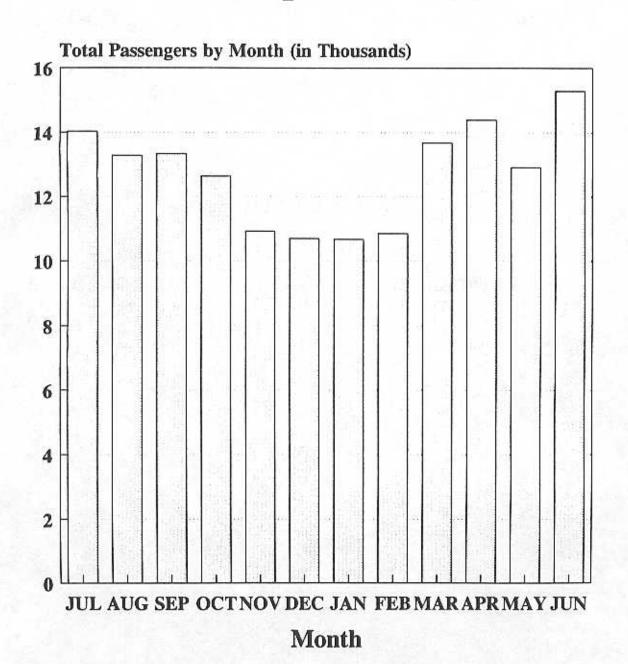
1. Arlington Trolley: (703) 358-3575

2. Farewheels: (703) 358-4786

The New Arlington Trolley Effective July 1, 1993 Woles Park GODDOODD CHU Across from Hamburger Hamlel In Crystal City Underground The Plaza Shops Crysta: Page 4 6 Apts South 5 5 559 STRICT SCOTH BOUTH EADS STREET Crystal City Arlington, Va. • Trolley Hours: 6:30 am - 9:30 am, 3:30 pm - 6:30 pm, weekdays 35c exact change or token required Trolley Route B-minute intervals · Accessible to disabled riders & Trolley Stops Hand capped For information, call 358-3575, 358-4611 TDD Access to Mall Printed on recycled paper



ARLINGTON TROLLEY Ridership for FY 1993



Source: Arlington County Dept. of Public Works

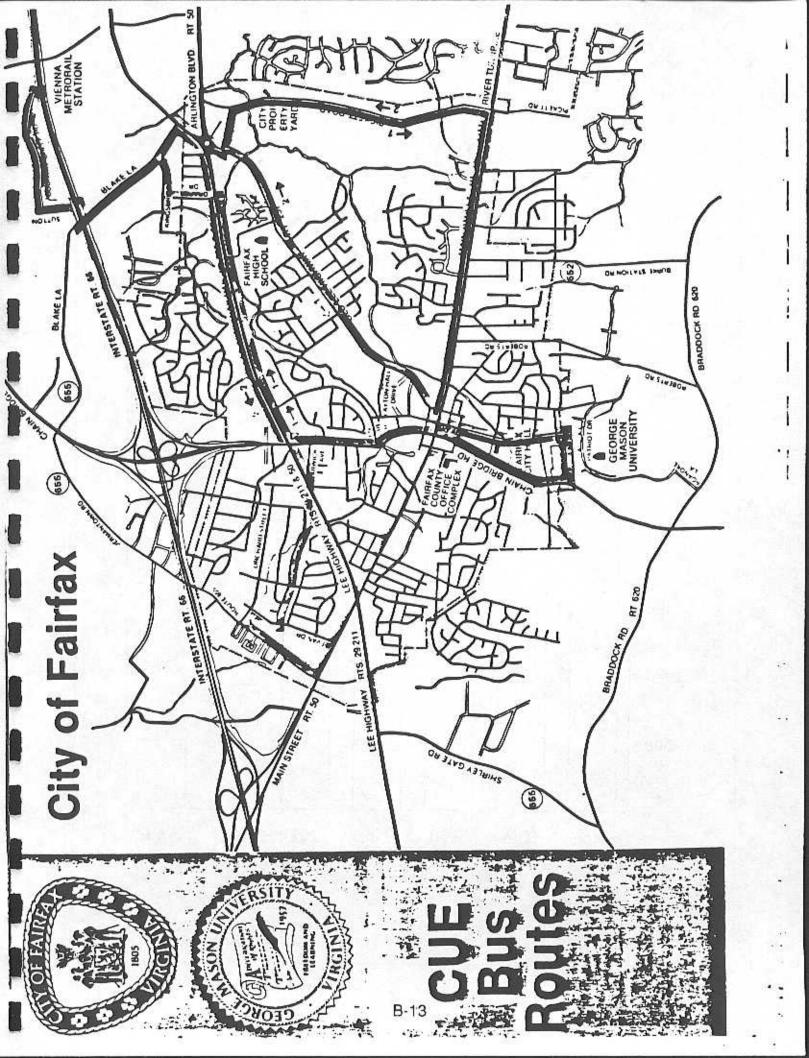
CITY OF FAIRFAX

1. CUE Bus: (703) 385-7859

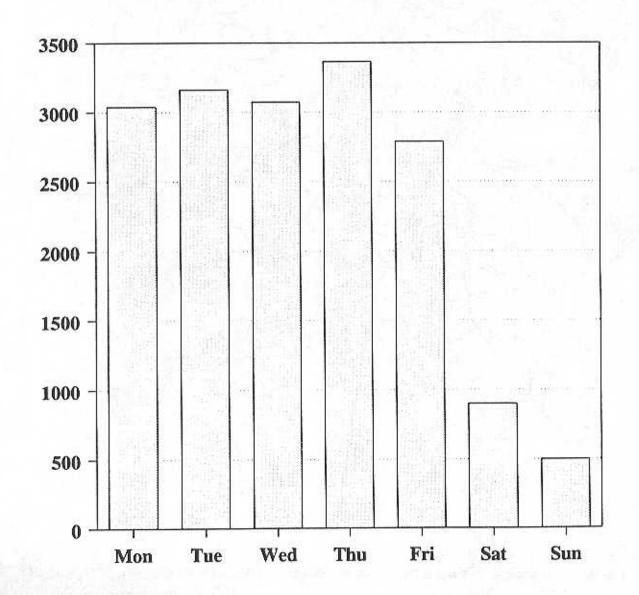
2. City Wheels (Paratransit): (703) 385-7920

CITY OF FALLS CHURCH

1. Farwheels (Paratransit): (703) 241-5042



CUE BUS SYSTEM Average Daily Ridership FY 1993

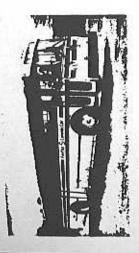


Source: City of Fairfax Office of Transit & Utilities *Includes GMU ridership.

