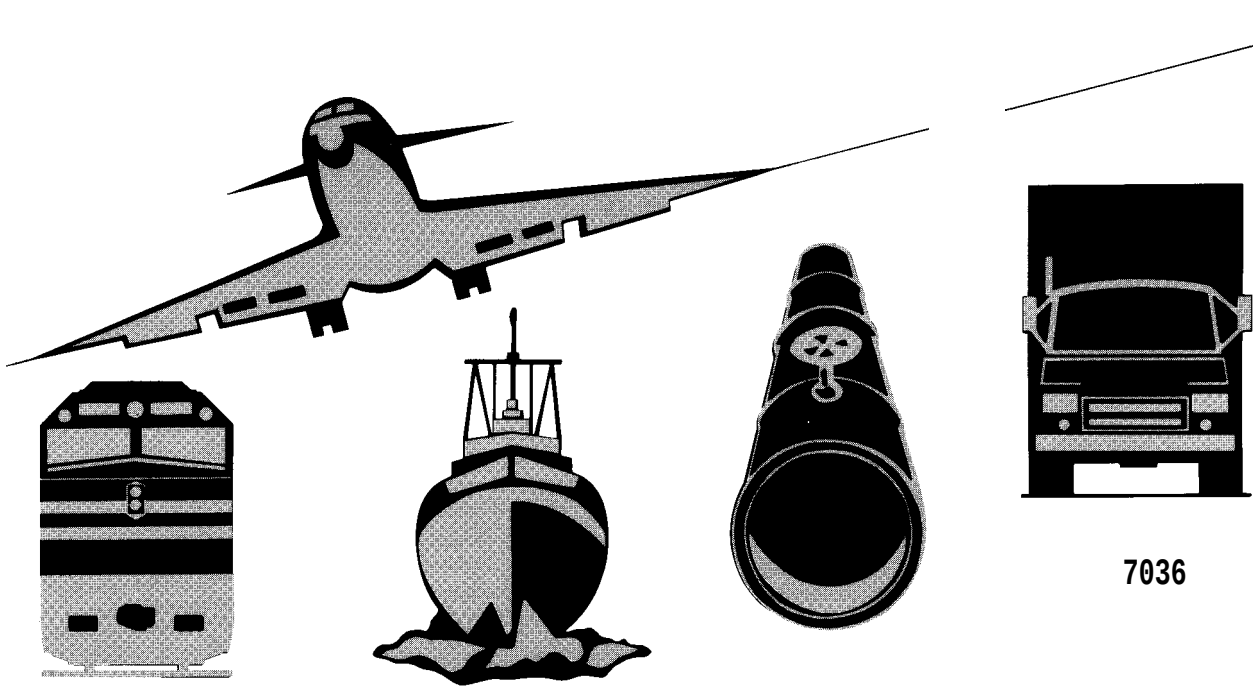
PB98-917005
NTSB/SS-98/03

NATIONAL TRANSPORTATION SAFETY BOARD

WASHINGTON, D.C. 20594

SAFETY STUDY

Safety at Passive Grade Crossings
Volume 2: Case Summaries



7036

U.S. GOVERNMENT PRINTING OFFICE 1989 0-942-865

National Transportation Safety Board. 1998. Safety at passive grade crossings. Volume 2: Case summaries. Safety Study NTSB/SS-98/03. Washington, DC. 60 p.

More than 4,000 accidents occurred at the Nation's active and passive grade crossings in 1996; 54 percent of the accidents and 60 percent of the fatalities were at passive grade crossings, where drivers are not provided warning from train-activated devices. The Safety Board conducted this study to identify some common causes for accidents at passive crossings and to identify remedies to improve safety at passive crossings that are not scheduled for closure or upgrade. The sample of 60 accidents investigated by the Board as part of the study is not intended to be statistically representative of the entire population of accidents at passive grade crossings during the study period, but rather to illustrate a range of passive grade crossing accidents. The report also relates information obtained at the Board's 1997 public forum on passive crossing safety. The safety issues include (a) the adequacy of existing warning systems to alert the driver to the presence of a passive crossing and an oncoming train; (b) roadway and track conditions that affect a driver's ability to detect the presence of an oncoming train; (c) behavioral factors that affect a driver's ability to detect the presence of an oncoming train; (d) the adequacy of existing driver education material regarding the dangers of passive grade crossings and driver actions required; (e) the need for a systematic and uniform approach to passive grade crossing safety; (f) and the need for improved signage at private passive crossings. Safety recommendations concerning these issues were made to the U.S. Department of Transportation; the Federal Highway Administration; the National Highway Traffic Safety Administration; the Federal Railroad Administration; the States; Operation Lifesaver, Inc.; the American Association of Motor Vehicle Administrators; the American Automobile Association; the American Association of State Highway and Transportation Officials; the Professional Truck Drivers Institute of America; the Advertising Council, Inc.; the Association of American Railroads; the American Short Line and Regional Railroad Association; and the American Public Transit Association.

The National Transportation Safety Board is an independent Federal agency dedicated to promoting aviation, railroad, highway, marine, pipeline, and hazardous materials safety. Established in 1967, the agency is mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The Safety Board makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

Recent publications are available in their entirety on the Web at **http://www.ntsb.gov/**. Other information about available publications also may be obtained from the Web site or by contacting:

National Transportation Safety Board
Public Inquiries Section, RE-51
490 L'Enfant Plaza, S.W.
Washington, D.C. 20594
(800) 877-6799 or (202) 314-6551

Safety Board publications may be purchased, by individual copy or by subscription, from the National Technical Information Service. To purchase this publication, order report number **PB98-917005** from:

National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22161
(800) 553-6847 or (703) 605-6000

this page intentionally left blank

Safety Study

Safety at Passive Grade Crossings
Volume 2: Case Summaries

NTSB/SS-98/03
PB98-917005
Notation 7036
Adopted July 21, 1998

National Transportation Safety Board
490 L'Enfant Plaza, S.W.
Washington, D.C. 20594

this page intentionally left blank

Contents

Conversion Factors for International Standard (SI) Units

To convert from	*to*	*multiply by*
inch	centimeters	2.5400
feet	meters	0.3048
miles	kilometers	1.6093
degrees Fahrenheit (°F)	degrees Celsius (°C)	5/9 (°F minus 32)

this page intentionally left blank

Executive Summary

More than 4,000 accidents have occurred at the Nation's active and passive grade crossings each year from 1991 through 1996. Many of the accidents at active crossings have involved highway vehicle drivers who did not comply with train-activated warning devices installed at the crossings. This failure to comply often includes driver actions resulting from a deliberate decision, such as driving around a lowered crossing gate arm or ignoring flashing lights. Drivers at passive crossings are not provided warnings from train-activated devices; consequently, they must rely on a system of grade crossing signs and pavement markings, passive devices, that are designed to warn drivers only of the presence of a crossing. No element of this passive system changes to alert drivers to an oncoming train. Further, the effectiveness of the passive system is influenced by characteristics of the physical layout of the crossing, such as an adequate view of the area surrounding the crossing (sight distance) and roadway alignment, that affect the information given to an approaching motorist regarding an upcoming hazard.

According to the Federal Railroad Administration, there were 4,054 accidents in 1996 that involved highway vehicles at grade crossings; 54 percent (2,208) of those accidents occurred at passive grade crossings. About 60 percent of the fatalities from all grade crossing accidents in 1996 (247 of 415 fatalities) were at passive grade crossings.

The cost to eliminate or upgrade passive grade crossings is very high. According to the General Accounting Office, the average cost of adding lights and gates in 1995 was $150,000 per grade crossing. The total cost to upgrade the 96,759 passive crossings on public roadways would be about $14 billion. Gates and lights do not completely eliminate the hazards present at crossings, and, therefore, sole reliance on them would reduce but not eliminate all the fatalities. The ultimate solution from a safety standpoint would be a standard grade separation, which usually involves construction of bridges or overpasses and costs an estimated $3 million per crossing. The large number of passive grade crossings, the high percentage of fatalities that occur at passive grade crossings, and the cost to eliminate or upgrade passive grade crossings prompted the Safety Board to conduct this study to identify some of the common causes for accidents at passive grade crossings, and to identify less costly remedies to improve safety at passive crossings not scheduled for closure or upgrade.

