

# Second Quarter 2011 Performance Measures Report

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Hampton Roads  
Transportation Operations Center





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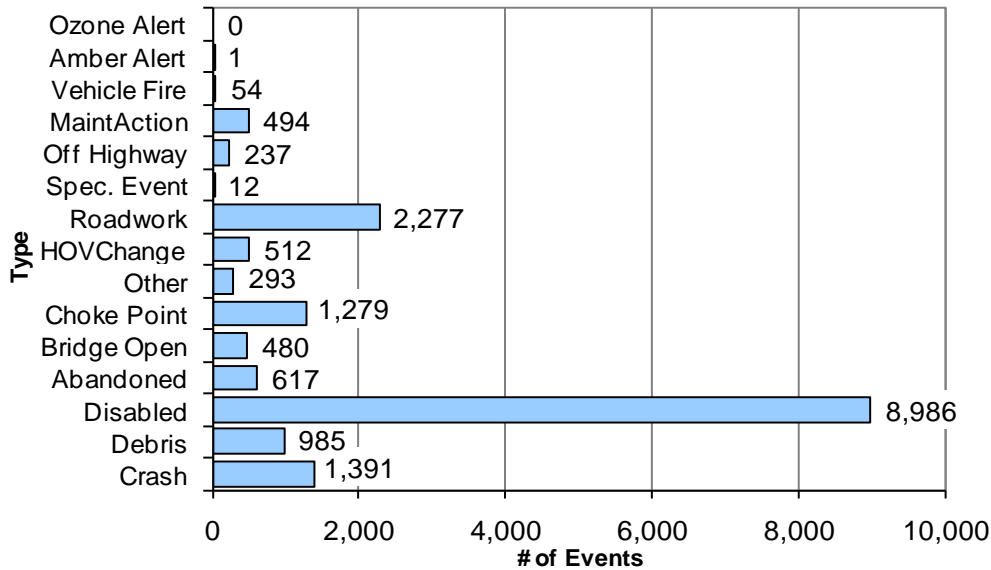
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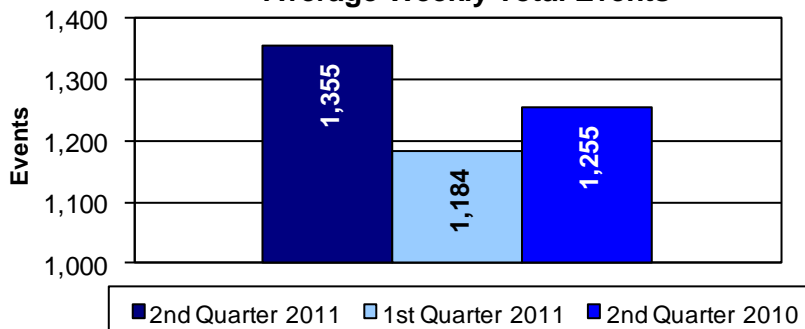
## Control Room

Events Logged by Type



This graph enumerates event counts for the second quarter of 2011 and shows the value for each type: Ozone Alert, Amber Alert, Vehicle Fire, Maintenance Action, Off Highway, Special Event (i.e. motorcade), Roadwork, HOV Change (manual change to the HOV system from the control center), Other (i.e. police emergency), Choke Point (managing tunnel congestion), Bridge Opening, Abandoned Vehicle, Disabled Vehicle, Debris (ladder, mattress, animals, etc.) and Crash. The event type Disabled Vehicle made up 51% of the 17,618 total events logged by the HRTOC Control Room in the second quarter.

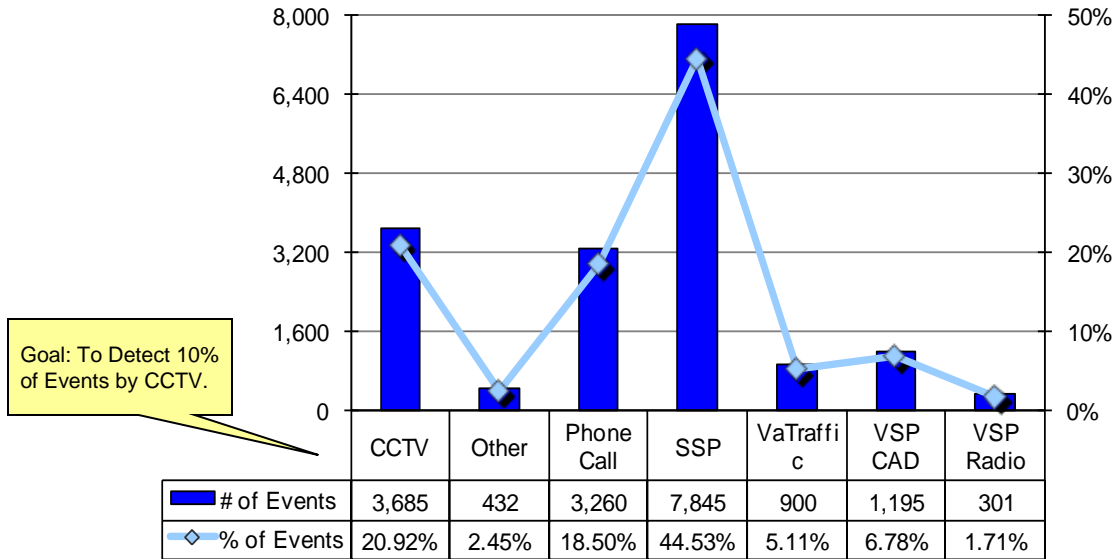
Average Weekly Total Events



Shown above are the weekly averages for events logged by the Control Room for the second quarter of 2011, the first quarter of 2011, and the second quarter of 2010. The second quarter of 2011 average of 1,355 events per week was up 8% from the second quarter of 2010 and up 14% from the first quarter 2011 weekly average.

