

# Bibliography

- Leonard Allen, J. Brent Mason, and Jeff Stevens. Rail Borne Track Asset Mapping. In *Proceedings of the AREMA 2006 Annual Conferences*. American Railway Engineering and Maintenance-of-Way Association, June 2006.
- James M. Anderson and Edward M. Mikhail. *Surveying: Theory and Practice*. McGraw Hill Higher Education, 7th edition, 2007.
- Gil Barnes. Head of CSX Hump Yard Engineering. Personal interview, May 16 2007.
- Eric W. Beshers, James R. Blaze, and Randolph R. Resor. Scheduled Railroading and The Viability of Carload Service. Technical report, Office of Policy, Federal Railroad Administration, March 16 2004. URL [http://www.fra.dot.gov/downloads/policy/policy\\_carload\\_study\\_2004.pdf](http://www.fra.dot.gov/downloads/policy/policy_carload_study_2004.pdf).
- Ron Bright. Head of CSX Track Inspection. Personal interview, May 19 2009.
- Dan Butvidas. Survey Controller Software Relative Vertical Precision Values. Trimble Electronic Mail Support, March 1 2010.
- Peter Dailey. Hump operations. Internet, May 2008a. URL <http://www.youtube.com/watch?v=ndryMwF41Kk>.
- Peter J Dailey. Hump Yard Car Stall Blocking Group Switch. Internet, 2008b. URL [http://www.youtube.com/watch?v=ygl\\_X9RER70](http://www.youtube.com/watch?v=ygl_X9RER70).
- Louis H. Estey, Ph.D. UNAVCO Translate, Edit, and Quality Check software. World Wide Web, March 2010. URL <http://facility.unavco.org/software/teqc/teqc.html>.
- FRA. Differential GPS: An Aid to Positive Train Control. Technical report, Federal Railroad Administration, 1995. URL [www.navcen.uscg.gov/dgps/dgeninfo/traincontrol/dgps4a.pdf](http://www.navcen.uscg.gov/dgps/dgeninfo/traincontrol/dgps4a.pdf).
- FRA. Analysis of Antennas to Improve Differential Global Positioning System (DGPS) Reception on Locomotives. Research result, Federal Railroad Administration, August 2000. URL [http://www.fra.dot.gov/downloads/Research/rr00\\_03.pdf](http://www.fra.dot.gov/downloads/Research/rr00_03.pdf).

- FRA. *Track Safety Standards Compliance Manual*. Federal Railroad Administration, Office of Safety Assurance and Compliance Track and Structures Division, Washington, D.C., April 2007. URL [http://www.fra.dot.gov/downloads/safety/track\\_compliance\\_manual/TCM20TOC.PDF](http://www.fra.dot.gov/downloads/safety/track_compliance_manual/TCM20TOC.PDF).
- Fugro N.V. OmniSTAR Worldwide DGPS Service. Internet, September 2009. URL <http://www.fugro.com/survey/satellite/omnistar.asp>.
- Ralph Glaus. *Kinematic Track Surveying by Means of a Multi-Sensor Platform*. PhD thesis, Swiss Federal Institute Of Technology, 2006.
- Thomas F. Hickerson. *Route Location and Design*. McGraw-Hill Book Company, New York, New York, fifth edition, 1964.
- Doug Hull. Intersecting a Circle with a Line Series. Internet, February 19 2008. URL <http://blogs.mathworks.com/videos/2008/02/>.
- KGS. Kentucky Geodetic Survey's Geodetic Control in Kentucky. Internet, October 2009. URL <http://ngs.ky.gov/index.html>.
- Edwin R. Kraft. Priority car sorting in railroad classification yards using a continuous multi-stage method. USPTO 6,418,854, July 16, 2002.
- Alfred Leick. *GPS Satellite Surveying*. John Wiley and Sons, Hoboken, NY, 3rd edition, 2004.
- MDOT. Michigan Department Of Transportation CORS. Internet, September 2009. URL <http://www.mdotcors.org/>.
- Thomas J. Meyer and Thomas R. Metzger. Locomotive Location System and Method. USPTO patent 7,209,810, April 24, 2007.
- Charles W. Moorman. Freight Rail Perspectives on Capacity Issues: Summary of Remarks. In *Workshop to Support FRA Railroad Research and Development*. Transportation Research Board, April 5-6 2006.
- Bhaskaran Nair. Track measurement systems—concepts and techniques. *Rail International*, 3: 159–166, 1972.
- NCGS. North Carolina Geodetic Survey. Internet, October 2009. URL <http://www.ncgs.state.nc.us/>.
- NSC Office of Science and Technology Policy. NSTC-6 U.S. Global Positioning System Policy. Presidential Directive, March 1996. URL [http://www.hq.nasa.gov/office/codez/new/policy/pddnstc\\_6.htm](http://www.hq.nasa.gov/office/codez/new/policy/pddnstc_6.htm).

