# **HIGHWAY-RAIL CROSSING REPORTS, 1969-2005**

# U.S. DEPARTMENT OF TRANSPORTATION FEDERAL RAILROAD ADMINISTRATION

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<u>Pub</u>	lished FRA Reports:	NTIS <u>ORDER NO</u> .	PRICE CODE*
1.	A Program Definition Study for Rail-Highway Grade Crossing Improvement. Prepared by Alan M. Voorhees and Associates, Inc., Report No. FRA-RP-70-2, October 1969.	PB 190401	A08
2.	The Visibility and Audibility of Trains Approaching Rail-Highway Grade Crossings.  Prepared by Systems Consultants, Inc. Report FRA-RP-71-1, May 1971.	PB 202668	A08
3.	<u>Technological Innovation in Grade Crossing</u> <u>Protective Systems</u> . Prepared by TSC for FRA, Report DOT-TSC-71-3, June 1971.	PB 201624	A05
	*See last page for prices.	•	

4.	Report to Congress: Railroad-Highway Safety Part I: A Comprehensive Statement of the Problem. Part II: Recommendations for Resolving the Problem. Prepared jointly by the Staffs of FRA and FHWA. November 1971 and August 1972.	PB 206792 PB 213115	A07 A06
5.	Human Factors Countermeasures to Improve Highway-Railway Intersection Safety. Prepared by Bio Technology, Inc. for FRA and NHTSA. Report No. DOT-HS-800888, July 1973, 235 pp.	PB 223416	A11
6.	Enhancement of Train Visibility. Prepared by TSC for FRA, Report FRA-ORD&D-74-15, September 1973.	PB 223899	A05
7.	Grade Crossing Protection in High-Speed High-Density, Passenger-Service Rail Corridors. Prepared by TSC for FRA, Report No. FRA-ORD&D-74-14, September 1973.	PB 223738	A03
8.	Proceedings 1974 National Conference on Railroad-Highway Crossing Safety. Sponsored by U.S. Department of Transportation. U.S. Air Force Academy, August 19-22, 1974.	PB 245231	A06
9.	State Grade Crossing Programs: A Case Study. Prepared for FRA/TSC by CONSAD Research Corp. Report No. FRA-ORD&D-75-8, September 1974.	PB 244175	A04
10.	Feasibility Study of In-Vehicle Warning Systems. Prepared by Tracor-Jitco for NHTSA/FRA, Report DOT-HS-256-3-752, May 1975.	PB 242462	A07
11.	Field Evaluation of Locomotive Conspicuity Lights. Prepared by TSC for FRA, Report FRA-ORD&D-75-54, May 1975.	PB 244532	A04
12.	Guidelines for Enhancement of Visual Conspicuity of Trains at Grade Crossings.  Prepared by TSC for FRA, Report No. FRA-ORD&D-75-71, May 1975.	PB 244551	A04
13.	A Communication-Link Approach to Actuation of Grade Crossing Motorist Warning Systems.  Prepared by TSC for FRA, Report FRA-ORD&D-75-80, July 1975.	PB 244584	A06

