

RAILROAD WEEK IN REVIEW

March 17, 2023

“U.S. growers appear to be headed for a third consecutive year of healthy pay. Key crop prices are off last year’s highs but are expected to remain well above historical averages. The Department of Agriculture puts this year’s expected net cash farm income at \$150.6 billion. Adjusted for inflation, that would be down from last year’s record \$195.3 billion, but above the 20-year average of \$130.5 billion.” — Barron’s, March 6

“Reading the NTSB report makes it clear that meaningful safety improvements require a comprehensive industry effort that brings together railcar and tank car manufacturers, railcar owners and lessors, and the railroad companies. We are eager to help drive that effort and we are not waiting to take action.” — NS President and CEO Alan Shaw.

“The other Class I railroads, in opposing the transaction, are simply seeking conditions and other remedies that appear aimed at protecting their own traffic from competition with CPKC and at limiting the ability of the combined CPKC to meet its potential. Consistent with the Board’s policy to protect competition and not competitors, the Board is denying those requests while also ensuring that existing competitive gateway options are preserved. [emphasis added] — STB merger presser, March 15

Not surprisingly, the NS safety blitz will center on roller bearing defect detection starting with these six steps. Though the effort is laudable, it really needs to start with bullet points five and six — inspections. There are signs that the PSR emphasis on doing more with fewer personnel may have caused less-than-competent inspections for signs of bearing overheating and lubrication leakage. Be that as it may, the NS program will ...

- Enhance the hot bearing detector network by adding some 200 HBDs where they are presently spaced more than 15 miles apart and practical due to terrain and operating conditions. We’re looking at about 200 more devices, starting with the western approach to East Palestine.
- Pilot next-generation hot bearing detectors to offer the potential to catch overheated bearings more effectively.
- Work with others on a comprehensive review of standards and practices for the use of hot bearing detectors to include the temperature threshold at which an alarm is triggered.
- Deploy more acoustic bearing detectors to analyze the acoustic signature of vibration inside the axle and to identify potential problems that a visual inspection could not.

This will strengthen the early-warning system that identifies potential risks before they become issues.

- Accelerate the NS Digital Train Inspection program, developing a next generation of safety inspection technology, which uses machine vision and algorithms powered by artificial intelligence to identify defects and needed repairs much more effectively than traditional human inspection.
- Support a strong safety culture. Norfolk Southern has agreed to join the Federal Railroad Administration's Confidential Close Call Reporting System (C3RS). By joining the program, Norfolk Southern is building upon its own long-standing Close Call Experience Program, which encourages railroaders to speak up if they see something that is unsafe.

It's a solid start. NS at one time was the industry leader in safety, winning the annual Harriman Safety Award for Group A railroads (line-haul railroads with greater than 15 million employee-hours per year) every year starting in 1989 until it was abolished in 2012. So the safety heritage is definitely in the DNA of Norfolk Southern. Getting back in this groove would be a marvelous accomplishment for NS.

The STB pulled no punches in its CPKC Decision, as you can see from the italicized quote above. In a nod to growing concerns about railroad safety, the presser concludes,

The Board is well cognizant of the recent elevated level of public concern stemming from the derailment in East Palestine, Ohio, and as always, the Board has carefully analyzed the proposed merger from a safety perspective. It is important to underscore that rail is by far the safest means of transporting any freight, including hazardous materials.

Moving 64,000 truckloads off the highways and onto rail will result in a decrease in CO2 emissions of 127,113 tons per year. It will also reduce—not increase—the risk of dangerous hazardous material spills. According to the Bureau of Transportation Statistics, in 2022, trucks experienced 94% of all hazardous materials incidents while in the same year, railroads experienced a little more than 1% of all hazardous materials incidents.

In the last 15 years, CP has had the best safety record of any Class I railroad. Based on information in the Final Environmental Impact Statement (FEIS), on average, for CP and KCS, there has been only one hazardous material release for every 37.8 million miles that a car carrying hazardous materials traveled—a rate of 0.0261 hazardous material releases per million hazardous material car miles on mainline tracks...

That is a record which cannot be matched by trucks or, in fact, any other railroad. Thus, any rail traffic diverted to CPKC from other railroads will mean traffic likely moving to a railroad with a better safety record.

I'll leave it to you to drill down into the merger details to the level that fits your needs. I only wish to point out the level to which the Board has taken safety and competition in its deliberations. Thanks for a job well done.

It's time to spend more time looking at market trends and which of today's commodity groups are most likely to fill tomorrow's carloads. Based on the present set of economic tea leaves, I see agriculture, energy, and materials as the sectors that will be the top performers among all railroad commodity groups.

Start with agriculture. The best opportunities for railroad carload growth are, in no particular order, grains, fertilizers and farm equipment. Grains are pretty self-explanatory: Nebraska is big in beans, for example, and Iowa is big in corn, so UP and BNSF and their non-Class I partners are the dominant players on the outbound side.

Origins are a different matter. Fertilizer demand is a function of the predominant crops' growing areas. I've been looking at the carload volume charts for NPK. CP seems to dominate K (potash/potassium) and CSX in Florida's Bone Valley really owns the P — phosphorous (DAP et al). That leaves N (nitrogen — ammonium nitrate, urea) particularly important to corn.

You can get a good sense of the fertilizer outlook in general by visiting the websites of the three major Producers: Nutrien, (the merged [PotashCorp](#) and [Agrium](#)), Mosaic, and CF industries. The first is the largest producer of [potash](#) (mainly Saskatoon on CP) and the third largest producer of [nitrogen](#) fertilizer in the world.

Mosaic in Florida's Bone controls three-quarters of annual phosphate production. And CF Industries' North American network of manufacturing and distribution facilities makes more than 90 percent of all N ferts used in the US and Canada using *all* the Class Is. Armed with this NPK info, go calling on your ferts customers and see what *they* see.

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