

**TENNESSEE DEPARTMENT OF TRANSPORTATION  
HELP PROGRAM  
ANNUAL OPERATIONS REPORT**

January 1, 2011 – December 31, 2011



Prepared by the  
Office of Incident Management  
Tennessee Department of Transportation

## TDOT HELP MISSION STATEMENT

*The mission of HELP is to minimize traffic congestion, promote the safe movement of people and products, and improve the travel environment. We work in partnership with emergency response agencies and other TDOT units as part of a highway incident management team. We are committed to performing our duties in a professional manner.*



**Move Over, Slow Down, Save a Life.**  
**In Tennessee it's the law.**

**Please, move over or slow down...**

WILSON'S FIRE-FIGHTER  
DEKALB COUNTY RESCUE SQUAD EST. 1968  
TENN. DEPARTMENT OF RECREATION & TOURISM  
STATE OF TENNESSEE TROOPER  
Joel's BODY SHOP & WRECKER SERVICE  
HELP  
EMERGENCY TOWING  
TENNESSEE TECHNICIAN  
AMBULANCE

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# SECTION 1

## INTRODUCTION

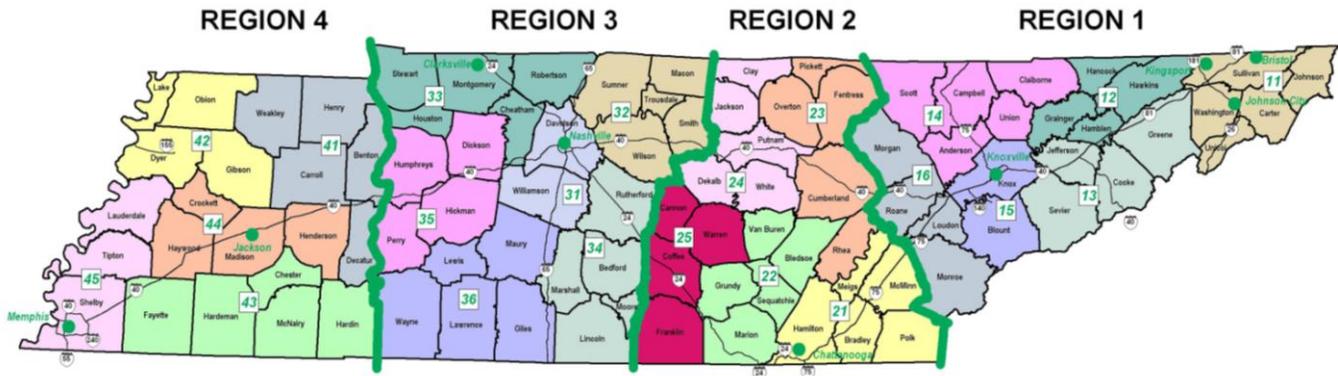
The HELP program, which operates in Chattanooga, Knoxville, Memphis and Nashville, is a core component of Tennessee Department of Transportation's (TDOT) SmartWay Program. The purpose of SmartWay is to reduce traffic congestion, problems caused by congestion, and to improve operating efficiency, effectiveness, and safety on Tennessee's transportation system.

The SmartWay Program traffic cameras are operated from TDOT's regional Transportation Management Centers (TMC) located as follows:

| <b>Region I</b>        | <b>Region II</b>      | <b>Region III</b>         | <b>Region IV</b>       |
|------------------------|-----------------------|---------------------------|------------------------|
| Steve Borden, Director | Ray Rucker, Director  | Winston Gaffron, Director | Chuck Rychen, Director |
| 7345 Region Lane       | 7500 Volkswagen Drive | 6601 Centennial Drive     | 5336 Boswell Ave.      |
| Knoxville, TN 37914    | Chattanooga, TN 37416 | Nashville, TN 37243       | Memphis, TN 38120      |
| 865-594-2403           | 423-892-3430          | 615-350-4300              | 901-935-0312           |

Just over eight years after the first Transportation Management Center opened in Nashville, TDOT's fourth TMC opened in Chattanooga on December 14, 2012. From the TMC in Enterprise South Industrial Park, TDOT personnel can monitor 79 TDOT SmartWay traffic cameras located along the area's most heavily-traveled corridors. In addition, they have access to 19 Dynamic Message Signs, 178 speed/congestion monitoring stations to spot traffic flow interruptions and a city-wide highway advisory radio station broadcasting on AM 1620. Each TMC has a Transportation Operations Manager, along with a staff of TMC Operators, TMC Supervisors and HELP Program Dispatchers. Currently, the TMC in Knoxville and Nashville operate on a 24/7 schedule. A goal of the statewide SmartWay Program is to staff all TMCs' on a 24/7 schedule.

**Exhibit 1: TDOT Regional and District Boundaries**



The HELP Program is a component of highway incident management in Tennessee and is beginning its twelfth year of operation as of July, 2011. Recent improvements in highway incident management in our state are due in large part to the work of local and state law enforcement agencies, fire services, rescue squads, emergency medical services, emergency communication centers, emergency management agencies, towing and recovery companies, news media, transportation planning organizations, and other agencies and organizations with responsibilities for highway response, planning, and operations.

This annual report describes the operation of TDOT's HELP Program and summarizes the work accompanied by the HELP personnel during the past calendar year beginning January 1, 2011 and ending December 31, 2011. TDOT is very proud of these accomplishments; however, as noted in the mission statement, HELP is part of an "incident management team." Other divisions within TDOT, along with other state and local agencies, also played critical roles in keeping Tennessee's roadways operating efficiently and safely.

We recognize and thank the individual police officers, troopers, fire fighters, Emergency Medical Technicians (EMTs), rescue squad members, 911 operators, police and fire dispatchers, tow truck operators, traffic reporters, transportation planners, and others who support the HELP program and assist the HELP personnel. As a result of the combined efforts of these entities and to maintain compliance with the National Traffic Incident Management Coalition (NTIMC) National Unified Goal (NUG) process, the Office of Incident Management along with the assistance of other divisions in TDOT embraces the development of an "Open Road Policy" rule that will emphasize standard, consistent operations and cooperative efforts for the safe, quick removal of highway crashes and spilled cargo from Tennessee's interstates within ninety minutes.

The HELP Annual Report for 2011 depicts resources committed to the program, numbers and types of services provided to motorists, customer evaluations, and the program costs, benefits, and funding sources.

TDOT's Transportation Management Centers are in their second year utilizing a web based traffic incident locator, along with activity and reporting capabilities. The system provides real-time location information and reporting of traffic incidents and HELP Truck activity.

The program system, **Locate/IM**, was integrated with the statewide TMCs for traffic incident management, monitoring and control. Each regional system has the capability to produce a quarterly report indicating total incidents, events affecting traffic, clearance time, type of service provided by the HELP Operators in each region. The Office of Incident Management combines the four regional data into a statewide quarterly report.

These reports are downloaded to the TDOT, Office of Incident Management web site at <http://www.tdot.state.tn.us/incident/default.htm>. **Locate/IM**, created by Gannett Fleming, is an ongoing project creating ad hoc reports and improving the system as recommended by TMC operators across the state.

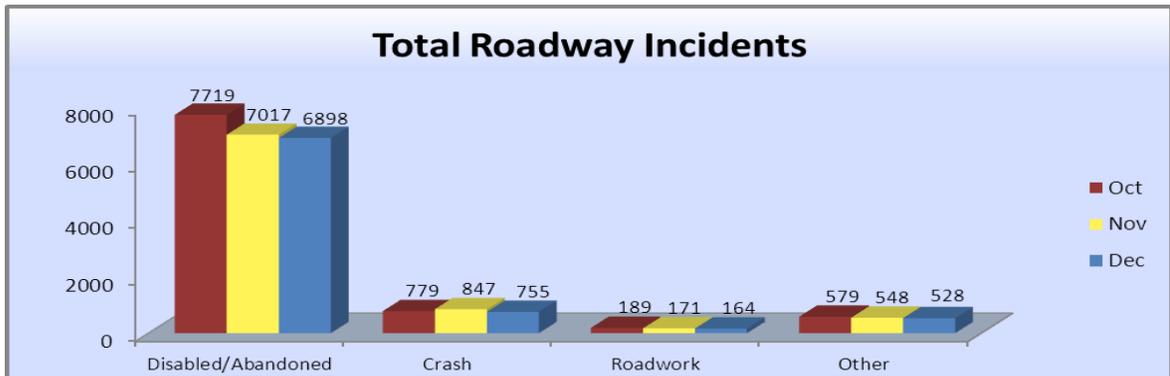
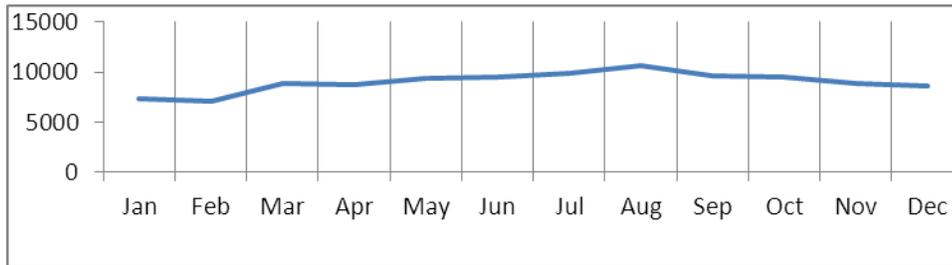
Exhibit 2 is the **Statewide Quarterly Report** for October – December 2011 (4<sup>th</sup> Quarter) which can be found on the mentioned website along with the regional quarterly reports.

**Exhibit 2: Statewide Quarterly Report  
October – December 2011**



**Total Incidents Managed This Quarter – 26,906**

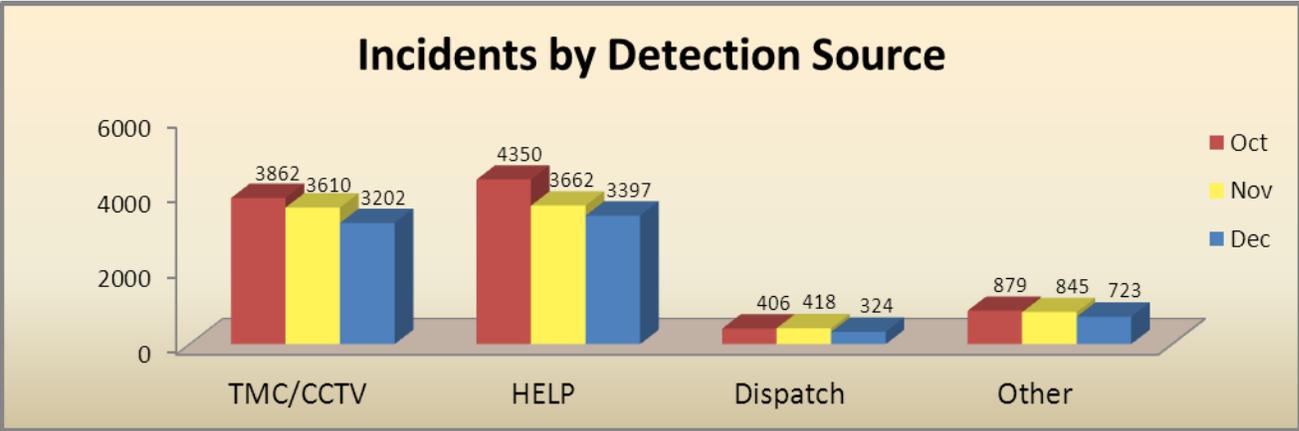
**Total Incidents Managed YTD – 107,867**



Note: Other includes Vehicle Fire, Debris, Jackknifed Tractor Trailer, Police/Medical/Fire Activity, AMBER Alert, & Weather incidents.

