RailState

Innovation in Rail Network Visibility

Presentation to PNWARS Fall Meeting
October 11, 2023

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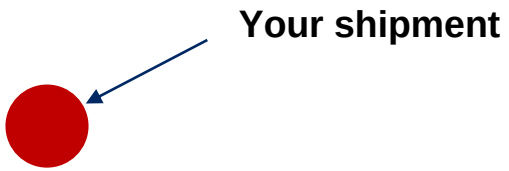
Managing the supply chain or just tracking your shipment?

Is following this dot good enough?



Or do you know what's really going on? Do you take action?

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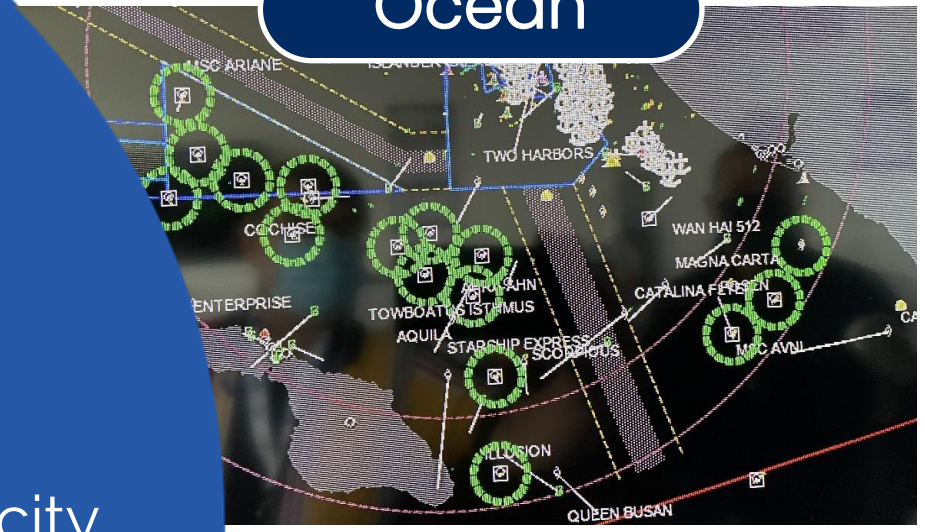
The State of Network Visibility

Network Visibility Uncovers

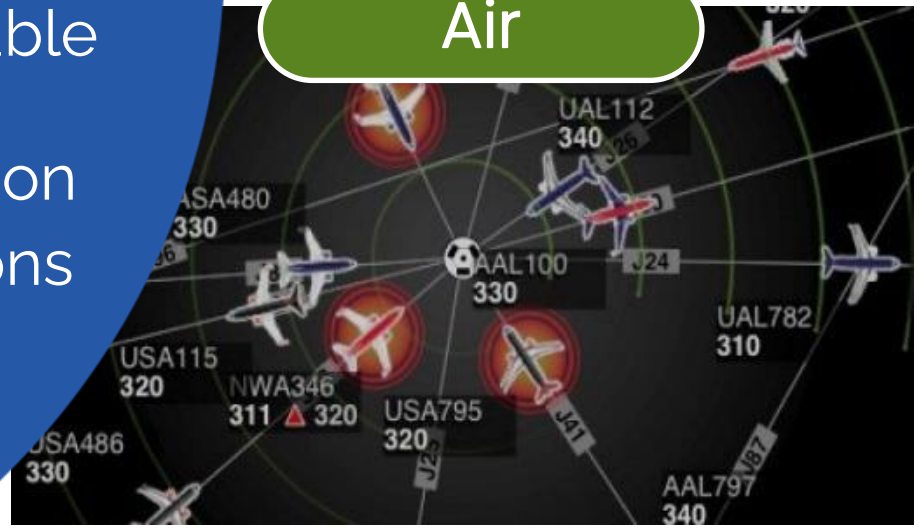
- Constrained capacity
- Irregular & unreliable service
- Network congestion
- Network disruptions