FAIRFAX COUNTY

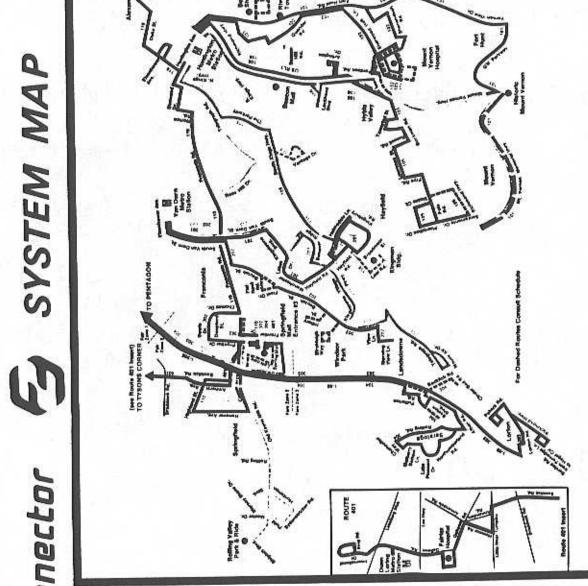
1.	Fairfax CONNECTOR:	(703) 339-7200
2.	Tysons Shuttle:	(703) 548-4545
3.	Reston Internal Bus System (RIBS):	(703) 548-4545

Fairfax Connector

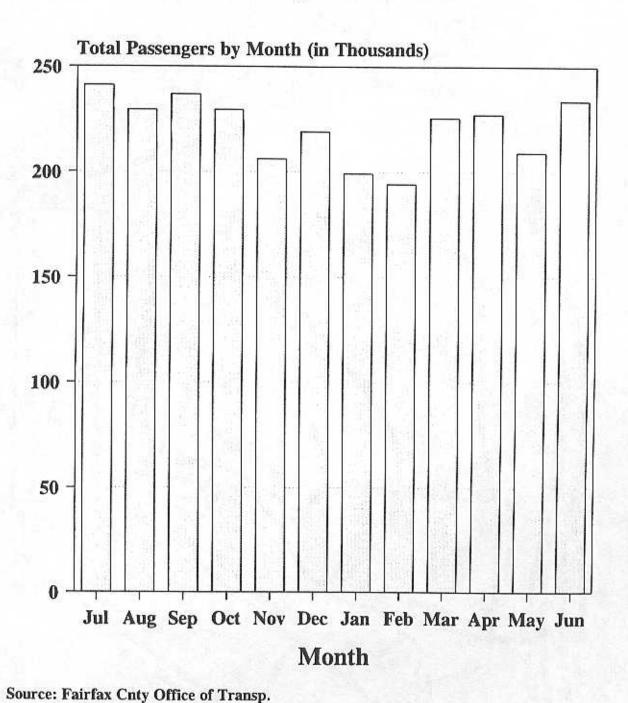


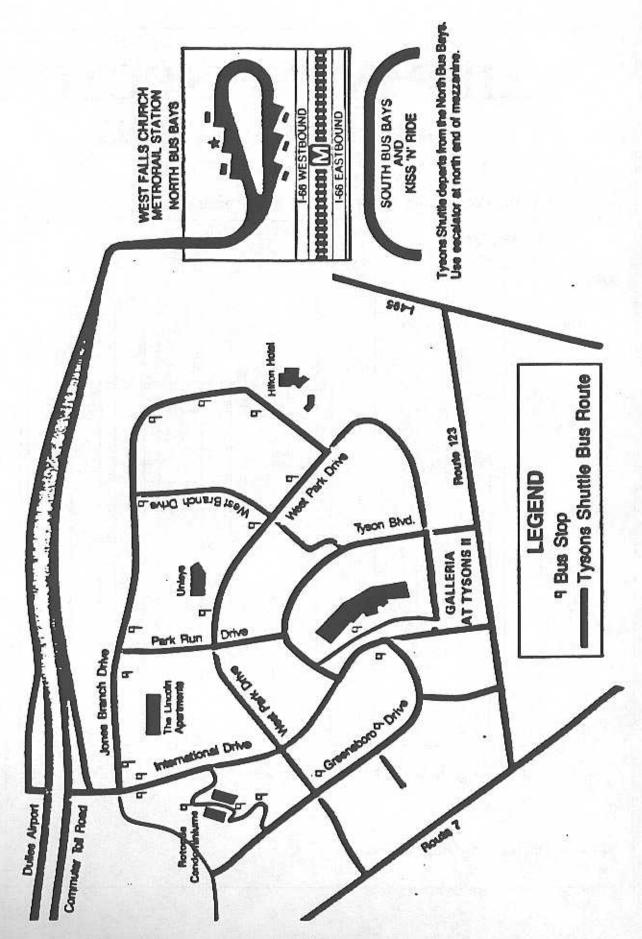
NUMBER AREA OF SERVICE

- 101 Will Vernon to Huntington via Fort Hunt Road
- 102- Hollin Hall to Huntington via
- Sherwood Hall Lane and Quander Road
 - **Bucknell Manor to** Huntington Loop 103/ 104
- Woodiswn to Huntington via Richmond Highway 105
- Mt. Vernon Square and Richmond Highway Mount Vernon Hospital to Huntington via 106
- Mt. Vernon to Huntington via Richmond Highway 100
- Hayfield to Huntington via Virginia Hills 108
- Springfield to Huntington via Van Dom and Rose Hill Drive 109 person
- **Huntington and Franconia Road** Springfield to Alexandria via 15
- Manchester Lakes and Kingstowne Hayfleld to Van Dorn via 201
- Landsdowne to Van Dom via Beulah Street 202
 - Mount Air to Van Dorn via Kingstowne 203
 - Franconia to Pentagon 302 1
 - Lorion to Pentagon 303
- Saratoga to Pentagon 304
- Springfield Mall to Tysons Corner via Fairfax Hospital and Dunn Loring 103



