Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						

449 1/11/1995 SP CTC 01CICHX-10 Signal 50RA Akela, New Mexico N

Failed Equipment or Device - Semaphore Signal

On January 11, 1995 at approximately 11:10 PM Engineer operating train no. 01 CICHX-10 traveling east, reported that signal 50RA at West Akela was Green and the next signal 52RA was Red. Signal 50RA should have been Yellow.

Under the direction of the Signal Maintainer, the signal system was immediately removed from service and thoroughly tested. It was found that the report made was true. Upon further investigation, it was found that a broken eyelet in the negative armature circuit in the eastbound signal 52RA caused that circuit to remain open and signal 52RA to remain Red regardless of the position of the controlling relays.

The defect was corrected. The signal system was thoroughly tested and found to be working as intended. The system was restored to service on January 12, 1995 at 3:00 AM.

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452 2/5/1995 SP CTC BN 063 Signal 2H Utah Jct., CO N

Scenario Reenacted, Unable to Duplicate, No Defects Found

On February 5, 1995 at approximately 10:56 PM, Engineer operating train no. BN 063 traveling east, reported that signal 2H at Utah Jct. was CLEAR when it should have been Red.

Under the direction of the Signal Supervisor, the signal system was immediately removed from service and thoroughly tested. All tests showed the signal system to be working as intended with no exceptions. The Digicon system showed that signal had not been requested by the dispatcher and was not CLEAR.

The signal system was restored to service on February 6, 1995 at 5:10 AM.

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
453	2/8/1995	SP	AB			1CHSXF-06 West	Signal 15329	Vaughn/Leoncito, NM	N
			Failed Equipment or Device - Semaphore Signal						
			On February 8, 1995 at approximately 1:00 AM Engineer operating train 1CHSXF-06 traveling west, reported that signal 15329 was Green and the next signal 15319 was Red. Under the direction of the Signal Supervisor, the signal system was placed at STOP. Signal personnel inspected the signal system and found that the motor brushes and commutator at signal 15319 were covered with carbon thus preventing the proper operation of the semaphore blade. After the motor brushes and commutator were cleaned, the signal system was thoroughly tested and found to be working as intended with no exceptions. The signal system was restored to service on February 8, 1995 at 3:30 AM.						
455	2/15/1995	SP	CTC			1LAPCX1-14	Signal 1620	Richvale, CA	N
			Scenario Reenacted, Unable to Duplicate, No Defects Found						
			On February 15, 1995 at approximately 2:00 PM, Engineer operating train no. 1LAPCX1-14 traveling east, reported that signal 1600 displayed a Green aspect and signal 1620 displayed a Flashing Yellow for 15 or 20 seconds before it turned hard Yellow. The next signal ahead 1652 displayed Red. Under the direction of the Signal Engineer, the signal system was removed from service and thoroughly tested. The data from the recorder module at signal 1620 was also reviewed. The tests and the data from the recorder both indicated that the signal system was working as intended with no exceptions. The signal system was restored to service on February 15, 1995 at 5:45 PM.						
457	2/17/1995	SP	CTC			ASBTQ K16	Signal 2281	Stuttgart, AR	N
			Scenario Reenacted, Unable to Duplicate, No Defects Found						
			On February 17, 1995 at approximately 7:27 PM, Engineer operating train no. ASBTQ K16 traveling west, reported that signal 2281 went from Yellow to Yellow over Yellow while home signal at east end of Stuttgart was Red. The Signal Department was notified on February 22, 1995 at 2:30 PM. Under the direction of the Signal Supervisor, the signal system was immediately removed from service and thoroughly tested. Tests could not reproduce the problem and showed the signal system to be working as intended with no exceptions. However, as a purely precautionary measure, the coded line overlay equipment (CAO) which controlled the bottom head was replaced by a double wire double break line circuit. The signal system was restored to service on February 22, 1995 at 8:30 PM.						

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
460	2/20/1995	SP	CTC			1DVROM 20	Signal 6767W	Rio Xover, CO	N

Phantom Signal - Due to Object in Foreground or Background

On February 20, 1995 at approximately 10:25 PM, Engineer operating train no. 1DVROM 20 traveling west, reported that he had a Yellow at signal 6745W approaching Rio and the next signal 6767W at Rio initially appeared to be Green, but as they came around the curve and observed the signal from a different angle, they saw it was Red over Red as intended.

Under the direction of the Signal Maintainer, the signal system was removed from service and thoroughly tested. The train crew was also interviewed. Tests showed the signal system to be working as intended with no exceptions. However, it was revealed that a yard light at Rio which was recently restored to service could be mistaken for a Green signal aspect when viewed from a certain location.

The light in question was turned off to eliminate the problem. The next day, the light cover was painted to keep crews from seeing it.

The signal system was restored to service on February 21, 1995 at 4:05 AM.

461	2/21/1995	SP	CTC			1ASROM1 17	Signal 2963R	West Belden, CO	N

Phantom Signal - Due to Sun Angle

On February 21, 1995 at approximately 12:25 PM, Engineer operating train no. 1ASROM1 17 traveling west, reported that they had a Flashing Yellow on signal 2921 and a Yellow on signal 2945 at East Belden, but found that the repeater signal 2963R at West Belden was dark. The crew was unable to stop the train and ran through the west switch at Belden which was lined reverse.

