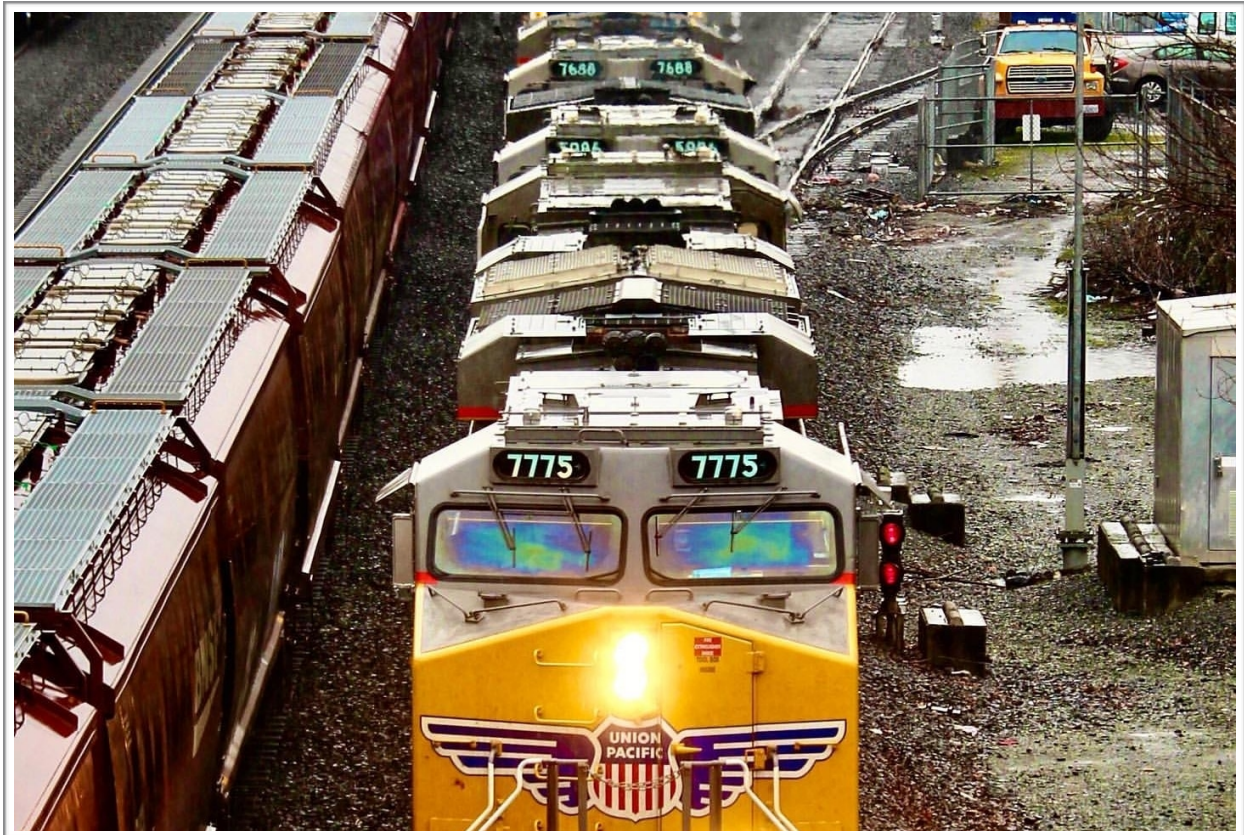


# Train Length is a Growing Problem



*Rail Infrastructure and Safety Concerns*

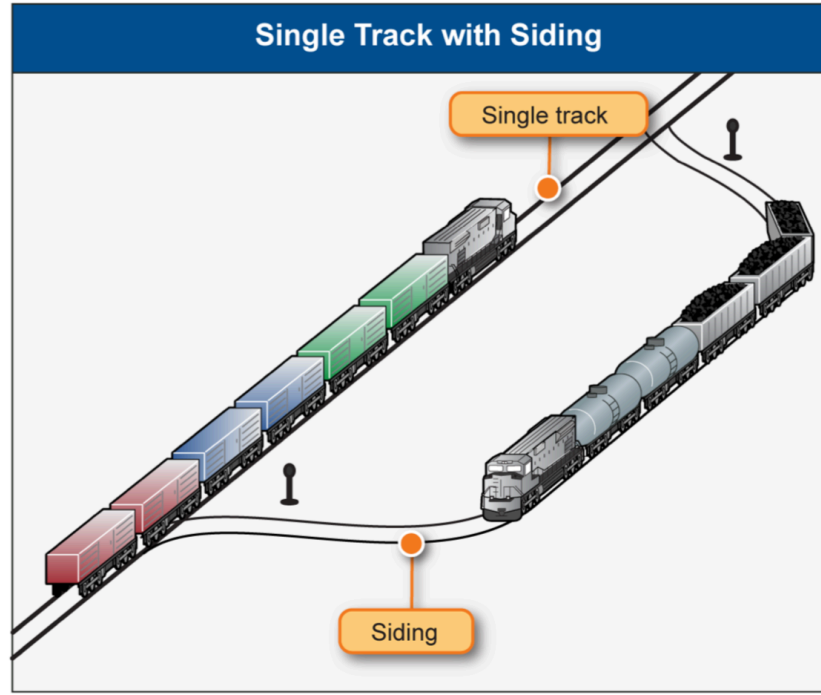


***Of the 2,662 miles of active rail lines in Arkansas, the breakdown of rail operations are as follows:***

- 1,327 miles operated by the Union Pacific Railroad (UP), a Class I railroad
- 198 miles operated by the Burlington Northern – Santa Fe Railroad (BNSF), a Class I railroad
- 158 miles operated by the Kansas City Southern Railroad (KCS), a Class I railroad
- 979 miles operated by 23 short line railroads

## *Arkansas Rail Infrastructure Is Not Designed For Increasing Lengths Of Trains*

**Most rail main lines in our State are single-track, so when one train meets another train coming in the opposite direction, one of the trains must pull into a siding to let the other train pass. There are very few, if any, sidings that are long enough to hold a 2-3-mile-long train, meaning if the long train takes the siding, both trains must stop, and there is what we call a "saw-by" causing a significant delay. If both trains are too long, this movement can take hours for one to pass the other.**