## Control Room (Continued)

Events by Detection Source

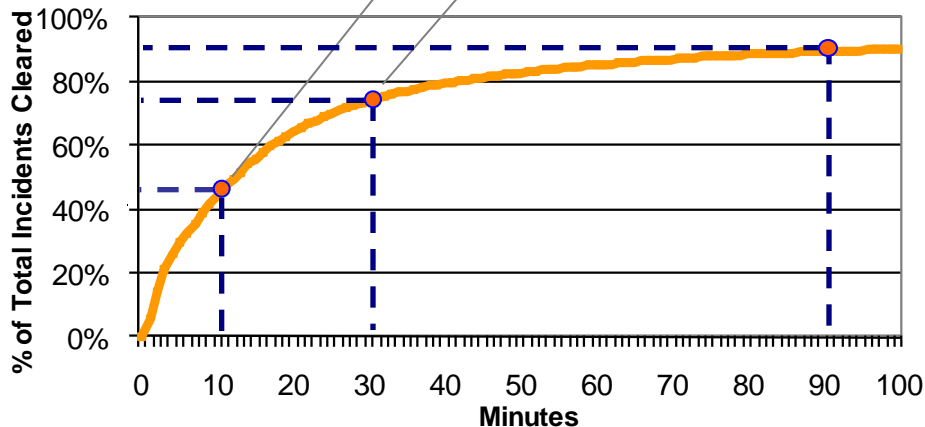


This graph provides a tally of the second quarter 2011 events, broken down by their detection source: CCTV [Closed Circuit Television], Other [i.e. field contractor, fire department, etc], Phone Call [public], SSP [Safety Service Patrol], VaTraffic [Virginia Traffic Information Management System] and Virginia State Police [VSP Radio or Computer Aided Dispatch]. Percents of total events logged are included.

## Second Quarter Event Clearance

At 10 minutes, 44.4% of total events or 7,822 events were cleared in the second quarter of 2011.

At 30 minutes, 74.1% of total events or 13,055 events were cleared in the second quarter of 2011.

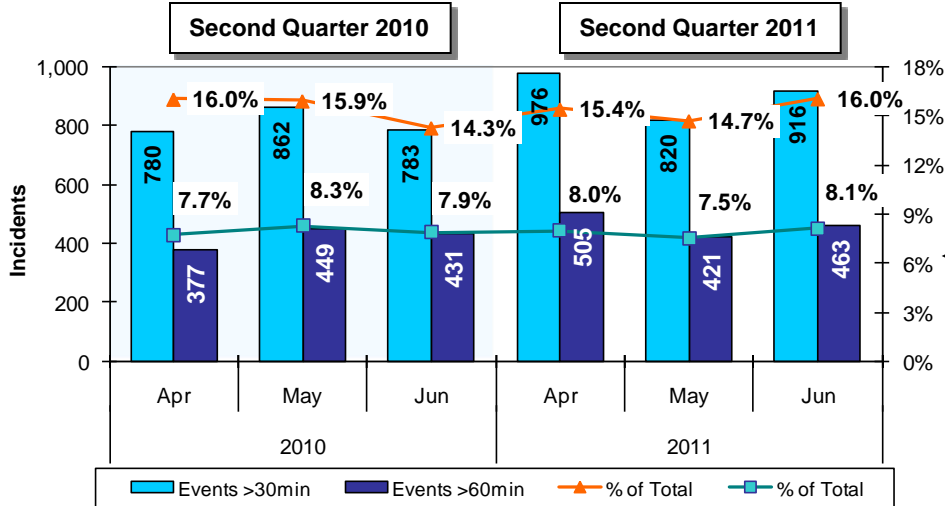


There were 17,618 events logged by the Hampton Roads Transportation Operations Center in the second quarter of 2011. Of the 17,618, 89.4% (15,750 events) were cleared within 90 minutes of verification.

## Control Room (Continued)

### Events Greater Than 30 and 60 Minutes

By month and by percentage of total events that month



**Incidents** are defined as unplanned events adversely impacting traffic flow such as crashes, debris removed, disabled vehicles and abandoned vehicles. Incidents often involve a Safety Service Patrol (SSP) response.

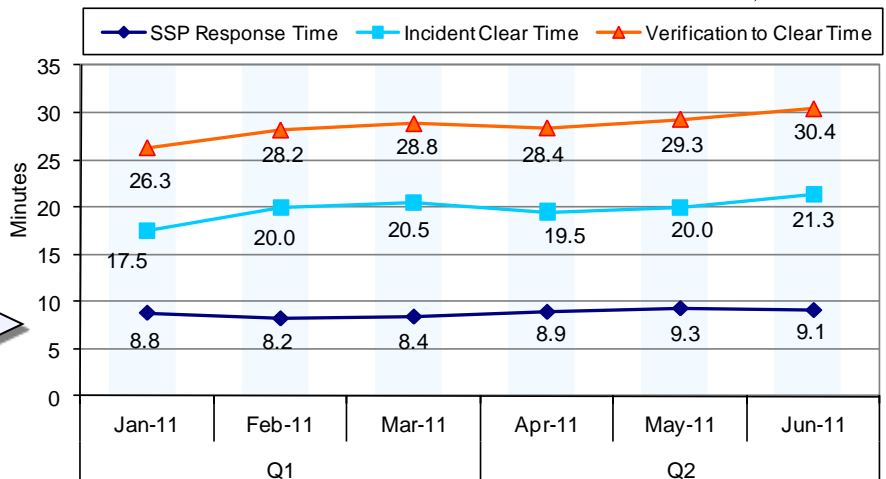
**Events** include the above defined Incidents, planned events (i.e. Roadwork), and special events (i.e. Amber Alerts).

This line graph shows the average SSP Response time - duration from the time an incident is verified to when a SSP truck arrives on scene (Note: SSP is *not* included as a detection source because this generally forces response time to be zero); the average Incident Clear Time - duration from SSP arrival until the incident is cleared or the SSP is relieved by an outside agency; and the total amount of time from initial verification to clearance for Q2 and Q1 2011.