Under the direction of the Signal Engineer, the signal system was immediately removed from service for repairs to the power switch and thorough testing. Test showed that signal 2963 was dark due to a burnt out lamp, the 2963R was Flashing Red, the 2945 at East Belden was Yellow and the 2921 was Flashing Yellow. All tests showed the signal system to be working properly with the exception of the burnt out lamp. However, the next day we found that the sun was washing out the Flashing Red aspect on signal 2963R, so the lenses were replaced, the signal was realigned, and a sun shield (or sunhood) was installed to block the sun off the colorlight signal.

The signal system was returned to service on February 21, 1995 at 6:45 PM.

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
463	3/1/1995	SP	CTC			1EUC1Q-K28	Signal 3111	E. Sims, CA	N

Maintenance - Pole Line (storm, excessive vegetation, rotting poles, excessive slack in wires, etc.)

On March 1, 1995 at approximately 12:53 PM, Engineer operating train no. 1EUC1Q-K28 traveling west, reported that signal 3111 at East Sims displayed Red over Yellow; the correct aspect under the existing conditions should have been Red over Dark.

Under the direction of the Signal Supervisor, the signal system was placed at STOP. Signal personnel inspected the system and found that the improper aspect was caused by a line wire wrap which occurred during a heavy rain storm. Tests showed that the slide fence repeater relay failed to slot the 3111B head thus causing signal 3111 to display Red over Yellow.

The wrapped line wire was cleared, and the circuit was corrected to slot the head of signal 3111B thru the slide fence repeater. The signal system was tested and found to be working as intended with no exceptions.

The signal system was restored to service on March 1, 1995 at 2:00 PM.

465	3/10/1995	SP	AB			1CHLBT1-07	Signal 15329	Vaughn/Leoncito, NM	N

Failed Equipment or Device - Semaphore Signal

On March 10, 1995 at approximately 3:00 AM, Engineer operating train 1CHLBT1-07 traveling west, reported that signal 15329 was Green and the next signal 15319 was Red for no apparent reason, with no train in the block.

The Signal Maintainer investigated and found that the single arm semaphore signal 15329 was Green but the single arm semaphore signal 15319 was Red due to a defective motor. He made repairs and tested signals, and returned signals to service at 9 AM on March 10, 1995. Signal 15319 was converted to a colorlight signal on March 16, 1995 to prevent any future reoccurrence.

(NOTE: Signal 15319 had also experienced a similar failure on February 8, 1995)

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
474	4/5/1995	SP	AB			1LBDAT1-03 East	Signal 538	E.E. Winchester	N
			Maintenance - Pole Line (storm, excessive vegetation, rotting poles, excessive slack in wires, etc.)						
			On April 5, 1995 at approximately 2:50 PM Engineer operating train 1LBDAT1-03 traveling east, was in siding to meet train 1MBSMF2-04. Engineer reported that signal 538 was Green instead of Red after the 1MBSMF2-04 entered the block for signal 538 at MP 66.7 west of Giddings. Under the direction of the Signal Supervisor, the signal system was placed at STOP. It was discovered that a tree branch, broken by high winds, had fallen on the line wires, causing the 20H and 38H wires to wrap, thus making signal 538 indicate Green instead of Red with the block occupied. The tree branch was removed. The signal system was thoroughly tested and found to be working as intended with no exceptions. The signal system was restored to service on April 5, 1995 at 7:45 PM.						
478	4/15/1995	SP	CTC			1LAPCX2-15	Signal 142RA	East End of Fagan, CA	N
			Failed Equipment or Device - Battery or Circuit Breaker						
			On April 15, 1995 at approximately 4:30 PM, Engineer operating train 1LAPCX2-15 traveling east, reported that signal 142RA at east end of Fagan was Green and the next signal 1572, although dim and hard to see, did display a Red aspect. Under the direction of the Signal Supervisor, the signal system was placed at STOP for testing. Tests revealed that the battery at signal 1572 was low and that the commercial power was off due to a blown circuit breaker. The battery voltage was high enough to energize the 142RAH polar relay at Fagan but not enough to energize the head relay in signal 1572. A new circuit breaker was installed and power was restored. The signal system was thoroughly tested and found to be working as intended with no exceptions. The signal system was restored to service on April 15, 1995 at 5:30 PM.						

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
480	5/1/1995	SP	CTC			1DWHLE 01	Signal 619	Frazer, CO	N
			Scenario Reenacted, Unable to Duplicate, No Defects Found						
			On May 1, 1995 at approximately 7:40 PM, Engineer operating train no. 1DWHLE 01 traveling west, reported that signal 619 at east end of Frazer was CLEAR, then suddenly went Red/Red in their face. Under the direction of the Signal Supervisor, the signal system was removed from service and thoroughly tested. All tests showed the signal system to be working as intended with no exceptions. In addition, computer room reviewed tapes and found no control sent to that location or no indication of CLEAR signal from East Frazer. The signal system was restored to service on May 1, 1995 at 11:59 PM.						
483	5/11/1995	SP	CTC			SP 1WCKCQ-11	Signal 208RA	Garnet, CA	N
			Maintenance - Pole Line (storm, excessive vegetation, rotting poles, excessive slack in wires, etc.)						
			On May 11, 1995 at approximately 11:05 PM, Engineer operating train no. 1WCKCQ-11 traveling east on the Main Track at Garnet, reported that signal 206R at the west end of the South siding was Yellow. The next signal 208RA at the east end of the North siding was Yellow then changed to Flashing Yellow. The next signal 210RA was Red. The incident occurred during a sand storm. Under the direction of the Signal Supervisor, the signal system was removed from service and thoroughly tested. It was revealed that line wires 206RAH and N206RAH had gone slack, causing them to intermittently touch when blown by high winds, thus causing the line series relay to pick up and drop, turning the signal light on and off and giving it the appearance of a Flashing Yellow aspect. The line wire was tightened. The signal system was thoroughly tested and found to be working as intended with no exceptions. The signal system was restored to service on May 12, 1995 at 12:30 AM.						

