Presentation to the University of Akron Board of Trustees

GPS/AVL A Tool For Winter Operations

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February 13, 2019





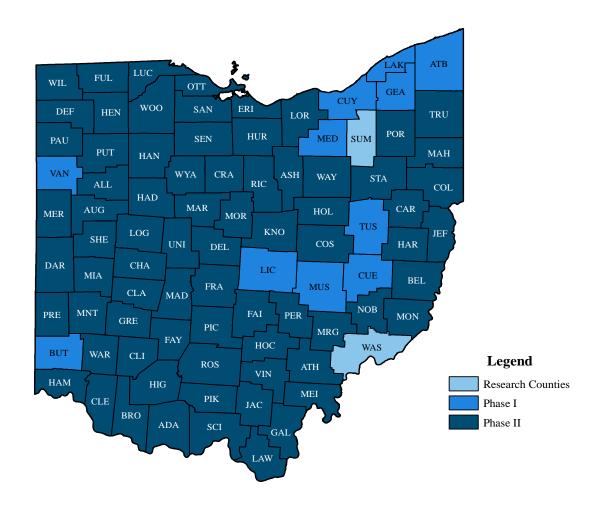
Problem Statement





- 5,897 persons are killed in weather related crashes (FHWA, 2015)
- ODOT treats nearly 43,337 lane miles
- ODOT has 1,600 winter maintenance vehicles
 - 200 Garages
- ODOT spends approximately \$86 million on winter maintenance annually
 - 1 million tons of salt annually

Project Timeline



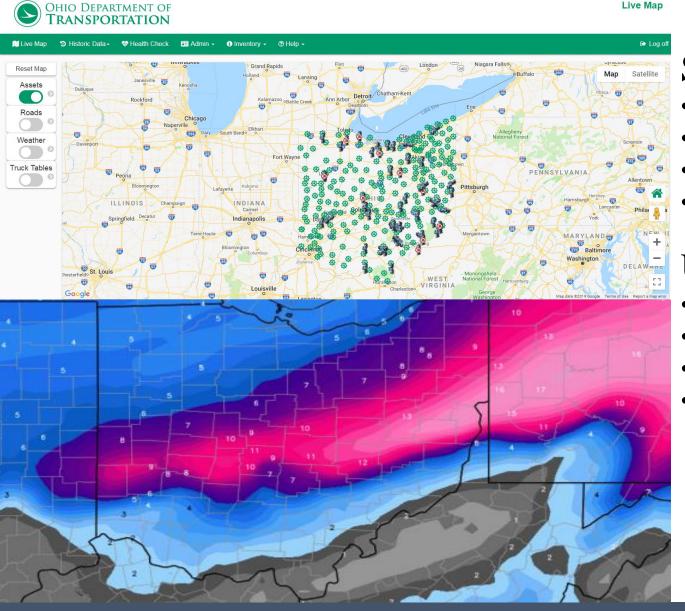
- 22 Trucks
- 2 Counties
- 6 Students
 - 2 PhD, 3 Masters, 2 Undergraduate
- 276 Trucks
- 13 Counties
- 15 Students
 - 11 Undergraduate, 3 Masters, 1 PhD
- 1292 Trucks
- 88 Counties
- 15 Students
- 11 Undergraduate, 3 Masters, 1 Post-doctoral

Technology



The University of Akron

On January 18, 2019 during Winter Storm Harper:



Server Statistics:

- 2,386,505 GPS Data Points Collected
- 952 Trucks went online
- 59,153 pictures were taken
- 108 Users accessed the website

Users included:

- Mechanics
- Truck Operators
- County Managers
- District Managers

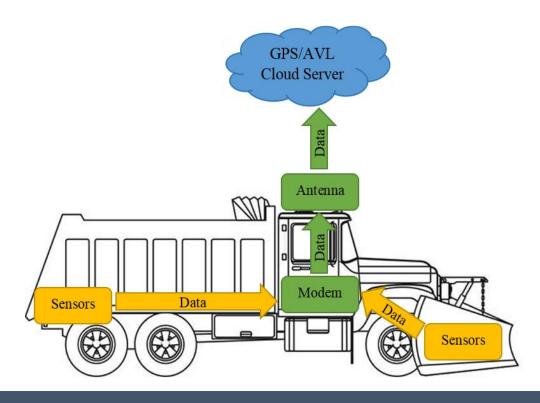
Mobile Surveillance During 2016 Republican National Convention





Users included:

- US Secret Service
- Ohio Department of Transportation
- Ohio State Patrol



Akron/ODOT Partnership

"Once we complete full installation in our fleet, we'll be able to respond to storms faster, remove snow and ice more efficiently, operate more safely and for the first time ever provide managers access to real-time road conditions. Ultimately, this means safer roads for Ohio travelers."

-Jerry Wray, retired Director of ODOT











"From Asset Management, to TSMO, to GPS-AVL, to OHGO, to DriveOhio, we have invested in advanced technologies that allow us to do our jobs better and more efficiently and make our roads safer than ever before."

-Jack Marchbanks, Director of ODOT