



Communication Based Overlay Signal System RADIO SPECTRUM LEASE AGREEMENT

Board of Directors
March 06, 2014



What Is Radio Frequency (RF) Spectrum

- RF Spectrum and Communication Messages are analogous to Railroad Tracks and Locomotives.
- Radio Spectrum is the Medium by Which Communication and Control Messages can be Efficiently Sent Back and Forth Between the Railroad Dispatch Center(s) and Remote Field Locations or Assets (in particular, assets that are not fixed in place).



Why Caltrain Needs RF Spectrum

- PTC System Requires Dedicated RF Spectrum.
- Nationwide Industry Standards Set by the Class 1 Railroads Require RF Spectrum in the 220Mhz Range.
- The JPB Must Obtain Enough Suitable 220Mhz Spectrum in Order to Implement and Interoperable PTC system as required by Federal Law.

3



How Should Caltrain Procure the RF Spectrum

- Caltrain CBOSS PTC Contractor Performed the Availability Analysis and Determined the only Source of 220Mhz Spectrum with Immediate availability is from PTC 220 LLC;
- PTC 220 LLC (Whose members includes Class 1 Railroads) Owns Suitable Spectrum;
- There is no other Available Source of Spectrum that can meet CBOSS PTC project needs in the Immediate Time Frame.

4



PTC 220 LLC RF Spectrum Lease Terms

- Five Year Term with Automatic Renewals Unless Terminated.
- Annual Costs Estimated at \$30,000/year
- Usage Rights Suitable for CBOSS but Subject to PTC-220 LLC Technical Oversight and Determination of Availability.
- Funding for the Five Year Lease for the RF Spectrum is Included in the CBOSS PTC Project Budget.

5



Recommendation

- Authorize the Executive Director to Enter into a Five-Year Lease with PTC 220LLC in an Estimated Amount of \$150,000.
- Continue to Pursue Alternatives for Purchase of Suitable RF Spectrum.

6