14.	A Methodology for Determination of Grade Crossing Resource Allocation Guidelines. Prepared by TSC for FRA, Report FRA-ORD&D-76-04, August 1975.	PB 259005	A04
15.	Locomotive to Automobile Baseline Crash Tests. Prepared by Ultra Systems for FRA, Report FRA-ORD&D-76-03, August 1975.	PB 250564	A07
16.	<u>Lightning and Its Effects on Railroad Signal Circuits</u> Prepared by University of Lowell for FRA/TSC, Report No. FRA-ORD&D-76-129, December 1975.	PB 250621	A06
17.	Standby Power for Railroad-Highway Grade Crossing Warning Systems. Prepared by University of Lowell for FRA/TSC, Report No. FRA-ORD&D 76-286, September 1976.	PB 263592	A03
18.	Improvement of the Effectiveness of Motorist Warnings at Railroad-Highway Grade Crossings. Prepared by TSC for FRA, Report No. FRA/ORD-77-07, February 1977.	PB 266784	A05
19.	Potential Means at Cost Reduction in Grade Crossing Automatic Gate Systems. Prepared by MB Assoc., et al for TSC/FRA, Reports FRA/ORD-77-06.I and 77/06.II, February 1977.	PB 265724 PB 265725	A05 A04
20.	Summary Statistics of the National Railroad-Highway Crossing Inventory for Public At-Grade Crossings. Prepared by TSC for FRA, Report No. OOPD-77-8, June 1977.	PB 271334	A08
21.	Proceedings 1977 National Conference on Railroad-Highway Crossing Safety. Sponsored by U.S. Department of Transportation, University of Utah, August 23-25, 1977.	PB 293071	A07
22.	Innovative Concepts and Technology for Railroad-Highway Grade Crossing Motorist-Warning Systems. Prepared by Cincinnati Electronics et. al for TSC/FRA, Report Nos. FRA/ORD-77/37.I and 77/37.II, September 1977.	PB 273354 PB 273355	A10 A05

23.	Potential Means of Cost Reduction in Grade Crossing Motorist-Warning Control Equipment.  Prepared by Storch Engrs. et. al for TSC/FRA Reports FRA/ORD-77/45.I and 77/45.II, December 1977.	PB 277946 77947 A03	A09
24.	Analysis of NPRM Strobe Lights on Locomotives. Prepared by IOCS, Inc. for FRA, Report No. FRA/OPPD-79-4, May 1978.	PB 293483	A04
25.	A Study of State Programs for Rail-Highway Grade Crossing Improvements. Prepared by TSC for FRA, Report No. FRA-OPPD-78-7, June 1978.	PB 279774	A08
26.	Summary Statistics of the National Crossing Inventory for Public At-Grade Crossings, Second Edition.  Prepared by TSC for FRA, Report FRA-OPPD-78-20, September 1978.	PB 293070	A08
27.	Legal Effects of Use of Innovative Equipment at Railroad-Highway Grade Crossings on Railroad's Accident Liability. Prepared by TSC for FRA, Report No. FRA-RRS-80-01, October 1979.	PB80-13788	8 A04
28.	Rail-Highway Crossing Accident/Incident and Inventory Bulletin (No. 1 Calendar Year 1978). Prepared by Office of Safety, FRA, October, 1979.	Available fro	m FRA.
29.	Rail-Highway Crossing Hazard Prediction  Research Results. Prepared by TSC for  FRA, Report FRA-RRS-80-02, March 1980.	PB80-17074	9 A11
30.	Identification and Evaluation of Off- Track Detection Systems for Grade Crossing Applications. Prepared by GARD, Inc. Report No. FRA/ORD-80-32, April 1980.	PB 80-18643	30 A06
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33.	Rail-Highway Crossing Warning Device Life Cycle Cost Analysis. Prepared by Input Output Computer Services, Inc. for TSC/FRA/FHWA, Report No. FRA-RRS-80-003, September 1980.	PB 81-133894 A05
34.	Rail-Highway Crossing Accident/Incident Bulletin (No. 2 Calendar Year 1979). Prepared by FRA Office of Safety, September 1980.	Available from FRA.
35.	Grade Crossing Accident Injury Minimization Study. Prepared by Aerospace Design Company, Inc., Report No. FRA/ORD-80-87, December 1980.	PB 81-155236 A09
36.	Proceedings, 1980 National Rail-Highway Crossing Safety Conference. Sponsored by U.S. Department of Transportation, University of Tennessee, June 17-19, 1980.	PB 81-196982 A06
37.	Investigation of Anomalous Rail-Highway Crossings. Available Paper Presentation at 60th Annual Meeting of TRB. Prepared by FRA Office of Safety, FRA, January 1981.	able from FRA
38.	Rail-Highway Crossing Resource Allocation Model. Prepared by TSC for FRA/FHWA, Report No. FRA-RRS-81-001, April 1981.	PB 81-212540 A05
39.	Constant Warning Time Concept Development for Motorist Warning at Grade Crossings.  Prepared by Systems Technology Laboratory, Inc., Report No. FRA/ORD-81/07, May 1981.	PB 81-205684 A09
40.	Rail-Highway Crossing Accident/Incident and Inventory Bulletin (No. 3 Calendar Year 1980). Prepared by FRA Office of Safety, June 1981	Available from FRA.
41.	Operation Lifesaver National Symposium, (Aug. 27-29, 1981, Chicago, IL). Prepared by FRA/Office of Safety and National Safety Council, August 1981.	PB 83-117234 A03
42.	Rail-Highway Crossing Accident/Incident and Inventory Bulletin (No. 4 Calendar Year 1981) Prepared by FRA Office of Safety, June 1982	Available from FRA See Item #56
43.	Summary of the Department of Transportation Rail-Highway Crossing Accident Prediction Formulas and Resource Allocation Model. Prepared by FRA Office of Safety, June 1982	PB 83-119057 A03

