



STB UPDATE

SEPTEMBER 5, 2017



# Labor Day Highlights

- Terminal fluidity largely restored with yards well-equipped to execute the plan
- The lighter-volume holiday weekend allowed CSX to flush yards and advance cars
- Dwell and >48 hour dwelling cars have recovered to late Q2 levels
- Velocity accelerating and this week's focus turns to minimizing train delays while en route
- The combination of lower dwell, increased speed and reduced train delay will aid car fulfillment, transit and overall service experience
- CSX preparing for sound execution into a period of heavier volume

As previously communicated, improvements to gain momentum following Labor Day



# Continued progression in network performance as volume increases

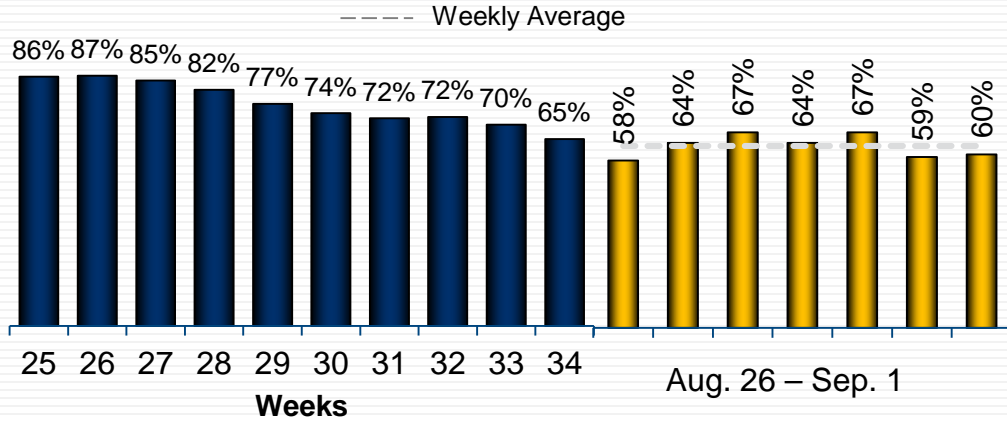
- Dwell improved five weeks in a row; velocity progressed well last week
- Right Car Right Train moving higher
- Crew and power resource levels remain well matched to demand
- Hump yards performing at a reliable level as volume up sequentially
- Western terminals recovered, secondary congestion contained
- Empty car fulfillment higher last week
- Local pull and place performance stable
- Customer problem logs down significantly week-over-week
- Interchange performance stable, on slightly elevated Westbound flows

CSX experienced congestion challenges at Western corridor terminals from mid-late July (weeks 29-31); original terminals now healthy and network recovery progressing

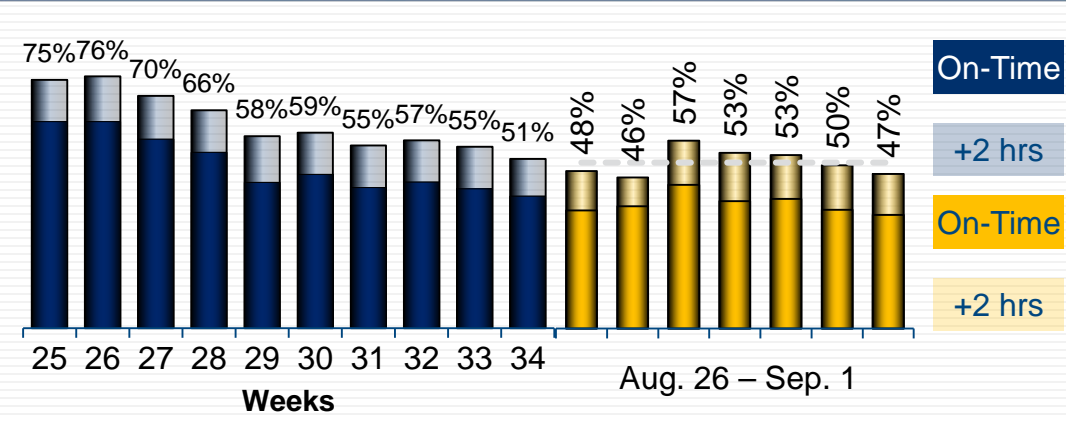


# Dwell improved each of the last five weeks; velocity climbing

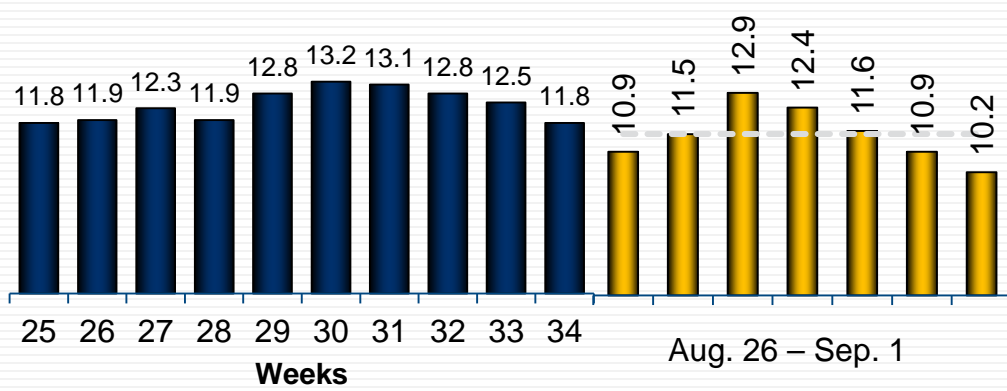
On Time Originations (%)



