



# **Transforming Transportation**



I am proud to present the Northern Region Operations Directorate's inaugural Year End Report for the VDOT fiscal year ended June 30, 2007 (FY 2007). This report summarizes the goals, objectives, successes and challenges of our Northern Region Operations (NRO) Program for FY 2007, and outlines the challenges that remain for FY 2008 and beyond ... and how we will rise to meet those challenges.

During my tenure at VDOT, first as Assistant District Engineer for Operations and Maintenance in the Northern Virginia District, and now as the Northern Region Operations Director in our revamped organizational structure, we have focused on developing and inculcating a strategic approach to Operations from initial planning through project implementation. This has meant re-engineering our

Regional Operations organization; changing our work-flow paradigms; insisting on adherence to plans, programs, schedules, and budgets; and requiring accountability for outcomes. In short, we have been ahead of the curve in crafting VDOT's new organization-wide emphasis on Reshaping the System, Reshaping the Business, and Reshaping the Work Force.

One major change has been incorporated into the way NRO manages its business. We now manage our business through an integrated Operations Planning, Programming, and Implementation approach. This approach begins with a Regional Strategic Plan for Operations and flows through identifying Fiscal Year Strategic Focuses; developing a fiscally-restrained Work Program designed to accomplish our strategies; budgeting across multiple sources of funds, both Federal and State, to provide resources; implementation of specific projects that make up the Work Program; careful tracking of budgets, expenditures and progress; and regular reporting from and among Operations' Section Managers.

For the past two years, we have worked to make this way of doing business *de rigueur*. This Year End Report represents the next step: accountability to our stakeholders within VDOT, within our local and State governments, and, most importantly, to the citizens, taxpayers, and travelers of the Commonwealth.

There are more challenges ahead, both operationally and in terms of continuing to remake our business. For example, we will this year implement a project implementation process that leverages our NRO organizational structure to move projects systematically toward completion using the Systems Engineering Process as applied to transportation.

I've referred frequently to Operations as a "business." This is new to both Government parlance and paradigm, but it is indeed the way we in Northern Region Operations manage our undertaking. Our focus is to efficiently operate the transportation system while maintaining travel quality and optimizing the return on the Commonwealth's investment of public funds.

This is the commitment of my staff and I, to you.

Dick Steeg

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Richard W. "Dick" Steeg, P.E. Northern Region Operations Director

# Introduction and Overview

In FY 2007, VDOT was in the process of transforming Operational activities in the Northern Virginia (NoVA) District into a unified and cohesive program under the auspices of the newly-formed Northern Region Operations Directorate. Accordingly, strategic and tactical plans initially developed for NoVA District Operations became the 2007 "playbook" for Northern Region Operations.

### The VDOT NoVA Program Plan Update of March 2006 identified the following Program Activity Areas:

- Archived Data Management
- Electronic Toll Collection
- Emergency Management
- Corridor Management
- Incident Management
- Maintenance and Construction Management
- Parking Management
- Surface Street Management
- Transit Coordination
- Traveler Information
- Snow and Weather-Related Operations

The Program Plan and its Activity Areas endeavoured to achieve the following goals and objectives in FY 2007:

## Goal 1: Enhance Public Safety

Minimize Incidents Respond Efficiently to Incidents Improve Transportation Security

## Goal 2: Enhance Mobility

Operate the Transportation System Effectively and Efficiently Enhance District Operations and Maximize the Effectiveness and Efficiency of Personnel, Equipment, and Resources Expand ITS Infrastructure to Enable Corridor Management

## Goal 3: Make the Transportation System User Friendly

Enhance and Simplify NoVA Interactions with Travelers Support Traveler Information Services

## Goal 4: Enable Cross-Cutting Activities to Support Goals 1-3

Enhance Mobility Using Technology Create a 21st Century Foundation for Operations Conduct a Strategic Research and Development Program

In this Year End Report, Northern Region Operations provides an assessment of how well we did, and what we achieved, in working toward these goals and objectives.