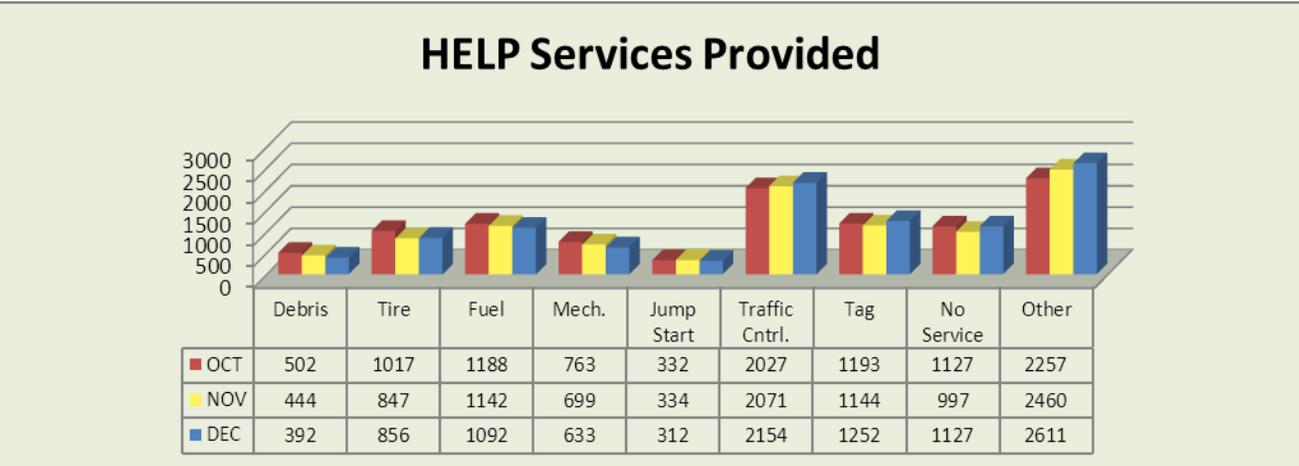
**Incident Hot Spots**

| Location |          |                            | Mile Marker Range | Total Incidents |
|----------|----------|----------------------------|-------------------|-----------------|
| I-40     | Region 3 | I-24W - I-24E              | 211-213           | 275             |
| I-240    | Region 4 | Sam Cooper - Poplar        | 12-15             | 188             |
| I-24     | Region 3 | Harding - Old Hickory      | 56-63             | 182             |
| I-40     | Region 3 | I-24W - Stewarts Ferry     | 213-218           | 178             |
| I-24     | Region 3 | I-40W - Harding            | 52-56             | 177             |
| SR 155   | Region 3 | Briley Pkwy                | 4-29              | 168             |
| I-240    | Region 4 | Poplar - SR385             | 15-17             | 165             |
| I-55     | Region 4 | Brooks - S. Parkway        | 5-10              | 157             |
| SR 153   | Region 2 | I-75 Jct.- Chickamauga Dam | 0-7               | 143             |
| I-40     | Region 3 | I-65S - I-24W              | 210-211           | 141             |



### Quarterly DMS Usage

|                           | Oct  | Nov   | Dec   | Quarter |
|---------------------------|------|-------|-------|---------|
| Total messages posted     | 4044 | 4588  | 5174  | 13806   |
| Average messages per sign | 25.7 | 28.0  | 30.6  | 84.1    |
| Average percent on time   | 8.3% | 14.9% | 10.5% | 11.4%   |

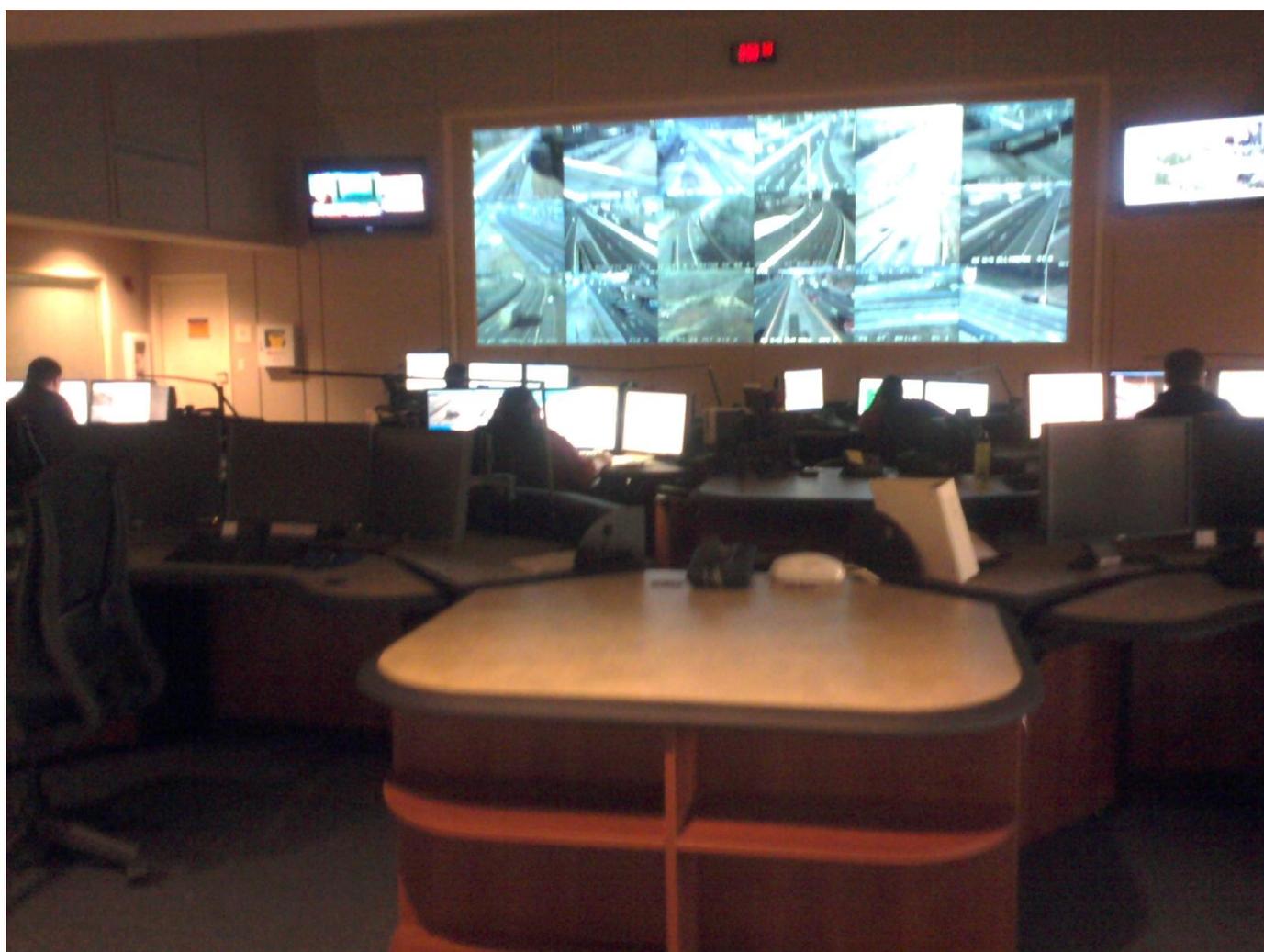


Note: Other includes Extinguish Fire, First Aid, Absorbent, Relocate Vehicle, Fluids, Called Wrecker, Secure Load, Phone Call, Directions, Transported, Unable to Locate, Wrecker Towed, Notified TDOT, Notified Law Enforcement, & Miscellaneous.

**Locate/IM** provides a collaborative environment by combining the existing TMC Operators and the HELP Truck application into a new integrated solution, allowing both entities to team together to manage and record a highway incident.

The web based system locates a HELP truck by the use of a GPS/AVL device installed in each HELP vehicle. These vehicles are displayed on a map alongside the incident location with information concerning the incident being entered into the system by the TMC personnel. The map will merge two types of data used in the TMC onto one seamless map display. **Locate/IM** has eliminated all hand written documentations by the HELP Truck Operators; data entry functions are done by the Dispatcher and/or TMC Operator. The Dispatcher and/or TMC Operator record all data in the system. Incident information is communicated to the TMC Dispatcher via radio communications with the HELP Truck Operators.

*Transportation Management Center (TMC) Nashville, TN*



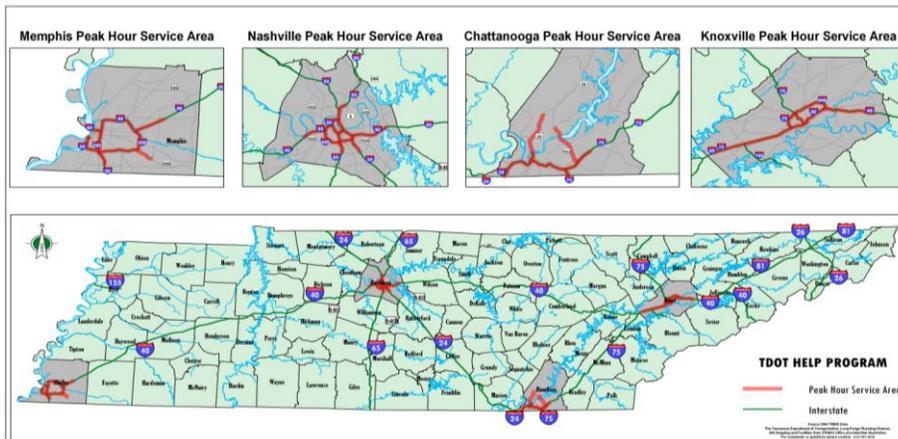
## SECTION 2

### ROLES AND RESPONSIBILITIES OF THE HELP PATROL

The HELP patrols operate on the most heavily traveled routes (peak hour service area) in the core of the state's four largest metropolitan areas (Chattanooga, Knoxville, Memphis, and Nashville) from early morning to late evening, seven (7) days a week. The HELP service is provided with three shifts of operators, working supervisors, and dispatchers. The operating hours are from 6:00 AM to 8:30 PM on Monday, 5:00 AM to 10:30 PM, Tuesday through Friday, 8:30 AM to 8:30 PM on Saturday and 9:30 AM to 8:30 PM on Sunday.

In 2008, in preparation for the SmartFIX 40 project which closed I-40 through downtown Knoxville for 14 months and re-routed traffic onto I-640, the Knoxville TMC began operating 24 hours a day, seven (7) days a week to ensure quick response to any incidents which might occur. By operating on this schedule, it allowed the TMC to become a primary hub to receive and distribute incident information at all times. After the project was completed, the benefits were realized and the TMC remained on this schedule to efficiently coordinate incident information throughout the entire region.” The Nashville TMC began 24/7 operation in 2011.

**Exhibit 3: Tennessee Help Routes (Statewide)**



| KNOXVILLE   | INTERSTATE |
|---|------------|
|   | I-40       |
|   | I-75       |
|   | I-140      |
|   | I-275      |
|   | I-640      |
| <i>Total miles served during HELP Route *peak hours</i> | 43.58      |

| CHATTANOOGA   | INTERSTATE |
|---|------------|
|   | I-24       |
|   | I-75       |
|   | I-124      |
| <i>Total miles served during HELP Route *peak hours</i> | 47.50      |

| NASHVILLE   | INTERSTATE |
|---|------------|
|   | I-24       |
|   | I-40       |
|   | I-65       |
|   | I-440      |
| <i>Total miles served during HELP Route *peak hours</i> | 120.00     |

| MEMPHIS   | INTERSTATE |
|---|------------|
|   | I-40       |
|   | I-55       |
|   | I-240      |
| <i>Total miles served during HELP Route *peak hours</i> | 44.00      |

*\*Peak hours are morning and*

*afternoon hours where commuter traffic volumes are at their highest.*

These close-in patrol routes, which are adjusted by the working supervisors in response to prevailing conditions, allow prompt response to incidents that would otherwise cause widespread and prolonged congestion, secondary

crashes, and related problems. Although rural roads and secondary routes are not part of the close-in patrol routes for the HELP program, the HELP units also respond to requests from local law enforcement agencies and/or the Tennessee Highway Patrol (THP) to assist with crashes and other emergencies outside of the normal patrol areas. The total number of miles serviced by the statewide HELP Program during peak hours is 255.08 miles.

The Metropolitan Nashville Public Works Incident Response Unit is another emergency assistance service for the Nashville Metropolitan area that plays a role in the incident management arena of providing assistance to the HELP Truck Operators and responding to incidents on non-freeway routes.

The clearance and response times for HELP assisted lane blockage incidents is approximately 94% statewide for all incidents (major and minor) incidents cleared within ninety (90) minutes during January 1, 2011 to December 31, 2011. HELP Operators are usually the first responders at the scene of a major or minor incident. Without the assistance of the HELP Operator, such incidents could often impose potential danger to the public, as well as other emergency operators. In Tennessee, the HELP Supervisors and Operators also work closely with local towing and recovery companies to ensure the safety of the public, which is their first priority, and to implement quick clearance of the roadways.

