

## EP 724 - US RAIL SERVICE ISSUES - DATA COLLECTION

|                         |            |                 |                  |           |
|-------------------------|------------|-----------------|------------------|-----------|
| Railroad: Union Pacific | Year: 2016 | Reporting Week: | Date Week Began: | 8/20/2016 |
|                         |            |                 | Date Week Ended: | 8/26/2016 |

### 1. System-Average Train Speed by Train Type for the Reporting Week (MPH)

|                 |      |
|-----------------|------|
| Intermodal      | 31.2 |
| Grain unit      | 23.2 |
| Coal unit       | 26.0 |
| Automotive unit | 25.6 |
| Crude oil unit  | 24.4 |
| Ethanol unit    | 21.8 |
| Manifest        | 23.0 |
| All Other       | 20.2 |

**Methodology:** AAR train speed measure. Calculated by dividing train-miles by total hours from origin to destination, less intermediate terminal time. Excludes the following train categories: yard, local, passenger, foreign, and maintenance of way.

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### 2. Weekly Average Terminal Dwell Time Measured in Hours Excluding Cars on Run Through Trains

|                |      |
|----------------|------|
| System Average | 27.3 |
|----------------|------|

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### 2. Weekly Average Terminal Dwell Time Measured in Hours for 10 Largest Terminals In Terms Of Railcar Capacity

|                           |      |
|---------------------------|------|
| 1 Chicago (Proviso), IL   | 29.1 |
| 2 Fort Worth, TX          | 28.2 |
| 3 Houston (Englewood), TX | 33.6 |
| 4 Livonia, LA             | 32.9 |
| 5 North Little Rock, AR   | 25.5 |
| 6 North Platte East, NE   | 28.7 |
| 7 North Platte West, NE   | 32.4 |
| 8 Pine Bluff, AR          | 27.9 |
| 9 Roseville, CA           | 30.3 |
| 10 West Colton, CA        | 32.1 |

**Methodology:** AAR terminal dwell measure. Average hours a car resides at the specified terminal location. Begins with train arrival, customer release, or interchange receipt. Ends with train departure, customer placement (actual or constructive), interchange offering or delivery. Excludes cars that move through a terminal on run-through trains. Also excludes stored cars, bad ordered cars, and maintenance of way cars.

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### 3. Total Cars On Line by Car Type for the Reporting Week

|                         |         |
|-------------------------|---------|
| Box                     | 23,212  |
| Covered hopper          | 105,590 |
| Gondola                 | 10,977  |
| Intermodal              | 14,510  |
| Multilevel (automotive) | 12,831  |
| Open hopper             | 41,078  |
| Tank                    | 67,927  |
| Other                   | 13,920  |
| Total                   | 290,045 |

**Methodology:** AAR cars on line measure. Calculated by AAR using Railinc data. Average daily inventory of all freight cars in revenue fleet regardless of location or status. Includes cars located on shortline railroads, cars delivered to customer facilities and stored cars. Excludes maintenance of way cars. Articulated cars are counted as a single unit.

### 4. Weekly Average Dwell Time at Origin for Unit Train Shipments Measured in Hours

|                       |      |
|-----------------------|------|
| Grain                 | 16.8 |
| Coal                  | 5.1  |
| Automotive            | 14.2 |
| Crude Oil             | 14.4 |
| Ethanol               | 22.0 |
| All Other Unit Trains | 17.6 |

**Methodology:** Measured at origin, from customer release to train departure. Release time is based on the last cut of five or more cars. Includes trains transporting both loaded and empty freight cars. Excludes trains received in interchange from another railroad and intermodal trains.

### 5. Weekly Total Number of Trains Held Short of Destination or Scheduled Interchange for Longer than 6 Hours by Train Type and Cause

| Train Type       | Cause |                  |                   |                  |        |  | Total |
|------------------|-------|------------------|-------------------|------------------|--------|--|-------|
|                  | Crew  | Locomotive power | Track maintenance | Mechanical Issue | Other  |  |       |
|                  |       |                  |                   |                  | Number | Briefly Explain Cause                            |       |
| Intermodal       | 0     | 4                | 0                 | 0                | 5      | Customer, Foreign Road, Incidents/Weather, Other | 9     |
| Grain unit       | 0     | 4                | 0                 | 0                | 17     |  | 21    |
| Coal unit        | 5     | 3                | 1                 | 0                | 33     |  | 42    |
| Automotive unit  | 0     | 0                | 0                 | 0                | 0      |  | 0     |
| Crude oil unit   | 0     | 0                | 0                 | 0                | 0      |  | 0     |
| Ethanol unit     | 1     | 1                | 0                 | 0                | 3      |  | 5     |
| Other unit       | 3     | 2                | 1                 | 0                | 11     |  | 17    |
| All other trains | 5     | 8                | 5                 | 0                | 19     |  | 37    |
| Total            | 14    | 22               | 7                 | 0                | 88     |  | 131   |