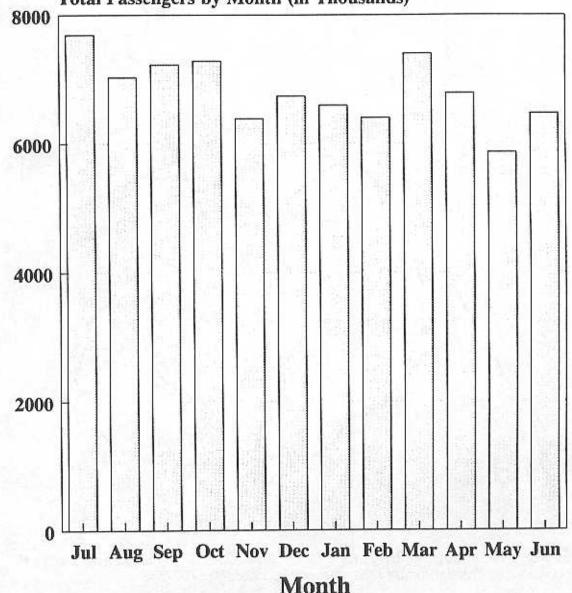
FAIRFAX CONNECTOR Ridership for FY 1993



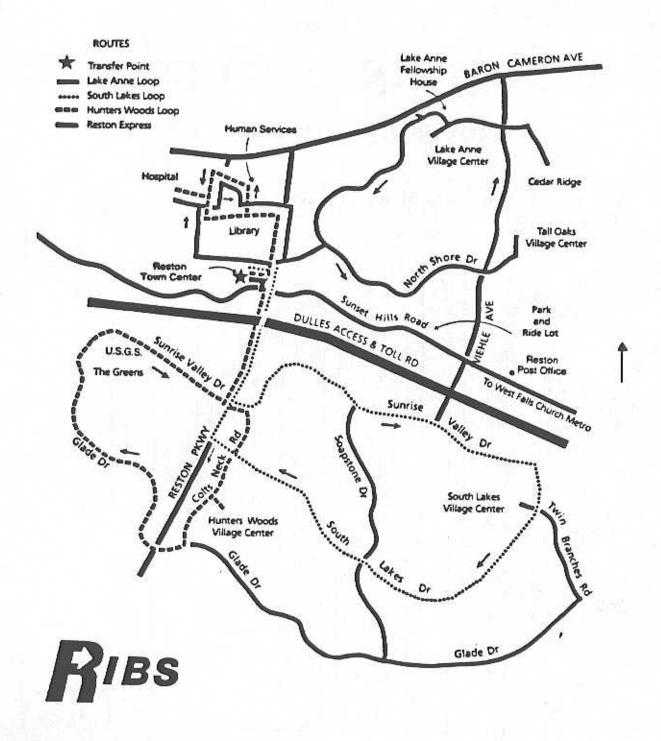


TYSONS SHUTTLE Ridership for FY 1993



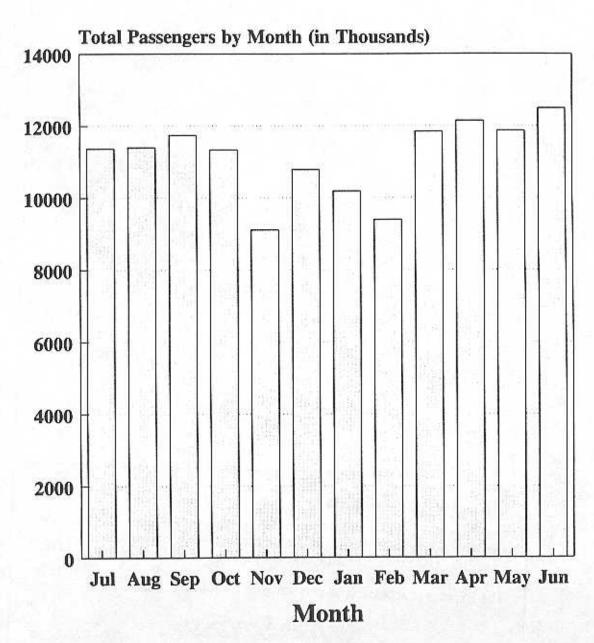


Source: Fairfax County Office of Transportation

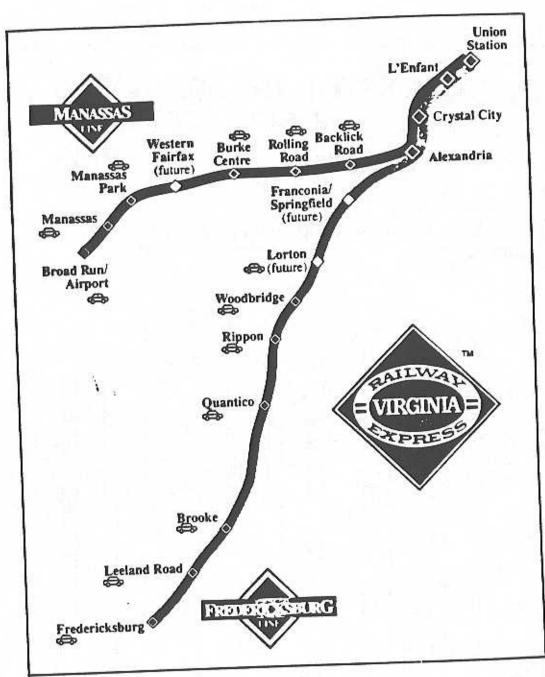


RIBS is supported through funding provided by Fairfax County. The service is operated under contract by Transportation Management Services, Inc. 703/548-4545.