In Q2 the average SSP response time and average incident clear time increased from Q1 causing the average incident duration to increase to 29 minutes from 28 minutes in Q1.

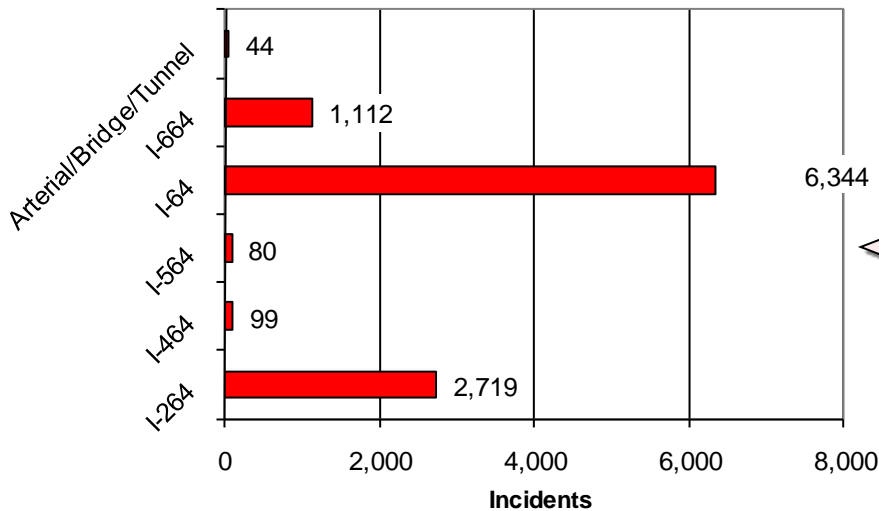
### Average Incident Duration

Goal:  
Average  
26 Minutes



## Safety Service Patrol

**Number of SSP Assists by Roadway**



This graph shows the number of SSP assists for each freeway monitored by the HRTOC. Also included are responses on arterial roads, bridges and tunnels.

This information can be used to plan future patrol areas and staffing levels.

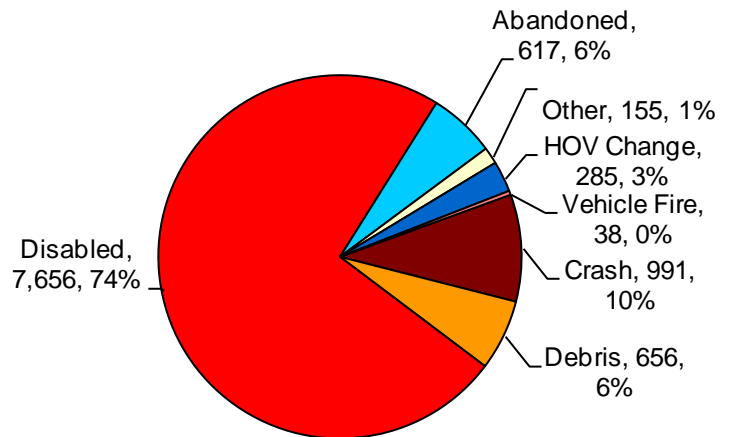
In the second quarter of 2011 SSP assists on I-64 made up 61% of the total 10,389 assists.

*Note:* I-64 responses include the assist type HOV Change.

**SSP Assists by Type**

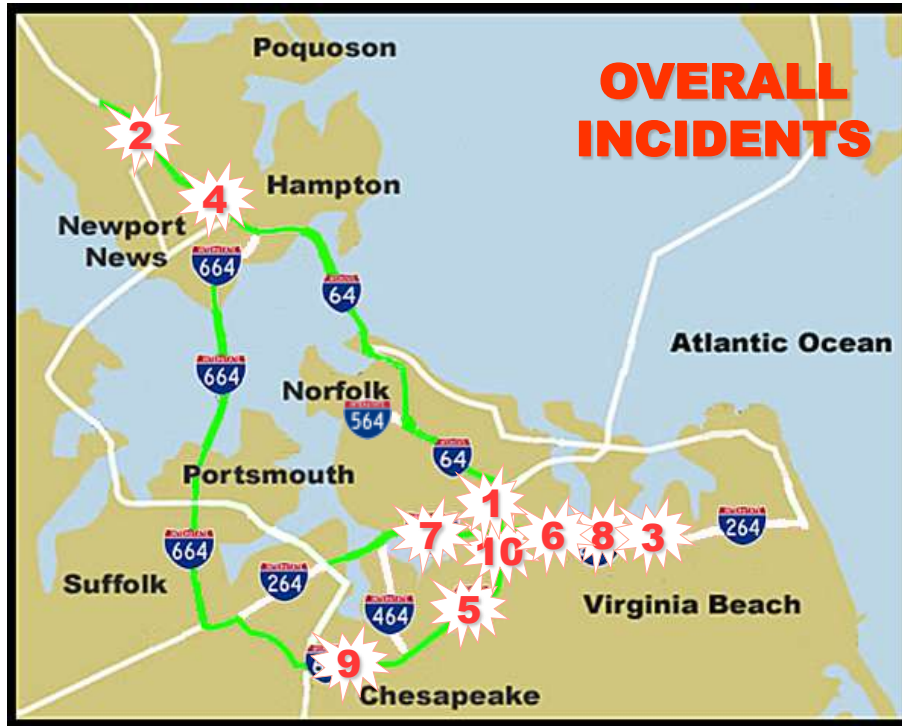
This pie chart shows the values for the major types of SSP assists. Types include Disabled Vehicles, Abandoned Vehicles, Other (i.e. traffic control for police activity), HOV Change, Vehicle Fire, Crash and Debris (i.e. ladders or animals in roadway).