**Methodology:** Cumulative weekly number, based on daily snapshots of active trains held for more than six consecutive hours. No train is counted more than once each week. Excludes yard and local trains.

### 6. Weekly Total Number of Loaded and Empty Cars in Revenue Service That Have Not Moved In:

|            | Greater Than 120 Hours |       | Greater Than 48 but Less than or Equal to 120 Hours |       |
|------------|------------------------|-------|---|-------|
|            | Loaded                 | Empty | Loaded  | Empty |
| Intermodal | 141                    | 8     | 530   | 61    |
| Grain      | 76                     | 77    | 695   | 352   |
| Coal       | 146                    | 62    | 895   | 677   |
| Crude Oil  | 9                      | 18    | 6   | 45    |
| Ethanol    | 21                     | 17    | 244   | 261   |
| Automotive | 36                     | 64    | 581   | 537   |
| All Other  | 1,228                  | 1,755 | 8,307   | 7,870 |

**Methodology:** Cumulative weekly number, based on daily snapshots of freight cars in revenue service that have not moved for 48+ hours. Begins with pull from customer facility or interchange receipt, and ends with car placement at customer facility or interchange delivery. Excludes cars in hold status (constructively placed, stored, bad order, offered in interchange, etc.). Excludes empty cars not billed to a specific consignee, non-revenue car movements, and cars billed to Union Pacific Railroad. Excludes cars with no events reported during the past 28 days. Articulated cars are counted as a single unit. No car is counted more than once each week per car cycle.

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7. Weekly total 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.

Instruction: Please enter "0" if no data is being reported for a field.

| State | Total Grain Cars Loaded and Billed For All Ordering Systems | Total Grain Cars Loaded and Billed For Shuttle / Dedicated Train Service Ordering Systems | Total Grain Cars Loaded and Billed For Ordering Systems Other Than Shuttle / Dedicated Train Service |
|-------|---|---|--|
| AZ    | 4   | 0   | 4  |
| AR    | 0   | 0   | 0  |
| CA    | 45  | 0   | 45   |
| CO    | 198   | 107   | 91   |
| ID    | 1,679   | 1,104   | 575  |
| IL    | 320   | 295   | 25   |
| IA    | 1,575   | 1,512   | 63   |
| KS    | 1,337   | 976   | 361  |
| LA    | 0   | 0   | 0  |
| MN    | 545   | 421   | 124  |
| MO    | 30  | 0   | 30   |
| MT    | 18  | 0   | 18   |
| NE    | 1,565   | 1,401   | 164  |
| NV    | 5   | 0   | 5  |
| NM    | 0   | 0   | 0  |
| OK    | 38  | 0   | 38   |
| OR    | 8   | 0   | 8  |
| TN    | 0   | 0   | 0  |
| TX    | 149   | 110   | 39   |
| UT    | 5   | 0   | 5  |
| WA    | 6   | 0   | 6  |
| WI    | 3   | 0   | 3  |
| WY    | 0   | 0   | 0  |
| Total | 7,530   | 5,926   | 1,604  |

### Methodology:

Number of grain cars loaded and billed each week by state and type of train service. A carload is counted when the loaded car is released by UP's customer or received in interchange from another railroad. State is based on UP origin. Shuttle / dedicated train service includes cars moving on grain shuttle trains. Other than shuttle / dedicated train service includes all other cars moving on unit grain trains or manifest service.