RESTON INTERNAL BUS SYSTEM (RIBS) Ridership for FY 1993



Source: Fairfax Cnty Office of Transportation







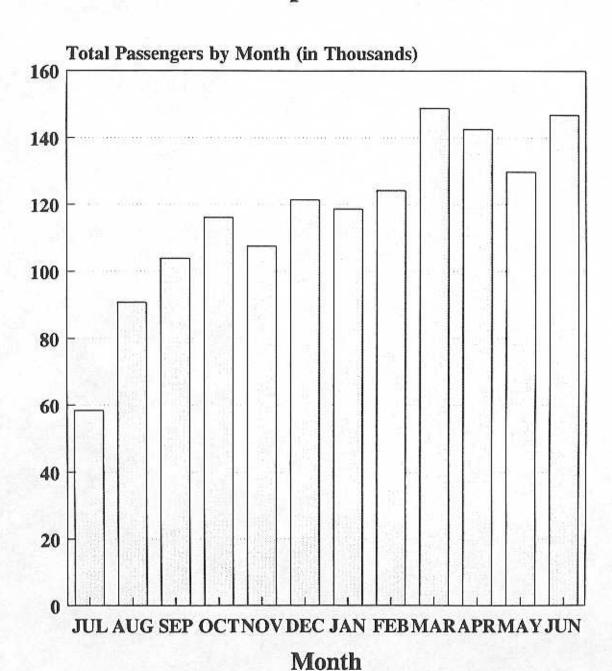
The Express connects with Metro at Union Station, L'Enfant, Crystal City, and Alexandria; with Amtrak at Union Station, Alexandria, Manassas, Quantico, and Fredericksburg; and with MARC at Union Station.

The Express is accessible to persons with disabilities. 5.



The Virginia Rasiway Express logo and "The Express" are crademarks of the Virginia Rasiway Express, all reproduction and use rights are reserved.

VIRGINIA RAILWAY EXPRESS Ridership for FY 1993



Note: Includes both Manassas & Fredericksburg Lines.

APPENDIX C

TAXI SERVICE BY JURISDICTION

TAXI SERVICE BY JURISDICTION

	COMPANY		PHONE1	# OF VEHICLES
Alexandria	Alexandria Diar 3035 Mt. Verno		549-1100	146
	Dispatch Office		548-7505	
	Alexandria Yelle		549-2500	100
	3025 Mt. Verno	n Ave.	549-2500	198
	Dispatch Office		836-2500	
	3. VIP Cab 3700 Jefferson	Davis Hwy.	549-6900	58
	 Columbus Cab S. Pickett St 	7 1 2 2 X	684-7373	45
	5. King Cab 104 S. Henry S	t.	549-3530	57
	White Top Cab 3706 Mt. Verno		683-4004	110
		117110. 11100		
			TOTAL	614
Arlington	Arlington Red T	O-b		5:278
Armigion	1200 N. Hudsor	n St.	522-3333	274
	Arlington Yellow 1200 N. Hudson		527-2222	110
	Arlington Blue T 1008 N. Randol		243-8294	145
	 Crown Cab Con 2324 N. Dinwido 	npany	528-0202	23
	Friendly Cab Co 139 S. Barton S	mpany	979-2082	20
	6. Hess Cab Comp		451-9202	33
			TOTAL	605

All telephone numbers are area code 703.

Fairfax County & Other Areas	1.	Fairfax Red Top Cab Co. 11 Hillwood Ave.	934-4444	70
d Other Areas	2.	Yellow Cab Company 11 Hillwood Ave	534-1111(main)	245 ²
		- Annandale Yellow Cab	941-4000	
		- Bailey's Cross Rds Yellow Cab	820-2626	
		- Burke Yellow Cab	941-4000	
		- Fairfax Yellow Cab	941-4000	
		- Falls Church Yellow Cab	534-1111	
		- McLean Yellow Cab	356-3151	
		- Tysons Corner Yellow Cab	534-1111	
		- Vienna Yellow Cab	938-7272	
	3.	Springfield Yellow Cab* 3	451-2255	59
	٥.	7956E Twist Lane, Springfield	401 ZZ00	00
	4.	Herndon-Reston Cab*	451-7200	13
	-7.	7956E Twist Lane	101 1200	
	5.	Belvoir Taxi Service*	781-7040	10
	٥.	7956E Twist Lane	701 7040	
	6.	Additional Murphy Brothers		
	Ο.	certificates		10 ⁴
		Certificates	TOTAL	407
			TOTAL	101
Loudoun County	1.	Country Side Cab*	444-2259	2
Edddddii Cddiity	n:•0x	7956E Twist Lane		-
	2.	Dulles Taxi	430-2000	4
	2000	1400 Shepherd Dr., Sterling	400 2000	351
	3.	Dulles Executive Sedan	430-2000	3
	٥.	1400 Shepherd Dr.	430 2000	
	4.	Loudoun County Yellow Cab	437-9100	5
	7.	11 Hillwood Ave	457 5100	V =
	E	Dulles Express Cab Company	406-3333	2
	5.	113 W. Church Rd., Sterling	400-0000	1
	6.	Sterling Taxi	430-4444	2
	О.	113 W. Church Rd.	450-4444	- 13
		113 W. Chalch Fla.	TOTAL	18
			IOIAL	
OU T! O!				
Other Taxi Services	50400	Ministrator Character	664 8000	070
	1.	Washington Flyer Taxi	661-8230	270
		1008 Randolph St., Arlington		

^{*} Represents corporate total for all branches of Yellow Cab.

^{*} All taxi companies marked with (*) are owned by Paul Wallace Management Inc., 8016 Russell Rd., Alexandria, Va. 22309.

⁴ The Fairfax County Board of Supervisors granted 10 additional certificates on October 11, 1993.

TAXI OVERSIGHT AGENCIES

Alexandria: Hack Inspector's Office 838-4240

Officer Jim Oaks

Arlington: Hack Inspector's Office 358-4258

Detective Dan Wines

Fairfax County: Consumer Affairs Office 222-8435

Mr. Harold Virts

Falls Church: Falls Church Police Department 241-5054

Records Division

Loudoun County: There is no oversight agency.

APPENDIX D

PARK AND RIDE LOTS IN NORTHERN VIRGINIA

PARK AND RIDE LOTS IN NORTHERN VIRGINIA

Jurisdiction/Name of Lot	Address	Capacity	Served by Transit
Alexandria:			
Van Dorn Metrorail	Van Dorn St & Eisenhower	361	DASH/Metrobus/Metrorail/ Fairfax Connector
Arlington County:			
Ballston Commons Garage	Wilson Blvd. & Glebe Rd.	750	Metrobus/Metrorail
East Falls Church Metrorail Station	North Sycamore & Washington Blvd.	422	Metrobus/Metrorail
Four Mile Run Parking Lot	Columbia Pike & Four Mile	58	Metrobus
Washington-Lee Parking Lot	N. Quincy & N. 15th St.	356	Metrobus
Clarendon Metered Lot	N. Harfford St. in Clarendon	17	Metrobus/Metrorail
City of Fairfax:			
Kutner Park	Jermantown Rd. & Main St.	20	CUE
Municipal Lot	Intersection of Old Lee Hwy. & North St.	100	CUE
Fairfax County:			
Ames Dept. Store	6457 Edsall Rd. (East of Edsall Rd. Interchange w/Shirley Hwy.)	20	Metrobus
Backlick Road VRE Station	6900 Hechinger Drive, in Springfield	220	Metrobus/VRE

