

Florida Turnpike Enterprise's Incident Management Program: Key Success Factors

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Abstract. This paper discusses Florida Turnpike Enterprise's Incident Management Program and some key elements that led to its successful implementation. Managing over 450 centerline miles on some of the most heavily traveled roadways throughout Florida, the Enterprise (FTE) plays an important role in providing mobility for a varied traffic mix of commuters, visitors, and trucks around the State. The Florida Department of Transportation (FDOT) and the Florida Highway Patrol (FHP) established Florida's *Open Roads Policy* in 2002, defining each agency's high-level roles and responsibilities during the management of an incident. The *Policy* calls for the removal of damaged vehicles, spilled cargo, and debris, as well as the reopening of the roadway within 90 minutes. Moreover, Florida published *Guidelines for the Mitigation of Accidental Discharges of Motor Vehicle Fluids (Non-Cargo)* in 2004 to provide specific guidance for spilled vehicle fluid cleanup and provide a reference for the disposal of spill materials in support of the *Open Roads Policy*. Since motorists want reliable, predictable highways, especially when they are paying tolls, and every moment during which the roadway is closed creates unacceptable delays and incurs financial losses, FTE proactively sought ways to implement this *Policy*.

As with the implementation of any new program, there were administrative, financial, institutional, and technical barriers that needed to be overcome. Stakeholder support was critical; intra- and inter- agency communication flows needed to be improved, and primary/secondary responder roles and responsibilities needed to be clearly identified and agreed to. Executive management support and sometimes intervention was needed when inter-entity issues could not easily be resolved. New interdependent relationships were forged between operational partners who embraced the challenge of reducing incident durations and improving system safety. New performance-based contracts had to be developed to allow non-State entities to play their roles successfully, and tools and training for all partners were provided for. Funding issues had to be addressed. After-action reviews were planned for all involved parties to allow for lessons-learned and continual improvement.

Since the initiation of the integrated program, the average time to clear major incidents and re-open the roadway has been under one hour. Supported by FTE's basic requirement for innovative thinking and non-acceptance of the status quo regarding incident management, critical success factors were identified and execution of a highly successful Incident Management program was achieved.

DISCLAIMER: The opinions, findings, and conclusions expressed in this publication are those of the author and not necessarily those of the State of Florida Department of Transportation.

INCIDENT IMPACTS

There are five generally defined areas of impact where normal traffic can be interrupted:

- Recurring congestion (predictable slowdowns and conflicts);
- Non-recurring congestion (incidents such as crashes or other lane blockages cause unexpected delays that may require re-routing of impacted traffic);
- Work zones (construction activities affect normal conditions);
- Planned special events (major traffic generators temporarily impact traffic); and
- Natural or man-made emergencies (may require evacuations, movement of response resources, and changes in normal traffic patterns associated with evacuation / emergency routes).

Incidents, or unanticipated, non-recurring traffic events that temporarily cause reductions in roadway capacity, have tremendous impacts. They have the potential to create delays and traffic backups, either from simple rubbernecking to significant traffic queue build-up on the roadway where the incident occurred, as well as other facilities that may be used as alternative routes. Delays and backups have non-traffic impacts as well, including:

- Increased response times for law enforcement, fire-rescue, and other responders;
- Diversion of responder resources during multiple incidents;
- Decreased safety for motorists and responders alike;
- Danger of secondary collisions;
- Increased fuel consumption and vehicle maintenance costs;
- Increased costs for goods and services; and
- Increased vehicular emissions and decreased air quality.

Texas Transportation Institute's *2005 Urban Mobility Report* details that congestion continues to worsen, with 3.7 billion total hours of travel delay, 2.3 billion gallons of wasted fuel, and a total cost of \$63 billion in 2003. Because transportation capacity improvements alone cannot keep up with the pace of worsening congestion, operational improvements are needed: operational improvements are estimated to have contributed 340 million hours of congestion relief so far. While operational improvements can only help slow down the growing costs of congestion, they are one area in which transportation departments can see quick and effective results. If implemented nationally on all major freeways and streets, incident management has the potential to save up to 250 million hours of delay – a significant and important series of improvements that can be implemented more quickly than traditional transportation capacity projects.

Table 1 shows data from the *2005 Urban Mobility Report* for annual delay per traveler/national ranking and Travel Time Index (TTI) for congestion/national ranking in three large metropolitan areas in Florida (over 1 million population). Annual delay per traveler is extra time for peak period travel; free-flow is 60 mph on freeways. TTI is defined as the ratio of travel time in the peak period to travel time at free-flow conditions: a 1-hour trip in Miami during free-flow conditions will take 85 minutes during the peak period (60 min * 1.42).

