Motor Grader Machine Monitoring How Satellites Help Us

Larry Herman, Jr.
Telematics Solution Consultant
RDO Equipment Co.



32nd Annual North Central Local Roads Conference Rapid City, SD - October 18-19,2017

Introduction & Overview

- 8 years mobile technology experience
- 2 years at RDO Equipment Co.
- How tech is changing the industry
- Benefits of telematics
- Implementation



Terms & Definitions

- Telematics: technology to remotely collect, send, & receive information
- AKA: telemetry, Internet of Things (IoT), machine to machine (M2M)
- Examples: JDLink (John Deere), VisionLink (Cat)
- 3 components: Device, Network, Application





How Does It Work?





Accelerating Technology

The Pace of Change:

Time to 50 Million Users:

Time to Reach 40% of US Households:

Radio: 38 Years

Telephone: 39 Years

TV: 13 Years

Smartphone: 10 Years

Web: 4 Years

91% of adults have their mobile phone within arm's reach 24 hours per day

90% of text messages are read within 3 minutes

Google uses over **1 Million** computers

They process over **1 Billion** search requests – **per day**

51% of Internet traffic is "non-human" aka "Machine to Machine" (M2M), Telematics, Telemetry



Accelerating Technology

GIVEN THE PACE OF TECHNOLOGY, I PROPOSE WE LEAVE MATH TO THE MACHINES AND GO PLAY OUTSIDE.





Equipment Evolution

Mechanization Era

- Bigger
- Faster
- Stronger





Automation Era

- Easier
- Smarter
- Precise



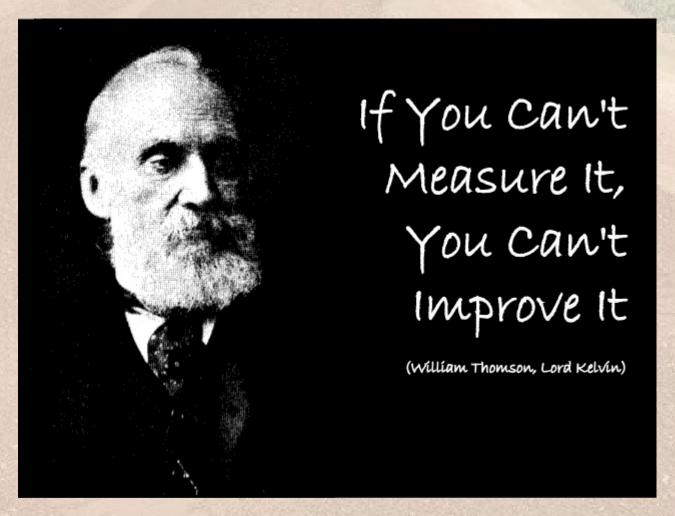








Why Telematics?





Why Telematics?

- Maximize Uptime
- Maintenance Scheduling
- Fuel Cost Management
- Warranty & lease impacts









Why Telematics?

- Operator Training
- Operator Safety
- Resident Satisfaction







Mixed Fleet

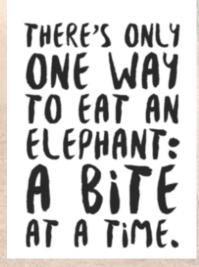
- AEMP Standards
- OEM and 3rd Party
- Single Sign On





Where Do We Start?

- Talk with your dealer
 - Mythbusters
- Develop policies and goals
- Roll out initiatives
- "Clean slate"





Summary

- Technology is changing the industry
- Telematics are a valuable tool:
 - Organization
 - Operators
 - Residents
- Leverage OEM systems and grow

Questions?

For system specific details, please, stop by the RDO Equipment Co. and Butler Machinery booths.





Larry Herman, Jr. LHerman@RDOEquipment.com 701-934-0811

www.RDOEquipment.com





32nd Annual North Central Local Roads Conference Rapid City, SD - October 18-19,2017