

Case Study

Atlanta, Georgia



Cabinet housing UPStealth at Mercedes-Benz Stadium intersection



Jason Lewis, GDOT project manager with Brooks-Berry-Haynie & Associates.



UPStealth system inside cabinet outside of Mercedes-Benz Stadium

Atlanta's Regional Traffic Operations Program (RTOP) Selects Intelligent and Safe Nickel-Zinc Battery UPS to Fight Congestion, Compromised Power Quality and Aging Infrastructure

Challenge: With more than five million residents, Atlanta, Georgia is the third fastest growing metro area in the nation. Georgia Department of Transportation (GDOT) faced an aging infrastructure and traffic congestion, but with the real challenge being power quality issues and intermittent power outages caused by severe weather. Many of the power quality problems GDOT faced were at old intersections where brown-out issues were exacerbated by the failures of the lead-acid battery UPS's installed in the traffic cabinets. Other problem intersections were in areas of high vehicle traffic and pedestrian traffic with valuable sidewalk space, such as the Mercedes-Benz Stadium, Hartsfield-Jackson Atlanta International Airport and Buckhead. Tearing up large sections of the sidewalk to install secondary cabinets required for housing traditional lead-acid battery UPS systems was cost prohibitive and required sidewalk space that was unavailable.

Turning Point: GDOT created programs with proven return on investment, like the Regional Traffic Operations Program (RTOP). The multi-jurisdictional signal timing program uses smart, disruptive technology on some of Atlanta's busiest arterial roadways. Brooks-Berry-Haynie & Associates, which is one of the firms working with GDOT through the RTOP program, learned about a nickel-zinc UPS alternative to lead-acid UPS that was easy to install, is self-maintainable, environmentally safe and reliable -- the ZincFive UPStealth.

Solution: The UPStealth was first tested at an intersection with a lead-acid battery UPS that was failing to maintain signal operation through power quality issues. The UPStealth immediately improved the intersection's reliability and eliminated intersection power problems. Based on that experience, Brooks-Berry-Haynie & Associates began replacing other lead-acid UPS units in 23 challenging locations, including intersections around the world's busiest airport, Hartsfield-Jackson Atlanta International on State Route 6; the Mercedes-Benz Stadium, home to the Atlanta Falcons; intersections in the upscale Buckhead retail area; a dangerous off-ramp location which needed UPS; and other problem intersections in DeKalb County near Stone Mt. Park.

UPStealth's ability to fit inside existing cabinets and provide sine wave monitoring and power conditioning proves to be the reliable solution for GDOT.

"When you start having the conversation about autonomous and connected vehicles, reliance on an infrastructure that stays powered 100 percent of the time has absolutely never been more critical."

Jason Lewis

GDOT project manager with Brooks-Berry-Haynie & Associates.

UPStealth Living-Hinge Battery Panel



UPStealth 170 Inverter/Controller



Results: At all deployment locations the UPStealth is proving to be “a versatile and reliable tool for improved intersection reliability and safety,” according to Jason Lewis, GDOT project manager with Brooks-Berry-Haynie & Associates. The UPStealth’s 1-inch thin battery fits inside the existing traffic cabinet between the cabinet rack and shell, saving the expense of adding a secondary cabinet. The UPStealth is continuously monitoring sine waves, actively filtering power and providing reliable battery backup support. At intersections where storms once repeatedly knocked out power, the UPStealth is keeping those crossroads running safely. In addition, the ability to remotely monitor UPS performance is helping local jurisdictions rapidly identify, locate and repair problems to help keep people safe.

Why GDOT Chose the ZincFive UPStealth:

- Design and functionality
- Fits inside existing cabinets
- Monitors incoming utility sine waves and conditions power
- More versatile and reliable than lead-acid battery UPS

Our Customers Say it Best

“For installation, the UPStealth system is very self explanatory. It’s a very easy, very intuitive install.”

“When we decided to test the UPStealth, we picked an intersection that already had a lead-acid battery backup installed, but that lead-acid UPS wasn’t working. There were still failures due to brownouts and dirty power. When we popped in the UPStealth unit, it immediately improved the intersection reliability and eliminated failures due to power. We no longer have power issues wherever nickel-zinc UPStealth is installed. We had some very problematic intersections and the UPStealth immediately cleaned up the issues.”

“I know we’ve had many large storms come through, creating power outages, yet where we have the UPStealth, those intersections continue running.”

Jason Lewis

GDOT project manager with Brooks-Berry-Haynie & Associates.



ZincFive

ZincFive, Inc.

20170 SW 112th Ave.
Tualatin, OR 97062

info@zincfive.com

503.399.3517