In the photo below a Region 1 HELP Response Operator provided first response medical treatment after a motor vehicle incident and until further medical assistance arrived on the scene.

***Region 1 HELP Operator provides medical treatment, Knoxville, TN***



In February 2012, TDOT, Tennessee Department of Safety (TDOS), and Homeland Security (TDSHS), and the Tennessee Highway Patrol (THP) prepared and signed an interagency memorandum of understanding to provide

guidance to personnel of each department relative to incidents on Tennessee highways, including crashes and spilled cargo to ensure public safety, promote safe and orderly flow of traffic, protect the safety of emergency responders, and restore the roadway to full capacity as soon as possible following an incident.

The HELP operators and supervisors are specially trained and equipped for the many kinds of emergencies encountered on Tennessee's most heavily traveled roadways, from disabled vehicles to major crashes. All of the operators and supervisors are certified emergency medical "First Responders" and have recertification training throughout the year. The HELP services are provided without charge and the HELP operators do not accept tips. The operators give postage-paid "comment cards" to each motorist receiving assistance and we encourage motorists to fill out and mail the card as soon as possible after the incident.

Although the HELP Operators are specially trained and equipped for most emergencies, there are circumstances that happen beyond their control. In June, 2011, a Region IV HELP Operator was killed on I-40 near the Tennessee Arkansas State line, when a tractor-trailer hit another disabled tractor-trailer that was being assisted by the HELP Operator.



During 2011, HELP Operators were also called on to assist with special events across the State which created exceptional demands on the transportation system. During Governor Haslam's inauguration, the statewide HELP trucks and Incident Management staff worked in a unified command with Region III maintenance to maintain traffic flows during special events.

- ◆ Knoxville HELP Units have participated in several special events. In January, 2011 Region I assisted with coordinating a large generator move with Barnhart Generator, from Knoxville to Rogersville, TN.

***Barnhart Generator moving from Knoxville to Rogersville, TN***



- ◆ *During the University of Tennessee Football season, the HELP Operators provide assistance to motorists and traffic control for seven home games. The operators' shifts are adjusted to cover the high traffic volume before and after the game.*
- ◆ *Region I HELP Program officials have continue to meet with Tennessee and North Carolina representatives concerning the safety of persons on I-40 near and around rockslides.*
- ◆ *In April, 2011 Region I HELP participated in the Earth Day-Biofuel Expo participating in the Emergency Response Truck Exhibit.*
- ◆ *Region I HELP Operators have worked with different elementary and high schools during school functions by demonstrating the HELP Truck equipment and explaining Operators duties. Girl Scout Daisy Troop took field trip to Region 1 in Knoxville.*

*Girl Scout Daisy Troop 28082 tour to TMC, Knoxville, TN*



- ◆ *During Bristol Sprint Cup Races, several HELP Trucks provided traffic control in Bristol on race day by providing message boards and portable ITS cameras.*
- ◆ *HELP Operator Funeral Procession to Adamsville, TN*

The Chattanooga HELP Unit annually works in conjunction with the THP, local law enforcement, and numerous other agencies to manage traffic flow on I-24 to insure the safety of the motoring public during the mid-June Bonnaroo Music Festival near Manchester, TN. Last year the Chattanooga HELP Unit assisted the Three States Three Mountains Bike Race and the Chattanooga Water Front Triathlon Race by providing message boards to keep traffic moving and ensure bikers safety. The Chattanooga Program is a champion in participating in special events in

the city as well as providing roadway assistance in their designated areas on the urban roadways. The following is a list of other special events by the Chattanooga HELP Units:

- ◆ ***“Hands Across The Border” (joint program with other agencies and states to promote safety for motoring public and law enforcement)***
- ◆ ***Provided message boards around the Soddy Daisy, Independence Day celebration***
- ◆ ***THP Brake Check for the Industry Day (provided message boards and lights to ensure traffic moved safely)***
- ◆ ***Participated in Career on Wheels Day at the Eastside Elementary School***
- ◆ ***Cornbread Festival, South Pittsburg (provided message boards and lights to ensure traffic moved safely)***
- ◆ ***Groundhog Shadow Day (partnered with a local high school to teach students about the HELP Program and to stay in school)***
- ◆ ***Region IV HELP Operator killed in the line of duty funeral procession to Adamsville, TN***
- ◆ ***Participated in the 2011 Governor Inauguration by providing traffic control in the Nashville downtown area***

The Nashville HELP Program, which serves the largest geographical area during peak hours, participated in many events throughout the year. Some of the HELP Operators have participated in teen driving safety programs to safe driving for seniors. The Middle Tennessee HELP Program annually works with the city of Smyrna to provide traffic control at the Smyrna Air Show.

- ◆ ***Provided traffic control at the Martin Luther King, Jr. Day Parade, Nashville, TN***
- ◆ ***Participated in the Safe Driving for Seniors at Madison Baptist Church, Madison, TN***
- ◆ ***Displayed the HELP Truck and participated in Read to a Child Day at Park Elementary, Nashville, TN***
- ◆ ***HELP Operator Funeral procession to Adamsville, TN***
- ◆ ***Assisted local law enforcement with traffic control during Vice President Biden visit to Nashville TN***
- ◆ ***Assisted with traffic control during the Veteran Day and Christmas Parades***
- ◆ ***Assisted local and state law enforcements with DUI roadblocks***
- ◆ ***Participated in the 2011 Governor Inauguration by providing traffic control in the Nashville downtown area***
- ◆ ***Region III HELP Operators have worked with different elementary schools by demonstrating the HELP Truck equipment and explaining Operators duties.***

***HELP Operator visiting Johnson Elementary School, Nashville***



***West Nashville Towing and Recovery demonstrating Hazmat Response Vehicle, Nashville***



***Metro Nashville Officer demonstrating their traffic analysis database at the Nashville Task Force meeting, Nashville***



The Memphis HELP Unit peak hour service area is the smallest in miles as compared to the other regions, yet their total fiscal year mileage always comes in second to the largest. The Memphis HELP Program has participated in numerous special events such as:

- ◆ ***St. Jude Run; provided traffic control as runners went from St. Jude Hospital to Kentucky***
- ◆ ***Georgia HERO Operator Funeral Procession to Atlanta, GA***
- ◆ ***Provided message boards and traffic control for the Liberty Bowl in Memphis, TN***
- ◆ ***Assisted Region II HELP staff traffic control during Bonnaroo and provided ATVs'***
- ◆ ***Region IV HELP Operator killed in the line of duty funeral procession to Adamsville, TN***
- ◆ ***Provided traffic control during two funeral processions: a state Trooper killed in the line of duty and a TDOT maintenance worker killed in the line of duty***
- ◆ ***Region IV Incident Management and Regional staff assisted state and local responders with their search for two Louisiana escapees; setup traffic control, helped secure and monitored command site, provided ATVs' for the THP***
- ◆ ***Participated in the 2011 Governor Inauguration by providing traffic control in the Nashville downtown area***

Exhibit 4 shows a HELP operator with his truck and a display of standard equipment available to assist the operator and other incident responders. (When “in service,” the operators always wear their reflective vests.)

**Exhibit 4: HELP Operator, Truck, and Equipment, Nashville, TN**



#### Installed Equipment

- Two-way radio w/repeater
- CB radio
- Police radio (supervisors)
- Public address system
- Emergency vehicle package (lights, siren, etc.)
- Air compressor
- 3500 watt generator
- 20-foot self-retracting air hose
- Halogen work lights; spot light
- Front-facing video camera (some vehicles)

#### Portable Equipment and Tools

- Tow straps and chains
- Reflector zed traffic cones
- Portable traffic control signs
- Roadway flares
- Fluorescent traffic control flags
- Traffic control paddles
- Sockets, wrenches, screw drivers
- Ball peen hammer, sledge hammer, pry bar, hack saw
- Air impact wrench, portable air hose, lug-lock removal tool
- Portable air tank
- Jacks, wheel chocks
- 25-foot jumper cables
- Battery booster pack
- Push brooms, shovels
- 300-foot measuring tape
- Camera
- Portable flood light
- Leaf blower (some vehicles)
- Radiological monitoring device

#### Supplies

- Gasoline and diesel fuel
- Water
- Fire extinguishers
- Absorbent material
- Assorted fuses, hose clamps, nuts, bolts, clips
- Electrical tape, duct tape, mechanical wire
- Marking paint
- Area maps and phone directories
- Motorist comment cards

#### Medical

- First aid/trauma kit
- Blankets, flat cloth sheets
- Oxygen kit
- Automated external defibrillator
- Eye wash kit

#### Personal Equipment

- Reflective vest
- Cell phone
- Flashlight
- Hard hat

Exhibit 5 shows a HELP supervisor heavy-duty pickup truck with much of the same equipment and the capacity to transport passengers when necessary.

**Exhibit 5: HELP Supervisor Truck, Regions II and IV**



The HELP Operators utilize a language interpreting service contracted by the State of Tennessee to more readily assist motorists with limited English proficiency. The HELP operator uses a “Point to your Language” card to ascertain the native language spoken by the motorist. The HELP Operator contacts the language interpreters services via cellular telephone utilizing an “800” number and pin number. The HELP Operator speaks with a company operator and states the type of language interpretation needed. The company operator serves as a facilitator between the HELP Operator and the motorist. The language interpreting company (AVAZA) can also provide onsite service, if needed. Although there has not been a large demand for this service, it is reassuring to know when needed the Department has services in place to assist any stranded motorist on our urban roadways.

The Office of Incident Management (OIM) produced and continues to distribute throughout the state a brochure directed to motorists explaining Tennessee’s “Move It” law (TCA 55-10-117) as shown in Appendix A. Moving a vehicle off the roadway in Tennessee is not only a law, but it helps clear crashes quickly, reduces congestion, and improves safety conditions for all motorists and emergency responders.

Each TDOT Region is equipped with incident response trailers to be used as an onsite command post for long term major highway incidents.

## SECTION 3

### STATEWIDE RESOURCES AND OUTPUT

The following pages provide a statistical review of HELP performances during CY 2011, recognizing the numbers do not capture the full extent of the work performed by the HELP personnel. A “stop” can be as simple as tagging an abandoned vehicle or changing a flat tire on the shoulder of the roadway without any complications. However, the next stop may involve multiple vehicles, an overturned truck, spilled fuel or cargo, serious injuries, or the need to make immediate decisions to close ramps, lanes, or even an entire freeway. Even during routine stops the HELP operators must contend with traffic operating at high speeds, high levels of noise, exhaust fumes, wind, and sometimes adverse weather, all of which make the job especially challenging and potentially hazardous. The Tennessee Department of Transportation contracted services with Gannett Fleming, who implemented an internet database that is being used to update the data collection process for the HELP Program. The objective of this project is to improve the effectiveness of the HELP Program by allowing the HELP Operator to concentrate on assisting stranded motorists, and not be concerned with keeping up with hand written data sheets. The created system (*Locate/IM*) also has the ability to create and retrieve real time data in a timely manner for reporting purposes.

Another service provided by HELP operators is inspecting and tagging abandoned vehicles on Tennessee’s roadways. The tagging of vehicles is in accordance with the T.C.A. 56-16-103, which states a vehicle is considered abandoned if it remains illegally on public property, and T.C.A. 55-16-111, which states the law authorizes removal of illegally stopped or parked vehicles at the owner’s expense. (Exhibit 6)

Exhibit 7 describes the resources committed to the HELP program and the program output for calendar year January-December, 2011, along with definitions for key terms that are used throughout the report.

Underlying all of the numbers and the details about the HELP program are two priorities—*safety* and *quick clearance* of incidents.

#### Exhibit 6: Unattended Vehicle Notice

**TENNESSEE DEPARTMENT OF TRANSPORTATION**

**UNATTENDED VEHICLE NOTICE**

Your vehicle has been tagged by the Tennessee Department of Transportation’s HELP Patrol for Highway Incident Management.

Tennessee law provides for removal of a vehicle when an operator has reasonable grounds to believe it has been ABANDONED or if it is CREATING A TRAFFIC HAZARD.

A vehicle is considered abandoned if it remains illegally on public property per T.C.A. Section 55-16-103.

This vehicle should be removed as soon as possible to prevent it from being damaged by accident or vandalism.

