



**Michigan DOT Snow & Ice
Innovative Ideas**

**2015 Northeast-Midwest Equipment
Fleet Management Conference**

June 17, 2015

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Installation of GPS/AVL and use of MDSS

- Describe the snow & ice innovation: **Installation of GPS/AVL and use of MDSS**

Installation of GPS/AVL and use of MDSS

□ Length of time being used?

- ❖ Initial installs on winter maintenance trucks in December 2013.
- ❖ A total of 267 WMTs with AVL were equipped from December 2013 to April 2014.
- ❖ Currently 283 WMTs are equipped.

Installation of GPS/AVL and use of MDSS

- ❑ Has it met your department's expectations?
 - ❖ MDOT has experienced many documented successes with the AVL/MDSS program.
 - ❖ These include: data reporting to monitor materials and operations (data sharing has resulted in higher salting speed compliance, which reduces waste).
 - ❖ Garages are also quite satisfied with the forecasting capabilities of MDSS, and the ease of access from home, or mobile devices.
 - ❖ MDOT is approaching the second full winter with these new technologies and are continually working to improve serviceability for all users, resulting in personnel being more comfortable utilizing the systems during winter operations.

Installation of GPS/AVL and use of MDSS

- ❑ Has it resulted in time savings in snow operations during the storm and post storm cleanup?
 - ❖ MDSS allows supervisors to make better informed decisions both before and during a storm.
 - ❖ Some supervisors have indicated that confidence in MDSS forecast allows them to better manage overtime needs for night and weekend operations.

Installation of GPS/AVL and use of MDSS

- ❑ Initial cost in set up or purchase of equipment or materials?
 - ❖ Initial equipment cost approximately \$900K for 270 trucks (approximately \$3500 per truck).
 - ❖ Annual operational fees are around \$600K (includes cellular service, forecasting service, data storage, project management, etc.)

Installation of GPS/AVL and use of MDSS

- ❑ Lane miles in your state to plow?
 - ❖ **32,000 trunk line lane miles (7,700 maintained by MDOT direct force garages)**

Installation of GPS/AVL and use of MDSS

- Total number of SAE Class 7 and 8 Plow Trucks in your fleet? **318**. Of this number how many are:
 - ❖ Total number of 6x6 snow plow trucks? **None**
 - ❖ Total number of 6x4 snow plow trucks? **237**
 - ❖ Total number of 4x2 snow plow trucks? **81**
 - ❖ Total number of truck mounted snow blowers? **2**
 - ❖ Total number of loader mounted snow blowers? **8**

Questions/Discussion

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