

COMMUTER RAIL SYSTEM
ON-TIME PERFORMANCE REPORT

July 2016



COMMUTER RAIL ON-TIME PERFORMANCE

July 2016

This report presents an analysis of the July 2016 train delays as reported for Metra's eleven commuter rail lines. On-time is defined, for this analysis, as those regularly scheduled trains arriving at their last station stop less than six minutes behind schedule. Trains that are six minutes or more behind schedule, including annulled trains (trains that do not complete their scheduled runs), are regarded as late. "Extra" trains (trains added to handle special events but not shown in the regularly published timetables) are excluded from on-time performance calculations unless shown in special-event schedules that include all intermediate station stop times and are distributed publicly via Metra's website or on paper flyers. Cancelled (not annulled) trains and non-revenue trains are also excluded from on-time performance calculations.

On-Time Performance Tables

Table 1 presents the number of train delays by rail line and service period. During July 2016, Metra operated 16,731 scheduled trains, including scheduled "extras", if any. 769 of these trains were delayed (late or annulled), representing an on-time performance rate of 95.4%. Table 2 lists on-time percentages by line for each month and year since 2011.

Table 3 lists each train that was on time for less than 85% of its weekday runs in July 2016, in order of line, train, and dates delayed. The codes in the 'Delay Code' column of Table 3 are defined in Table 4 and shown sorted by delay-cause category and carrier designation in Table 5. Effective January 1, 2012, January 1, 2014, and July 1, 2016, Metra is using an expanded set of delay codes, to provide more detail about the cause of and responsibility for each train delay.

Table 6.a shows the frequency of train delays by delay-cause control and by line during July 2016. Of the 769 delays systemwide in July 2016, all but 362 (47%) were beyond Metra's control. Table 6.b shows the average frequencies over the previous four Julys, and Table 6.c shows the differences between Table 6.a and Table 6.b., illustrating that in July 2016, 32 fewer delays than the average over the previous four Julys were controllable. Table 6.d shows the delay-cause control frequencies since the beginning of the year. Of the 4,605 delays in 2016, all but 2,229 (48%) were beyond Metra's control.

Table 7 provides a daily listing of the number of delays by line and branch for July 2016.

Table 8.a shows the frequency of train delays by delay-cause category and by line during July 2016. Table 8.b shows the average frequencies over the previous five Julys, and Table 8.c shows the differences between Table 8.a and Table 8.b. There were 769 delays systemwide in July 2016, 391 less than the average over the previous five Julys. Table 9.a shows delays from the beginning of the year through July 2016. Table 9.b shows the average frequencies from the beginning of the year through July of each of the previous five years, and Table 9.c shows the differences between Table 9.a and Table 9.b. Tables 10.a and 10.b display the systemwide frequency of train delays by cause and by month, for 2016 and 2015 respectively, and Table 10.c shows the difference between the two. From January through July of 2016, a total of 4,605 trains were delayed, compared to 5,118 trains delayed in the same seven months of 2015.

In Tables 8 through 10, delays by cause are separated into 'Metra/PSA' and 'Foreign' designations, where applicable. 'Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation. 'Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific

freight operations. See Table 5 for a detailed breakdown of delay codes by cause category and carrier designation.

Table 11 shows, by line and month, all train delays caused by freight operations over the past 24 months. In July 2016 freight operations delayed 82 trains systemwide, compared to 116 a year earlier. Tables 12.a and 12.b display the frequency of lift-deployment train delays by line and month, for 2016 and 2015 respectively. A total of 11 trains were delayed by lift deployment in July 2016.

A review of July 2016 late trains by duration of delay is shown in Table 13. The range with the greatest number of delays was, as usual, six-to-ten minutes, accounting for 43.8% of all late trains. Table 14 shows that the average length of delay was 17.3 minutes in July 2016. It should be noted that these averages relate only to reportable delays (i.e., trains late by six minutes or more).

Changes in On-Time Performance Reporting Calculations (effective with the May 2011 On-Time Performance Report)

“Extra” Trains

“Extra” trains (trains added to handle special events but not shown in the regularly published schedules) are excluded from on-time performance calculations, except for those “extra” trains whose special-event schedules include all intermediate station stop times and are distributed publicly via Metra's website or on paper flyers. Prior to May 2011, all “extra” trains were included in the count of all trains for the purpose of calculating on-time performance and were always reported as on-time.

Intermediate station departure times and final station arrival times for some “extra” trains are either unknown (departures of some “extra” trains are held until after the completion of the respective special event) or not published. On-time performance for these two types of “extra” trains cannot be calculated, as arrival times are not known ahead of time; these trains are therefore excluded from on-time performance calculations. However, on-time performance can be calculated for “extra” trains that have full published schedules.

Temporary Schedules and Notices, for Construction and Special Events

Planned construction projects or special events can adversely affect on-time performance. Metra occasionally publishes full temporary schedules, which supersede the standard published schedules, to inform riders of possible delays or modifications to regular service. Metra also may publish informational notices to accompany temporary schedules. On-time performance is calculated using the temporary schedules and any accompanying notices.

(Prior to May 2011, some trains affected by planned construction work arrived at their last station stops six minutes or more late, but were counted as on-time because a construction time allowance was deducted from the actual delay time. This allowance, typically five or ten minutes (but occasionally more) depending on the nature of the scheduled work, was assigned in advance to all off-peak and reverse-peak trains that might be affected by a particular project, but never to peak period/peak direction trains. For such trains, the assigned construction allowance was added onto the scheduled arrival time at the destination station for the purpose of calculating the total minutes of delay.)