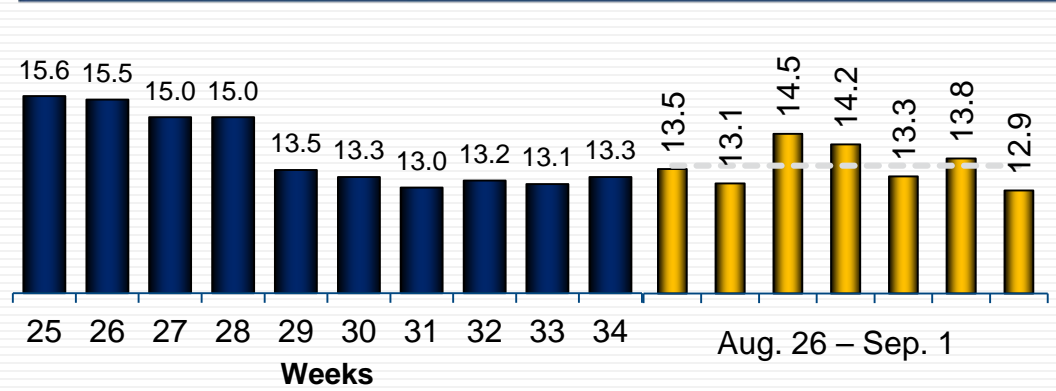
On Time Arrivals (%)



Dwell (hours)



Velocity (mph)



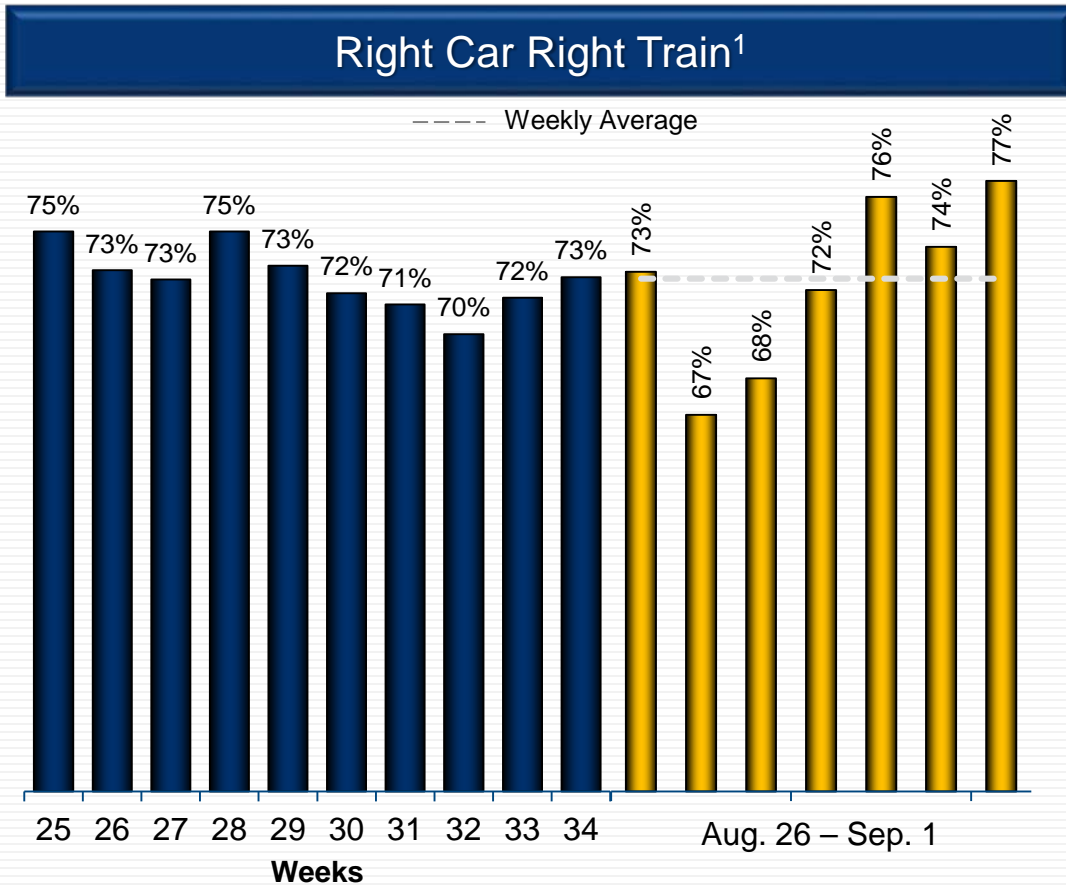
- Two disruptive derailments occurred in weeks 31 and 32, detrimentally impacting network performance

Note: Dwell and velocity displayed according to CSX methodology; explanation of CSX methodology can be found in appendix.