Table 1. Key Mobility Measures in Florida (2003 data)

Region	Hours	Rank	TTI	Rank
Miami	51	13	1.42	6
Orlando	55	9	1.30	28
Tampa / St. Pete	46	20	1.33	23

Incident Management is the planned, coordinated effort between multiple agencies to deal with incidents and restore normal traffic flow as safely and quickly as possible. Incident management is growing in importance as agencies such as transportation departments, law enforcement, and incident/emergency responders realize that quickly re-opening highway lanes to normal traffic flow not only re-establishes normal capacity and conditions but, among other benefits, also enhances safety for motorists and field/safety personnel, reduces the number of secondary crashes, reduces motorist costs, and allows resources to resume non-incident activities.

OVERVIEW OF FLORIDA’S TURNPIKE SYSTEM

With over 450 miles of limited access tolled highways, Florida’s Turnpike System of roadways includes the original Florida Turnpike extending from Florida City in Miami-Dade County to Wildwood in north-central Florida, the Sawgrass Expressway in Broward County, the Veterans Expressway and Suncoast Parkway in the Tampa area, the Polk Parkway near Lakeland, and the Beachline Expressway, East-West Expressway, Southern Connector, and Seminole Expressway in the metropolitan Orlando region. Additionally, the System includes a number of Turnpike-operated (but not owned) toll facilities throughout Florida. Providing Florida’s motorists with safe and efficient means of travel since 1957, the different roadways traverse rural areas and connect major metropolitan centers throughout much of the state. Serving over 1.8 million motorists daily, the Turnpike has striven to provide innovative customer initiatives and enhanced levels of service in order to provide value to each and every toll-paying customer. Figure 1 provides a sketch showing the extent of the System.

FLORIDA DEPARTMENT OF TRANSPORTATION AND FLORIDA’S TURNPIKE ENTERPRISE

An innovative experiment in governance, Florida’s Turnpike Enterprise (FTE) is a component of the Florida Department of Transportation (FDOT). Authorized in law in 2002 to be run using private sector models from within the public sector, this revenue-producing asset of the State of Florida explores ways to improve cost effectiveness and timeliness in project delivery, increase revenues and expand its capital program, and improve its quality of service as it helps meet Florida’s growing transportation needs. FTE’s vision, or statement providing a compelling image of the future, and mission, or statement providing a method of operation, can be clearly mapped to the vision and mission of FDOT. They are as follows:

FDOT Vision: The people of DOT...dedicated to making travel in Florida safer and more efficient

FDOT Mission: The Department will provide a safe transportation system that ensures the mobility of people and goods, enhances economic prosperity, and preserves the quality of our environment and communities

FTE Vision: Helping to keep Florida on the move through customer-oriented, environmentally sound, user-financed facilities

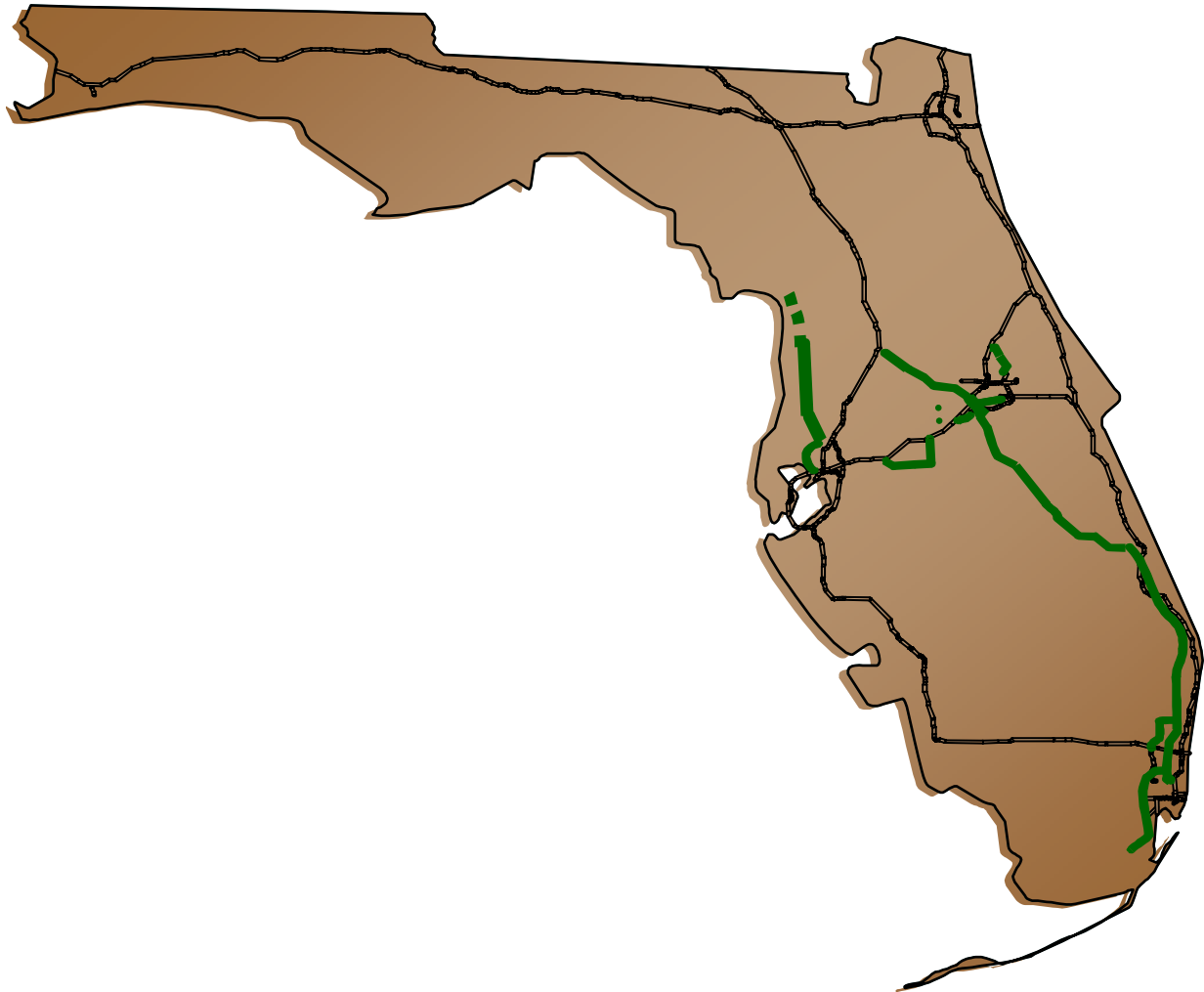
FTE Mission: To help meet the State's growing transportation needs, ensuring value to customers, protecting investors, and managing the Turnpike System in a business-like manner