- ODOT. Ohio Department of Transportation Aerial Engineering Virtual Reference System Real Time Kinematic Network. Internet, September 2009. URL <http://www.dot.state.oh.us/Divisions/ProdMgt/Aerial/Pages/VRSRTK.aspx>.
- Gary Pruitt and Carl Eric Fly. NDGPS Assessment Final Report. Technical Report DTFH61-04-D-00002, United States Department of Transportation, March 2008. URL [http://www.navcen.uscg.gov/ndgps/ndgps%20assessment%20report\\_final.pdf](http://www.navcen.uscg.gov/ndgps/ndgps%20assessment%20report_final.pdf).
- Randolph R. Resor, Michail E. Smith, and Pradee Patel. Positive Train Control (PTC): Calculating Benefits and Cost of a New Railroad Control Technology. *Journal of the Transportation Research Forum*, 44(2):77–98, 2005.
- Anthony Szwilski, Richard Begley, John Ball, and Peter Dailey. Multi-sensor Mobile System to Monitor Track Super structure and Substructure: Initial Studies with Non-Invasive Technologies. In *National AREMA Conference*, Chicago, Illinois, 2003. American Railway Engineering and Maintenance-of-Way Association.
- Anthony B. Szwilski, W. Brad Kerchof, John Tomlin, Peter J. Dailey, Zhibin Sheng, and Richard Begley. Rapid Surveying Of A Classification Yard Employing High-Accuracy DGPS (RTK). In *Proceedings of the AREMA 2005 Annual Conferences*. The American Railway Engineering and Maintenance of Way Association, September 25-28 2005. URL [http://www.arema.org/eseries/scriptcontent/custom/e\\_arema/library/2005\\_Conference\\_Proceedings/00048.pdf](http://www.arema.org/eseries/scriptcontent/custom/e_arema/library/2005_Conference_Proceedings/00048.pdf).
- The Mathworks, Inc. *Curve Fitting Toolbox 2*. The MathWorks, Inc., 3 Apple Hill Drive Natick, MA 01760-2098, Online only: Revised for Version 2.1 (Release 2009b) edition, September 2009. URL [http://www.mathworks.com/access/helpdesk/help/pdf\\_doc/curvefit/curvefit.pdf](http://www.mathworks.com/access/helpdesk/help/pdf_doc/curvefit/curvefit.pdf).
- TRAINS. North America’s Hump Yards. *TRAINS Magazine*, June and July 2002. URL <http://www.trains.com/trn/default.aspx?c=a&id=537>.
- Trimble. *R7 GNSS User Guide*. Trimble Navigation Limited, version 4.0 revision a edition, 2009. URL [http://trl.trimble.com/dscgi/ds.py/Get/File-449958/R7-5700Receivers\\_4A\\_UG\\_7441.pdf](http://trl.trimble.com/dscgi/ds.py/Get/File-449958/R7-5700Receivers_4A_UG_7441.pdf).
- Trimble Navigation Limited. 5700 CORS System. World Wide Web, 2006. URL <http://www.trimble.com/5700cors.shtml>.
- Trimble Navigation Limited. Scalable GNSS Infrastructure - VRS. World Wide Web, 2010. URL <http://www.trimble.com/vrs.shtml>.
- Union Pacific Railroad. Union Pacific Railroad Precision Measurement Vehicle Operations, 2008. URL <http://www.uprr.com/aboutup/telecom/groups.shtml#2>.

- USC. United States Code, Title 49, Part 213, Subpart C - Track Geometry, 2009a. URL <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr;sid=a92f8f8c60b5a%4769b34869f7324af63;rgn=div5;view=text;node=49%3A4.1.1.1.8;idno=49;cc=ecfr#49:%4.1.1.1.8.3>.
- USC. United States Code, Title 49 Part 214, Subpart C, Roadway Worker Protection. USGPO, 2009b. URL <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=e1e054ac618be974227886aec39b5522&rgn=div6&view=text&node=49:4.1.1.1.9.3&idno=49>.
- USC. United States Code, Title 49, Part 214, Subpart D, On-Track Roadway Maintenance Machines and Hi-Rail Vehicles. USGPO, 2009c. URL <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=e1e054ac618be974227886aec39b5522&rgn=div6&view=text&node=49:4.1.1.1.9.4&idno=49>.
- USDOD. Global Positioning System Standard Positioning Service Performance Standard. Technical report, US Department Of Defense, 2001. URL <http://www.navcen.uscg.gov/GPS/geninfo/2001SPSPPerformanceStandardFINAL.pdf>.
- USDOT. National Transportation Statistics, Annual Publication, 2008. URL [http://www.bts.gov/publications/national\\_transportation\\_statistics](http://www.bts.gov/publications/national_transportation_statistics).
- USDoTFHA Highway Research Center. Nationwide Differential Global Positioning System Program Fact Sheet. World Wide Web, 2010. URL <http://www.tfhrc.gov/its/ndgps/02072.htm>.
- Rodney Van Pelt. CSX Roadmaster. Personal interview, November 5, 2009.
- Donald J VanWormer. CSX Manager Classyard Engineering. Personal Interview, 15 May 2007.
- WAAS Test Team. Wide Area Augmentation System Performance Analysis Report. Quarterly Report 29, FAA/William J. Hughes Technical Center, Atlantic City International Airport, NJ 08405, July 2009. URL <http://www.nstb.tc.faa.gov/reports/waaspan29.pdf>.