# **Success Stories**

## Traffic Engineering Develops Safety and Operational Improvements at Key Bottleneck Sites

VDOT NRO Traffic Engineering adopted an increased emphasis on improved safety and operations for roads in the Northern Region. Several projects were implemented in FY 2007 that improved the safety of the motoring public while simultaneously improving the capacity of the roadway network in the region. From a cost-effectiveness standpoint, these projects were implemented at relatively low costs.

VDOT NRO Traffic Engineering staff also started a new program to field review unsignalized intersections with high crash rates in the Northern Region. One hundred and fifty (150) intersections have been identified as needing review. Of these, approximately one third were reviewed in FY 2007. Improvements in traffic signage and pavement markings were identified and implemented. Additionally, limited line-of-sight issues were addressed.

## Some of the major accomplishments are discussed below:



**Route 28 and Braddock Road – Safety improvements / capacity increase.** NRO initiated various improvements on Route 28 at I-66 and at the intersection of Braddock and Walney Roads in Centreville. These improvements reduced crashes, reduced / eliminated queues on I-66, and shaved minutes off of commuting times. This section of Route 28 and Braddock / Walney Roads had one of the highest crash rates in Northern Virginia: an average of 48 crashes a year over the past five years. Several traffic movements were eliminated as part of this effort, allowing traffic signals to be retimed to add more green time for mainline Route 28. This substantially reduced backups at the signals at this location, including backups that spilled over to I-66 during rush hours. This project was constructed as the result of funding reallocation within NRO's Section 604 budget.

**DTR Main Toll Plaza – Capacity increase.** Because of the increased use of electronic toll payment devices by motorists on the Dulles Toll Road, an assessment was performed on the lane assignments at the main toll plaza. As a result of this effort, the two left-most lanes in each direction were re-configured through the use of pavement markings and signs to allow a smoother traffic flow through the toll plaza, resulting in decreased traffic queues for all users.

## Southbound Route 29 (Lee Highway), between the City of Fairfax and the

**Fairfax County Parkway – Bottleneck elimination.** By widening a 250-foot segment of southbound US 29 to three lanes, motorists gained the benefit of having a full three-lane section of southbound US 29 for a distance of 2 miles. Developers had previously widened southbound US 29 to three lanes with the exception of this 250-foot segment. This improvement was constructed at a relatively low cost using reallocated funds, and it eliminated a bottleneck in the US 29 corridor.

## Eastbound Route 50 (Lee Jackson Memorial Highway), between Stonecroft Blvd. and Avion

**Parkway** – **Bottleneck elimination.** US Route 50 eastbound between Stonecroft Boulevard and Avion Parkway was another corridor that benefited from low cost improvements. NRO eliminated a critical choke point by widening 300 ft. of the eastbound lanes to three lanes. As a result, a full three-lane section was provided on the eastbound approach to the traffic signal at Avion Parkway, increasing the capacity of the intersection and reducing congestion; particularly, during the morning rush. This project used reallocated funds, also.

**Route 29 Crossovers – Safety improvements.** NRO closed nine crossovers, and extended several left-turn lanes along the Route 29 corridor in Fauquier and Culpeper Counties. These closings were at median crossovers, which were identified as having safety problems attributed to insufficient sight distances and lack of available storage lanes for left-turning traffic. This was another project that was constructed as the result of funding reallocation within NRO's Section 604 budget.

# Designing and Implementing the Next Generation of Regional Transportation Management

In FY 2007, VDOT NRO moved forward with what may be the most important operational investment in the Region in this decade: planning, design, development, and implementation of a new Advanced Transportation Management System (ATMS) Central Software Platform to replace the aging Advanced Support System for Integrated Surface Transportation (ASSIST) System, in concert with the planned relocation of the current Smart Traffic Center (STC) to a new Public Safety Traffic Operations Center (PSTOC) currently under construction.

Consistent with the Systems Engineering Process, NRO conducted an exhaustive study of user needs, command and control requirements, and an assessment of the state of the practice for a modern and stable operating base for the ATMS upon which future enhancements can be made. This new ATMS base will replace many of the existing ASSIST functions; including:

- Provision of an iterative development cycle. This will permit the users to deploy the system in a series of phases, so that, as users gain experience, they can provide feedback to be included in subsequent upgrades.
- Elimination of risk factors from the project as early as possible.