For this study, the Safety Board investigated 60 grade crossing accidents that occurred between December 1995 and August 1996. The Safety Board selected for study accidents involving a collision between a train and a highway vehicle occurring at a passive grade crossing, wherein the highway vehicle was sufficiently damaged to require towing. The sample of accidents is not intended to be statistically representative of the entire population of accidents at passive grade crossings during the study period, but rather to illustrate a range of passive grade crossing accidents. A probable cause was determined for each accident in the study. Overall, driver error was cited as the primary

cause in 49 of the 60 accident cases: driver disregard for the stop sign in 13 cases, and the driver's failure to look for a train in 16 cases. In 7 of the remaining 11 cases, the probable cause was determined to be related to roadway conditions that affected the driver's ability to detect the presence of a passive crossing or an oncoming train; roadway and track conditions were cited as the probable cause in 3 of the 11 cases.

In May 1997, the Safety Board convened a 2-day public forum in Jacksonville, Florida, to gather information about issues affecting safety at passive grade crossings. Witnesses included experts from the railroad industry; law enforcement; research groups; Operation Lifesaver; and Federal, State, and local government agencies. Those involved in grade crossing accidents, both highway vehicle occupants and traincrews, testified about their personal experiences. In addition, representatives from Canada and Italy discussed passive grade crossing issues and experiences in their countries.

Based on the results of the Safety Board's accident investigations and the information gathered at the public forum, the safety issues discussed in the report include the following:

- the adequacy of existing warning systems to alert the driver to the presence of a passive crossing and an oncoming train;
- roadway and track conditions that affect a driver's ability to detect the presence of an oncoming train;
- behavioral factors that affect a driver's ability to detect the presence of an oncoming train;
- the adequacy of existing driver education material regarding the dangers of passive grade crossings and driver actions required;
- the need for a systematic and uniform approach to passive grade crossing safety; and
- the need for improved signage at private passive crossings.

The issue of safety at passive grade crossings is complex; therefore, Volume 1 (NTSB/SS-98/02) of the report first discusses the problems drivers encounter at passive crossings, then presents the Board's analysis, conclusions, and recommendations. Volume 2 (NTSB/SS-98/03) of the report contains case summaries of the 60 accidents investigated by the Safety Board for this study.

As a result of this study, safety recommendations were issued to the U.S. Department of Transportation; the Federal Highway Administration; the National Highway Traffic Safety Administration; the Federal Railroad Administration; the States; Operation Lifesaver, Inc.; the American Association of Motor Vehicle Administrators; the American Automobile Association; the American Association of State Highway and Transportation Officials; the Professional Truck Drivers Institute of America; the Advertising Council, Inc.; the Association of American Railroads; the American Short Line and Regional Railroad Association; and the American Public Transit Association.

Case Summary Matrix[1]

Case number	NTSB accident number	Driver interviewed	Stop sign at accident crossing	Crossbuck missing	Daily train traffic	Max. train speed (mph)	Parallel roadway	Angle of intersection skewed	Tracks or road curved	Sight distance limited	Time of day
Public Passive Grade Crossings											
01	SRH96FHX01		X		10	58	a			a, s	day
03	CRH96FHX03				14	70	d	X	r	a	day
04	WRH96FHX05				8	61	a, d				night
05	CRH96FHX04		X		10	30	a, d	X	r	a	day
07	SRH96FHX03		X		7	50			r	a	day
08	SRH96FHX05	X			6	3				a, s	day
09	SRH96FHX06	X	X		17	72		X		a	day
11	ATL96FRX05		X		10	75	d				day
12	CRH96FHX05				2	49		X		a, s	dusk
13	LAX96FRX08				2	48	d	X			day
14	NRH96FHX05				9	—			r	a	day
16	CRH96FHX06				12	40	d		r	a	day
17	LAX96FRX09				8	—	a	X			night
18	SRH96FHX07				12	38				a	day
20	SRH96FHX10				10	32		X	r	a	day
21	SRH96FHX09		X		6	49	d			a	day
22	CRH96FHX07	X			4	38		X	t	a	day
26	CRH96FHX08	X			11	48		X			dawn
27	WRH96FHX07	X			18	76	a	X	r	a	day
28	WRH96FHX08	X			18	64					day
29	SRH96FHX11		X		30	56	a, d				night
30	WRH96FHX09				18	53				a	day
(continued)											

— = Not available; a = condition exists on the roadway approach to the crossing; d = condition exists on the roadway departure from the crossing; r = roadway condition; t = track condition; s = condition exists at stop line.

Case Summary Matrix[1]

Case number	NTSB accident number	Driver interviewed	Stop sign at accident crossing	Crossbuck missing	Daily train traffic	Max. train speed (mph)	Parallel roadway	Angle of intersection skewed	Tracks or road curved	Sight distance limited	Time of day
31	WRH96FHX10		X		22	72		X		a	day
32	WRH96FHX11		X		13	54		X	r	a	dusk
33	CRH96FHX09				20	45	d	X		a	day
34	ATL96FRX16		X		10	40	a	X	r	a	day
35	ATL96FRX17				10	49					day
36	CHI96FRX16				16	62		X		a	day
37	CHI96FRX17	X			15	48	a	X	r		day
40	NRH96FHX11	X	X		7	—					day
41	CHI96FRX18		X	X	5	37	d			s	day
42	SRH96FHX13		X		11	45		X	t	a	day
43	WRH96FHX12				6	—					day
44	CHI96FRX20		X		27	55	a	X		a, s	dawn
45	NRH96FHX12				26	35		X	t	a	day
46	SRH96FHX16		X		19	21	a, d			a, s	night
47	ATL96FRX21				4	47				a	day
49	SRH96FHX18				5	49		X	r	a	day
50	SRH96FHX19				8	35		X	t		day
51	CHI96FRX21				28	33	d			a, s	night
53	CRH96FHX12				28	39			t		day
54	SRH96FHX20	X			24	45	a		t		night
55	NRH96FHX13	X			4	56		X		s	day
57	ATL96FRX23	X			2	20			r		day
61	CRH96FHX13				15	58	a	X		a	dawn
62	LAX96FRX13				—	30		X	r	a	day
(continued)											

— = Not available; a = condition exists on the roadway approach to the crossing; d = condition exists on the roadway departure from the crossing; r = roadway condition; t = track condition; s = condition exists at stop line.

Case Summary Matrix[1]

Case number	NTSB accident number	Driver interviewed	Stop sign at accident crossing	Crossbuck missing	Daily train traffic	Max. train speed (mph)	Parallel roadway	Angle of intersection skewed	Tracks or road curved	Sight distance limited	Time of day
Private Passive Grade Crossings											
06	WRH96FHX06				4	75	a				day
10	ATL96FRX13				45	38			t		day
15	NRH96FHX06	X	X		36	16	d				day
19	SRH96FHX08			X	8	58			t		day
23	CHI96FRX12		X		12	33	a				day
25	ATL96FRX14	X			4	45					day
38	CRH96FHX10	X			6	30	d	X	t	a	day
39	LAX96FRX12		X	X	30	79	d				dawn
48	SRH96FHX17	X	X	X	3	45	a	X	r, t	s	night
52	CHI96FRX22	X	X		11	35	a			a, s	day
56	ATL96FRX25	X		X	24	61					day
58	ATL96FRX24	X	X		15	4	a		r, t		night
59	SRH96FHX22				22	50				a	day
60	WRH96FHX15		X	X	22	45	d	X	r, t	a	day

— = Not available; a = condition exists on the roadway approach to the crossing; d = condition exists on the roadway departure from the crossing; r = roadway condition; t = track condition; s = condition exists at stop line.

[1] The National Transportation Safety Board selected for study accidents involving a collision between a train and a highway vehicle occurring at a passive grade crossing, wherein the highway vehicle was sufficiently damaged to require towing. Accidents meeting the qualification criteria were accepted sequentially for investigation from December 1995 through August 1996, as the Safety Board received notification; 60 accidents met the criteria and were included in the study analysis. Two additional accidents were investigated (cases 2 and 24) but were determined not to meet the qualification criteria; therefore, they were excluded from the analysis.

Case No. 1

Investigation No:	SRH-96-F-HX01
Location:	Childersburg, Alabama
Date and Time:	January 10, 1996, about 8:45 a.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1979 Toyota Corolla
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On January 10, 1996, about 8:45 a.m., a westbound freight train struck a northbound car near Childersburg, Alabama. The vehicle was halfway over the single track when it was struck. Witnesses stated that the Toyota driver was familiar with the crossing and did not stop at the crossing stop sign.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's disregard of the stop sign.

