Requesting a STA to allow temporary evaluation of a 77GHz radar kit from Texas Instruments (IWR1642BOOST) for a potential train detection application at railroad crossings. Current technology used today for train detection at railroad crossings uses either track circuits or axle counters. Both solutions require connection of equipment to the rails, which are subject to vandalism at ground level and/or damage by track maintenance equipment. Both solutions are also susceptible to reliability issues caused by environmental conditions (eg rain, snow, magnetic fields, etc). US railroads are looking for more modern technologies to replace these solutions with something that does not require connection to the rails and is immune to vandalism, damage and reliability issues caused by environmental conditions. The 77GHz radar technology proposed for evaluation appears to nominally meet all of the technical requirements necessary for train detection at railroad crossings. The STA is requested to evaluate further its capability, particularly the ability to provide immunity against environmental conditions.