SIEMENS

Information Bulletin

GCP Maximum Length with Good Ballast

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This bulletin has been re-issued to apply to all models of the Grade Crossing Predictors.

1 Applicability

Grade Crossing Predictor and Motion Sensor Installation with average to good ballast.

2 Maximum Track Length

The Application Manuals for the Siemens Grade Crossing Predictors detail the maximum track length under 2 Ω.1000 ft and 4 Ω.1000 ft ballast conditions.

Most Australian Railways specify a minimum ballast conductance of 1 Ω.km or 2 Ω.km or even higher. These conditions will allow operation of longer approaches as are often required with faster trains or for second train coming applications.

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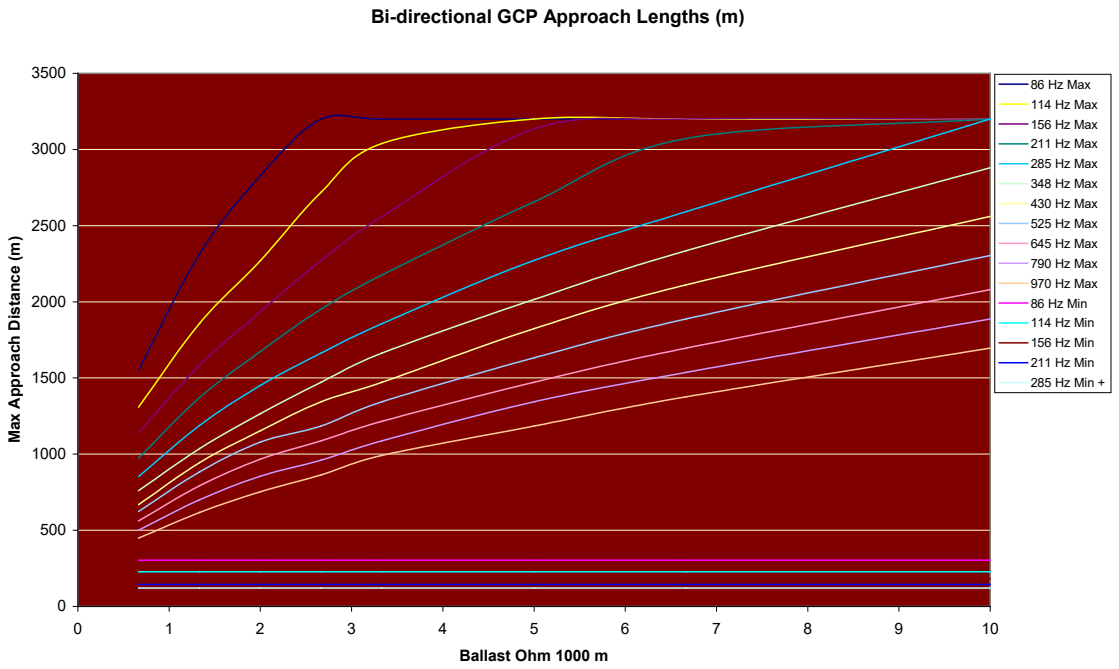

Figure 1: Track length for bi-directional operation

Figure 1 shows maximum and minimum track lengths that are possible for different ballast conditions for each of the major GCP frequencies. Figure 2 shows the same information for a unidirectional approach. Note that Bidirectional simulation couplers can be used to make a uni-directional approach appear as a bi-directional approach to take advantage of the improved parameters.

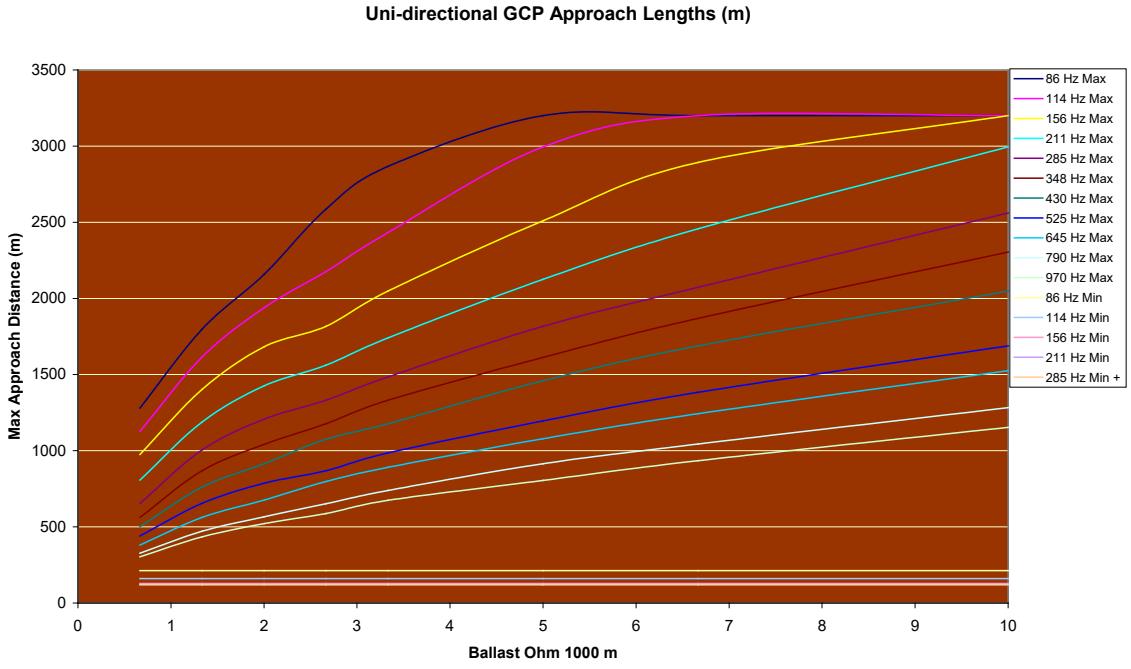

Figure 2: Track Length for Unidirectional Approach

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You must design for the worst case ballast with both Crossing Predictors and Motion Sensors. The equipment can compensate for improved (dryer) ballast only. Ballast falling lower than the design value may cause the crossing to operate.

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