Case No. 3

Investigation No:	CRH-96-F-HX03
Location:	Duson, Louisiana
Date and Time:	February 4, 1996, about 4:43 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1981 Buick Park Avenue
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	Yes
Nearby Intersections:	Yes
Injuries:	
Highway:	Three nonfatal
Railroad:	None

Accident Description

On February 4, 1996, about 4:43 p.m., an eastbound passenger train struck a southbound vehicle near Duson, Louisiana, injuring three vehicle occupants. One of the vehicle passengers stated that he saw the headlamp of the train, heard its horn, and yelled to the car driver, who stopped the vehicle and was backing it up when the collision occurred. The driver stated that the sun glare restricted his view; the police verified the sun was low in the sky and did create a strong glare when looking in the direction of the approaching train. Partial sight obstructions were due to brush. In the preceding 5 years, two accidents had occurred at this crossing.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's distraction due to conversation with a passenger. Contributing to the accident were the roadway conditions that limited the driver's ability to see the train.

Case No. 4

Investigation No:	WRH-96-F-HX05
Location:	Magnolia, Texas
Date and Time:	February 8, 1996, about 8:10 p.m.
Light Conditions:	Nighttime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1995 GMC pickup truck
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	Three fatal
Railroad:	None

Accident Description

On February 8, 1996, about 8:10 p.m., a northbound freight train struck a southbound pickup truck on Farm to Market Road 1774 near Magnolia, Texas. The pickup truckdriver, traveling on a parallel roadway, turned left onto Melton Road and drove approximately 70 feet onto the crossing in front of the train. The pickup truck occupants were ejected and fatally injured. The train engineer and two other witnesses stated that they did not believe the driver saw the train before the collision. The three occupants lived nearby and were familiar with the crossing. The pickup truck owner stated that the driver had smoked a small amount of marijuana that day; toxicological tests revealed the presence of the drug in the driver's urine.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's inattention to the approaching train due to possible drug impairment.

Case No. 5

Investigation No:	CRH-96-F-HX04
Location:	Millsap, Texas
Date and Time:	February 28, 1996, about 6:20 p.m.
Light Conditions:	Daytime and cloudy
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1982 F-250 Ford pickup truck
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	No
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	Yes
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal and one nonfatal
Railroad:	None

Accident Description

On February 28, 1996, about 6:20 p.m., an eastbound freight train struck a northbound pickup truck on Bennett Road near Millsap, Texas. The driver attempted to stop for the train, and the truck slid into its path. Neither the driver nor the passenger was wearing a seatbelt.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's disregard of the stop sign.

Case No. 6

Investigation No:	WRH-96-F-HX06
Location:	Bernalillo, New Mexico
Date and Time:	March 5, 1996, about 4:23 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1956 Chevrolet flatbed truck
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	Three fatal
Railroad:	None

Accident Description

On March 5, 1996, about 4:23 p.m., a southbound passenger train struck an eastbound flatbed truck, fatally injuring the truck's occupants, near Bernalillo, New Mexico. Sight was not restricted at the crossing, and visibility was about 1 mile in either direction. The train sounded its horn when it was near the crossing. A strong wind was blowing from the west, and a witness stated that the truckdriver was talking with a passenger, both of which may have prevented the truckdriver from hearing the horn. The traincrew said that the truckdriver never looked in the direction of the train.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the truckdriver's distraction due to conversation with a passenger.

Case No. 7

Investigation No:	SRH-96-F-HX03
Location:	Fort Payne, Alabama
Date and Time:	March 8, 1996, about 1:35 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1990 Mack tractor/flatbed semitrailer
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	Yes
Nearby Intersections:	Yes
Injuries:	
Highway:	Three fatal
Railroad:	None

Accident Description

On March 8, 1996, about 1:35 p.m., a southbound freight train struck a westbound truck tractor/flatbed semitrailer near Fort Payne, Alabama. Crossbuck and stop signs were installed at the grade crossing. Witnesses indicated that the truckdriver was revving his engine and appeared to be speeding as he proceeded toward the railroad crossing. He did not stop at the stop sign but drove onto the railroad tracks, and the tractor was struck at its right front axle. The driver and passengers were ejected. Witnesses reported that the train horn was sounding as the train approached the crossing; however, the truck windows were closed when the impact occurred.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the truckdriver's disregard of the stop sign. Contributing to the loss of life was the lack of restraint-use.

Case No. 8

Investigation No:	SRH-96-F-HX05
Location:	Doraville, Georgia
Date and Time:	March 12, 1996, about 8:49 a.m.
Light Conditions:	Daytime
Accident Type:	Vehicle struck train
Highway Vehicle Involved:	1990 Ford F-150 pickup
Train Action Reported:	
Horn Sounded:	No
Auxiliary Lights On:	N/A
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	Yes
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	No
Injuries:	
Highway:	One nonfatal
Railroad:	None

Accident Description

On March 12, 1996, about 8:49 a.m., a westbound pickup truck struck a northbound freight train near Doraville, Georgia. Advance warning signs and pavement markings were in place. A trainman had dismounted the train and flagged the traffic to stop by using a fuse, which was then placed in the roadway before the train began to cross. The truck was traveling about 40 mph when the driver applied the brakes, and the truck skidded 50 feet into the train locomotive.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the roadway conditions that limited the driver's ability to see the train. Contributing to the accident was the failure of the engineer to sound the train horn.

Case No. 9

Investigation No:	SRH-96-F-HX06
Location:	Theodore, Alabama
Date and Time:	March 18, 1996, about 7:15 am
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1992 Ford Aeromax tractor/28-foot semitrailer van
Train Action Reported:	
Horn Sounded:	Unknown
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	No
Nearby Intersections:	No
Injuries:	
Highway:	One nonfatal
Railroad:	Two nonfatal

Accident Description

On March 18, 1996, about 7:15 a.m., a southbound passenger train struck a westbound tractor/semitrailer vehicle, near Theodore, Alabama. Stop signs were in place alongside the crossbucks, and pavement markings were installed; however, no active warning devices were present. The truckdriver said that as he approached the track he stopped at the stop bar, observed no train approaching, heard no whistle, and therefore proceeded to cross the track. The engineer and the assistant engineer said that they did not see the truck stop before it moved onto the track. The train horn was sounded on the approach and at the crossing. Brush and trees created some view obstruction at the southeast quadrant of the crossing. However, the view was not obstructed from the stop bar, and it appears, therefore, that the truckdriver did not stop at the stop sign.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the truckdriver's disregard of the stop sign.

Case No. 10

Investigation No:	ATL-96-F-RX13
Location:	Murfreesboro, Tennessee
Date and Time:	March 9, 1996, about 8:35 a.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1989 Toyota JT4
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Unknown
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	Yes
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On March 9, 1996, about 8:35 a.m., a freight train struck a pickup truck at a private crossing in Murfreesboro, Tennessee. Approaching the crossing, the driver passed a warning sign that recommended a 10-mph speed limit at a 90-degree turn to the left ahead. In addition, an advance warning sign, pavement markings, and a crossbuck sign were on the approach to the crossing. The driver's view of the approaching train was not restricted once the 90-degree turn was made. According to the engineer and the conductor, the locomotive headlight and horn were being used. They stated that the pickup truck approached the crossing at a slow speed and that the driver did not look towards the approaching train and did not indicate he was going to stop.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's failure to look for the approaching train.

Case No. 11

Investigation No:	ATL-96-F-RX05
Location:	Ponchatoula, Louisiana
Date and Time:	December 14, 1996, about 3:14 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1983 Ford 6000 pickup truck
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	Five fatal
Railroad:	None

Accident Description

On December 14, 1996, about 3:14 p.m., a northbound passenger train struck an eastbound pickup truck occupied by five people, all of whom sustained fatal injuries, near Ponchatoula, Louisiana. Standard crossbuck and stop signs were installed prior to the track, which, according to the traincrew, the truckdriver disregarded. The vehicle passed both signs and entered the track at a low speed and stopped on the track. According to the traincrew, the locomotive horn, bell, and headlights were operating before the collision. The sight distance from the vehicle was unlimited in both directions from the stop sign.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's disregard of the stop sign.