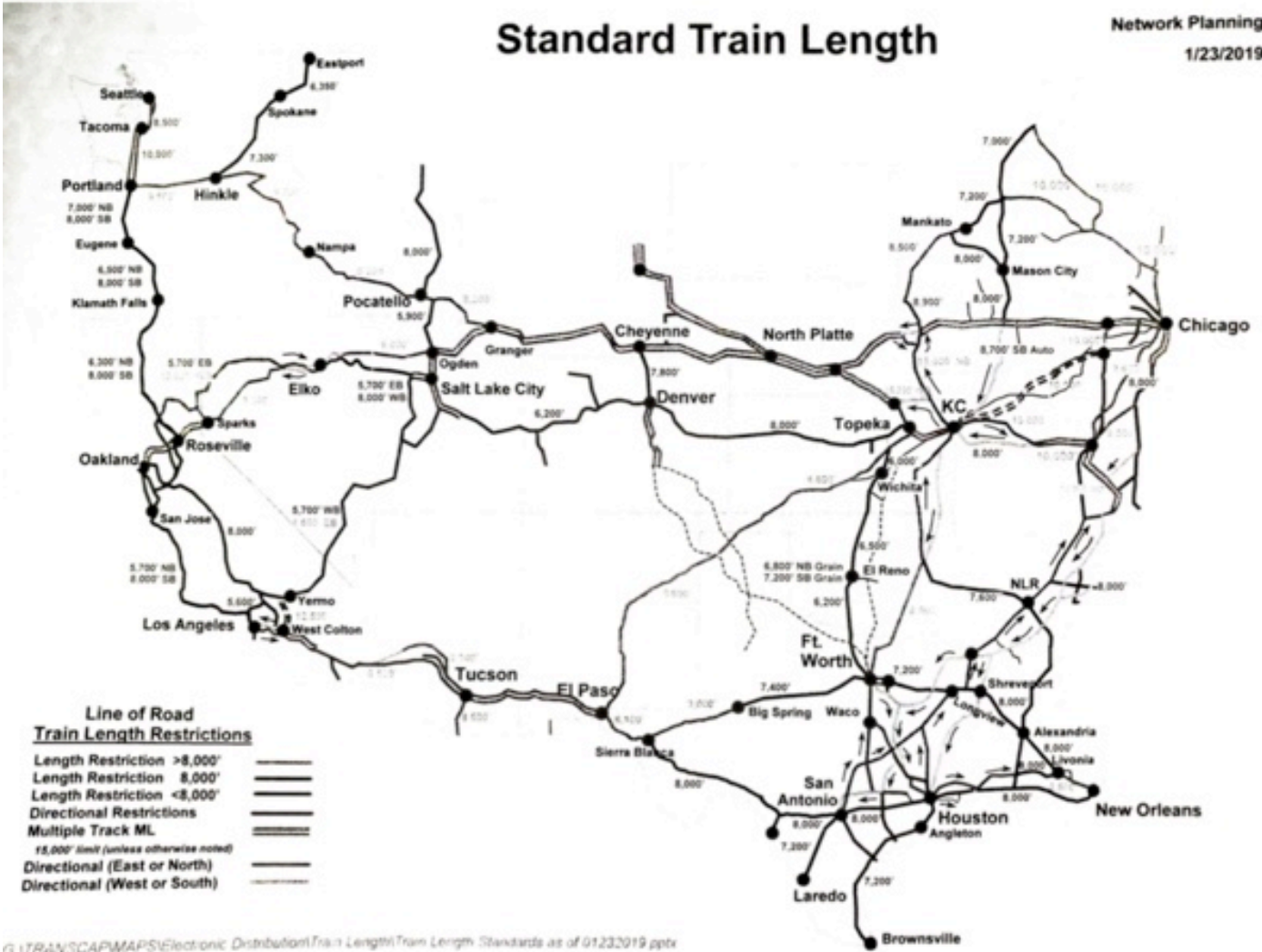


**For example, Union Pacific, our state's largest class one railroad, operates across the state utilizing around 90 sidings. Of those sidings, only 45 are large enough to allow for trains running at the proposed 8500-foot limit. A 10,000-foot train would be able to make a meet at 12 of those sidings, and a train running at 12,000 feet would be able to utilize only 1 siding across the state. We routinely see trains over 17000 feet.**



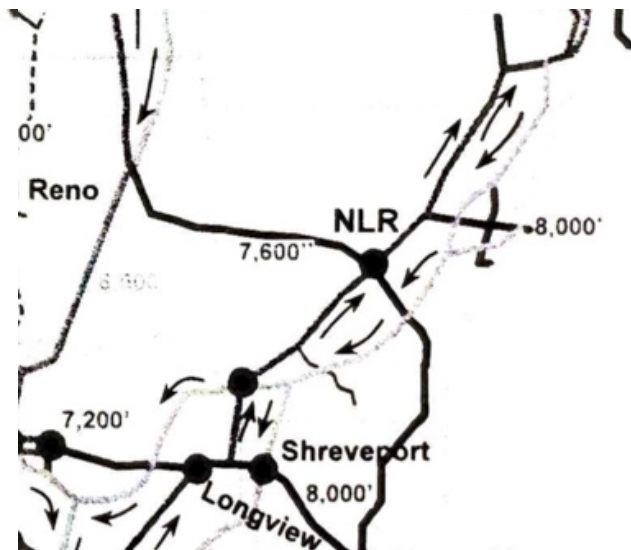
# Standard Train Length

Network Planning  
1/23/2019



## Line of Road Train Length Restrictions

- Length Restriction >8,000'
- Length Restriction 8,000'
- Length Restriction <8,000'
- Directional Restrictions
- Multiple Track ML
- 15,000' limit (unless otherwise noted)
- Directional (East or North)
- Directional (West or South)