This information is used for forecasting SSP vehicle equipment, future staffing requirements and short and long term consumable material (flares, batteries) needs.



## Safety Service Patrol (Continued)

### Most Active Hotspots



Ranking	Code	Location	# at Location	% of Total Incidents	Last Q Rank
1	64-11	64 / 264 Interchange - Northampton Blvd	615	5.14%	1
2	64-36	Jefferson Ave - Fort Eustis Blvd	559	4.68%	3
3	264-20	Independence Blvd - Rosemont Rd	502	4.20%	2
4	64-33	Hampton Roads Center Pkwy - J Clyde Morris Blvd	408	3.41%	4
5	64-08	Greenbrier Pkwy - Indian River Rd	406	3.40%	5
6	264-18	Newtown Rd - Witchduck Rd	382	3.20%	6
7	264-13	Ballentine Blvd - Broad Creek Bridge	327	2.74%	9
8	264-19	Witchduck Rd - Independence Blvd	299	2.50%	7
9	64-03	Rte 17 - High Rise Bridge (east side of bridge)	280	2.34%	8
10	64-10	Twin Bridges - 64 / 264 Interchange	252	2.11%	12
<b>TOTAL INCIDENTS</b>			<b>11,955</b>	<b>33.71%</b>	

This table and accompanying map depict the highest overall incident occurrence locations for April 1, 2011 through June 30, 2011. The Hampton Roads area has been divided into 104 geographic locations. The incident types included to make up the overall most active spots include abandoned vehicles, vehicles involved in crashes, debris removed from the roadway, as well as responses to disabled vehicles. Also included in the table are the rankings of locations for the first quarter of 2011 (Last Q). The knowledge of active incident locations, as well as the comparison to previous active locations, will allow management to detect emerging patterns and plan SSP staffing and routes in relation to those areas requiring the most attention. The SSP routes are highlighted on the map in green.

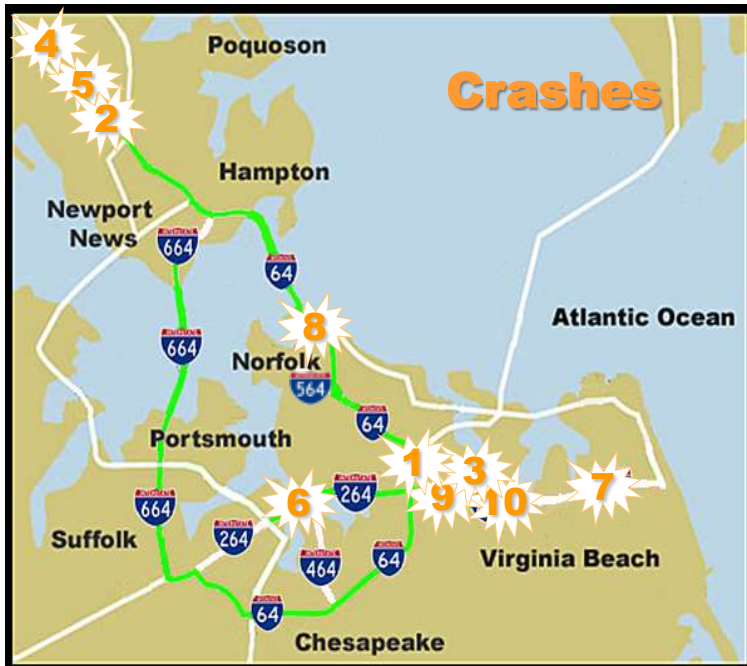
The charts that follow contain similar information that has been separated into the four incident types (abandoned, crashes, debris and disabled).

## Safety Service Patrol (Continued)

### Most Active Hotspots (Continued)

Ranking	Location	# at Location	% of Total Abandoned	Last Q Rank
1	64-33	39	6.31%	4
2	264-20	31	5.02%	3
3	64-36	30	4.85%	2
4	64-11	25	4.05%	1
5	64-32	23	3.72%	12
6	64-03	21	3.40%	10
7	64-08	20	3.24%	5
8	264-13	20	3.24%	9
9	264-21	19	3.07%	13
10	64-07	19	3.07%	26
<b>TOTAL ABANDONED</b>		<b>618</b>	<b>39.97%</b>	

Ranking	Code	Location
1	64-33	Hampton Roads Center Pkwy - J Clyde Morris Blvd
2	264-20	Independence Blvd - Rosemont Rd
3	64-36	Jefferson Ave - Fort Eustis Blvd
4	64-11	64 / 264 Interchange - Northampton Blvd
5	64-32	Magruder Blvd - Hampton Roads Center Pkwy
6	64-03	Rte 17 - High Rise Bridge (east side of bridge)
7	64-08	Greenbrier Pkwy - Indian River Rd
8	264-13	Ballentine Blvd - Broad Creek Bridge
9	264-21	Rosemont Rd - Lynnhaven Pkwy
10	64-07	Battlefield Blvd - Greenbrier Pkwy

