



METRICS DEFINITIONS & METHODOLOGY

Docket No. EP 724 (Sub-No. 4)

Request	Definition of Term	Formula of Calculation
<p>1. System-average train speed by the following train types for the reporting week:</p> <ul style="list-style-type: none"> a. Intermodal b. Grain unit c. Coal unit d. Automotive unit e. Crude oil unit f. Ethanol unit g. Manifest h. System 	<p>The average speed measures the line-haul movement from origin to destination excluding terminal dwell hours calculated by dividing the total train miles traveled by the total hours operated. This calculation does not include the travel time or the distance traveled by: i) trains used in or around CP's yards; ii) passenger trains; and iii) trains used for repairing track.</p>	<p>Sum of total train miles / sum of total train hours</p> <ul style="list-style-type: none"> • Train hours does not include station time • Trains are grouped based on train number or symbol with the following definitions: <ul style="list-style-type: none"> - Intermodal = 100,101,112,113,118,119,142,143,198,199 - Grain unit = All 300 series - Coal unit = All 800 series - Automotive unit = 147 - Crude unit = 602 to 615 - Ethanol unit = all 630 and 640 series - Manifest = all 200 and 400 series - System = all symbolled trains
<p>2. Weekly average terminal dwell time, measured in hours, excluding cars on run-through trains (i.e. cars that arrive at, and depart from, a terminal on the same through train) for that carrier's system and its 10 largest terminals in terms of railcar capacity.</p>	<p>The average time a freight car resides within terminal boundaries of our 10 largest terminals (yards) in the US, expressed in hours.</p> <p>The timing starts with a car arriving in the terminal, a customer releasing the car to the Company, or a car arriving that is to be transferred to another railway. The timing ends when the car departs, a customer receives the car from CP or the freight car is transferred to another railway.</p> <p>Freight cars are excluded if they are being stored at the terminal, used in track repairs, or travelling on a run-through train which does not require any processing.</p>	<p>Sum of total dwell hours / sum of total cars handled</p> <p>Top 10 includes the following: Albany, Bensenville, Glenwood, Harvey, La Crosse, Mason City, Milwaukee, Nahant, Saratoga Springs, St Paul</p> <p>System calculation includes all yards for which data is available in the US (16 yards). Includes the ten listed above plus: Buffalo, Enderlin, Minneapolis Humboldt, Minot, Portage, Saratoga Springs, Thief River Falls</p>



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3. Total cars on line by the following car types for the reporting week: <ol style="list-style-type: none"> a. Box b. Covered hopper c. Gondola d. Intermodal e. Multilevel (Automotive) f. Open hopper g. Tank h. Other i. Total 	<p>Average total cars online CP's US network for the seven (7) daily "snapshots" from the week.</p> <p>Excludes Locomotives, Containers and miscellaneous cars on company service.</p>	<p>Sum of (<i>Monday Snapshot Count</i>+ <i>Tuesday Snapshot Count</i>..... + <i>Friday Snapshot Count</i>) / divided by # of days in the week (7)</p> <p>Cars are grouped into Car Types using their AAR Car Codes from UMLER.</p> <p>Snapshots taken between 00:01 – 02:00 every day.</p> <p>Rounded to the closest whole number.</p>
4. Weekly average dwell time at origin for unit train shipments sorted by grain, coal, automotive, crude oil, ethanol, and all other unit trains. (Dwell time refers to the time period from billing and release of a unit train at origin until actual movement by the carrier.)	<p>Time (in hours) between the release of a car by a customer (empty or loaded) to the first movement of the car by CP.</p> <p>Includes only cars that travelled on designated unit trains.</p> <p>Excludes cars with offline origins.</p>	<p>Average (<i>First Movement by CP Timestamp</i> minus <i>Release Loaded Event Timestamp</i>)</p> <p>Captures cars where the first movement by CP occurred within the given week.</p> <p>Grouped by the planned commodity to be moved on the designated unit train.</p>
5. The weekly daily average number of trains held short of destination or scheduled interchange for longer than six hours sorted by train type (intermodal, grain unit, coal unit, automotive unit, crude oil unit, ethanol unit, other unit, and manifest) and by cause (crew, locomotive power, or other).	<p>The weekly daily average of trains delayed by 6 or more hours in a single location.</p> <p>When more than one cause is present at the location, the main cause will be established based on the delay cause with the greatest amount of time at that location.</p>	<p>If sum of delay hours grouped by station >= 6 include, else exclude</p> <ul style="list-style-type: none"> • Trains are grouped based on train number or symbol with the following definitions: <ul style="list-style-type: none"> - Intermodal = 100,101,112,113,118,119,142,143,198,199 - Grain unit = All 300 series - Coal unit = All 800 series - Automotive unit = 147 - Crude unit = 602 to 615 - Ethanol unit = all 630 and 640 series