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
484	5/14/1995	SP	CTC			BN 1BN681-13	Signal 316LB	E.E. Algoma, OR	Y
			Scenario Reenacted, Unable to Duplicate, No Defects Found						
			On May 14, 1995 at approximately 6:06 AM, BNRR crew (Engineer, Student Engineer, Conductor), operating BNRR train 1BN681-13 traveling west, reported to have entered the east end of Algoma siding with the facing signal displaying Red over Yellow, and while proceeding west on the siding, collided with the rear of Southern Pacific train 1CORVM-14 which was stopped in the siding. Under the direction of the Signal Supervisor, train dispatcher WS66 was asked to duplicate the conditions under which the BN train 1BN681-13 entered the siding. When the switch at E.E. Algoma was reversed and the westbound was cleared into the siding, the facing signal displayed Red over Lunar. This test was repeated several times always with the same result. The signal system was thoroughly tested and the pole line between East and West Algoma was also inspected. All tests showed the signal system to be working as intended with no exceptions. The signal system was restored to service on May 15, 1995 at 4:30 PM.						
485	5/21/1995	SP	CTC			SP 1WCHOQK-21	Signal 116R	Loma Linda, CA	N
			Scenario Reenacted, Unable to Duplicate, No Defects Found						
			On May 21, 1995 at approximately 11:45 PM, Engineer operating train no. 1WCHOQK-21 traveling east on the No. 2 track reported that as he went by signal 116R, the signal was Green. The train then passed into the block between signal 116R and signal 126R and stopped to cut in a helper engine on the rear of the train. The train then proceeded towards signal 126R at Redlands Xover and found the 126R to be Red over Red. Under the direction of the Signal Supervisor, the signal system was removed from service and thoroughly inspected and tested with the train still in the block. Repeated tests revealed that signal 116R must have indicated a Yellow aspect when the train went by it. All tests showed the signal system to be working as intended with no exceptions. The signal system was restored to service on May 22, 1995 at 10:05 AM.						

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
489	6/17/1995	SP	CTC			SP 1CXPHM-17	Signal 2521	Altheimer, AR	N
			Scenario Reenacted, Unable to Duplicate, No Defects Found						
			On June 17, 1995 at approximately 11:15 AM, Engineer operating train No. 1CXPHM-17 traveling west, reported that signal 2521 was Green and the next signal 260LA, at East End of Altheimer, was Red. Under the direction of the Signal Supervisor, the signal system was removed from service and thoroughly inspected and tested. Every test performed indicated that signal 2521 must have indicated a Yellow not a Green. The signal system was shown to be working as intended with no exceptions. The signal system was restored to service on June 17, 1995 at 4:30 PM.						
490	6/21/1995	SP	CTC			SP 1ZIWCM-21	Signal 32RB	Marne, CA	N
			Phantom Signal - Due to Object in Foreground or Background						
			On June 21, 1995 at approximately 5:45 PM, Engineer operating train no. 1ZIWCM-21 traveling east, reported that while waiting in a siding, he observed signal 32R, 1/4 miles away, and noticed that the bottom head (the 32RB) appeared to intermittently change from Red to Yellow instead of remaining Red. Under the direction of the Signal Supervisor, the signal system was removed from service and thoroughly inspected and tested in conjunction with the dispatch center. All tests showed the signal system to be working as intended with no exceptions. It should be noted, however, that at the time of the incident, a westbound train carrying a number of bright orange trailers was passing under the 32R cantilever, and the reflection of the afternoon sun upon these orange trailers might have washed out the Red aspect as each trailer passed by the signal, thus giving the illusion of an intermittent Red and Yellow, The signal system was restored to service on June 21, 1995 at 9:00 PM.						
491	6/28/1995	SP	CTC			SP Helper	Signal 164RA	Pershing, CA	N
			Scenario Reenacted, Unable to Duplicate, No Defects Found						
			On June 28, 1995 at approximately 2:45 PM, Engineer operating SP Helper Engines traveling east, reported that signal 164RA at the West End of Pershing was Green and when the next signal 166RA at the East End came into view it displayed Red. Signal 164RA should have displayed Yellow. Under the direction of the Signal Supervisor, the signal system was removed from service and thoroughly inspected and tested. All tests showed the signal to be working as intended with no exceptions. The Digicon replay from the Denver computer room corroborated the finding that signal 164RA was Yellow. The signal system was restored to service on June 28, 1995 at 6:20 PM.						

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
492	6/29/1995	SP	CTC			SP 1ARCKC-29	Signal 272	Plain, CO	N

Failed Equipment or Device - Battery or Circuit Breaker

On June 29, 1995 at approximately 12:48 PM, Engineer operating train no. 1ARCKC-29 travelingeast, reported that he observed that signal 272 approach to West Plain was Flashing Yellow and he then found the eastward absolute signal at West Plain Red and overran it.

The Signal Engineer and Signal Supervisor investigated and found that the battery was low due to an open fuse in the AC powerline. They found that a battery voltage of about 6.2 volts would cause the 72S relay to pump causing the signal to display a Flashing Yellow aspect until the battery dropped to about 5.2 volts where it went to STOP.

The signal system was thoroughly tested and no other problems were found. We have continuously lighted the signals to prevent a reoccurrence of this problem with the approach lighting circuit.

