

EYES ON THE PRIZE

In our annual coverage of some of the shining stars of the traffic management sector, **John Challen** talks with the delighted winners of the coveted Best of ITS Awards, presented each year by ITS America

Photography courtesy of Craig Henry Marshall

The past 12 months have witnessed a world in crisis on so many different levels, with widespread job losses, major disruption to the automotive and banking industries, and a more than 50% rise in home repossessions. But in such tough economic times, the world has had to keep on moving, quite literally. In recognition of this fact, ITS America president and CEO Scott Belcher recently paid tribute to the people who have ensured that traffic flows better and streets are safer – even in times of recession. “These awards recognize the individuals – the real heroes of ITS – who perform the research, build the systems, and who now operate and manage these programs as part of the world’s finest transportation network.” With these words came a sense of pride among the 1,000-strong audience at the Gaylord National Hotel & Resort in National Harbor, Michigan, which played host to ITS America’s 2009 Annual Meeting and Exposition at the beginning of June. A sense that everyone can contribute to making a difference, and improving people’s lives through meeting their transportation needs was how Belcher read the current situation.

For the winners of the Student Essay Competition, the Best of ITS Awards and Outstanding State Chapter Awards, the event provided a chance to highlight successes – differences that have already been made. Many were determined not to rest on their laurels but raise the bar even further, with the intention of picking up another prize in May 2010, when the ITS America Annual Meeting moves south to Houston, Texas. The world promises to be a very different place by then. But, for now, it is over to the ITS class of 2009... ■



Best Innovative Practices – Private Sector

5.9GHz is *the* industry buzzword right now, with Kapsch TrafficCom driving forward development

With increased safety and the need to curtail accidents and fatalities paramount in today's society, there is no shortage of vehicle-to-infrastructure innovations in development. With this in mind, the judging panel recognized the efforts of Kapsch TrafficCom in the private sector, rewarding the company's 5.9GHz DSRC smart road technologies, which seek to address the annual six million crashes and 42,000 deaths on US roads.

Kapsch used November 2008's ITS World Congress in New York to demonstrate the capabilities of the system by deploying 40 5.9GHz DSRC

time mapping, parking reservations, and multimodal information, all of which was made possible via the 5.9GHz network. Kapsch's short-term view is that transportation professionals can experience the benefits of 5.9GHz DSRC, but further into the future the technology will see safety and mobility increasing via the development of new software and infrastructure. It will also highlight how secure transaction-based technology can provide a revenue stream to support improvements to the current infrastructure.



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roadside units onto city streets. The demonstration signaled the first time that a live 5.9GHz vehicle-to-infrastructure network had been applied in the real world. The units communicated with onboard equipment to enable more than 20 safety, mobility and traveler ITS applications using 5.9GHz technology. "The goal was not just implementation of a live 5.9GHz DSRC research and development network," asserts Justin McNew, Kapsch TrafficCom's CTO (pictured), "it was to show how 5.9GHz solutions and applications will improve infrastructure, safety and mobility, as well as increase productivity in the long term."

Highlighted in the demonstration – which was viewed by many of the 5,000 World Congress attendees – were payment transactions, congestion management, real-

McNew continues, "We are pleased that ITS America and the Best of ITS Awards acknowledged Kapsch's performance in demonstrating a 5.9GHz DSRC network for improved safety, mobility and payment applications." ITS America's president, Scott Belcher, was just as enthusiastic: "5.9GHz DSRC adds another dimension to ITS that expands value to consumers. As traveler services continue to increase in the USA, we expect improved transportation infrastructure to bring both safety and value to the marketplace."

Indeed, since the end of the ITS World Congress, the New York State DOT has continued to use the 5.9GHz DSRC infrastructure to support the testing of its Commercial Vehicle Infrastructure Integration (CVII) project, being led by Volvo Trucks.



Best Innovative Practices – Public Sector

In this category, MDOT was delighted to receive the award for the second year in a row

Representatives from Mississippi were on hand at the Gaylord National Hotel & Resort to collect the Best Innovative Practices title for the public sector for the second consecutive year.

MDOT's triumph came in the form of an integration project that will help improve survival rates from accidents on the state's highways. The purpose of the project was to work with a new statewide medical emergency response system known as

communications regarding weather information, with emergency alerts being provided to hospitals in the area. There are also links to Jackson, Memphis and Slidell National Weather stations.

Mike Stokes, ITS program manager at MDOT's traffic engineering division was happy to record back-to-back wins. "We are extremely honored. The MStTraffic/MED-COM project/partnership is the only incident management system that MDOT could find in the country that connects to the State Medical Center.

"There is a tangible benefit to the citizens of Mississippi at



"Directing emergency medical response vehicles through traffic congestion can save lives – minutes matter during life-threatening situations"

Mississippi MED-COM, the idea being to integrate the rapidly expanding travel information network resources of mStTraffic (Mississippi's ITS) with the new response system.

The MED-COM center serves as the hub for emergency management information, and has three primary objectives: to improve the efficiency of transporting critical patients; increase access to emergency management and disaster control services; and also to improve the communications between emergency responders, hospitals and inter-hospitals.

To help meet these goals, the center is now integrated with the MDOT state management center, meaning that medical response of all types can benefit from mStTraffic information. MED-COM operators can assist and guide emergency vehicles to accident scenes and later to medical facilities as a result of live streaming video of major interstates and intersections, courtesy of mStTraffic. The judging panel was impressed by the mStTraffic/MED-COM system's ability to improve



a time when they need it most. Directing medical emergency response vehicles through traffic congestion can save lives. Minutes matter during life-threatening situations."

Following much investment by MDOT in planning, design and deployment of its ITS, there is a need to make full use of the resources of the mStTraffic/MED-COM program to benefit state citizens, businesses and visitors. Stokes believes that the permanent project can meet expectations, and as the first partnership of its kind, expects fellow DOTs to follow the model.