PARK AND RIDE LOTS IN NORTHERN VIRGINIA - CONTINUED

Served by Transit	Metrobus	Metrobus	Metrobus	Fairfax Connector/Metrobus	Metrobus	Metrorail/Metrobus/Fairfax Connector	None	Metrobus	Metrobus	Metrobus	Metrobus	Fairfax Connector/Metrobus	Fairfax Connector/Metrobus/Metrorail	Fairfax Connector	Metrobus	Metrobus
Capacity	393	34	220	65	88	1,233	135	150	170	09	99	20	3,090	100	279	37
Address	Roberts Pkwy., north of Burke Center Parkway	Wakefield Chapel Road	Centerville Square Shopping Center at intersection of Rt. 28 & Rt. 29	7010 Old Keene Mill Rd. in Springfield	1805 Michael Faraday Court	Gallows Road in Merrifield	13814 Lee Highway	Fair Oaks Mall Parking Areas 8 & 9, off Legato Rd., north of Hecht Co. Dept. Store	Government Center Parkway	Melville Lane, near Stringfellow Road	6555 Little River Turnpike in Annandale	6401 Brandon Ave. in Springfield	Huntington Ave (Between Telegraph Rd. & Richmond Hwy.)	Lorton Rd. at Gunston Cove Rd.	Stringfellow Road, near Fair Lakes Pkwy.	8726 Braddock Road
Jurisdiction/Name of Lot	Burke Centre	Cantebury Woods Park	Centerville Square	Chi-Chis Restaurant	Commuter Count/Mason Hirst	Dunn Loring Metrorail Station	Fairlanes Bowling Center	Fair Oaks	Government Center	· Greenbriar Park	Hechinger	Holiday Inn	Huntington Metrorail Station	Lorton Park and Ride	Poplar Tree Park	Parkwood Baptist Church

PARK AND RIDE LOTS IN NORTHERN VIRGINIA - CONTINUED

Jurisdiction/Name of Lot	Address	Capacity	Served by Transit
Reston Park and Ride	Corner of Sunset Hills Rd. & Wiehle Ave.	230	Metrobus/Reston Express
Reston South	Fox Mill Rd. at Lawyers Rd. & Reston Pkwy.	400	Metrobus
Rolling Road VRE Station	9016 Burke Rd. at intersection w/Ridge Ford Dr.	368	Metrobus
Rolling Valley Mall	Old Keene Mill Rd. East of Shiplett Blvd.	628	Fairfax Connector/Metrobus
South Run District Park	Pohick Rd. & Lee Chapel Rd.	340	Metrobus
Springfield Mall	Mall parking lot on Spring Mall Rd. between Frontier Dr. and Loisdale Rd.	100	Fairfax Connector/Metrobus
Springfield Plaza	Bland St. between Old Keene Mill Rd. & Amherst Ave.	155	Fairfax Connector/Metrobus
Springfield United Methodist Church	7047 Old Keene Mill Rd. (entrance on Spring Rd.)	101	Fairfax Connector/Metrobus
Sully Station Park and Ride Lot	Stonecroft Blvd. near Westfields Blvd.	140	Metrobus
Vienna	Nutley Street at I-66	3,572	Metrorail/Metrobus/Fairfax Connector/CUE
Vienna Park and Ride Lot	Nottoway Park Courthouse Rd. near Nutley St.	4	Metrobus
Wakefield Chapel Recreation Center	Wakefield Chapel Rd. & Queen Berry Ave	20	Metrobus
West Falls Church Metrorail Station	Haycock Rd., South of I-66 Reston Express/Tysons Shuttle	1,037	Metrobus/Metrorail
Worldgate	Worldgate Drive (behind Cosmetic Center)	150	Metrobus

PARK AND RIDE LOTS IN NORTHERN VIRGINIA · CONTINUED

city Served by Transit		20 N/A	A N/A	10 N/A	0 N/A	20 N/A	45 N/A	60 N/A		84 carpool/vanpool	300 VRE	555 Commuterbus/carpool/vanpool	75 Commuterbus/carpool/vanpool	180 Commuterbus/carpool/vanpool	200 Commuterbus/carpool/vanpool	375 Commuterbus/carpool/vanpool	200 Commuterbus/carpool/vanpool	214 Commuterbus/carpool/vanpool
Capacity		2	N/A		15-20	2	4	Ф				35	7	Ψ.	22	3	20	2
Address		Grottus & Gloucester	Palisades Parkway & Whitefield Place	Baptist Church, Old Route 7	Harrison Street Park	Route 7 & Hatcher Street	Holiday Inn Drive at Shaw Road	Enterprise Street near Park Pharmacy		Exiter Dr. at Rt. 234, South of Montclair	10637 Piper Lane (Adjacent to Manassas Municipal Airport)	Minneville Rd. (Route 640)	Old Bridge Festival Shopping Center	Gordon Blvd. (Rt. 123)	Hillendale & Rt. 784	Horner Rd. (Rt. 639)	Rt. 640 & Harbor Dr.	Northside of Dale Blvd. one block west of Lindendale Rd.
Jurisdiction/Name of Lot	Loudoun County:	Ashburn Village	Cascades Park & Ride	Hamilton	Leesburg	Purcellville	Sterling	Sterling Park Shopping Center	Prince William County:	Brittany Commuter Lot	Broad Run/Airport VRE Station	Dale City Commuter Lot	Festival at Old Bridge	Gordon Blvd.	Hillendale	Horner Road	Lake Ridge	Lindendale Lot