Ocean

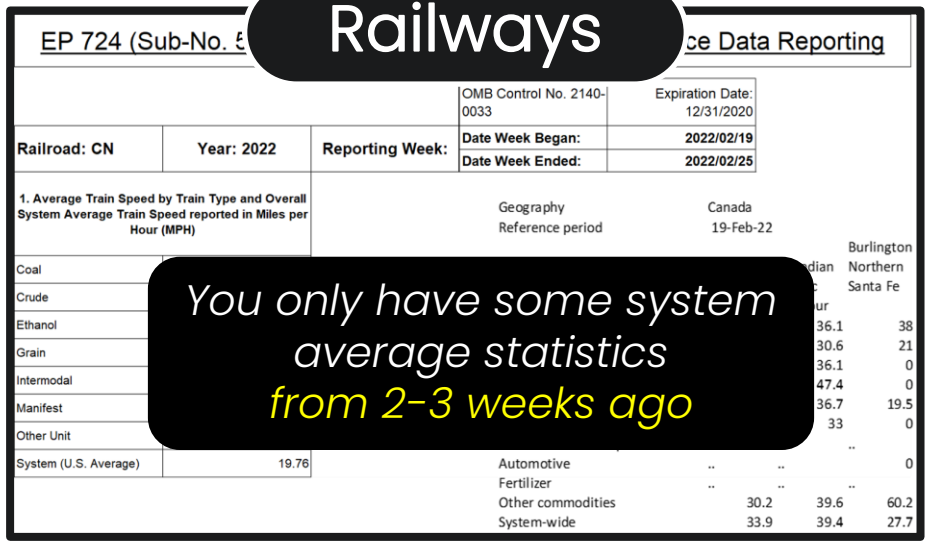


Roadways

Air



Railways



EP 724 (Sub-No. 5 ... ce Data Reporting

			OMB Control No. 2140-0033	Expiration Date: 12/31/2020
Railroad: CN	**Year: 2022**	**Reporting Week:**	**Date Week Began:**	**2022/02/19**
			Date Week Ended:	**2022/02/25**

1. Average Train Speed by Train Type and Overall System Average Train Speed reported in Miles per Hour (MPH)

Geography: Canada
Reference period: 19-Feb-22

		Burlington Northern Santa Fe
Coal		
Crude		
Ethanol		
Grain		36.1 38
Intermodal		30.6 21
Manifest		36.1 0
Other Unit		47.4 0
System (U.S. Average)	19.76	36.7 19.5
		33 0
		..
	Automotive	 0
	Fertilizer	.. .. ..
	Other commodities	30.2 39.6 60.2
	System-wide	33.9 39.4 27.7

You only have some system average statistics from 2-3 weeks ago

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Our Solution

Our sensor network uses **AI** to give customers visibility into

- Rail capacity
- Congestion
- Transit times
- Commodity flows

Proprietary RailState Sensor
outside of rail right-of-way

Sensor Collects:

- Car number
- Car type
- Speed
- Containers

Customer Data
available in one hour

Cloud based AI derives:

- Capacity
- Congestion
- Transit times
- Commodity flows

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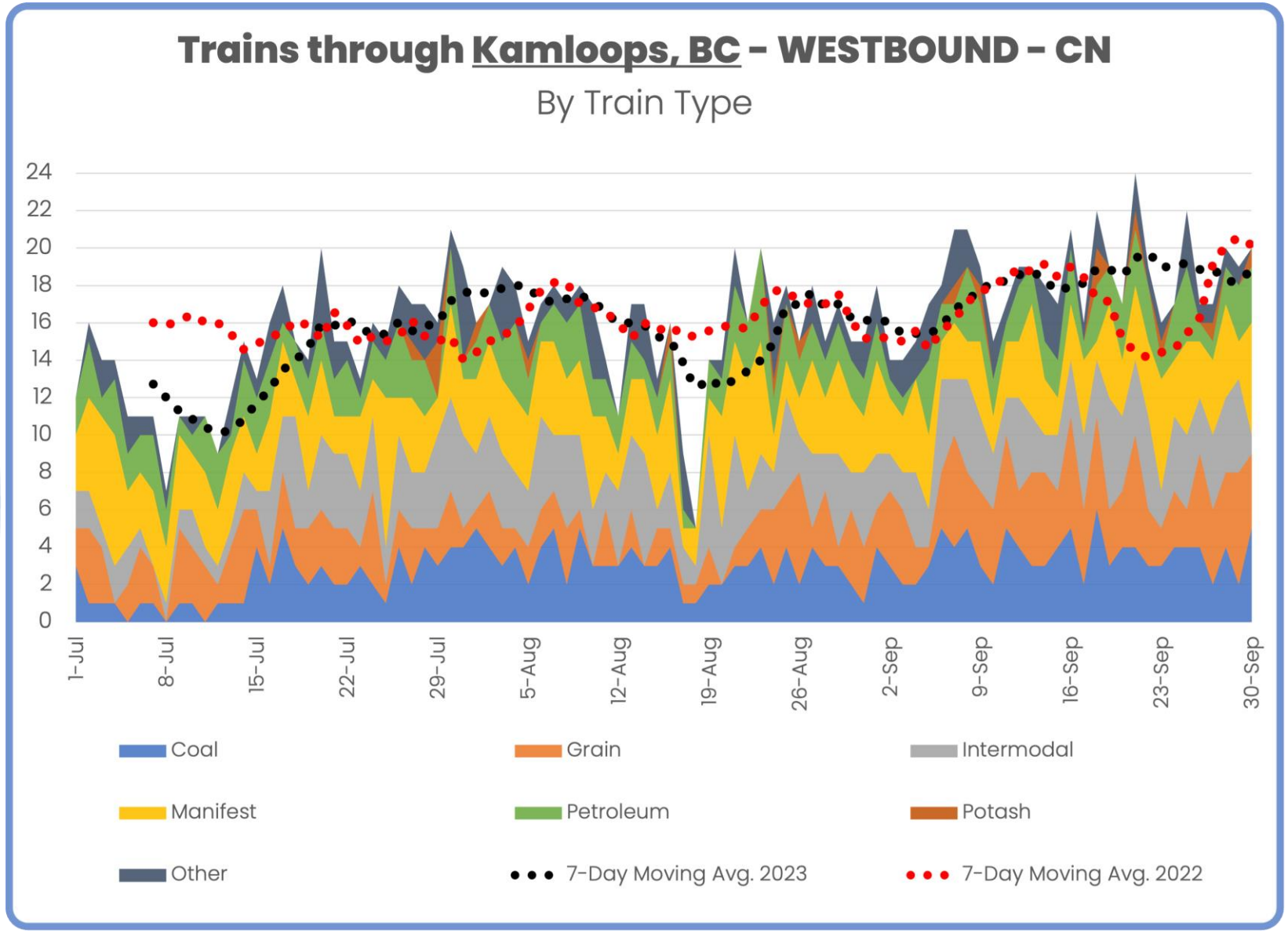
Canadian Rail Network Complete!
Starting in US Now in Southwest

