



IronWood Technologies

Railroad Accident Reconstruction

Federal Railroad Administration

False Proceed Signal Database

January 1, 1995 through May 3, 2004

All Reports - State of Arizona

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
462	2/21/1995	ATSF	CTC			829	Relay	Winslow, AZ	N
Cause Vandalism - Instrument Case, Cable, or Junction Box Damaged									
Approximately 4:20PM, February 21, 1995 train crew on the H-KCBA1-20 reported westbound intermediate signal 2861 displayed Green over Green aspect for their train as they were departing Winslow. Signal Department was notified and on arrival found signal 2861 displaying a Yellow over Green aspect with the next westbound signal at West Winslow Red. The investigation determined that a vehicle had hit the signal instrument house causing the 1ALGR relay to lay on its side allowing the 2861 signal to display Yellow over Green instead of Yellow. The relay was returned to its normal position and the signal system was tested to prove proper operation.									
473	4/5/1995	ATSF	AB			3850	Wiring Error	Athos, AZ	N
Human Error - Field Wiring Error, Inadequate Service Testing									
Approximately 6:20AM, April 5, 1995, crew on the Q-R1AL1-03 reported as they were on the Athos siding approaching the leave siding signal at the east end of Athos to wait for Amtrak No. 4 to pass on the south main track, the leave siding signal displayed a Green aspect. Signal Department personnel were notified and their investigation of the reported incident verified the condition as reported. Further investigation determined that a wiring error had been made while changing a two-point relay to a four-point relay the day before and proper tests were not conducted to prove correct operation of the signal system. The wiring error was corrected and tests were conducted to prove proper operation of the signal system. Responsibility for the wiring error has been determined and discipline will be assessed.									

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520	10/2/1995	SP	AB			Switcher JOB 891	Signal 9040	Phoenix, AZ	N
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Cause

Narrative

On October 2, 1995 at approximately 2:00 AM, Engineer operating switcher JOB 891 traveling east reported that signal 9040 was Green while switcher JOB 888, making a move at 15th Avenue, had switch 374 lined for the team track but was clear of the fouling section. Signal 9040 should have been Red.

Under the direction of the Signal Supervisor, the signal system was thoroughly tested. The cause of the problem was found to be a line wire wrap between line wires 9040H, 9040D and 9034H west of 15th Ave. near MP R-905.1. Marks found on the pole near the wrap indicated it had been hit by a truck, thus causing the wrap (the line wires were strung too tight to have been wrapped due to high winds).

The line wires were unwrapped. The signal system was tested and found to be working as intended with no exceptions.

The signal system was returned to service on October 2, 1995 at 8:30 AM.

536	11/19/1995	SP	AB			SP West Local	Signal 9064	Phoenix, AZ	N
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Human Error - Field Wiring Error, Inadequate Service Testing

On November 19, 1995 at approximately 3:57 AM, the Engineer operating train West Local traveling east, reported that signal 9064 was Green with a train still occupying the block ahead of him. Signal 9064 should have been Red.

Under the direction of the Signal Supervisor, the signal system was put at STOP and thoroughly tested. It was found that during the relocation of the hand throw switch at MP 906.6, two track circuits were left out of the signal system. The problem was immediately corrected, the signal system was thoroughly tested and found to be working as intended with no exceptions.

The signal system was restored to service on November 19, 1995 at 4:00 PM.

547	1/18/1996	SP	AB			SP 1PXLAM-17	Signal 8220	Hyder, AZ	N
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Scenario Reenacted, Unable to Duplicate, No Defects Found

On January 18, 1996 at approximately 7:30 AM, Engineer operating train no. 1PXLAM-17 traveling west, reported that he was approaching the west end of Hyder at restrictive speed because of a Red signal at 8219 and saw that the opposing signal, the 8220, displayed a clear H are over a restrictive D arm before the signal went into the correct position of a restrictive H over a restrictive D.

Under the direction of the Signal Supervisor, the signal system was thoroughly tested. All tests showed the signal system to be working as intended with no exceptions.

The signal system was returned to service on January 18, 1996 at 4:00 PM.