Best Innovative Products/ Services – Private Sector

Considering the needs of the developing world led FreightDesk Technologies to its prize

Traffic congestion has long been a problem in developed countries, but the developing world is also encountering similar challenges. Five years ago, FreightDesk Technologies developed the Truck Control System (TCS) especially for developing countries that had traffic flow concerns. One country turned out to be Jordan, as Dhiren Patel, FreightDesk Technologies' president explains. "Jordan has the right IT infrastructure, political climate and policy

equipment is fit for operation, and checks the readiness of the cargo and documentation. All of these functions are completed through electronic interfaces to the relevant systems. The TCS then assigns a route based on the intended operation. Throughout a truck's journey, the system can monitor the number of other trucks on each section of road,

"Interest from other areas is growing and hopefully we'll see similar systems implemented in the future"



objectives to make the TCS work," he says. In 2005 FreightDesk was looking for an application in Jordan and was put in touch with the Aquaba Special Economic Zone. This area has a coastline of just 25km, which the authorities wanted to develop for resort and recreational use. "The area also happens to be their only marine port and the two activities weren't going to mix," Patel details. "They asked us to design a system that could segment the truck traffic going to the port terminal from the general traffic going to the resorts."

The TCS performs several functions. It validates truck license and driver security information, ensures the

and in doing so further reduced the risk of congestion.

Within three months of the project starting, the system was deployed and the first trucks were using the TCS. By the following March, all trucks going to the terminal were running through the TCS – about 3,000 trucks per day.

Patel now says: "Interest from Africa, South Asia and South America is increasing, and hopefully we'll see the implementation of similar systems in the future.

"One of the most satisfying elements is that Jordan has defied the traditional stance of developing economies that don't normally think of technology as the answer to their congestion problems."

Best Innovative Products/ Services – Public Sector

FDOT's Office of Motor Carrier Compliance was rewarded for its smart weighstation project

Within the public sector, there was one project that stood out in the ITS America awards, as one state attempted to revolutionize what it believed to be an antiquated and inefficient system.

The State of Florida I-4 Weighstation was initially built to ensure the protection of Florida's highways infrastructure, as well as the safety of the traveling public.

Due to the increase of commercial truck traffic in the area

vehicle. Thinking long term, FDOT designed the facility for projected truck traffic in 2030, while Mettler Toledo based its specifications for the equipment to have a minimum life expectancy of 20 years.

"Not only does the new automated system address the increased traffic, but the system technologies have also increased inspection and enforcement activities by providing high-tech equipment to identify and stop weight overloads, unpermitted loads, overdue citations, and criminal infractions," explains



"Only violators are directed to the static scales and stopped; non-violators are directed back to the interstate"



Craig Wilson, the weighstation program manager. "These checks are performed while the vehicle travels through the deceleration ramp and only violators are directed to the static scales and stopped. Non-violators are immediately directed back onto the Interstate, thereby increasing throughput and enforcement."



The official results of the system's implementation are impressive. OMCC immediately recognized that the system was able to process every vehicle, while weighstation closures due to backlogs are now a thing of the past as there has been a reduction in weighing time of a factor of five (from 15 minutes to three).

Wilson believes the positive effects on various different groups helped the judging panel honor Florida DOT. For the public, the weighstation enables overloaded or unsafe vehicles to be kept away from the road. "For the trucking industry," he adds, "non-violators will pass through with minimal delay and no longer have to wait in line to be weighed by the static scale facility only."

over the years, the existing weighstations no longer had the capacity to process the increased volume, so would frequently close. Once closed, trucks traveling the corridor would not be checked for compliance. As a solution to these frequent closures and subsequent evasions, Mettler Toledo developed a system for Florida DOT's Office of Motor Carrier Compliance (OMCC) that includes the integration of weigh-in-motion (WIM) scales, Vehicle Dimension In Motion (VDIM), license plate recognition (LPR), and an overview image of each

2009 Outstanding State Chapter Award

A legend in the intelligent transportation scene, ITS New York is pleased with its latest accolade

One of the oldest State Chapters in America was voted 'best in class' for 2009, excelling in leadership, deployment, networking and professional development. ITS New York (ITS-NY) has been in operation for more than 16 years and in that time has fostered the enhancement of travel in the state using ITS, encouraged greater participation in ITS



strongly," Tario says. The involvement of ITS-NY included sponsorship of an international reception at the New York Transport Museum.

Addressing the need for professional development, one of the sessions at the event was titled, 'Educating the ITS Professional', conducted by the National Transit Institute, the Consortium for ITS Education, and the City College of New York. There was also a panel session on the 'Greening of ITS'.

According to Tario, a major milestone in 2008 was the formal



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America programs, and has created a large public-private-academic professional network for information exchange.

For Joe Tario, president of ITS-NY (above, [ITS-NY's Yuko Nakanishi picked up the award]), recognition of the group's efforts is important. "We are very proud to have received this award. Having been around for 16 years, I think that our continued growth in membership has been recognized as well as the efforts we made this year."

The past 12 months have been especially significant for ITS-NY, given the build-up to the ITS World Congress, which rolled into town in November 2008. "It gave us the opportunity to support it

introduction of NYSDOT's 511NY program. This service uses voice-response telephone, website and email messaging to provide information about surface transportation systems and services operating in the state. The service was initially only available in the Downstate region, but has since been expanded, ensuring the whole state can benefit.

Many ITS-NY members were key to the deployment of the 511NY system, either in technical roles, or partners in information. In addition to NYSDOT, partners included TRANSCOM, Niagara International Transportation Technology Coalition, Federal Highway Administration (NY Division) and Siemens ITS.