TABLE 1: SCHEDULED AND DELAYED TRAINS, AND ON-TIME PERFORMANCE BY SERVICE PERIOD AND LINE
July 2016

	Weekdays									Weekends						Total		
	Peak*			Off-Peak**			Total			Saturdays			Sundays & Holidays			Trains Scheduled	Trains Late	Percent On-Time
	Trains Scheduled	Trains Late	Percent On-Time	Trains Scheduled	Trains Late	Percent On-Time	Trains Scheduled	Trains Late	Percent On-Time	Trains Scheduled	Trains Late	Percent On-Time	Trains Scheduled	Trains Late	Percent On-Time			
BNSF	1,080	50	95.4%	820	59	92.8%	1,900	109	94.3%	155	17	89.0%	122	8	93.4%	2,177	134	93.8%
Elec -ML	897	1	99.9%	683	33	95.2%	1,580	34	97.8%	230	3	98.7%	120	8	93.3%	1,930	45	97.7%
-BI	280	4	98.6%	460	7	98.5%	740	11	98.5%	150	1	99.3%	--	--	--	890	12	98.7%
-SC	<u>340</u>	<u>1</u>	99.7%	<u>740</u>	<u>28</u>	96.2%	<u>1,080</u>	<u>29</u>	97.3%	<u>240</u>	<u>0</u>	100.0%	<u>120</u>	<u>5</u>	95.8%	<u>1,440</u>	<u>34</u>	97.6%
Subtotal	1,517	6	99.6%	1,883	68	96.4%	3,400	74	97.8%	620	4	99.4%	240	13	94.6%	4,260	91	97.9%
Heritage	120	16	86.7%	20	1	95.0%	140	17	87.9%	--	--	--	--	--	--	140	17	87.9%
Milw -N	499	15	97.0%	701	30	95.7%	1,200	45	96.3%	122	19	84.4%	122	8	93.4%	1,444	72	95.0%
-W	<u>539</u>	<u>26</u>	95.2%	<u>621</u>	<u>48</u>	92.3%	<u>1,160</u>	<u>74</u>	93.6%	<u>122</u>	<u>16</u>	86.9%	<u>110</u>	<u>20</u>	81.8%	<u>1,392</u>	<u>110</u>	92.1%
Subtotal	1,038	41	96.1%	1,322	78	94.1%	2,360	119	95.0%	244	35	85.7%	232	28	87.9%	2,836	182	93.6%
NCS	220	13	94.1%	220	9	95.9%	440	22	95.0%	--	--	--	--	--	--	440	22	95.0%
RI	720	32	95.6%	662	64	90.3%	1,382	96	93.1%	161	10	93.8%	169	6	96.4%	1,712	112	93.5%
SWS	220	12	94.5%	380	25	93.4%	600	37	93.8%	30	0	100.0%	--	--	--	630	37	94.1%
UP -N	599	10	98.3%	785	17	97.8%	1,384	27	98.0%	136	15	89.0%	111	7	93.7%	1,631	49	97.0%
-NW	656	29	95.6%	644	16	97.5%	1,300	45	96.5%	122	20	83.6%	91	12	86.8%	1,513	77	94.9%
-W	<u>539</u>	<u>18</u>	96.7%	<u>643</u>	<u>23</u>	96.4%	<u>1,182</u>	<u>41</u>	96.5%	<u>101</u>	<u>2</u>	98.0%	<u>109</u>	<u>5</u>	95.4%	<u>1,392</u>	<u>48</u>	96.6%
Subtotal	1,794	57	96.8%	2,072	56	97.3%	3,866	113	97.1%	359	37	89.7%	311	24	92.3%	4,536	174	96.2%
SYSTEM	6,709	227	96.6%	7,379	360	95.1%	14,088	587	95.8%	1,569	103	93.4%	1,074	79	92.6%	16,731	769	95.4%

*Includes peak direction trains operating during weekday peak periods. **Includes all other weekday trains.

Delays data for most recent month is final (08/12/16) version from TOPS.

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TABLE 2: ON-TIME PERFORMANCE BY LINE/BRANCH