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8. For the aggregated STCCs in item 7, report by State the following: a. running total number of outstanding car orders (a car order equals one car); b. average number of days late for all outstanding car orders; c. total number of new car orders received during the past week; d. total number of car orders filled during the past week; and e. number of orders cancelled, respectively, by shipper and railroad during the past week.

| State | a. Running Total Number of Outstanding Car Orders | b. Average Number of Days Late For All Outstanding Grain Car Orders | c. Number of New Car Orders | d. Number of Car Orders Filled | e.1. Number of Orders Canceled By Shipper | e.2. Number of Orders Canceled By Railroad |
|-------|---|---|-----------------------------|--------------------------------|---|--|
| AZ    | 0   | 0   | 7                           | 0                              | 0   | 0  |
| AR    | 0   | 0   | 0                           | 0                              | 0   | 0  |
| CA    | 0   | 0   | 41                          | 33                             | 0   | 0  |
| CO    | 11  | 0   | 6                           | 4                              | 0   | 0  |
| ID    | 17  | 0   | 114                         | 56                             | 0   | 0  |
| IL    | 0   | 0   | 2                           | 8                              | 0   | 0  |
| IA    | 5   | 0   | 26                          | 69                             | 0   | 0  |
| KS    | 619   | 5   | 1,142                       | 241                            | 0   | 0  |
| LA    | 0   | 0   | 0                           | 0                              | 0   | 0  |
| MN    | 3   | 0   | 20                          | 34                             | 0   | 0  |
| MO    | 6   | 29  | 429                         | 41                             | 0   | 0  |
| MT    | 2   | 0   | 34                          | 17                             | 0   | 0  |
| NE    | 522   | 0   | 350                         | 185                            | 0   | 0  |
| NV    | 0   | 0   | 0                           | 0                              | 0   | 0  |
| NM    | 0   | 0   | 0                           | 0                              | 0   | 0  |
| OK    | 123   | 0   | 260                         | 38                             | 0   | 0  |
| OR    | 1   | 0   | 0                           | 6                              | 0   | 0  |
| TN    | 0   | 0   | 0                           | 0                              | 0   | 0  |
| TX    | 75  | 0   | 8                           | 3                              | 0   | 0  |
| UT    | 0   | 0   | 5                           | 0                              | 0   | 0  |
| WA    | 0   | 0   | 0                           | 0                              | 0   | 0  |
| WI    | 0   | 0   | 208                         | 0                              | 0   | 0  |
| WY    | 0   | 0   | 0                           | 0                              | 0   | 0  |
| TOTAL | 1,384   | 2   | 2,652                       | 735                            | 0   | 0  |

**Methodology:** Per the tariff, Union Pacific accepts grain orders for half-month periods. Outstanding orders include unfilled guaranteed orders from prior half-month periods plus all unfilled guaranteed orders for the current half. Average number of days late for outstanding orders: For any outstanding orders from prior half-month periods, we calculate the number of days past the end of the half that the cars were ordered for. New car orders are requests received during the reporting period for the next half-month period and beyond. Car orders filled are the number of empty cars delivered to customers for loading during the reporting period. For offline customers, orders are filled when cars are delivered or offered in interchange to the connecting carrier. The data in columns a and b is calculated from a snapshot of outstanding car orders taken every Monday. The data in columns c, d, and e is based on a reporting period that spans Sunday through Saturday. This metric excludes cars in UP's shuttle train program because those cars are controlled by the shuttle operator.

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### 9. Plan vs. Performance For Grain Shuttle (Or Dedicated Grain Train) Round Trips, By Region, Updated To Reflect The Previous Four Weeks

| Region<br>(Please Specify<br>Destination Region) | Trip Performance<br>Previous Four Weeks |
|--|---|
| AR/TX  | 3.8                                     |
| CA/AZ  | 3.2                                     |
| Gulf   | 3.0                                     |
| Mexico   | 2.0                                     |
| PNW  | 6.2                                     |
| Other Domestic                                   | 5.2                                     |

#### Methodology:

Average trips per shuttle set per month = 720 hours per month / (Average loaded cycle hours + Average empty cycle hours).  
A loaded cycle is measured from loaded release to empty release. An empty cycle is measured from empty release to loaded release. The average cycle times are calculated for all cycles that closed during the 4-week reporting period.  
Measure includes routine inspection and preventative maintenance.

### 10. Average Daily Coal Unit Train Loadings vs. Plan for the Reporting Week By Coal Production Region

| Region             | Loadings Average<br>Current Week |
|--------------------|----------------------------------|
| Powder River Basin | 19.6                             |
| Illinois Basin     | 0.4                              |
| Uinta Basin        | 4.7                              |

#### Methodology:

Average daily count of loaded coal trains released by the mines