


MICHIGAN


Winter
Operations Conference





Winter Maintenance Practices from Across the U.S. and Around the World

A LOOK AT WINTER OPERATIONS FROM ACROSS THE U.S. AND THE GLOBE

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North America

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Winter Maintenance in the USA...

Winter maintenance activities are anchored on three basic principles:

1. Right Material
2. Right Conditions
3. Right Equipment and Placement

To be successful you need

- ❖ The Right Equipment
- ❖ The Right Information
- ❖ The Right Training
- ❖ A Winter Maintenance Plan



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Avalanches in the USA:

- Forecasting
- Control
- Clean-up






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Pre-wetting, anti-icing, slurries and brine making






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SO WHAT IS DIFFERENT OVERSEAS?

Europe and Scandinavia are very
Progressive

China, Russia and South America
are Evolving

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Europe and Scandinavia

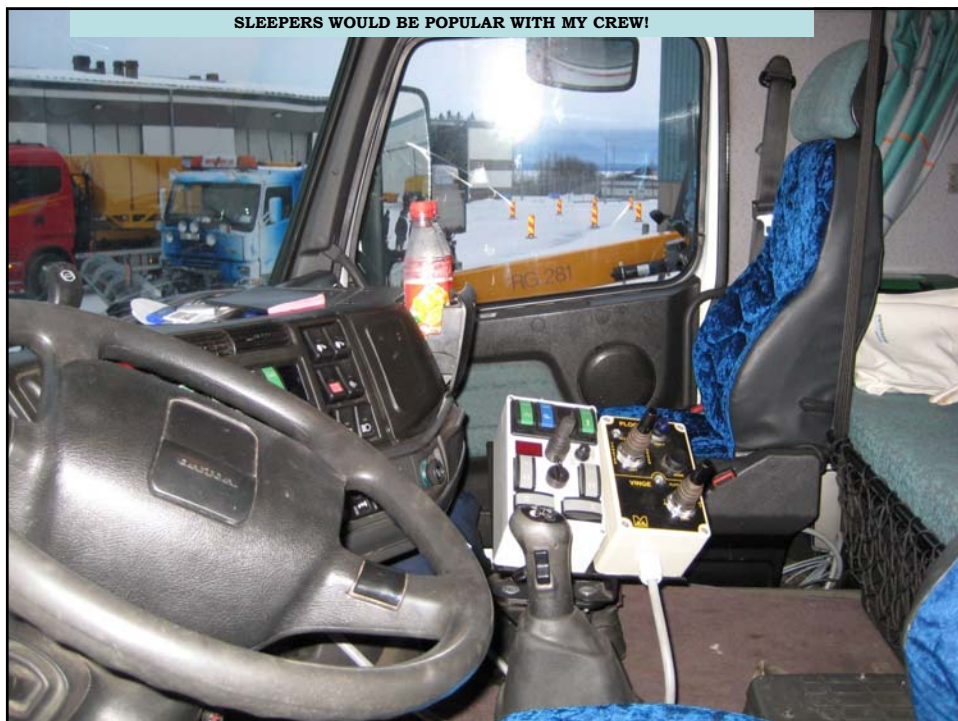
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PRE-WETTING AND DIRECTIONAL SPREADING





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Walkways and bike paths are high priorities




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Dealing with snowpack

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Not bare but acceptable

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Studs and Chains are allowed



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MATERIALS



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LIQUIDS AND BLENDING











































































































































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RECORDS CONDITIONS AND SALINITY!












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 **WORLD SNOW FORUM** 2013

RUSSIA

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SNOW UNIVERSE 2013



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CHINA

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**WE SAW MANY IMPORTED
PIECES OF EQUIPMENT**

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SOME OF THE EQUIPMENT WE SAW






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Ice Breakers

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Brooms are more common than plows in China



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LIQUIDS ARE USED IN BEIJING






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BIG MEETINGS






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**PRESENTING IN FRONT OF 350
CHINESE OFFICIALS**

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The APWA Certificate Program

- Overview
- Program
- Requirements
- Benefits
- Costs
- Other

www.apwa.org/certificate-program

A large orange truck is displayed on a stage, likely part of a demonstration or presentation. The truck is a heavy-duty vehicle, possibly a snowplow or maintenance truck, and is parked on a flat surface. The stage is lit, and the truck is the central focus of the slide.

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OH THE FOOD!





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JUST DON'T ASK WHAT IT IS!

