VDOT
Stephany Hanshaw
Manager - Smart Traffic Center
Hampton Roads
970 Reon Drive
Virginia Beach, VA 23464

Mobility

Making a good program better.

Week Ending April 27, 2007

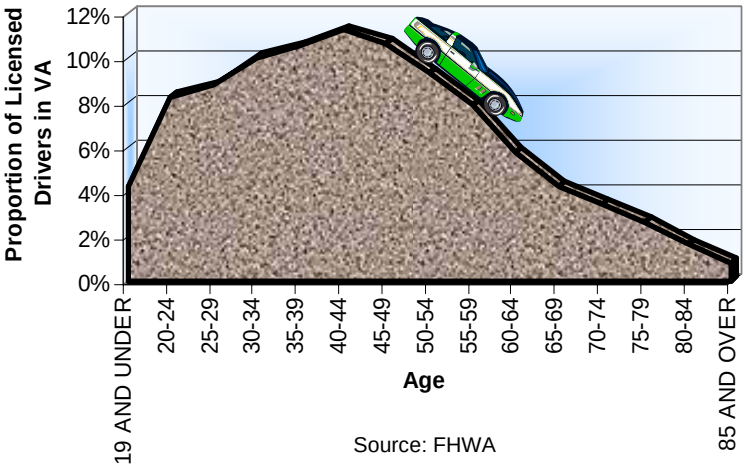
Our Mission: Traveler Services; 100% accurate, anywhere, anytime

- Congratulations to our new Employee of the Quarter and Leader of the Quarter! Administrative Assistant, Lisa Bowen, and Field Maintenance Foreman, Ryan Doyle, were recognized for their contributions to the STC at the April 27th BBQ. Congratulations to both Lisa and Ryan – they truly deserve this recognition!
- Looking for old editions of this report? Past Weekly and Quarterly Reports are currently available at the main VDOT Website. You can view the reports by visiting:

  http://www.virginiadot.org/travel/smart-traffic-center-hro-op-maint.asp
- Last week recorded the highest number of SSP Responses / Control Room Events in 2006 or 2007! The STC has operated at nearly a full staff level for the past few months which can partly account for the increase in incident numbers.

Stat of the Week

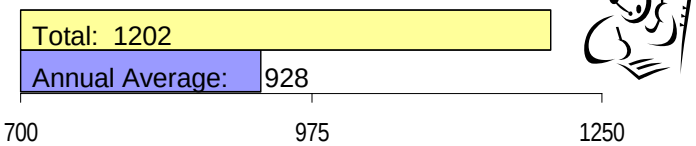
The below graph depicts the proportion of licensed drivers per age group in Virginia. A licensed driver in Virginia is most likely to be a 40-44 year old female.



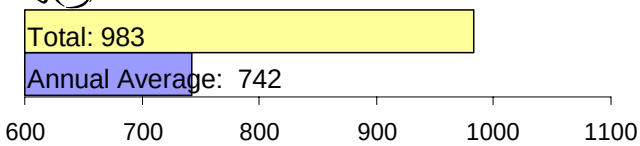
Source: FHWA

Operations & Maintenance Summary

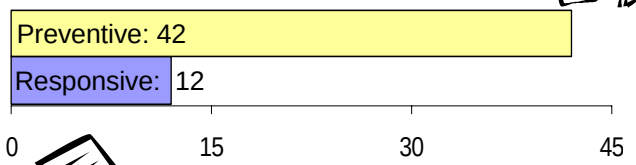
Number of events responded to from the Control Room last week:



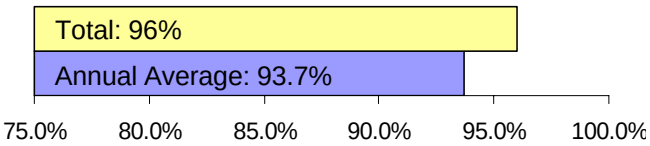
Total number of drivers assisted by Safety Service Patrollers last week:



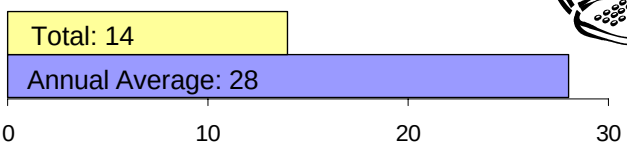
Number of field equipment responsive and preventive repairs made last week:



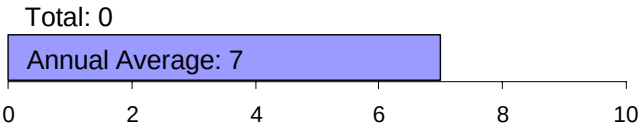
SSP Truck Availability Last Week:



IT Work Orders completed last week:



Press Releases by Month:



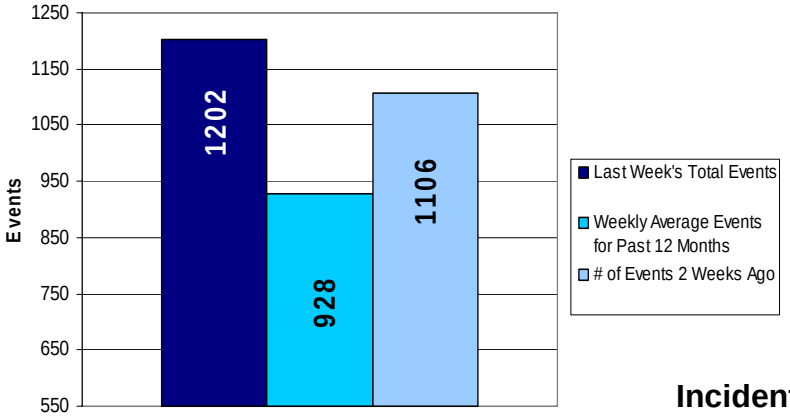
Smart Traffic Center HAMPTON ROADS

Performance Metrics

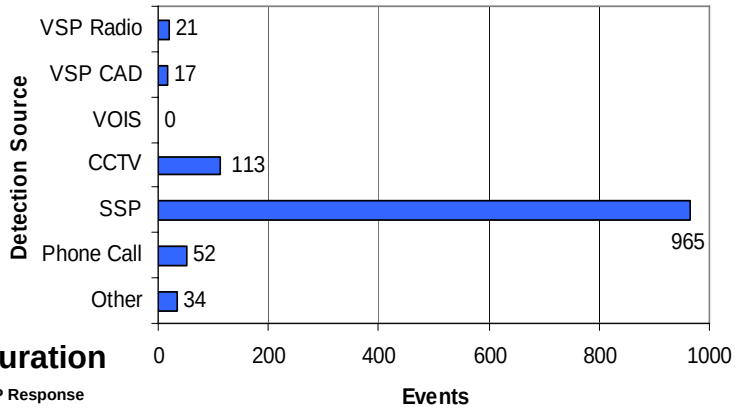
Data Key is located on pages 8-12

Operations

Number of Events Logged by the Control Room



Events by Detection Source

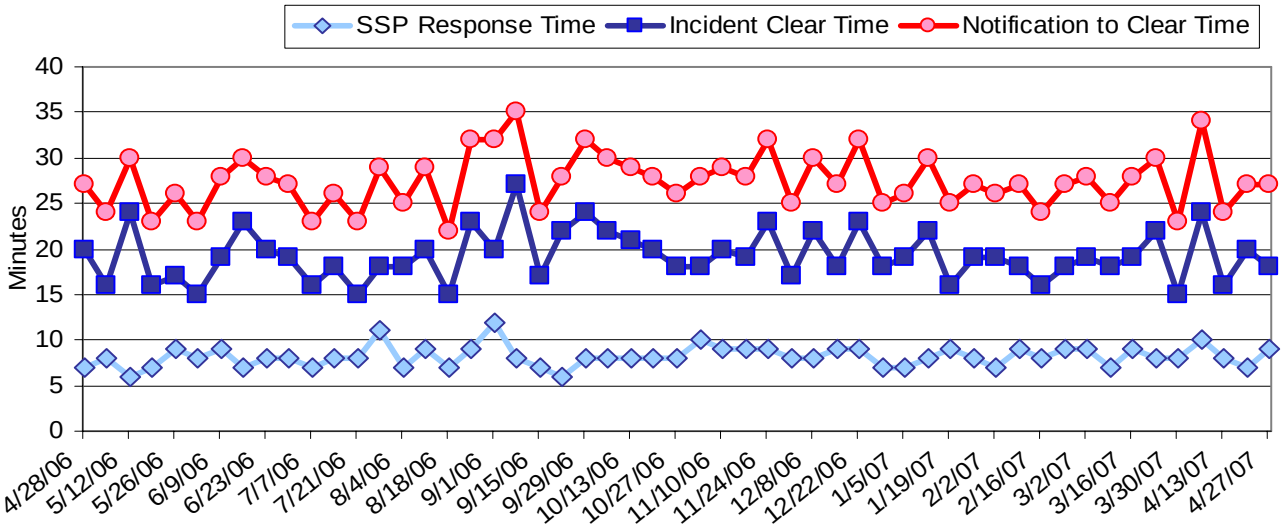


Incident Duration

Notification > SSP Response

SSP Response > Incident Clear Time

Notification > Incident Clear Time

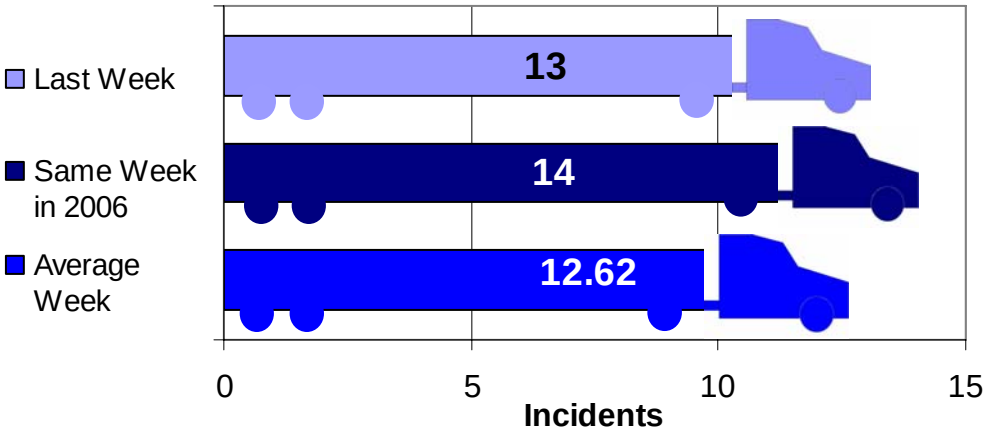


Need Clarification?

A Data Key starting on page 8 provides explanations for every chart in this report.

Note: Definitions for 'Incident' and 'Event' are located on page 9 of the Data Key

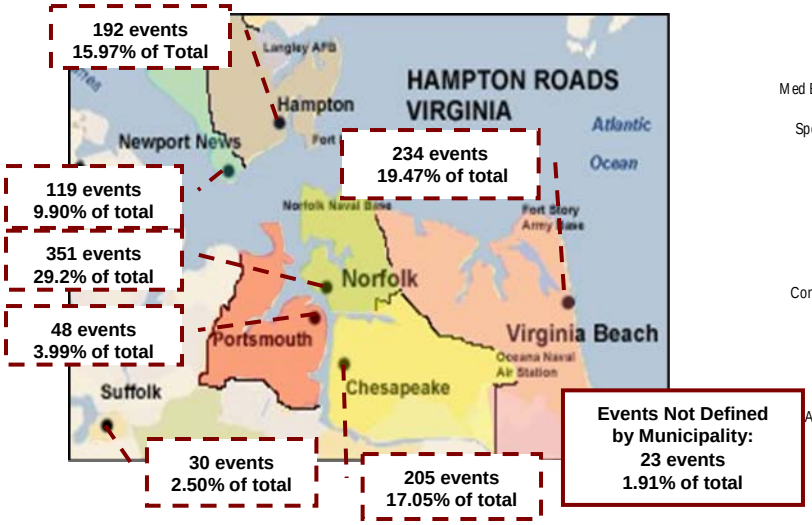
Number of Incidents Involving Tractor Trailers



