

TECHNOLOGY IMPROVES WINTER SAFETY ON ALBERTA'S HIGHWAYS

The Alberta government and Alberta's highway maintenance contractors use the latest technology to improve winter safety on our highways

- Many newer snowplows have side wings and larger hoppers for additional plowing and sanding capacities. This helps complete highway maintenance faster, while also improving safety.
- About half of the snowplow fleet has been equipped with pre-wetting devices to help sanding operations make highway conditions safer.

INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

- Alberta Transportation also uses Intelligent Transportation Systems (ITS) technology to enhance the safety and effectiveness of our provincial transportation network.
- Information and communication technology is installed in vehicles and highway infrastructure to collect various data such as road and weather conditions, traffic speed, volume and delays.
- This information is shared through several channels – including 511 Alberta, dynamic

message signs and local media – to help inform drivers about road conditions.

- Alberta Transportation uses Intelligent Transportation Systems technology include for things like Automatic Vehicle Location Systems (AVLS), Road Weather Information Systems (RWIS), and 511 Alberta.

AUTOMATIC VEHICLE LOCATION SYSTEMS (AVLS)

- All highway maintenance contractor snowplows are equipped with Automatic Vehicle Location System (AVLS).
- AVLS systems use GPS technology to track snowplow movements and help the government to monitor and audit the contractors' work.
- AVLS also allows automated billing by contractors, which is more efficient and accurate.

ROAD WEATHER INFORMATION SYSTEMS (RWIS)

- The Alberta government has 104 Road Weather Information System (RWIS) stations located on major Alberta highways.
- Automated weather reporting stations contain special sensors embedded in and below the road and on nearby towers.
- These sensors record real-time meteorological conditions and provide data that allow maintenance contractors to make informed decisions about the type and timing of specific winter maintenance activities like when to plow or apply de-icing materials.
- Many of the RWIS stations are also equipped with traffic cameras. Along with the meteorological data, and up-to-date road reports, the images from the traffic cameras are displayed on 511 Alberta for drivers to consult when making their travel plans.
- Alberta Transportation also recently introduced the Maintenance Decision Support System, which combines information from the RWIS with the expertise of maintenance contractors to develop “smart” maintenance choices.



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