

# **National Capital Region Transportation Planning Board**

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## **MEETING NOTES**

### **WASHINGTON REGIONAL TRANSPORTATION SAFETY SUBCOMMITTEE**

**DATE:** Thursday, February 12, 2009

**TIME:** 1:00 p.m.

**PLACE:** COG, 777 North Capitol Street, NE  
Washington, DC  
First Floor, Room 1

**CHAIR:** TBD

**VICE-  
CHAIRS:** TBD

#### **Attendance:**

|                         |  |
|-------------------------|--|
| Yusuf Aden              | DDOT-Traffic Safety                          |
| Leverson Boodlal        | KLS Engineering                              |
| Randy Dittberner (tel.) | VDOT – Northern Virginia                     |
| Patrick Foster          | Prince George’s County DPWT                  |
| Mike Goodno             | DDOT – TPPA Bike Program                     |
| Darlene Harrington      | SSRM-WMATA                                   |
| Randy Hodgson           | VDOT   |
| Michael Lake            | Fairfax County Department of Transportation  |
| Ning Li                 | VDOT Central Office                          |
| William McGuirk         | DDOT   |
| Shaun O’Bryan           | DDOT –TPPA Bike Program                      |
| Michael Pack            | University of Maryland CATT Lab              |
| Tim Parker              | Fairfax County Public Schools Transportation |
| Stephen Read (tel)      | VDOT Central Office/Highway Safety           |
| Shiva Shrestha(tel.)    | MDSHA Planning                               |
| Nicolas Thorpe          | Mayor’s Office on Transportation             |
| Jianwei Wang            | Precision Systems, Inc.                      |

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### **COG Staff Attendance:**

Michael Farrell  
Karin Foster  
Andrew Meese  
Wenjing Pu

#### **1. General Introductions.**

Participants introduced themselves. Mr. Farrell chaired the meeting.

#### **2. Maryland CHART and MAARS Web-based Data Mining and Visualization Tool**

Mr. Pack explained the purpose of the University of Maryland Center for Advanced Transportation Technology Laboratory. It was established in 2002, with the mission of being the real-time data archive for the State of Maryland's CHART program, which is the Maryland real-time traffic management center. The CHART data had many potential uses, but querying it was difficult. The CATT lab staff started writing tools to make it easier for people to perform queries, as well as visualization tools, to help people understand the data. The CATT lab has also created multiplayer video games to help train first responders. The CATT lab has recently started obtaining Virginia and DC operations data as well.

More recently the CATT lab has been working with MDOT and the Baltimore Metropolitan Council to develop tools to help them understand the crash data from their police reports. The crash data from the police reports contains a lot of information not present in the CHART dataset, and vice versa. The goal is to eventually merge those datasets.

Researchers want easy, secure access to safety data. Intersection analysis, corridor analysis, and regional analysis are some of the most common uses. The CATT lab is building web-based interfaces that will allow users to run customized queries on the data. The data will have a map interface to display geographic and temporal information. Traffic counts, volumes, and other data will be made available as well.

Mr. Pack did a live demonstration of the CHART data tool. The traditional approach to data analysis is to ask questions of a data set over a given date range. This tool takes a different approach. It presents the entire data source first to the user as a picture, such as a heat map, so that they can observe patterns that might not otherwise have occurred to them. It then allows users to zoom in on the data. The data can be queried for crash type, time, day of the week, road conditions, etc. Data from the crash reports could be analyzed using this tool as well, although it does not contain the police report data now.

Mr. Shrestha asked if accident data on corridors could be plotted. Mr. Pack replied that he would demonstrate that function shortly.

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Mr. Pack said that one of CATT lab's biggest problems was getting the data from the agencies. That is where the people on this committee can help.

It was asked whether truck crashes were tracked. Mr. Pack replied that they show tractor-trailers, and SUV's, but there was no category for heavy trucks that aren't tractor-trailers.