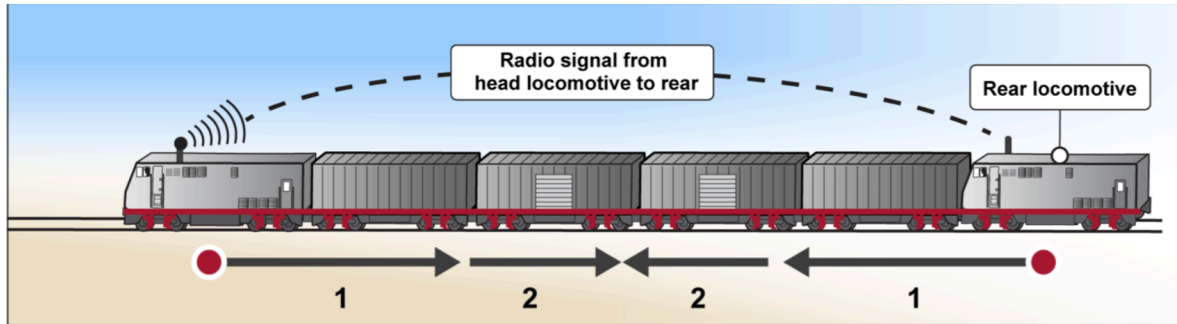
# Negative Impacts of Longer Trains



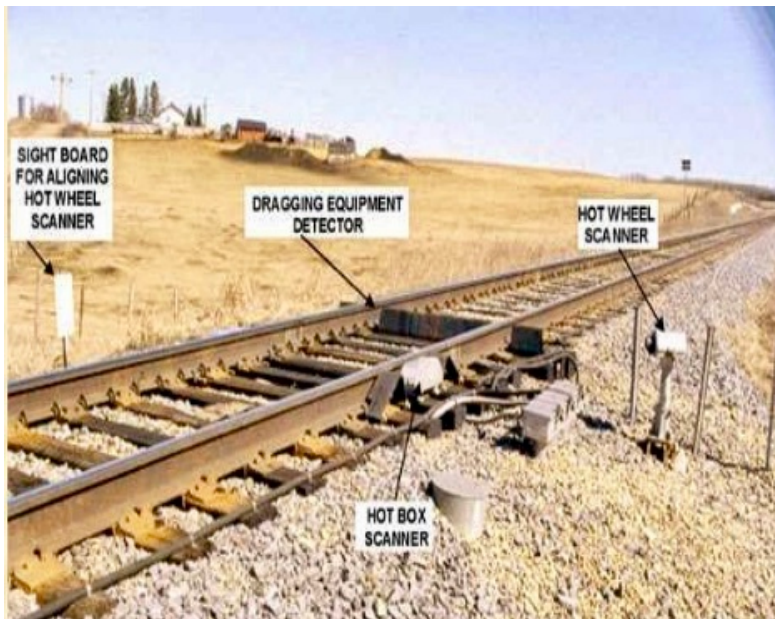
**A three-mile-long train goes slower than a one-mile-long train. It takes longer to start and get to top speed, which is seldom the maximum allowable speed because they are too heavy and hard to handle. Slowing down for speed restrictions and getting back up to speed takes far more time.**



**Longer trains cause a phenomenon known as staging. When a train is too long to fit in a terminal or siding, every other train in the area is forced to stop. Think of it as a traffic jam on the interstate. This will affect both municipalities and the rural regions across the State.**