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<p>6. The weekly daily average of loaded and empty cars, stated separately, in revenue service that have not moved in more than 48 hours, sorted by the following classifications (intermodal, grain, coal, crude oil, automotive, ethanol, or all other). For purposes of this item, “moved” refers to making a train movement (departure) or a spot or pull from a customer location.</p>	<p>Average total cars online CP’s US network dwelling over 48 hours for the seven (7) daily “snapshots” from the week.</p> <p>Dwelling defined as the time (in hours) from the last movement event (i.e. Departure/Arrival or Spot/Pull from Customer).</p> <p>Excludes Locomotives, Containers and miscellaneous cars on company service.</p> <p>Excludes cars in Storage, in Placed Constructive status, in bad order status or Placed on a Customer’s track.</p>	<p>Sum of (<i>Monday Snapshot Count</i>+ <i>Tuesday Snapshot Count</i>..... + <i>Friday Snapshot Count</i>) / dived by # of days in the week (7)</p> <p>Grouped by: - > 48hours</p> <p>Snapshots taken between 00:01 – 02:00 every day.</p> <p>Rounded to the closest whole number.</p>
<p>7. The weekly total number of grain cars loaded and billed, reported by State, aggregated for the following Standard Transportation Commodity Codes (STCCs): 01131 (barley), 01132 (corn), 01133 (oats), 01135 (rye), 01136 (sorghum grains), 01137 (wheat), 01139 (grain, not elsewhere classified), 01144 (soybeans), 01341 (beans, dry), 01342 (peas, dry), and 01343 (cowpeas, lentils, or lupines). Total grain cars loaded and billed” includes cars in shuttle service; dedicated train service; reservation, lottery, open and other ordering systems; and, private cars. Additionally, please separately report the total cars loaded and billed in shuttle service (or dedicated train service) versus total cars loaded and billed in all other ordering systems, including private cars.</p>	<p>Total number of Grain cars billed on CP’s US network during the week with a commodity code of: 010, 011, 020, 021, 022, 023, 024, 025, 026, 072, 073, 074, 075, 076</p>	<p>Sum of cars billed.</p> <p><u>Shuttle/Dedicated</u> >90 unique car numbers billed on the same day from the same Origin to the same Destination</p> <p><u>Other</u> All other</p>



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<p>8. For the aggregated STCCs in Item 7, report by State the following:</p> <ul style="list-style-type: none"> a. The running total number of orders placed; b. Running total of orders filled; c. The number of orders unfilled, broken into 1-10 days, and 11+ days past due. 	<ul style="list-style-type: none"> a. <u>Running total orders</u>: Number of orders placed in reporting week b. <u>Running total orders filled</u>: Number of orders filled in reporting week c. <u>Number of orders unfilled</u>: Number of car orders with an empty want date between 1-10 days old and 11+ days old 	<ul style="list-style-type: none"> a. Count of car orders placed in the US in reporting week b. Count of car orders filled in the US in the reporting week c. Count of car orders with an empty want date, measured back in time from the week end date.
<p>9. Average daily coal unit train loadings versus plan for the reporting week by coal production region.</p>	<p>CP does not have any on line coal loading facilities in the US.</p>	<p>Not applicable</p>
<p>10. Plan versus performance for grain shuttle (or dedicated grain train) round trips, by region, updated to reflect the previous four weeks.</p>	<p>The estimated average trips per month completed by grain cars traveling on specific designated grain trains (dedicated customer trains) for the last 4 weeks.</p> <p>A Trip is defined as a full cycle from Placed Empty at customer to Placed Empty at customer again.</p>	<p>$(365 / 12)$ divided by $Average(Train\ Placed\ Empty\ Timestamp\ minus\ Previous\ Train\ Placed\ Empty\ Timestamp)$</p> <p>Captures cars where a Placed Empty at customer event occurred within the given week.</p>



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Car Loadings (Item 11)		
Request	Definition of Term	Formula of Calculation
1. Weekly Originated and Received Carloads broken down by commodity group	Total number of carloads originated and received for the specified week, broken down by the 22 commodity groups.	Sum of carloads in the given week, defined by Sunday to Saturday, snapshot taken on Monday.
2. Weekly Originated and Received Carloads of Fertilizer	Total number of carloads originated and received for the specified week, broken down by the specified Fertilizer STCC codes. (2871236, 2871235, 2871238, 2819454, 2812534, 2818426, 2819815, 2818170, 2871315, 2818142, 2818146, 2871244, 2819173, 2871451, and 2871313)	Sum of carloads in the given week, defined by Sunday to Saturday, snapshot taken on Monday. Qualified by the specified STCC codes for Fertilizer as requested.



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Chicago Specific Metrics		
Request	Definition of Term	Formula of Calculation
1. Average daily car counts in the key Chicago terminal yards of Barr, Bensenville, Blue Island, Calumet, Cicero, Clearing, Corwith, Gibson, Kirk, Markham and Proviso for the reporting week	Average total cars online CP's US network for the seven (7) daily "snapshots" from the week at the specific Chicago area FSAC's. FSAC's: 04540; 04541; 04538; 04543; 04520; 00295; 00498; 00511; 04517 Excludes Locomotives, Containers and miscellaneous cars on company service.	Sum of (<i>Monday Snapshot Count</i> + <i>Tuesday Snapshot Count</i> + <i>Friday Snapshot Count</i>) / dived by # of days in the week (7) Cars are grouped into Car Types using their AAR Car Codes from UMLER. Snapshots taken between 00:01 – 02:00 every day. Rounded to the closest whole number.
2. Average daily number of trains held for delivery to Chicago sorted by receiving carrier for the reporting week.	The average daily number of trains destined to Chicago which were delayed by 6 or more hours in a single location, due to foreign railway issue(s), grouped by receiving carrier.	Include trains where sum of delay hours grouped by station >= 6 AND train destination station is in the Chicago area AND delay reason is in group: F01 Foreign - Crew Availability F04 Foreign - Interchange Issue F06 Foreign - RR Capacity