

**AASHTO Subcommittee on Maintenance
Regional Breakout Session Minutes
Providence, RI
August 1, 2017**

Note: Additional information on many of the presentations are available at the following website: <https://maintenance.transportation.org/meetings-2/meetings/2017-scom-meeting/>

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NAASHTO Regional Meeting

Russ Yurek, MD DOT Presiding

Participants: 14 state attendees' including Ontario Ministry of Transportation

Discussion topics:

- Maintenance Personnel Training: CDL / Snow Plowing (In-house vs. Contracted)
 - Personnel get trained and move to higher paying jobs with private industry
 - VT (\$1,000 stipend), NY (\$10,000 stipend) for snow plowing
 - Monetary penalties apply for no-shows
 - Personnel don't like on-call status with PW work
 - ME pays \$10,000 to train personnel to snow plow and is moving to contracted forces, states vary in % contracted out
 - RI, all drivers and bridge maintenance workers need a restricted CDL
 - If drivers leave early their license is no longer valid
 - Salaries vary from \$11.50/hr to \$20.00/hr
 - Lots of variability in regards to max hours worked and overtime
- Salt Use:
 - Contractors are using lots of salt
 - Chesapeake Watershed is moving towards chloride TMDL's
 - VT unregulated use is 2-3 more salt use than state
 - If prescribed amounts are put down, state is not held liable for accidents
 - Supervisor management of salt use is mandatory

- Bridge Washing: Variable Time Window, Top Only, All Elements
 - Variable time window to perform washing among states from storm events
 - Some states wash top only, others wash all bridge elements
- Pollinator Habitat: Mowing Height, Wild Flower Programs
 - ME puts up large signs, goal to keep mow height below 1', and plants lots of lupines
 - MD had wildflower program for several years
 - VT seeds with specific wildflower mix
- Mildly Contaminated Soil in ROW: Landfills, Roadside Berms, Recycle
 - NJ takes it all to landfill
 - RI stores it until its dried out, then landfill
 - VT leaves it on roadside as berms
 - ME usually recycles it back into ROW

SASHTO Regional Meeting

David Miller, LA DOT Presiding

Participants: AR, AL, MS, LA, NC, SC, FL, GA, TX, TN, KY, and VA

Maintenance Operations: Traffic Control for moving operations

- TN: Uses shadow vehicles, increased use of attenuators for planned work
- TX: Two man jobs but use attenuators, one in work truck and other in attenuator
- MS: Fatality 2 years ago, new process w/spotter, and optional shadow vehicle
- AL: Not required statewide, some districts do, WZ safety measures research ongoing
- VA: 1 worker/spotter min., add a vehicle if it feels unsafe, attenuators for planned work

Prepositioned Debris Contracts: What states have them? How are they working? What are the prime contractor qualifications? What are the subcontractor qualifications? NCDOT currently has prepositioned cut and shove contracts, and prepositioned debris monitoring consultant contracts, but we do not have actual debris removal contracts.

- LA: 1/District, relaxing truck type requirements, regional contracts, line items in contract, pay by cubic yard, have crew # requirements, and limit subcontractors to 1 level down
- FL: Directs # of people/vehicles to preposition, pay contractor to assemble, for breach of contract can charge contractor the difference on overage cost of supplemental forces, regionalized contracts (debris, signs, signals)
- NC: MOA's with counties, some with prepositioned contracts, get roads open quickly
- VA: No statewide contract but each District has their own
- SC: Use prepositioned contracts, RFP yielded list of qualified debris/monitors, no downside to p-contracts, preassign monitor/contractor for dumpsites, one layer of subs

Crash Investigation:

- FL: 3 phases, inventory, after crash data points, then researchers do analysis
- NC: Does inventory, has regional traffic engineers that investigate crashes

- TX: Maintenance employees take pictures, fill out checklist, but do no formal analysis

Flash Polls:

Use Sound Devices (SC, TX, VA)

Require Attenuators (GA, TX, VA)

Federal Funds for Safety Equipment (LA, TN)

Prepositioned Debris Contracts (LA, SC, FL, TX, VA)

Local MOU's (NC, SC, GA)

WASHTO Regional Meeting

Anita Bush, NV DOT Presiding

WASHTO State DOT Report Outs:

- NV: Updating MMS for one vendor, funding is stable
- OR: Planning for solar eclipse, new budget passed, expanding solid salt program
- OK: Equipment moratorium lifted, upgrading to latest version of Agile Assets
- UT: Hired new storm water management scientist, created training models with tracking capabilities, \$40M/yr tax increase for low volume road contracts, RFP for new MMS
- ND: Reduced budget/personnel, awarding a contract for garage optimization
- NC: Downsizing organization, more privatization, preconstruction is now decentralized, started using AGOL, good for viewing all project details and legislative boundaries
- WA: Increased budget, replacement of field iPads, high turnover of employees, piloting MLA, using Forest Service Roads for training, expanding training program to tribes
- CO: Deploying mobile MMS w/GIS integration, rolling out tablets, piloting Wifi in trucks, \$10M to start up PP program, hired winter ops manager, looking at friction sensors
- WY: Decreased budget, doing connected vehicle study, preparing for solar eclipse
- ID: Preparing for solar eclipse, reevaluating winter maintenance PMs, replacing MMS,

Development of NCAR's Pikalert System:

- Any interest in a \$2.3M pooled fund study to move this forward more quickly
- MDSS system, WY/UT have an MDSS system
- Uses traffic data as part of the system, for example snow compaction based on traffic
- SD is lead on the pooled fund study; user interface isn't user friendly

Autonomous Attenuator:

- Any interest in a pooled fund study to develop and implement this protection vehicle
- AASHTO's connected and automated vehicle committee is working on policy issues
- Discussed clarification on funding expectations and possible sponsorship from FHWA
- Most states indicated an interest depending on how much money would be expected

Route/garage Optimization:

- ND: Looking for best locations for garages, awarding contract to help with this effort
- ID: Increased wages, incentivized efficiency, staggering work schedules with forecasts

- UT: Using spatial matters to optimize routes based on normalizing work loads
- CO: Built a winter maintenance plan at the truck level, analyzing problem areas overlaid with winter accident locations, desire to move from static maps to real time information

New MMS, EAMS:

- ID: Staff training and use is challenging
- UT: Uses MMS linked to third-party software, concerned with costs, looking for a more simplistic/customizable MMS, initiating RFP to solicit multiple vendors to meet needs
- OR: Uses MMS hosted on a private server which allows more customization

Funding for WASHTO Participation:

- WASHTO attendance at SCOM is decreasing over the years
- AASHTO funds participation for some subcommittees but not others, SCOBS is funded
- Potential to generate guidance documents to generate revenue to cover travel costs

MAASTO Regional Meeting

Steve Cook, MI DOT Presiding

Participants: KS, MN, IA, MO, IL, IN, MI, OH

Survey Results for Members Using:

Percent Vote	YES	NO
Contracting:	80%	20%
AVL:	80%	20%
Performance Based:	50%	50%
Green Lights on WMTS:	30%	70%
MDSS:	40%	60%
MMS:	40%	60%

- Data collection strategies for building a comprehensive asset inventory; Strategies for updating inventory after construction and maintenance
 - Extracting guardrail information from pavement condition surveys
 - Many states just starting a TAMS or MMS, GIS based for signs, culverts, GR, PVT, Lighting
 - Statewide LiDAR collection and extraction
 - Future of electronic extraction of assets from plan sheets
- Leveraging AVL and other technologies in roadside spray programs
 - Electronic capture of spray log data on in-cab display screens
 - Mapping invasive specie
 - Improves accuracy and reduces the use of electronic tools (iPad, apps, etc)
- Use of mobile device apps and tools to support field staff
 - Most states using tablets for field staff
 - Using Collector Apps for data collection and inspection
- Snowplow route optimization projects

- Exploring the concept of adaptive plow routes (resource needs vs. demand)
 - Minimize dead-head and cycle times – improvements with AVL systems and new software tools
 - Allow more cross jurisdictional boundary cooperation and coordination
- Guardrail terminal issues and corrective actions taken; Guardrail inspection programs and programs for certifying contractors and DOT employees that install or maintain guardrail
 - In-house hands-on training and awareness of issues and problems
 - FHWA training
 - Training and certification programs available for contractors
- If your state reuses salvaged materials or new material from contract work, what cost do you assign them when seeking recovering costs for damaged assets?
 - Rarely
 - Charge whatever was paid for the material