

NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division
Washington, D.C. 20594

March 28, 2017

Wi-Tronix Emergency Transmitted Data

Specialist's Factual Report
By Cassandra Johnson

1. EVENT SUMMARY

Location: Panhandle, Texas
Date: June 28, 2016
Operator: BNSF Railway
Train, Locomotive ID: Eastbound Train S-LACLPC1-26K, 5162 (lead locomotive)
Train, Locomotive ID: Westbound Train Q-CHISBD6-27L, 5416 (lead locomotive)
NTSB Number: DCA16FR008
Summary: Refer to the Accident Summary report, within this docket.

2. Details of Emergency Transmitted Wi-Tronix Data

In support of the investigation, the National Transportation Safety Board (NTSB) Vehicle Recorder Division received one second of data from each lead locomotive, BNSF 5162 and BNSF 5416. The data had been remotely transmitted by the on-board Wi-Tronix system after each locomotive went into emergency.

When an emergency application occurs, the Wi-Tronix system initially sends one second of data followed by a subset of event recorder data and image recorder data. However, in the case of the Panhandle, TX accident, there was only enough time to send one second of data from each lead locomotive.

2.1. Emergency Transmitted Wi-Tronix Data

Table 1 contains the one second of Wi-Tronix data from each lead locomotive, BNSF 5162 and BNSF 5416. In the Wi-Tronix data, a question mark (?) indicates the data is invalid. Table 2 contains the data and unit abbreviation descriptions.

Table 1. Emergency Transmitted Wi-Tronix Data

Data	Units	Locomotive ID BNSF 5162	Locomotive ID BNSF 5416
Alert		Engineer Induced Emergency Brake	Engineer Induced Emergency Brake
Severity		-	-
Start Time		6/28/16 8:20:39 AM	6/28/16 8:20:35 AM
Duration		>0.0	>0.0
Location Start		Panhandle, TX	Panhandle, TX

Data	Units	Locomotive ID BNSF 5162	Locomotive ID BNSF 5416
Station			
MP Start		525.7	525.3
Subdivision Start		Panhandle	Panhandle
Throttle Start		DB	DB
Speed Start	mph	66	38
Fuel Start	US gal	3,660	2,600
Engine State Start		Running	?
Load Start	A	0	0
THP Start	hp	0	0
BP Start	psi	66	86
BC Start	psi	0	0
EOT BP Start	psi	?	216
In Yard		No	No
DP Start		?	Off
Temperature Start	Deg F	?	?
Temperature Min	Deg F	?	?
Position			

Table 2. Data and unit abbreviation description.

Data and unit abbreviation	Description
A	Amps
BC	Brake Cylinder
BP	Brake Pressure
DB	Dynamic Brake
Deg F	Degrees Fahrenheit
DP	Distributed Power
EOT	End of Train
hp	horse power
Min	Minimum
MP	Milepost
mph	miles per hour
psi	pounds per square inch
THP	Traction Horse Power
TX	Texas
US gal	US gallons