RAILROAD WEEK IN REVIEW

August 21, 2020

"In general, we tend to think of assets as things we own. Locomotives, railcars, tracks, land, buildings, tools, and software are obvious assets. Capital is also an asset, as are employees and the skills they bring to the job. An asset isn't an asset, however, until it's put to use. Until then it's a liability." — Hunter Harrison, How We Work and Why, page 23

For all the chatter about the benefits of "Precision Scheduled Railroading," I'm not convinced everybody is on the same page. I refer to page 10 in the Hunter Harrison Classic, *How We Work and Why, Running a Precision Railroad*. Self-published by CN in 2005, this little tome is generally regarded as the original PSR recipe book. Follow the instructions scrupulously and get the desired result. Shave a corner here or there and you won't. Hunter writes,

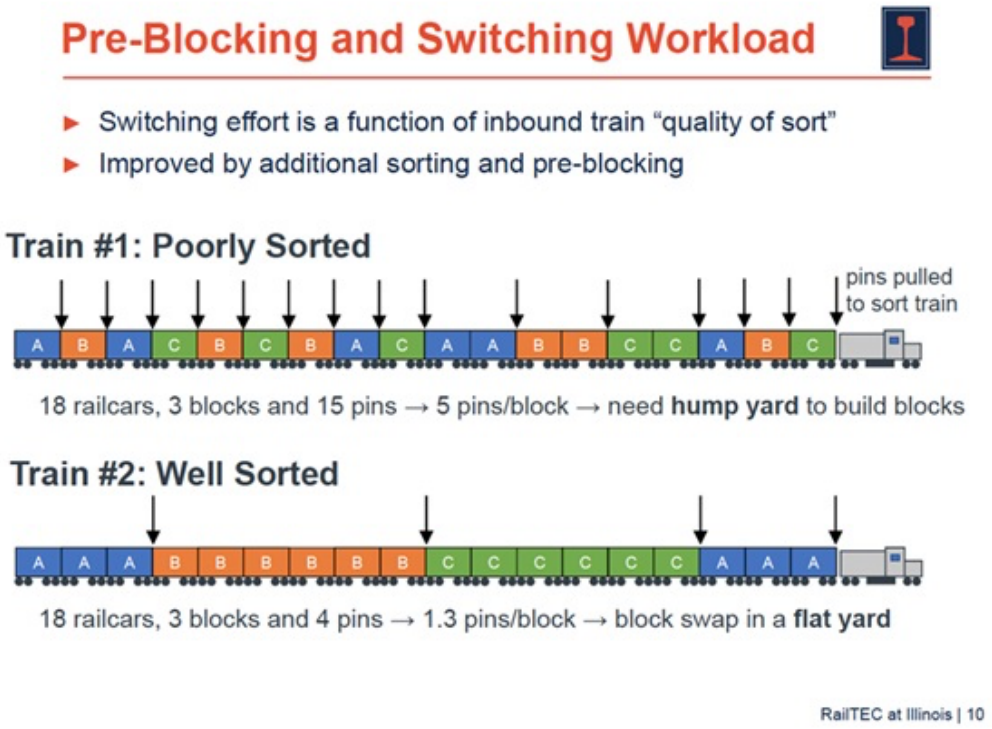
> CN has five guiding principles that form the foundation of everything we do. They cover these critical areas: Service, Cost Control, Asset Utilization, Safety, People. They do not change over time. They are constants in our planning and operating decisions. They are both the business and the cultural context of our company. And they apply to everyone in the company, not just the people who run the trains.

It appears to me that, unfortunately, in today's world, transforming a railroad from what it's aways been to a precision scheduled railroad starts with cost control, and everything is subservient to it. Not right. Hunter as all about moving cars, not trains. In 1983, as VP of Transportation at Burlington Northern, he developed systems to track cars, not trains — a train simply being on time didn't necessarily mean cars were where they were supposed to be.