LINE	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN- JUL	AVG
BNSF	2011	96.2	89.6	97.4	96.9	93.0	93.0	83.3	92.3	90.4	92.8	94.0	95.4	92.9%	92.9%
	2012	94.4	97.3	95.2	98.4	97.2	91.8	95.0	94.2	98.0	96.9	95.0	98.5	95.6%	96.0%
	2013	95.8	93.9	94.6	93.3	96.0	88.5	95.2	97.1	97.2	94.0	95.8	92.2	94.0%	94.5%
	2014	78.6	84.6	95.6	92.0	82.2	82.0	94.1	91.4	94.1	92.2	95.2	94.1	87.1%	89.7%
	2015	90.9	90.1	96.8	97.5	96.6	92.4	93.0	95.4	95.8	93.6	93.5	97.4	93.9%	94.4%
	2016	93.2	93.8	95.9	96.8	94.0	93.5	93.8						94.4%	94.4%
	2011-2015 average	91.2	91.2	95.9	95.6	92.2	89.6	92.2	94.1	95.1	93.9	94.7	95.5	92.7%	93.5%
Electric	2011	98.6	95.1	98.1	97.7	97.7	95.1	94.6	96.6	97.0	94.4	97.2	98.7	96.7%	96.8%
	2012	93.7	98.4	97.9	98.7	98.0	97.0	97.3	97.7	97.5	96.6	97.1	98.2	97.3%	97.3%
	2013	98.1	99.0	98.5	98.0	98.0	98.3	92.4	96.4	97.2	97.3	96.9	97.0	97.4%	97.2%
	2014	93.7	95.3	97.7	98.8	98.3	97.4	96.7	98.1	98.7	98.4	98.6	98.7	96.8%	97.5%
	2015	96.3	95.4	98.4	98.4	98.3	97.7	96.5	98.2	97.9	97.8	97.8	99.0	97.3%	97.6%
	2016	98.0	98.6	98.8	98.9	98.9	96.5	97.9						98.2%	98.2%
	2011-2015 average	96.1	96.7	98.1	98.3	98.0	97.1	95.5	97.4	97.7	96.9	97.5	98.3	97.1%	97.3%
Heritage	2011	92.1	77.2	94.2	96.0	98.4	89.4	73.3	92.0	84.1	78.6	80.8	75.4	89.0%	86.2%
	2012	95.2	99.2	94.7	98.4	97.7	92.1	91.3	95.7	98.2	94.9	92.9	96.7	95.5%	95.6%
	2013	97.0	99.2	94.4	97.7	94.7	92.5	97.7	99.2	97.5	96.4	98.3	92.1	96.2%	96.4%
	2014	79.5	75.8	88.1	93.2	92.1	94.4	94.7	93.7	92.1	97.8	96.5	98.5	88.4%	91.4%
	2015	92.1	90.0	96.2	88.6	85.8	89.4	92.0	85.7	86.5	98.5	85.0	90.9	90.7%	90.2%
	2016	90.0	92.9	97.4	97.3	95.2	94.8	87.9						93.8%	93.8%
	2011-2015 average	91.1	88.5	93.6	94.8	95.7	91.5	90.1	93.3	91.5	93.5	90.6	90.7	92.0%	92.1%
Milw - N	2011	92.9	85.3	95.7	95.5	89.2	84.4	78.3	87.6	92.3	88.1	91.9	93.9	88.9%	89.6%
	2012	95.1	96.4	94.0	95.3	93.5	93.2	84.8	92.9	94.3	94.9	95.4	95.5	93.2%	93.8%
	2013	95.5	92.4	94.1	95.7	95.3	89.6	92.8	93.6	94.4	93.3	95.7	87.5	93.7%	93.3%
	2014	73.1	81.9	89.5	97.9	95.1	91.1	96.0	95.2	95.5	96.2	95.4	93.5	89.3%	91.7%
	2015	91.8	87.9	93.5	95.1	95.4	94.8	97.1	94.9	95.6	97.9	97.0	96.8	93.7%	94.9%
	2016	95.3	94.2	95.7	96.8	92.5	92.9	95.0						94.6%	94.6%
	2011-2015 average	89.6	88.9	93.4	95.9	93.3	90.6	90.0	92.8	94.4	94.1	95.0	93.4	91.8%	92.6%
Milw - W	2011	96.0	87.2	97.4	95.2	95.1	88.0	84.4	92.5	95.6	98.0	89.1	96.5	92.0%	93.0%
	2012	94.4	95.1	95.3	97.5	97.1	95.6	93.7	94.1	89.3	93.9	94.6	95.5	95.5%	94.7%
	2013	96.6	91.3	96.3	95.8	96.2	90.9	93.2	93.2	92.6	96.5	93.9	93.7	94.4%	94.2%
	2014	84.8	88.4	91.4	97.6	95.9	92.2	94.0	93.5	96.7	95.5	97.7	94.6	92.1%	93.5%
	2015	93.6	93.0	94.8	97.7	97.2	95.4	96.6	96.8	97.8	99.0	98.2	96.5	95.5%	96.4%
	2016	94.0	95.3	94.4	96.0	94.9	93.6	92.1						94.3%	94.3%
	2011-2015 average	93.1	91.0	95.1	96.8	96.1	92.4	92.5	94.0	94.5	96.6	94.6	95.4	93.9%	94.3%
NCS	2011	95.5	88.3	93.5	90.9	92.9	88.8	87.3	92.1	93.1	93.5	83.7	92.4	91.1%	91.1%
	2012	94.8	94.4	94.4	85.1	95.2	94.8	82.5	91.9	95.7	93.9	92.0	94.8	91.6%	92.4%
	2013	95.0	87.5	93.7	90.9	94.0	92.7	93.6	95.0	92.5	93.1	90.0	87.4	92.6%	92.2%
	2014	76.0	81.1	88.5	96.3	88.5	89.2	94.0	88.5	95.2	90.9	97.8	91.9	87.8%	89.9%
	2015	93.9	82.5	92.6	94.8	95.7	94.8	96.0	92.6	95.2	97.1	96.1	93.6	93.0%	93.8%
	2016	92.3	95.5	91.7	93.3	94.4	96.3	95.0						94.0%	94.0%
	2011-2015 average	91.1	86.8	92.6	91.7	92.7	92.1	90.9	92.1	94.3	93.7	91.8	92.0	91.2%	91.8%