# Right Car Right Train holding relatively stable; less relevant in PSR

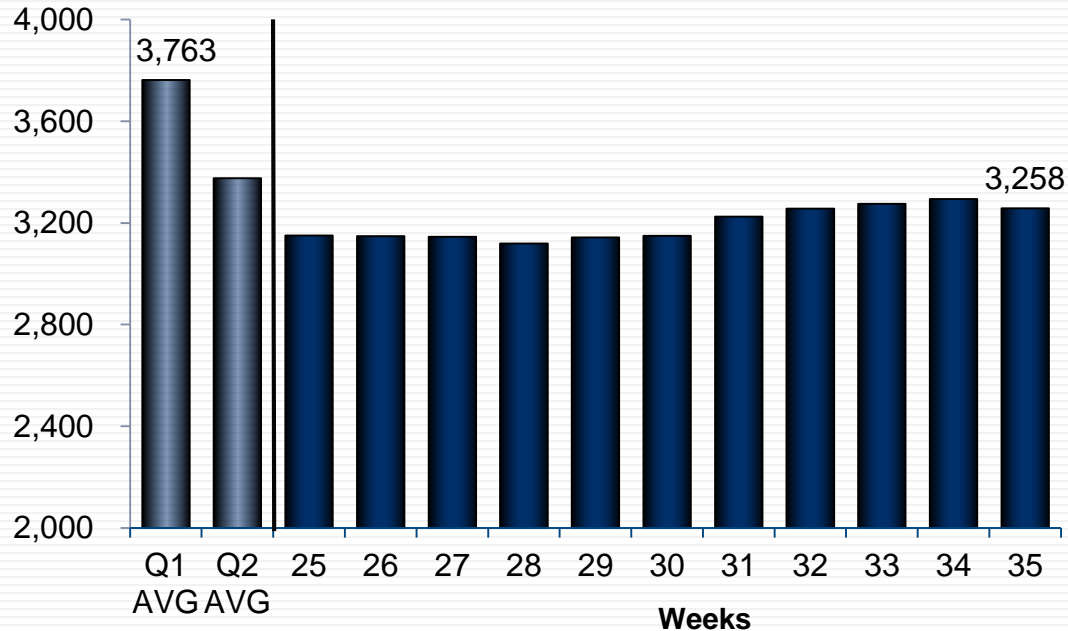


- Right Car Right Train is no longer a measure that CSX uses to manage its operation
  - In precision scheduled railroading (PSR), if a car can be advanced on another train to speed transit or ensure its on-time arrival, there is not one “right train”
- Car priority is to move cars quickly, on next available train
  - Asset utilization a key tenet of PSR
- Train priority is blocking integrity and departing all available, relevant cars from the yard
  - Blocking integrity certifies that a train is built correctly and shipments are headed to the correct location
  - Managed through field supervision



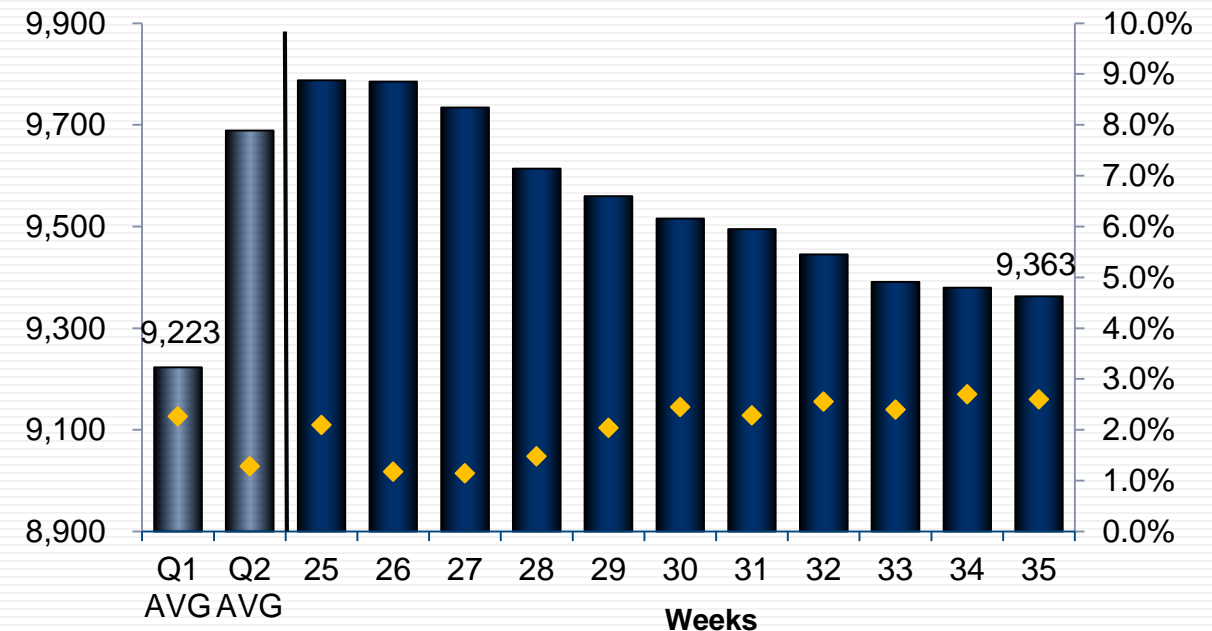
# Resourcing appropriately to meet business needs

## Active Locomotives



- Q3 locomotive level stable; recently added engines in response to incremental coal demand

## Train & Engine Headcount and Re-crew Rate<sup>1</sup>



- T&E trend tracking normal seasonality; re-crew rates remain at historic lows and stable

Power and crew availability steady in third quarter at approximately 99% and 95%, respectively