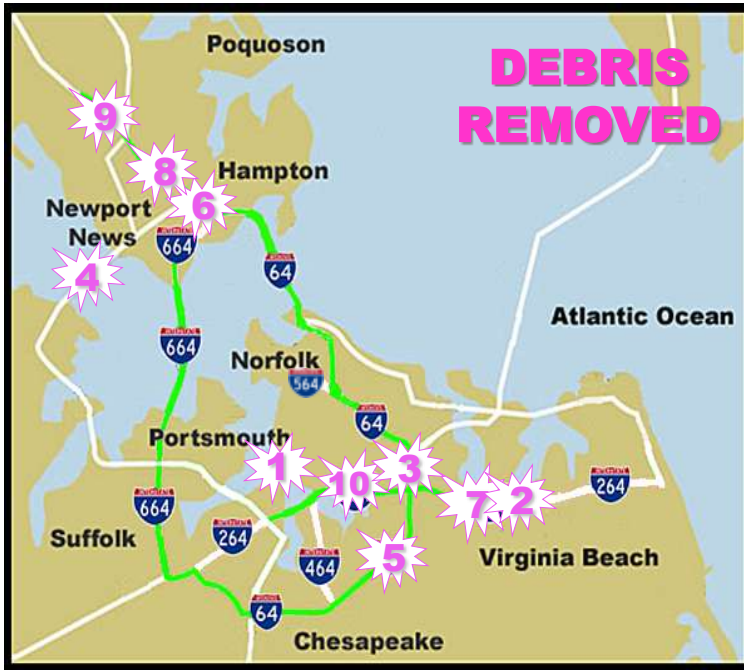


Ranking	Location	# at Location	% of Total Accidents	Last Q Rank
1	64-11	84	6.04%	1
2	64-36	63	4.53%	24
3	264-18	58	4.17%	2
4	64-38	47	3.38%	26
5	64-37	42	3.02%	14
6	264-08	41	2.95%	5
7	264-22	35	2.52%	10
8	64-22	32	2.30%	51
9	264-17	31	2.23%	4
10	264-19	31	2.23%	6
<b>TOTAL ACCIDENTS</b>		<b>1,391</b>	<b>33.36%</b>	

Ranking	Code	Location
1	64-11	64 / 264 Interchange - Northampton Blvd
2	64-36	Jefferson Ave - Fort Eustis Blvd
3	264-18	Newtown Rd - Witchduck Rd
4	64-38	Yorktown Rd - Rte 199
5	64-37	Fort Eustis Blvd - Yorktown Rd
6	264-08	Downtown Tunnel (inside tunnel)
7	264-22	Lynnhaven Pkwy - Laskin Rd
8	64-22	4th View Ave - Willoughby Bridge
9	264-17	64 / 264 Interchange - Newtown Rd
10	264-19	Witchduck Rd - Independence Blvd

## Safety Service Patrol (Continued)

### Most Active Hotspots (Continued)



Ranking	Location	# at Location	% of Total Debris	Last Q Rank
1	Midtown	72	7.31%	1
2	264-20	46	4.67%	2
3	64-11	46	4.67%	3
4	JRB	46	4.67%	6
5	64-08	31	3.15%	9
6	64-31	26	2.64%	11
7	264-19	24	2.44%	4
8	64-33	24	2.44%	12
9	64-36	24	2.44%	24
10	264-13	23	2.34%	20
TOTAL DEBRIS		985	36.75%	

Ranking	Code	Location
1	Midtown	Inside the Midtown Tunnel
2	264-20	Independence Blvd - Rosemont Rd
3	64-11	64 / 264 Interchange - Northampton Blvd
4	JRB	On the James River Bridge
5	64-08	Greenbrier Pkwy - Indian River Rd
6	64-31	Mercury Blvd - Magruder Blvd
7	264-19	Witchduck Rd - Independence Blvd
8	64-33	Hampton Roads Center Pkwy - J Clyde Morris Blvd
9	64-36	Jefferson Ave - Fort Eustis Blvd
10	264-13	Ballentine Blvd - Broad Creek Bridge

Ranking	Location	# at Location	% of Total Disabled	Last Q Rank
1	64-11	460	6.13%	1
2	64-36	442	5.89%	3
3	264-20	406	5.41%	2
4	64-08	338	4.51%	5
5	64-33	331	4.41%	4
6	264-18	290	3.87%	6
7	264-13	257	3.43%	10
8	264-19	230	3.07%	9
9	64-03	220	2.93%	7
10	64-10	204	2.72%	11
TOTAL DISABLED		8,996	42.38%	

Ranking	Code	Location
1	64-11	64 / 264 Interchange - Northampton Blvd
2	64-36	Jefferson Ave - Fort Eustis Blvd
3	264-20	Independence Blvd - Rosemont Rd
4	64-08	Greenbrier Pkwy - Indian River Rd
5	64-33	Hampton Roads Center Pkwy - J Clyde Morris Blvd
6	264-18	Newtown Rd - Witchduck Rd
7	264-13	Ballentine Blvd - Broad Creek Bridge
8	264-19	Witchduck Rd - Independence Blvd
9	64-03	Rte 17 - High Rise Bridge cut through (east side)
10	64-10	Twin Bridges (Norfolk Side) - 64 / 264 Interchange

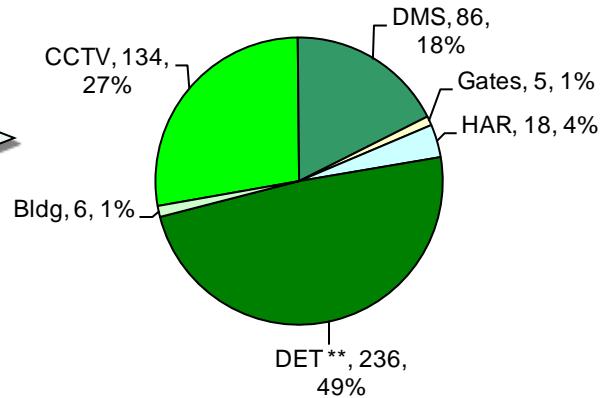


## Field Maintenance

**Number of PM Tasks by Equipment Type**

This chart and the accompanying table show the preventive maintenance (PM) tasks completed during the second quarter of 2011. In addition to the five main equipment categories shown in the table, the chart includes HRTOC building PM tasks. These figures do not include other PM tasks related to electronics, safety inspections, fiber & communication equipment and utility locating.