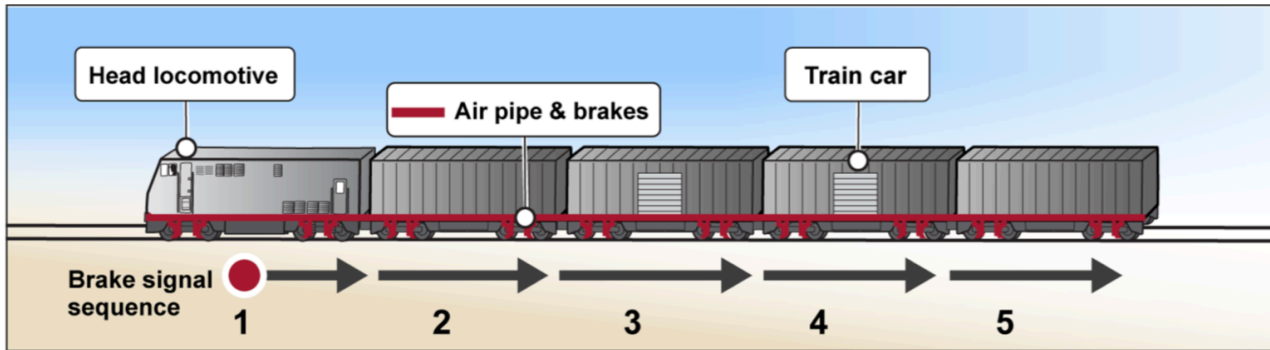


**Train operations require that the crew in the lead locomotive maintain constant communications with the rear locomotives or the device on the rear car of the train. When these communications fail, the train is restricted to 30mph, and in some instances, the train is required to stop. The longer the train, the more these communications fail. This loss of communications is very common when trains go around curves or go over the tops of mountains.**



**Crews cannot reliably hear the report of wayside defect detectors when trains grow to excessive lengths. When that happens, the train must often stop and follow procedures to make sure their train is safe to proceed.**



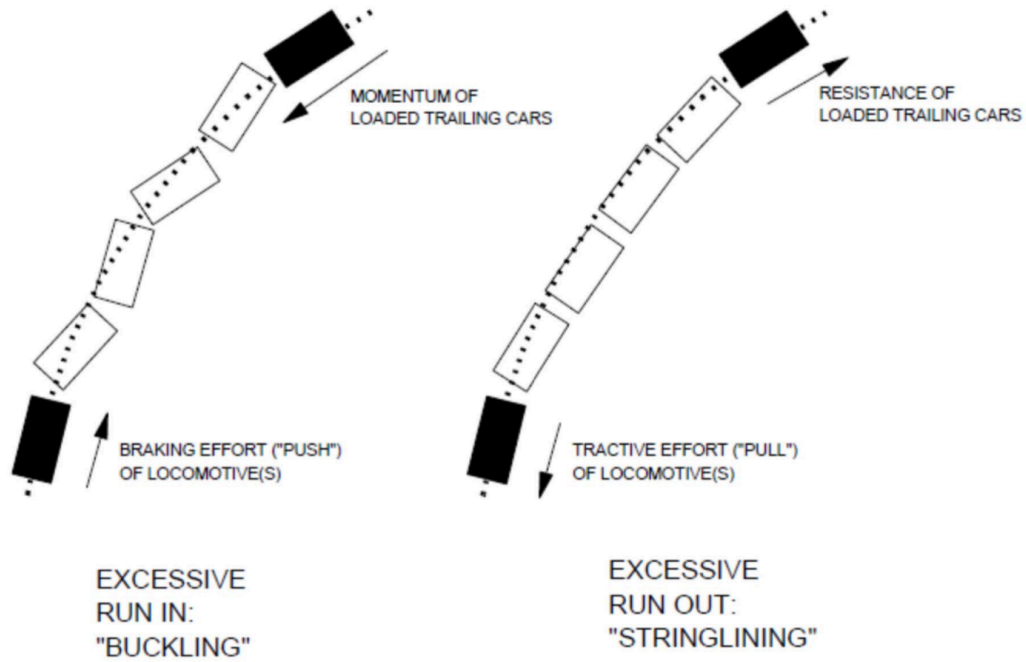


**A train uses an air braking system developed in the 1800s, and the longer the train, the harder it is to maintain adequate air in the system.**