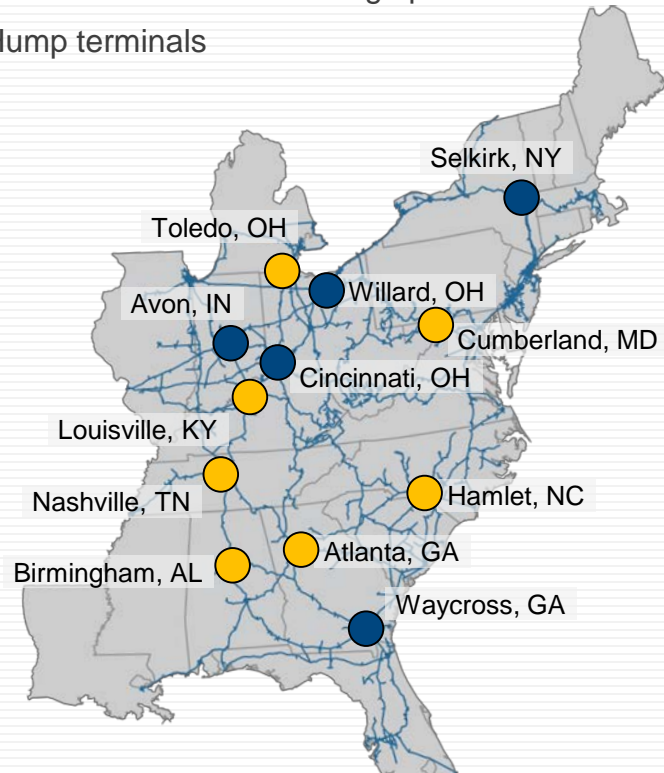
<sup>1</sup> Re-crew rate is re-crew people starts as a percent of total measured people starts, and it represents incidences of replacing a crew on the same train ID (generally due to hours of service)



# Hump yard performance steady

## CSX Hump Terminal Overview

- Transitioned to flat-switching operations
- Hump terminals

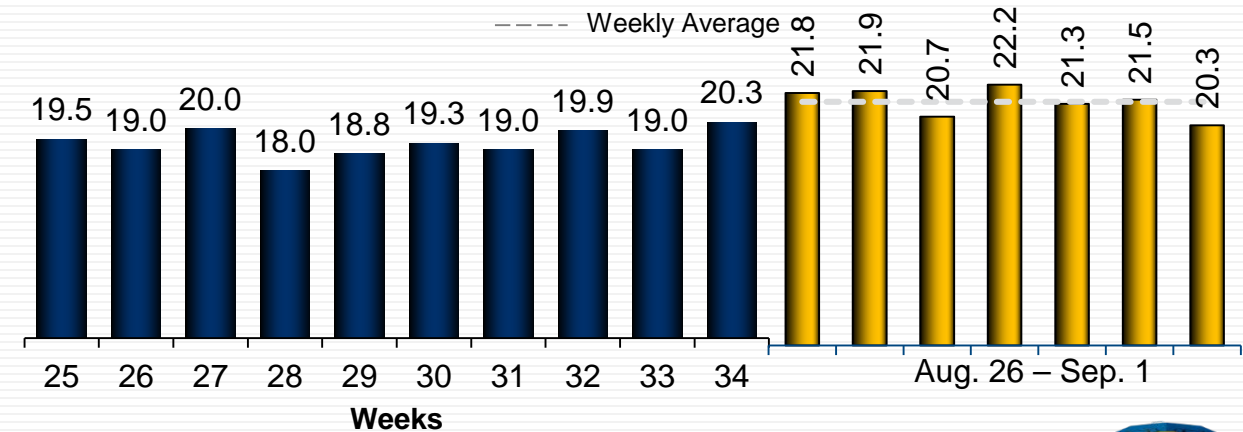


*Absolute number of humps not “good” or “bad”; goal is best mix of hump and flat yards for processing efficiency*

## ■ Key hump productivity and efficiency measures performing well

- Cars per man hour at hump yards accelerating through the quarter, indicating yard productivity with higher volume at remaining humps
- Dwell up last week with higher volume to be processed; volume at humps up 4% week-over-week

## Dwell at Hump Terminals<sup>1</sup>



<sup>1</sup> Dwell displayed according to CSX methodology; explanation of CSX methodology can be found in appendix



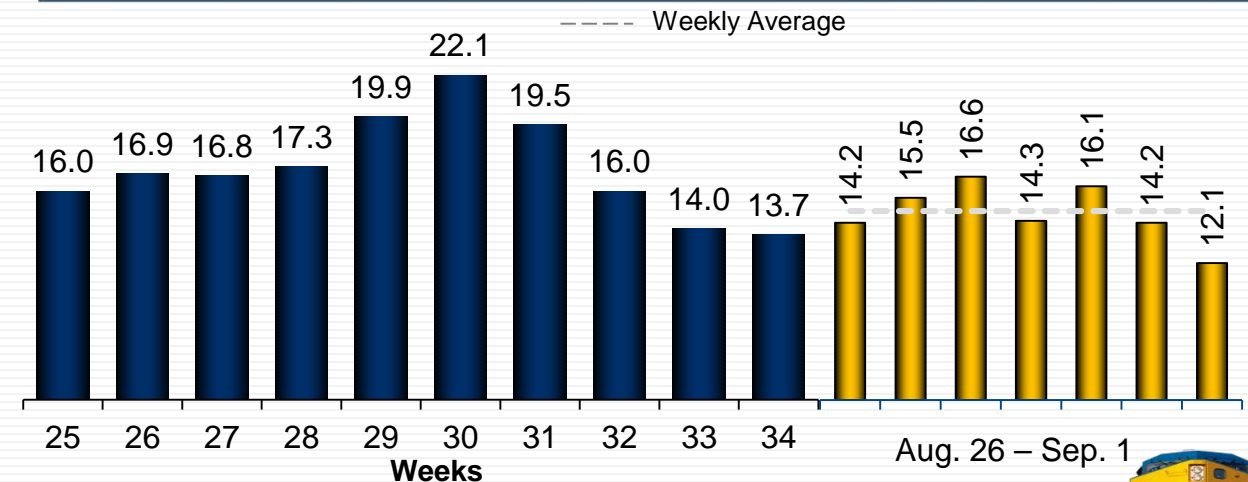
# Western performance improved; plan changes alleviating congestion

