

## *Bridge Cable and Rope Ultrasonic Inspection*

TISEC specializes in the nondestructive inspection of suspender cables and ropes in cable-stay and suspension bridges, using long range ultrasound (LRUT). The technology is recommended for cables up to 4" in diameter.

### How it Works

- Sensor is installed on bottom end of cable.
- Long range ultrasound is transmitted from sensor to top end of cable.
- Ultrasound is reflected back from wire breaks and other cable defects.
- Cable defects are identified by location and severity: minor, moderate and advanced.
- Follow-up visual inspections may be recommended based on inspection results.

### Long range ultrasound (LRUT)

Long range ultrasound is used as a screening tool for oil and natural gas pipelines, bridge pile, and railroad track. The technology provides real-time feedback on structural condition without the need for direct access to the area of interest. Cable inspection typically takes about 20 minutes.

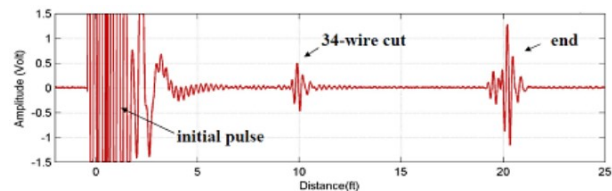
Our American Society for Nondestructive Testing (ASNT) certified inspectors have complementary training in fall protection, rope access, highway safety, railway safety, first aide, and confined space safety.



Use CABLE<sup>UT</sup> to screen cables rapidly and economically. Use quantitative data to assess which cables need follow-up visual inspection.

### Data and reporting

Long range ultrasonic data is straight forward to acquire and interpret. Cable and suspender rope ends provide strong reflections that are used to calibrate the speed of sound and defect sensitivity.



A single ultrasonic waveform summarizes the size and position of the reflectors in the cable.