A series of strategies were developed to produce positive transportation impacts, one of which relates directly to the subject of this paper:

- Provide Innovative Customer Service

Innovative customer service relates to opportunities to use a variety of operational changes to better serve customers. Better incident management through the use of integrated strategies is one such means of providing innovative customer service.

Figure 1. Florida's Turnpike System



QUICK CLEARANCE AND SUPPORTIVE POLICIES

Quick Clearance embraces several different elements that, when used consistently, provides a series of improvements because the roadway is opened to traffic more quickly:

- Reduction of incident-related congestion and delay;
- Reduction of secondary collisions are reduced;
- Increase in responder safety through reduced exposure;
- Reduction in negative economic impacts;
- Improvement air quality and reduced fuel consumption; and
- Minimization of revenue losses for toll agencies because of toll suspensions can be minimized.

An important component of Quick Clearance is an Open Roads Policy that defines agencies' high-level roles and responsibilities during the management of an incident. Such policies typically call for removal of damaged vehicles, spilled cargo, and debris, as well as the reopening of the roadway within a specified timeframe. An excerpt from Florida's *Policy*, established in 2002 between FDOT and the Florida Highway Patrol (FHP), is given in Figure 2.

Figure 2. *Florida Open Roads Policy* excerpt.

“OPEN ROADS POLICY”

Quick Clearance for Safety and Mobility

This agreement by and between the Florida Highway Patrol (FHP) and the Florida Department of Transportation (FDOT) establishes a policy for FHP and FDOT personnel to expedite the removal of vehicles, cargo, and debris from roadways on the State Highway System to restore, in an URGENT MANNER the safe and orderly flow of traffic following a motor vehicle crash or incident on Florida's roadways.

Whereas: Public safety is the highest priority and must be maintained especially when injuries or hazardous materials are involved. The quality of life in the State of Florida is heavily dependent upon the free movement of people, vehicles, and commerce. The FHP and FDOT share the responsibility for achieving and maintaining the degree of order necessary to make this free movement possible. Agencies have the responsibility to do whatever is reasonable to reduce the risk to responders, secondary crashes, and delays associated with incidents, crashes, roadway maintenance, construction, and enforcement activities.

The following operating standards are based on the philosophy that the State Highway System will not be closed or restricted any longer than is absolutely necessary.

Be it resolved: Roadways will be cleared of damaged vehicles, spilled cargo, and debris as soon as it is safe to do so. It is understood that damage to vehicles or cargo may occur as a result of clearing the roadway on an urgent basis. While reasonable attempts to avoid such damage shall be taken, the highest priority is restoring traffic to normal conditions. Incident caused congestion has an enormous cost to society.

Another practice provides guidelines for the mitigation of accidental discharge of motor vehicle fluids in non-cargo carriers. By defining all vehicular fluid spills as hazardous material incidents, hours of unnecessary delay can be added to incident durations. New Standard Operating Procedures (SOPs) clearly state that that spilled motor vehicle fluids are NOT always to be treated as hazardous material incidents.