## Western Corridor Key Terminals



- Key terminal productivity and performance measures recovered in former “trouble” spots
  - Dwell recovered and in line with expectations
  - Greater yard productivity evident in cars per man-hour processed
- Train plan addressed secondary concerns
  - Leveraged Avon as near-term offset of increased volume flow through Russell, Columbus and Louisville
  - Dwell at these three locations down an additional 12% week-over-week, and 23% over two-week time period

## Dwell at Western Terminals<sup>1</sup>



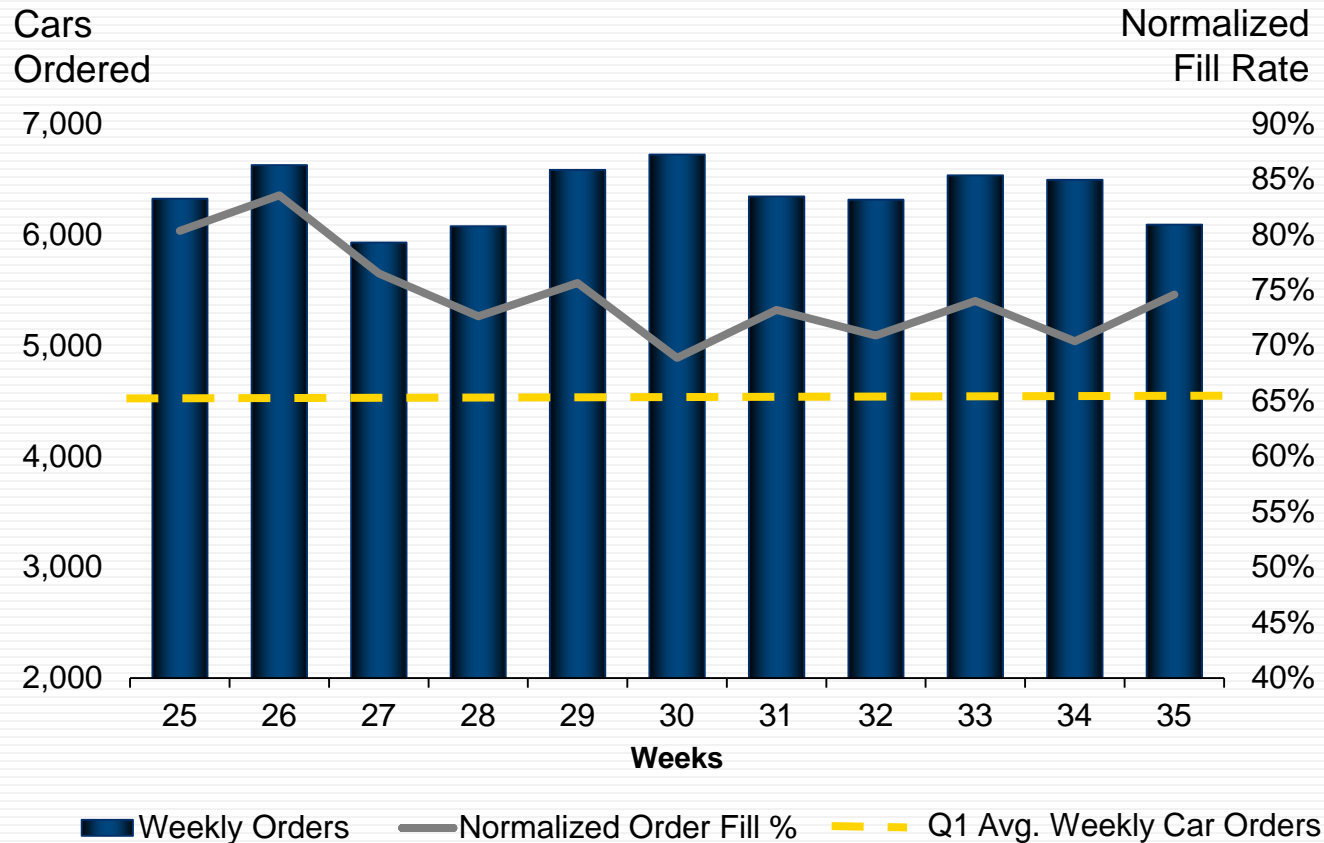
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# Car order fill to improve with reduced dwell