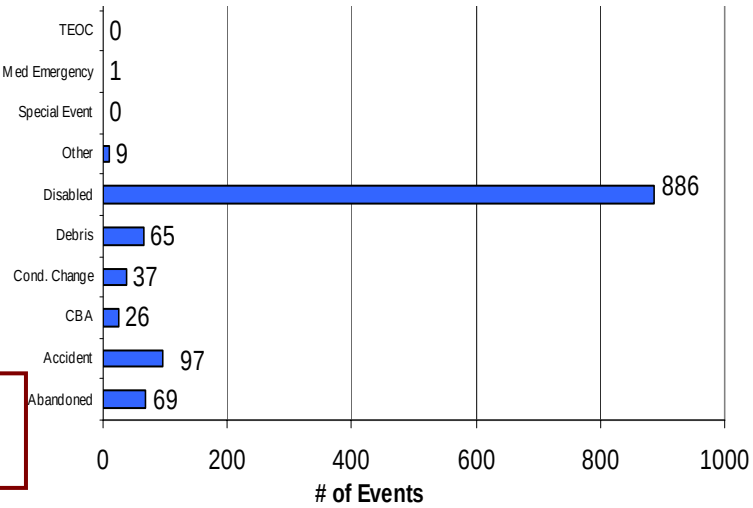
Data Key is located on pages 8-12

Operations

Weekly Total Events by Geographic Location



Events Logged by Type

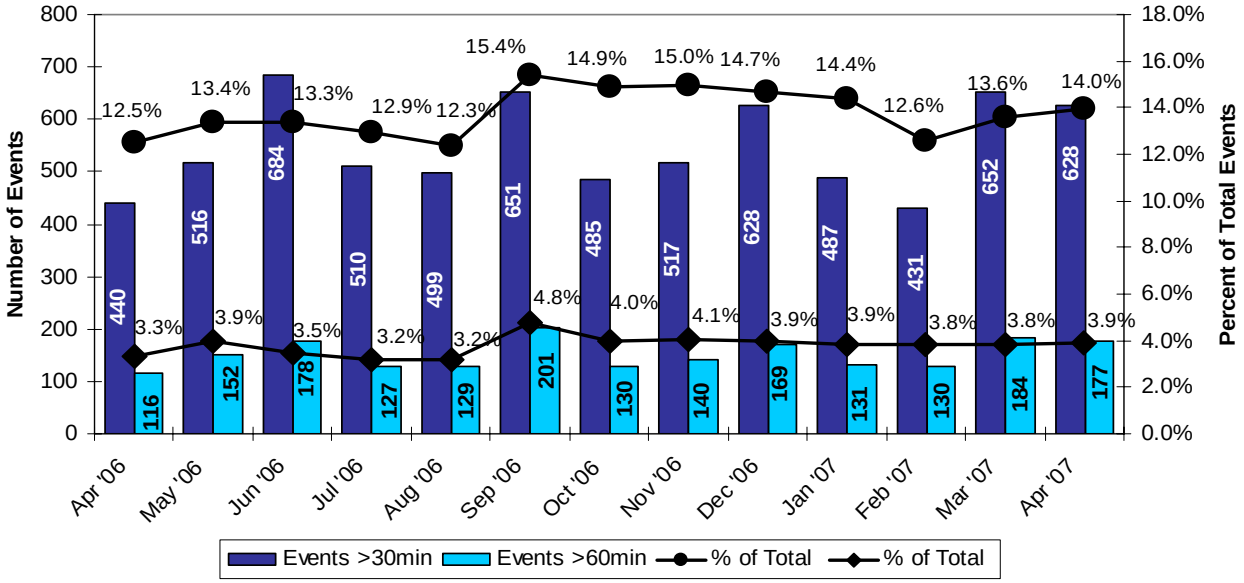


	Norfolk	Virginia Beach	Hampton	Chesapeake	Newport News	Suffolk	Portsmouth
27-Apr	351	234	192	205	119	30	48
20-Apr	381	172	178	169	121	18	39
13-Apr	335	197	164	197	90	28	40
6-Apr	320	233	164	198	100	28	44
30-Mar	319	205	132	192	78	29	48
23-Mar	347	186	145	177	26	35	26

Note: Definitions for 'Incident' and 'Event' are located on page 9 of the Data Key