Instead, the SOPs outline actions and materials to contain and mitigate small spills, the extent of which is clearly and precisely defined. These SOPs promote earlier first responder intervention and remove spill liability fears without altering the responsible party's obligation to quickly clear incident scene wreckage. Florida's *Guidelines for Mitigation of Accidental Discharges of Motor Vehicle Fluids (Non-Cargo)* were published in 2004 in support of the *Open Roads Policy*. Figure 3 shows an excerpt of these Guidelines.

Figure 3. *Florida Guidelines for Mitigation of Accidental Discharges of Motor Vehicle Fluids (Non-Cargo)* excerpt.

Guidelines
For the
**MITIGATION OF ACCIDENTAL DISCHARGES OF MOTOR VEHICLE
FLUIDS (NON-CARGO)**
6/25/04

Purpose, Goal and Objectives

The following guidelines were prepared to outline steps that can be taken by early responders to motor vehicle crashes to reduce the confusion and subsequent delays in re-opening roadways when spilled vehicle fluids are involved. Refer to the existing policies in place for dealing with Hazardous Material releases.

These guidelines were developed by the multi agency, Florida Statewide Traffic Incident Management Program (TIMP) to clarify the goals, objectives and processes for clearing the highway of spilled motor vehicle fluids resulting from crashes and other vehicle incidents. The guidelines were reviewed and indorsed by the Florida Department of Transportation (DOT), Florida Department of Environmental Protection (DEP), and Florida Highway Patrol. The content of these guidelines is based on and consistent with the open letter to Fire-Rescue Departments and other response agencies from the Department of Environmental Protection dated June 14, 2002.

Spilled vehicle fluids are generally petroleum products, and most commonly are crankcase engine oil or diesel fuel, but they may also include transmission, hydraulic, or other fluids. Typically, absorbed vehicle fluids rarely fail the Toxicity Characteristic Leaching Procedure (TCLP) and thus are usually not hazardous wastes.

The goal is to provide guidance to responders and assist them in meeting the primary Incident Management goal of the Open Road Policy (ORP), namely to clear the incident scene within 90-minutes of the arrival of the first responder. In many incidents involving this level of spill, this goal can be far exceeded if these guidelines are followed.

The objectives of these guidelines are to:

- Provide specific procedural guidance for spilled vehicle fluid cleanup, and;
- Provide a reference for the disposal of spill materials.

INCIDENT MANAGEMENT ELEMENTS

Rapid Incident Scene Clearance (RISC). A successful element of FTE's incident management program is its RISC contract, a highly innovative program that helps meet the goal of safely clearing major highway incidents and truck crashes in 90 minutes or less. With dated towing regulations for heavy-duty wreckers that no longer effectively clear crash scenes involving tractor-trailers, FTE developed an incentive-based contract that requires specialized equipment and skilled operators to quickly remove wreckage from the roadway. This contract does not eliminate the Class C (heavy-duty) wrecker class that is used to remove disabled trucks and buses. The contract most commonly used when incidents cause complete roadway closures.

In place since 2004, the RISC program provides assurances that only highly-trained, certified operators and heavy-recovery equipment will respond to any incident involving large vehicles that block travel lanes. There are detailed specifications for 50-ton, hydraulic, extendable boom, ultra heavy-duty wreckers, 40-ton capacity rotator type heavy-duty recovery wreckers, various support equipment such as end loaders and cranes, and training and certification standards for

operator competency including MUTCD traffic control. Figures 4, 5, and 6 show examples of equipment and recovery efforts. While the responsible party remains liable for the tow bill, general cash incentives for prompt response and quick clearance of the incident scene as follows:

- \$600 payment for arrival within one hour if the wrecker services end up not being used;
- \$2500 payment for successful removal of all wreckage and re-opening of the roadway within 90 minutes of being given Notice-to-Proceed; and
- \$1000 if additional specialty equipment is approved for use during the incident cleanup.

However, if the travel portion of the roadway is not cleared in three hours, the recovery company is not granted any performance payment. If the time exceeds three hours, the recovery company is assessed a penalty in the form of liquidated damages that accrue at \$10 / minute (\$600 / hour) until the roadway is reopened to traffic.

Figures 4 through 6. RISC Equipment and Recovery



This innovation is the first of its kind in the world. Increases in traffic caused a greater frequency of major incidents resulting in increased congestion, increased lane closure times and secondary incidents. These major incidents ranged from major traffic crashes involving injuries and fatalities to truck roll-overs and fuel / load spills that closed one or both directions of travel on the roadway. A secondary but important result was the negative impact to Turnpike customers and the loss of ability to collect toll revenues during roadway shutdowns. Prior to the RISC program, the standard method of clearing truck crashes utilized heavy duty wrecker crews paid hourly by the vehicle owners involved in the incident. There were no assurances that the proper equipment or competent operators would respond to any incident. It was not uncommon for major incidents to block travel lanes for four to six hours or more.