## Weekly Car Orders and Normalized Fill Rate

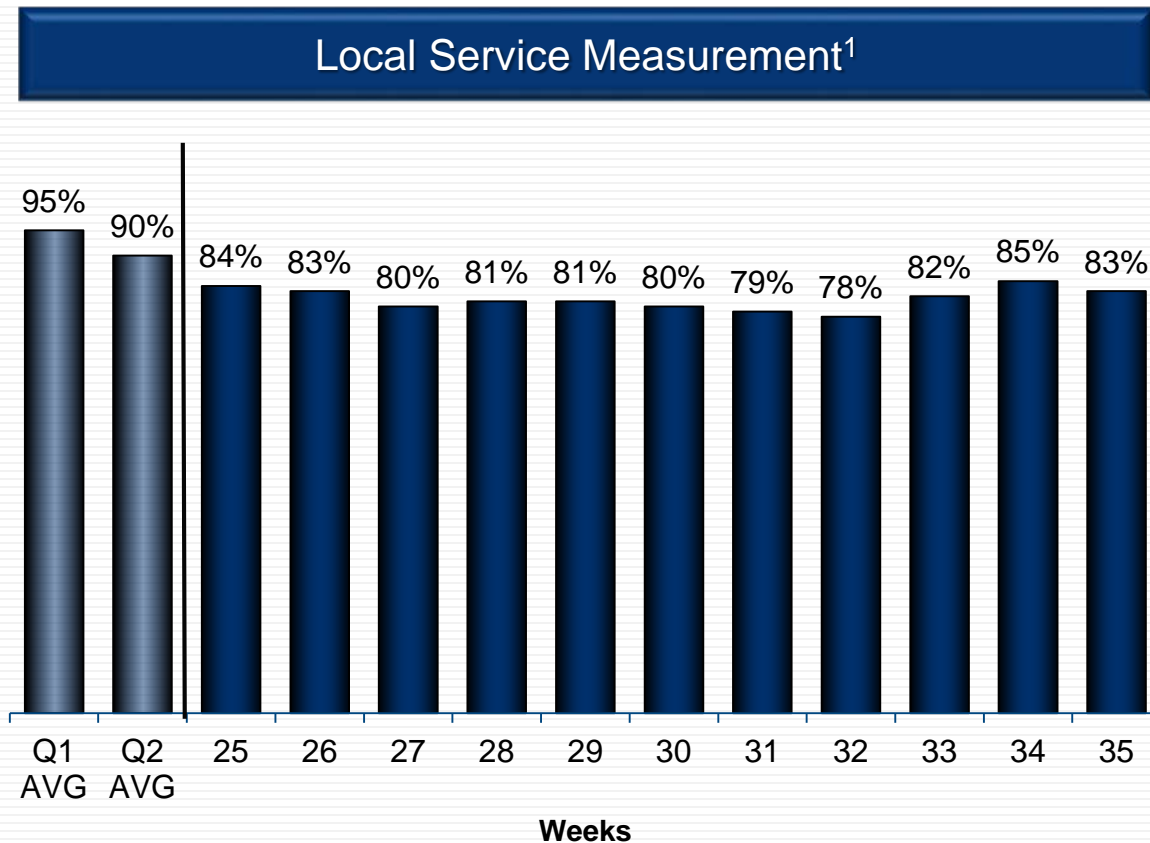


- Orders remain detached from demand
  - Car orders up ~40% in Q3 vs. Q1 2017
  - Merchandise carload expectations down slightly in comparable timeframe
- Empty car dwell increasing at customer locations; down on CSX
  - Return of empty customer dwell indicates reducing urgency of need; prevention of shutdown situations
  - Reduction of empty railroad dwell indicates improving network flow of empty cars
- Normalized fill rate<sup>1</sup> ranging 70-85%
  - Process evaluation underway to realign order level with demand and improve fulfillment accountability

<sup>1</sup> Normalized fill rate is a proxy of demand fulfillment against historical/expected order levels, as current order levels have disconnected with demand



# Last mile performance stable and returned to levels at end of Q2

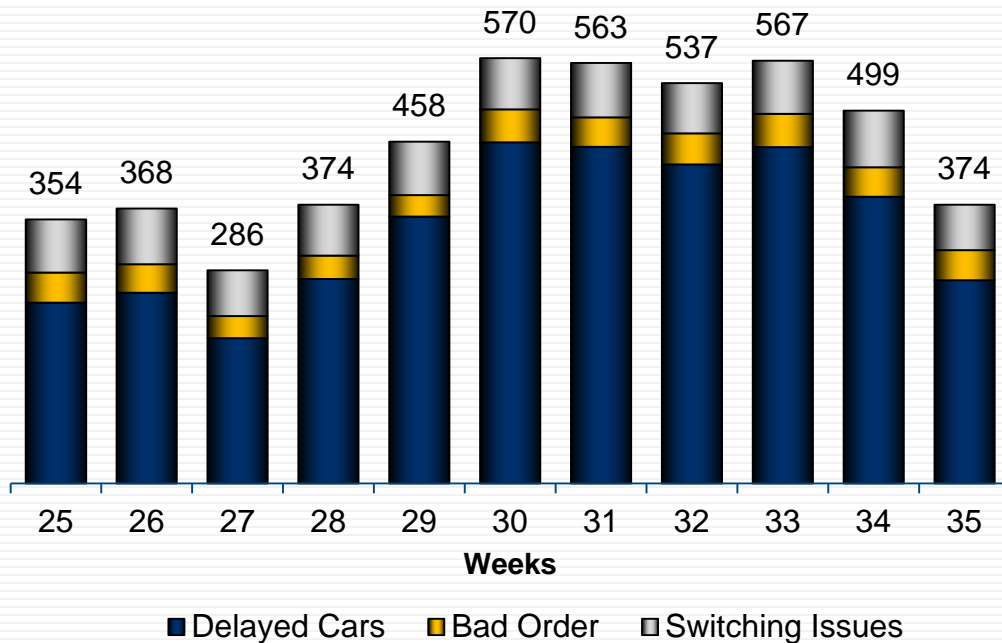


- Local Service Measurement (LSM) is no longer a metric that CSX uses to manage its operation
  - In precision scheduled railroading (PSR), focus on end-to-end transit and customer expectations
  - Last mile performance must be in combination with, not independent of, overall performance
- Accordingly, LSM as a reported metric was discontinued upon start of PSR implementation
  - At request of STB, last mile tracking reinstated to monitor through implementation period
  - Data reflects passive information flow, lacking prior focus on field reporting to ensure LSM capture
- Reliable pull and place expected as part of service to customers