Mr. Li asked how the crash data can be linked to the operations data. Mr. Pack replied that this data was not coming from the police reports but from the operations centers. Mr. Pack will soon show the group a tool for analyzing the police collision reports. The goal is to combine the two data sets, but that has not been done yet. The database has export capabilities.

The CATT lab is just now starting a program to analyze the MAARS – Maryland Automated Accident Reporting System. The MAARS consists of the police reports written in the field by police officers that get handed over to State Highway. The MAARS analysis tool is not yet available on-line, so Mr. Pack spoke to a series of screen captures.

The system allows you to do intersection, corridor, or regional analysis. It allows you to run a query on any information contained in the police report, so you can get answers to very specific questions. Collision diagrams are not yet available, but they will be eventually.

These tools will give analysts something that is easy to use, and will make the data accessible to more people.

Mr. Meese asked about the MAARS date range feature. How hard would it be to have a calendar pop up, and you could click on any set of days, rather than a specific range of day? Mr. Pack replied that that would be easy to do.

Mr. Reade asked if the functionality for power users could allow more detailed SQL queries. Mr. Pack replied that in the past some people who thought they were power users but were not had tied up the system with poorly designed queries. Mr. Pack prefers that queries stay within the GUI (graphic user interface). Mr. Pack felt that a power user probably would not need this tool anyway. Mr. Reade responded that he would like to be able to both write the SQL queries and have access to the visualization tools that the CATT lab system would provide.

Another issue is permission levels – who will have access to how much data.

Fatalities can be sorted into different vehicle types, such as bicyclists.

Blood Alcohol Content levels of drivers can be specified in the queries. You can specify a range.

This data might be of interest to lawyers. Access is an issue that will be addressed, such as whether or not Freedom of Information Act would apply to this database. The CATT lab would

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prefer to send any FOIA request to the originating agency, and their policies would apply. FOIA issues with respect to this data are not fully resolved.

Mr. Reade asked how Maryland was funding the project. Mr. Pack replied that he did not know which funding sources MDSHA was using.

Different projects will have different timelines. The CHART data tool is farthest advanced, and the State wants to pay the CATT lab to finalize it. The MAARS data tool will take at least a year to finish.

Another question related to the specificity of crash locations in the database. Mr. Pack replied that he was not sure how location information got put into the system, but when the CATT lab receives the data it does have very specific location information.

### **3. Regional Data Mining and Visualization Tool**

Mr. Farrell explained that tools such as Mr. Pack has discussed would be very useful for regional planning. We currently lack the ability to get good answers to a number of safety questions in a timely manner. If the DOT's are able and willing to provide the data, it may be possible to create such a regional tool.

Mr. Reade said that it would be fairly simple to share their crash database. VDOT would also need to share its GIS shapefiles, since its crashes are currently not located by lat/long, just by mile point. VDOT does not have data for locations of crashes in independent cities such as Arlington. Mr. Reade expressed willingness to provide its crash database and GIS shapefiles to the CATT lab. The Access crash database has no personal information; VDOT can easily ftp a file with five years of crash data. VDOT may need to create a separate shape file for just the Northern Virginia counties since the GIS shape file for the entire State is an enormous file.

Mr. Pack said that he would need to see the data in order to provide any kind of cost estimate.

Mr. Farrell asked if DDOT had comparable information that could be shared. Mr. Goodno replied that DDOT had paper police crash reports, which is usually not available until a year after the fact, due to the time needed for data entry. DC's data entry contact was cancelled, so it currently has only paper reports.

Mr. Pack said that one of the things Maryland is starting to do is to scan in the paper reports. It would allow you to push a button and compare the scanned report with what was keyed into the system, so you can edit your data based on the scanned paper report. This will make it easier to correct data entry errors.

Mr. Meese asked if DC possessed an electronic data set similar to VDOT's. Mr. Boodlal replied that DDOT was currently transitioning to an automated crash reporting system, which will be

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completed by the end of the year. Mr. Meese said that we would like the historical data in whatever form it exists, as well as knowing what will be available in the future.

Another unsolved issue is obtaining crash data from Arlington County and the independent cities of Virginia.