44.	Freight Car Reflectorization. Prepared by TSC for FRA, Report No. FRA-RRS-83-1, December 1982.	PB 84-131283 A06
45.	Rail-Highway Crossing Resource Allocation Procedure, User's Guide, Prepared by TSC for FHWA and FRA, Report No, FHWA-IP-82-7, December 1982.	No longer available See FRA Item #57
46.	Compilation of State Laws and Regulations On Matters Affecting Rail-Highway Crossings, Prepared by KSU for AAR, FRA and FHWA, Report No. FHWA-TS-83-203, April 1983.	No longer available See Item #108
47.	Rail-Highway Crossing Accident/ Incident and Inventory Bulletin (No. 5 Calendar Year 1982). Prepared by Office of Safety, FRA June 1983. No report number.	Available from FRA
48.	Rail-Highway Crossing Accident/ Incident and Inventory Bulletin (No. 6 Calendar Year 1983). Prepared by FRA Office of Safety June 1984. No report number.	Available from FRA
49.	Accident Severity Prediction Formula for Rail-Highway Crossings, Prepared by TSC for FRA and FHWA, Report No. FHWA-RD-83/092, July 1984.	PB 85-107167 A03
50.	Rail-Highway Crossing Safety Report. Prepared by FRA, July 1985.	Available from FRA.
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53. Rail-Highway Crossing Accident/ Available from FRA. Incident and Inventory Bulletin (No. 8 Calendar Year 1985). Prepared by Office of Safety, FRA FRA, June 1986. 54. Rail-Highway Crossing Resource No longer available Allocation Procedure - User's Guide, See FRA Item #57, Second Edition. Prepared by TSC for FRA and FHWA, Report No. FHWA-IP-86-11, July 1986. Rail-Highway Crossing Accident/ Available from FRA. 55. Incident and Inventory Bulletin No. 9 Calendar Year 1986). Prepared by Office of Safety, FRA June 1987. 56. Summary of the DOT Rail-Highway PB 88-226287 A03 Crossing Resource Allocation Procedure FRA Safety Website - Revised. Prepared by TSC for FRA. Report No. DOT-TSC-FRA-86-2, June 1987. PB 88-225206/AS A06 57. Rail-Highway Crossing Resource Allocation Procedure User's Guide, FRA Safety Website Third Edition. Prepared by TSC for FRA, Report No. DOT-TSC-FRA-87-1, August 1987. 58. Rail-Highway Crossing Accident/ Available from FRA. Incident and Inventory Bulletin (No. 10 Calendar Year 1987). Prepared by Office of Safety, FRA, August, 1988. 59. Updated Compilation of States' Laws and No longer available Regulations Affecting Driver Behavior See FRA Item #108 At Rail-Highway Crossings. Prepared by COMSIS Corp., for FRA, FHWA Project No. DTFH61-88-Z-00145, February 1989. 60. Rail-Highway Crossing Accident/ Available from FRA. Incident and Inventory Bulletin (No. 11 Calendar Year 1988). Prepared by Office of Safety, FRA, June 1989. 61. An Evaluation of the TEXAS 1-800 Available from FRA.