TABLE 2 (continued): ON-TIME PERFORMANCE BY LINE/BRANCH

LINE	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN- JUL	AVG
RI	2011	97.8	89.5	97.7	96.0	95.6	88.8	83.4	94.0	94.8	96.9	96.6	96.5	92.8%	94.0%
	2012	94.3	96.8	94.8	96.1	95.8	94.1	92.9	93.7	96.8	95.6	97.1	96.4	95.0%	95.3%
	2013	96.5	98.1	97.9	94.0	95.5	91.5	93.6	95.5	98.3	96.5	91.7	94.0	95.3%	95.3%
	2014	82.5	83.4	93.4	95.3	95.7	92.5	95.1	97.2	96.6	97.3	97.9	98.6	91.2%	93.8%
	2015	97.4	95.3	98.9	98.7	97.8	97.4	94.2	97.0	96.3	97.3	97.1	97.4	97.1%	97.1%
	2016	92.6	96.2	95.8	96.5	97.9	96.2	93.5						95.5%	95.5%
	2011-2015 average		93.6	92.7	96.6	96.0	95.6	92.9	92.0	95.5	96.5	96.7	96.1	96.6	94.3%
SWS	2011	95.1	89.7	96.2	95.3	94.0	85.1	88.9	90.3	91.3	92.4	92.8	94.1	92.1%	92.1%
	2012	94.2	96.6	94.8	95.3	95.8	93.2	95.3	94.5	93.8	94.3	93.7	96.3	95.0%	94.8%
	2013	94.7	97.1	97.3	97.7	95.0	91.0	98.0	96.8	97.1	98.2	93.2	91.1	95.8%	95.6%
	2014	83.0	92.0	93.5	94.9	93.2	92.8	93.9	95.2	94.2	92.0	90.2	96.2	91.9%	92.6%
	2015	94.7	89.7	95.6	96.1	96.3	91.1	92.4	93.8	97.6	96.8	96.0	94.4	93.7%	94.5%
	2016	95.6	97.2	97.8	95.6	91.9	95.3	94.1						95.4%	95.4%
	2011-2015 average		92.3	93.1	95.5	95.8	94.5	90.6	93.7	94.1	94.8	94.8	93.2	94.4	93.7%
UP - N	2011	96.4	86.7	94.9	95.5	95.8	91.5	85.1	90.6	91.8	91.6	94.2	96.5	92.4%	92.6%
	2012	94.6	98.4	97.9	98.1	95.1	95.1	95.9	95.1	96.3	97.3	96.6	95.8	96.4%	96.4%
	2013	98.3	97.3	97.9	96.6	96.7	93.0	96.0	94.9	97.0	96.5	96.9	98.0	96.6%	96.6%
	2014	91.2	92.1	97.4	97.8	97.4	97.2	97.6	98.1	97.6	97.4	97.8	98.3	95.8%	96.7%
	2015	98.6	95.6	98.3	97.1	97.7	98.2	97.0	95.9	98.2	97.0	97.6	98.4	97.5%	97.5%
	2016	96.9	98.6	97.1	98.3	98.3	98.2	97.0						97.8%	97.8%
	2011-2015 average		95.8	94.1	97.3	97.0	96.2	95.0	94.4	94.9	96.2	96.0	97.4	95.8%	95.9%
UP - NW	2011	97.0	89.4	97.9	97.3	94.6	93.4	91.2	93.3	95.1	97.6	95.8	95.0	94.5%	94.9%
	2012	95.9	98.6	96.4	98.9	95.9	96.0	94.8	96.7	97.8	94.2	94.6	96.6	96.6%	96.3%
	2013	96.3	97.7	96.0	95.1	93.3	89.2	93.9	93.7	96.3	94.6	94.6	94.2	94.5%	94.6%
	2014	86.6	91.1	96.3	98.6	95.6	95.2	94.7	97.4	98.3	95.0	97.1	96.2	94.0%	95.2%
	2015	96.0	91.6	97.6	96.3	96.9	96.8	94.1	96.5	96.1	97.5	96.7	97.5	95.7%	96.2%
	2016	97.0	98.1	97.8	98.1	96.0	96.6	94.9						96.9%	96.9%
	2011-2015 average		94.3	93.7	96.9	97.2	94.9	94.2	93.8	95.5	96.7	95.8	95.7	95.9	95.1%
UP - W	2011	93.5	87.3	93.8	94.5	93.3	89.0	85.9	89.3	90.8	91.6	92.0	89.4	91.1%	90.9%
	2012	93.1	97.1	95.2	95.5	95.6	92.4	93.8	94.3	97.2	97.2	96.0	96.4	94.7%	95.3%
	2013	96.5	96.2	96.9	94.4	93.7	89.2	95.0	93.0	96.6	96.6	94.0	91.5	94.6%	94.5%
	2014	85.9	90.9	94.4	96.7	96.4	94.8	96.4	94.3	96.7	94.6	95.9	96.2	93.7%	94.4%
	2015	93.9	91.1	96.1	96.3	97.5	93.9	93.9	95.9	96.0	96.1	97.3	96.8	94.7%	95.4%
	2016	97.8	93.4	97.2	96.7	90.1	94.4	96.6						95.2%	95.2%
	2011-2015 average		92.6	92.6	95.3	95.5	94.7	91.9	93.1	93.3	95.4	95.3	95.0	94.1	93.7%
SYSTEM excluding South Shore	2011	96.4	89.8	96.8	96.2	94.8	91.1	87.3	92.7	93.8	93.7	94.0	95.6	93.3%	93.6%
	2012	94.3	97.4	96.1	97.2	96.3	94.7	94.0	95.2	96.2	95.9	95.8	96.9	95.7%	95.8%
	2013	96.8	96.1	96.7	95.7	95.9	92.4	94.0	95.2	96.4	95.9	95.1	93.8	95.4%	95.4%
	2014	85.6	89.3	94.9	96.8	94.5	93.1	95.6	95.7	96.8	95.9	96.9	96.5	92.8%	94.3%
	2015	94.9	92.5	97.0	97.2	97.2	95.8	95.3	96.3	96.8	97.0	96.8	97.5	95.7%	96.2%
	2016	95.8	96.4	96.8	97.4	95.8	95.5	95.4						96.2%	96.2%
	2011-2015 average		93.6	93.1	96.3	96.6	95.8	93.4	93.3	95.0	96.0	95.7	95.7	96.1	94.6%

Delays data for most recent month is final (08/12/16) version from TOPS.

