4.2.2 Louisiana DOTD Ground Penetrating Radar (GPR) Data Collection: A Case Study

Presenter

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The Louisiana Department of Transportation and Development (LA DOTD) needed to collect ground penetrating radar (GPR) for 20,600 miles of its highways. The collection, interpretation, and reporting of the subsurface pavement structure posed a significant challenge. Fugro Roadware collected the GPR information to provide a safe, cost-effective, georeferenced, time saving method to understand the structural capacity and predict the remaining traffic life of each highway. Fugro Roadware uses an integrated GPR system to collect GPR data while simultaneously collecting georeferenced pavement condition and asset data at highway speeds for the DOTD. This subsurface analysis combined with the pavement condition survey provides LADOTD a complete picture of their roads from the top down and helps in the decision making process. The use of mapping technology to display and make use of this data is critical. The frequent and complex nature of the data on the section level makes it difficult to interpret, however simple maps can provide the detail needed to design and maintenance practitioners. GIS plays an integral part throughout the entire process from matching the collected data to LADOTD's road sections to identifying coring (ground truth) coring locations to linking the data to the pavement and asset surveys which were completed at the same time.

Bio(s):
Ron has been a GIS Analyst with Fugro Roadware for 3 years.
He has an undergrad degree in Geography with a specialization in Geomatics from the University of Waterloo. He also has completed the GIS Applications Specialist program at Fleming College.