On January 4, 2007, NRO issued a Request for Proposals (RFP) for a systems integration team to craft an ATMS that can be deployed quickly. The contract was awarded on July 16, 2007, and NRO intends to have the early deployment phase of this project completed and functional in FY 2008. The early deployment will be followed by an expansion of system functionality, achieved iteratively with multiple releases introduced incrementally. This expansion phase will ultimately incorporate all elements developed in the project's Concept of Operations and Software Requirement Specifications, resulting in a robust, leading-edge system that will serve the transportation management needs of the Region for many years.

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## Success Stories continued...

# NRO Unveils an Integrated Planning, Implementation and Performance Management Process

FY 2007 marked a watershed in the business of Transportation Operations as VDOT's NRO implemented a fully integrated "cradle to grave" program and project management process ... the first of it's kind among state DOTs. This process enhances NRO's ability to make sound investment decisions among competing priorities in a resource-constrained environment.

The process, developed by NRO's Planning & Programming Section, unifies strategic and tactical planning, project generation, investment analysis, budgeting, performance tracking, and reporting / feedback to NRO's management team. NRO's Strategic Program Plan and Operational Concept of Regional Architecture serve as the strategic wellsprings for specific project and program ideas and proposals. These are then evaluated jointly by NRO's Section Managers according to multiple criteria, including performance measures, to rank order potential investments. Rank-ordered projects are overlaid against available funding to develop an Investment Plan for the fiscal year. In FY 2007, project and program performance was tracked primarily according to fiscal parameters and discussed at monthly Operations Programming meetings.

Ongoing enhancements to this process include emphasis on tracking technical as well as fiscal performance; tying the project implementation process more closely with the established Systems Engineering Process for ITS projects; and refining the project prioritization methodology.

As a result of implementing this integrated process, an attitude of accountability has been inculcated at all levels of the Operations organization; project performance has been improved; and more is being accomplished with scarce resources as NRO prudently invests taxpayer dollars.

## Traffic Signal Optimization Program Continues

Traffic signal retiming is one of the most cost effective ways to improve traffic movement and make surface streets safer for commuters. Traffic signal timing plans need to be updated on a regular basis to account for changes in traffic volumes and turning movements. Over time, traffic patterns change due to several factors which make existing signal timing plans perform at less than optimal conditions.

VDOT NRO Traffic Operations continues to take a proactive approach toward traffic signal optimization. This approach is enabled by VDOT's computerized traffic signal system called Management Information System for Transportation (MIST); traffic optimization software called SYNCHRO; and traffic simulation software called CORSIM. Traffic signal operation tasks include operating the signal system. This includes responding to internal and external signal system inquiries, monitoring system failure log, incident management, event management, and troubleshooting telecommunications. The Northern Virginia District signal system has been developed to control the traffic signals throughout Fairfax, Loudoun, and Prince William counties. Approximately 1,200 signalized intersections are controlled and monitored from a central control room in Northern Virginia. Additionally, with the establishment of Northern Region Operations as an operations entity within VDOT, NRO is also responsible for traffic signal operations in counties that are part of VDOT's Fredericksburg and Culpeper Districts.

Over the past fiscal year, VDOT NRO Traffic Operations optimized 272 traffic signals, developed timing plans for 168 traffic signals that took into account holiday events in calendar 2006, and responded to 1,732 customer service calls / requests related to traffic signal concerns.

### The benefits of these efforts include:

- Coordinated traffic signals in relation to each other so that platoons, queues, or groups of vehicles can travel through a series of signals with minimal delays;
- Reduced delay time at an approach by balancing the green times at an intersection;
- Optimized timing plans that account for traffic volumes from new developments such as the addition of new homes or stores;
- Reduced vehicle emissions and fuel consumption as delays caused by traffic signals are reduced; and
- Improved the safety at intersections by producing smoother traffic flow and fewer stops through a corridor.