Kamloops CN



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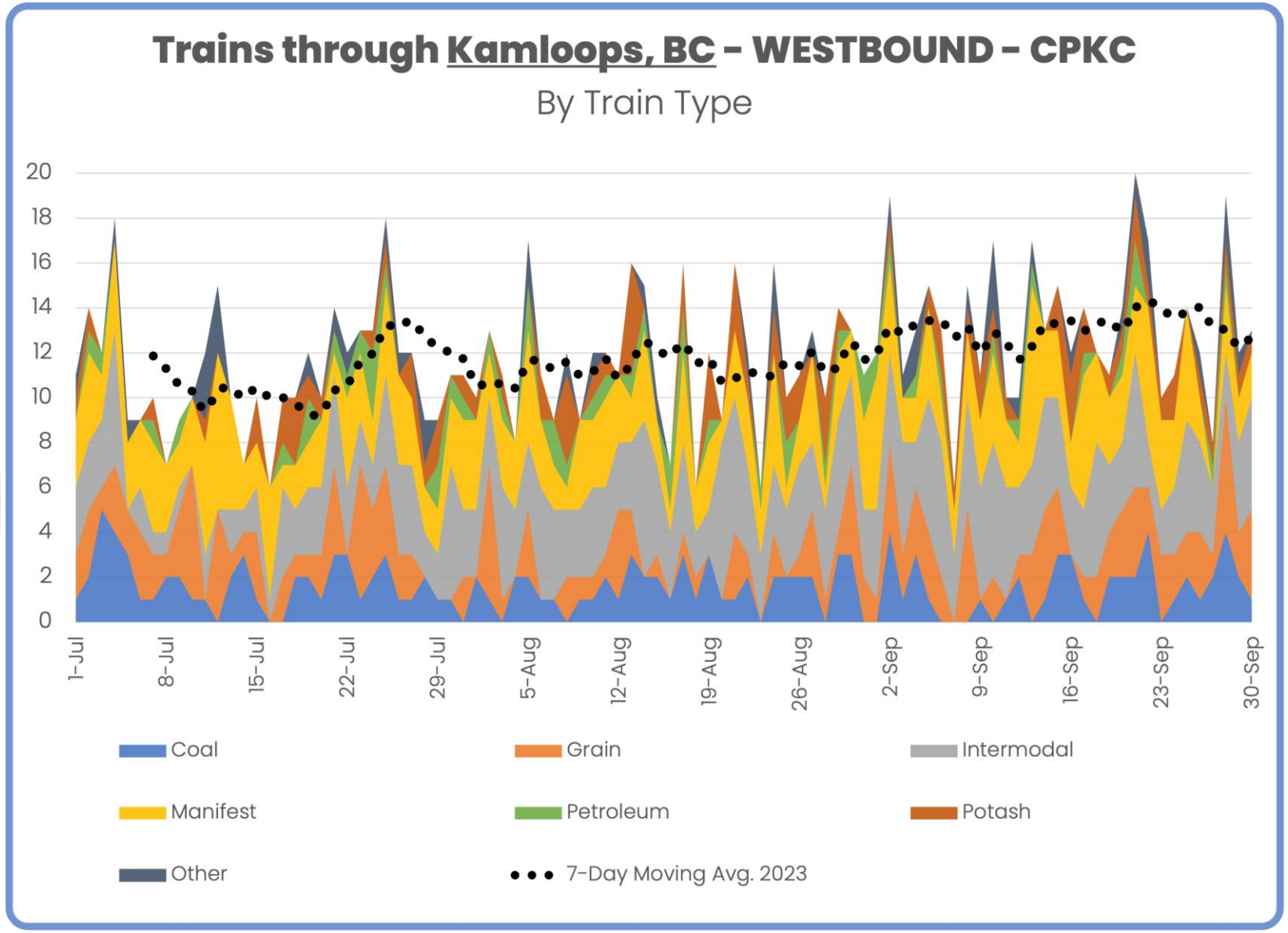