PARK AND RIDE LOTS IN NORTHERN VIRGINIA - CONTINUED

ation t	9451 West Street (At existing Southern Railway depot on Center St.)	348	
t t			VAE
	9300 Manassas Drive	300	VRE
	Dumfries Rd (Rt. 234)	26	Commuterbus/carpool/vanpool
	Manassas Campus	226	Commuterbus/carpool/vanpool
	Potomac Mills Rd.	700 +	Commuterbus/carpool/vanpool
	Smoketown Rd.	45	carpool/vanpool
Prince William Stadium Stad	Stadium Lot at County Complex	53	carpool/vanpool
Quantico Train Station 550	550 Railroad Ave	20	VRE
Rippon VRE Station 1551 (Sou	15511 Farm Creek Dr. (South end of Farm Creek Dr.)	300	VRE
Triangle Lot	Intersection of Rt. 619 & Rt. 1	35	carpoolivanpool
Woodbridge VRE Station 1040 (At C	1040 Express Way (At Dawson Beach Rd. & U.S. Rt.1)	288	VRE
Spotsylvania County:			
Fredericksburg Commuter Lot Rt. 3	Rt. 3 & I-95 Old Salem Church	705	None
City of Fredericksburg:			
208 Commuter Lot Rt. 2	Rt. 208, 1/4 mile off Rt. 1	241	Private Bus Companies
Fredericksburg Train Station 200	200 Lafayette Blvd.	100	VRE

PARK AND RIDE LOTS IN NORTHERN VIRGINIA - CONTINUED

Jurisdiction/Name of Lot	Address	Capacity	Served by Transit
Stafford County:			
Aquia	Rt. 610 & Rt. 684	629	Private Bus Companies
Brooke VRE Station	1721 Brooke Rd. in Stafford	300	VRE
Falmouth Commuter Lot	Rt. 17 & I-95 (West of Falmouth)	1035	Private Bus Companies
Joint-Use Auxillary Commuter Parking Lot	On Rt. 17 north of Falmouth Commuter Lot	88	None
Leeland Road VRE Station	275 Leeland Rd. in Falmouth	330	VRE
Stafford Commuter Lot	Rt. 630 & I-95	539	Private Bus Companies

APPENDIX E

COMPARISONS OF PUBLIC TRANSIT FARES IN NORTHERN VIRGINIA

COMPARISONS OF PUBLIC TRANSIT FARES

		REGULA	REGULAR FARES	
	IKANSII SYSIEM	PEAK PERIODS	OFF-PEAK PERIODS	MULTIPLE TRIPS
Σ	Metrorall:			
	First 3 composite miles	\$1.00	1	 High value - 5% bonus on \$10.00 - \$19.95
	Each additional composite mile over 3 up to 6	0.190		purchases; 10% bonus on \$20.00 or more.
	Each composite mile over 6	0.165		 Kall Fast Pass - \$50.00 - 2 weeks unlimited travel.
	Maximum peak period fare	3.15		One Day Pass - unlimited travel - \$5.00 after
	First 7 composite miles		\$1.00	8.30 Aiv on weekdays, all day weekends, holidays.
	Composite miles over 7 up to 10		1.50	Bus/Rail Super Pass - \$65.00 - unlimited travel for the mode.
	Composite miles exceeding 10		2.00	IOI IWO WEEKS.
				 Metrorail Short-Trip Pass - \$35.00 - unlimited rail trips costing \$1.50 or less for two weeks.
				 Metrorail 28-Day Pass - \$100.00 - unlimited rail trips for 28 consecutive days. Period begins on day pass is first used by patron.

COMPARISONS OF PUBLIC TRANSIT FARES - CONTINUED

COMPA	RISONS (COMPARISONS OF PUBLIC TRANSIT FARES	FARES	
TRANSIT		PEAK FARES		OFF-PEAK FARES
Metrobus Virginia - Partial Listing	CASH	WITH RAIL TRANSFER	CASH	WITH RAIL TRANSFER
Within one zone in Virginia	\$1.00	\$.75	\$1.00	\$.75
Between Virginia Zones G & 1 - Arlington	1.00	.75	1.00	.75
Virginia Zones G & 1 - Alexandria	1.35	1,10	1.00	.75
Virginia Zones G & 2	1.70	1,45	1.00	.75
Virginia Zones G & 3	2.05	1.80	1.00	.75
Washington DC to Virginia Zone G	1.35	.35	1.35	.35
 Virginia Zone G to Washington DC 	1.35	1.10	1.35	1.10

MULTIPLE TRIPS - Metrobus Flash Passes - valid for 2 weeks;

- 1. Virginia Base Flash Pass \$20 with \$5.50 rail value. Full base fare within Virginia.
- 2. Virginia 2 Zone Pass \$27.00 with \$5.50 rail value, two-zone trip within Virginia and base fare in Maryland or Washington DC during peak periods, and full fare for Metrobus trips anywhere during off-peak.
- Virginia 3 Zone Flash Passes \$34.00 with \$6.00 rail value. Full Metrobus fare within Virginia, Maryland, Washington DC, during peak hours. Full Metrobus fare anywhere during off-peak.
- 4. Arlington County Flash Pass \$23.00 with \$15.75 Metrorail value. Valid for full Metrobus fare in Arlington County only. Metrorail fare value can be used anywhere.

In Arlington County only pay \$1.05 for Metrobus round trip to and from a Metrorail station.

- 5. Maryland/DC Pass \$27.00 good for one zone in Virginia during peak period and for full fare anywhere during the off-peak periods.
- 6. Bus/Rail Super Pass \$65.00 unlimited trips on Metrobus/Metrorail for two weeks.

COMPA	COMPARISONS OF PUBLIC TRANSIT FARES	
TRANSIT SYSTEM	REGULAR FARES	MULTIPLE TRIPS
Alexandria DASH - DASH honors Metrobus Va. Flash passes, Metrobus tokens, commuter tickets, and Metrobus and Fairfax Connector transfers for base fare, D.C Maryland Flash passes.	Base \$.75 with \$.25 surcharge to Pentagon Metrorail Station at all times.	\$25.00 Monthly pass \$35.00 Pentagon Metrorail station pass
Arlington Trolley	\$.35 fare. No transfers accepted or given.	\$11.20 40-token.
City of Fairfax CUE	\$.35 at all times. Persons with valid George Mason University I.D. ride free. Senior Citizens Pass and school children through High School pay 25-cents. Children under three ride free with an adult.	
Fairfax Connector	\$.50 base fare on all feeder routes. \$1.00 base + zone on all express routes.	
Prince William Commuteride	\$5.00 one way cash fare	\$30.00 - 10-ride token pack
Reston RIBS	Base fare \$.25 with Reston/Metrobus transfer worth full fare. Reston Express- West Falls Church Metrorail Shuttle is \$.75.	
Tysons Shuttle	Fare \$.75 (\$1.20 round trip) at all times. No transfers given or accepted.	\$6.00 11-trip card.
Virginia Coach Commuter	\$8.00 one-way fare.	\$40.00 ticket for 10 one-way rides.
Virginia Railway Express	9 zone fare structure - distance based. Full fare single ride ticket	Ten-trip ticket - 15% discounted Monthly, unlimited travel - 30% discounted Additional discount Fares Zones 4-9. See chart for complete fare structure.