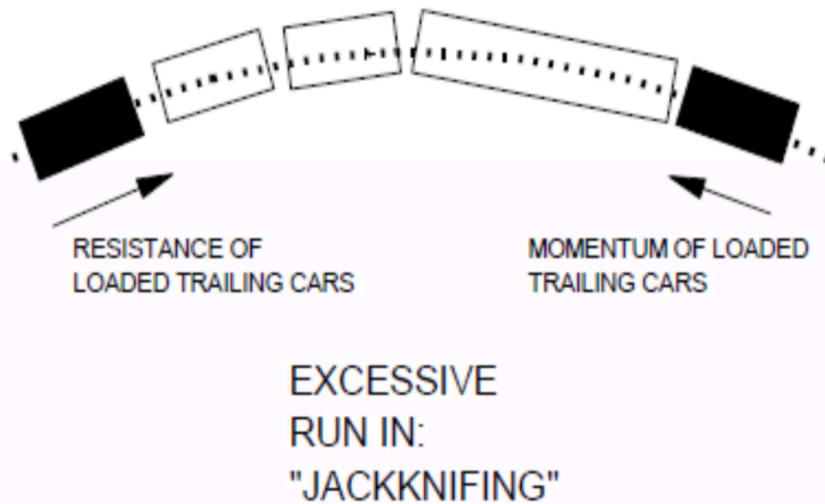
**The longer the train, the higher the probability of mechanical failure. More cars mean more problems. Excessively long trains are also far more likely to break-in-two which can cause hours of delay. When there is a mechanical problem or break-in-two, the conductor of the train must walk back from the lead locomotive to deal with the situation. When the train is two miles long or longer, the conductors' portable radio frequently fails to communicate with the engineer, causing a significant delay. We have many instances of these trains breaking in two and causing significant delays.**

# Modes of Failure



**Longer trains result in more derailments per train mile. These derailments will have more severe impacts (cars derailed, products released, and potential evacuations). Regarding manifest trains (mixed rail cars) and distributed power, the potential for derailment forces above those previously projected.**

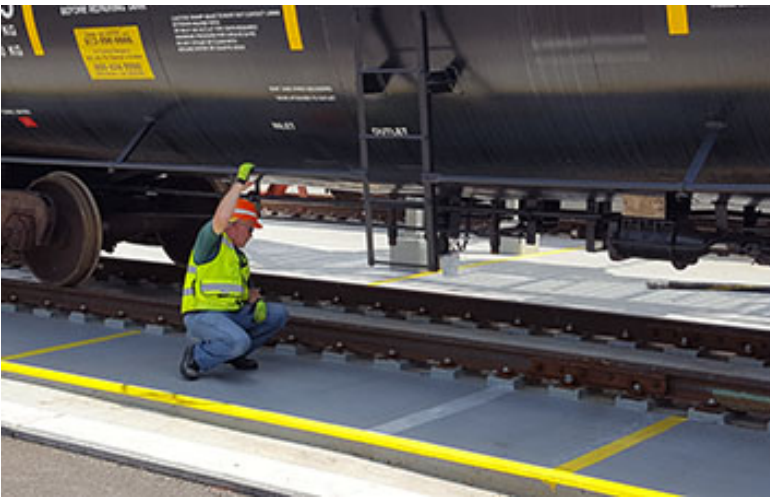
# Modes of Failure







**When a train is too long to fit into a yard track, the train must be separated and put on two or more tracks, adding to yard congestion and additional public delays.**



**Required brake tests take longer on a long train. Some brake tests require the inspection of every car, and walking a 3-mile-long train to the end and back is 6 miles. Add to that a portable radio that fails to transmit, and the result is substantial train delay.**





**The longer the train, the more crossings that are blocked, and they are blocked for more extended periods of time. It is causing safety concerns.**

**This is a concern for all state commerce but especially for first responders. Extended periods of crossings being blocked usually lead to impatience in the public sphere. This impatience, unfortunately, tend to end with people attempting to outrun trains.**



# It's Becoming a Nationwide Issue

## Train Length Legislation

February 20, 2021