Kamloops CPKC



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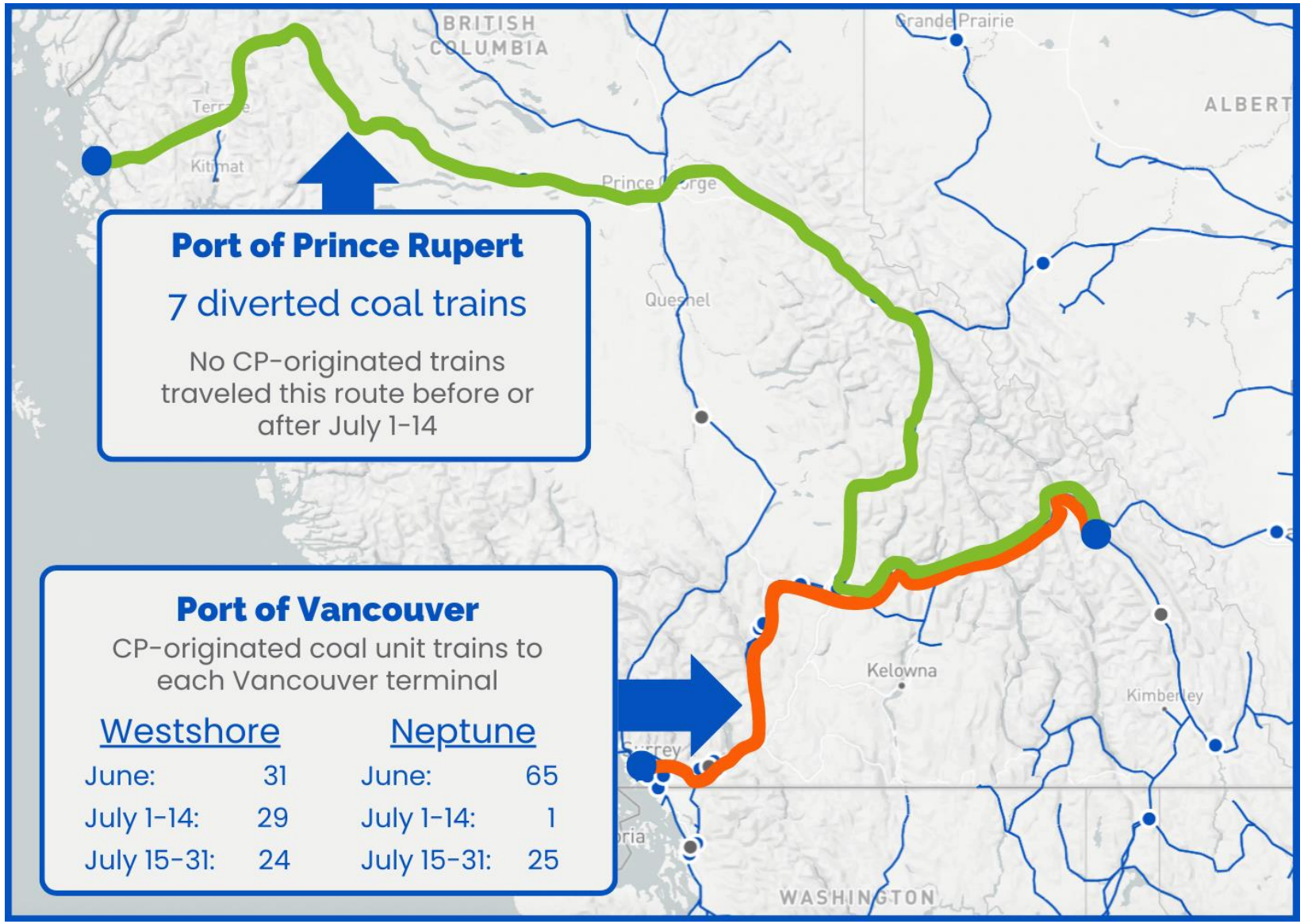
Coal Diverted