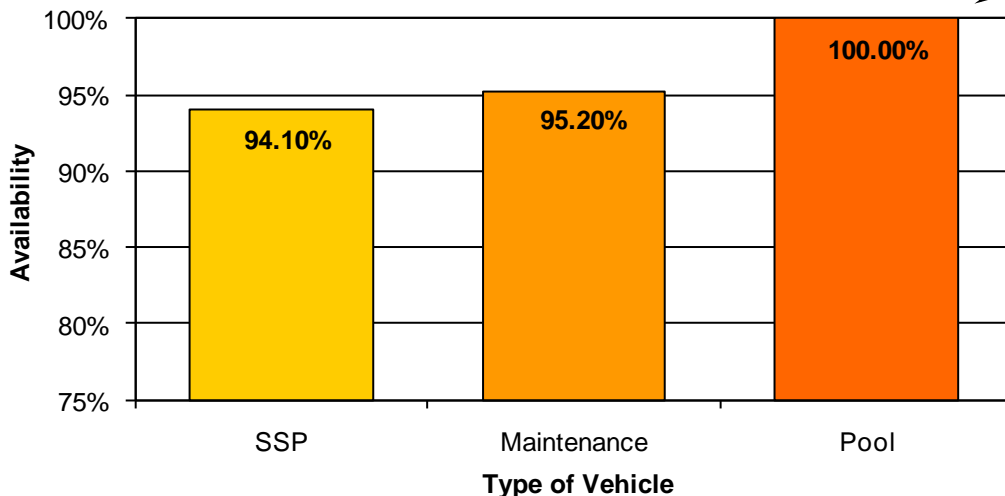
This information helps management allocate PM resources (equipment) and keep to the established preventive maintenance schedule.



\*\* DET refers to maintenance for detector cabinets.

## Fleet and Asset Management

**HRTOC Vehicle Average Availabilities**

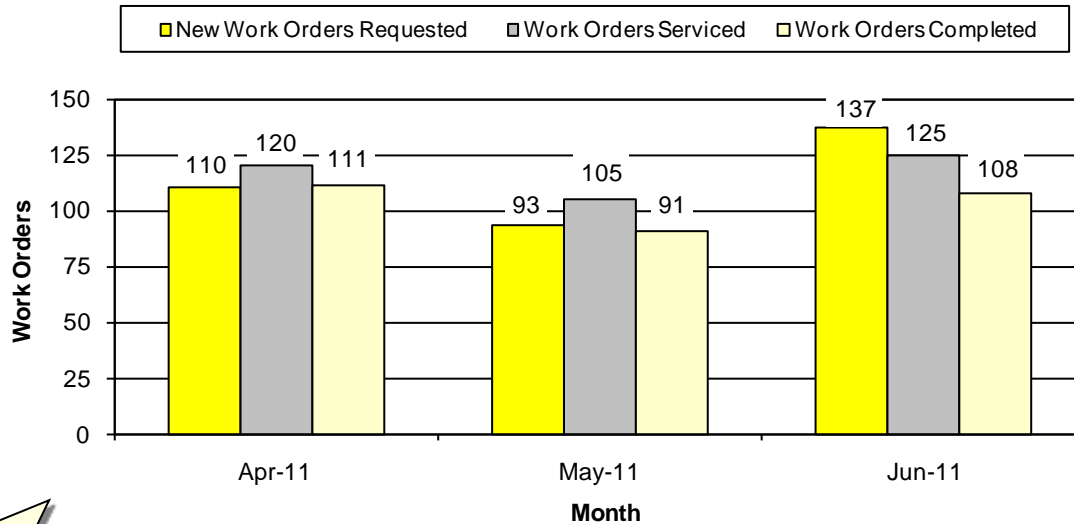


Goal: To Maintain 100% Availability for all Vehicle Types.

These three bars show what percentage of the 58 total SSP, Maintenance and Pool vehicles were available for use during the second quarter of 2011. These numbers measure fleet service effort and success rates.

## Information Technology

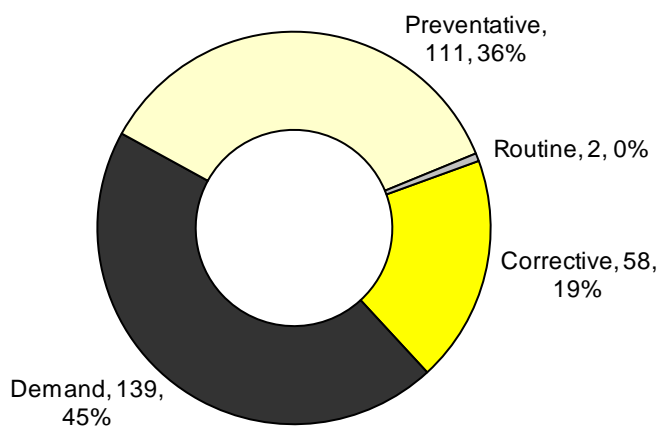
### Work Orders Submitted to/Service by IT



The above bar graph shows the number of work orders requested, serviced and completed by the IT Department for the second quarter of 2011. The majority of the 310 completed work orders were requests related to 'Applications' (such as installing, modifying, uninstalling and resolving issues with software) and were completed with in an average of 38 hours from the time a work order was entered into the system by a HRTOC employee.

This metric helps track IT Department workloads, in support of staff/resource allocation and scheduling.

### IT Facility Maintenance Activity



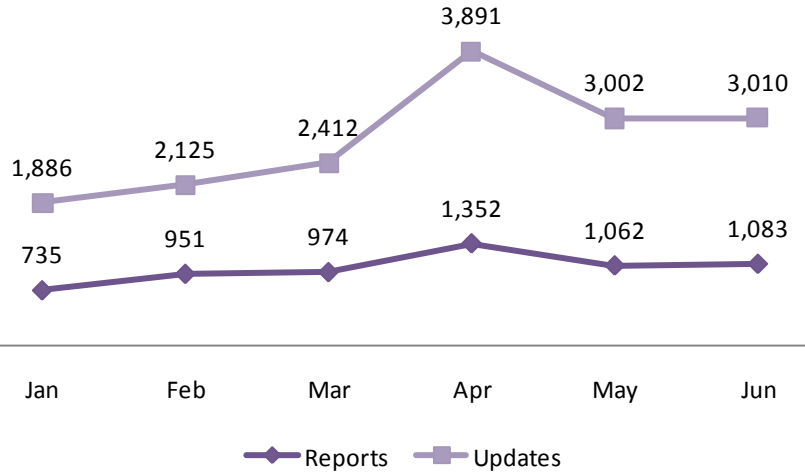
This donut graph shows IT Department tasks completed during Q2 for work types: corrective - "My printer is not working, please fix it"; demand - "I need a new printer"; preventive - regular PM on a schedule; and routine - a replacement printer every three years, for example.