The law authorizes removal of illegally stopped or parked vehicles at owner’s expense, T.C.A. Section 55-16-111.

To promote safety and protect property, this vehicle was checked:

Date \_\_\_\_\_, 20\_\_\_\_ Time: \_\_\_\_\_ a.m. p.m. By Unit # \_\_\_\_\_

DT-1692

## Exhibit 7: Statewide Resources and Output

| Resources                         | Output    |
|-----------------------------------|-----------|
| Operating positions <sup>1</sup>  | 71        |
| Trucks <sup>2</sup>               | 78        |
| Route miles <sup>3</sup>          | 255.08    |
| Vehicle miles driven <sup>4</sup> | 2,718,101 |
| Stops recorded <sup>5</sup>       | 89,617    |
| Trucks per position               | 1.1       |
| Miles driven per position         | 38,283    |
| Miles driven per operator shift   | 185       |
| Miles driven per truck            | 34847     |
| Stops per authorized position     | 1,262     |
| Stops per route mile              | 351       |
| Number of Special Events          | 66        |

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<sup>1</sup> **Operating positions:** Number of authorized positions for HELP operators, supervisors, and dispatchers. The number of personnel actually in service varied on a daily basis depending on various factors: vacancies and the numbers in training, on annual/sick leave, or otherwise not available for their regular assignment.

<sup>2</sup> **Trucks:** Number of specially equipped HELP operator and supervisor vehicles available for patrols.

<sup>3</sup> **Route miles:** Centerline mileage for routes that are patrolled by HELP trucks on a routine basis and during peak hours. Where routes overlap for more frequent service (shorter headways) on a particular roadway segment, the mileage is counted only once. The actual route miles patrolled vary from day-to-day and during each day in response to changing traffic conditions, weather, and the number of incidents that require HELP trucks on-scene for extended periods.

<sup>4</sup> **Vehicle miles driven:** Difference between mileage at the beginning and end of the year for all of the specially equipped HELP trucks, which includes miles driven for training purposes, moving vehicles to the site of special events, and other miles off the regular routes.

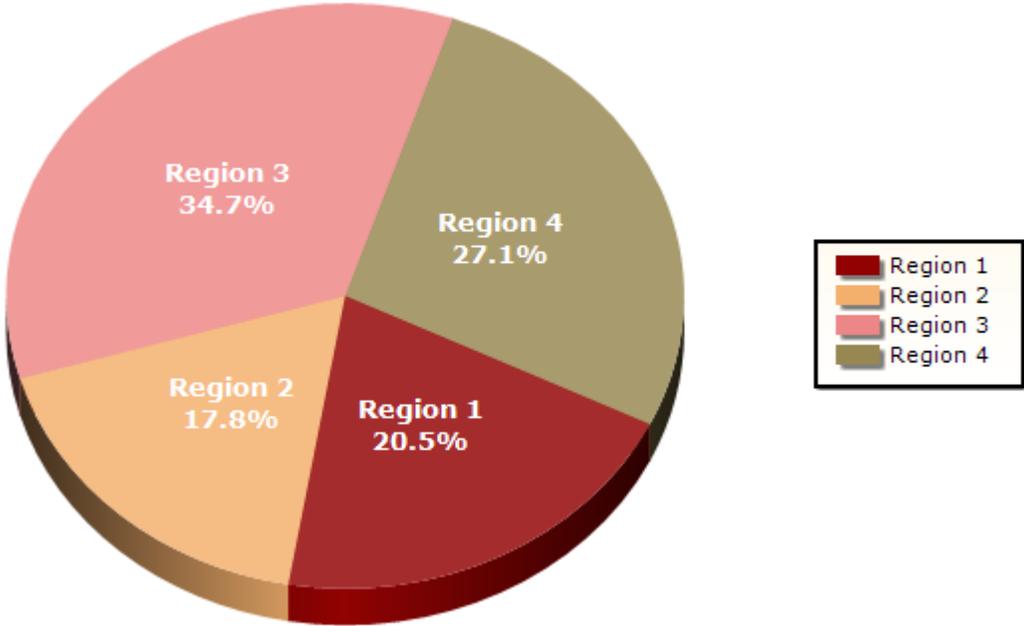
<sup>5</sup> **Stops recorded:** Total number of patrol stops.

*Fog caused massive pileup on Vietnam Veteran's Parkway, Hendersonville, TN*



The following charts and tables on pages 17 through 22 describe the reasons that HELP trucks stopped to provide assistance, the type of assistance provided, characteristics of the vehicles assisted, circumstances at the scene, and other aspects of HELP service during 2011.

**Exhibit 8  
HELP Stops by Region  
for  
Calendar Year 2011**



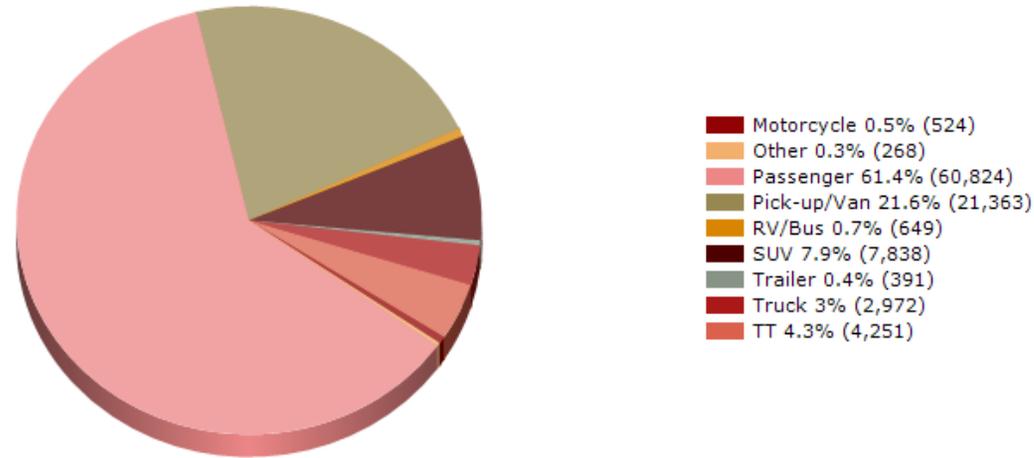
**Percent of 89617 Stops**

| Region 1<br>Knoxville |         | Region 2<br>Chattanooga |         | Region 3<br>Nashville |         | Region 4<br>Memphis |         | Total:<br>Statewide |         |
|-----------------------|---------|-------------------------|---------|-----------------------|---------|---------------------|---------|---------------------|---------|
| Number                | Percent | Number                  | Percent | Number                | Percent | Number              | Percent | Number              | Percent |
| 18339                 | 20.5%   | 15914                   | 17.8%   | 31106                 | 34.7%   | 24258               | 27.1%   | 89617               | 100%    |

**Exhibit 9  
Services Provided  
(In Order of Statewide Frequency)  
For Calendar Year 2011**

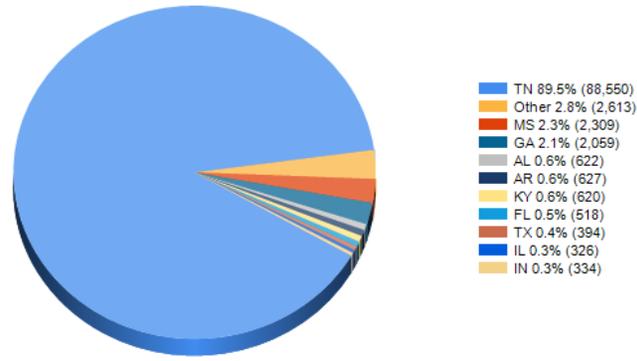
| Service              | Statewide      |             | Region 1      |             | Region 2      |             | Region 3      |             | Region 4      |             |
|----------------------|----------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|
|                      | Number         | Percent     | Number        | Percent     | Number        | Percent     | Number        | Percent     | Number        | Percent     |
| Blocked Ln/Traf Ctrl | 24,723         | 19.6%       | 3,111         | 11.9%       | 11,820        | 34.6%       | 9,177         | 21.8%       | 615           | 2.6%        |
| Tag Abandoned        | 13,867         | 11%         | 2,227         | 8.5%        | 1,825         | 5.3%        | 5,414         | 12.9%       | 4,401         | 18.3%       |
| Fuel                 | 12,742         | 10.1%       | 2,402         | 9.2%        | 2,126         | 6.2%        | 3,612         | 8.6%        | 4,602         | 19.2%       |
| No Service-occupied  | 12,161         | 9.6%        | 3,481         | 13.4%       | 891           | 2.6%        | 5,629         | 13.4%       | 2,160         | 9%          |
| Directions           | 11,835         | 9.4%        | 2,710         | 10.4%       | 8,672         | 25.4%       | 338           | 0.8%        | 115           | 0.5%        |
| Tire                 | 11,449         | 9.1%        | 2,061         | 7.9%        | 1,660         | 4.9%        | 3,731         | 8.9%        | 3,997         | 16.6%       |
| Mechanical           | 8,775          | 6.9%        | 2,688         | 10.3%       | 1,588         | 4.6%        | 1,654         | 3.9%        | 2,845         | 11.8%       |
| Remove Debris        | 5,936          | 4.7%        | 1,896         | 7.3%        | 1,468         | 4.3%        | 1,725         | 4.1%        | 847           | 3.5%        |
| Relocate Vehicle     | 5,795          | 4.6%        | 872           | 3.3%        | 1,469         | 4.3%        | 2,504         | 6%          | 950           | 4%          |
| Comment Card         | 5,153          | 4.1%        | 1             | 0%          | 28            | 0.1%        | 4,936         | 11.7%       | 188           | 0.8%        |
| Jump Start / Pack    | 3,141          | 2.5%        | 605           | 2.3%        | 505           | 1.5%        | 947           | 2.3%        | 1,084         | 4.5%        |
| Fluids               | 2,199          | 1.7%        | 620           | 2.4%        | 401           | 1.2%        | 439           | 1%          | 739           | 3.1%        |
| Notified Law Enforce | 2,000          | 1.6%        | 1,097         | 4.2%        | 310           | 0.9%        | 534           | 1.3%        | 59            | 0.2%        |
| Called Wrecker       | 1,297          | 1%          | 209           | 0.8%        | 55            | 0.2%        | 430           | 1%          | 603           | 2.5%        |
| No Service-abandoned | 1,036          | 0.8%        | 621           | 2.4%        | 149           | 0.4%        | 242           | 0.6%        | 24            | 0.1%        |
| Other                | 1,004          | 0.8%        | 412           | 1.6%        | 389           | 1.1%        | 109           | 0.3%        | 94            | 0.4%        |
| Unable to Locate     | 1,003          | 0.8%        | 554           | 2.1%        | 231           | 0.7%        | 30            | 0.1%        | 188           | 0.8%        |
| Phone Call           | 781            | 0.6%        | 186           | 0.7%        | 216           | 0.6%        | 227           | 0.5%        | 152           | 0.6%        |
| Secure Load          | 382            | 0.3%        | 93            | 0.4%        | 148           | 0.4%        | 84            | 0.2%        | 57            | 0.2%        |
| Transported          | 374            | 0.3%        | 57            | 0.2%        | 110           | 0.3%        | 95            | 0.2%        | 112           | 0.5%        |
| Absorbent            | 251            | 0.2%        | 85            | 0.3%        | 62            | 0.2%        | 91            | 0.2%        | 13            | 0.1%        |
| Wrecker Towed        | 192            | 0.2%        | 5             | 0%          | 11            | 0%          | 23            | 0.1%        | 153           | 0.6%        |
| First Aid            | 97             | 0.1%        | 30            | 0.1%        | 36            | 0.1%        | 22            | 0.1%        | 9             | 0%          |
| Notified TDOT        | 86             | 0.1%        | 41            | 0.2%        | 14            | 0%          | 27            | 0.1%        | 4             | 0%          |
| Extinguish Fire      | 46             | 0%          | 9             | 0%          | 19            | 0.1%        | 10            | 0%          | 8             | 0%          |
| <b>Total</b>         | <b>126,325</b> | <b>100%</b> | <b>26,073</b> | <b>100%</b> | <b>34,203</b> | <b>100%</b> | <b>42,030</b> | <b>100%</b> | <b>24,019</b> | <b>100%</b> |