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'2011-2015 average' calculated by summing the delays over the five years, summing the trains run over the five years, and calculating their ratio.

Due to changes in calculation methodology, on-time performance figures from May 2011 onward are not exactly comparable to prior months' figures.

**TABLE 3: LIST OF WEEKDAY TRAINS LESS THAN 85% ON-TIME
July 2016**

Line	Train	Date	Minutes Delay		Delay Explanation
			Late	Code	
BNSF	1233	Fri, Jul 08	8	D	WORKING SOUTHSIDE CICERO TO CONGRESS AROUND MULTIPLE FREIGHT TRAINS, NEWER ENGINEER TO SEVICE OPERATING TRAIN
		Mon, Jul 11	13	G	WORKING MT3 BERWYN TO BROOKFIELD AROUND SIGNAL ISSUES MP10.5 TO 11.4
		Tue, Jul 19	11	CC	UNABLE TO REACH FIC FOR FORM BS 6594 & 6529, MULTIPLE FORM AS
		Fri, Jul 29	20	KW	DEPARTED 9" LATE DUE TO 1266 OVERLAPPING TRK4 @ CUS/FLASH FLOOD WARNING 19.4 - MP28
BNSF	1270	Thu, Jul 07	7	CC	WAITING ON PERMISSIONS FROM FIC WAWRYK FORM B 2816 AT W EOLA, PASSENGER LOADING TASTE OF CHICAGO
		Tue, Jul 19	15	CC1	LATE FLIP FROM 1233, TALKED BY SIGNAL AT LAVERGNE ROUTE WOULD NOT COME IN
		Fri, Jul 22	13	GM	DROPPING FLAGMAN AT ASHLAND AVE MP 13.87, MULTIPLE BIKES AND ADA LIFTS
		Fri, Jul 29	16	KW1	LATE ARRIVAL OF EQUIPMENT/1233/7" LATE DEPARTURE FROM ATC/ FLASH FLOOD WARNING
BNSF	1277	Tue, Jul 05	9	B	DELAYED AT HIGHLANDS DUE TO MOW AUTHORITY VIOLATION
		Mon, Jul 11	8	GM	FOLLOWING 1275 WITH CAB SIGNAL FAILURE, BOX 2 LA GRANGE RD MP13.78
		Wed, Jul 13	19	KW	HIGH WIND WARNINGS CHICAGO SUB NO RELIEF ON RESTRICTION FROM CHIEF DS 20MPH
		Wed, Jul 27	0	GA	CP HARRISON TRACK INDICATION 01 SWITCH
BNSF	1279	Tue, Jul 05	8	B	DELAYED AT HIGHLANDS DUE TO MOW AUTHORITY VIOLATION
		Mon, Jul 11	10	GM	WAITING FOR A LATE 1282 AT CICERO B, BOX 2 LA GRANGE RD MP13.78
		Wed, Jul 13	20	KW	HIGH WIND WARNINGS CHICAGO SUB NO RELIEF ON RESTRICTION FROM CHIEF DS 20MPH
		Tue, Jul 19	7	C	FOLLOWING 1277 DUE TO MOW WORKING MT 2 NAP REPAIRING 10 MPH FORM A
		Fri, Jul 22	12	GM	SWITCH FAILURE HIGHLANDS #1 XO, CASS AVE BOX 2 MP 19.39
		Thu, Jul 28	9	D	FGA11301 TALKED BY SIGNAL AT LAVERGNE INTO CICERO YARD
BNSF	1287	Wed, Jul 06	8	I	HEAVY PASSENGER LOADING DUE TO TASTE OF CHICAGO
		Wed, Jul 13	13	KW	HIGH WIND WARNINGS CHICAGO SUB NO RELIEF ON RESTRICTION FROM CHIEF DS 20MPH
		Mon, Jul 18	9	I	MULTIPLE FORM AS, PASSENGER EJECTION AT WESTERN SPRINGS
		Wed, Jul 27	0	GA1	CP HARRISON TRACK INDICATION 01 SWITCH
		Thu, Jul 28	17	D1	DELAYED FOLLOWING AND WAITING ON 1285
BNSF	1293	Wed, Jul 06	8	I	HEAVY PASSENGER LOADING DUE TO TASTE OF CHICAGO
		Fri, Jul 15	18	J	UNRULY PASSENGERS REMOVED @ W HINSDALE/10-15 MIN DELAY