When considering the time per person saved and reduction in fuel consumed, it is estimated that VDOT NRO's traffic signal timing optimization efforts saved \$15,547,963 in FY 2007.



# Performance by Program Activity Area

The table below compares actual progress, by Program Activity Area, on key initiatives identified in the FY 07 Investment Work Plan.

Program Activity Area	FY 2007 Desired Outcome	
Archived Data Management	At the end of FY 2007, under a project initiated by the Operations Administration Section, the ADMS (and RITIS) web-based tools will be modified (or developed) to generate performance measures by which we can gauge the success of individual projects. Additionally, a technical issue tracking process will be in place.	
Emergency Management	At the end of FY 2007, VDOT-NoVA will have in place a robust, coordinated Crisis Response and Evacuation Plan that addresses disaster scenarios. Additionally, regional efforts such as the Metropolitan Area Transportation Operations Coordination (MATOC, previously known as CapCOM or RTCP) will have moved forward, with VDOT-NoVA as a principal participant.	
Corridor Management	At the end of FY 2007, VDOT-NoVA's Corridor Management Program will have significantly moved forward. Some 37 individual projects are being proposed for funding, spanning the continuum from enabling technologies such as telecommunications to full-scale ITS systems planning and deployment. Three areas of emphasis in FY 2007 are: short-term improvements to the existing STC ATMS; initiating a migration of the telecommunications' backbone to Ethernet, in preparation for future geographic expansion; and initiating replacement of the ATMS.	
Incident Management	By the end of FY 2007, NRO, in an effort to improve our response efforts to incidents and to reduce incident clearance times, will have completed an update to the Incident Management Planning Manual, will have taken significant steps toward integrating incident information from various Computer Aided Dispatch (CAD) Systems into ATMS operations, will have implemented remote deployment of incident management personnel, and will have expanded the service area for our Safety Service Patrols. Throughout the FY, the District will support and actively participate in regional incident management initiatives such as MATOC and CapWIN.	
Maintenance & Construction Management	At the end of FY 2007, VDOT-NoVA will have expended significant resources to bring its physical assets up to meet the baseline vision. Investments will have been made in ITS field devices, supporting structures, inventory and maintenance management systems, equipment, and physical infrastructure.	
Surface Street Management	At the end of FY 2007, significant improvements will have been implemented to upgrade signal management software; thereby, improving signal management; to synchronize traffic signals in a few key travel corridors; and to provide signal priority for transit vehicles at a few intersections. Signal priority for transit vehicles will improve bus service reliability while preserving overall network traffic flow efficiency. Additionally, studies will be undertaken to help shape the long-term success of the Surface Street Program through signal control, telecommunications, and safety systems.	
Transit Coordination	At the end of FY 2007, VDOT-NoVA will have begun to provide real-time travel times to motorists via Dynamic Message Signs (DMS) at selected locations along I-66 and will have taken the first steps toward enhancing 511 in Northern Virginia.	
Planning & Support Functions	At the end of FY 2007, the "program-based, outcomes-driven" performance paradigm will have been inculcated throughout, and embraced by, NoVA Operations. To support this, the Administration Section will initiate a project to develop performance measures which establish a performance baseline for individual projects. Going forward, project success will be measured against this baseline. The Architecture and the Program Plans will have been effectively updated. Regionalization will be explicit in our documents and implicit in our actions, and we will have established performance baselines for all Program Areas.	

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No investment was made in the following program areas:

- Electronic Toll Collection,
- Parking Management
- Snow and Weather Related Operations

## FY 07 Actual Progress or Outcome

In FY 2007, NRO worked with the RITIS project manager to enhance the web-based performance measure reports that meet our tracking need. VDOT Central Office is leading the effort to develop performance measures, and associated web-based tools, from ADMS.