Case No. 12

Investigation No:	CRH-96-F-HX05
Location:	Robstown, Texas
Date and Time:	March 19, 1996, about 7:05 p.m.
Light Conditions:	Sundown
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1992 Lincoln Town Car
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	No
Nearby Intersections:	No
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On March 19, 1996, about 7:05 p.m., a northbound freight train struck a westbound car on Nueces County Road 48 near Robstown, Texas. Witnesses stated that the car approached the crossing between 45 and 50 mph and did not slow down. The driver of the car was talking on a cellular phone at the time of the collision.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's distraction due to using a cellular phone. Contributing to the accident were the roadway conditions that limited the driver's ability to see the train.

Case No. 13

Investigation No:	LAX-96-F-RX08
Location:	Luxora, Arkansas
Date and Time:	March 25, 1996, about 8:20 a.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1991 Pontiac Grand Prix
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	Yes
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On March 25, 1996, about 8:20 a.m., a southbound freight train struck a car in Luxora, Arkansas. Both sides of the crossing were equipped with standard crossbuck warning signs with a multi-track sign bolted to the mast. The train engineer stated that he blew the train horn while approaching the crossing. One crewmember said that the driver pulled onto the tracks without stopping and then “froze” just before the collision. Sight distance was not obstructed for the vehicle or train. The driver was operating without a license at the time of the accident.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver’s failure to look for the approaching train.

Case No. 14

Investigation No:	NRH-96-F-HX05
Location:	Waxahachie, Texas
Date and Time:	March 15, 1996, about 3:00 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1988 Chrysler Fifth Avenue
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	Yes
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On March 15, 1996, about 3:00 p.m., an eastbound freight train struck a northbound car near Waxahachie, Texas. The northbound approach to the grade crossing had advance warning and crossbuck signs. The train engineer said that he saw the car approaching the grade crossing and when it was almost at the tracks, the driver looked leftward at the train, slammed on the brakes, and skidded 26 feet onto the tracks.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's failure to look for the approaching train.

Case No. 15

Investigation No:	NRH-96-F-HX06
Location:	Clairton, Pennsylvania
Date and Time:	March 20, 1996, about 2:53 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1991 Mack tractor, tank semitrailer
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	Yes
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	None
Railroad:	None

Accident Description

On March 20, 1996, about 2:53 p.m., a southbound freight train struck a westbound tractor tank-semitrailer near Clairton, Pennsylvania. The truckdriver stopped at a gatehouse, proceeded through the company gate, and drove towards two railroad tracks about 100 feet away. The gatehouse security guard is supposed to activate red lights, walk to the roadway, and stop traffic. The security guard did not follow procedures because she said that the trains usually take several minutes to reach the crossing. The truckdriver had an unobstructed view of southbound trains for about 1,000 feet. He stated that he saw a southbound train approaching, but thought it was farther away as he drove onto the crossing. When the truckdriver realized that the train was almost upon him, he accelerated to clear the crossing.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the truckdriver's misjudgment of the proximity of the train. Contributing to the accident was the security guard's disregard of company procedures.

Case No. 16

Investigation No:	CRH-96-F-HX06
Location:	Calhoun, Louisiana
Date and Time:	April 5, 1996, about 8:15 a.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1993 Mazda 626
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	Yes
Nearby Intersections:	Yes
Injuries:	
Highway:	Two fatal
Railroad:	None

Accident Description

On April 5, 1996, about 8:15 a.m., an eastbound freight train struck a northbound car at Golson Road near Calhoun, Louisiana. The car driver's view was obstructed by dense forest, and the car skidded onto the railroad tracks, where it was struck by the train.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the roadway conditions that limited the driver's ability to see the train.

Case No. 17

Investigation No:	LAX-96-F-RX09
Location	Jonesboro, Arkansas
Date and Time:	March 27, 1996, about 7:10 p.m.
Light Conditions:	Dark
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1996 Honda Civic
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On March 27, 1996, about 7:10 p.m., a westbound freight train struck a northbound car near Jonesboro, Arkansas. The crossing was protected by reflectorized crossbucks. Witnesses stated that the driver pulled into the path of the train after he had stopped and appeared to be consulting a map.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's distraction with reading a map.

Case No. 18

Investigation No:	SRH-96-F-HX07
Location:	Avinger, Texas
Date and Time:	April 19, 1996, about 7:25 a.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1994 Mack tractor/flatbed semitrailer
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On April 19, 1996, about 7:25 a.m., a southbound freight train struck a westbound truck tractor/semitrailer near Avinger, Texas. The truckdriver was ejected and fatally injured. The crossbuck was the only sign at the grade crossing. No person witnessed the accident, and no evidence was on the roadway to indicate that the truckdriver attempted to stop for the grade crossing. According to the train's event recorder, the train horn sounded continuously for 8 seconds before impact; however, the truck windows were closed. Vegetation limited the sight distance to the north down the track.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the roadway conditions that limited the truckdriver's ability to see the train. Contributing to the loss of life was the lack of restraint-use.

Case No. 19

Investigation No:	SRH-96-F-HX08
Location:	Strafford, Missouri
Date and Time:	April 21, 1996, about 8:16 a.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1994 Chevrolet Blazer Tahoe
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	No
Advance Warning:	No
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	Yes
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal and one nonfatal
Railroad:	None

Accident Description

On April 21, 1996, about 8:16 a.m., a westbound freight train struck a northbound vehicle at a private crossing near Strafford, Missouri. No advance warning signs were in place on the approach to the crossing, and no crossbuck was at the crossing. The vehicle crossed the tracks at a slow rate of speed when it was struck by the train, traveling at 58 mph. Both the driver and the passenger were unrestrained in and ejected from the vehicle.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the lack of signage to alert the driver, who was unfamiliar with the crossing, of the need to look for a train.

Case No. 20

Investigation No:	SRH-96-F-HX10
Location:	Alton, Louisiana
Date and Time:	May 3, 1996, about 5:10 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1991 Pontiac Firebird
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	Yes
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On May 3, 1996, about 5:10 p.m., a northbound freight train struck a westbound car near Alton, Louisiana. Crossbucks were installed at the crossing, and an advance warning sign and appropriate pavement markings were in place on the westbound roadway approach. The train conductor stated that the car was not stopping. Both crewmembers said the train horn was sounding, but the horn use was not recorded on the train event recorder. Brush and trees were at the southeast quadrant of the crossing; however, if the car was traveling at the posted 25-mph speed limit, the driver would have been able to see the train and had sufficient time to stop safely.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's failure to look for the approaching train.

Case No. 21

Investigation No:	SRH-96-F-HX09
Location:	Saraland, Alabama
Date and Time:	May 3, 1996, about 8:44 a.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1983 Pontiac 6000
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	Yes[1]
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	Two fatal
Railroad:	None

Accident Description

On May 3, 1996, about 8:44 a.m., a northbound freight train struck an eastbound vehicle near Saraland, Alabama. A crossbuck and a stop sign on the right side of the eastbound approach were within view of the driver. The driver did not stop at the stop sign but continued at a witness-estimated speed of 20 mph onto the track. The train horn was sounded repeatedly as the train approached the crossing. Calculations revealed that the sight distance along the track was more than adequate, had the driver stopped at the crossing as required.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's disregard of the stop sign.

[1] Assumes the driver did not stop.

Case No. 22

Investigation No:	CRH-96-F-HX07
Location:	Bristow, Oklahoma
Date and Time:	April 13, 1996, about 2:50 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1989 Ford Tempo
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	N/A
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	Yes
Nearby Intersections:	No
Injuries:	
Highway:	Four nonfatal
Railroad:	None

Accident Description

On April 13, 1996, about 2:50 p.m., a westbound freight train struck a northbound car on an unnamed county road near Bristow, Oklahoma. The car driver was unfamiliar with the crossing, and the sight distance was limited. She attempted to stop her vehicle when she saw the train, and the car slid onto the crossing.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the roadway and track conditions that limited the driver's ability to see the train. Contributing to the accident was the lack of an advance warning sign to alert the driver, who was unfamiliar with the area, to look for an approaching train.