# Customer problem logs down significantly week-over-week

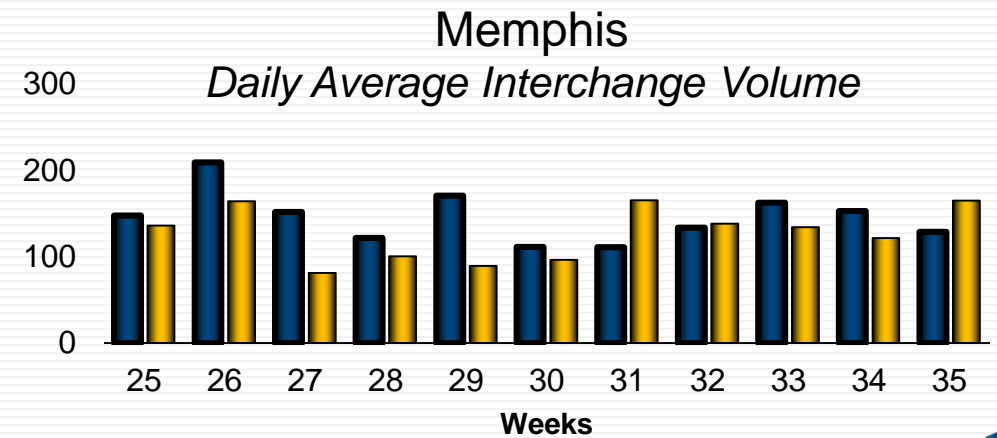
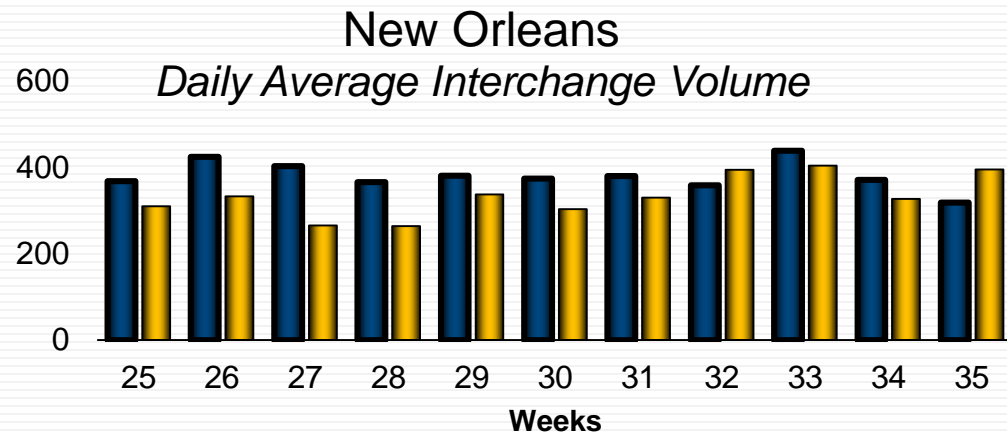
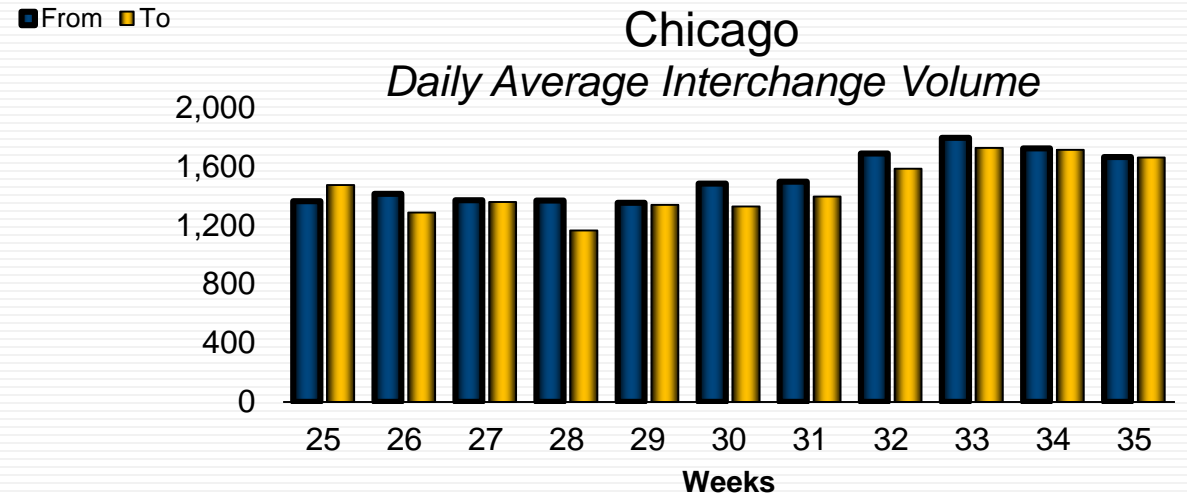
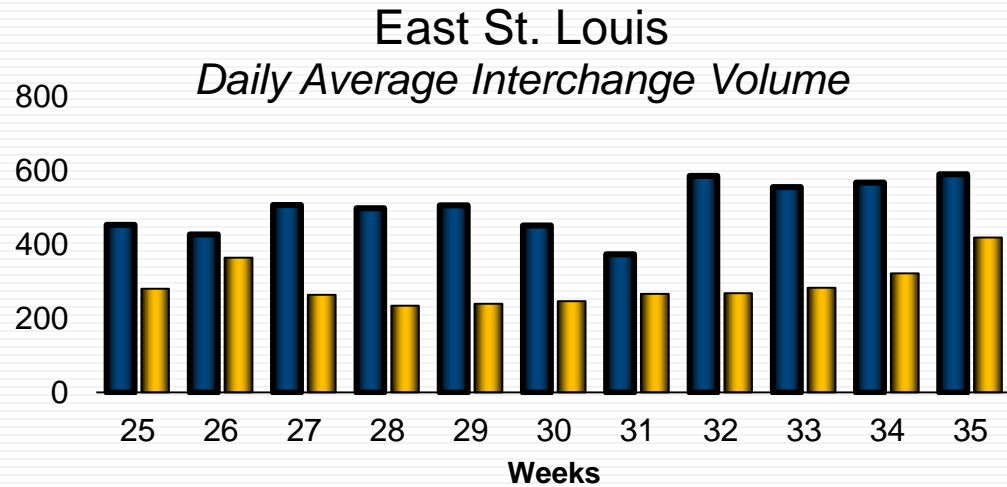
Customer Inquiries  
Daily Average Log Volume