The first year of the RISC program saw five executed contracts through an on-going Invitation To Negotiate (ITN), resulting in coverage of 75% of the entire Turnpike System and 90% of the Turnpike Mainline. There are currently 5 contracts covering most of the Turnpike Mainline and all of the Sawgrass Expressway in South Florida. Some of the contracts do overlap; a computer system is used to allow for rotation of contractor callouts. The contractors are allowed to pick the coverage areas they feel they can commit to handling within the specified timeframes.

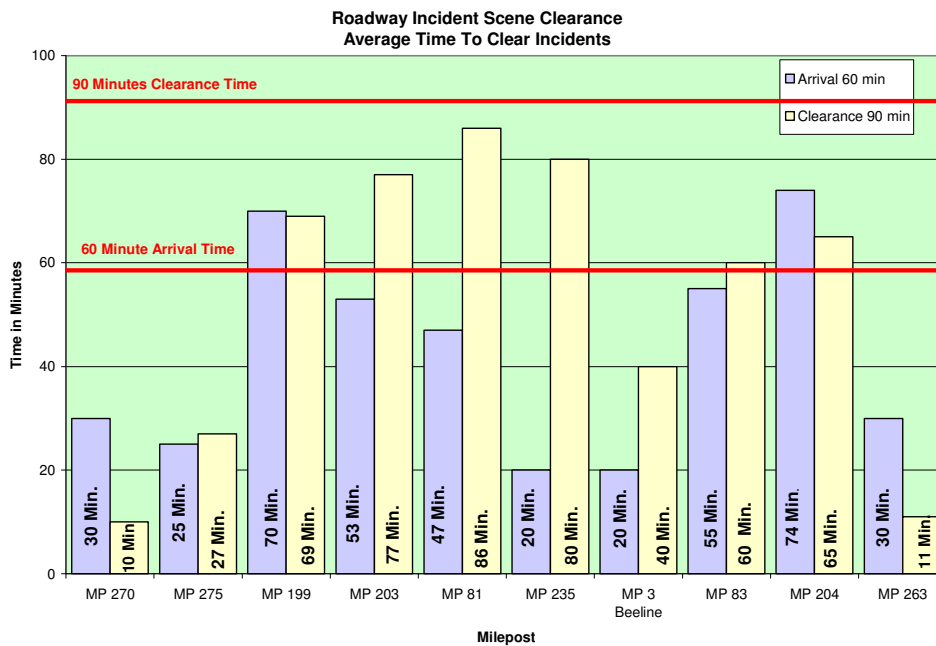
Table 2 shows the number of RISC activations and arrival/clearance times since the program's inception (2006 data are through August). Of 154 activations over the 3-year period, 21 did not

meet the 1-hour arrival time. Only eight did not meet the 90 minute clearance time, and three exceeded the 3-hour period and had to pay liquidated damages, giving the RISC program an outstanding 95% success rate. RISC activations have ranged from cleanup of different types of debris and gasoline / diesel spills from tractor-trailer rigs to removal of debris from multiple and combination vehicle crash scenes. One location in a construction work zone saw two activations in one day, providing an important indication that something within the construction project needed immediate review: while fine during dry conditions, the ensuing rainy period created surface issues with temporary pavement; remedial action was taken immediately. Figure 7 gives examples of compiled results of RISC activations; the red lines for 60 and 90 minutes denote benchmarks for arrival and clearance times.

Table 2. RISC data from 2004 through 2006.

Year	No. of RISC Responses	60 Min. Arrival	90 Min. Clearance	Not Used
2004	19	19	17	2
2005	88	74	83	6
2006	47	42	41	4

Figure 7. Average Time to Clear Incidents



Overall \$354,000 has been spent on the RISC program's performance incentives to date. FDOT has submitted claims to the responsible parties to recover these costs; however, no data on cost recovery is available at this time. However, the dollars spent on the program are minimal when compared to the thousands of dollars lost at incident scenes annually due to negative economic impacts that result in billion dollar losses nationally. More important, however, than the financial losses described previously are the safety enhancements through reduced responder exposure and reduction in secondary collisions, as well as the operational improvements realized through the reduction of incident-related congestion and delays.

Road Rangers. Originally a service patrol program for minor roadway assistance in construction zones, FTE's Road Ranger program has expanded to cover most of the Turnpike System. The vehicles initially provided free minor repairs, tire changes, and fuel and water replacement. Because service patrols are an invaluable tool that often arrive first on an incident scene, Road Rangers' role has been expanded from motorist assistance to include incident management responsibilities. They play a large role in re-opening travel lanes quickly. This expansion of responsibilities and duties was carried out systematically, involving process improvement comments from FTE, FHP, and the Road Ranger contractor.