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THE GREAT WALL



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SPECIAL DINNER WITH THE LEADERS OF THE PROVINCE AND THE CITY






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DINNERS IN OUR HONOR



TOASTING IS A TRADITION




THE DEVIL RESIDES INSIDE THAT BOTTLE

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BRET THE NEXT MORNING

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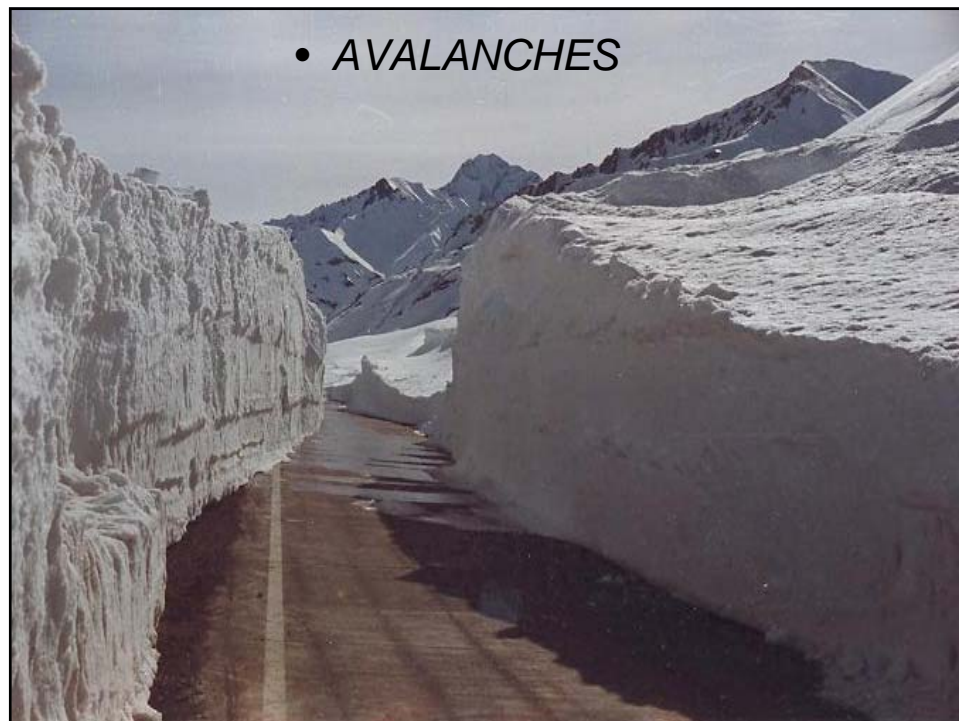
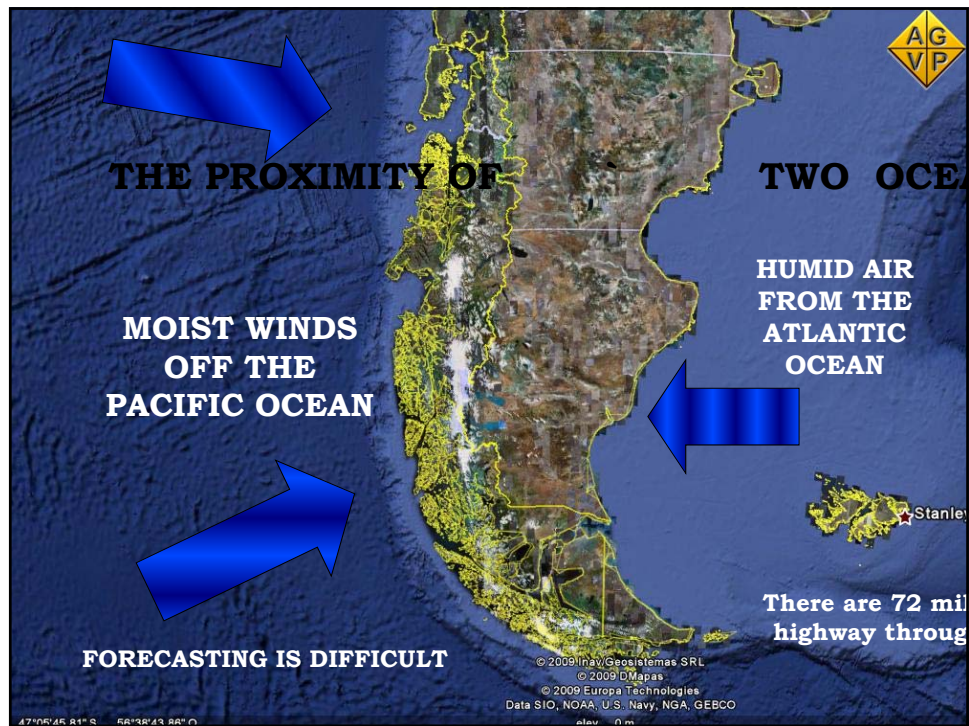
ARGENTINA WINTER CHALLENGES

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BLOWING SNOW



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FALLING ROCKS







DISCUSSING THEIR ANTI-ICING AND BLENDING PROJECT









A NEW BRINE TRUCK AND THEIR BLENDED PRODUCT

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**ANTI-ICING ROUTE 7
USING SUPER MIX**

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ANTI-ICING RESULTS 4 DAYS LATER!!







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WRAP UP MEETINGS




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THANK YOU!

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