Thus the Asset Utilization tenet. Hunter flattened hump yards to minimize dwell. The first cars in were the first cars out, regardless of commodity. For example, if the car is in Montreal's Taschereau Yard and must go to Winnipeg, you put it on the first train out to Winnipeg and get it out of town. That's why you see CN trains with everything from grain, intermodal, boxcars of paper, auto racks, center-beams all on the same train, all blocked for the distant node. That's the way it's supposed to be. But is it?

To help everybody get on the same PSR page, the Michigan Tech Transportation Institute's Rail Transportation Program recently hosted a virtual railroad panel on "Precision Scheduled Railroading — Class I and Shortline Connections." The lead presenter was C. Tyler Dick, a lecturer and principal research engineer at the Railtec program at the University of Illinois at Urbana-Champaign. Asset Utilization was Topic Number One.

A car in the yard simply isn't where it's supposed to be and is a liability. The best way to turn that car back into an asset is to place it and get paid. Tyler Dick showed how the Hunter model aims to combine the best elements of two opposing strategies: hold for tonnage and schedule adherence. You want consistent, frequent service to reduce dwell and transit time and use long trains to turn cars faster by avoiding hump yards — blocking for the distant node, as it were.



Train #1 comes in as a mine-run of empties and loads in no particular order. The only way to sort it out is to shove it over the hump into class tracks by destination. The cards in those tracks then go to the departure yard to be be built into outbounds by destination. There goes three or more days of dwell, depending ion the intervals between events.

Train #2 comes in pre-blocked by destination. Blocks go directly to the departure yard where they're building the next outbound to a specific destination. Take the Montreal-Winnipeg train above. The train is pre-blocked for destinations beyond Winnipeg where they go directly from the receiving yard to the departure for destinations beyond.

Short lines can help. Block your outbounds by destination so they can skip the hump, go directly to the departure yard, and get out of town ASAP. Trouble is, there are short lines where interchange frequency that was, for example, three days a week is now down to one. There are three downsides. For example, where formerly Monday-Wednesday-Friday locals now run Wednesdays only.

Cars that would have gone on the Monday train now have to wait for the Wednesday train. Two days dwell. Cars arriving Wednesday that would have left on Friday sit until the next Wednesday. Seven days dwell. If your customer can get delivery from his vendor in four days by truck, the railroad loses any competitive advantage.

Downside for the Class I: higher car hire cost, cost of the hump move, potential loss of revenue. Downside for the short line: trying to park 150 cars where there is only room for 100, having to space out spotting cars to accommodate customer unload schedules, and increased car hire. Downside for the customer: extra days in transit add to inventory carrying costs, creating potential out-of-stock situations costing the customer his customer's business, and, adding insult to injury, demurrage fees when his cars must be constructively placed due to bunching.

But the Class I has upsides, too. They cut two train starts per week, saving labor, fuel, and locomotive expense. Do it often enough in enough places and operating expense goes down more than the lost revenue, the operating ratio goes down, earnings per share goes up, and with it the share price. Seems to me that's an upside that's worth the downside.

Thus the cost-control tenet of Precision Scheduled Railroading becomes the most important thing in some places. Surely not CP, CN, or KCS. UP is coming around and BNSF, as the BN successor, has PSR in its veins already. CSX, after a rocky start, is showing progress and revenue unit gains of late suggest they're creating more customer satisfaction. NS, having brought in Cindy Sanborn as COO, could be on the mend.

The common thread among the Class Is that do it best is they they look at all five of Hunter's original Precision Railroad tenets. They've clearly shown why there's more to running a Precision Scheduled Railroad than mere cost-cutting.

Continuing the cost theme, a friend notes that railroads have pushed *fixed* costs from about 60 percent of costs down to about 30-35 percent over the past 30 years or so. Labor agreements on work rules, reduced asset inputs of all types and, lately, and bigger trains all contributed.

This allows you to turn down the volume cost dial, nearly doubling thresholds that were the norm, getting a 60 percent response rate instead of 30-35 percent. He writes there are now two corollaries. First, new incremental volumes/revenues are now more heavily *variable*-cost burdened. Second, that the new incremental volumes/revenues are relatively less attractive as a means of covering fixed costs than they used to be.