Truck equipment has been supplemented to allow for initial Maintenance of Traffic setup and early clean-up actions with fuel spills. They are equipped with Automated Vehicle Location (AVL) devices that send vehicle speed and direction information back to the Traffic Management Center (TMC). Road Rangers are trained in scene safety, MUTCD traffic control, and queue protection. Their standard operating procedures have been adjusted to provide regular and frequent communication to the TMCs from incident scenes. A unique aspect of the Enterprise's Road Ranger program is a partnership with State Farm Insurance to assist in motorist safety awareness and incident scene clearance. This partnership provides a cost offset of over \$1M over three years dedicated to contract operating costs. The partnership allowed the expansion of Road Ranger coverage hours as well as the provision of some new equipment. Figure 8 shows a photograph of a Road Ranger/State Farm Safety Patrol truck.

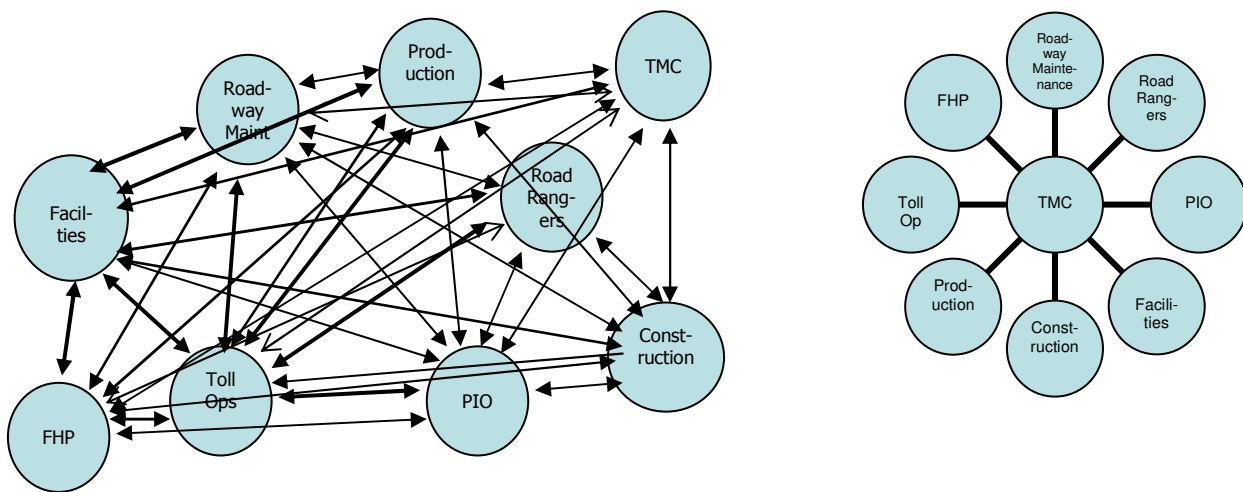
Figure 8. State Farm Safety Patrol Truck



Intelligent Transportation System (ITS) Components. With a fairly typical complement of TMCs and associated field and communications equipment, FTE has made great progress in providing real-time traffic information to the traveling public. With two 24 / 7 interoperable Centers that monitor traffic conditions and disseminate information through Dynamic Message

Signs (DMS), Highway Advisory Radios (HAR), Public Information Displays (PID) in service plazas, and one of the nation's largest 511 traveler information systems in call volumes. The TMCs are information clearinghouses. TMC Team Members work closely with FHP, Road Rangers, and other personnel to detect, verify, and mitigate incidents safely and quickly. At one time, communication flows were erratic and confusing; there were no clear lines of information. A series of meetings with entities involved in all aspects of incident management were held to make changes in the way incidents were handled; these meetings still occur to hold debriefing sessions and continually refine incident management processes. With the changes in protocols, the TMCs have become the central communications hubs for FTE staff as well as partners in incident management such as FHP and the wrecker contractors; this evolution in communication flows is shown in Figure 9.

Figure 9. Evolution in Communication Flows



BARRIERS

Changing existing processes, protocols, and procedures was not easy; there a number of barriers that needed to be overcome.

Administrative.

With numerous public agencies involved, memoranda of understanding/agreement were needed to ensure cooperation, coordination, and communication. Relationships between actual incident personnel often existed; however, these memoranda helped to solidify and define how the agencies would work together. Coalitions then developed that began to include the private sector partners without whose participation this program would not be successful.

Financial.

As with any new program, cost is a factor: from where will the funds necessary to administer this new incident management initiative come? Agencies typically have scheduled budget processes and defined work programs that reach years into the future. The capitalized (or work program) costs associated with FTE's growing ITS program were set, and the ITS design/construction/operations/maintenance programs were well underway. The Road Ranger

program was expanded in part because of the new partnership with State Farm that allowed for additional coverage hours and equipment. Funds for the RISC program were found in the Maintenance Office's operating budget, and attempted recovery of expended funds is ongoing. With commitment of resources and funds to its Incident Management program, FTE's path to success had a firm foundation on which to grow.