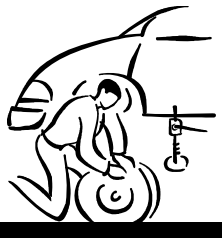
Events Greater Than 30 and 60 Minutes

By month and by percentage of total incidents that month



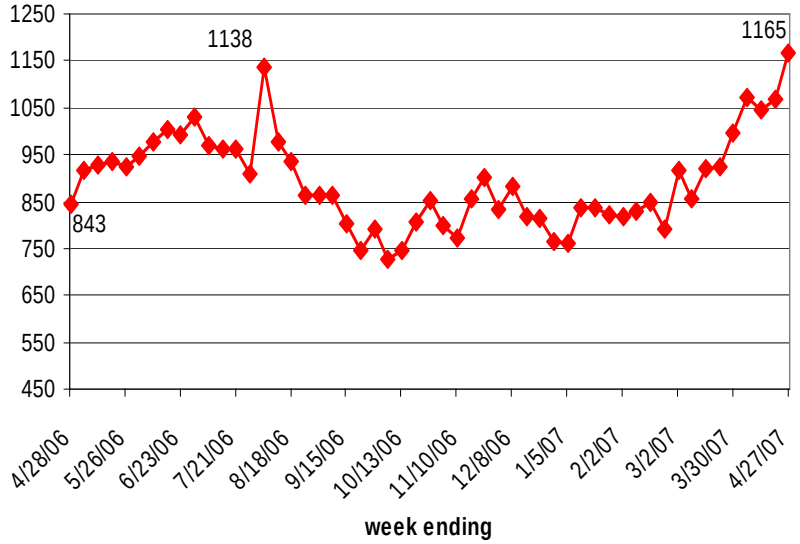
Data Key is located on pages 8-12

Operations

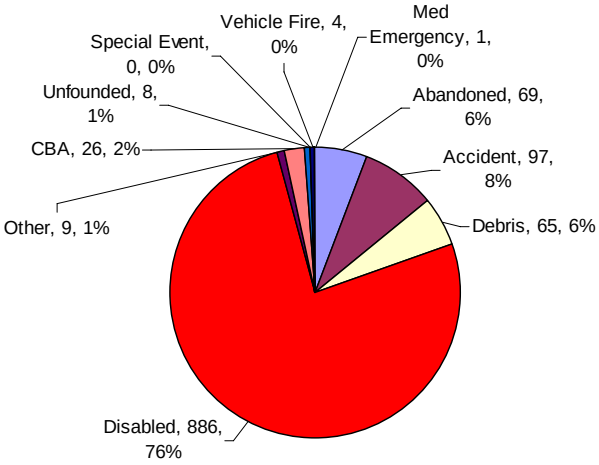


Total SSP Responses

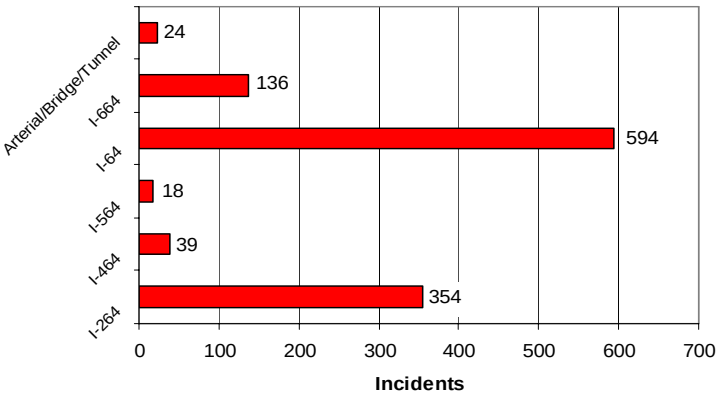
By week for the preceding year



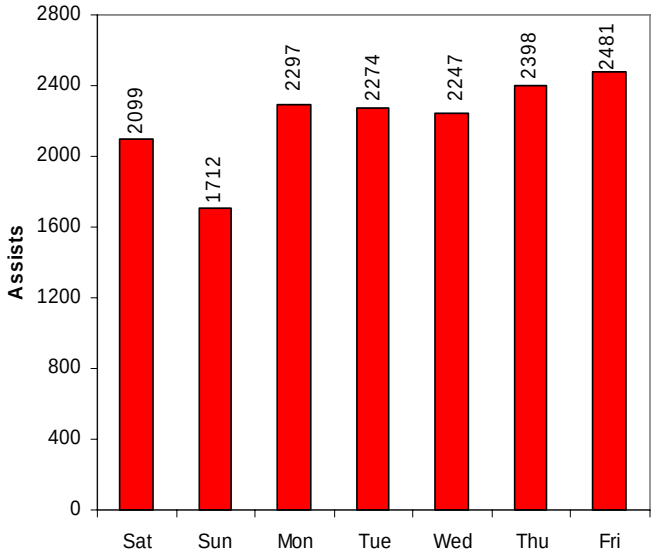
SSP Assists by Type



Number of SSP Assists by Roadway



Total YTD Assists by Day-of-Week



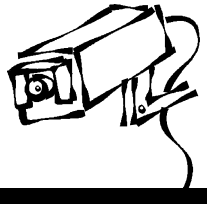
Most Active Hot-Spots

	Most Active	Interstate	Segment ID	# of Incidents	% of System wide
1	Abandoned	I-64	P64-08	7	10.1%
2	Accidents	I-64	E64-01	6	6.2%
3	Debris	I-64	P64-06	5	7.7%
4	Disabled	I-264	P64-01	33	3.7%

Segment ID: Descriptions	
P64-08	Victory - Jefferson/Airport
E64-01	64/264 Interchange - Twin Bridges
P64-06	Hampton Rds Center Pkwy - J. Clyde Morris
P64-01	Mallory/Hampton - Armistead/Lasalle

Data Key is located on pages 8-12

Maintenance

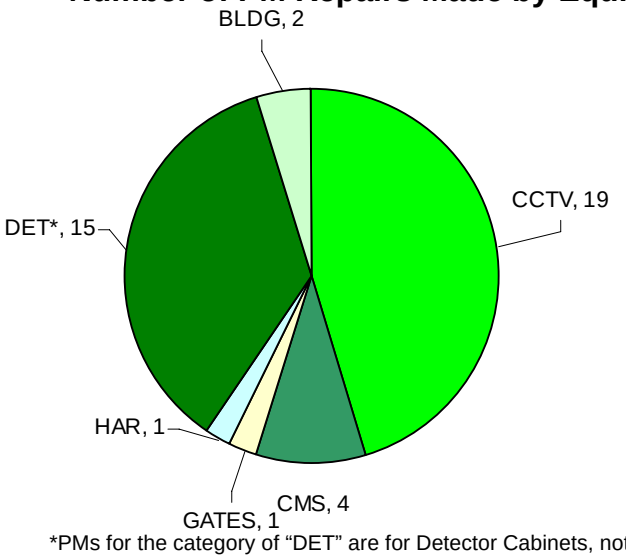


Current Field Device Operational Availability*

Component	Total	Not Working	Working	System Availability
CCTV	196	0	196	100%
CMS	168	7**	161	96%
GATES	5	0	5	100%
HAR	6	0	6	100%
DET***	390	149	241	62%

* Represents last weeks equipment availability as of Friday @ 1400
** Represents CMS signs with legibility limitations
*** Represents individual detector stations

