

# Vaisala

Jon Tarleton

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**VAISALA**

# VAISALA

Things you might not know about us...



Vaisala Inc. the U.S. subsidiary employs over 330 people in offices located in Colorado, Massachusetts, Arizona, Missouri, and Minnesota.

At our world headquarters (Helsinki, Finland) the sun rose today at 4:25am and will set at 10:26pm (losing 4 min of daylight a day).

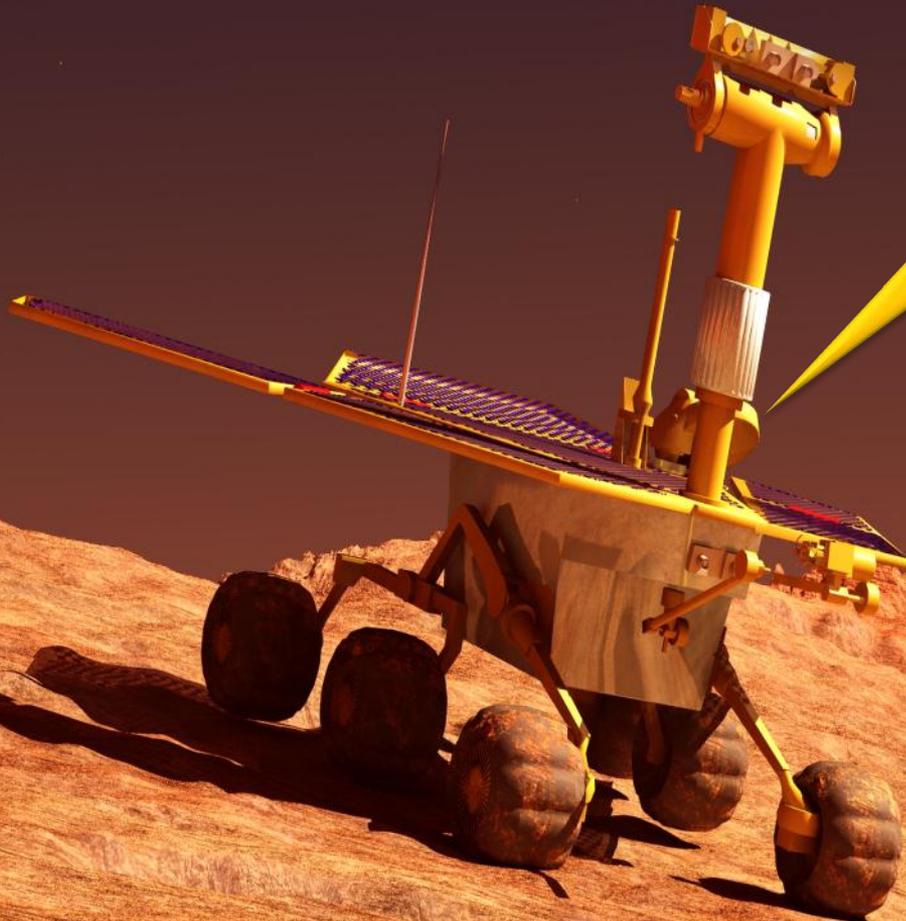
Vaisala service personnel travel 30 miles via Snowcat in Wyoming to reach AWOS sites at mountain passes.

Vaisala's WMT700 is the only approved ultrasonic wind sensor for Federal AWOS systems.

Our NLDN turned 30 years old last month! (National Lightning Detection Network) which detected 702,501,649 lightning flashes in 30 years.

Vaisala Dropsonde is used by hurricane hunter aircraft to collect storm data. A drop from 20,000 feet lasts 7 minutes.

Vaisala HMP155 sensor is located on the Mars Curiosity and has been recording humidity information for the past year.



# Your Weather Technology Experts



# Winter Maintenance Operations



## Performance Measurement

Idaho Transportation Department worked with Vaisala to develop multiple performance indexes to measure crew effectiveness and traffic flow. Index measurements begin with using the quantitative reading of grip (or friction) that each site produces. (Project was a finalist for the 2013 ITS America Best in ITS Award)



## Mobile Weather Station

West Virginia DOT, Idaho Trans. Dept., and the City of West Des Moines, Iowa, are a few examples of agencies that tested the Condition Patrol mobile system during the winter of 2012-13. The system provides pavement condition, grip, water layer thickness, air and pavement temperature, and atmospheric moisture parameters.

# Automated Driver Notifications

- Example Problem:
  - Plowed snow accumulated on a blind curve on a busy highway just outside of Aspen, Colorado. Snow would melt during the day and refreeze after road became shaded later in the day.
  - CDOT noticed crashes were occurring at this curve during good driving conditions. They concluded that drivers were traveling at a higher rate of speed in good conditions, and were not prepared for the refreezing snow and ice conditions once they entered the turn.
- Solution:
  - Use a non-intrusive fixed weather station to monitor grip. When refreeze occurred, weather station would wirelessly activate VMS sign “up stream.”
- Result:
  - 80% Reduction in crashes at the site (through 2012)



# Thank you!

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