Case No. 23

Investigation No:	CHI-96-F-RX12
Location:	Bettendorf, Iowa
Date and Time:	April 24, 1996, about 3:45 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1988 Ford Tempo
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	N/A
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	No
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On April 24, 1996, about 3:45 p.m., a westbound freight train struck a northbound vehicle, fatally injuring the driver, near Bettendorf, Iowa. The intersection was equipped with two each of “stop, look, and listen” and stop signs and a crossbuck sign. No sight obstructions were present to obscure the driver’s view of the approaching train. The engineer stated that he sounded the train horn before the collision. The car was travelling slowly across the grade crossing when the collision occurred, and the train engineer did not see the car stop or the driver look toward the train.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver’s disregard of the stop sign.

Case No. 25

Investigation No:	ATL-96-F-RX14
Location:	Greenway, Arkansas
Date and Time:	May 9, 1996, about 7:35 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1975 Ford Ranger F100 pickup truck
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	No
Injuries:	
Highway:	None
Railroad:	None

Accident Description

On May 9, 1996, about 7:35 p.m., a westbound freight train struck an unoccupied pickup truck on a “closed” crossing near Greenway, Arkansas. A crossbuck sign was 15 feet from the rail track, which was straight, and no sight restrictions were present along the track. The truck stalled on the rails and was abandoned.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver’s poor judgement to enter and attempt to traverse the closed crossing.

Case No. 26

Investigation No:	CRH-96-F-HX08
Location:	Bonita, Louisiana
Date and Time:	May 1, 1996, about 6:55 a.m.
Light Conditions:	Dawn
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1983 Chevrolet/AmTran school bus
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	N/A
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	Twelve nonfatal
Railroad:	None

Accident Description

On May 1, 1996, about 6:55 a.m., a northbound freight train struck an eastbound school bus on Harp Lane near Bonita, Louisiana. The school busdriver stated that he began slowing his vehicle on the approach to the grade crossing. He said that he heard the train horn and applied the bus brakes hard and that the bus slid onto the crossing. He was trying to back up the bus when the train struck it.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the school busdriver's disregard for the grade crossing procedures to stop and check for an approaching train.

Case No. 27

Investigation No:	WRH-96-F-HX07
Location:	Tickfaw, Louisiana
Date and Time:	May 27, 1996, about 1:57 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1996 Dodge Neon
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	Yes
Nearby Intersections:	Yes
Injuries:	
Highway:	One nonfatal
Railroad:	None

Accident Description

On May 27, 1996, about 1:57 p.m., a southbound passenger train struck a westbound car at Buckles Lane near Tickfaw, Louisiana. The driver of the vehicle left a residence about 150 feet from the grade crossing and drove onto the tracks. A row of trees located approximately 31 feet east of the crossing and the angle and curvature of Buckles Lane causes sight obstructions for westbound motorists. When the driver noticed the train, she said that she panicked and began to back up the car. The train sideswiped the front of the car, and the car airbags deployed, from which the driver sustained minor injuries.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's inattention to the approaching train. Contributing to the accident were roadway conditions that limited the driver's ability to see the train.

Case No. 28

Investigation No:	WRH-96-F-HX08
Location:	Walls, Mississippi
Date and Time:	May 28, 1996, about 7:26 a.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1992 GMC Sierra pickup truck
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	No
Injuries:	
Highway:	One nonfatal
Railroad:	None

Accident Description

On May 28, 1996, about 7:26 a.m., a southbound passenger train struck a westbound pickup truck on Goodman Road near Walls, Mississippi. The pickup truckdriver approached the grade crossing and stopped with the front of the truck on the tracks. The driver was ejected during the collision and sustained serious injuries. The pickup truckdriver stated that he had lived near the crossing for 4 years but had never traversed the crossing before the accident.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's failure to look for the approaching train.

Case No. 29

Investigation No:	SRH-96-F-HX11
Location:	Lula, Georgia
Date and Time:	May 29, 1996, about 9:06 p.m.
Light Conditions:	Dark
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1993 Ford Ranger pickup truck
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	Yes
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On May 29, 1996, about 9:06 p.m., a northbound passenger train struck an eastbound pickup truck near Lula, Georgia. A crossbuck sign, indicating two tracks, and a stop sign were at the grade crossing. A witness, who was on the opposite side of the tracks, reported that the northbound passenger train's horn was sounded and light illuminated as it approached the crossing. The pickup truck was stopped waiting for a southbound freight train to clear the crossing. After the freight train cleared, the driver accelerated his vehicle into the path of the passenger train, which was on the adjacent track. The driver was not wearing his lap/shoulder belt and was ejected from the vehicle during the accident sequence.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's misjudgment in proceeding across the adjacent track before determining that it was clear of an approaching train. Contributing to the loss of life was the lack of restraint-use.

Case No. 30

Investigation No:	WRH-96-F-HX09
Location:	Seward, Oklahoma
Date and Time:	May 29, 1996, about 7:40 a.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1988 Dodge Aries
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	No
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On May 29, 1996, about 7:40 p.m., a northbound freight train struck an eastbound vehicle, fatally injuring the driver, near Seward, Oklahoma. The roadway configuration of a steep wooden bridge limited the vehicle approach speed to 20 mph. The sight distance along the tracks was restricted by trees, and no advanced warning signs were in place. The traincrew stated that as the train approached about 80 feet away, the vehicle entered the crossing without stopping.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the roadway conditions that limited the driver’s ability to see the train.

Case No. 31

Investigation No:	WRH-96-F-HX10
Location:	Greenwood, Mississippi
Date and Time:	June 2, 1996, about 7:54 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1994 Pontiac Grand Am
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On June 2, 1996, about 7:54 p.m., a northbound passenger train struck an eastbound car on County Road 245 near Greenwood, Mississippi. A row of trees obstructed the sight distance at the crossing. According to the traincrew and another witness, the car driver continued onto the tracks without slowing down.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's disregard of the stop sign.

Case No. 32

Investigation No:	WRH-96-F-HX11
Location:	Ada, Oklahoma
Date and Time:	April 29, 1996, about 7:40 p.m.
Light Conditions:	Dusk
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1993 Dodge pickup truck
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	Yes
Nearby Intersections:	No
Injuries:	
Highway:	Two fatal
Railroad:	None

Accident Description

On April 29, 1996, about 7:40 p.m., a northbound freight train struck a pickup truck near Ada, Oklahoma. The driver and his father were in the area looking for a travel trailer for sale. The driver turned the vehicle onto the roadway, and he stopped it on the tracks. He backed up the truck until only its front wheels were on the tracks. The traincrew said they thought the truck would move completely off the tracks. Instead the truck pulled back onto the tracks immediately in front of the train. The truck windows were darkly tinted, which restricted the occupants' vision.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's distraction due to looking for a travel trailer.

Case No. 33

Investigation No:	CRH-96-F-HX09
Location:	Trumann, Arkansas
Date and Time:	June 3, 1996, about 2:41 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1984 Chrysler LeBaron
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	Yes
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On June 3, 1996 about 2:41 p.m., a southbound freight train struck a westbound car at Hatchie Coon Road near Trumann, Arkansas. The car driver had recently moved to the area and was not familiar with the crossing. Brush and small trees obstructed the driver's view of the crossing. The train engineer stated that the vehicle was driven onto the crossing and was stopped on the railroad tracks for approximately 15 seconds before the collision.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the roadway conditions that limited the driver's ability to see the train. Contributing to the accident was the lack of signage to alert the driver, who was unfamiliar with the area, to look for an approaching train.

Case No. 34

Investigation No:	ATL-96-F-RX16
Location:	Texarkana, Arkansas
Date and Time:	May 22, 1996, about 11:25 a.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1995 Ford van
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	No
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	Yes
Nearby Intersections:	Yes
Injuries:	
Highway:	Two fatal
Railroad:	None

Accident Description

On May 22, 1996, about 11:25 a.m., a westbound freight train struck a van, fatally injuring its driver and passenger, near Texarkana, Arkansas. A crossbuck sign and two stop signs, one at each corner, were installed at the crossing. According to train crewmembers, the headlight and horn were in use. The engineer stated that he saw the van approach the crossing between 10 and 15 mph, fail to stop at the posted sign, and enter the crossing in front of the train.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the failure of the vehicle driver to stop at the stop sign and yield the right of way to an approaching train, due to inattentiveness.