493	7/4/1995	SP	CTC			SP 1LBCXT-02	Signal TS	E.E. Paisano, TX	N

Phantom Signal - Due to Unpainted Signal Hood or Background

On July 4, 1995 at approximately 11:45 AM, Engineer operating train no. 1LBCXT-02 traveling east on the Paisano siding, reported that at 3000 feet from the East End of the siding, signal TS appeared to be Green; but as he got closer, to about 1000 feet of the end of the siding, he saw that the signal was indeed Red.

Under the direction of the Signal Supervisor, the signal system was put to STOP and thoroughly inspected and tested, and was found to be working as intended with no exceptions.

The signal system was restored to service on July 4, 1995 at 5:00 PM.

The Signal Supervisor returned to the location the next day, at the same time, to monitor the signal in question and found that there could have been a reflection problem from the underside of the hood. This was corrected and a 30 degree spread lens was installed to improve the visibility of the signal across the curve.

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
496	7/8/1995	SP	AB			1LBCHT1-06 East	Signal 16172	Hargis, NM	N

Failed Equipment or Device - Battery Charger

On July 8, 1995 at approximately 7:15 AM Engineer operating eastbound SP train 1LBCHT1-06, reported that he passed signal 16172 on a Green aspect and then found signal 16198 Red and signal 16212 Dark.

The Signal Supervisor tested the signal system and found that the battery charger (rectifier) at signal 16212 had failed, causing the battery voltage to drop to about 3-4 VDC. This caused signal 16198 to go Red after the train passed signal 16172. The battery charger was replaced and the signal system was thoroughly tested with no other defects found, and signals operating as intended.

The signal system was restored to service on July 8, 1995 at 3:00 PM.

498	7/12/1995	SP	CTC			SP 1LBAVT2-11	Signal FM	Sanderson, TX	N

Phantom Signal - Due to Foreign Light Source

On July 12, 1995 at approximately 10:45 PM, Engineer operating train no. 1LBAVT2-11 traveling east, reported that signal 5196 was Flashing Yellow and the next signal, the FM approach to the West End of Sanderson, appeared Green, but when the train got to about 1/4 mile from W.E. Sanderson he saw that the signal was Yellow.

Under the direction of the Signal Supervisor, the signal system was placed at STOP and thoroughly tested. All tests showed the signal system to be working as intended with no exceptions. Further investigation found that because of the track's curvature in advance of West End signal, at one point the tracks line up directly with a nearby trailer park, and a green light or neon sign at the trailer park could have been mistaken for a Green signal light.

The signal system was returned to service on July 13, 1995 at 5:00 AM.

501	7/25/1995	SP	CTC			SP 1LBMFT-24	Signal FM	West Rosenfield, TX	N

Scenario Reenacted, Unable to Duplicate, No Defects Found

On July 25, 1995 at approximately 6:45 PM, Engineer operating train no. 1LBMFT-24 traveling east, reported that the approach signal to the West End of Rosenfield was Flashing Yellow, that signal FM at the West End was Green and that the next signal, the TM signal at the East End of Rosenfield was Red. The FM signal at the West End should have been Yellow.

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

The signal system was returned to service on July 26, 1995 at 10:00 AM.

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
502	7/26/1995	SP	CTC			SP 1DALAF-25	Signal RA	East Finley, TX	N
			Scenario Reenacted, Unable to Duplicate, No Defects Found						
			On July 26, 1995 at approximately 7:50 AM, Engineer operating train no. 1DALAF-25 traveling west, reported that the westward absolute signal at the East End of Finley was Green then went Yellow in his face with an eastbound train going into the siding at the West End. Under the direction of the Signal Supervisor, the signal system was placed at STOP and thoroughly tested. All tests showed the signal system to be working as intended with no exceptions. The signal system was returned to service on July 26, 1995 at 1:00 PM.						
505	8/11/1995	SP	AB			SP 1KCOAF-09	Signal 7401	Walkinghood, KS	N
			Maintenance - Switch Shunt Wires Broken						
			On August 11, 1995 at approximately 8:00 AM, Engineer operating train no. 1KCOAF-09 traveling west, reported that signal 7401 at the East End of Walkinghood was CLEAR with the switch at the West End lined for the siding. The signalmaintainer found that the shunt wires from the switch circuit controller to the track had been cut off by the switch rod and tie plate, thus eliminating the switch protection. The shunt wires were replaced, and the signals were then found to operate as intended with no exceptions. The signals were placed back in service on August 11, 1995 at 9:00 AM.						
506	8/12/1995	SP	AB			SP 1EPKCT-12	Signal 14174	Three Rivers, NM	N
			Scenario Reenacted, Unable to Duplicate, No Defects Found						
			On August 12, 1995 at approximately 3:50 PM, Engineer operating train no. 1EPKCT 12 traveling east, reported that signal 14174 was Yellow, while the rear of the train ahead no. 1LBCHT1-10 was still in the block. Under the direction of Signal Supervisor J.L. Stevenson, the signal system was thoroughly tested. All tests showed the signal system to be working as intended with no exceptions. The following day, the Division Signal Engineer and the Signal Supervisor made further operational tests and observed the signal at the same time of day for evidence of phantom indication. They found the signal system to be working as intended. They did not, however, that the Electrocode 4 receiver LEDs flashed while being checked for pickup values, so they replaced the Electrocode 4 box and module as a precautionary measure. The signal system was returned to service on August 13, 1995 at 5:55 PM.						