**Exhibit 10**  
**Types of Vehicles Assisted**  
**For Calendar Year 2011**



| Type         | Statewide     |             | Region 1      |             | Region 2      |             | Region 3      |             | Region 4      |             |
|--------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|
|              | Number        | Percent     |
| Motorcycle   | 524           | 0.5%        | 129           | 0.7%        | 148           | 0.8%        | 175           | 0.5%        | 72            | 0.3%        |
| Other        | 268           | 0.3%        | 31            | 0.2%        | 19            | 0.1%        | 137           | 0.4%        | 81            | 0.3%        |
| Passenger    | 60,824        | 61.4%       | 10,491        | 57.1%       | 11,059        | 58%         | 20,345        | 54.4%       | 18,929        | 78.2%       |
| Pick-up/Van  | 21,363        | 21.6%       | 5,853         | 31.8%       | 4,598         | 24.1%       | 8,203         | 21.9%       | 2,709         | 11.2%       |
| RV/Bus       | 649           | 0.7%        | 188           | 1%          | 172           | 0.9%        | 244           | 0.7%        | 45            | 0.2%        |
| SUV          | 7,838         | 7.9%        | 482           | 2.6%        | 848           | 4.4%        | 5,420         | 14.5%       | 1,088         | 4.5%        |
| Trailer      | 391           | 0.4%        | 57            | 0.3%        | 125           | 0.7%        | 148           | 0.4%        | 61            | 0.3%        |
| Truck        | 2,972         | 3%          | 327           | 1.8%        | 884           | 4.6%        | 838           | 2.2%        | 923           | 3.8%        |
| TT           | 4,251         | 4.3%        | 831           | 4.5%        | 1,211         | 6.4%        | 1,900         | 5.1%        | 309           | 1.3%        |
| <b>Total</b> | <b>99,080</b> | <b>100%</b> | <b>18,389</b> | <b>100%</b> | <b>19,064</b> | <b>100%</b> | <b>37,410</b> | <b>100%</b> | <b>24,217</b> | <b>100%</b> |

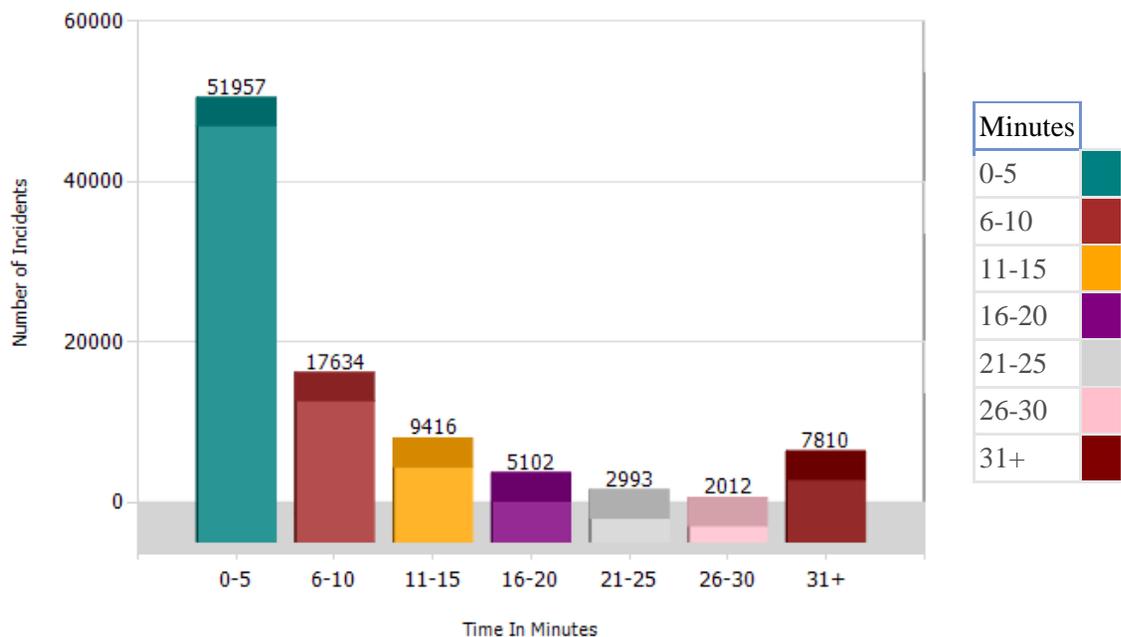
**Exhibit 11  
Origin of Registration (Based on License Plate)  
For Calendar Year 2011**



|       | Statewide |         | Region 1 Knoxville |         | Region 2 Chattanooga |         | Region 3 Nashville |         | Region 4 Memphis |         |
|-------|-----------|---------|--------------------|---------|----------------------|---------|--------------------|---------|------------------|---------|
|       | Number    | Percent | Number             | Percent | Number               | Percent | Number             | Percent | Number           | Percent |
| TN    | 88,550    | 89.5%   | 16,505             | 89.8%   | 16,294               | 85.5%   | 35,066             | 93.7%   | 20,685           | 85.4%   |
| Other | 2,613     | 2.8%    | 962                | 5.1%    | 448                  | 2.5%    | 882                | 2.5%    | 429              | 1.9%    |
| MS    | 2,309     | 2.3%    | 33                 | 0.2%    | 38                   | 0.2%    | 88                 | 0.2%    | 2,150            | 8.9%    |
| GA    | 2,059     | 2.1%    | 214                | 1.2%    | 1,605                | 8.4%    | 189                | 0.5%    | 51               | 0.2%    |
| AR    | 627       | 0.6%    | 14                 | 0.1%    | 9                    | 0%      | 39                 | 0.1%    | 565              | 2.3%    |
| AL    | 622       | 0.6%    | 74                 | 0.4%    | 294                  | 1.5%    | 207                | 0.6%    | 47               | 0.2%    |
| KY    | 620       | 0.6%    | 178                | 1%      | 61                   | 0.3%    | 356                | 1%      | 25               | 0.1%    |
| FL    | 518       | 0.5%    | 136                | 0.7%    | 160                  | 0.8%    | 164                | 0.4%    | 58               | 0.2%    |
| TX    | 394       | 0.4%    | 117                | 0.6%    | 45                   | 0.2%    | 129                | 0.3%    | 103              | 0.4%    |
| IN    | 334       | 0.3%    | 103                | 0.6%    | 57                   | 0.3%    | 124                | 0.3%    | 50               | 0.2%    |
| IL    | 326       | 0.3%    | 53                 | 0.3%    | 53                   | 0.3%    | 166                | 0.4%    | 54               | 0.2%    |
| Total | 98,972    | 100%    | 18,389             | 100     | 19,064               | 100     | 37,410             | 100     | 24,217           | 100     |

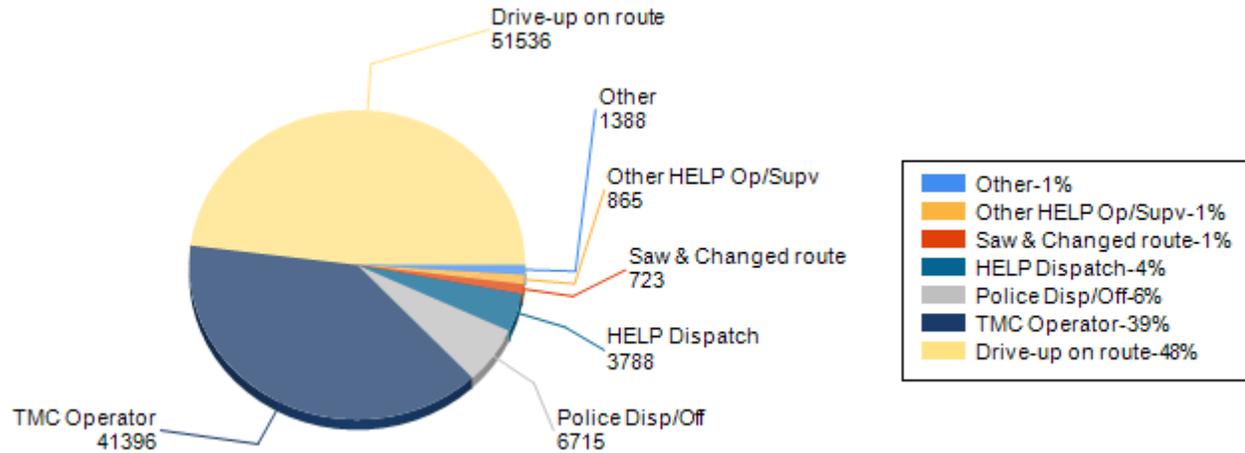
*Note: This table does not include stops where no vehicle was involved nor does it include stops where the vehicle had no license tag*

**Exhibit 12  
Time at Incident Site  
For Calendar Year 2011**



|       | Statewide |         | Region 1<br>Knoxville |         | Region 2<br>Chattanooga |         | Region 3<br>Nashville |         | Region 4<br>Memphis |         |
|-------|-----------|---------|-----------------------|---------|-------------------------|---------|-----------------------|---------|---------------------|---------|
|       | Number    | Percent | Number                | Percent | Number                  | Percent | Number                | Percent | Number              | Percent |
| 0-5   | 51957     | 53.6%   | 11564                 | 53.6%   | 9580                    | 53.6%   | 17461                 | 53.6%   | 13352               | 53.6%   |
| 11-15 | 9416      | 9.7%    | 1785                  | 9.7%    | 1731                    | 9.7%    | 3368                  | 9.7%    | 2532                | 9.7%    |
| 16-20 | 5102      | 5.3%    | 963                   | 5.3%    | 997                     | 5.3%    | 1814                  | 5.3%    | 1328                | 5.3%    |
| 21-25 | 2993      | 3.1%    | 536                   | 3.1%    | 584                     | 3.1%    | 1125                  | 3.1%    | 748                 | 3.1%    |
| 26-30 | 2012      | 2.1%    | 361                   | 2.1%    | 389                     | 2.1%    | 756                   | 2.1%    | 506                 | 2.1%    |
| 31+   | 7810      | 8.1%    | 1284                  | 8.1%    | 1640                    | 8.1%    | 3182                  | 8.1%    | 1704                | 8.1%    |
| 6-10  | 17634     | 18.2%   | 3492                  | 18.2%   | 3196                    | 18.2%   | 5960                  | 18.2%   | 4986                | 18.2%   |
| Total | 96924     | 100%    | 19985                 | 100%    | 18117                   | 100%    | 33666                 | 100%    | 25156               | 100%    |

**Exhibit 13**  
**How Incident Discovered by HELP**  
**For Calendar Year 2011**



|                        | Statewide     |             | Region 1<br>Knoxville |             | Region 2<br>Chattanooga |             | Region 3<br>Nashville |             | Region 4<br>Memphis |             |
|------------------------|---------------|-------------|-----------------------|-------------|-------------------------|-------------|-----------------------|-------------|---------------------|-------------|
|                        | Number        | Percent     | Number                | Percent     | Number                  | Percent     | Number                | Percent     | Number              | Percent     |
| Drive-up on Route      | 51536         | 48%         | 10429                 | 48%         | 8907                    | 48%         | 18580                 | 48%         | 13620               | 48%         |
| HELP Dispatch          | 3788          | 4%          | 392                   | 4%          | 57                      | 4%          | 653                   | 4%          | 2686                | 4%          |
| Other                  | 1388          | 1%          | 726                   | 1%          | 351                     | 1%          | 184                   | 1%          | 127                 | 1%          |
| Other HELP Op/Supv     | 865           | 1%          | 86                    | 1%          | 303                     | 1%          | 244                   | 1%          | 232                 | 1%          |
| Police Dispatch Office | 6715          | 6%          | 2263                  | 6%          | 1343                    | 6%          | 2931                  | 6%          | 178                 | 6%          |
| Saw & Changed Route    | 723           | 1%          | 154                   | 1%          | 281                     | 1%          | 155                   | 1%          | 133                 | 1%          |
| TMC Operator           | 41396         | 39%         | 11276                 | 39%         | 8682                    | 39%         | 13949                 | 39%         | 7489                | 39%         |
| <b>Total</b>           | <b>106411</b> | <b>100%</b> | <b>25326</b>          | <b>100%</b> | <b>19924</b>            | <b>100%</b> | <b>36696</b>          | <b>100%</b> | <b>24465</b>        | <b>100%</b> |

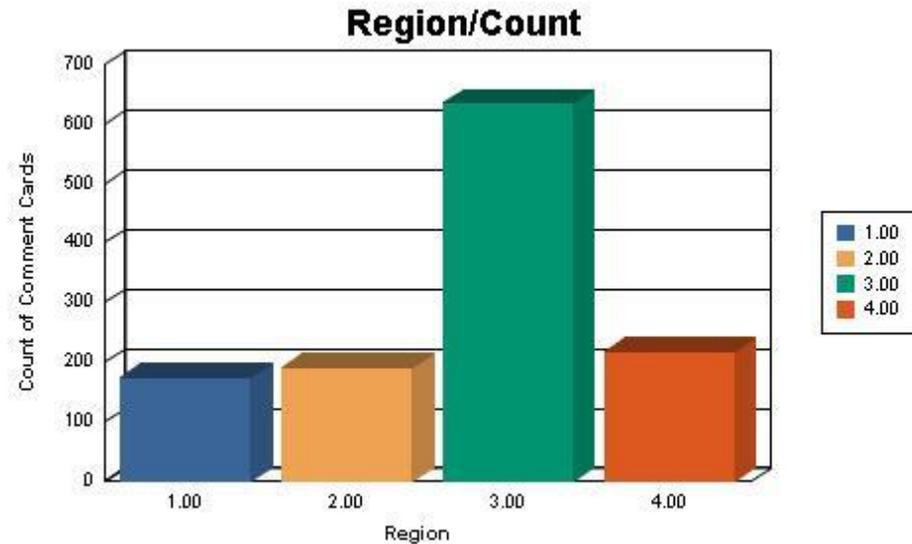
## SECTION 4

### HELP COMMENT CARD DATA

The information in this section is from 1,218 comment cards received by TDOT from motorists that received assistance from HELP operators. Each card is entered into TDOT’s Business Object Enterprise (BOE) database weekly to allow staff the ability to review the number of comments cards received from each region.

