



MeteorComm Wins Next Generation Railroad Voice/Data Radio Development Project

MeteorComm™, the leading provider of mission critical mobile wireless communication networks to the railroad industry, has won the contract for the Higher Performance Data Radio (HPDR) project from the Transportation Technology Center, Inc (TTCI). TTCI is a wholly owned subsidiary of the Association of American Railroads (AAR) that conducts research into, and testing of, emerging railroad technology, and maintains standards for the North American railroad industry. The Federal Railroad Administration (FRA) funded the HPDR project as a part of their effort in positive train control system development. The AAR tasked TTCI to seek improvements in the throughput and performance of data communication links that support Communication Based Train Control (CBTC) systems and the transition to narrow-band VHF radios. The HPDR project focuses on the development of a radio that can integrate voice and digital data, and provide the necessary throughput to support foreseeable line of road communication needs. MeteorComm's Software Defined Radio (SDR) and network protocol, MBNet™, will be used in the HPDR system to be tested.

MeteorComm will provide TTCI with the MCC-6200 SDR being developed this year. The new radio extends MeteorComm's current MCC-6100 SDR functionality with a state of the art digital Vocoder and a new Adaptive TDMA channel access scheme. These will optimize voice and data transmissions to work both in highly congested areas and dark territories. The MCC-6200 will allow simultaneous reception of up to four RF channels providing greater frequency diversity to minimize interference and improve throughput. TTCI will test the MCC-6200 in both laboratory and railroad operating environments at their Communications and Train Control Test Bed in Pueblo to verify that it fulfills the HPDR requirements.

In the past ten years MeteorComm has designed and manufactured several thousand digital radios for the railroad industry. The MCC-6100 SDR and MCC-6150 SDR are currently being used by BNSF and the Alaska Railroad to support their CBTC, Hy-rail Limits Compliance System (HLCS), and wayside detector systems. MeteorComm's MBNet protocol enables locomotives, base stations, and wayside stations to operate efficiently in peer-to-peer and remote-to-base modes. The SDR operates in three RF bands: 44 MHz for train control, 160 MHz for voice, and 900 MHz for ATCS. The present design supports data rates up to 19.2 kbps in a 25 kHz bandwidth channel. The radio also supports analog voice at 12.5 kHz.

TTCI plans to complete HPDR testing by the end of 2009. The HPDR, which will communicate both voice and data at 160 MHz, will pave the way for new industry standards and guidelines for CBTC. An HPDR system may greatly impact how the railroad industry implements reliable, interoperable, wireless data and voice networks in the future.

MeteorComm is a leader in the design and manufacture of reliable wireless data and voice communication solutions. MeteorComm serves customers who require real-time situational awareness by remotely monitoring, coordinating and tracking resources. MeteorComm is a wholly owned subsidiary of BNSF Corporation.