Institutional.

New programs can sometimes be viewed with hesitation: "but we've always done it THIS way!" Many internal and external meetings were held to get all necessary incident management partners on-board with FTE's new customer-focused approach to incident management. This process was supported in large part by the existing Traffic Incident Management (TIM) Teams that meet regularly to discuss prior events and plan future improvements. Intra- and inter-agency misgivings were addressed through extensive communication. Meeting participants had to, at times, be reminded to focus on the overall concept of improved incident management; once they accepted this overarching premise, new ideas began to flow – at first slowly, and then more quickly. This enthusiasm was infectious and brought more good new ideas.

Technical.

Even with the best of intentions, without the necessary equipment and technical resources, FTE's incident management program could not be successful. Contractor specifications were carefully defined for the RISC contract to ensure proper equipment and trained personnel would be available. In the sometime absence of ITS field devices, interim protocols for incident detection and verification had to be developed and then adjusted as ITS equipment was put into place. Communication through different media had to be addressed. Equipment and resources were common topics of discussion during many of the incident partner meetings that were held.

Early stakeholder involvement and support was critical, and early on a strategic plan was developed to provide the roadmap for where new approaches to incident management would lead. Communication flows and responder roles and responsibilities needed to be defined, clarified, and agreed to. This was done over the series of many meetings and discussions. High-level meetings were held first to identify strategic plans; this information was then passed down to the next tiers of staff to develop and implement the details. Executive management support and sometimes intervention was needed when inter-office issues could not easily be resolved. As long as partners remained focused on the challenges of reducing incident durations and improving system safety, progress was made. Whenever the discussions diverged from how these challenges would be met, they began to stall; it was critical to remain focused, not an easy task with partners with different and sometimes divergent goals. Gatekeeping was an important meeting facilitator skill.

RESULTS AND CONCLUSIONS

FTE has defined four different time periods related to the management of an incident: notification, arrival, Notice to Proceed (NTP), and clearance. Notification and NTP are generally within the public sector's control; arrival and clearance are generally within the incident responder's control. For a RISC incident, performance payments are associated with the

arrival and clearance periods. However, these time periods can be applied to any incident, and each has opportunities for reduction in duration. In the discussion below, “incident responder” describes resources and personnel needed to re-open the roadway lanes separate from law enforcement or fire-rescue personnel.

Notification.

This time represents the first notice that responders are needed at an incident scene. Law enforcement may arrive first and assess that a response is needed; this is a typical notification method. Alternatively a TMC may be notified through a detection system and use visual verification to assess needs remotely. The TMC can then notify an incident responder he is needed with which resources, sometimes even before law enforcement arrives on-scene.

Arrival.

Arrival time is the period needed to get through traffic to an incident scene; distance and traffic queues will affect an incident responder’s time to arrive. The sooner he can head out to the scene, the better; queues will build, but they will be shorter when notification time occurs earlier. This period includes the arrival of all necessary equipment to clear the roadway, so the responder needs to have correct information regarding clearance resource requirements, and he needs to bring these associated resources to the scene at one time.

Notice to Proceed.

The incident responder needs to wait for law enforcement and fire-rescue to declare that work on the scene is ready to proceed safely; i.e, he needs to wait for NTP. He can do little to influence this time since the scene must first be declared safe before his work may begin. There may be fire or other dangers, loads may be unsafe, etc. Law enforcement and fire-rescue personnel must assess the incident scene, clear it of unsafe conditions, and then declare that cleanup/clearance efforts may proceed. Safety of all personnel is critical.