		Mon, Jul 18	8	C	M/W @ CONGRESS PARK 284-57 BUZO- WORKING WRONG MAIN BERWYN TO HIGHLANDS
		Thu, Jul 28	7	I	HEAVY PASSENGER HANDLING ACCOUNT LOLLAPALOOZA MUSIC FESTIVAL
		Fri, Jul 29	10	I	LOLLAPALOOZA PASSENGER HANDLING
HC	916	Thu, Jul 14	8	GF	7 MIN POWEROUT & (528)CROSSING MALFUNCTION
		Wed, Jul 20	6	CC	16M MP13.0 GBO4203, NO ANSWER FROM FOREMAN.
		Mon, Jul 25	7	JM	15M DELAY LOCKPORT ACCT MALE PASSENGER HAVING SEIZURES.
		Fri, Jul 29	23	E	23M LOST IN ROUTE AACCT MECHANICAL ISSUES.
HC	917	Mon, Jul 11	9	D	12M CP BRIGHTON 1706/1718 WAITING FOR IG3AH 7500FT TO CLEAR
		Wed, Jul 13	33	K	35M BRIDGEPORT WAITING FOR BRIDGE INSPECTOR FOR 33RD ST BRIDGE (ORIGINAL REPORT DAMEN AV) DUE TO FALLING CONCRETE & STEEL ONTO STREET BELOW
		Mon, Jul 18	12	D	9M CP BRIGHTON 1705/1714 WAITING FOR CN L157 5400FT TO CLEAR
		Mon, Jul 25	10	RF	STOP SIGNALS 3M CORWITH, 3M LEMAYNE, 3M 45XO, 3M 47 XO
		Wed, Jul 27	82	GA	DEPARTED CUS 83M LATE ACCT PLANT PROBLEMS 5M CP CANAL CROSS TRAFFIC
HC	919	Tue, Jul 12	70	E	70M MECHANICAL PROBLEMS WITH ENGINE 124 AT LEMONT, HAD TO TIE ONTO 921 TO GET TO JOLIET
		Wed, Jul 13	20	K1	20M FOLLOWING 917 AND AMTRAK FROM CP CERMAK TO SUMMIT
		Mon, Jul 25	9	RF	WAITING ON DISPATCHER
		Wed, Jul 27	9	GA	DEPARTED CUS 20M LATE ACCT PLANT PROBLEMS
ELML	124	Wed, Jul 06	18	CC	8M AT HW WAITING ON MEET WITH ME121 5M 111TH TO 75TH MAKING LOCALS 4M MCCORMICK PL RESTRICTING SPEED
		Fri, Jul 15	10	CC	5M WAITING ON MEET WITH ME121 AT HW. 15M COULD NOT MAKE MEET WITH ME324 HAD TO MAKE ALL LOCAL STOPS.
		Thu, Jul 21	7	GW	LOST 17M ENROUTE DUE TO LOSS POWER AT HW AND RICHTON YARD
		Fri, Jul 29	13	CG	7M AT HW WAITING ON MEET WITH ME121, PLANNED WORK
ELML	142	Tue, Jul 05	6	CO	6M GROUND LOADING 47TH ST TO 18TH ST
		Fri, Jul 15	6	GMI	2M HEAVY PASSENGER LOADING AT HW. 2M HEAVY PASSENGER LOADING AT FLOSSMOR. 2M WAITING ON THE ME342.
		Tue, Jul 19	12	R	12M 11TH PLACE -NOT HAVING PROPER LINE UP/SIGNAL
		Thu, Jul 21	16	GW	DEPARTED UP 4M LATE WAITING ON ME741 TO CLEAR. 11M BETWEEN RICHTON YD AND HW DUE TO ISSUES FROM EARLIER LIGHTNING STRIKE
ELSC	321	Tue, Jul 05	7	CO	2 MIN. ACCT. DARK SIGNAL AT MP 2.83 DUE TO AC SWITCHING AND 5 MIN. ACCT. A PERSON STANDING IN FRONT OF THE TRAIN AT 63RD. ST.
		Wed, Jul 06	7	CO	7 MIN. ACCT. RESTRICTING SIGNALS FROM MP 2.31 TO MP 3.75 DUE TO AC SWITCHING.
		Fri, Jul 08	8	CO	4 MIN. ACCT. DARK SIGNAL AT MP 2.83 DUE TO AC SWITCHING AND 4 MIN. ACCT. WALKING SPEED AT MP 9.92 ON SWD SC DUE TO A PULL APART.
		Thu, Jul 28	13	CO	4" RESTRICTING SIGNALS MCCORMICK PL. AC SWITCHING. 4" COPYING TRACK PERMIY SINGLE TRACKING SCSD AROUND SIGNAL DEPT. 2: SPEED RESTICTION SCSD

