

WOODTRANS

GPSTRACK

Assessment of GPS tracking devices and associated software suitable for real time monitoring of timber haulage trucks

PROJECT TEAM

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COMPLETION DATE

December 2007

OBJECTIVES

This is a study of the suitability, accuracy and efficiency of real-time GPS tracking of timber haulage trucks travelling on public and forest roads.

PROGRESS

The horizontal accuracy of the GPS data will be analysed on forest roads through the use of GIS. It has been well documented that GPS performance decreases under forest canopy. The project will determine how and if these effects extend to forest roads. Two trucks will be used to determine GPS performance in relation to truck activities, routes taken, and loading and unloading locations. Results will be analysed and

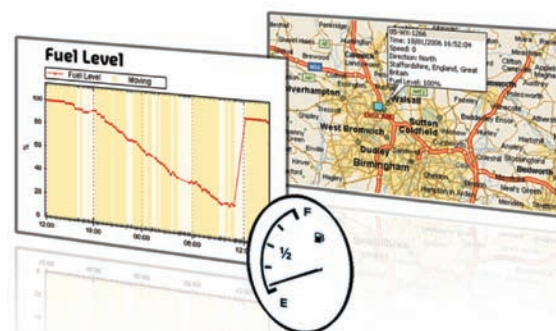
recommendations made to the haulage sector to determine whether GPS and GIS technology can be incorporated in a cost effective manner to help optimise the movements of timber trucks across Irish roads and within internal forest roads in terms of locating timber stock-piles. The technology can also be implemented in real-time to optimise the possibility of back-loading, depending on truck location, and thus help increase revenue per km.

To date, two GPS systems have been installed. Monitoring commenced on 29 October and ran consecutively for four weeks, with ongoing monitoring of trucks after the initial work period. Results will be analysed to determine system performance for GPS tracking, updating road vector maps and live feed of tracked trucks. In addition, the ability of the systems to analyse truck and driver performance and fuel consumption and efficiency are being determined.

OUTPUTS

Results of the study will be disseminated to the forestry sector at large and the Forest Industry Transport Group.

Results and workings of the study are to be presented to the Timber Transport Forum in Scotland in February 2008.



Engine diagnostics – fuel efficiency recording.