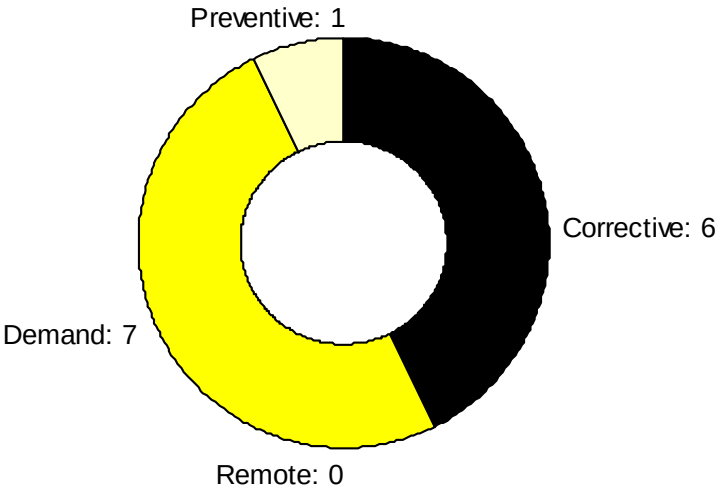
Number of PM Repairs Made by Equipment Type



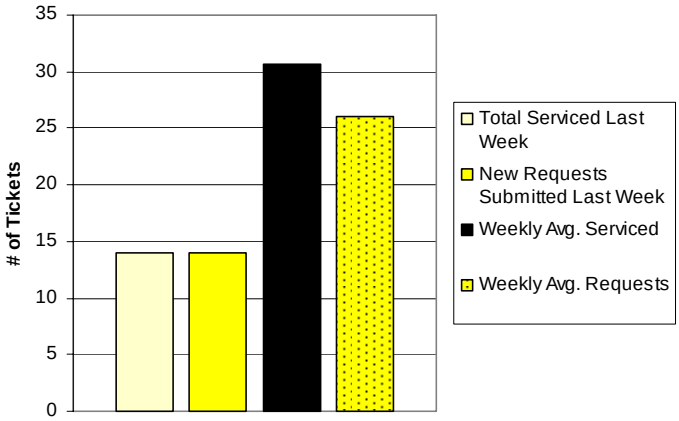
	56 Week Average
CCTV	7.0
CMS	5.9
GATES	0.7
HAR	0.9
DET	9.8
BLDG	4.6

*PMs for the category of "DET" are for Detector Cabinets, not Detector Stations

IT Facility Maintenance Activity



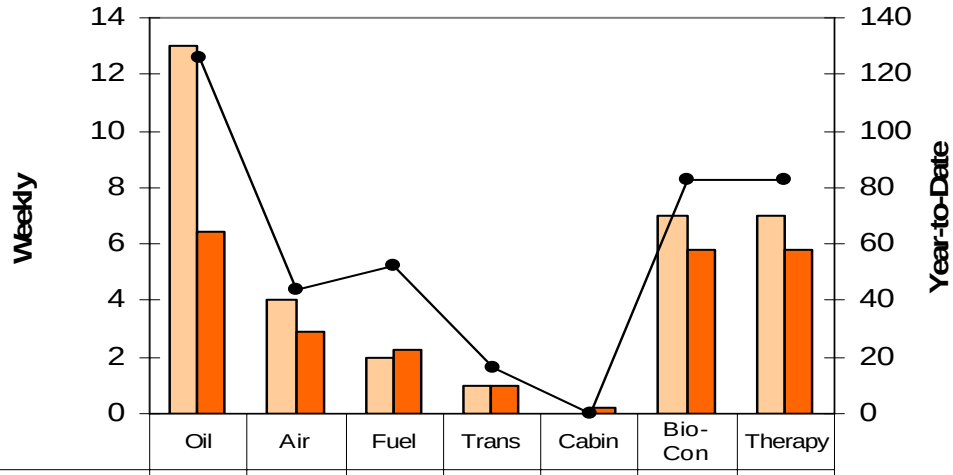
Work Orders Submitted to/Serviced by IT



Data Key is located on pages 8-12

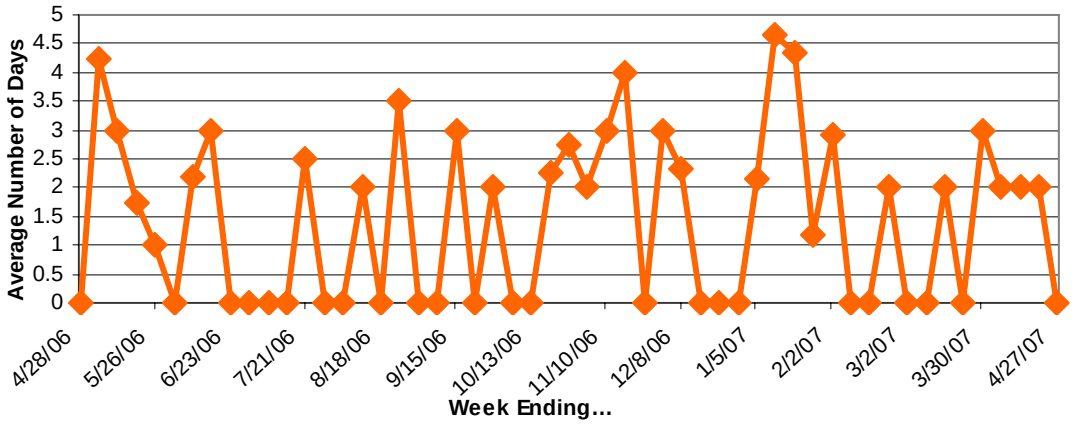
Maintenance

Completed Fleet Service Activities by Type



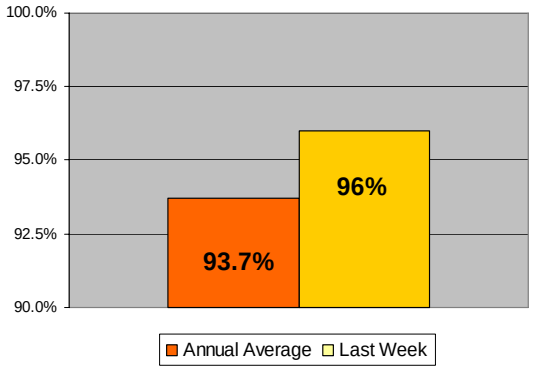
	Oil	Air	Fuel	Trans	Cabin	Bio-Con	Therapy
Last Week	13	4	2	1	0	7	7
Average	6	3	2	1	0	6	6
Total Completed YTD	126	44	52	16	0	83	83