Significant progress has been made in developing an Evacuation Transportation Plan in concert with the Virginia Department of Emergency Management, the Governor's Office, and with efforts originating from the Washington Council of Governments. A primary outcome is that we have successfully identified and mapped proposed evacuation routes from a variety of "ground zero" points and under a number of emergency scenarios, throughout the Northern Region. With Human Resources support, NRO provided National Incident Management Systems (NIMS) training to over 80 employees who have emergency management responsibilities. More employees will receive NIMS training in the next year. NIMS training is required for designated state employees by the Department of Homeland Security. NRO, as the recipient of a Federal earmark funding the MATOC program, was able to successfully facilitate the signing of a multi-agency agreement formalizing the establishment of this regional program.

Progress was made on many fronts under this Program Activity Area. Notably, the ATMS Replacement has moved forward to integrator selection, and telecommunications migration planning is underway. Prototype implementation of a real-time, freeway monitoring application, developed by VA Tech in FY 2007, will provide significant information on freeway operating characteristics. However, some of the work identified in this program area was deferred to FY 2008.

An update of the Incident Management Pocket Guide and supporting planning materials was completed. We failed to make real progress in integrating CAD data into the Smart Traffic Center software. However, we were able to work with Fairfax County to include system integration requirements in its CAD system replacement RFP, which is a major step towards future integration. Regional Incident Management activities did move forward with participation and support from NRO and our financial support made it possible to get approval on integrating CapWIN and RITIS. This regional system integration will greatly enhance regional incident detection and information sharing capability.

We made targeted investments in field assets and have budgeted strategically to replace and maintain critical assets. This Program Activity Area has been a success from the standpoint of sufficiently maintaining Operations' assets with limited financial resources.

Traffic signal re-timing is a major success story for Operations. In addition, enhancements to the MIST central software were implemented and we are positioned, through studies and research, to effectively upgrade and expand our surface street management capabilities in future years. We were not able to assist Fairfax County initiate its earmark-funded signal priority program. We, therefore, did not add any new signal priority locations.

An effort was initiated to deploy travel time as a demo project in FY 2007, but it was determined not to be an efficient process or prudent action from the long-term perspective. Therefore, NRO will reinitiate this effort in FY 2008 by applying the Systems Engineering Process to determine the appropriate course of action for upgrading DMS in the Northern Region.

Development and implementation of a unified planning, budgeting, programming and tracking approach to NRO projects has been an unqualified success. Supporting Planning tools such as the Regional Architecture and Program Plan were not updated as desired. However, we successfully developed a project development User Guide and Rule 940 check list which provided significant assistance to project managers as a powerful tool in developing ITS projects in the "right" way.

# Northern Region Operations FY 2007 Performance Measures

Northern Region Operations tracks several administrative and operational performance measures:

- Prompt Pay (administrative) Percent of invoices paid within 30 days
- Timesheets (administrative) Percent of timesheets approved on time
- Budget (administrative) Percent of total annual budget spent
- DOTS (customer service) Percent of "DOTS" customer inquiries answered within 10 days
- Turnover (inventory) Inventory stock turnover rate
- Overstock (inventory) Percent of inventory overstock
- TE Studies (customer service) Percent of Traffic Engineering studies completed within target timeframe
- TE Plan Reviews (customer service) Percent of Traffic Engineering plan reviews completed within target timeframe
- Incident Clearance (incident management) Percent of collision / disabled vehicle / debris-related highway incidents cleared within 90 minutes
- ITS Asset Availability (asset availability) Percent availability of ITS assets

FY07 Performance Measures			For Comparison	
Measure	FY07 Quantity	FY07 Results	Goal	FY06 Results
Prompt Pay	2208 Invoices	99.1% paid within 30 days	95%	99%
Timesheets	5355 Timesheets	99.5% completed on time	100%	99.1%
Budget	\$36.5M	90.3% SOSYP budget spent	100%	96.6%
DOTS	215 DOTS	69.3% DOTS answered within 10 days	90%	68.9%
Turnover		3.79 Turnover rate	> 3	2.33
Overstock		15.2% overstock	< 20%	5.51%
TE Studies	3536 Studies	74.6% studies completed on time		69.9% <sup>1</sup>
TE Plan Reviews	1546 Reviews	89.9% reviews completed on time		86.8% <sup>1</sup>
Incident Clearance	17650 Incidents	89.0% cleared within 90 minutes	90%	92.0% <sup>2</sup>
ITS Asset Available		82.4% availability	95%	83.4% <sup>3</sup>