<u>Program</u>. Prepared by TTI and Richards and Associates for FRA, June 1989.

62.	Florida's Train Whistle Ban. Prepared Prepared by FRA Office of Safety, July 1990.	Available from FRA.
63.	Rail-Highway Crossing Accident/ Incident and Inventory Bulletin (No. 12 Calendar Year 1989). Prepared by FRA Office of Safety, June 1990.	Available from FRA.
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66.	Florida's Train Whistle Ban, Second Edition, September 1992. Prepared by FRA Office of Safety.	Available from FRA
67.	<u>Trespasser Bulletin Volume I, Calendar</u> Year 1991. Prepared by FRA Office of Safety, RRS-23, March 1993.	Available from FRA
68.	Highway-Rail Crossing Accident/ Incident and Inventory Bulletin (No. 15, Calendar Year 1992). Prepared by FRA Office of Safety, August 1993.	Available from FRA
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70.	The Safety of Highway-Railroad Grade Crossings: Study of Acoustic Characteristics of Railroad Horn Systems. DOT/FRA/ORD - 93/25 and DOT-VNTSC-FRA-93-1, July 1993. Prepared by the FRA Office of Research and Development.	Not available
71.	Highway-Rail Crossing Safety Demonstrations - Final Report (9/30/92). Prepared by the FRA Office of Safety, RRS-23, September 1993.	Available from FRA
72.	Rail-Highway Crossing Safety Action Plan Support Proposals. Prepared by FRA, June 1994.	Available from FRA
73.	Rail-Highway Crossing Safety Action Plan Summary. Prepared by FRA, June 1994.	Available from FRA

74. Highway-Rail Crossing Accident/ Available from FRA Incident And Inventory Bulletin (No.16 Calendar Year 1993). Prepared by FRA Office of Safety, July 1994. 75. Highway-Railroad Grade Crossings: FRA Safety Website A Guide To Crossing Consolidation and Closure. Prepared by FRA and FHWA, July 1994. 76. Available from FRA Railroad Communications and Train Control: Report to Congress. Prepared by FRA, Office of Safety, July 1994. 77. Trespasser Bulletin Volume III, Available from FRA Calendar Year 1993. Prepared by FRA. Office of Safety, RRS-23, September 1994. 78. The Use of Illumination at RR Grade Available from FRA Crossings to Reduce Collision Risks (Guidelines for Crossing Illumination). Prepared by FRA, Research and Special Programs Administration, Report No. DOT-VNTSC-FRA-294-50, October 14, 1994. 79. Focus Group Study of Consumer Attitudes Available from FRA Toward Highway-Rail Grade Crossings. Prepared for FHWA, FRA, FTA, and NHTSA by Global Exchange, Inc., November 1994. 80. Nationwide Study of Train Whistle Bans. Available from FRA Prepared by FRA, Office of Safety, April 1995. 81. Highway-Rail Crossing Accident/Incident and Inventory FRA Safety Website Bulletin (No. 17 Calendar Year 1994). Prepared by FRA, Office of Safety, July 1995. 82. Safety of Highway-Railroad Grade Crossings Available from FRA Use of Auxiliary External Alerting Devices to Improve Office of R&D Locomotive Conspicuity. Prepared by DOT Special Programs Administration for FRA, Office of Research and Development, Report No. DOT-VNTSC-FRA-95-10, July 1995 83. Highway-Railroad Grade Crossing Safety Available from FRA

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Prepared by FRA, July 1995.

