Wireless Data Acquisition System

An Application to Crossbow's Smart Dust Challenge Contest

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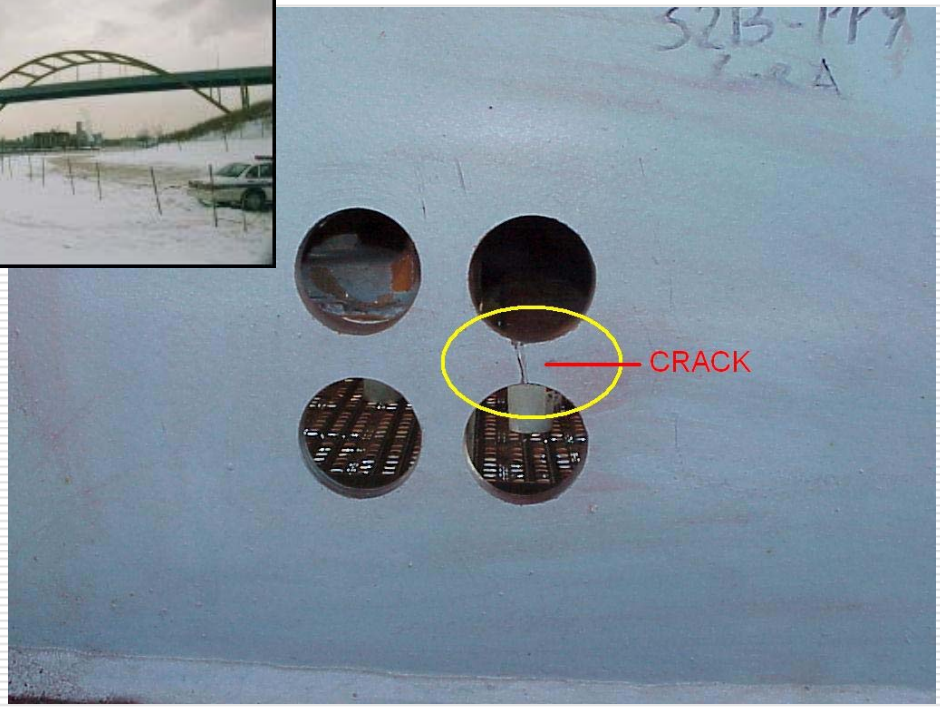
Today

- What is the Wireless Data Acquisition System?
- Components of the WDA
- The WDA Process
- The WDA in Action

What is the WDA?

- Collects Structural Health Data



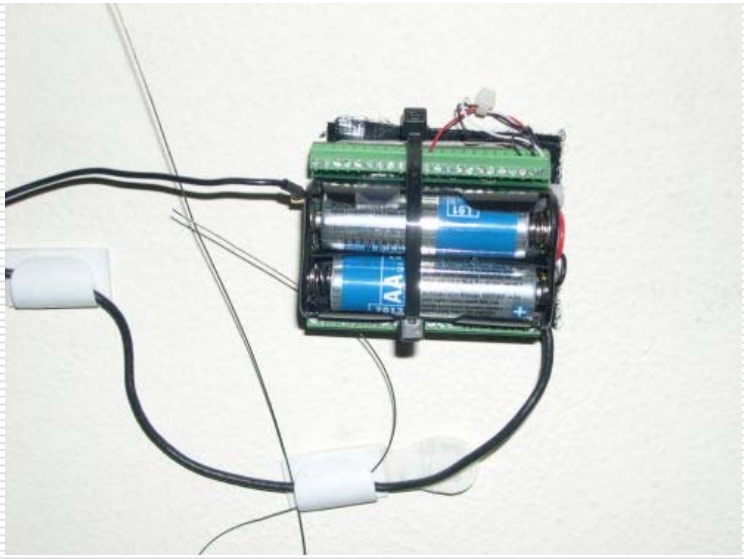
What is the WDA?

- Collects Structural Health Data
- Wireless
  - Installation is Fast
  - Installation is Unobtrusive
  - Not susceptible to “wired dangers”
- Internet-enabled
  - Users can view data in near-real time
  - E-Mail alerts to warn of potential problems
- Autonomous

What is the WDA?

Components of the WDA System

- Remote Nodes
  - Crossbow Mica2 Mote
  - MDA300 Analog Sensor Board
  - SpaceAge Control Series 150 Displacement Potentiometer

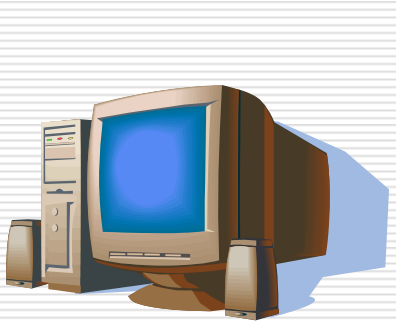


Components of WDA System

- Base Node

- **Communication**

WDA Process



BASE

R

R

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CIVIL DATA SYSTEMS

WDA in Action: Crack Monitoring

http://www.civildata.com/motes