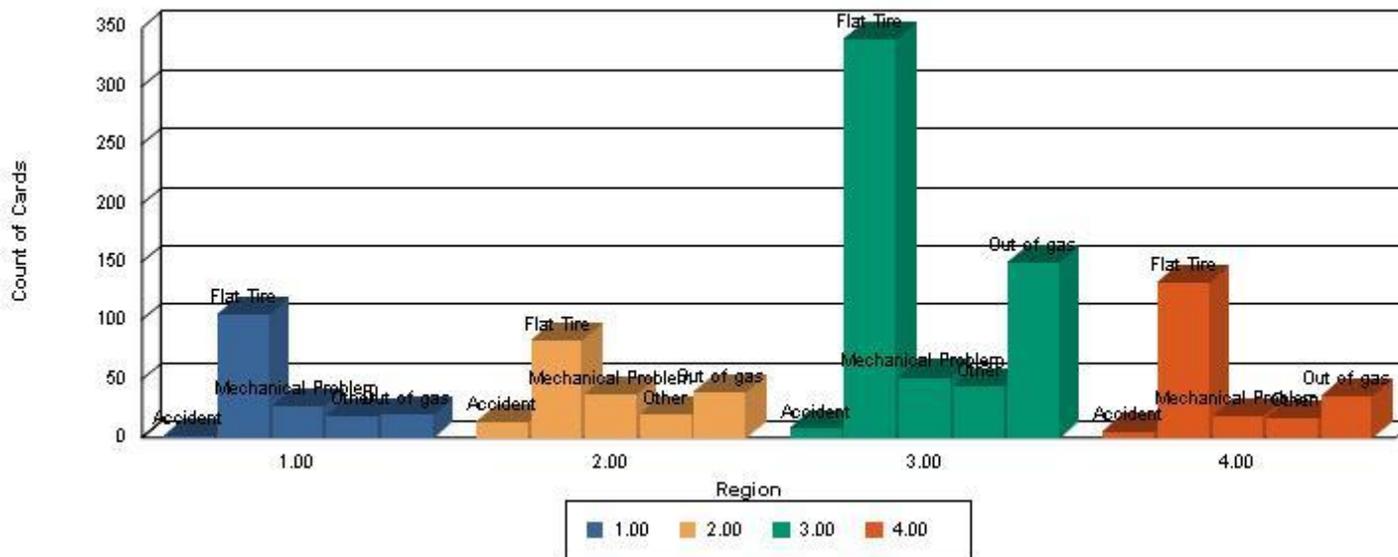
The HELP operators and shift supervisors make a strong effort to distribute postage-paid comment cards to customers, recognizing that handing out comment cards may be precluded by more important considerations—safety, prompt restoration of traffic flow, or respect for individuals in stressful situations. Further, no “customer” may be available to receive a comment card for activities such as directing traffic, removing debris, tagging an abandoned vehicle, or notifying other agencies that assistance is needed.

**Exhibit 14**  
**Comment Cards Received from Each Region as Percent of Total**  
**Calendar Year 2011**



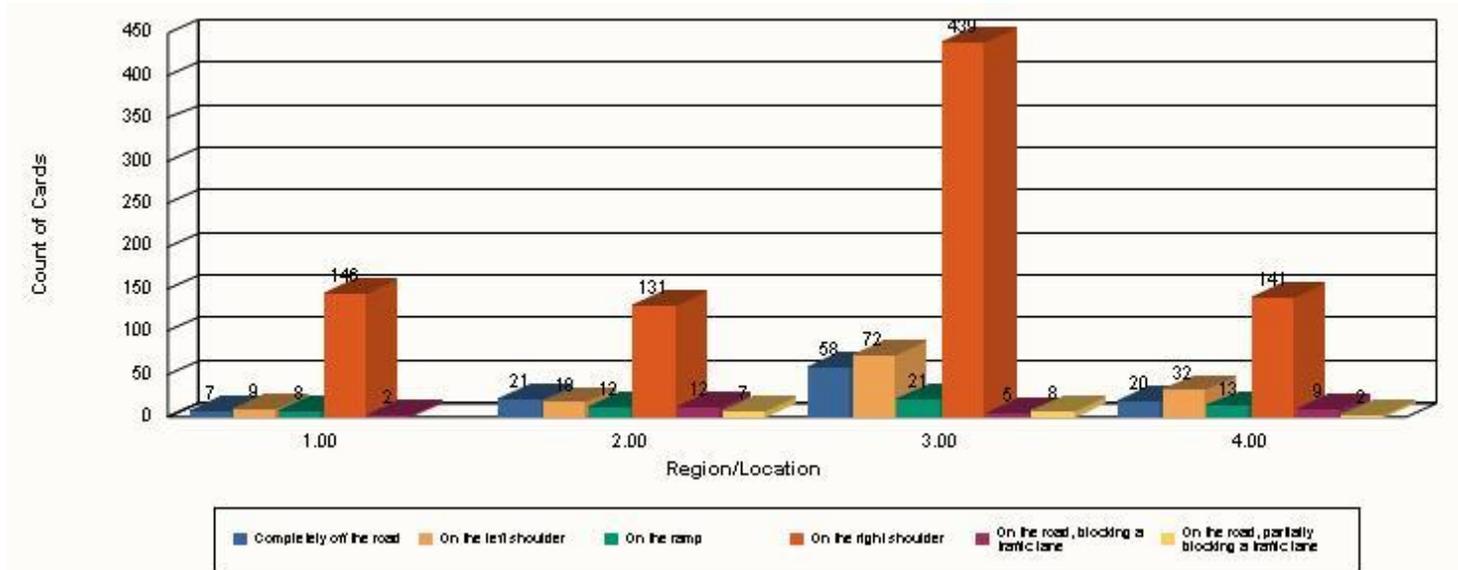
|              | <b>Region</b>    |                 |                 |                 |                 |
|--------------|------------------|-----------------|-----------------|-----------------|-----------------|
|              | <b>Statewide</b> | <b><u>1</u></b> | <b><u>2</u></b> | <b><u>3</u></b> | <b><u>4</u></b> |
| <b>Total</b> | 1,218            | 175             | 191             | 634             | 218             |
|              | 100%             | 14%             | 16%             | 52%             | 18%             |

**Exhibit 15**  
**Response to: "For What Reason Did You Need Assistance?"**  
**Calendar Year 2011**



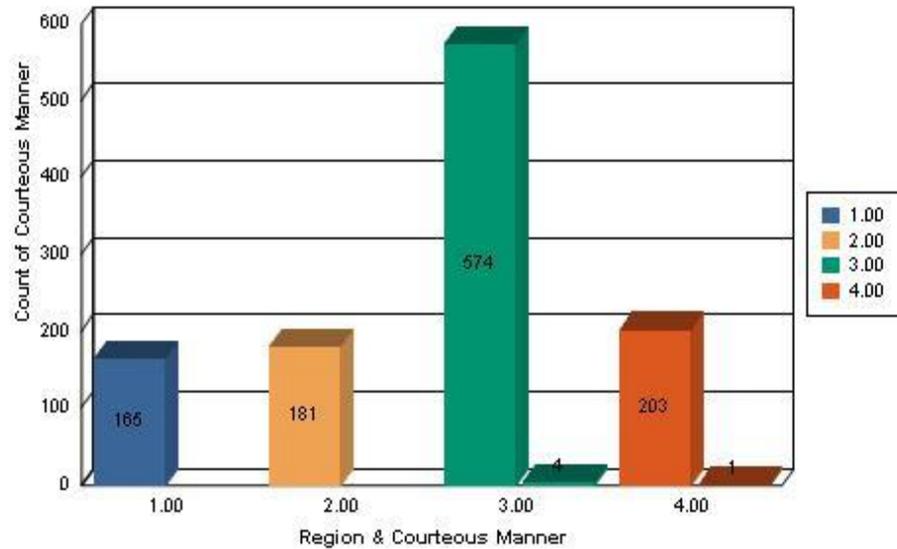
|                           | <u>Statewide</u> | <u>Region</u> |          |          |          |
|---------------------------|------------------|---------------|----------|----------|----------|
|                           |                  | <b>1</b>      | <b>2</b> | <b>3</b> | <b>4</b> |
| <b>Crash</b>              | 30               | 2             | 14       | 8        | 6        |
|                           | 2.6%             | 1.1%          | 7.3%     | 1.3%     | 2.8%     |
| <b>Flat Tire</b>          | 663              | 106           | 83       | 341      | 133      |
|                           | 56.5%            | 60.6%         | 43.0%    | 57.3%    | 63.1%    |
| <b>Mechanical Problem</b> | 136              | 28            | 37       | 52       | 19       |
|                           | 11.6%            | 16.0%         | 19.2%    | 8.7%     | 9.0%     |
| <b>Other</b>              | 100              | 19            | 20       | 44       | 17       |
|                           | 8.5%             | 10.9%         | 10.4%    | 7.4%     | 8.0%     |
| <b>Out of Gas</b>         | 245              | 20            | 39       | 150      | 36       |
|                           | 20.8%            | 11.4%         | 20.2%    | 25.2%    | 17.0%    |
| <b>Total</b>              | 1,174            | 175           | 193      | 595      | 211      |
|                           | 100%             | 100.0%        | 100.0%   | 100.0%   | 100.0%   |

