University/Corporate Partnership for Enhanced Power Line Inspection Using UAS Technology

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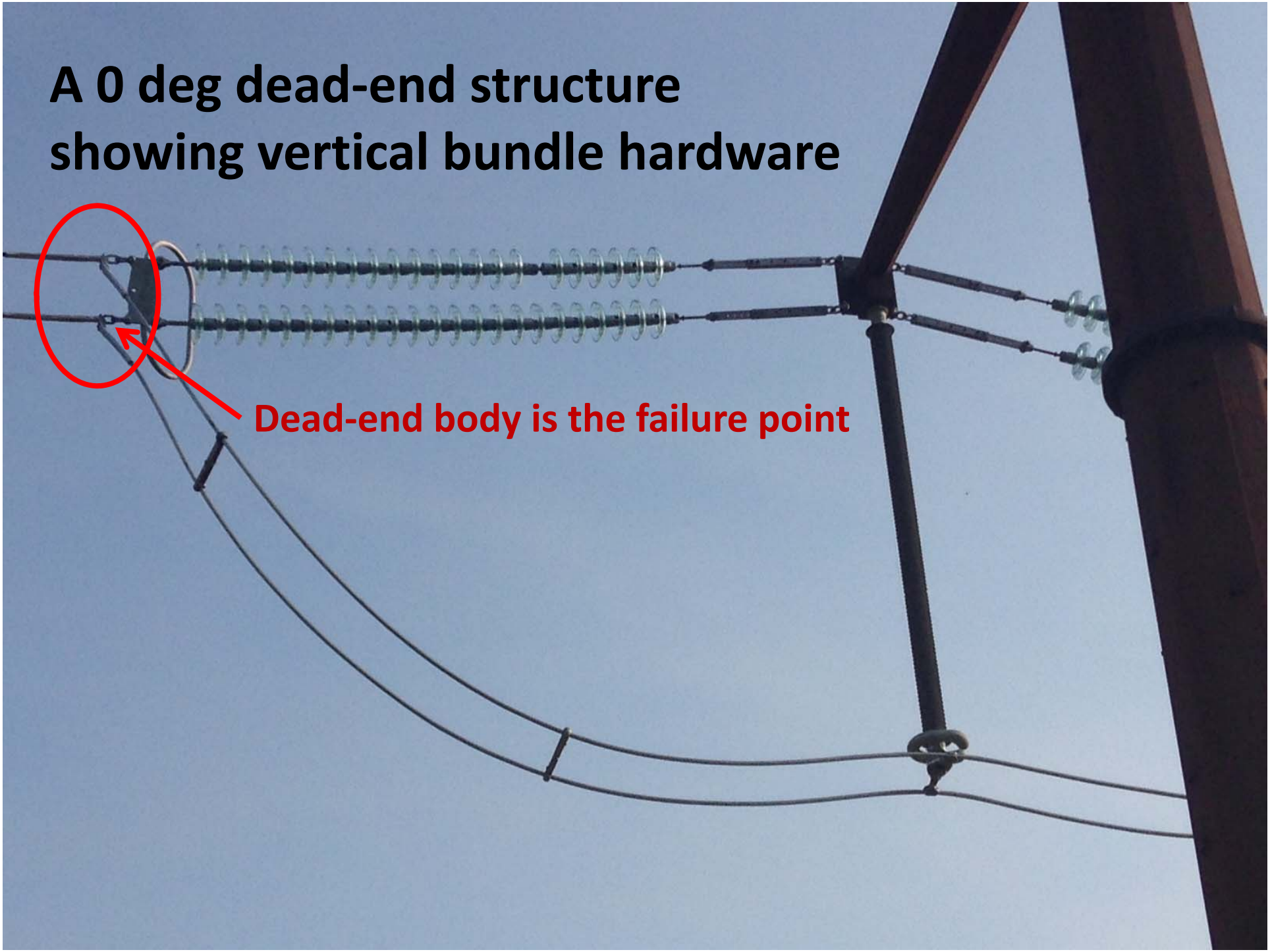
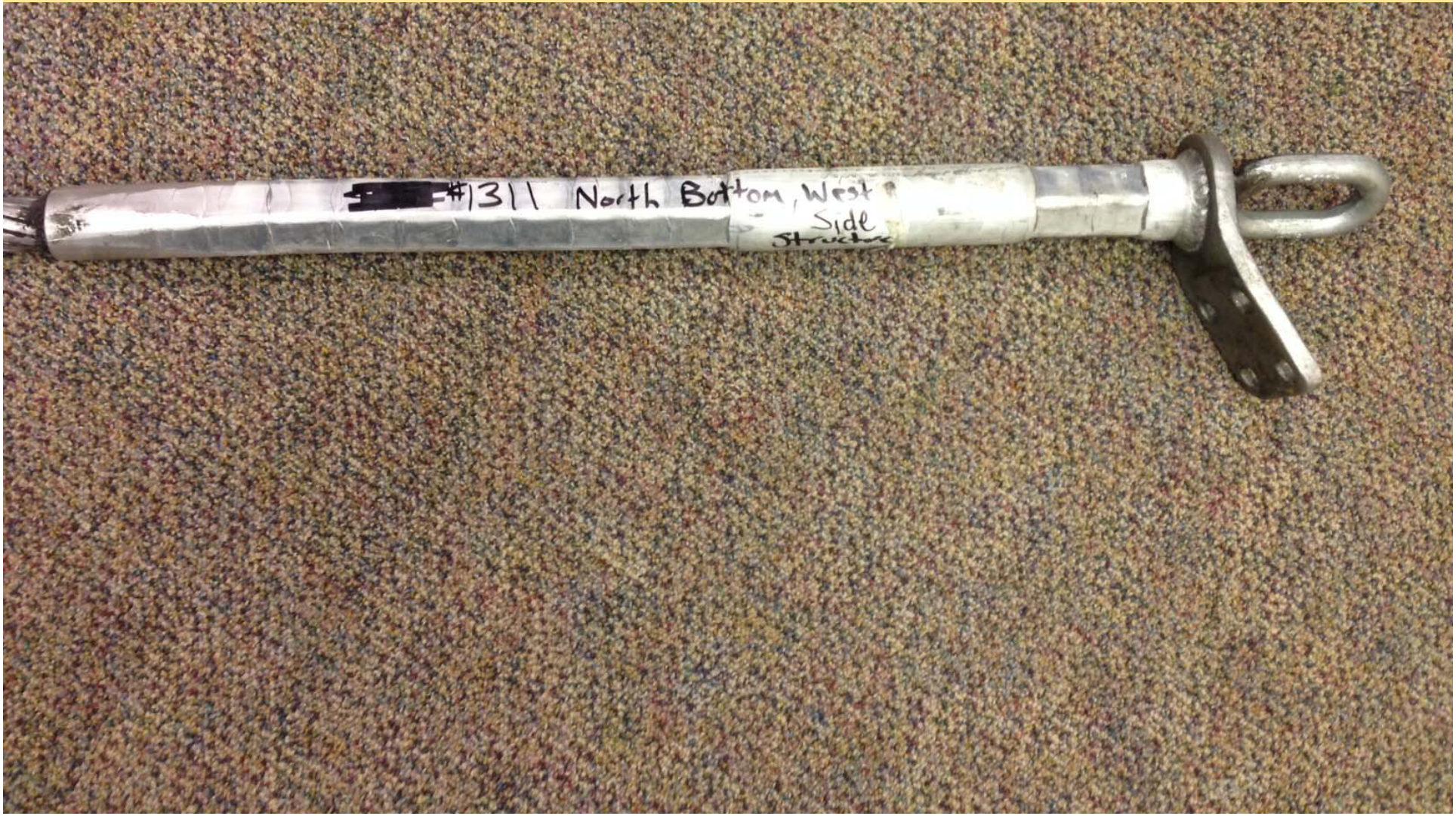
Center to Grand Forks Project

