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| DEPARTMENT OF TRANSPORTATION FEDERAL RAILROAD ADMINISTRATION FALSE PROCEED SIGNAL REPORT | REPORT FOR (month/year) January, 2000 |
| | DATE 04-Jan-01 |
| MAIL TO Mr. Michael Woods Federal Railroad Administration 16th Floor - Suite 16T20 100 Alabama Street, SW Atlanta, GA 30303-3104 | REPORTING CARRIER Norfolk Southern Corporation Division: Piedmont |
| | REPORTING OFFICER _____ Chief Engineer - Eastern Region Communications & Signal Department |

| 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 | 01/04/2001 | P42P3 | Phantom Signal | Thicketty, NC |
| 2 INTERLOCKING <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) | | | | |

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
RECEIVED

ATLANTA, GEORGIA

NATURE AND CAUSE OF FAILURE / CORRECTIVE ACTION TAKEN

At approximately 5:04 p.m. on 1/4/01, train P42P3, Engineer _____ Conductor _____ and Brakeman _____ running northbound, reported a signal problem with the 4354 northbound intermediate signal at MP 435.4. Train P42P3 was northbound on track two returning to a cut of 15 cars it had left on track two north of the 4354 intermediate signal. Upon approaching the 4354 signal northbound, the crew first observed a restricting red over red aspect. As they got closer to the signal, it appeared to them as an approach, yellow over red aspect. The engineer called the dispatcher and reported he thought there were signal problems at the location. The dispatcher called signal personnel to investigate. Investigation revealed no exceptions with signal circuits, grounds or relay operation. However, it was determined that the sun was shining directly into the signals at the time of the incident and the situation would be reenacted at 5:00 p.m. on 1/5/01, as a phantom aspect was suspected.

Conditions were almost identical to the previous day during the reconstruction. The same crew and train P42P3 were used, with signal officers on board to observe the signals. At a distance the restricting aspect was visible on signal 4354. When the train got within 600' of the signal, an approach aspect could be distinguished and the top head green lens appeared dimly lit on signal 4354.

It was observed that the signal was affected by the sun's glare, and the top head appeared to have all three units (green, yellow and red) burning dim and of equal intensity. Such an aspect would have been interpreted as an improperly displayed signal, rather than an approach. However, the possibility of an approach aspect could not be discounted.

Adjustments were made to make the signal aspects easier to discern in the afternoon sun. This involved bulb voltage adjustments, sighting alignment and installing long signal hood covers.