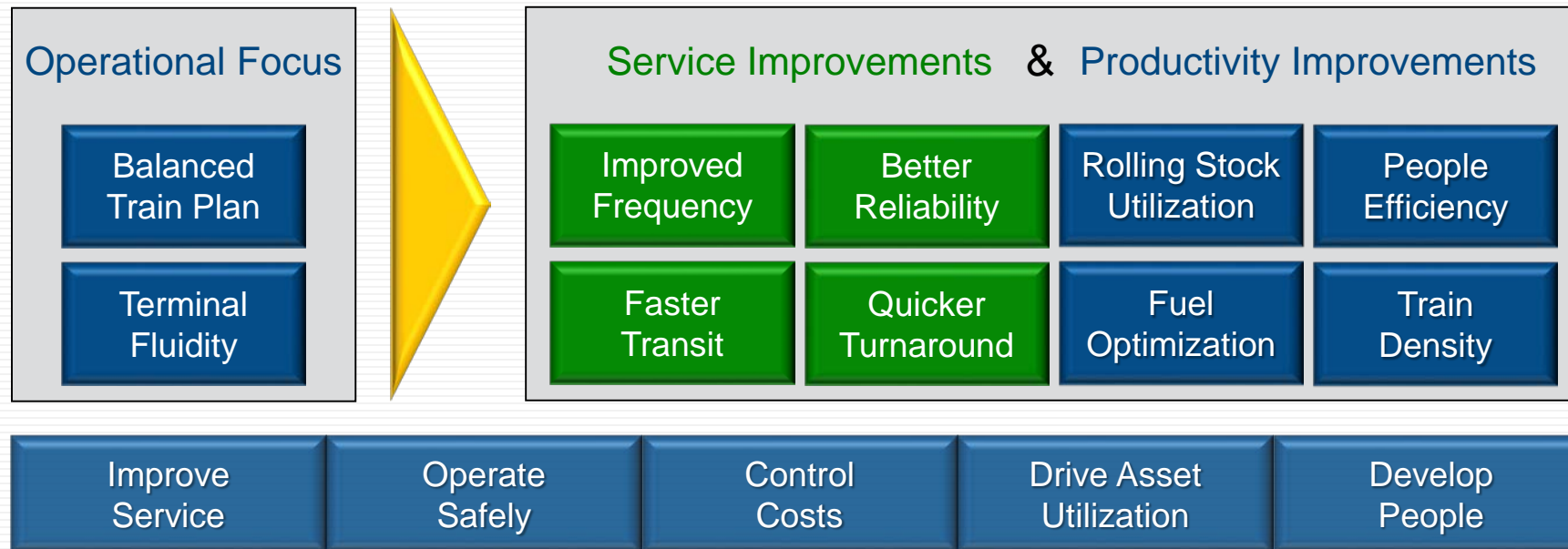
- **Delayed cars remain most frequent concern**
  - Trend in problem logs mirrors timeframe of network challenges and recovery
  - Enhanced focus on long-dwell cars ensures all cars benefit from fluidity gains
- **Customer service and commercial presence at key field location has aided communication and problem resolution**
  - New location assignments this week include: Columbus, Russell, Louisville, Cincinnati
- **Nearly 90% of problem logs have been addressed and closed to-date**
  - Managing pipeline of customer concerns to full resolution



# Westbound interchange higher last week on automotive flows



# Precision scheduled railroading to produce service improvement



- Realigned service frequency in second quarter
- Set the groundwork of a balanced train plan in early July
- Currently balancing between terminals' improving efficiency and modest adjustments in traffic flows to recover near-term service
- Improved execution on this foundation to drive long-term service and productivity improvements





# APPENDIX

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HOW TOMORROW MOVES



# CSX has changed methodology on some metrics reported publicly

## Velocity

Former	Line of road miles per hour
Current	Total miles traveled per hour, including intermediate dwell of the train
Change Reason	Includes full trip of a train and ability to diagnose overall speed profile (in support of improvement in asset cycle)
Effect on Metric	Reported velocity will be lower

## Dwell

Former	Car time at terminal, excluding cars on the same train ID
Current	All car time with a terminal work event, including through cars on same train ID (e.g. crew change)
Change Reason	Includes all dwell with ability to diagnose all events impacting car movement (in support of improvement in asset cycle)
Effect on Metric	Reported dwell will be lower

## Cars Online

Former	All cars on CSX, as determined by RailInc
Current	RailInc cars on CSX, excluding cars stored, under repair, sold, and private cars ex online inventory
Change Reason	More accurate measurement of active cars on line, i.e. cars for which CSX is focused on real-time, efficient movement
Effect on Metric	Reported cars online will be lower

Restated historical data in new methodology available on [csx.com/servicemetrics](https://csx.com/servicemetrics)