APPENDIX F

NVTC INTERJURISDICTIONAL BUS STUDY



4350 N. Fairfax Drive • Suite 720 • Arlington, Virginia 22203 (703) 524-3322 / Fax 524-1756 / TDD 800-828-1120 VA Relay Service

REQUEST FOR PROPOSALS

#NVTC - 93-3

STUDY OF COORDINATING AND INTEGRATING NORTHERN VIRGINIA'S INTERJURISDICTIONAL BUS ROUTES

-- ISSUED APRIL 12, 1993 --

9. SCOPE OF WORK

As explained below, the study is to identify and rank-order existing interjurisdictional bus routes in Northern Virginia that are candidates for revised or consolidated service, in order to reduce jurisdictional subsidies while maintaining or improving quality of service. The emphasis is on existing interjurisdictional bus routes, although certain routes within jurisdictions may also be considered if they are operationally linked with interjurisdictional routes. The restructured service may be assumed to be operated with or without private sector involvement. Connections between bus routes and with rail service are an important consideration.

Emphasis is placed on using the existing transit network as a basis of comparison, with minimal demand forecasting and service planning. The exception is for Loudoun County, which is seeking a more detailed analysis, as part of this study, of bus service options (primarily linking the eastern part of the county with other jurisdictions).

Consultants should be aware of planning requirements of the Intermodal Surface Transportation Efficiency Act and the Clean Air Act Amendments and the region's efforts to relieve congestion and improve the environment, since transportation demand management techniques to be implemented may influence the recommendations of this study.

As a hypothetical example of possible restructuring, as a result of the consultant's study a case might be made for new service in the Route 7 corridor terminating in Loudoun County, and linking Reston, Tysons Corner, West Falls Church and internal service in the City of Falls Church using new routes, revised Metrobus routes, and revised Tysons Shuttle routes. As a result of the restructured service, total local costs should not increase for those governments now providing transit services. Once the viability of such a restructuring is established, and alternative forms of operation are evaluated (e.g. Metro, local governments, private sector) including an assessment of quality of service as viewed by transit users, then the alternative cost/revenue allocations would be calculated under existing formulas.

It is important to note that the purpose of the study is to identify opportunities for more productive interjurisdictional bus routes, and not merely to reduce current Metrobus service. If the analysis does identify certain Metrobus routes that are candidates to be consolidated, or perhaps operated by local governments or the private sector, the implications for Metrobus garages may play an important role in determining whether the restructuring is feasible.

The current Metrobus system in Northern Virginia requires approximately 400 peak-hour buses. The Metrobus Four-Mile Run garage in Arlington is being expanded to contain 225 buses, with the Royal Street Metrobus garage in Alexandria now containing 87 buses, which is its maximum capacity. The Montgomery County, Maryland Metrobus garage may also have a capacity of approximately 75 Virginia Metrobuses. The Royal Street garage may be closed in the future and Arlington's Ballston Metrobus garage is being closed. If the restructuring identified in this study were able to reduce the peak-hour demand for 25 percent of current Metrobuses in Northern Virginia, the need for one or more new locations to garage Metrobuses may be eliminated (although presumably garage sites for any substitute buses would still be needed). Similarly, if Metrobus peak hour requirements were cut in half in Northern Virginia, the Royal Street Metrobus garage also could potentially be closed.

Currently, Fairfax County staff is evaluating whether to propose reduction of 50 or so Metrobuses for its primarily intrajurisdictional Reston/Herndon service.

As many local governments in Northern Virginia have taken over Metrobus routes in the past, the fixed costs of the Metrobus system have not fallen in proportion, leaving remaining Metrobus routes burdened with substantial fixed costs. (The formula by which these costs are allocated by

WMATA to Northern Virginia is based on numbers of bases in service in 1975). This equity and efficiency problem is at the crux of decisions to restructure interjurisdictional bus service in Northern Virginia. Accordingly, once preliminary candidates for consolidated bus routes are identified, the consultant must pay particular attention to very complex cost and subsidy allocation issues in working with staff to develop the final recommendations of the study.

Ongoing Local Efforts to Reduce Bus Costs In The Short Term

In response to the proposed FY 1994 WMATA budget, and given severe local budget constraints, several of NVTC's jurisdictions are carefully examining the costs of Metrobus service and ways to make bus service more cost effective.

Among the techniques being examined:

- Reduce less productive Metrobus services.
- Utilize limited available local buses to substitute for Metrobus peak service.
- On a more extensive basis, substitute local buses for Metrobuses during off-peak hours and weekends.
- Substitute smaller, privately owned buses on low-capacity routes to free full-size coaches for heavier ridership routes.
- Seek lower cost private operators for Metrobus routes, perhaps using buses leased or owned by local governments.

The efforts of one jurisdiction to reduce Metrobus costs may increase its neighboring jurisdictions' Metrobus costs. Metrobus charges are based on hourly and mileage-based costs that do not vary between peak and off-peak. For example, if a jurisdiction replaces off-peak Metrobus service it is credited with unit cost savings that exceed incremental savings to Metro. Other jurisdictions make up the difference.

Northern Virginia must pay about \$27 million annually for Metrobus fixed costs. For a 400 bus system this averages about \$67,500 per bus per year of overhead cost. In the past, local takeovers of Metrobus routes and cutbacks of Metrobus service have not reduced Metrobus overhead, and this consultant study should help identify methods to reduce this overhead as part of the restructuring of Metrobus routes. No change in the formula used to share overhead costs should be assumed.

These ongoing efforts are primarily focused on the immediate problems of meeting increased FY 1994 obligations with sharply reduced financial resources. Given at least a six-month manufacturing cycle in new buses and needs to identify maintenance and storage facilities, any large-scale restructuring of routes that may result from this study is impractical for FY 1994. Also, very complex allocation issues must be considered, since many Metrobus routes cut across jurisdictional boundaries.

