



WHEELS & WINGS - FEBRUARY 2009

Smithsonian Institution Improves Vehicle Utilization with Wireless Fleet Management from Networkfleet

By Valerie Chereskin, Chereskin Communications

The Smithsonian Institution is recognized as the world's largest museum complex and research organization. Besides 19 museums, 9 research centers, and the National Zoo, it also operates a motor vehicle fleet of approximately 500 vehicles across the U.S. Most are used in facility management or security. Whether it is moving a priceless piece of artwork or transporting an exotic animal to the national zoo, the institution has numerous responsibilities.

Bill Griffiths, agency fleet manager, joined the Smithsonian from the U.S. Forest Service. While there he became acquainted with Networkfleet, a wireless fleet management system that continuously monitors both GPS location and engine diagnostics for each vehicle. When implementing the Smithsonian's new fleet management system (FleetWave), Griffiths wanted to integrate data from Networkfleet to improve equipment utilization, lower fuel costs, and reduce unscheduled maintenance.

"When I started at the Smithsonian, we didn't really have a way of keeping track of vehicles, and we needed to do more preventative maintenance," said Griffiths. "Networkfleet connects directly to the vehicle's engine computer. It sends an e-mail notification saying, for example, that the vehicle's transmission has a fault code. With this information, we can take action before it escalates into a bigger problem. This helps me curb some of the unscheduled maintenance we often have, especially with our law enforcement vehicles."

The Challenge

Griffiths decided to perform utilization studies on his fleet to ensure that vehicles were used optimally and to help him manage his fleet more effectively. The utilization studies would examine vehicle usage, idle time, number of trips per day, routing, etc., to determine if every vehicle was needed and being used efficiently. To help him gather that information, he began a pilot program with Networkfleet in October 2007.

"One of the biggest challenges that fleet managers have is ensuring that their fleet is being utilized optimally. We wanted to know how many vehicles were going to the same location and where all the stops were so that we could consolidate trips and possibly reduce the number of vehicles we needed," continued Griffiths.

Unscheduled maintenance was a particularly big problem within the institution's law enforcement fleet. Law enforcement and security vehicles were driven hard and submitted to rough handling. In addition, long idle times by law enforcement was increasing vehicle wear and tear and wasting fuel.

The Solution

To assist in obtaining information for his utilization studies, Griffiths selected the Networkfleet wireless fleet management system. Networkfleet's patented system reads real-time diagnostics from the vehicle's engine to allow Griffiths to continuously monitor precise information for each vehicle. It also immediately



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communicates the diagnostic trouble codes caused by vehicle malfunctions. Griffiths logs on to a secure Web page to view and manage information for each fleet vehicle and receives email alerts when vehicles exceed preset thresholds. The result is easily accessible information on a vehicle's location, stops, idling and mileage that can be quickly analyzed to yield benefits in efficiency and cost reductions.

The Results

Networkfleet provided the Smithsonian with precise information such as exact fuel consumption, mileage, speed and idle time for each vehicle. By integrating Networkfleet information along with data from fuel cards into its fleet management system, the institution benefited from the real-time information on every vehicle in its fleet. With improved vehicle utilization, it was able to eliminate 12 three-quarter ton utility vehicles, costing \$25,000 each.

“Just checking idle time and how many start and stops we were having in a day helped in our utilization study, especially since we were trying to consolidate vehicles,” said Griffiths. “For example, we found that we had four or five vehicles assigned to one area, and they were all going to the same location. They were also idling the majority of the time. We determined that we could get some shared use out of these vehicles, which eventually allowed us to actually eliminate 12 full size vehicles.”

The Smithsonian also used the system to place geofences in certain geographical areas to pinpoint vehicles that venture in and out of those areas. This helped the institution track unauthorized vehicle usage and optimize routing. Griffiths feels the new system is a big win for the agency. “We not only reduced the size of our fleet, but we also reduced our petroleum consumption, which is mandated by the Federal Government. For us, that was a huge victory.”

Security vehicles are a high priority for the Institution, so it was important that they are maintained in good condition. By monitoring diagnostic trouble codes and odometer readings, the agency was able to reduce unscheduled maintenance by approximately 15 percent.

“From a fleet management standpoint, the system gives me peace of mind. It is another tool that that has helped me manage my fleet effectively,” continued Griffiths. “Real time data is so important when it comes to making sure that you have optimum preventive maintenance programs.”

The Smithsonian Institution has decided to equip every new vehicle purchased by the agency each year with Networkfleet. With the data provided by Networkfleet, it can now ensure that each vehicle is used effectively and is absolutely necessary to promote its mission of research around the world.

New ASTM Biodiesel Blend Specifications Now in Effect

Specs for Finished Blends Help Facilitate Commerce for Biodiesel Industry

By Jenna Higgins Rose, Director of Communications, National Biodiesel Board

Biodiesel is reaching new heights as a proven fuel, bolstered by new quality specifications for biodiesel blends published by ASTM International. Biodiesel producers, petroleum companies, engine companies, vehicle manufacturers, pipeline operators, fleets and consumers will benefit from the new biodiesel blend