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85.	Florida's Train Whistle Ban. Prepared by FRA Office of Safety, October 1995,	Available from FRA
86.	Safety of Highway-Railroad Grade Crossings (Research Needs Workshop -Volume I). Prepared by DOT, Research and Special Programs Administration for FRA, Office of Research and Developme Report No. DOT-VNTSC-FRA-95-12.1, January 1996	Available from FRA Office of R&D nt,
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89.	Enhancing Rail Safety Now and Into the 21st Century: The Federal Railroad Administration's Safety Program and Initiatives - A Report to Congress. Prepared by FRA, October 1996.	Available from FRA
90.	Highway-Rail Crossing Inventory Instructions and Procedure Manual Prepared by FRA, December 1996.	FRA Safety Website
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93.	Field Evaluation of a Wayside Horn at a Highway-Railroad Grade Crossing Prepared by Volpe Center for FRA, June 1998	Available from FRA
94.	Railroad Safety Statistics/Annual Report 1997. Prepared by FRA, September 1998	FRA Safety Website
95.	Railroad Horn Systems Research Final Report Prepared by FRA, January 1999	Available from FRA

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98.	Improving Railroad Safety and Rail Passenger Technology through Targeted Research and Demonstrations Prepared by FRA, 1992-1997, Dec 1999	Available from FRA <u>s</u>
99.	Compilation Of State Laws and Regulations Affecting Highway-Rail Crossings, Third Edition by L. Stephen Jennings and Applied System Technologies January 6,2000	Not available See Item #108
100.	Railroad Safety Statistics Annual Report 1999 by FRA Office of Safety, August, 2000	PB 2002104298 FRA Safety Website
101.	Report On High Risk Crossing and Mitigation Efforts by State, Report H.R.2084,Office of Safety FRA and FHWA, September 2000	FRA Safety Website
102.	Project Plan 1-800 Toll-Free Emergency Notification System for Shortline Railroad Highway-Rail Crossings in the Commonwealth of Pennsylvania A Joint Partnership; September 20,2000	FRA Safety Website
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105.	Intelligent Transportation Systems at Highway-Rail Intersections, A Cross-Cutting Study by DOT, December 2001	FHWA-OP-01-149 EDL# 13587
106.	Five-Year Strategic Plan for Railroad Research, Development, and Demonstrations by FRA, Report No. FRA/RDV-02/02, March 2002	PB 2002108029
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108.	Compilation Of State Laws and Regulations Affecting Highway-Rail Crossings, Fourth Edition by L. Stephen Jennings and Applied System Technologies December 2002	FRA Safety Website
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110.	Railroad Safety Statistics Annual Report 2002 by FRA Office of Safety, July, 2003	FRA Safety Website
111.	Final Environmental Impact Statement "Interim Final Rule for the Use of Locomotive Horns at Highway-Rail Grade Crossings", FRA December 5, 2003	Available from FRA Office of Safety
112.	FRA Guide for Preparing Accident/Incident Reports 2003 Effective May 1, 2003, FRA	FRA Safety Website
113.	Guidelines for Submitting Accident/Incident Reports by Alternative Methods, FRA	FRA Safety Website
114.	Railroad Safety Statistics Annual Report 2003 (Prelim) by FRA Office of Safety, July, 2004	FRA Safety Website
115.	Secretary's Action Plan for Highway-Rail Crossing Safety and Trespass Prevention, June 7, 2004	Available from FRA Office of Safety FRA Safety Website
116.	Evaluation of Alternative Detection Technologies for Trains and Highway Vehicles at Highway Rail Intersection DOT/FRA/ORD-03/04	Available from FRA Office of R&D
117.	North Carolina DOT Traffic Separation Studies, Volume I - Assessment, by Volpe, September 2004 DOT/FRA/ORD-04/15.I, 52 pages.	Available from NTIS and FRA Office of R&D
118.	North Carolina DOT Traffic Separation Studies, Volume II - Findings by Community, by Volpe, September 2004, DOT/FRA/ORD-04/15.II, 44 pages.	Available from NTIS and FRA Office of R&D
119.	Rails-with-Trails: Lessons Learned FRA/FHWA/NHTSA/FTA, by Volpe, August 2002, FTA-MA-26-0052-04-1, 190 pages	Available from FRA, FTA, NTIS and the FRA Website
120.	Preemption of Traffic Signals Near Railroad Crossings ITE Committee TENC-99-06, Final Draft August 1, 2004	Available from ITE