Average Vehicle Return to Service Duration

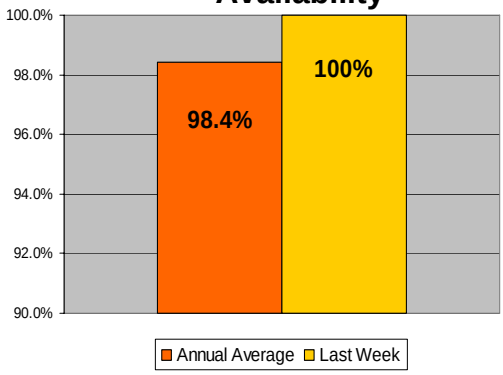


A value of 0 denotes that no vehicles were returned from the shop for that week

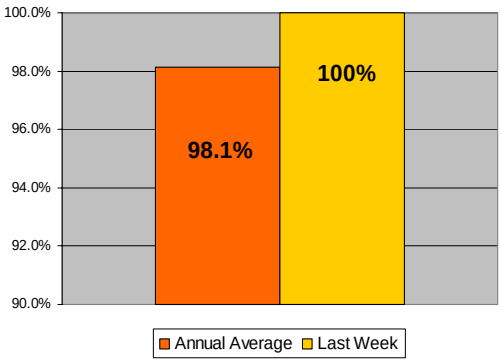
SSP Vehicle Availability



Field Maintenance Vehicle Availability

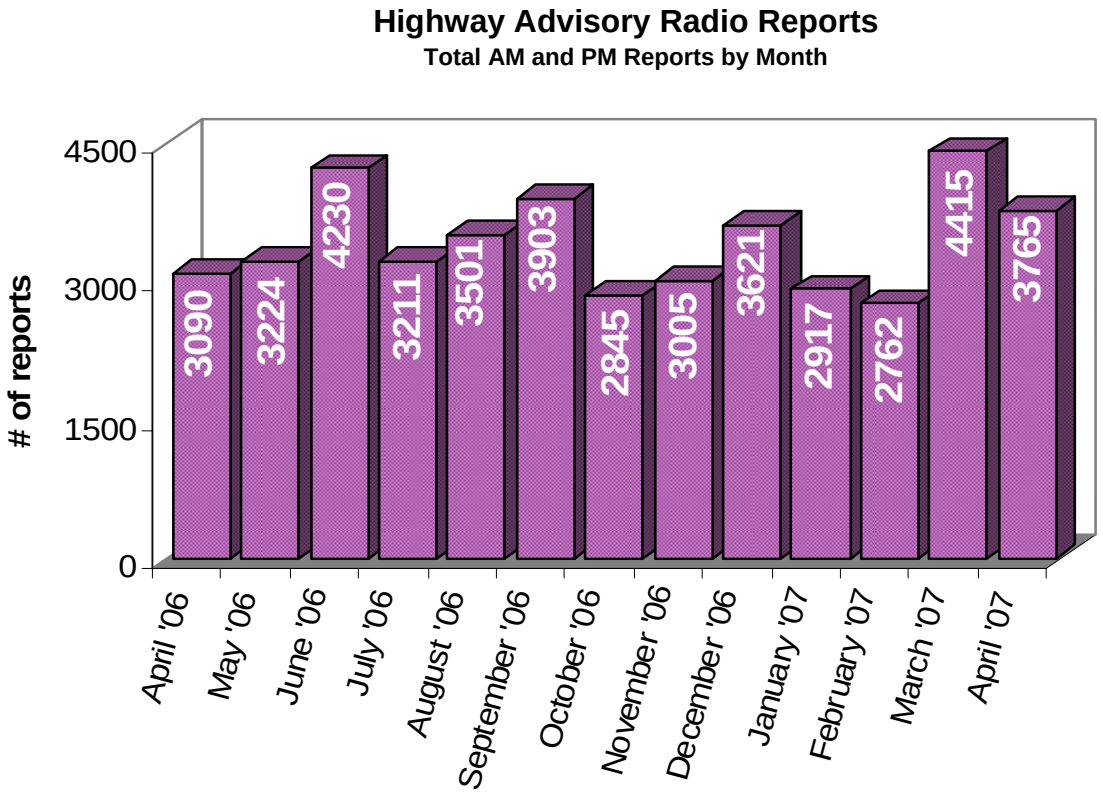


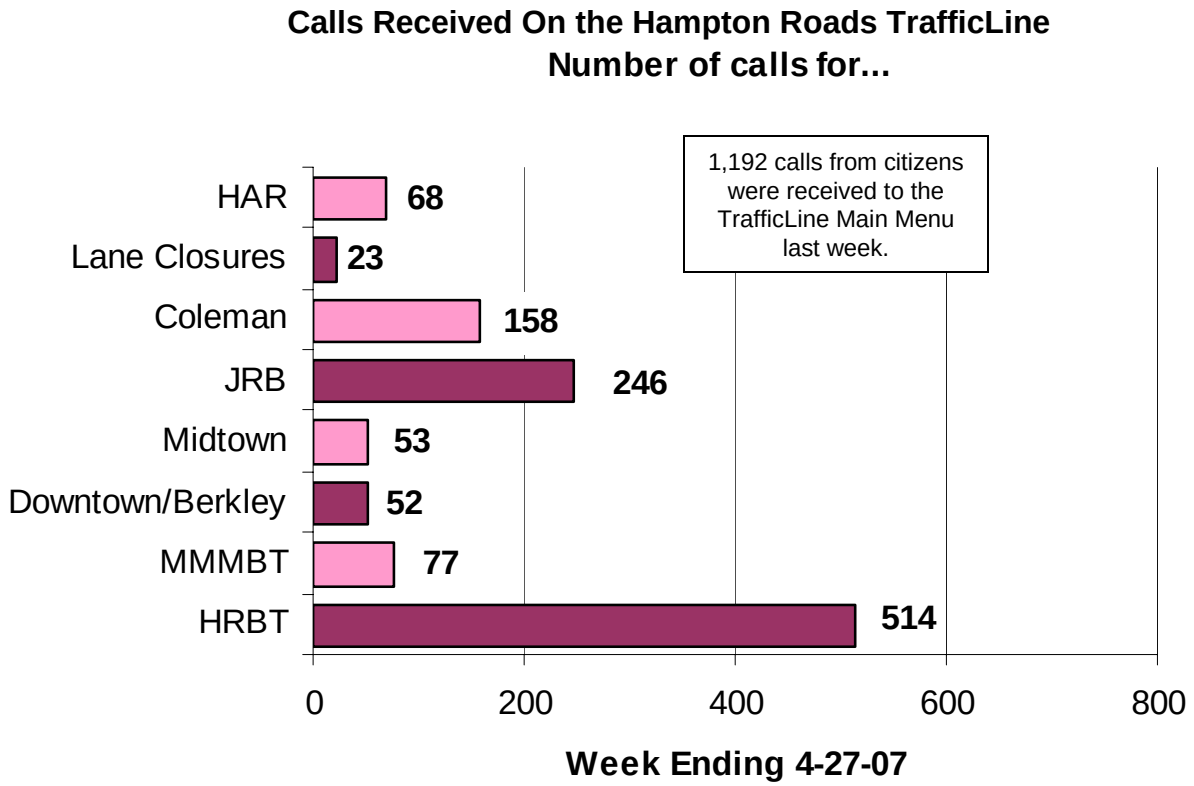
Pool Vehicle Availability



Data Key is located on pages 8-12

Public Information





Data Key is located on pages 8-12

Data Key

Cover Page

The Number of Events Responded to From the Control Room Last Week
Description: Shows the actual past week and yearly average event count.
Purpose: Provides a snapshot of how many events were responded to the previous Saturday through Friday. Weeks tallying many events will correlate with an increase in VOIS/511 traveler information calls.

The Number of Drivers Assisted by Safety Service Patrollers
Description: Shows the actual past week and yearly average number of SSP assists for accidents and disabled vehicles.
Purpose: Gives a snapshot view of the quantity of accident and disabled vehicle assists provided by SSP's. These assists reflect direct STC customer contact, an important part of the STC mission.

Field Equipment Responsive and Preventive Repairs Made Last Week
Description: The values shown reflect the total number of responses to field equipment corrective maintenance requests and the total number of preventive maintenance actions completed during the seven day period.
Purpose: Provides a summary view comparing the amount of corrective maintenance being completed in relation to preventative maintenance. As a general rule, a 2:1 (responsive : preventative) is a good ratio.

SSP Truck Availability Last Week
Description: The percentage of the SSP vehicle fleet that was available for use last week (versus being out of service for maintenance), and a yearly average of that availability.
Purpose: The values of these number is an indicator of vehicle repair activity and is used in support of scheduling and planning activities.

IT Work Orders Completed Last Week
Description: These values provide a summary view of help desk, software maintenance, integration support and other (non-categorized) type IT systems and software work orders closed during the past week's reporting period.
Purpose: Summarizes the level of IT effort from the previous week in comparison to same period averages.

Press Releases by Month
Description: These values include the total number of press releases sent to television, newspaper and radio media throughout the current month.
Purpose: Provides a comparison of the monthly number of releases to the average number. This is used to ensure the flow of information to the public.