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
508	8/25/1995	SP	CTC			Amtrak No. 6	Signal 7274	East Riverton, UT	N
			Failed Equipment or Device - Interior Wiring						
			On August 25, 1995 at approximately 7:00 AM, Engineer operating Amtrak train no. 6 traveling east, reported that signal 7274 at the East End of Riverton displayed Green over Yellow on the same signal head, when signal should have been Green. The Signal Maintainer inspected the signal system and found that behind the cable board, in the junction box, the HG and DG wires were pinched together and shorted, thus causing the signal to display Green and Yellow at the same time. The wires were separated and insulated. The signal system was tested and found to be working as intended with no exceptions. The signal system was returned to service on August 25, 1995 at 10:00 AM.						
512	8/28/1995	SP	CTC			SP 1SGSNC-27	Signal 6598A	East Gilluly, UT.	N
			Phantom Signal - Due to Sun Angle						
			On August 28, 1995 at approximately 7:25 AM, Engineeroperating train no. 1SGSNC-27 traveling east, reported that as they were heading towards the East End of Gilluly, signal 6598A was Red, but as they got closer, the signal looked Yellow. The train proceeded but found the switch lined against them. Under the direction of the Signal Supervisor, the signal system was inspected and thoroughly tested. All tests showed the signal system to be working as intended with no exceptions. The following morning, at the same time of day, the Signal Engineer and Signal Supervisor returned to the location for a visual inspection and observed that the early morning sun, shining on the signal, caused the Red aspect to look Yellow. A phankill unit was installed, and the problem was eliminated. The signal system was returned to service on August 28, 1995 at 2:00 PM.						

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
517	9/22/1995	SP	CTC			SSW8053, 1LBMFT	Signal 1576	Luling, TX	N

Scenario Reenacted, Unable to Duplicate, No Defects Found

On September 22, 1995 at approximately 7:45 PM, Engineer operating train no. 1LBMFT1-20 traveling east, reported that signal 1576 was Green followed by a Yellow at the West End of Luling, and a Red at the East End of Luling. Signal 1576 should have been Flashing Yellow.

Under the direction of the Signal Supervisor, the signal system was inspected and thoroughly tested. All tests showed the signal system to be working as intended with no exceptions. The 1576 signal displayed Flashing Yellow when same lineup was made as was present for the 1LBMFT1-20.

The following evening, at the same time of day, the Signal Supervisor returned to the location and observed that the signal had no phantom indication and was clearly visible.

The signal system was returned to service on September 22, 1995 at 9:40 PM.

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

Vandalism - Pole Line

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.

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
521	10/3/1995	SP	CTC			SP 1CPKIC-01	Signal 1EA	Pueblo Jct., CO	N

Phantom Signal - Due to Sun Angle

On October 3, 1995 at approximately 5:23 PM, the 1CPKIC-01 moved eastward past signal 1EA with the switch lined reversed against him and left the switch out of correspondence with bent rods. When questioned later, the Engineer advised that he had been stopped at the signal for an opposing train, and after it cleared the switch, he saw the signal 1EA display a Red over Yellow and he proceeded without observing that the switch was lined against him. He stopped at the next signal 2EA until the dispatcher cleared it and then proceeded without realizing that he had damaged the switch by training through it.

The Signal Supervisor repaired the switch machine and thoroughly tested the signal system. He found it working as intended. The Digicon system showed the switch reversed and the signal 1EA at STOP when the 1CPKIC-01 went by the signal.

The Signal Supervisor observed the signal at the same time the next day and found that signal1EA was washed out by the sun shining into it. He installed phankills on the eastward signals at this location.

524	10/22/1995	SP	AB			SP 1HOCMX-20	Signal 1496	Lafayette, LA	N

Human Error - Field Wiring Error, Inadequate Service Testing

On October 22, 1995 at approximately 11:45 AM, Engineer operating train no. 1HOCMX-20 traveling east, reported that signal 1502 at the West End of Scott was Yellow, signal 1496 was Green and signal 1482 was Red. Signal 1496 should have been Yellow.

Under the direction of Signal Supervisor, the signal system was put to STOP and thoroughly tested. It was found that the coil wires on the 1496HR relay had been transposed, thus causing the signal to display the incorrect aspect.

After the wires were switched to their proper positions, the signal system was again tested and found to be working as intended with no exceptions.

The signal system was returned to service on October 22, 1995 at 2:00 PM.

527	10/30/1995	SP	CTC			SP 5HPHLE-30	Signal 6420E	Kyune, CO	N

Scenario Reenacted, Unable to Duplicate, No Defects Found

On October 30, 1995 at approximately 9:05 PM, Engineer operating train no. 5HPHLE-30 traveling east, reported that signal 6420E was Green, with a Red over Lunar at signal 6400E at the West End of Kyune. Signal 6420E should have been Yellow.

Under the direction of the Signal Supervisor, the signal system was inspected and thoroughly tested. All tests chowed the signal system to be working as intended with no exceptions. A visual inspection of the signal, conducted over a three day period following the incident, did not show any malfunctions.

The signal system was returned to service on October 31, 1995 at 12:30 PM.