While interim solutions implemented to respond to FY 1994 problems will be useful, it will also be beneficial to investigate additional actions that could reduce bus costs in FY 1995 and beyond. Consequently, NVTC is undertaking this interjurisdictional bus study.

Study of Interjurisdictional Bus Service Coordination

This consultant study will identify mechanisms to provide more efficiently the needed interjurisdictional bus services in Northern Virginia. The study seeks to enhance the cost efficiency of existing services and, to a limited extent, examine opportunities for new routes (e.g. Loudoun County in the Dulles Corridor).

- 1) Among the objectives of the study are: Initially, taking as given the current route structures, garages and fleets of Metrobus and local bus systems, private and government shuttles, and cooperative interjurisdictional paratransit services to comply with the Americans with Disabilities Act, and using general ridership and transit system inventory information to be provided by the jurisdictions, consider how these interjurisdictional routes and facilities can best be coordinated and integrated in order to reduce jurisdictional subsidy costs while maintaining or improving quality of service. Alternatives include revised Metrobus service as well as substitute service from local or private operators. Benefits and costs over at least a five-year period of time should be reported.
 - a) Identify opportunities to alter or replace current interjurisdictional routes (e.g. Metrobus, local, private shuttles, ADA). Consider fleet, maintenance and garaging requirements and quality of service in comparing the benefits and costs of substitute or integrated service.
 - b) Working with local staff, tentatively identify a rank-ordering of opportunities for substitute, or, especially in the case of Loudoun County, new inter-jurisdictional service (e.g. to/from Loudoun County in the Dulles Corridor) and provide a detailed analysis of economic impacts.
 - c) Then analyze effects on allocations of fixed and variable costs by

WMATA and NVTC, and effects on individual local transit subsidies, using existing formulas, to provide final recommendations.

2) Among the considerations of the study should be:

a) Maintenance policies.

 Garage capacity and institutional requirements for shared private use of public facilities.

Fleet size and composition.

d) Ownership of assets.

e) Leased versus purchased assets.

f) Relative labor conditions, evaluated using WMATA as a base, including 13(c) labor protection and other labor issues.

g) Favorable effects on air quality conformity in the region, possible use of alternative - fueled vehicles.

 Metrobus and local bus overhead and administrative costs versus administrative costs of managing contracts with the private sector.

Interjurisdictional cost/revenue allocation under existing formulas.

Effects on local transit subsidies from specific sources.

k) Access to Metrorail by non-WMATA connecting buses.

 Criteria for evaluating quality of transit service as viewed by users, including such considerations as courteous drivers, fare and schedule information, on-time performance and simple and integrated fares, using WMATA's current practices as a base.

 Quality of service from the system performance perspective, including preventive maintenance policies and other performance standards,

using WMATA's current practices as a base.

In the case of Loudoun County, a more detailed analysis is required. The 3) area of eastern Loudoun to be considered for the study is approximately 130 square miles. Initial public transportation service can be confined to a subarea of less than fifty square miles. Current land development patterns in the study area range from vacant to multi-family housing and commercial. Over the next twenty years, a more solid pattern of residential, at a 3.5 dwellings per acre average, and commercial, at 0.35 FAR, is expected to emerge. County policies encourage the development of higher density, mixed use nodes, or activity centers. The Commonwealth Transportation Board has approved state funding for a Dulles Corridor rail line, and federal implementation funds have been authorized. The challenge for public transportation service will be to link the activity centers and provide an acceptable level of service to the larger suburban community. assurance of the cost efficient delivery of this service is a key factor in the ability to implement public transportation in the study area.

The analysis should provide answers to the following questions:

- a) What is an Appropriate Activity Center? How should it be designed to be transit friendly in terms of design, density, mass, land use, function and size of service area? How does its character affect the range of transportation service options that could be made available? What current and planned activity centers within an appropriate service territory are candidates for new transit service?
- b) How Can Local Public Transportation Services be Linked to the Regional Commuter and Public Transportation Network? How can regional transportation service nodes be developed to function as appropriate activity centers? What types of connecting services would best funnel commuters to the high capacity regional corridors containing highway and rail facilities?
- the Study Area's Existing Communities? What is the nature of current demand? Can a service coalition of existing service providers be formed to meet demand or complement a new service? What should be the service characteristics and structure of a new service, including fixed route versus demand responsive, types of vehicles, days and hours of operation and fares? How could the provision of a new service be phased to meet an expected increasing demand? Should the service and vehicles be publicly or privately owned and/or managed?
- d) What Would be the Public Cost of Providing Public Transportation to the Study Area? This question would apply to short and long term solutions. How could capital equipment be acquired? What coverage of operating cost could be realistically expected out of fare box revenues? What federal, state and other grant programs are available to help meet the capital and operating costs? What service levels are mandated, by ADA or other legislation, and what funding programs are available to meet these requirements?
- The level of effort for the consulting study should devote about a quarter of available resources to the specific issues defined for eastern Loudoun County.
- The analysis should be conducted cooperatively with a technical committee of local staffs, including representation from WMATA. Current ridership levels and patterns should be assumed, and any limited travel demand forecasts (e.g. for Loudoun County) should rely heavily on existing

information and not require significant consultant effort. Financial allocation models will be provided by NVTC and local staffs. Specific garage/maintenance sites are not required.

- 5) Final results are required in six to nine months from the date the contract is signed to be used for decisions on FY 1995 budgets.
- 7) Minimum deliverables include monthly progress reports, a draft final report, and -- following a review period -- a final report with 50 bound copies. Graphic displays of routes proposed for restructuring must be included in the final report.
- Public participation is an important component of the study. Citizens will be encouraged to attend monthly technical committee meetings. A mailing list of interested persons will be maintained by NVTC. A public meeting will be held to consider the draft results of the study (possibly under the auspices of the Citizens Advisory Committee to the Northern Virginia Transportation Coordinating Council) before the commission acts to approve the final report. The consultant is expected to attend each monthly technical committee meeting plus one public and one commission meeting.
- 9) Possible follow-on work that may result from this study, depending on additional funding, includes:
 - a) Additional public presentations of findings;
 - b) Additional copies of final report; and
 - c) Assistance in implementing the recommended route restructuring, including identification of specific garage and maintenance locations.

Consultants should specify their willingness to engage in each of these additional activities at specified rates. These options will be part of the negotiation process.