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Federal Highway Administration Office of Research and Development Turner Fairbank Highway Research Center 6300 Georgetown Pike, McLean, VA 22101

1.	Motorists' Requirements for Active Grade Crossing Warning Devices/ FHWA-RD-77-167.	PB 296183	A12
2.	Railroad Grade Crossing Passive Signing Study - Final Report/ FHWA-RD-78-34.	PB 286528	A04
3.	Safety Features of Stop Signs at Rail-Highway Grade Cross Vol. 1 Executive Summary/FHWA-RD -78-40. Vol. 2 - Technical Report/FHWA-RD-78-41.	<u>ings</u> PB 295422 PB 295423	A02 A08
4.	Experimental Design for Active Grade Crossing Warning Devices/FHWA-RD-77-167.	PB 80-145089	A04
5.	Railroad-Highway Grade Crossing Handbook/FHWA-TS-78-214.	PB 86-127644 (See Item #19)	A12
6.	Rail-Highway Crossing Accident Causation Study, Vol. I, Executive Summary/FHWA/RD-81-082.	PB 83-158725	A03
7.	Rail-Highway Crossing Accident Causation Study, Vol. II, Technical Report/FHWA/RD-81-083.	PB 83-158733	A07
8.	Activated Advance Warning for Railroad Crossings FHWA/RD-80-003.	PB 83-161869	A09
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10.	The Effectiveness of Automatic Protection in Reducing Accident Frequency and Severity at Public Grade Crossings in California. Prepared by the California Public Utilities Commission Transportation Division, June 1974. Reprinted for the FHWA, August 1975.	Available from FH	IWA

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12.	Rail-Highway Crossing Warning Device Life Cycle Cost Analysis. Prepared by Input Output Computer Services for TSC/FRA/FHWA, Report FRA-RRS-80-003, September 1		A05
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15.	Rail-Highway Crossing Resource Allocation Procedure User's Guide, Prepared by TSC for FHWA and FRA, Report No. FHWA-IP-82-7, December 1982.	Not available See FRA Item #5	7
16.	Compilation of State Laws and Regulations On Matters Affecting Rail-Highway Crossings, Prepared by KSU for AAR, FRA and FHWA, Report No. FHWA-TS-83-203, April 1983.	Not available See FRA Item # 1	08
17.	Accident Severity Prediction Formula for Rail-Highway Crossings, Prepared by TSC for FRA and FHWA, Report No. FHWA-RD-83/092, July 1984.	PB 85-107167	A03
18.	<u>Proceedings 1985 National Conference</u> <u>on Highway-Rail Safety</u> , Kansas City, MO, July 16-18, 1985.	PB 86-148731	A10
19.	Constant Warning Time Devices for Railroad-Highway Crossings, Prepared by Goodell-Grivas, Inc., Report No. FHWA/RD-86/156, December 1985.	PB 86-209715	A06
20.	Consequences of Mandatory Stops at Railroad-Highway Crossings, Prepared by Goodell-Grivas, Inc., Report No. FHWA/RD-86/014, December 1985.	PB 86-179579	A09
21.	Effectiveness of Motorist Warning Devices at Rail-Highway Crossings, Prepared by TSC for FRA and FHWA, Report No. FHWA/RD-85/015, April 1985.	PB 88-225990/AS	A05