CP-originated coal unit trains



We identified 7 trains that took a long route to Prince Rupert during the strike period. No CP-originated coal trains have traveled this route before or since the strike period.

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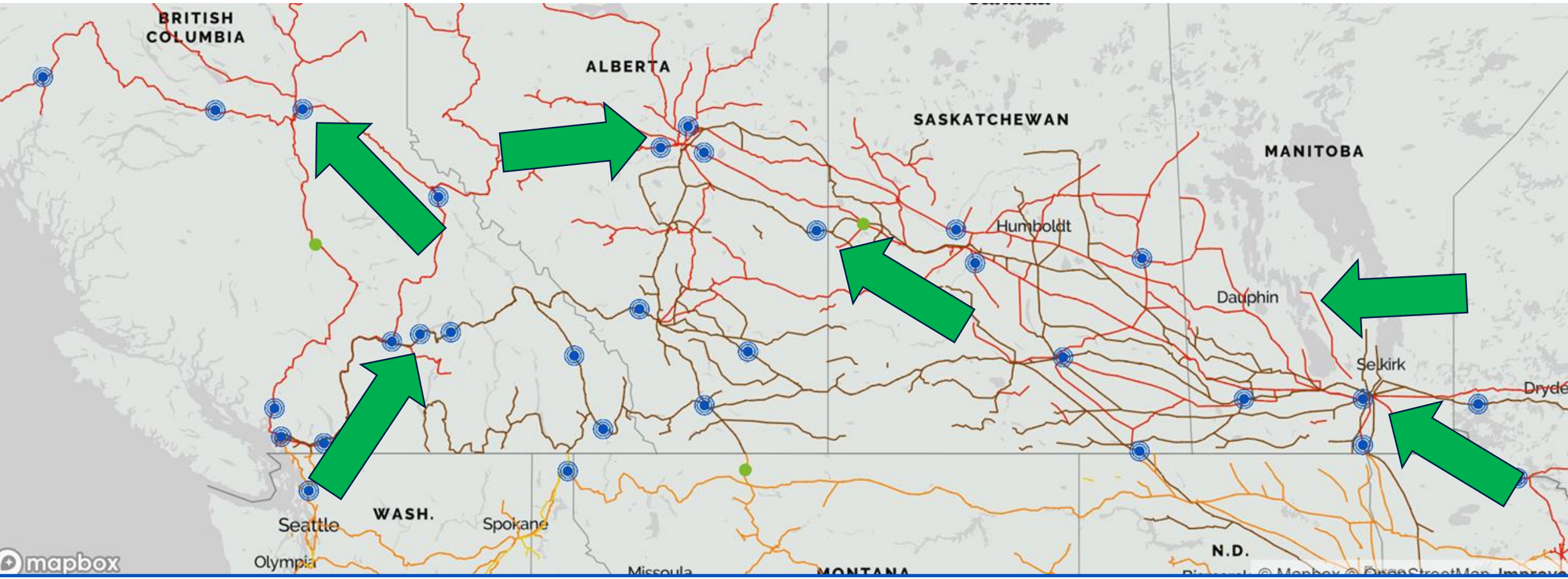
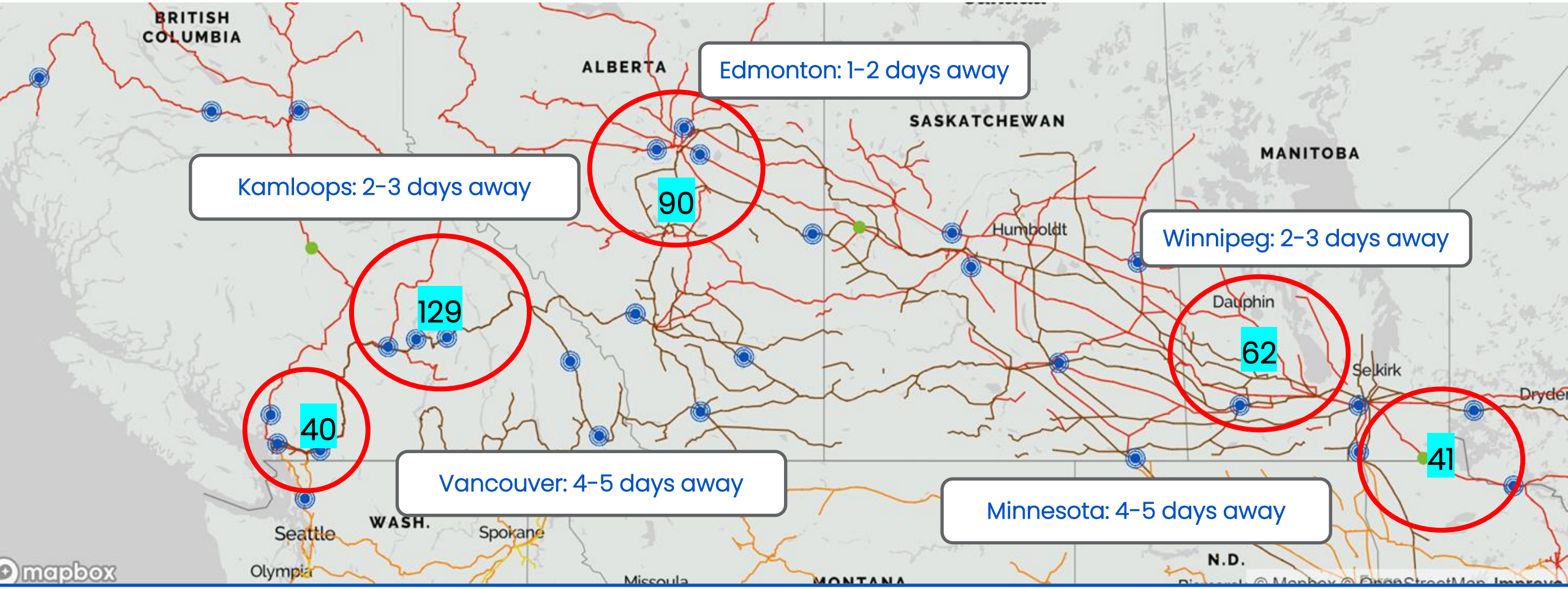
Empty Boxcar Flows