The breakout supports management in the allocation of staff, equipment and budget resources at the HRTOC.

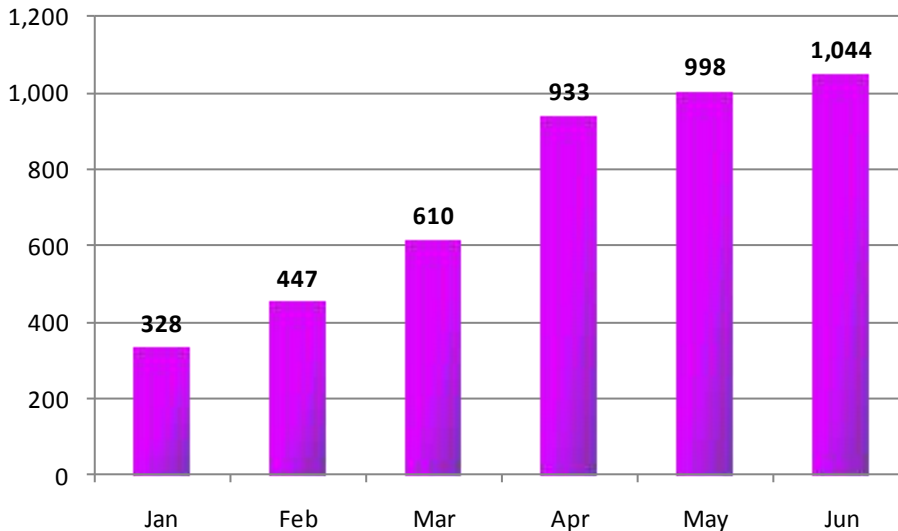
## Public Information

### VaTraffic Reports & Updates

The travel information entered by HRTOC Control Room Operators into VaTraffic feeds the 511 system. 511 is a resource for motorists that includes real-time traffic conditions, route planning, and information about alternative travel methods. There are two primary ways to access the information— on the web at [511virginia.org](http://511virginia.org) and the 511 phone number. Keeping VaTraffic updated enables motorists to make informed travel decisions. As events progress HRTOC Operators enter updates into VaTraffic including changes to lane closures, incident clearance, and congestion delays.



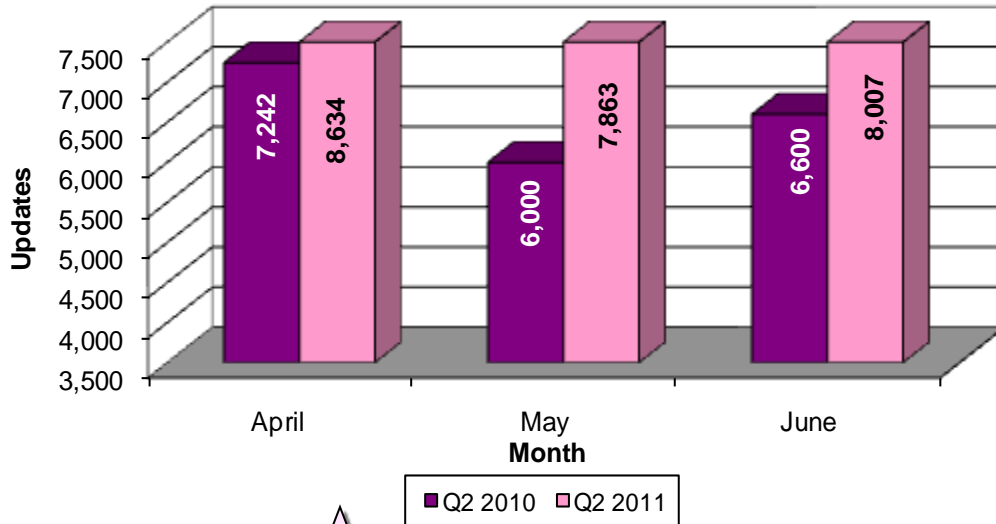
### Hampton Roads Lane Closure Counts



The HRTOC began using LCAMS (Lane Closure Advisory and Management Systems) on May 1<sup>st</sup> 2011. LCAMS is a program that allows users in Hampton Roads to quickly add and modify lane closures as well as determine if a lane closure conflicts with any existing entries. Information entered in LCAMS is used to generate the weekly Hampton Roads Area Lane Closure Forecast that is posted on the VDOT website. Prior to LCAMS lane closures had to be manually reviewed one at a time to check for conflicts and then entered in the weekly Hampton Roads Area Lane Closure Forecast.