Case No. 35

Investigation No:	ATL-96-F-RX17
Location:	Rayville, Louisiana
Date and Time:	May 28, 1996, about 6:15 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1991 GMC Suburban Trailmaster
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On May 28, 1996, about 6:15 p.m., a westbound freight train struck a southbound vehicle near Rayville, Louisiana. The train engineer indicated that the train lights and horns were operating when the collision occurred. According to the traincrew and the police accident report, the driver passed both the advance warning and the crossbuck signs and did not stop before driving onto the tracks. The traincrew stated that the driver was using a telephone at the time of the collision; however, no phone was found on scene. Sight distance measurements indicated no obstructions when approaching the crossing.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's distraction possibly due to using a cellular phone.

Case No. 36

Investigation No:	CHI-96-F-RX16
Location:	Racine, Missouri
Date and Time:	May 29, 1996, about 6:56 a.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1987 Pontiac Fiero
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	No
Nearby Intersections:	No
Injuries:	
Highway:	Two fatal
Railroad:	None

Accident Description

On May 29, 1996, about 6:56 a.m., a westbound freight train struck a car, fatally injuring its driver and passenger, in Racine, Missouri. The crossing had a crossbuck sign and pavement markings. The traincrew stated that the car was approaching the intersection at a fast speed and that the driver and passenger were having a conversation. The regulatory speed on the roadway is 60 mph, and the advisory speed is 40 mph. Both train crewmembers stated that the horn sounded and the head and ditch lights were on. The driver's view of an oncoming train was obstructed by brush and trees near the approach to the grade crossing.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's distraction due to conversation with a passenger. Contributing to the accident were roadway conditions that limited the driver's ability to see the train.

Case No. 37

Investigation No:	CHI-96-F-RX17
Location:	Montrose, Illinois
Date and Time:	May 30, 1996, about 1:10 p.m.
Light Conditions:	Daytime
Accident Type:	Vehicle struck train
Highway Vehicle Involved:	1988 Pontiac Grand Am
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	N/A
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	Yes
Nearby Intersections:	Yes
Injuries:	
Highway:	None
Railroad:	None

Accident Description

On May 30, 1996, about 1:10 p.m., a westbound vehicle struck a train near Montrose, Illinois. The crossing was marked by a crossbuck sign. The speed limit on the roadway was not posted; it is regulated at 55 mph. The driver stated that as she approached the crossing, she turned around to look for French fries for her child in the rear seat and that when she turned back around, the train was there. The traincrew said the vehicle appeared to be slowing, as if to stop. The driver stated she did not hear or see the train as she approached the crossing. The traincrew said that the horn was being sounded and the headlights were in use.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's distraction from the approaching train due to her child passenger. Contributing to the accident were the roadway conditions that limited the driver's ability to see the train.

Case No. 38

Investigation No:	CRH-96-F-HX10
Location:	Como, Texas
Date and Time:	June 24, 1996, about 10:30 a.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1982 Freightliner tractor/1986 bottom-dump semitrailer
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	N/A
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	Yes
Nearby Intersections:	Yes
Injuries:	
Highway:	None
Railroad:	None

Accident Description

On June 24, 1996, about 10:30 a.m., an eastbound freight train struck a southbound tractor/semitrailer near Como, Texas. The truckdriver stated that he did not look for an approaching train, did not hear the train horn, and was unaware of the approaching train. According to a witness, the freight train's horn was sounding before the grade crossing. As the tractor/semitrailer started to cross the tracks between 5 and 10 mph, the train was within view. The truckdriver said that he was familiar with the grade crossing, but that his attention was diverted by a car turning onto the roadway.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the truckdriver's failure to look for the approaching train. Contributing to the accident was the truckdriver's distraction from the approaching train due to other highway traffic.

Case No. 39

Investigation No:	LAX-96-F-RX12
Location:	San Jose, California
Date and Time:	June 19, 1996, about 5:47 a.m.
Light Conditions:	Dawn
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1983 Oldsmobile Cutlass
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes (modified)
Advance Warning:	No
Multiple Track:	N/A
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal and one nonfatal
Railroad:	None

Accident Description

On June 19, 1996, about 5:47 a.m., a northbound passenger train struck an eastbound vehicle, fatally injuring the passenger and seriously injuring the driver, near San Jose, California. The private crossing has crossbuck and stop signs and a 15-mph speed limit because of a steep grade approaching the crossing. The train engineer was sounding the horn and had the headlight on as the train approached the crossing. About 0.3 of a mile before the crossing, the engineer saw the vehicle pull onto the crossing and stop; the car started to move, when the train struck the vehicle.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's disregard of the stop sign.

Case No. 40

Investigation No:	NRH-96-F-HX11
Location:	St. Albans, Vermont
Date and Time:	June 21, 1996, about 6:18 a.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1988 Toyota pickup truck
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	No
Injuries:	
Highway:	None
Railroad:	None

Accident Description

On June 21, 1996, about 6:18 a.m., a southbound passenger train struck a westbound pickup truck near St. Albans, Vermont. A 25-mph speed limit sign was posted 287 feet before the grade crossing, and a stop sign was posted 66 feet before the grade crossing. The driver stated that he did not stop at the stop sign. He added that nobody ever stops there because the sign is too far back from the tracks to allow one to see an approaching southbound train. When the pickup truck neared the grade crossing, it slowed, before being struck on its right side. According to the train's event recorder the train horn was sounding intermittently as the train approached the crossing.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's failure to look for the approaching train. Contributing to the accident were roadway conditions that limited the driver's ability to see the train.

Case No. 41

Investigation No:	CHI-96-F-RX18
Location:	Pickerington, Ohio
Date and Time:	June 21, 1996, about 3:45 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1986 Buick Park Avenue
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes (modified)
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	No[2]
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On June 21, 1996, about 3:45 p.m., a freight train struck a southbound vehicle, fatally injuring the driver, near Pickerington, Ohio. The crossing was equipped with advance warning, crossbuck, and stop signs. The traincrew stated that both the horn and lights were in use as the train approached the crossing. They saw a vehicle stopped on the tracks, waiting for a vehicle ahead of it to move. The vehicle ahead was stopped at a yield sign just beyond the crossing, where space was available only for one vehicle. Witnesses stated that the driver was using a cellular phone at the time of the collision.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's distraction due to using a cellular phone. Contributing to the accident were the roadway and traffic conditions that caused the driver to stop his car on the tracks.

[2] Assumes the driver did not stop.

Case No. 42

Investigation No:	SRH-96-F-HX13
Location:	Jasper, Alabama
Date and Time:	July 15, 1996, about 5:34 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1993 Chevrolet pickup truck
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	Yes
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	Yes
Nearby Intersections:	No
Injuries:	
Highway:	Two fatal
Railroad:	None

Accident Description

On July 15, 1996, about 5:34 p.m., a westbound freight train struck a southbound pickup truck near Jasper, Alabama. Crossbuck and stop signs were visible on the right side of the roadway approach to the crossing. The truck did not stop at the stop sign but proceeded onto the track at a speed between 4 and 6 mph. The train horn was sounded repeatedly on the approach to the crossing. Calculations revealed that the sight distance was adequate had the driver stopped the truck at the crossing. Toxicological drug analysis indicated cocaine in the driver's blood and urine; therefore, he may have been impaired.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's disregard of the stop sign due to possible drug impairment.

Case No. 43

Investigation No:	WRH-96-F-HX12
Location:	Floyd, Texas
Date and Time:	July 15, 1996, about 9:42 a.m.
Light Conditions:	Daytime
Accident Type:	Vehicle struck train
Highway Vehicle Involved:	1991 Buick Le Sabre
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	No
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On July 15, 1996, about 9:42 a.m., a southbound Buick Le Sabre struck a westbound freight train near Floyd, Texas. The driver of the car was fatally injured. The train engineer did not see the vehicle before the collision. Calculations estimated the speed of the car before braking to be near the 55-mph speed limit for the roadway. The driver had been working all night and, after a 3-hour nap, was returning home. No visibility obstructions were found at or near the crossing. At this crossing, four accidents had occurred in the 19 months before this accident.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's failure to look for the train. Contributing to the accident was driver fatigue.