RailState has a view of most car movements in Canada



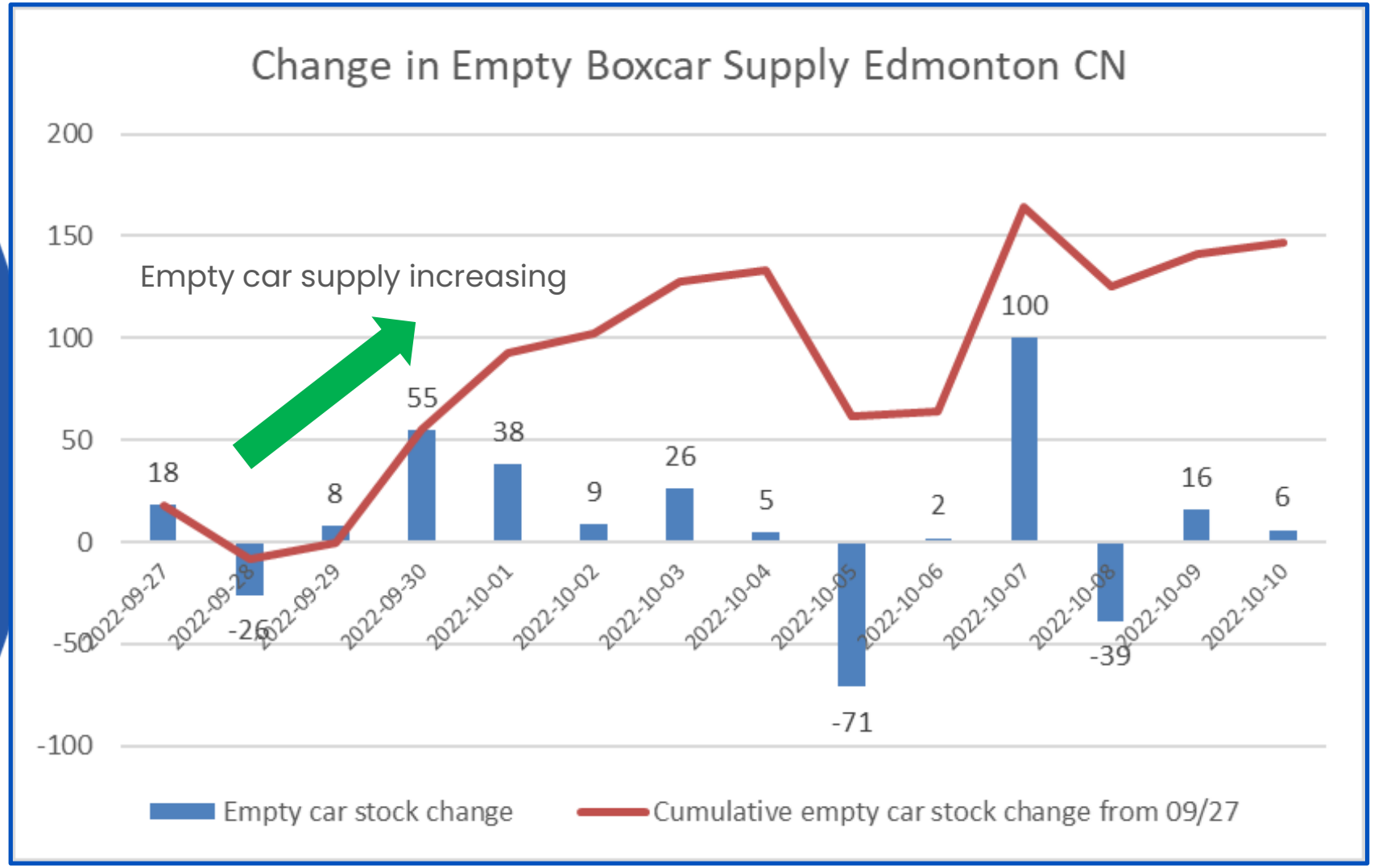
Total Empty Boxcar Pipeline

3 Day Average Supply by Zone & Days to Placement at Mills North of Edmonton- CN



Each Zone

Tracking Change in Total Empty Car Supply



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Data Unlocks Value

For Forest Products and Other Rail Customers

Plan Effectively

Know the empty car supply on the network and make decisions about what is coming your way and when

Negotiate with Knowledge

Know the network conditions for more informed car supply discussions with the railway

Use the Optionality You've Built

See problem areas and identify opportunities to plan production and shipments

Keep Customers Informed

Accurate network data lets you provide the service your customers expect

Keep Assets Moving

For private car owners/lessees - assets stay utilized and out of trouble

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Thank You

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