#### The following table summarizes FY-07 result for these measures.

<sup>1</sup> Data only available for 2nd, 3rd, and 4th quarters

- <sup>2</sup> Data only available from Jan Jun 06
- <sup>3</sup> Data only available from Oct 05 Jun 06

## FY 2007 NRO Incident Duration

Collisions - Debris - Disabled



Of the ten measures tracked in FY 2007, six improved in performance over the previous year. Areas showing the most improvement include inventory turnover, TE studies, and TE Plan reviews. Areas needing the most attention include budget management, response to "DOTS" inquiries, and ITS asset availability.

Special attention was given in FY 2007 to incident clearance times for collisions, disabled vehicles, and debris-related incidents on Northern Virginia's interstate system. These three incident types accounted for 78 percent of the 22,669 incidents recorded on Northern Virginia's interstates in FY 2007. The graph above shows how many of the 17,650 total collision, disabled vehicle, and debris-related incidents were cleared within specific time periods. Statewide goals have yet to be established for each time period (NRO has a goal to clear 90 percent of these incidents in 90 minutes) but one should expect the curve to move towards the left to show overall improvement.

Similar to FY 2006, FY 2007 was a building year for performance measures. Several well-established administrative measures were joined by a few emerging operational measures that will continue to improve in the coming years as NRO strives to become a performance-based organization with full transparency and accountability. NRO congestion management, incident duration, and travel time metrics were inaugurated for Dashboard 3.0 in 2007. These measures reflect our continued committment to performance management.



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# **Investment Plan**

Every organization should have an investment plan. The investment plan should allow the organization to focus its monetary and capital resources on achieving the strategic goals of the organization. The investment plan should be dynamic to allow the organization to respond to new challenges and opportunities while cutting its losses on programs and projects that, for whatever reason, just don't work out.

Northern Region Operations has an investment plan that is dynamic and allocates funding to prioritized projects and programs that will help us achieve our strategic focus.

Let us look at the base financial numbers for FY 2007 for Northern Region Operations. In FY 2007, NRO was allocated \$36,479,826 in Section 604 plus Section 619 funds. The intent of this funding was to fund the day-to-day operational expenses of the NRO – salary plus additives, material needs, equipment needs, overhead, etc.; as well as fund some of the projects and programs for which the NRO is responsible.

Salary plus additives for employees working for the NRO equaled \$17,375,741 in fiscal 2007, or 47% of the total budget.

NRO's allocation for 2007 was split among the NRO's eight responsibility areas as follows:

Responsibility Center	2007 Allocation	% of Total Allocation
Director's Office	\$551,978	2 %
Operations	\$9,210,777	25 %
Planning & Programming	\$1,066,646	3 %
Systems Engineering	\$1,346,203	4 %
Traffic Engineering	\$3,022,307	8 %
Business Administration	\$491,442	1 %
Installation & Construction	\$3,342,769	9 %
Operations Maintenance	\$17,447,704	48 %
Total	\$36,479,826	100 %

## Investment Plan continued



As can be seen from the above diagram and from the table on page 13, almost one-half of NRO's budget was allocated to maintaining its assets and another quarter was allocated to operating those assets – principally NRO's Smart Traffic Center (STC) and the Safety Service Patrol (SSP).

It should be recognized that there are other sources of money available to NRO for the implementation of projects. VDOT's "Six-Year Improvement Program" (SYIP), Section 603 fund, is a source of funding for construction projects. Traffic Engineering is the section within NRO that principally implements projects using funding allocated in the SYIP. For example, each VDOT district had a districtwide (DW) line entry in the SYIP for the installation of traffic signals on the primary system. Based on signal warrant studies conducted by NRO's Traffic Engineering (TE) Section, 14 intersections in the Northern Region met the warrants for new signal installation. With funding from the Northern Virginia District's (NoVA) DW line entry for signals, NRO's Traffic Engineering Section was able to complete the installation of three signals in FY 2007 and began the installation of several others.