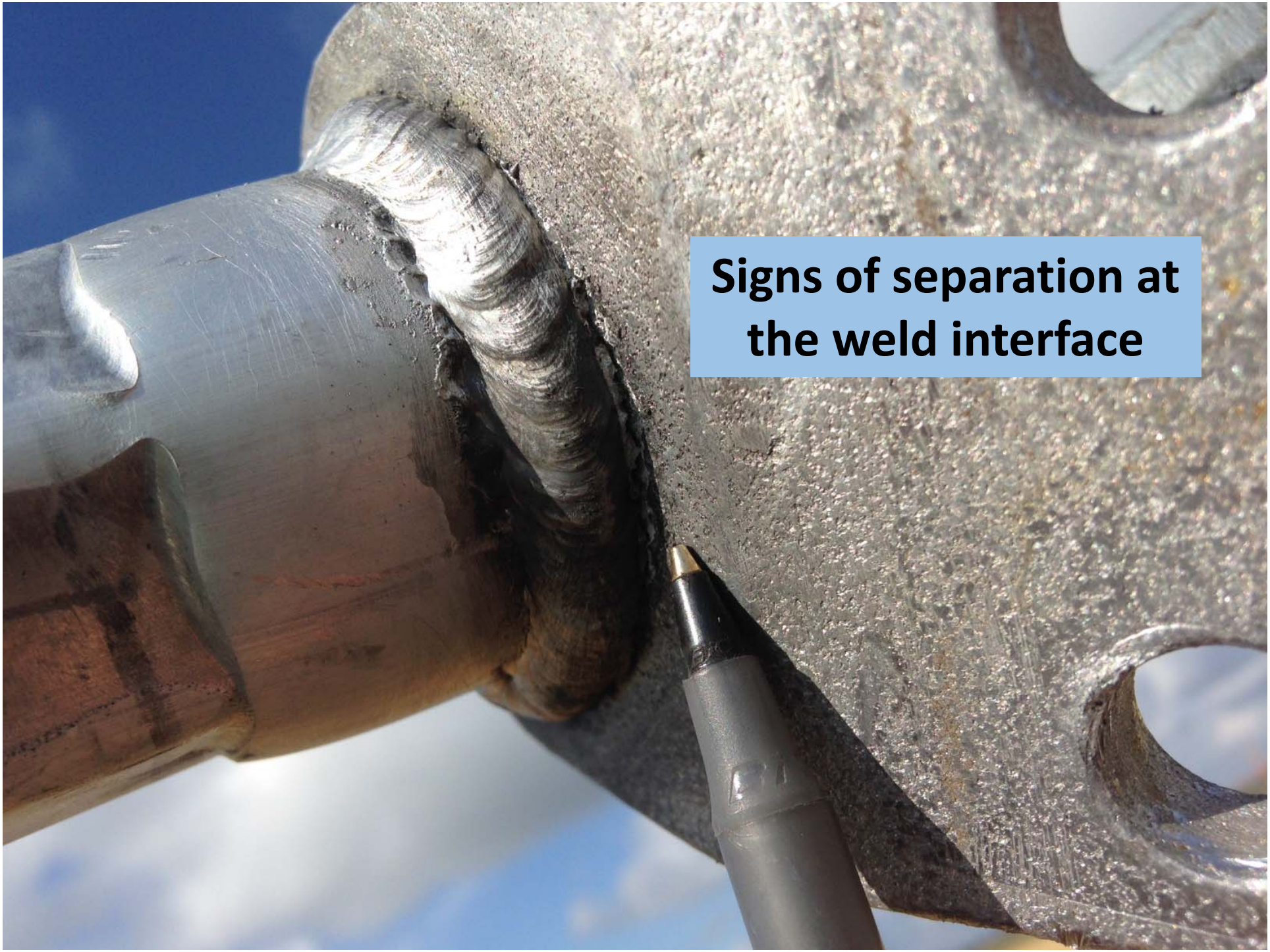
Minnkota Power
MPC COOPERATIVE, INC.


A 0 deg dead-end structure
showing vertical bundle hardware
Dead-end body is the failure point

1201

Dead-end body removed from same structure as the completely separated unit on previous slide




Signs of separation at the weld interface

Active Project

- **Powerline component failure identified using UAS**
- **<u>Goals</u>:**

  1. Identify appropriate sensor to detect the presence of cracking on metal components used on powerlines
  2. Identify a UAS air vehicle to orientate the sensor to look up and be able to fly in the high-voltage environment
  3. Identify a viable means to move the collected data and process it to provide a commercial service for powerline inspection