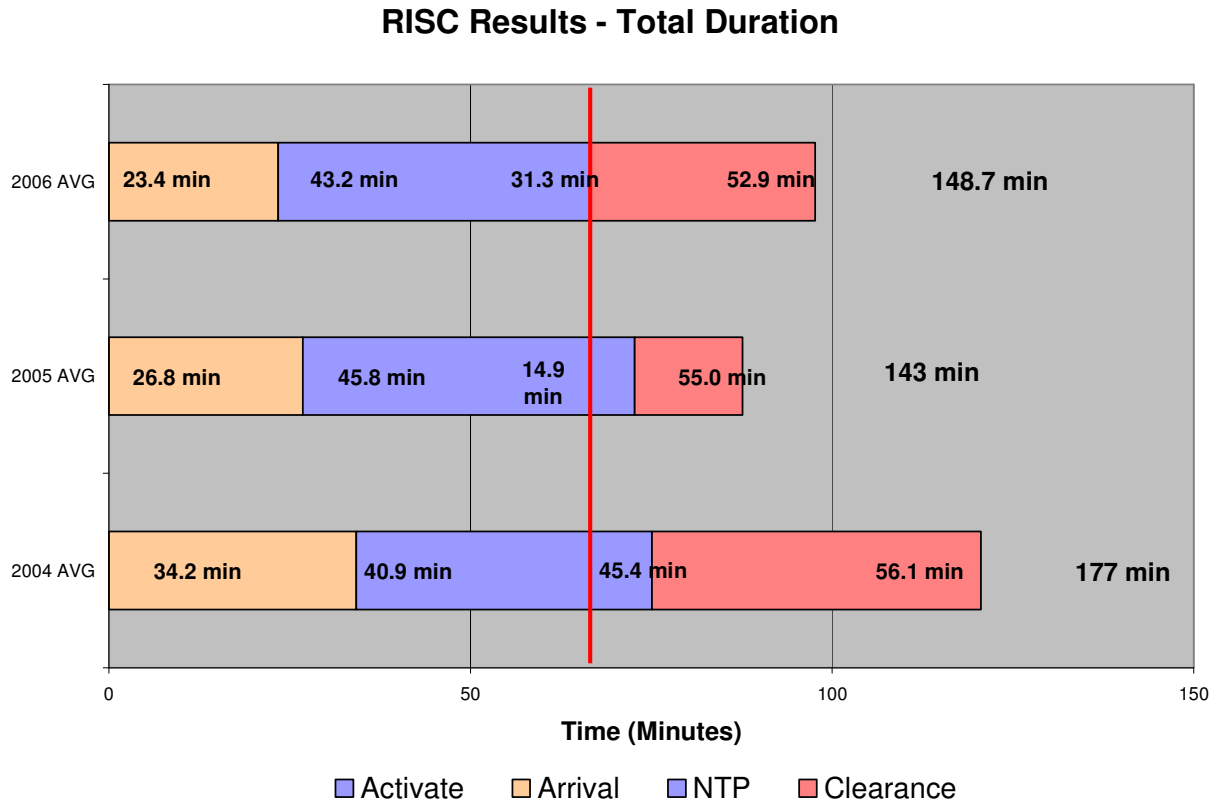
Clearance.

During the clearance period, the incident responder goes to work. He has to have the right equipment available so that he can immediately start clearing the scene and performing temporary repairs to re-open the roadway to traffic. This time is affected if he is missing equipment that needs to be sent for; he should have the full complement of needed equipment at his disposal. For the shortest possible clearance times, the incident responder can contractually be given incentives to move quickly (and disincentives if he moves slowly and in a way contrary to the goals of an Open Roads Policy). The incentive must be enough to overcome the conflict between opening the roadway quickly versus being paid hourly.

Since the initiation of FTE’s integrated program, the average times to clear major incidents and re-open the roadway have been 53, 55, and 56 minutes in 2004, 2005, and 2006, respectively. Overall durations for these roadway closures have been less than three hours. Total incident times, from notification to responder arrival to notice-to-proceed to clearance, have been 149, 143, and 177 minutes during these same timeframes. Figure 10 illustrates these times graphically and breaks them into the four categories described above. These times are well within desired times (90 minutes for clearance, three hours for total incident duration, consistent

with Florida's *Open Roads Policy*) and a great improvement over previous times without the integrated program. Supported by a basic requirement for innovative thinking and non-acceptance of the status quo regarding incident management, FTE's Incident Management program is a great success – and as with any success remain opportunities for further improvement. Debriefing sessions to discuss “lessons learned,” application of new procedures, use of new equipment, etc., are all ways in which incident durations can be shortened and the overall impacts to congestion can be reduced.

Figure 10. RISC Results (2004 – 2006)



An incident management program is composed of discrete elements until they are pulled together by the different entities who must work together to resolve the incidents. These entities must work out joint processes, procedures, and protocols that outline and clarify roles and responsibilities. Moreover, these entities must agree to regularly (and openly, honestly, and constructively) debrief incidents to take away “lessons learned,” improve core processes, celebrate successes, and reaffirm the commitment to manage incidents in support of one another.

FTE has succeeded in combining the efforts of internal and external incident management partners in building its Program. The components of the incident management program have all been successful individually. However, it is the combined effect of the discrete elements and the joint efforts of public and private sector partners that have led to the success of the overall program.

FTE's incident management program has had a solid focus on four distinct areas:

- TIM operations (resources and actual incident management practices);
- Communications and technologies (integration of communications and ITS);
- Organizations and staffing (stakeholder participation and personnel needs); and
- Laws, policies, and procedures (institutional and administrative changes needed for implementation).

FTE has remained true to its vision of providing customer-oriented, environmentally sound, user-financed facilities. FTE has found innovative ways and best practices to address incidents that the rest of FDOT is considering for adoption. With FTE's vision turned toward continual process improvement, motoring customers are the ultimate beneficiaries as they enjoy Florida Turnpike Enterprise's safer, more efficient roadway environment.

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