

REVISED REPORT 11/4/96

<p>DEPARTMENT OF TRANSPORTATION FEDERAL RAILROAD ADMINISTRATION</p> <p>FALSE PROCEED SIGNAL REPORT</p>	<p>REPORT FOR (month/year) October 1991</p> <hr/> <p>DATE November 1, 1996</p>
<p>All railroads subject to Regulations of the Federal Railroad Administration shall submit a false signal report, original only, to the Federal Railroad Administration within five days after a false proceed occurs. If no false proceed occurs during any calendar month, a report showing "No Failures" must be filed within ten days after the end of the month.</p>	<p>REPORTING CARRIER (railroad & region or division) National Railroad Passenger Corp. 30th Street Station Third Floor - South Tower Box 41 Philadelphia, PA 19104</p>
<p>MAIL TO</p> <p align="center">David Myers Administrator - FRA Scott Plaza Two - Suite 550 Philadelphia, PA 19133</p>	<p>REPORTING OFFICER (signature/title) Assistant Chief Engineer Communications and Signals</p>

<p>A failure should not be counted more than one time in items 1, 2, 3 and 4; the failure should be classified under the basic system or appliance of which it forms an essential part. E.g.; assume grounds cause a block signal to indicate a false proceed causing corresponding indications of a cab signal system on each train approaching this point, such failures should be included in item 1, Block Systems.</p> <p>A false proceed failure is a failure of a system, device or appliance to indicate or function as intended which results in less restriction than intended.</p>	<p>The following abbreviations may be used in the report.</p> <table style="width:100%;"> <tr> <td>RA - Automatic</td> <td>EM - Electromechanical</td> </tr> <tr> <td>AB - Automatic Block</td> <td>EP - Electropneumatic</td> </tr> <tr> <td>ACS - Automatic Cab Signal</td> <td>FP - False Proceed</td> </tr> <tr> <td>APB - Absolute Permissive Block</td> <td>MB - Manual Block</td> </tr> <tr> <td>ATC - Automatic Train Control</td> <td>M - Mechanical</td> </tr> <tr> <td>ATS - Automatic Train Stop</td> <td>P - Pneumatic</td> </tr> <tr> <td>CL - Color Light</td> <td>PL - Position Light</td> </tr> <tr> <td>CPL - Color Position Light</td> <td>SA - Semiautomatic</td> </tr> <tr> <td>E - Electric</td> <td>TC - Traffic Control</td> </tr> </table>	RA - Automatic	EM - Electromechanical	AB - Automatic Block	EP - Electropneumatic	ACS - Automatic Cab Signal	FP - False Proceed	APB - Absolute Permissive Block	MB - Manual Block	ATC - Automatic Train Control	M - Mechanical	ATS - Automatic Train Stop	P - Pneumatic	CL - Color Light	PL - Position Light	CPL - Color Position Light	SA - Semiautomatic	E - Electric	TC - Traffic Control
RA - Automatic	EM - Electromechanical																		
AB - Automatic Block	EP - Electropneumatic																		
ACS - Automatic Cab Signal	FP - False Proceed																		
APB - Absolute Permissive Block	MB - Manual Block																		
ATC - Automatic Train Control	M - Mechanical																		
ATS - Automatic Train Stop	P - Pneumatic																		
CL - Color Light	PL - Position Light																		
CPL - Color Position Light	SA - Semiautomatic																		
E - Electric	TC - Traffic Control																		

TYPE OF SYSTEM	DATE	LOCOMOTIVE NUMBER	DEVICE THAT FAILED	LOCATION (city and state)
1. BLOCK SYSTEMS <input type="checkbox"/> AB <input type="checkbox"/> APB <input checked="" type="checkbox"/> TC	October 21, 1996	Control Car #1519	180 Decoding Unit	Dorchester Branch Boston MA
2. INTERLOCKING <input type="checkbox"/> AUTOMATIC <input type="checkbox"/> REMOTE <input type="checkbox"/> MANUAL				
3. AUTOMATIC SYSTEMS <input type="checkbox"/> ATS <input type="checkbox"/> ATC <input type="checkbox"/> ACS				
4. OTHER (specify)				

NATURE AND CAUSE OF FAILURE/CORRECTIVE ACTION TAKEN

On Monday, October 21, 1996 at 1:15 p.m. the engineer of MBTA Commuter Train #042 reported holding a clear cab signal after passing signal 225.8 2E displaying on approach aspect (yellow over red) while operating #2 track eastbound on the Dorchester Branch. Train #042 had cab car #1519 on the lead with four coaches and engine #1053 pushing the consist. The Dorchester Branch is reverse traffic signaling with 100 Hz Phase Selective track circuits.

Amtrak C&S management was notified and dispatched to the scene with signal maintainers and test personnel. Tests revealed during the investigation that the 180 decoding unit located at cut section 226.8 (which is also signal location 226.8 2W for westbounds) was permitting the 75 code feeding westward to that location to create an output sufficient enough to energize the DR relay. This would then allow 180 code to be applied to the rails improperly and feed westward to generate clear cab signals.

Correction was made by replacing the 180 decoding unit and all operational tests performed afterwards showed all circuits functioned as intended.

2