



**National
Transportation
Safety Board**

Collision Between Two BNSF Railway Freight Trains Near Red Oak, Iowa

April 17, 2011

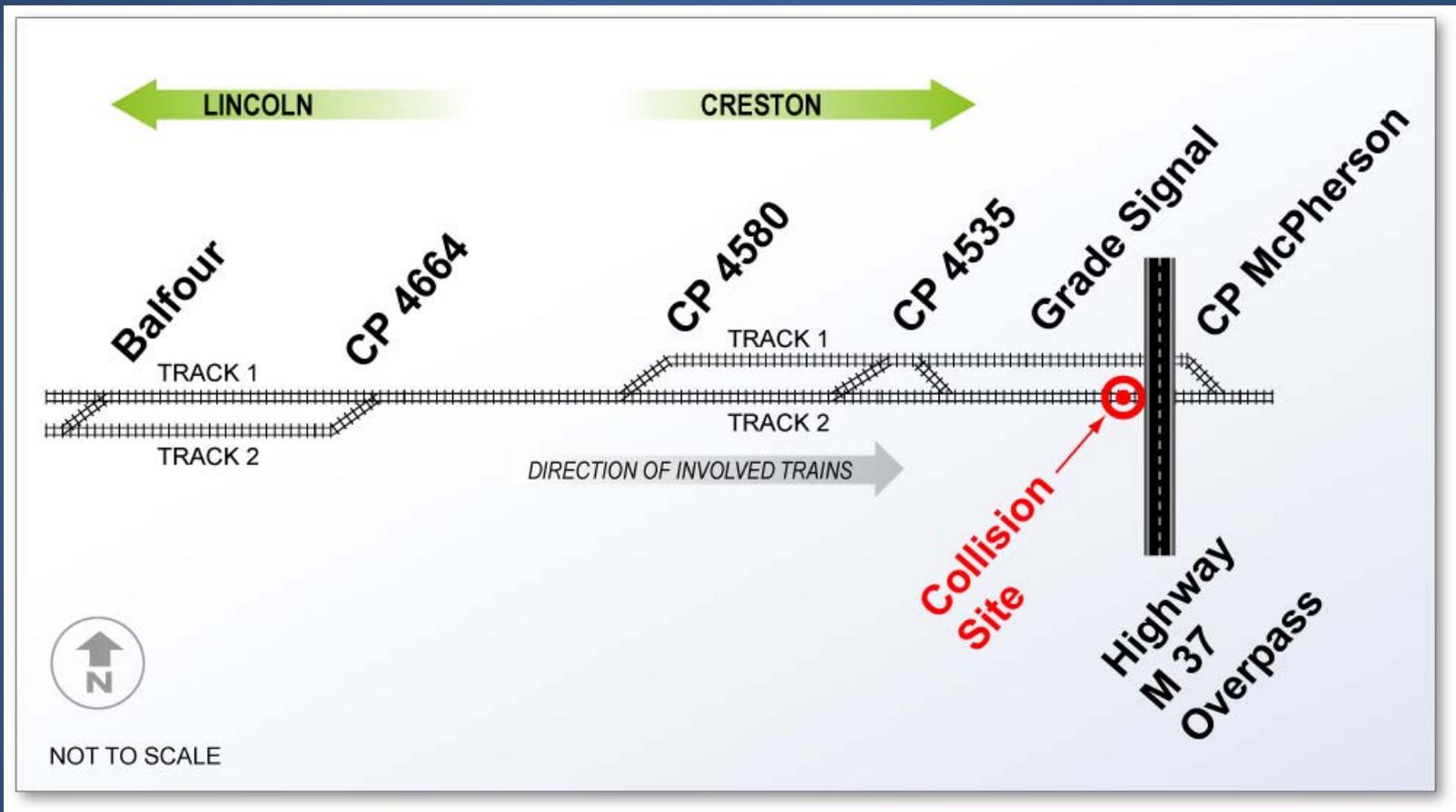
DCA-11-FR-002



Accident Location



Track Map



Animation View



NTSB



BRIDGE BARS MUST BE DISCONNECTED AND STORED BEFORE MOVING CAR

2 RICH WF COMP SHOES

Operating Cab Module

Photo Credit: Red Oak Fire Dept



Injuries

- Both crewmembers on the striking train were fatally injured
- Both crewmembers on the struck train reported non-life-threatening injuries



Photo Credit: Red Oak Fire Dept

Damages

- Extensive damage to striking locomotive
- Both lead striking locomotives derailed
- 12 cars derailed
- Extensive damage to MOW equipment
- Highway overpass was struck but remained in service
- Damage is estimated at over \$8.7 M



NTSB Team On Scene

- Mike Flanigon IIC/Report Writer
- Tim DePaepe Signals
- Mike Hiller Crashworthiness
- Steve Jenner Human Performance
- Ted Turpin Operations & Track
- Lorenda Ward On-Site Support
- Dave Watson Mechanical



NTSB Team

- Meg Athey Editor
- Chris Babcock Video Recorders
- Dennis Crider Animation
- Matt Fox Metallurgy
- Cassandra Johnson Event Recorders
- Alice Park Animation
- Christy Spangler Animation
- Robert Turner Graphics



Parties

- Federal Railroad Administration
- BNSF Railway
- Electro-Motive Diesels, Inc.
- United Transportation Union
- Brotherhood of Locomotive Engineers and Trainmen



Investigation

- Train braking, mechanical systems, and signal system tested OK
- Dispatcher actions were appropriate
- No illegal drug/alcohol use was detected
- No crew cell phone use was detected
- No weather or visibility problems were found
- Emergency response was timely and appropriate



Safety Issues

- Train crew attentiveness and fatigue
- Positive train control regulations and design
- Crashworthiness of modular locomotive cabs
- Survivability of electronic data



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