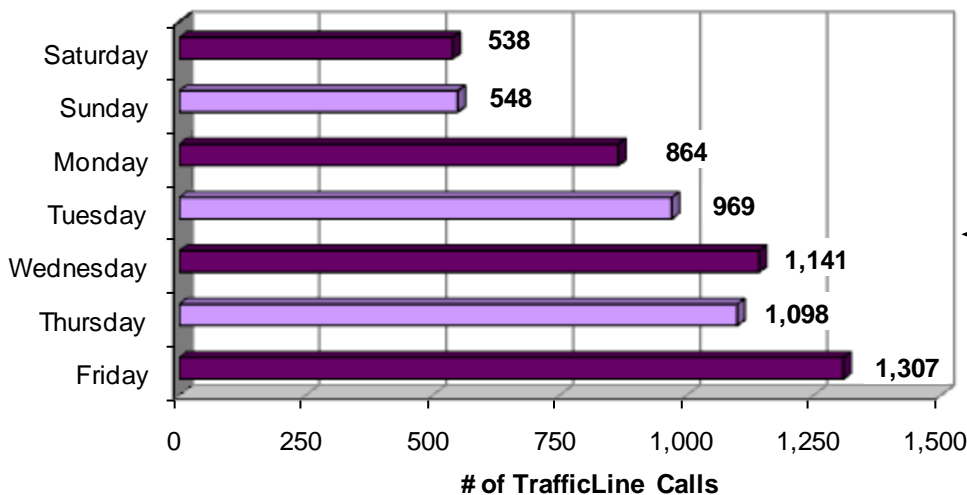
## Public Information

### Highway Advisory Radio Updates



In order to advise the public of current traffic conditions on Hampton Roads highways the Highway Advisory Radio (HAR) messages are updated several times during the day. The above graph tallies the number of updates made to the HAR system during the second quarter of 2010 and 2011 by month. An average day during the second quarter of 2011 registered about 269 updates to the HAR system, 51 more per day than the same period of 2010. The HAR increases over 2010 counts follow the trend of the total event count increase in Q2 2011 over 2010.

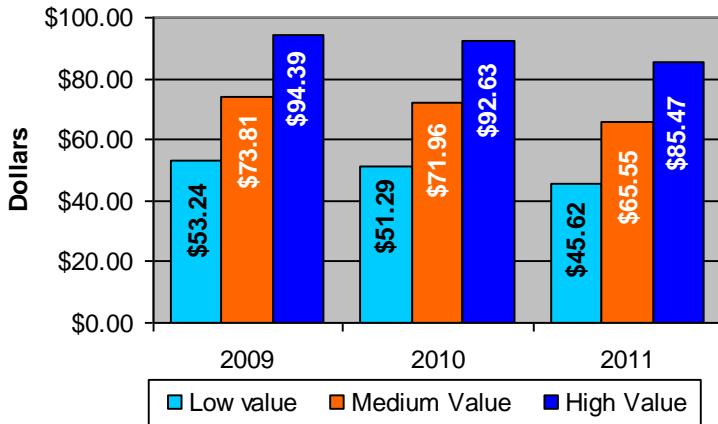
### Hampton Roads TrafficLine Calls



In December 2006, VDOT launched Hampton Roads TrafficLine, (757) 361-3016, as another method to inform motorists of road conditions and traffic delays. The graph depicts the 6,465 TrafficLine calls in the second quarter of 2011 by day of the week.

## Customer Service\*

### What Value Would You Place on the Services Received from the SSP Program?

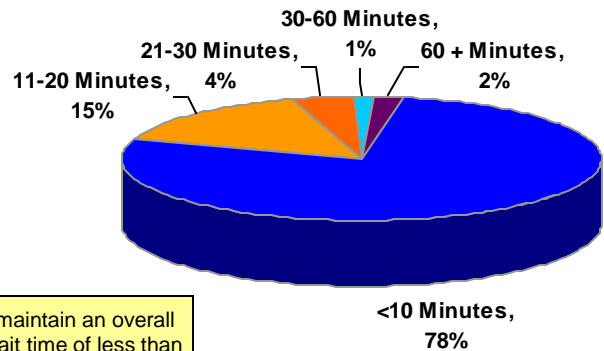


This graph depicts the perceived value that assisted motorists place on SSP services. Because the survey asks participants to choose a value within a monetary range (e.g. \$50-\$100), a range of values has also been shown here. After adjusting for inflation, the average survey participant values each assist between \$45.62 and \$85.47 through the second quarter of 2011.

The numbers depicted in this pie chart show the length of time a motorist waited before a SSP driver arrived. This information goes beyond what is in our database, as we are typically unaware of how long a motorist has been waiting when the control room verifies the incident.

210 valid responses were collected in Q2. Using the midpoint for each range of time, the overall average wait time before SSP arrival was just slightly below 9 minutes for the second quarter of 2011.

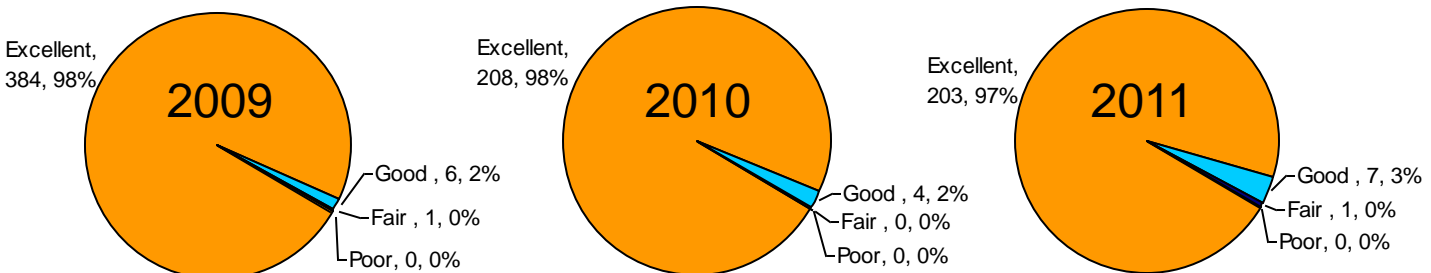
### How Long Did You Wait For the SSP Driver?



Goal: To maintain an overall average wait time of less than 9 minutes

These pie charts compare the overall SSP service rating for the second quarters of 2009, 2010 and 2011. The majority (97% or better) of ratings were Excellent in all 3 quarters.

### Overall, How Would You Rate the SSP Service?



\* All of the information on this page was gathered from the SSP comment cards given to assisted motorists.