

Truth in Testimony

1. Name: Edward R. Hamberger

2. Title: President and CEO

3. Organization you are representing: Association of American Railroads

4. Date of hearing: September 13, 2018

5. The amount and source of each federal grant (or subgrant thereof) or contract (or subcontract thereof) related to the subject matter of the hearing, received by you or an entity represented by you during this year or the prior two calendar years (2016 and 2017): (attach additional pages as necessary).

The AAR hosts a Train Control Communications and Operations Committee that provides a forum for Class I Freight Railroads, the Transportation Technology Center, Inc. (TTCI) and the Federal Railroad Administration (FRA) to build strategies around train control and review industry/government cooperative projects. TTCI, which is a wholly owned subsidiary of the AAR has entered several FRA funded PTC- related projects in 2016 and 2017. A list of those projects are included in attachment A.

6. The amount and country of origin of any payment or contract related to the subject matter of the hearing originating with a foreign government, received by you or an entity represented by you during this year or the prior two calendar years (2016 and 2017): (attach additional pages as necessary)

None

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|---|------------------------|
| 2018 (Through August) Total | \$ 1,720,071.36 |
| 2018 (Through August) TO 0028 Interoperable EIC-PRT | \$ 131,618.96 |
| 2018 (Through August) TO 0030 PTC Interoperability Support - II | \$ 44,064.74 |
| 2018 (Through August) TO 0032 Higher Reliability Train Control | \$ 114,391.12 |
| 2018 (Through August) TO 0041 PTC MAIN | \$ 243,315.46 |
| 2018 (Through August) TO 054 PTC Test Facility Phase II | \$ 110,288.48 |
| 2018 (Through August) TO 700 Enhanced Overlay PTC | \$ 171,578.63 |
| 2018 (Through August) TO 764 Track Data Auditing System - Phase II | \$ 205,035.62 |
| 2018 (Through August) TO 778 Quasi-Moving Block PTC | \$ 296,642.23 |
| 2018 (Through August) TO 782 PTC Braking Algorithm Evaluation Methodology | \$ 107,437.45 |
| 2018 (Through August) TO 785 Analysis of Adaptive Braking Algorithm | \$ 95,069.11 |
| 2018 (Through August) Passenger Braking Algorithm Enhancement - Phase II | \$ 4,057.51 |
| 2018 (Through August) ITC RF Integrity and Security | \$ 196,572.05 |
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| 2017 Total | \$ 2,332,779.80 |
| 2017 TO 355 NEC PTC Network Design | \$ 235,008.75 |
| 2017 TO 359 PTC Passenger Braking Algorithm | \$ 322,763.63 |
| 2017 TO0017 PTC Machine Vision Track Map Audit | \$ 65,591.27 |
| 2017 TO 0028 Interoperable EIC-PRT | \$ 438,362.58 |
| 2017 PTC Interoperability Support - II | \$ 178,454.63 |
| 2017 TO 0032 Higher Reliability Train Control | \$ 530,006.73 |
| 2017 TO 0041 PTC MAIN | \$ 161,191.83 |
| 2017 TO 0054 PTC Test Fac | \$ 46,670.22 |
| 2017 TO 700 Enhanced Overlay PTC | \$ 64,612.73 |
| 2017 TO 764 Track Data Auditing System - Phase II | \$ 41,151.83 |
| 2017 TO 778 Quasi-Moving Block PTC | \$ 51,850.39 |
| 2017 TO 782 PTC Braking Algorithm Evaluation Methodology | \$ 45,920.89 |
| 2017 TO 785 Analysis of Adaptive Braking Algorithm | \$ 23,682.26 |
| 2017 ITC RF Integrity and Security | \$ 127,512.06 |
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| 2016 Total | \$ 3,239,614.87 |
| 2016 TO 312 Braking Algorithm Freight | \$ 24,300.00 |
| 2016 TO 321 PTL Phase II | \$ 284,988.59 |
| 2016 TO 330 EIC PRT | \$ 55,826.15 |
| 2016 TO 335 PTC220 CHI KCS DFW Net Design | \$ 31,852.37 |
| 2016 TO 339 FRA PTC TestBedVeri & Val | \$ 6,452.91 |
| 2016 TO 350 EIC PRT Integration and Test | \$ 348.70 |
| 2016 TO 355 NEC PTC Network Design | \$ 290,792.22 |
| 2016 TO 358 TTT Signal System & ACSES | \$ 393,553.00 |
| 2016 TO 359 PTC Passenger Braking Algorithm | \$ 457,989.99 |
| 2016 TO 0007 PTC Test Bed BOS & CAD Upgrd | \$ 113,264.40 |
| 2016 TO 0012 PTC Interop Support | \$ 110,626.59 |
| 2016 TO 0013 Adaptive Interfer Cancellor - Phase 1 | \$ 67,046.89 |
| 2016 TO 0015 FRA 220 Mhz Loco Filter Test | \$ 483,000.51 |
| 2016 TO0017 PTC Machine Vision Track Map Audit | \$ 225,509.30 |
| 2016 PTC Test Facility Analysis and Design | \$ 41,816.00 |

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|--------------------------------|---------------|
| 2016 FRA TO0028 EIC PRT Admin | \$ 410,224.39 |
| 2016 FRA TO 32 PTC Train Contr | \$ 195,708.77 |
| 2016 TO 0041 PTC MAIN | \$ 38,723.11 |
| 2016 FRA PTC Implement Grant | \$ 7,590.98 |