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
529	11/6/1995	SP	AB			Pittsburg Local	Signal 391	Avon, CA	N
			Human Error - Field Wiring Error, Inadequate Service Testing						
			On November 6, 1995 at approximately 5:00 PM, Engineer operating Pittsburg Local reported that signal 391 was Green with the hand throw switch at MP B-38.1 in reverse position, lined for the siding. Signal 391 should have been Red. Under the direction of the Signal Supervisor, the signal system was put to STOP and thoroughly tested. The two wires going from the NWP relay coils were incorrectly wired to a battery source coming from an aerial cable, thus, bypassing the U-5 switch circuit controller box at the West End of Avon, and causing the NWPR to remain energized when the switch was reversed. The circuit was rewired, the signal system was thoroughly tested and found to be working as intended with no exceptions.						
530	11/7/1995	SP	AB			SP 1BSMFF-05	Signal 14619	Ancho, NM	N
			Maintenance - Wiring Chewed by Rodents						
			On November 7, 1995 at approximately 7:40 AM, Engineer operating train no. 1BSMFF-05 traveling west, reported that signal 14619 at W. Ancho remained Green while the 1WCKCQ-04 traveling east was occupying all 3 track circuits on the main track at W. Ancho, and that the signal had remained Green the whole time that the 1WCKCQ-04 was approaching the West End of Ancho. The Signal Engineer investigated and found that a mouse had eaten through the battery and lamp wires insulation, inside the signal junction box. A battery wire was touching the Green lamp wire which could cause the lamp to display Green even when the block is occupied. [Signal personnel] replaced the bare wires, sealed the box, made full operational tests with shunts, tested relays, and meggered cables. The signal system was then working as intended and was returned to service.						
533	11/16/1995	SP	CTC			SP 1LBHOT-15	Signal 50RA	Akela, New Mexico	N
			Scenario Reenacted, Unable to Duplicate, No Defects Found						
			On November 16, 1995 at approximately 2:50 PM, Engineer operating train no. 1LBHOT-15 traveling east, reported that signal 50RA at the West End of Akela was Green when it first came into view, then changed to Yellow when the train was a mile away, and heading towards the signal. Under the direction of the Division Signal Engineer, the signal system was put to STOP and thoroughly tested. All tests showed the signal system to be working as intended with no exceptions. The signal system was restored to service on November 17, 1995 at 3:30 AM.						

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
534	11/16/1995	SP	AB			Work Train 7435	Signal 4279	Klamath Falls, OR	N
			Human Error - Signal Circuit Design Error, Inadequate Service-Testing						
			On November 16, 1995 at approximately 3:00 PM, Engineer operating work train no. 7435 traveling east, reported that while only half of his train had passed signal 4279, he observed that signal 4279 was Yellow instead of Red. Under the direction of the Signal Supervisor, the signal system was thoroughly tested, and it was found that the 4274T and 4274AT track circuits did not slot the 4279H control. 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 returned to service on November 16, 1995 at 6:30 PM.						
536	11/19/1995	SP	AB			SP West Local	Signal 9064	Phoenix, AZ	N
			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.						
538	12/2/1995	SP	CTC			1EUDOQ-KO1, SP	Signal 50LB	Heather, Oregon	N
			Scenario Reenacted, Unable to Duplicate, No Defects Found						
			On December 2, 1995 at approximately 9:13 AM PST, Engineer was lined into the siding at East Heather for a meet with the 1LABRF2-01. The Digicon system showed that signal 50LB at West Heather was at STOP and the switch was normal with signal 50RA cleared for the 1LABRF2-01. [Engineer] later claimed that the signal 50LB was Green, after he ran through the switch and proceeded to East Wicopee. The Signal Supervisor repaired the damaged switch and then thoroughly tested the signal system, and found it working as intended with no defects. Signals were returned to service on December 3, 1995 at 5:00 PM PST.						

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
539	12/18/1995	SP	CTC			SP 1WCPBM	Signal 6232	Mecca, CA	N
			Scenario Reenacted, Unable to Duplicate, No Defects Found						
			On December 18, 1995 at approximately 7:38 AM, train crew operating the 1WCPBM traveling east, reported that approach signal 6232 went from displaying a Yellow aspect to a Flashing Yellow aspect, with them lined into the siding at the West End of Mecca. Under the direction of the Signal Supervisor, the signal system was inspected and thoroughly tested. All tests showed the signal system to be working as intended with no exceptions. The light bulb was replaced in the 6232 signal, and the signal system was restored to service on December 18, 1995 at 8:30 AM.						
541	12/20/1995	SP	AB			1BSMFF19 West	Wire Eyelet	West Missler, Kansas	N
			Failed Equipment or Device - Interior Wiring						
			On Dec. 20, 1995 at 7:55 PM Engineer operating the 1BSMFF-19 reported that the westward signal 3977 on the main track was Green with the switch reversed at West Missler, Kansas. The Signal Supervisor tested the signal system and verified that signal 3977 was Green with the switch reversed. He found that the insulation on the ring eyelet or terminal had failed causing the number 4 front contact post to be connected falsely to the number 4 back contact of the 2NWPR relay thus allowing the 3977 HPR relay to remain energized when the switch was reversed. The defective eyelet was replaced and the signals were tested and found to be working properly. The signal system was restored to service at 1:00 AM on December 21, 1995.						
544	1/10/1996	SP	CTC			SP 1RVASM-08	Signal 6022	East Mounds, CO	N
			Phantom Signal - Due to Sun Angle						
			On January 10, 1996 at approximately 4:20 PM, train no. 1RVASM-08 traveling east, was in the siding at the east end of Mounds waiting for train no. 10ANSF to pass on the main. After the 10ANSF passed by signal 6022 on the main line, the Roadmaster noticed that signal 6022 appeared Green. The train crew on the 1RVASM-08 also reported that the signal appeared Green. Under the direction of the Signal Supervisor, the signal system was inspected and thoroughly tested. All tests showed the signal system to be working as intended with no exceptions. [The Signal Supervisor] returned the next day at about the same time to observe the signal and noted that as the sun started to shine on the green lens the signal appeared to be Green. Phankill screens were installed on all the eastbound signals at East Mound to correct the problem. The signal system was restored to service on January 10, 1996 at 11:00 PM.						