22. Rail-Highway Crossing Resource Allocation Procedure -No longer available User's Guide - Second Edition. Prepared by TSC for See FRA Item #57. FRA and FHWA, Report No. FHWA-IP-86-11, July 1986. 23. Railroad Crossing Corridor Improvements PB 87-119673/AS A05 A Model Program Based on Field Reviews in Six States, Report No. FHWA-DP-70-1, June 1986. 24. Railroad-Highway Grade Crossing Handbook, PB 87-137527 A10 Second Edition, Report No. FHWA-TS-86-215, FRA Safety Website September 1986. 25. **Evaluation of Methods for Predicting** PB 86-213808 A03 Rail-Highway Crossing Hazards, Prepared by Virginia Highway and Transportation Research Council, Report No. FHWA/VA-86/32, March 1986. 26. Railroad-Highway Grade Crossing Signal Visibility Improvement Program Vol. 1 - Final Report/FHWA-RD-86-186, July 1987 PB 88-130216/AS A05 Vol. 2 - Hardware User's Guide/FHWA-RD-86-188, July 1987 PB 88-130224/AS A05 Vol. 3 - Data and Hardware Details/FHWA-RD-86-187 PB 88-130232/AS A05 27. Field Evaluation of Innovative Active Warning Devices PB 89-163141 A13 for Use at Railroad-Highway Grade Crossings, Prepared by University of Tennessee for FHWA. Publication No. FHWA-RD-88-135, August 1988. 28. Updated Compilation Of States' Laws and Regulations Not Available Affecting Driver Behavior at Rail-Highway Crossings. See FRA Item #108 Prepared by COMSIS Corp., for FRA, FHWA Project No. DTFH61-88-Z-00145, February 1989. 29. Rail-Highway Crossing Study, PB 90-125212/AS A08 Report of the Secretary of Transportation to the U.S. Congress, Publication No. FHWA-SA-89-001, April 1989. 30. Driver Behavior at Rail-Highway Crossings, PB 90-241118/ABS Prepared by Comsis Corp., Report No. FHWA-82-90-008, June 1990. 31. Warning Time Requirements At Railroad-Highway PB 91-218289/AS Grade Crossings With Active Traffic Control. A06\* \*on paper Prepared by University of Tennessee for FHWA, A01♦ ♦on microfiche Report No. FHWA-SA-91-007, February 1991. 32. Part VI: Standards and Guides for Traffic Controls Available from FHWA. for Street and Highway Construction, Maintenance,

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Part VI of the Manual On Uniform Traffic Control Devices (MUTCD). 1988 Edition of MUTCD, Revision 3, September 3, 1993.

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Prepared by FRA and FHWA, FHWA-TS-86-2, July 1994.

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## **Published NHTSA Reports:**

1.	Human Factors Countermeasures to Improve Highway-Railway Intersection Safety. Prepared by Bio Technology Inc. for FRA and NHTSA. Report No. DOT-HS-800888, July 1973, 235 pp.	PB 223416	A11
2.	Feasibility Study of In-Vehicle Warning Systems. Prepared by Tracor-Jitco for NHTSA/FRA, Report DOT-HS-256-3-752, May 1975.	PB 242462	A07
3.	Rail-Highway Crossing Safety: Fatal Crash and Demographic Descriptors. Report No. DOT HS 808-196, Nov. 1994.	PB 95-188884	A04

## **Published OST Reports:**

1. Accidents That Shouldn't Happen. Available from FRA.

A Report of the Grade Crossing Safety Task Force
to Secretary Federico Pena.

Prepared by DOT Task Force, March 1996.

Implementation Report of the US DOT
 Grade Crossing Safety Task Force.
 Publication No. FHWA-SA-97-085,
 HAS-20/7-97-97(1M)E,
 Prepared by DOT Task Force, June 1997

Available from FRA

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