Case No. 44

Investigation No:	CHI-96-F-RX20
Location:	Cromwell, Indiana
Date and Time:	July 9, 1996, about 5:40 a.m.
Light Conditions:	Dawn
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1995 Chevrolet S-10 pickup truck
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On July 9, 1996, about 5:40 a.m., an eastbound freight train struck a northbound pickup truck, near Cromwell, Indiana. Brush and tree growth along the roadway right-of-way diminished sight distance. The train horn was only used a portion of the time on the approach to the crossing. The engineer stated that he observed the vehicle stop before entering the crossing, but he did not see the driver look in either direction for a train. The pickup truck driver drove onto the crossing; at that time, the engineer saw him look in both directions. The driver had been required to wear corrective lenses, which were not found at the scene.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's failure to look for the approaching train. Contributing to the accident was the engineer's poor judgement in not sounding the train horn sufficiently in advance of the grade crossing and not continually sounding the horn, as required, before entering the grade crossing.

Case No. 45

Investigation No:	NRH-96-F-HX12
Location:	Rosedale, Maryland
Date and Time:	July 24, 1996, about 10:10 a.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1992 International tractor with a dump trailer
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	No
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	Yes
Nearby Intersections:	Yes
Injuries:	
Highway:	One nonfatal
Railroad:	None

Accident Description

On July 24, 1996, about 10:10 a.m., a westbound freight train struck a southbound tractor/dump trailer combination vehicle, injuring the truckdriver, near Rosedale, Maryland. The truckdriver stated that he stopped at the crossing and then proceeded across the tracks. When the truck was three-quarters over the crossing, he heard the train horn. The traincrew stated that the truck did not stop at the crossing. The truckdriver should have been able to see and hear the approaching train, had he stopped at the crossing.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's failure to look for the approaching train.

Case No. 46

Investigation No:	SRH-96-F-HX16
Location:	Bryan, Texas
Date and Time:	August 6, 1996, about 2:30 a.m.
Light Conditions:	Darkness/lighted
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1984 Buick Park Avenue
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	N/A
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	None
Railroad:	None

Accident Description

On August 6, 1996, about 2:30 a.m., an eastbound freight train struck a southbound car near Bryan, Texas. The grade crossing had a crossbuck sign, which was obscured by trees, and a stop sign, which was positioned 32 feet from the tracks at a roadway intersection. Advance warning signs were in place on the right shoulder of the roadway. A sight obstruction was created by the trees to the west of the stop sign, which limited visibility to about 50 feet down the track. The car was equipped with tinted windows, which also diminished visibility. The train conductor said that the driver slowed the car for the stop sign and continued to drive it onto the tracks at about 5 mph. A witness on the opposite side of the tracks reported that the train horn sounded as the train approached the crossing.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's disregard of the stop sign due to fatigue. Contributing to the accident were the roadway and track conditions that limited the driver's ability to see the train.

Case No. 47

Investigation No:	ATL-96-F-RX21
Location:	Simpson, North Carolina
Date and Time:	August 3, 1996, about 7:50 a.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1988 Chevrolet Camaro
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	No
Injuries:	
Highway:	Two fatal
Railroad:	None

Accident Description

On August 3, 1996, about 7:50 a.m., an eastbound freight train struck a northbound vehicle, fatally injuring its occupants, near Simpson, North Carolina. The grade crossing is equipped with crossbuck and advance warning signs. The traincrew stated that both the horn and headlight were in use. They said that the vehicle approached the crossing between 15 and 20 mph and entered the crossing without slowing or stopping. Vegetation obscures a northbound driver's view of the tracks until approximately 40 feet from the crossing.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the roadway conditions that limited the driver's ability to see the train.

Case No. 48

Investigation No:	SRH-96-F-HX17
Location:	Austin, Texas
Date and Time:	August 13, 1996, about 2:30 a.m.
Light Conditions:	Dark
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1989 Chevrolet Beretta
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	No
Signs Present:	
Crossbuck:	Yes (modified)
Advance Warning:	No
Multiple Track:	N/A
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	Yes
Nearby Intersections:	Yes
Injuries:	
Highway:	None
Railroad:	None

Accident Description

On August 13, 1996, about 2:30 a.m., a northbound freight train struck an unoccupied car stuck on the track near Austin, Texas. The driver was unfamiliar with the area and drove her car over the crossing. She became concerned about a posted private crossing sign and attempted to turn the vehicle around on the crossing. While turning the car around, the driver drove it off the south end of the crossing sectional ties, and it became lodged on the track. The driver said that she abandoned the car to get help and was a short distance from the crossing when she heard the train horn sounding.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's decision to turn around on the grade crossing that resulted in the vehicle becoming lodged on the track.

Case No. 49

Investigation No:	SRH-96-F-HX18
Location:	Hazlehurst, Georgia
Date and Time:	August 17, 1996, about 2:05 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1995 Chevrolet pickup truck
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	Yes
Nearby Intersections:	No
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On August 17, 1996, about 2:05 p.m., a northbound freight train struck a westbound pickup truck near Hazlehurst, Georgia. A crossbuck sign on the right side of the westbound approach was visible to the driver. The driver slowed his vehicle, without stopping, and moved it forward onto the track. Trees and brush restricted the driver's view. The train horn was sounded repeatedly when the train was approaching the crossing. No evidence indicated that the pickup truckdriver had any physical impairment.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the roadway conditions that limited the driver's ability to see the train.

Case No. 50

Investigation No:	SRH-96-F-HX19
Location:	Cuba, Missouri
Date and Time:	August 16, 1996, about 12:10 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1995 Chevrolet 1-ton truck
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	Yes
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On August 16, 1996, about 12:10 p.m., a westbound freight train struck a northbound truck near Cuba, Missouri. No advance warning sign was present; however, the view of the track east of the crossing was unobstructed. Two vehicles had traversed the crossing and had stopped at the highway intersection before the truck, and the driver was likely preoccupied with the two vehicles ahead of him at the highway intersection. He had no medical or vision problems.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's distraction with other highway traffic.

Case No. 51

Investigation No:	CHI-96-F-RX21
Location:	Pass Christian, Mississippi
Date and Time:	July 20, 1996, about 1:48 a.m.
Light Conditions:	Dark
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1995 Mitsubishi van
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal and one nonfatal
Railroad:	None

Accident Description

On July 20, 1996, about 1:48 a.m., a southbound freight train struck a westbound vehicle, fatally injuring the passenger and causing minor injuries to the driver, near Pass Christian, Mississippi. The grade crossing was equipped with crossbuck and advance warning signs. The traincrew stated that both the horn and lights were in use before the collision. Witnesses said that the vehicle increased speed and turned toward the grade crossing at the same time they heard the train horn. About 10 seconds later, the witnesses heard the squealing of train brakes. The driver had a blood alcohol level of 0.23 percent. Trees and shrubs obscured the view of the southbound train approaching the crossing.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's failure to stop before entering the path of the approaching train due to alcohol impairment.

Case No. 52

Investigation No:	CHI-96-F-RX22
Location:	Knob Noster, Missouri
Date and Time:	August 13, 1996, about 9:45 a.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1952 Case 311 BL farm tractor
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	None
Railroad:	None

Accident Description

On August 13, 1996, about 9:45 a.m., an eastbound passenger train struck a southbound farm tractor near Knob Noster, Missouri. The grade crossing was equipped with crossbuck and stop signs. The 14-year-old driver of the tractor stated that he stopped at the stop sign but could only see a short distance westward because a signal bungalow blocked his view and that he did not hear the train horn. He said that he proceeded to cross the tracks and that once on the tracks, his vehicle stalled. The driver was able to jump off the tractor before the collision.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the signal bungalow that limited the farm tractor driver's ability to see the train.

Case No. 53

Investigation No:	CRH-96-F-HX12
Location:	Poteau, Oklahoma
Date and Time:	August 13, 1996, about 12:00 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1990 Buick Skylark
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	Yes
Nearby Intersections:	Yes
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On August 19, 1996, about noon, a northbound freight train struck a westbound vehicle, fatally injuring the driver, near Poteau, Oklahoma. A witness stated that the train horn was sounded several times and was sounding constantly before the collision. The vehicle traveled onto the crossing, stopped, and was struck by the train. Although some sight obstructions were in the sight triangle, the train would never have been totally obscured and should have been visible to the driver.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's failure to look for the approaching train.