**Exhibit 16**  
**Response to: “Where Was Your Vehicle When The HELP Unit Arrived?”**  
**Calendar Year 2011**



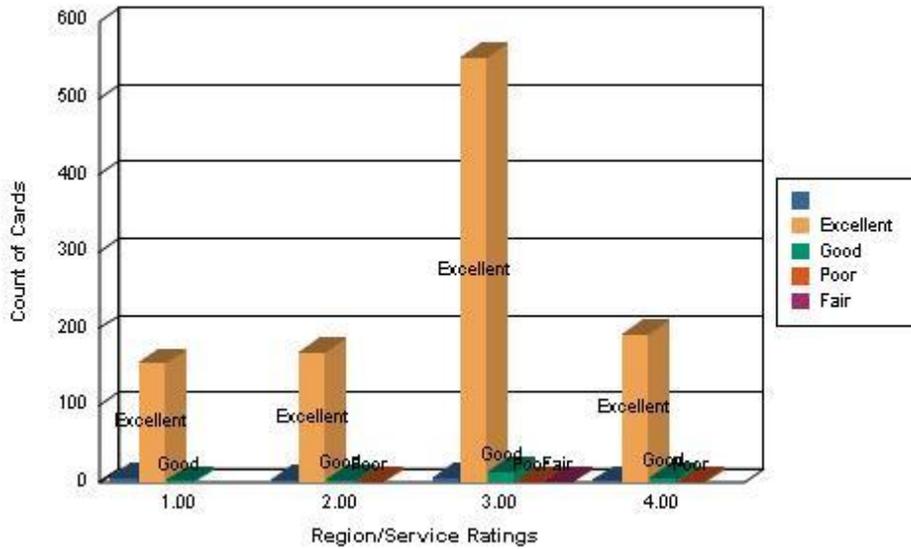
|   | Statewide | Region   |          |          |          |
|---|-----------|----------|----------|----------|----------|
|   |           | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> |
| <b>Completely off the road</b>                        | 106       | 7        | 21       | 58       | 20       |
|   | 8.9%      | 4.1%     | 10.5%    | 9.6%     | 9.2%     |
| <b>On the left shoulder</b>                           | 131       | 9        | 18       | 72       | 32       |
|   | 11.0%     | 5.2%     | 9.0%     | 11.9%    | 14.7%    |
| <b>On the ramp</b>                                    | 54        | 8        | 12       | 21       | 13       |
|   | 4.5%      | 4.7%     | 5.9%     | 3.5%     | 6.0%     |
| <b>On the right shoulder</b>                          | 857       | 146      | 131      | 439      | 141      |
|   | 71.8%     | 84.9%    | 65.1%    | 72.8%    | 65.0%    |
| <b>On the road, blocking a traffic lane</b>           | 28        | 2        | 12       | 5        | 9        |
|   | 2.3%      | 1.2%     | 6.0%     | 0.8%     | 4.1%     |
| <b>On the road, partially blocking a traffic lane</b> | 17        | 0        | 7        | 8        | 2        |
|   | 1.4%      | 0.0%     | 3.5%     | 1.3%     | 0.9%     |
| <b>Total</b>  | 1,193     | 172      | 201      | 603      | 217      |
|   | 100.0%    | 100.0%   | 100.0%   | 100.0%   | 100.0%   |

**Exhibit 17**  
**Response to: "Did the HELP Operator Assist You in a Courteous Manner?"**  
**Calendar Year 2011**



|       | Statewide |         | Region 1 Knoxville |         | Region 2 Chattanooga |         | Region 3 Nashville |         | Region 4 Memphis |         |
|-------|-----------|---------|--------------------|---------|----------------------|---------|--------------------|---------|------------------|---------|
|       | Number    | Percent | Number             | Percent | Number               | Percent | Number             | Percent | Number           | Percent |
| Yes   | 1,123     | 99.6%   | 165                | 100.0%  | 181                  | 100.0%  | 574                | 99.3%   | 203              | 99.5%   |
| No    | 5         | 0.4%    | 0                  | 0.0%    | 0                    | 0.0%    | 4                  | 0.7%    | 1                | 0.5%    |
| Total | 1,128     | 100.0%  | 165                | 100.0%  | 181                  | 100.0%  | 578                | 100.0%  | 204              | 100.0%  |

**Exhibit 18**  
**Response to: "How Would You Rate the HELP Service?"**  
**Calendar Year 2011**



|                  | <u>Regions</u>    |          |          |          |          |
|------------------|-------------------|----------|----------|----------|----------|
|                  | <u>State Wide</u> | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> |
| <b>Excellent</b> | 1,073             | 156      | 171      | 553      | 193      |
|                  | 95.1%             | 94.5%    | 94.5%    | 95.7%    | 94.6%    |
| <b>Good</b>      | 30                | 3        | 5        | 15       | 7        |
|                  | 2.7%              | 1.8%     | 2.8%     | 2.6%     | 3.4%     |
| <b>Fair</b>      | 2                 | 0        | 0        | 2        | 0        |
|                  | 0.2%              | 0.0%     | 0.0%     | 0.3%     | 0.0%     |
| <b>Poor</b>      | 3                 | 0        | 1        | 1        | 1        |
|                  | 0.3%              | 0.0%     | 0.6%     | 0.2%     | 0.5%     |
| <b>Others</b>    | 20                | 6        | 4        | 7        | 3        |
|                  | 1.8%              | 3.6%     | 2.2%     | 1.2%     | 1.5%     |
| <b>Total</b>     | 1,128             | 165      | 181      | 578      | 204      |
|                  | 100.0%            | 100.0%   | 100.0%   | 100.0%   | 100.0%   |

## Stakeholder Comments

The HELP Comment Card includes a space for the motorist to add written comments if they choose. The excerpts in Exhibit 19 include representative comments from each of the four cities and from each month of the year. Comment cards are available for review upon request.

TDOT also receives customer feedback through e-mails, letters, phone calls, and personal conversations with citizens, law enforcement officers, fire and emergency medical services personnel, tow truck operators, and local transportation officials. A few comments with fair ratings were received during the year, mostly from motorists who had to wait longer than they expected, or thought the HELP operator was not sufficiently helpful. A few motorists reported actions that were perceived as unsafe or unnecessarily disruptive to traffic flow, and HELP supervisors and managers addressed all such complaints promptly and thoroughly. However, the comments from all sources during CY 2011 were overwhelmingly positive.

### Exhibit 19 Excerpts from the HELP Comment Cards

| Date Helped | Comment  | Route  | City        |
|-------------|--|--------|-------------|
| 1/5/2011    | Extremely nice and helpful. Got to us very quickly. Couldn't have had a better person to help us. He was great and very nice. God bless him and God bless TDOT.  | I-40   | Knoxville   |
| 1/20/2011   | My granddaughter on her way from school when she had a flat tire. Your man was very understanding and professional in helping my granddaughter who was very nervous. He did a great job and put her at ease. Give him a raise.     | I-24   | Chattanooga |
| 2/9/2011    | The assistance I received from the HELP service is unparalleled. Thank you so much for what you do!  | I-65   | Nashville   |
| 2/16/2011   | Wonderful. Thank you!  | I-40   | Memphis     |
| 3/16/2011   | This was the first time something like this had happened to me, and I thank God for TDOT.  | I-75   | Chattanooga |
| 3/24/2011   | She was so quick and helpful and had me stay in the car. It was a wonderful experience and Karen was magnificent!!   | I-640  | Knoxville   |
| 4/1/2011    | He was excellent! Thank you!   | I-24   | Chattanooga |
| 4/4/2011    | He was prompt, friendly, and knowledgeable and got my flat tire changed out quickly- all with a smile. I could tell by talking with him he is dedicated to providing great customer service.                                       | I-440  | Nashville   |
| 5/9/2011    | What a wonderful service we have when stranded on the Interstate. He was there within 2-3 minutes from the time I stopped. He was very friendly, very professional and I thank God for men like him. Thank you TDOT and thank you. | I-75   | Knoxville   |
| 5/16/2011   | Thank you for this wonderful service!  | I-55   | Memphis     |
| 6/1/2011    | Awesome service! I'm so thankful!! He was great.   | I-40   | Knoxville   |
| 6/3/2011    | This is the best program the State has ever paid for. The HELP service made me feel less stressed and more secure. Thank you!  | SR-153 | Chattanooga |
| 7/14/2011   | She was a very nice lady, very organized, and knew her job. She's a great asset to TDOT.   | I-40   | Knoxville   |
| 8/17/2011   | Came along at a perfect time. Thank you! Thank you!  | SR-155 | Nashville   |
| 8/18/2011   | Absolutely helpful, courteous, and friendly. Really glad to see him stop. He stopped the traffic across 3 lanes so we could safely move to the right side of road. Thanks.   | I-24   | Chattanooga |
| 9/6/2011    | Wish all states had the same type of service.  | I-40   | Knoxville   |
| 10/3/2011   | This is a fantastic service. The person was very friendly/ helpful. What a wonderful service.  | I-40   | Memphis     |
| 11/6/2011   | Very professional and courteous. Quick assistance too. We were back on the road within 15 - 20 minutes.  | I-40   | Knoxville   |
| 11/9/2011   | I didn't call them. They saw me. Very grateful. Thank you.   | I-40   | Memphis     |
| 12/2/2011   | HELP Operator was very kind, helpful, and efficient getting me and my car safely to right shoulder. Clearing/stopping traffic for both of our safety. Thank you!!!   | I-24   | Chattanooga |
| 12/13/2011  | The HELP Operator who stopped was extremely gracious and helpful. Thank you so much for providing this service.  | I-240  | Memphis     |

## SECTION 5

### COSTS, BENEFITS, AND FUNDING SOURCES

The total operating expenditures for the HELP program during FY 2010-2011 were approximately \$8.6 million – including salaries and related costs, vehicle operation and maintenance, fuel, supplies, and other operating costs. Amortization of the trucks and equipment adds approximately \$800,000 per year to the costs of the program, for a total annual cost of approximately \$9.4 million. (The \$800,000 estimate for the annualized cost of the trucks is based on an average useful life of five years for the HELP operator trucks. Based on experience to date, many of the trucks will be kept in service even longer.)

These resources generate benefits for all highway users and others who would otherwise suffer because of the crashes, disabled vehicles, debris in the roadway congestion, or other conditions rectified by the HELP operators.

The TDOT HELP Program profile is as follows:

**Exhibit 20**  
**HELP Truck Data and Personnel**

|                        | Region 1  | Region 2  | Region 3  | Region 4  | Total     |
|------------------------|-----------|-----------|-----------|-----------|-----------|
| Operators              | 10        | 10        | 20        | 15        | 55        |
| Supervisors            | 4         | 4         | 4         | 4         | 16        |
| Dispatchers            | 4         | 5         | 6         | 5         | 20        |
| Reg. Coord.            | 1         | 1         | 1         | 1         | 4         |
| <b>Total Personnel</b> | <b>19</b> | <b>20</b> | <b>31</b> | <b>25</b> | <b>95</b> |
| Oper. Trucks           | 11        | 10        | 20        | 16        | 57        |
| Sprv. Trucks           | 5         | 5         | 6         | 5         | 21        |
| Support Trucks         | 1         | 3         | 1         | 5         | 10        |
| <b>Total Trucks</b>    | <b>17</b> | <b>18</b> | <b>27</b> | <b>26</b> | <b>88</b> |

## Benefits

The benefits of the HELP program are categorized in Exhibit 21. For some of those benefit categories, a direct economic value could be estimated with a high degree of confidence. For other categories the economic benefits would be more difficult to determine and would require many assumptions. The University of Tennessee, Transportation Research Office, has prepared a Draft Technical Report on Cost-Benefit Estimation for TDOT's Traffic Incident Management. The finding from this draft report indicates the quantifiable benefits of the HELP Program far exceed the funding costs of operation. The benefit to cost ratio for the statewide HELP Program is estimated at 8.48:1. As calculated by other states program studies, this ratio falls in the lower middle of the range of values. This estimation is probably lower because it only accounts for delay savings and does not account for safety benefits or environment impacts or goodwill.<sup>1</sup>

The 2011 Urban Mobility Report prepared by the Texas Transportation Institute (TTI) examined the causes and costs of traffic congestion in many U.S. urban areas, including Memphis and Nashville.<sup>2</sup> This report includes an estimate of the cost savings attributable to "operational treatments" to reduce congestion, including the HELP patrols in Memphis and Nashville. Based just on the reduced travel delays and fuel savings from avoided congestion the TTI study concluded that the benefits generated by the HELP patrols in Memphis totaled to approximately \$35.8 million for calendar year 2010. For Nashville, the estimated benefits were approximately \$55.6 million. The TTI estimates of the HELP Program benefits for reduced travel delays and fuel savings in just the two cities is \$91.4 million versus the actual statewide operational costs of \$8.6 million. The 2010 Urban Mobility Report also included Knoxville, TN.

As noted above, the TTI study did not attempt to assign any value to the reduced risks of secondary crashes, improved safety for other incident responders or motorists in distress, avoided air or water pollution, improved transportation system security, or the goodwill created when an out-of-state motorist is assisted, not to mention the benefits for the Tennessee citizens and visitors who received direct assistance from a HELP operator.

## Funding Sources

Most of the startup costs for the HELP program, including the initial purchase of trucks and equipment, were paid with federal funds, primarily under a program known as Congestion Mitigation and Air Quality (CMAQ). The CMAQ funds, administered by the Federal Highway Administration, were allocated for use in Knoxville, Memphis, and Nashville because those cities were not in compliance with certain federal air quality standards. Chattanooga was in compliance and did not receive CMAQ allocations, and TDOT used Federal Surface Transportation Program (STP) funds for the startup in Chattanooga.