From 2008 forward VDOT will have lat/long associated with every crash. Maryland records locations in terms of log miles.

Mr. Farrell noted that we have some resources in our work program, around \$25,000, to support consultant services for transportation safety. We believe that the work the University of Maryland CATT lab has already done on the behalf of Maryland and the Baltimore region will enable them to do this work for a lower cost than if the project were being started from scratch. In addition, the CATT lab already has certain permissions and access which would have to be renegotiated if we went with a different vendor.

If and when we ever do start analyzing data we would like to bring it back through this committee for advice in terms of how it should be used in our planning and programming activities.

Mr. Reade noted that VDOT is setting its functional requirements for its crash analysis and data warehouse, and is actively associated with an AASHTO initiative to develop corridor-level statistics. A lot of data-related initiatives are occurring at the same time at multiple levels.

Mr. Farrell announced that he would follow up with the appropriate people at the state level regarding obtaining the data samples Mr. Pack will need.

#### **4. MWCOG and National Capital Region Transportation Planning Board Safety-Related Activities**

- **Safety Element of the Constrained Long-Range Plan**

Transportation Safety Emphasis areas in the Safety Element were copied from the State Highway Safety Plans. We are about a year away from a major update of the Constrained Long-Range Plan. Transportation, freight, and other areas should spend 2009 preparing their input to the regional long-range plan. We will do more data analysis and come to consensus recommendations.

Mr. Farrell said that a regional safety element will likely not work in the same way as the State Highway Safety Plans, which are followed up with a detailed implementation plan describing which State (and other) agencies will take exactly which steps to address the various safety emphasis areas. Our safety element will be more a way of highlighting both problems and success stories for the benefit of

the Board and the public.

- **Street Smart Pedestrian and Bicycle Safety Campaign**

We are in the midst of planning the Spring wave for this campaign, which will run March 21<sup>st</sup> – April 19<sup>th</sup>. We do radio, transit, and internet advertising, with supportive law enforcement from our member agencies. The idea is to get a few simple messages across to promote safer behavior by pedestrians and motorists. We make considerable use of free media. As with other programs more and better data would be helpful.

Mr. Meese expressed his appreciation for the voluntary support of our member governments and WMATA, as well as the State agencies which are providing federal funds. This campaign works best as a regional campaign because the Washington region is a single media market.

We will be inviting law enforcement officials to attend a half-day seminar on best practices in pedestrian safety enforcement on March 2<sup>nd</sup>. Last year we had over fifty law enforcement officers at a similar session. This seminar grows out of a course offered by DDOT for the benefit of DCMPD, and instructors from DDOT and DCMPD will lead this seminar. We will also be asking law enforcement agencies for more detailed information on enforcement actions during the campaign period through a standard enforcement reporting form.

- **Follow-up Actions to the April 29 Pedestrian Safety Forum and COG Board Resolution R32-08 on Pedestrian Safety**

Of the major recommendations in that resolution, the expansion of Street Smart, Safe Routes to School, and the Transportation-Land Use Connections program have been carried out. Other recommendations, such as building more walkable communities, are not within our direct purview but are being carried out by our member governments and agencies. The Virginia legislature has declined to pass legislation requiring motorists to stop for pedestrians rather than yield to pedestrians.

## **5. State and Jurisdictional Updates**

MDOT is implementing its Strategic Highway Safety Plans in cooperation with Baltimore Metropolitan Council and the Washington-region Counties.

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### **6. Meeting Dates**

Mr. Farrell suggested the second Thursdays of the month, on a quarterly basis, would work well. We want to avoid meeting in August. The next meeting would take place Thursday, April 9, from 1 p.m. to 3 p.m. Another meeting might follow on July 9<sup>th</sup>. It was suggested that there might not be enough business to justify a meeting so soon. Mr. Farrell replied that he hoped that there would be sufficient action items to justify another meeting. If not we might have to cancel or delay the meeting. Four meetings per year is probably not excessive.

### **7. Adjourned.**