**TABLE 3 (continued): LIST OF WEEKDAY TRAINS LESS THAN 85% ON-TIME
July 2016**

Line	Train	Date	Minutes Delay		Delay Explanation	
			Late	Code		
ELSC	343	Mon, Jul 11	8	CO	7MD DUE TO GROUND LOADING AND SPEED RESTRICTIONS ON TK 1	
		75% OT	Wed, Jul 13	6	CG	6M DUE TO GROUND LOADING ON TK 1 ACCT OF WIRE WORK ON TK2
			Fri, Jul 15	8	L	5M DUE TO PUTTING THE TRAIN IN EMERGENCY ACCT OF ALMOST HITTING SOME KIDS AT 69TH ST. 3M GATE AT 79TH ST
			Fri, Jul 22	0	XK	XM 63RD ST DUE TO CAR ON THE TRACKS AT STONEY ISLAND. ANNULLED AT 63RD ST
			Fri, Jul 29	12	J	12M 55/56/57 ST WAITING FOR REMOVAL OF REMOVAL OF PASSENGER BY METRA PD.
MN	2155	Tue, Jul 05	8	A1	11" WAIT ON LATE #2160, RONDOUT	
		80% OT	Fri, Jul 22	24	JM	10" LATE TURN FROM #2158, CUS; 12" UNRESPONSIVE MALE, WESTERN
			Wed, Jul 27	9	RF1	10" LATE TURN FROM #2158
			Fri, Jul 29	16	JM1	17" WAIT ON #2160, RONDOUT
MN	2160	Tue, Jul 05	6	A1	8" LATE DEPART, ENGINEER CHANGE ENDS, BRAKE TEST, FOX LAKE; APPROACH & RESTRICTED SIGNALS.	
		70% OT	Fri, Jul 08	8	D1	7" LATE TURN FROM #2153
			Thu, Jul 14	11	N1	7" LATE TURN FROM #2153, FOX LAKE; 5" X-TRAFFIC, MAYFAIR; 5" UP X-TRAFFIC, A-2
			Fri, Jul 22	12	RF	7" LATE DEPARTING CP DISPATCHER NOT ANSWERING, FOX LAKE; 6" SIGNAL PROBLEMS, A-5
			Wed, Jul 27	9	RF1	9" LATE TURN FROM #2153
	Fri, Jul 29	17	JM1	17" LATE TURN FROM #2153		
MW	2216	Fri, Jul 01	50	E	48" ENG 421 LOST HEP, ENGINE SMOKING, BLOWN TURBO, #2218 TIED ON USED RESCUE CABLE, MADE STOPS SCHAUMBURG.FRANKLIN PK EXPRESS IN, BARTLETT	
		75% OT	Wed, Jul 06	7	G	6" TRACK CIRCUIT, B-6
			Mon, Jul 11	9	RD1	FOLLOWING #2214; 4" STOP SIGNAL, ITASCA; 5" STOP , A-5; 2" STOP, A-2
			Fri, Jul 22	6	E1	4" STOP SIGNAL, ALMORA.
			Thu, Jul 28	7	E	7" ENG #109 PROBLEMS
MW	2253	Fri, Jul 08	14	I1	10" LATE TURN FROM #2252	
		75% OT	Thu, Jul 21	20	K1	20" LATE TURN FROM #2252; STOP/SLOW THRU AREA CAR NEAR TRACKS, PROSPECT AVE; X/O TO 2 MAIN, B-35; SLOW ENTRAINING/DETRAINING/WEATHER,ENROUTE
			Fri, Jul 22	17	E1	12" LATE TURN FROM #2252, CREW CHANGE & REMIT
			Mon, Jul 25	26	DE1	29" LATE TURN FROM #2252
	Wed, Jul 27	14	DE1	6" LATE TURN FROM #2252; 13" WAIT ON #2256 THAT WAS X/O DUE TO DISABLED FREIGHT		
MW	2254	Wed, Jul 06	13	U1	10" LATE TURN FROM #2249; 5" 2 ADA'S	
		70% OT	Thu, Jul 07	10	U1	10"LATE TURN FROM #2249
			Wed, Jul 13	12	I	12" DUE TO 10 MINUTE LATE ARRIVAL OF #2249, ENROUTE; 5" HEAVY LOADING/UNLOADING ENROUTE.
			Thu, Jul 21	22	K	25" CAR NEAR 1MT STREET LEVEL BLOCKING CONTINENTAL WEB TRAINS, STOPPED BY ITASCA PD, PROSPECT AVE
			Mon, Jul 25	8	DE1	8" MEETING TRAINS, GALEWOOD
	Fri, Jul 29	44	D	32" WAITING FOR #2251 THEN GIVEN SIGNAL ON TRK # 2 AND RESTRICTING SIGNALS TO WOODDALE FOLLOWING FRIEIGHT TO B-17, ROSELLE.		
MW	2255	Thu, Jul 07	12	U1	6" LATE TURN FROM #2254	
		70% OT	Mon, Jul 18	9	F	10" DOOR ISSUES COACH #7467
			Thu, Jul 21	23	K1	17" LATE TURN FROM #2254, CUS
			Fri, Jul 22	8	G	7" SIGNAL PROBLEMS, A-5
			Thu, Jul 28	12	I	15" HEAVY ENTRAINING/DETRAINING, ENROUTE
	Fri, Jul 29	24	VE	18" MECHANICAL PROBLEMS, LOST HEP, WESTERN		
RI	415	Tue, Jul 12	93	M1	413 STRUCK PEDESTRIAN @ OAK PARK AVE	
		84% OT	Thu, Jul 14	7	U	2M ADA W/C MIDLOTHIAN TO CHICAGO, 2M PASSENGER REFUSED TO PAY FARE METRA PD MET TRAIN AT MIDLO, 2M ADA NEW LENNOX TO JOLIET 21M LATE INTO BI DUE TO FOLLOWING TRAINS
			Wed, Jul 27	21	E1	
RI	417	Tue, Jul 12	96	M1	SEE 413 DELAY REPORT	
		80% OT	Thu, Jul 14	8	A	8M LATE INTO JOLIET NO TTR1 RECEIVED
			Mon, Jul 25	7	F1	2M LSS FOLLOWING LATE TRAFFIC TO GRESHAM, 10 MIN FOLLOWING LATE TRAINS BI TO JOL
			Wed, Jul 27	22	E1	23M LATE INTO JOLIET FOLLOWING TRAINS DUE TO RI407
RI	419	Wed, Jul 06	7	RO	5M RESTRICTING SIGNALS BETWEEN WESTERN AND ROBBINS, 2M LSS LATE PASSENGERS	
		80% OT	Tue, Jul 12	88	M1	SEE 413 DELAY REPORT
			Wed, Jul 27	32	E1	28M LATE INTO JOLIET FOLLOWING TRAINS
			Fri, Jul 29	7	I	7M LATE INTO JOLIET
RI	515	Mon, Jul 11	10	CC	10M AT CP 66TH CT TK WORK	
		80% OT	Tue, Jul 26	6	I	2MINS @ HICKORY CREEK WAITING ON RI518 AND 4MINS IN ROUTE STUDENT ENGINEER
			Thu, Jul 28	6	C	1M LATE PASSENGERS LSS, 2M GATE X-ING AT 111TH, 2M A-102 SPEED RESTRICTION, 2M SPEED RESTRICTION BY B 202
			Fri, Jul 29	7	C	2M A-102, 2M HICKORY CREEK MEETING RI518, 2M A-103
RI	516	Mon, Jul 11	16	CC	14M BY 66TH CT., SCHEDULED TK.WK.	
		80% OT	Tue, Jul 12	10	CC	8M BY CP66TH CT., SCHEDULED TK.WK.
			Thu, Jul 28	12	I	HEAVY LOADING BEV. BRANCH
			Fri, Jul 29	6	I	HEAVY LOADING