Data Key (continued)

Operations

Number of Events Logged by the Control Room

Description: This bar graph shows values for the number of events logged in the incident database for the prior week and for two weeks ago, and includes an average of the weekly values over the past year.

** ***Incidents*** *are defined as unplanned situations adversely impacting traffic flow such as accidents, debris, disabled vehicles, and abandoned vehicles.*

** ***Events*** *are defined as 'special events' not affecting traffic, as well as the above defined 'Incidents' .*

Purpose: Shows how the current value compares to a two-week prior and an annual average value. For comparison and analysis, reveals the past week's numbers relative to "normal" levels and aids in forecasting activity levels based on seasonality, weather, holidays and/or other events.

Events by Detection Source

Description: The bar graph provides a tally of last week's events, broken down by their detection source (Virginia State Police [VSP radio or computer aided dispatch], Control Room [CCTV], public [phone call], SSP detection [SSP], and other entity [other – i.e. field contractor, fire department, etc]).

Purpose: Permits a comparison of incidents counts sorted by the various means of incident discovery, and a historical perspective when compared with previous reports. Identifies the sources of most our incident discoveries and those sources that need to contribute greater to detection.

Incident Duration

Description: The graph shows the average time duration from incident detection by a source (CCTV, Phone Call, VOIS, VSP CAD, VSP Radio, and Other) to when an SSP truck arrives on scene; the time from SSP arrival until the incident (Abandoned, Accident, Debris, Disabled) is completely cleared; and the total amount of time from initial detection to complete clearance.

Purpose: This information is used for extemporaneous audits. Allows management to review incident durations in relationship to pre-determined goals and provide a benchmark for incident response.

Incidents Involving Tractor-Trailers

Description: This bar graph shows the number of incidents involving tractor-trailers last week, for the same week last year, and the average for all weeks in the past year.

Purpose: Incidents involving tractor-trailers can take considerably longer to clear and thus have the capability to cause a negative effect on traffic flow and lane clearance. A high number of tractor-trailer incidents can have a negative effect on the number of incidents cleared within the 30 and 60 minute benchmark (see later in this report).