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127	10/25/1997	BNSF	CTC			VKCKPHX123, Eng	2W Signal	Canyon Diablo, AZ	N
<p>Cause</p> <p>Narrative</p> <p>Human Error - Signal Circuit Design Error, Inadequate Service-Testing</p> <p>Westbound train VKCKPHX123 reported a Red over Flashing Yellow aspect into the controlled siding at East Canyon Diablo. This siding was changed to a non-signal siding to facilitate installation of non-signalized split point derails. All route displaying RESTRICTING aspects into the siding except the westbound route from the north track which was reported by the VKCKPHX123. Circuit plans were revised and the 2W signal now displays a RESTRICTING aspect when lined into the siding.</p>									
187	8/25/1998	BNSF	AB			SCLOLCB-524 We	Pole Line	Adamana, AZ	N
<p>Maintenance - Pole Line (storm, excessive vegetation, rotting poles, excessive slack in wires, etc.)</p> <p>The SCLOLCB-524 west was approaching intermediate signal 2391 which was displaying a Flashing Yellow aspect. The VMCLAC-122 was in advance of signal 2391 approximately 1/2 mile occupying the block controlled by signal 2391. The SCLOLCB-524 was able to stop without incident.</p> <p>The cause of the failure was due to trees in the pole line crossed the PCR circuit with the HDR circuit falsely energizing the circuit.</p> <p>Correction: The trees were removed from the pole line restoring the system.</p>									
278	9/8/2000	UP	CTC			UP3702	None	Picacho, AZ	N
<p>Failed Equipment or Device - Aerial or Underground Cable, Shorted or Grounded (not due to vandalism or digging)</p> <p>On September 08, 2000 at 01:02 MDT, at Picacho, AZ on the Phoenix Subdivision, eastbound LK172 07, on the Main Track at MP 978.6, reported the eastbound approach signal to Picacho at MP 978.60 displayed a Yellow over Yellow aspect and the eastbound absolute signal at Picacho displayed a Red over Red aspect.</p> <p>An investigation revealed a shorted underground cable to the eastbound approach signal at MP 978.60 caused the lower aspect to display a Yellow.</p> <p>The signal system was restored to proper operation, and all applicable tests were performed.</p>									

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			Cause						
			Narrative						
234	11/7/2000	BNSF	CTC			H MOD SEL 907	CL	West Seligman, AZ	N
			Phantom Signal - Due to Sun Angle						
			On 11-7-00 at 15:42 the HMODSEL907 eastbound on M2 approaching West Seligman (2E signal) reported a Yellow over Green aspect as they approached the signal for about 1 minute, the signal then appeared to go to Yellow over Red. The N.O.C. log showed the signals lined M2 to M2 West Seligman and M2 to M2 East Seligman. We were notified and ran VHLC logs at West Seligman, main and remote houses, and the approach signal 4324. The logs showed at no time did the 2EBG indicate true at West Seligman during this time. Signal 4324 was Flashing Yellow over Red. Grounds test was performed and was negative. I interviewed the crew at 21:30 over the phone and they indicated it may have been sun related (sun was setting into signal at that time). On 11-8-00 I had Signal Inspector in place to watch the signal from 14:00 to 17:00 and I rode an eastbound train from Kingman to Seligman trying to get to West Seligman at about 15:42. I arrived at Seligman about 17:00 and missed the sun but Signal Inspector Mitchell was able to watch the signal and did notice the sun washing the Red out and the Green was visible. Upon looking at the 2EB signal we found that some of the brackets for bolting the background to the signal head were broken and allowing the wind to blow the background away from the signal and sun could enter the lens area from the side. We replace the 2EB signal head and performed the proper tests. We also ran the VHLC log again and performed a grounds test, alignment and voltage check on the 2EA and 2EB signals.						
329	8/15/2001	UP	CTC			BNSF 4486	None	Apache, AZ	N
			Human Error - Signal, Improper Lenses Installed						
			On August 15, 2001 at 10:21 MDT, at Apache, AZ on the Lordsburg Subdivision, westbound CDGCO-14, on #1 Tk, reported the westbound approach signal on #1 Track at MP 1063.3 displayed a Yellow over Green aspect into a Red over Lunar westbound home signal at CP S1061, with his route lined from the #1 Tk on the Coal Lead Track.						
			An investigation revealed the lower colorlight lunar aspect at the westbound signal at MP 1063.30 had a green inner lens installed instead of a lunar lens.						
			The signal system was restored to proper operation, and all applicable tests were performed.						
422	8/24/2003	UP	CTC			UP 2466	Circuit Controller	Stanwix, AZ	N
			Maintenance - Switch Circuit Controller						
			On August 24, 2003 at 02:45 MDT, in Stanwix, AZ on the Gile Subdivision, eastbound 1 ALAWFX 20, at CP SP819, had a CLEAR signal for a move from single main track to #1 main track, and the movable point frog was not in full reverse position.						
			An investigation revealed the securing screws supporting the reverse switch indication contact assembly of the M23 switch machine had come loose, letting the reverse contacts make with the movable point frog not in full reverse position.						
			The circuit controller assembly was replaced and all applicable tests were performed.						

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			Narrative						

No. of Reports Shown in this Listing: 11