The operating costs for HELP during CY 2011 were covered with state and federal Surface Transportation Program funds. For the future, TDOT plans to use a mixture of state and federal funds, all of which will come from highway user taxes.<sup>3</sup>

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<sup>1</sup> The University of Tennessee, *A Technical Report on Cost-Benefit Estimation for TDOT's Traffic Incident Management* (draft) Sam Moss, Lee D. Han PhD, January 2012

<sup>2</sup> Texas Transportation Institute, *2011 Annual Urban Mobility Study*, 2011. (<http://mobility.tamu.edu/>)

<sup>3</sup> TDOT also considered, but decided against, charging motorists for services such as changing tires or providing fuel. Several equally important factors influenced that decision. First, the HELP operators would have to handle cash or prepare an invoice for the motorist, extending the time of exposure to hazardous circumstances for both the HELP operator and the motorist. Likewise, other motorists would be distracted for a longer period, with the associated disruption of traffic and risks of secondary crashes. Further, some motorists might want to refuse the service if a fee were charged, causing continued delays and hazards for others. Finally, the administrative costs of collecting, securing, depositing, and accounting for payments and bills could easily exceed the amounts received. TDOT believes that the public interest is best served by clearing the roadway and getting stranded motorists back on their way as quickly as possible

**Exhibit 21**  
**Benefits of the HELP Program for Tennessee Taxpayers**

| HELP Service                       | Number of services delivered during CY 2011 | Benefits                                    |   |   |   |   |   |                                |
|------------------------------------|---|---|---|---|---|---|---|--------------------------------|
|                                    |   | Reduced travel delays and lost productivity | Reduced the number of secondary crashes | Improved safety for motorists in distress | Improved safety for other incident responders | Reduced wasted fuel and environmental pollution | Improved transportation system security | Created goodwill for Tennessee |
| Provide traffic control            | 26,212                                      | Direct                                      | Direct                                  | Direct                                    | Direct  | Direct  | Incidental                              | Incidental                     |
| Tagged Abandoned Vehicle           | 11,117                                      | Indirect                                    | Indirect                                | Incidental                                | Incidental                                    | Incidental                                      | Direct                                  | Incidental                     |
| Mechanical assistance              | 11,916                                      | Indirect                                    | Direct                                  | Incidental                                | Indirect                                      | Incidental                                      | Direct                                  | Direct                         |
| Change tire                        | 11,449                                      | Indirect                                    | Direct                                  | Incidental                                | Indirect                                      | Incidental                                      | Direct                                  | Direct                         |
| Provide fuel                       | 12,742                                      | Indirect                                    | Direct                                  | Incidental                                | Indirect                                      | Incidental                                      | Direct                                  | Direct                         |
| No service – check well being      | 13,164                                      | Incidental                                  | Incidental                              | Incidental                                | Incidental                                    | Incidental                                      | Direct                                  | Direct                         |
| Remove debris from roadway         | 5,936                                       | Direct                                      | Direct                                  | Incidental                                | Incidental                                    | Indirect  | Incidental                              | Incidental                     |
| Provide directions                 | 11,835                                      | Incidental                                  | Incidental                              | Direct                                    | Incidental                                    | Indirect  | Incidental                              | Direct                         |
| Relocate vehicle from traffic lane | 5,795                                       | Direct                                      | Direct                                  | Direct                                    | Direct  | Direct  | Incidental                              | Direct                         |
| Provide use of cell phone          | 781   | Indirect                                    | Indirect                                | Direct                                    | Incidental                                    | Indirect  | Incidental                              | Direct                         |
| Notify law enforcement             | 2,086                                       | Indirect                                    | Incidental                              | Indirect                                  | Incidental                                    | Indirect  | Direct                                  | Incidental                     |
| Provide fluids                     | 2,199                                       | Indirect                                    | Indirect                                | Direct                                    | Incidental                                    | Indirect  | Incidental                              | Direct                         |
| Transport motorist                 | 374   | Incidental                                  | Incidental                              | Direct                                    | Incidental                                    | Indirect  | Indirect                                | Direct                         |
| Secure load                        | 382   | Indirect                                    | Indirect                                | Direct                                    | Incidental                                    | Indirect  | Incidental                              | Direct                         |
| Perform first aid                  | 97  | Incidental                                  | Incidental                              | Direct                                    | Incidental                                    | Incidental                                      | Incidental                              | Direct                         |
| Apply absorbent                    | 251   | Incidental                                  | Incidental                              | Incidental                                | Incidental                                    | Direct  | Incidental                              | Incidental                     |
| Extinguish fire                    | 46  | Indirect                                    | Indirect                                | Direct                                    | Direct  | Direct  | Indirect                                | Direct                         |

 = Direct  
 = Indirect  
 = Incidental

**Note:** In addition to the above benefits for *all* Tennessee taxpayers, more than 88,550 Tennessee motorists and more than 10,422 motorists from other states received *direct* assistance from HELP (changed tire, fuel, first aid, etc.) during CY 2011.

## Appendix A: "Move It" Brochure

### If you are involved in a minor incident, follow these **FOUR** steps:

1. **Assess**  
Check for injuries. If anyone is injured, call 911 immediately and wait for emergency responders.
2. **MOVE IT ... Yes, you can!**  
Determine whether the vehicles are movable.  
  
Move vehicles out of the travel lane to the nearest safe location.
3. **Notify**  
If there are no serious injuries, call your local non-emergency law enforcement number to report the incident. Give them your exact location and follow the dispatcher's instructions.
4. **Report**  
Exchange driver, vehicle and insurance information. (See Motorist Information Exchange Cards on other side of this form.)

Report the incident as instructed by law enforcement and your insurance provider.



### State of Tennessee Statute - TCA 55-10-117

According to Tennessee law, when a motor vehicle traffic crash occurs on an interstate or other controlled-access highway with no apparent serious personal injury or death, the driver of each vehicle involved should remove their vehicle from the roadway whenever the move may be done safely and the vehicle is capable of being normally and safely driven.

To help ease traffic congestion, the Tennessee Department of Transportation and the Tennessee Department of Safety have entered into an interagency memorandum of understanding to work together to ensure public safety, promote the safe and orderly flow of traffic, protect the safety of emergency responders, and restore the roadway to full capacity as soon as possible following an incident. This is part of TDOT's SmartWay System, an intelligent transportation plan to address traffic congestion issues.

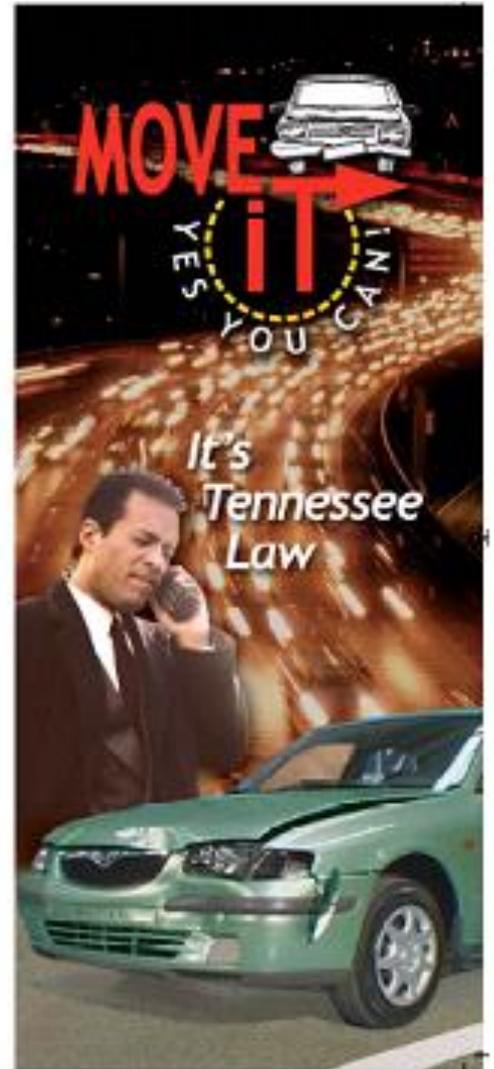
The Tennessee Department of Transportation has placed signs along the state's interstate system reminding motorists to move their damaged vehicles to the shoulder if no serious injury has occurred.

TDOT also has HELP units along Tennessee's urban interstates to help motorists clear their vehicles off the road and to help with any traffic problems.

For more information, visit the TDOT Web site at [www.tennessee.gov/MDOT](http://www.tennessee.gov/MDOT)

TDOT  
Go.

Tennessee Department of Transportation, Accountable No. 401437, 100,000 copies March 2006. This press document was printed at a cost of \$0.050 per copy.



## Appendix B: HELP Comment Card

Please answer the following questions concerning the HELP program. When finished, please mail. No postage required.

1. When did you receive help from the HELP unit?  
Date \_\_\_\_\_ Time \_\_\_\_\_ A.M.-P.M.

2. What route \_\_\_\_\_; mile marker \_\_\_\_\_

3. For what reason did you need assistance?

- Accident    Flat Tire  
 Out of Gas    Mechanical Problem  
 Other \_\_\_\_\_

4. Where was your vehicle when the HELP unit arrived?

- On the road, blocking a traffic lane  
 On the road, partially blocking a traffic lane  
 On the shoulder ( \_\_\_left; \_\_\_right)  
 Completely off the road    On the ramp

5. How long did you wait before the HELP unit arrived? \_\_\_\_\_ minutes

6. How would you rate the HELP service?

- Excellent    Good    Fair    Poor

7. Did the HELP operator assist you in a courteous manner?

- Yes    No

Comments: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name(optional) \_\_\_\_\_



NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES

**BUSINESS REPLY MAIL**  
FIRST-CLASS MAIL   PERMIT NO 131   NASHVILLE TN

POSTAGE WILL BE PAID BY ADDRESSEE

TENNESSEE DEPARTMENT OF TRANSPORTATION  
TRANSPORTATION MANAGEMENT CENTER  
6603 CENTENNIAL BOULEVARD  
NASHVILLE TN 37209-9915



**APPENDIX C**  
**TENNESSEE REGIONAL HELP COORDINATORS**

Region I

Mark Dykes, HELP Coordinator  
David Wortham, Assistant HELP Coordinator  
7238 Region Lane  
Knoxville, TN 37914  
Telephone Number: 865-594-2714  
[Mark.Dykes@tn.gov](mailto:Mark.Dykes@tn.gov)

Region II

Robert VanHorn  
Lacy Word, Assistant HELP Coordinator  
7500 Volkswagen Drive  
Chattanooga, TN 37416  
Telephone Number: 423-892-3430  
[Robert.VanHorn@tn.gov](mailto:Robert.VanHorn@tn.gov)

Region III

Robert Allen, HELP Coordinator  
Emerson Boguskie, Assistant HELP Coordinator  
6603 Centennial Blvd. TMC Bldg. R  
Nashville, TN 37243  
Telephone Number: 615-350-4437  
[Robert.E.Allen@tn.gov](mailto:Robert.E.Allen@tn.gov)

Region IV

John Thomas, HELP Coordinator  
Carlton Towles, Assistant HELP Coordinator  
5336 Boswell Ave.  
Memphis, TN 38120  
Telephone Number: 901-935-0312  
[John.Thomas@tn.gov](mailto:John.Thomas@tn.gov)

## APPENDIX D

### For Additional Information Contact:

Mr. Frank Horne, Director  
Tennessee Department of Transportation  
Office of Incident Management  
6603 Centennial Blvd., TMC Bldg. R  
Nashville, TN 37243  
Telephone Number: 615-350-3306  
Fax Number: 615-350-3384  
[frank.c.horne@tn.gov](mailto:frank.c.horne@tn.gov)

Or

Ms. Ollie Jackson, Program Manager  
Tennessee Department of Transportation  
Office of Incident Management  
6603 Centennial Blvd., TMC Bldg. R  
Nashville, TN 37243  
Telephone Number: 615-350-3438  
Fax Number: 615-350-3384  
[ollie.jackson@tn.gov](mailto:ollie.jackson@tn.gov)



**In Memory of  
Robert “Bob” Nowicki  
Memphis Incident Management Program  
HELP Operator  
8/19/1961 – 6/20/2011**