IIS 055
MEMS/GPS Navigation for Locomotives

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Abstract
The project aims to determine the feasibility of augmenting a stand-alone Global Positioning System (GPS) locator with inertial microsensor technology to improve navigational performance in a noisy rail locomotive environment. CNCIS will provide technical expertise for specific "onboard" locomotive systems needs, including performing necessary test track field measurements and providing navigation system and error modeling expertise. ICES will design and provide knowledge of the inertial sensor module, including error modeling, accuracy and specific signal outputs.