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
546	1/17/1996	SP	AB			Amtrak No. 14	Signal 344	Benicia, CA	N
			Maintenance - Pole Line (storm, excessive vegetation, rotting poles, excessive slack in wires, etc.)						
			On January 17, 1996 at approximately 10:03 PM, the Martinez Bridge Operator reported that Amtrak train no. 14, traveling east, went by signal 344 and that the signal remained Green after the train had passed and was still occupying the track circuit immediately behind signal 344. Under the direction of the Signal Supervisor, the signal system was thoroughly tested. The cause of the problem was found to be that tree branches were pushing down on the line wires causing the wires to wrap. The trees were removed, the wrap was undone and the slack wire pulled tighter. The signal system was again inspected and tested and found to be working as intended with no exceptions. The signal system was returned to service on January 18, 1996 at 6:47 AM.						
547	1/18/1996	SP	AB			SP 1PXLAM-17	Signal 8220	Hyder, AZ	N
			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.						
548	1/19/1996	SP	CTC			Utah Rwy. Helper	Signal 6327E	Lynn, CO	N
			Scenario Reenacted, Unable to Duplicate, No Defects Found						
			On January 19, 1996 at approximately 1:55 PM, Engineer operating Utah Railway Helper Engine No. UR9002, moving east past Lynn Crossover, reported that he looked back behind his train and observed that the westward absolute signal (6327E) appeared to be displaying a Green over Red aspect. Under the direction of the Signal Supervisor, the signal system was thoroughly tested and found to be working as intended with no exceptions. The signal system was restored to service on January 19, 1996 at 8:00 PM.						

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
551	1/26/1996	SP	CTC			SP 1LBCXT1-25	Signal 54RA	Mortmar, CA	N
			Scenario Reenacted, Unable to Duplicate, No Defects Found						
			On January 26, 1996 at approximately 12:00 PM, Engineer operating train no. 1LBCXT1-25 traveling east, reported that signal 54RA at the west end of Mortmar displayed a Green aspect and the next signal at East Mortmar was Red and that he had overrun the Red signal. Under the direction of the Signal Supervisor, the signal system was thoroughly inspected and tested and found to be working as intended with no exceptions. Replay showed the signal at East Mortmar was not requested and the 54RAHR was de-energized with the polar contacts in the reverse position indicating that signal 54RA was Yellow when the train passed it. The signal system was restored to service on January 26, 1996 at 5:30 PM.						
554	2/14/1996	SP	CTC			SP 1-6A-13	Signal 986	Troublesome, CO	N
			Scenario Reenacted, Unable to Duplicate, No Defects Found						
			On February 14, 1996 at approximately 5:08 PM, Engineer operating train no. 1-6A-13 traveling east, reported that signal 986 was Red over Yellow, but as he got closer, he glanced at the signal and observed that it was Yellow over Yellow. Under the direction of the Signal Supervisor, the signal system was thoroughly inspected and tested. All tests showed the signal system to be working as intended with no exceptions. The signal system was returned to service on February 15, 1996 at 2:00 AM.						
557	4/29/1996	SP	CTC			1MNGVCA-27	Signal 1539	E. White City, Kansas	N
			Maintenance - Rain Entering Signal Case						
			On April 29, 1996 at approximately 7:45 AM, Engineer operating train no. 1MNGVCA-27 traveling west, reported that signal 1539 was Yellow over Yellow when it should have been Yellow over Dark. Under the direction of the Signal Supervisor, the signal system was immediately put to STOP and thoroughly tested. It was found that the Signal Maintainer working on the Electrocode box at that location the previous night, in the rain, had trouble keeping the box and the cards within dry. The wet cards caused an intermittent malfunction of the Electrocode resulting in the incorrect signal display. When repeated attempts at drying the cards in the field were not satisfactory, the box and all of the cards were replaced. The signal system was thoroughly tested and found to be working as intended with no exceptions. The signal system was returned to service on April 29, 1996 at 5:30 PM.						

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
558	4/30/1996	SP	AB			1CVSHC-27	Signal 4926	Bridgeport, Kansas	N

Maintenance - Switch Shunt Wires Broken

On April 30, 1996 at approximately 8:00 AM, Engineer operating train no. 1CVSHC-27 traveling east, reported that signal 4926, at the west end of Bridgeport, was Green when it should have been Red due to the switch being reversed.

Under the direction of the Signal Supervisor, the signal system was put to STOP and then thoroughly tested. It was found that when the stock rail was replaced at West Bridgeport siding on April 29, 1996, shunt wires from the stock rail to the switch circuit controller were left disconnected resulting in the false proceed.

Switch shunt wires were connected, and 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 April 30, 1996 at 11:00 AM.

561	6/3/1996	SP	CTC			SP 5HPHLE-03	Signal 6296W	Utah Ry. Jct. Xover, CO	N

Human Error - Field Wiring Error, Inadequate Service Testing

On June 3, 1996 at approximately 4:55 PM, train no. 5HPHLE-03 traveling east on the eastbound track was approaching a Red signal at ABS 6296E. The Engineer on board reported that he observed signal 6296W, on the westbound track, remain Green well after train 1EUCHQ-31, traveling east on the westbound track, had passed signal 6296W and was heading towards the Utah Railway Junction.