Another source of funding is Federal funds. In the past, activities and projects performed and constructed by the operation's side of the state highway transportation business were constructed using state funds. State funds have few strings attached. However, maintenance, operations, and construction needs have been growing at a faster rate than have the available state dollars to meet these needs. In fiscal 2007, NRO was able to take advantage of \$4,000,000 in available Federal dollars (plus \$1,000,000 in state matching funds) to initiate our ATMS replacement project. We will continue funding other major projects, including routine maintenance, using Federal dollars in fiscal 2008. This will allow the state dollars that are allocated to NRO to go further.

During the course of the year, NRO reallocated over \$1,000,000 in Section 604 funding from projects / programs that had stalled or stopped to projects / programs that needed additional funding or were entirely new. Some of our successes are described under the "Success Stories" Section.

This is a relatively new process and requires a great deal of trust from, and attention to financial details by, NRO's Section Managers and project managers. The trust takes the form in knowing that, if we reallocate funding now from a project that is stalled, fellow Section Managers will agree to the allocation of funding to the project when it starts anew. The NRO is a relatively new organization and the bonds of trust are still developing.

We are hopeful that, in fiscal 2008, as our financial management process matures and as the bonds of trust for our teammates continue to grow, we will be able to more effectively and efficiently use our allocations through the reallocation of inactive / inefficient funds to new projects or to projects in need of additional funding.



# **In Summary**

## Fiscal 2007 was a year of changes and challenges for Northern Region Operations.

It was a year of geographic change as we expanded from a NoVA District-based entity to a regional entity serving the NoVA District and parts of the Culpeper and Fredericksburg Districts. We went from serving four counties and five cities in the NoVA District to serving twelve counties and six cities. This geographic expansion in size was, of course, challenging as was the need to develop lines of communication and bonds of trust with Culpeper and Fredericksburg District management and our new employees that formerly reported to management in these Districts. While this change has been accomplished, at least on paper, it will be NRO's challenge to make the "regionalization" appear to be seamless and to continue to develop and strengthen our lines of communication and bonds of trust in the southern and western reaches of the Northern Region.

It was a year of business process change as we implemented a fully-integrated, unified strategic and tactical planning and fiscal programming process. This allowed NRO to identify focus areas towards which it could apply its limited "discretionary" fiscal resources, and to quickly reallocate resources when it became apparent that funds were available because they would not be needed as originally planned. The challenge in 2007 was that this was not "business as usual." The challenge in 2008 (and beyond) will be to maintain this integration of planning and programming; not to allow ourselves to slip back into our old, static / reactive ways because that was the easy way or the way that we were used to doing it.

It was a year of technological change as NRO moved forward with the planning, design, development, and implementation of a new Advanced Transportation Management System (ATMS) Central Software Platform to replace the circa 1985 ASSIST System. This change, when implemented, will significantly improve our ability to manage traffic and to respond to incidents as they occur. Our challenge in fiscal 2007 was to find the funding to begin this transition and to get it underway. Our challenge in fiscal 2008 will be to have the early deployment phase of this project completed and functional. Our challenge beyond 2008 will be to use this system to the full extent of its capabilities.

It was a year of safety and operational changes as NRO Traffic Engineering implemented improvements throughout the Region. Of particular note, were the improvements at the Route 28 / Braddock Road intersection, the lane assignment changes that were implemented at the Dulles Toll Roads' Main Toll Plaza, the closing of nine crossovers (for safety reasons) on US 29 in Fauquier and Culpeper Counties, and the bottleneck eliminations on US 29 and US 50 in Fairfax County. The challenge here was not finding a need, but finding the funds to address these needs. Our challenge in fiscal 2008 will be similar; finding / reallocating as available the funds needed to address, in part, our safety and operational needs.

It is safe to say that, "Fiscal 2008 will be a year of changes and challenges, as well." NRO will customize the changes so that they are changes for the better and approach the challenges as opportunities for improvement.



## **Northern Region Operations**

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