Event by Geographic Location

Description: This graph shows the number of events logged per locale by SSP drivers. Certain categories of events are not included in this tally because they are not defined by municipality. These categories include Bridge/Tunnel, Reversible Gates, TEOC, and VMS.

Purpose: This will aid in determining areas of high demand for SSP services and help to adjust scheduling and routes accordingly.

Data Key (continued)

Operations (continued)

Events by Type

Description: This graph enumerates event counts for the past week, and shows the value for each type: VMS change, unfounded (i.e. cancelled call before the SSP arrived), TEOC (service request submitted to the District's Transportation Emergency Operations Center), other (i.e. police or medical emergency), disabled (disabled vehicle), debris (i.e. ladder, mattress, road kill, etc..), condition change (manual change made to the HOV system from the control center), CBA (cleared before arrival – before an SSP arrived on the scene), accident, and abandoned (abandoned vehicle).

Purpose: This chart is used to quantify which categories of incidents most severely impact the roadways. Over time and by season comparisons are possible by examination of previous reports.

Events of Duration Greater Than Thirty/Sixty Minutes

Description: This graph totals those events which lasted more than thirty minutes and those events which lasted more than sixty minutes in duration. Percentages of total events logged are included.

Purpose: This information is used to compare the activity levels of 'serious events' that take longer than the normal clearance time. Results can spotlight contributing factors as short staffing, inter-agency communication, and patrol route inefficiencies.

Total SSP Responses

Description: The accompanying line graph displays SSP assist counts by the week.

Purpose: The graph can be used to substantiate the number of SSP responses for recent weeks. The information can be used to plan future route expansion and staffing levels.

SSP Assists Count by Type

Description: This pie chart shows the relative values for the major types of SSP assists last week. Types include disabled (disabled vehicles), debris (i.e. trash in roadway), accidents, unfounded (cancelled call out of an SSP), CBA (cleared before arrival), and other (i.e. traffic control for police activity).

Purpose: Provides information used for forecasting SSP vehicle equipment, tool, and consumable material (flares, batteries) needs short term and long term, and, to an extent, future staffing requirements.

SSP Assists for Each Roadway

Description: This graph shows the number of SSP assists over the past week, displayed for each freeway that the STC oversees. Also included are infrequent responses on arterial roads, bridges, and tunnels.

Purpose: Used to substantiate the number of SSP responses by freeway assignment. This information can be used to plan future patrol area expansion and definition, as well as staffing levels by roadway.

Total Year-To-Date Assists by Day-of-Week

Description: This chart depicts the number of SSP assists rendered for each day, for this year to date.

Purpose: Helps in planning daily staffing levels based on year-to-date activity levels by day.

Most Active Hotspots

Description: This table shows, for four incident categories, the identifier for the most active section, last week's incident count for that section, and the percentage of the system-wide incident total that count represents.

Purpose: Review of these values permit management to detect emerging patterns and plan SSP staffing and routes in relation to those areas requiring the most attention.

Data Key (continued)

Maintenance

Current Operational Availability List

Description: This table shows the total number of units of each equipment type (CCTV, CMS, gate, and HAR), how many are working and how many are not. The number of working units expressed as a percentage of the total units is also included.

Purpose: This information provides maintenance a clear view of the percentage of working equipment, provides operations a notion of system "eyes and ears" limitations, and provides management information as to current levels of equipment unit functionality.

Number of Preventive Maintenance Repairs Made by Equipment Type

Description: This chart and the accompanying table show the preventive maintenance tasks completed during the past week, and weekly averages for the last year. In addition to the five main equipment categories, buildings are included.

Purpose: Helps management allocate PM resources (equipment) and keep to schedule.

IT Facility Maintenance Activity

Description: This donut graph shows IT Department tasks completed during the past week for work types: corrective - "My printer is not working, please fix it"; demand – "I need a new printer"; preventive – regular PM on a schedule; transferred – "This printer is not an STC asset"; routine – a replacement printer every three years, for example.

Purpose: The breakout supports management in the allocation of staff, equipment, and budget resources at Hampton Roads STC.

Work Orders Submitted to / Serviced by IT

Description: These bar graphs show the number of new work orders submitted to the IT Department last week, and the number that were closed (completed). Weekly average values are also graphed.

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

Completed Fleet Service Activities by Type

Description: The chart shows weekly, average, and year to date counts for vehicle maintenance services. "Cabin" denotes replacement of passenger compartment air filters; "Bio-con" denotes treatment of diesel vehicle fuel systems for algae; "Therapy" denotes a gasoline or diesel vehicle fuel treatment. Oil, air filter, fuel filter, and transmission fluid services are also represented.

Purpose: Helps to account for labor and dollars expended for vehicle service and to plan for future contract and material expenditures.

Average Vehicle Return to Service Duration

Description: These numbers are an average time value representing a "return-to-service" duration; the elapsed time from arrival at the vehicle repair location until the vehicle returns to service. Values for SSP, Field Maintenance, and pool vehicles are included.

Purpose: These values also measure the performance of the repair effort and are used in scheduling SSP vehicle service and Patroller/Maintenance Staff resources.

STC Vehicle Availability

Description: The three bar graphs show what percentage of the total SSP, maintenance, and pool vehicle fleet was available last week, and also provide an annual average for comparison.

Purpose: These numbers measure fleet service effort and success rates.

Data Key (continued)

Public Information

HAR Reports

Description: Highway Advisory Radio (HAR) messages are created and updated several times during the day. This item tallies the number of HAR updates made month-to-date, and includes the values for previous months for comparison.
Purpose: The graph shows how the current value compares to past months; the count mirrors event activity on STC monitored roadways. The count is also an indicator for the effort expended in keeping the HAR message up-to-date, in order to maximize the public's usability of the HAR resource.

Calls Received on the Hampton Roads TrafficLine

Description: The Hampton Roads TrafficLine was launched on Friday, December 15. This bar graph depicts the number of citizen phone calls to the TrafficLine in order to receive information about Hampton Roads traffic conditions at different locales.
Purpose: This information depicts the use of the TrafficLine and will indicate if further promotion of the program is necessary.