Under the direction of the Signal Supervisor, the signal system was put to STOP and thoroughly tested. Tests showed that when recent repairs were made to replace damaged track connections at ABS 6288, the wires were installed improperly, thus causing the signal malfunction at ABS 6296W.

The track wires in question were installed properly, the signal system was tested and found to be working as intended with no exceptions.

The signal system was returned to service on June 4, 1996 at 12:30 AM.

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
562	6/14/1996	SP	CTC			SP 1LBDAT12	Signal 2816	Sabinal, Texas	N
			Scenario Reenacted, Unable to Duplicate, No Defects Found						
			On June 14, 1996 at approximately 9:20 AM, Engineer operating train no. 1LBDAT12 traveling east, reported that signal 2816 was Green instead of Flashing Yellow, and the next signal at the west end of Sabinal was Yellow. Under the direction of the Signal Supervisor, the signal system was put to STOP and thoroughly tested. All tests showed the signal system to be working as intended with no exceptions. The signal system was returned to service on June 14, 1996 at 5:00 PM.						
565	7/17/1996	SP	CTC			SP 1HOEGM-16	Signal 34LB	Harlem (West End), Texas	N
			Failed Equipment or Device - Relay						
			On July 17, 1996 at approximately 3:45 AM, Engineer operating train no. 1HOEGM16 traveling west, reported that he went by signal 34LB, at the west end of Harlem, looked back and saw that the signal was Red over Yellow instead of Red over Red. Under the direction of the Signal Supervisor, the signal system was put at STOP and thoroughly tested. It was found that the H-2 mechanism at signal 34LB was sticking in the Yellow position. The H-2 unit was replaced. The signal system was tested and found to be working as intended with no exceptions. The signal system was returned to service on July 17, 1996 at 8:10 AM.						
566	7/31/1996	SP		Automatic		SP 1L374L2-31	Signal 30	Elvas, CA	N
			Scenario Reenacted, Unable to Duplicate, No Defects Found						
			On July 31, 1996 at approximately 4:30 PM, the train crew operating the no. 1L374L2-31 traveling east, reported that signal 30 was Yellow over Yellow when the next signal was Red over Red. The proper aspect for signal 30 should have been Red over Yellow. Under the direction of the Signal Supervisor, the signal system was immediately put to STOP. The signal system was inspected and thoroughly tested and found to be working as intended with no exceptions. The signal system was returned to service on August 1, 1996 at 11:00 AM.						

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
568	8/19/1996	SP	AB			SP 1MNGVC-17	Signal 8461	Ordway, CO	N
			Scenario Reenacted, Unable to Duplicate, No Defects Found						
			On August 19, 1996 at approximately 10:40 PM, Engineer operating train no. 1MNGVC-17 traveling west, reported that signal 8461 at the east end of Ordway was Green. Signal 8461 should have been Red because the switch at the west end of Ordway was reversed. Under the direction of the Signal Supervisor, the signal system was thoroughly tested. It was found that the Red lamp in signal 8461 had burned out therefore it was dark when it should have been Red. Other than the burned out Red bulb in Signal 8461, all tests showed the signal system to be working as intended with no exceptions. The signal system was returned to service on August 20, 1996 at 7:00 AM.						
569	9/1/1996	SP	CTC			SP 1WCEUQ31	Signal 32LA	Bealville, CA	N
			Scenario Reenacted, Unable to Duplicate, No Defects Found						
			On September 1, 1996 at approximately 1:35 PM, Engineer operating train no. 1WCEUQ31 traveling west, reported that signal 32LA, at the East End of Bealville, was Green; the next signal, the 26LA, at the Bealville Crossover, was Red. Signal 32LA should have been Yellow. 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 September 1, 1996 at 6:00 PM.						
575	11/4/1996	SP	AB			SP 1EYSCH-02	Signal 5706	Olmitz, CO	N
			Phantom Signal - Due to Sun Angle						
			On November 4, 1996 at approximately 4:00 PM, Engineer operating train no. 1EYSCH-02 traveling east, reported that signal 5706 was Green and signal 5692 at the west end of Olmitz was Red. The Signal Supervisor was called and arrived at the location within 15 minutes. He watched signal 5706 and observed that the sun was shining onto the signal head in such a way that the Yellow aspect could not be seen, while the Green aspect appeared lit. Phantom screens were installed on the signal head, and the batteries were replaced to increase the voltage on the signal lamp. 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 November 4, 1996 at 7:00 PM.						

Report #	Date	Reporting Carrier	Block System	Interlocking	Auto. Systems	Loco or Train No.	Device that Failed	Location	Collision or Derailment?
			Cause						
			Narrative						
576	11/30/1996	SP	CTC			SP 1MNGVC-30	Signal 30	Ridgley, IL	N

Failed Equipment or Device - Aerial or Underground Cable, Shorted or Grounded (not due to vandalism or digging)

On November 30, 1996 at approximately 2:30 AM, Engineer operating train no. 1MNGVC-30 traveling west, reported that signal 30 cleared Yellow while the C.I.M. train was flagging across the Interlocking.

The Signal Supervisor was notified and he had the Dispatcher hold all trains in their position until he arrived. Upon arrival at the Interlocking, he confirmed that the 30 signal was Yellow. The cable was meggered and was found to be bad. The cable was replaced from the tower to the westbound home signals and the signal system was thoroughly tested. All tests showed the system to be working as intended with no exceptions.

The signal system was returned to service on November 30, 1996 at 7:00PM.

No. of Reports Shown in this Listing: **57**