Case No. 54

Investigation No:	SRH-96-F-HX20
Location:	Napton, Missouri
Date and Time:	August 21, 1996, about 4:45 a.m.
Light Conditions:	Dark
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1989 Ford F-150 pickup truck
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	Yes
Nearby Intersections:	Yes
Injuries:	
Highway:	None
Railroad:	None

Accident Description

On August 21, 1996, about 4:45 a.m., an eastbound freight train struck a southbound pickup truck near Napton, Missouri. A crossbuck sign was installed 16 feet before the grade crossing; no advance warning sign was in place. According to the traincrew, the headlight, ditch lights, and horn were activated as the train approached the grade crossing. The driver was traveling up a 7-percent grade to the crossing when his vehicle hesitated several times and stalled on the tracks. The driver indicated that he was attempting to restart the vehicle when he heard the train horn. Both the driver and passenger jumped from the pickup truck as it was struck. The sight distance was adequate so the vehicle driver should have been able to see the train.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the mechanical failure of the pickup truck.

Case No. 55

Investigation No:	NRH-96-F-HX13
Location:	Roxbury, Vermont
Date and Time:	August 27, 1996, about 7:48 a.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1980 Western Star log truck, Prentice 210 loader, 1980 Evans pup trailer
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	One nonfatal
Railroad:	Six nonfatal

Accident Description

On August 27, 1996, about 7:48 a.m., a southbound passenger train struck an eastbound empty logging truck, loader, and trailer near Roxbury, Vermont. The truckdriver, two train crewmembers, and four train passengers were injured. The train's horn was activated. The assistant train engineer noticed the truck turn right from a parallel roadway and drive onto the crossing in front of the train. The grade crossing had an unrestricted sight distance.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's failure to look or listen for the approaching train. Contributing to the accident were roadway conditions that limited the truckdriver's ability to see the train.

Case No. 56

Investigation No:	ATL-96-F-RX25
Location:	Perry Township, Ohio
Date and Time:	July 30, 1996, about 7:00 a.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1982 Ford Econoline van
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	Unknown
Signs Present:	
Crossbuck:	No
Advance Warning:	No
Multiple Track:	No
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	N/A
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	No
Injuries:	
Highway:	None
Railroad:	None

Accident Description

On July 30, 1996, about 7:00 a.m., a westbound freight train struck a southbound vehicle in Perry Township, Ohio. The grade crossing was private, and no signs were installed. The driver of the vehicle said that he and his passenger were talking about work when he drove the van onto the crossing without stopping or slowing. The driver said that after he entered the crossing, he saw the oncoming train, stopped, and attempted to back off the crossing to clear the track. The driver was familiar with the grade crossing and did not expect to see a train at that time of day.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's failure to look due to the distraction of conversation with a passenger.

Case No. 57

Investigation No:	ATL-96-F-RX23
Location:	Bennettsville, South Carolina
Date and Time:	August 12, 1996, about 12:43 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1992 Mack trash truck
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	N/A
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	Yes
Nearby Intersections:	Yes
Injuries:	
Highway:	One nonfatal
Railroad:	None

Accident Description

On August 12, 1996, about 12:43 p.m., a northbound freight train struck an eastbound trash truck, injuring the truckdriver, at Bennettsville, South Carolina. The grade crossing was equipped with crossbuck and approach warning signs. The traincrew stated the truck was moving at a high rate of speed and made no attempt to stop before entering the crossing. No obstructions were in the line of sight to the track. The truckdriver stated that he did not hear or see the train approaching, even though he said that he was moving about 45 mph and should have been able to see the train and stop.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the truckdriver's failure to look for the approaching train.

Case No. 58

Investigation No:	ATL-96-F-RX24
Location:	Columbus, Ohio
Date and Time:	August 12, 1996, about 10:40 p.m.
Light Conditions:	Dark with electrical illumination
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1994 Ybird YB-8 tractor/trailer
Train Action Reported:	
Horn Sounded:	No
Auxiliary Lights On:	Yes
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	No
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	No
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	Yes
Nearby Intersections:	Yes
Injuries:	
Highway:	None
Railroad:	None

Accident Description

On August 12, 1996, about 10:40 p.m., a southbound freight train struck a westbound tractor/trailer near Columbus, Ohio. Crossbuck and stop signs were installed at the grade crossing. The truckdriver stated that he saw the train about 40 feet away, thought it was stopped, and drove the truck onto the crossing. The train was moving approximately 4 mph. As the truck entered the crossing, the truckdriver realized the train was moving, and he accelerated the truck before it was struck.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the truckdriver's disregard of the stop sign. Contributing to the accident were the truckdriver's misjudgment of the movement of the train and the engineer's failure to sound the train horn.

Case No. 59

Investigation No:	SRH-96-F-HX22
Location:	Hawthorne, Florida
Date and Time:	August 26, 1996, about 11:50 a.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1995 Honda Civic
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	N/A
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	No
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	No
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	Two fatal
Railroad:	None

Accident Description

On August 26, 1996, about 11:50 a.m., a northbound freight train struck an eastbound vehicle at a private grade crossing near Hawthorne, Florida. Both occupants of the car were ejected and killed; neither was wearing the available restraints. A witness reported that the train horn was sounded as the train approached the crossing and that the driver crossed in front of the train. The unpaved driveway from the driver's residence runs parallel to the tracks for about 20 feet before the crossing, where it turns abruptly to the right. A sight obstruction was created by trees and overgrown foliage to the south near the crossing.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's failure to look for the approaching train. Contributing to the accident were the roadway conditions that limited the driver's ability to see the train.

Case No. 60

Investigation No:	WRH-96-F-HX15
Location:	Los Molinos, California
Date and Time:	August 27, 1996, about 3:09 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1991 Geo Prizm
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	N/A
Signs Present:	
Crossbuck:	Yes (modified)
Advance Warning:	No
Multiple Track:	N/A
Stop:	Yes
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	Two fatal
Railroad:	None

Accident Description

On August 27, 1996, about 3:09 p.m., a southbound freight train struck an eastbound vehicle, fatally injuring its two occupants, on a private grade crossing near Los Molinos, California. According to the train engineer, he had started to sound the train horn when he noticed the car slowly enter onto the tracks without stopping. The driver was looking to her right. As the train got closer, he saw the car move back and forth in a rocking motion, but without the vehicle covering any distance.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's disregard of the stop sign.

Case No. 61

Investigation No:	CRH-96-F-HX13
Location:	Brownsboro, Texas
Date and Time:	August 24, 1996, about 6:10 a.m.
Light Conditions:	Dawn
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1967 Ford F-100 pickup truck
Train Action Reported:	
Horn Sounded:	Unknown
Auxiliary Lights On:	Unknown
Signs Present:	
Crossbuck:	Yes
Advance Warning:	No
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	No
Nearby Intersections:	Yes
Injuries:	
Highway:	Two fatal
Railroad:	None

Accident Description

On August 24, 1996, about 6:10 a.m., an eastbound freight train struck a southbound pickup truck, fatally injuring its occupants, near Brownsboro, Texas. According to the train's conductor, the truck had stopped and was accelerating across the tracks when the collision occurred. A 15-foot-high pile of gravel was present that would have obscured the driver's view of the train while approaching the crossing. However, the driver should have been able to see the train while stopped at the crossing.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's inattention to the approaching train.

Case No. 62

Investigation No:	LAX-96-F-RX13
Location:	Naponee, Nebraska
Date and Time:	August 23, 1996, about 1:30 p.m.
Light Conditions:	Daytime
Accident Type:	Train struck vehicle
Highway Vehicle Involved:	1978 Ford Courier
Train Action Reported:	
Horn Sounded:	Yes
Auxiliary Lights On:	N/A
Signs Present:	
Crossbuck:	Yes
Advance Warning:	Yes
Multiple Track:	N/A
Stop:	No
Physical Characteristics:	
Limited Sight Distance:	Yes
Intersection Angle not 90 Degrees:	Yes
Road or Track Curve:	Yes
Nearby Intersections:	No
Injuries:	
Highway:	One fatal
Railroad:	None

Accident Description

On August 23, 1996, about 1:30 p.m., a westbound freight train struck a northbound vehicle, fatally injuring its driver, near Naponee, Nebraska. The grade crossing is equipped with crossbuck and advance warning signs. The train engineer stated that he sounded the horn to get the driver's attention, but the driver was looking in the opposite direction. The vehicle never slowed before impact.

Probable Cause

The National Transportation Safety Board determines that the probable cause of this accident was the driver's failure to look for the approaching train. Contributing to the accident were the roadway conditions that limited the driver's ability to see the train.