**TABLE 3 (continued): LIST OF WEEKDAY TRAINS LESS THAN 85% ON-TIME
July 2016**

Line	Train	Date	Minutes Delay		Delay Explanation	
			Late	Code		
RI	525	Fri, Jul 08	17	E1	17M LSS, LATE ARR.EQP., 424 ANNULLED; 5M 16TH ST. FREIGHT XTRAFFIC.	
		80% OT	Tue, Jul 12	32		M1
			Wed, Jul 20	7		D
			Wed, Jul 27	6		E1
RI	526	Tue, Jul 12	0	M1	PEDESTRIAN INCIDENT	
		80% OT	Thu, Jul 14	0		XE
			Tue, Jul 26	13		E
			Wed, Jul 27	42		E1
SWS	822	Wed, Jul 13	8	G	10 MIN TALKED BY SIGNAL AT 143RD RESTRICTED SPEED.	
		80% OT	Fri, Jul 22	15		RF
			Wed, Jul 27	7		GF1
			Thu, Jul 28	6		D
UPN	368	Fri, Jul 01	25	II	29" LATE TURN FROM #365	
		80% OT	Mon, Jul 18	30		E
			Wed, Jul 27	10		II
			Thu, Jul 28	10		CC
UPNW	646	Tue, Jul 05	21	CC	31" SINGLE TRACKING, MP51.5-43.5; 3 ADA'S, BARRINGTON	
		80% OT	Wed, Jul 06	9		CC
			Thu, Jul 07	7		CC
			Mon, Jul 11	6		CC

Data is final (08/12/16) version from TOPS.

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TABLE 4: DELAY INCIDENT CODES AND DEFINITIONS

Codes						Codes					
Primary	Secondary	Annulled	Definition	Delay Class	Responsibility	Primary	Secondary	Annulled	Definition	Delay Class	Responsibility
A	A1	XA	Passenger Train Interference	Transportation	Controllable	L	L1	XL	Unauthorized People On Tracks/Near Miss	Incidental	Uncontrollable
AA	AA1	XAA	Rule 9.9 Delayed in Block/Rule 6.30	Transportation	Controllable	M	M1	XM	Right of Way Accident/Misc.	Incidental	Uncontrollable
AD	AD1	XAD	Non-Revenue Passenger Train Interference	Transportation	Controllable	MW	MW1	XMW	Right of Way Accident/Misc., Weather	Incidental	Uncontrollable
AM	AM1	XAM	Amtrak Caused Delay	Transportation	Controllable	N	N1	XN	Electricity Utility Failure	Incidental	Uncontrollable
AS	AS1	XAS	NICTD Train Interference	Transportation	Controllable	NW	NW1	XNW	Electricity Utility Failure, Weather	Incidental	Uncontrollable
AW	AW1	XAW	Pass. Train Interference, Weather	Transportation	Uncontrollable	O	O1	XO	AC/DC System Failure	Engineering	Controllable
B	B1	XB	Human Error, Eng. Dept.	Engineering	Controllable	OW	OW1	XOW	AC/DC System Failure, Weather	Engineering	Uncontrollable
BA	BA1	XBA	Amtrak Engineering Human Error	Engineering	Controllable	Q	Q1	XQ	Late Issuance of Track Warrant	Transportation	Controllable
C	C1	XC	Unscheduled Track Work	Engineering	Controllable	R	R1	XR	Human Error, Transportation	Transportation	Controllable
CA	CA1	XCA	Amtrak Engineering	Engineering	Semi-controllable	RA	RA1	XRA	Human Error, Amtrak Transportation	Transportation	Controllable
CC	CC1	XCC	Scheduled Track Work	Engineering	Controllable	RD	RD1	XRD	Human Error, Metra Dispatcher	Transportation	Controllable
CF	CF1	XCF	Engineering Equipment Malfunction	Engineering	Controllable	RF	RF1	XRF	Freight Dispatcher/Opr/Non-Freight Train Error	Transportation	Controllable
CG	CG1	XCG	Scheduled Signal Work	Engineering	Controllable	RL	RL1	XRL	Human Error, Job Action/Employee No Show (CMS Error)	Transportation	Controllable
CH	CH1	XCH	Contractor Failure	Engineering	Controllable	RN	RN1	XRN	Human Error, Job Action/Employee No Show (Non-CMS)	Transportation	Controllable
CO	CO1	XCO	Scheduled Wire Work	Engineering	Controllable	RO	RO1	XRO	Human Error, Tower Operator	Transportation	Controllable
CM	CM1	XCM	Switch Malfunction (Track Dept.)	Engineering	Controllable	RS	RS1	XRS	Human Error, NICTD Transportation	Transportation	Controllable
CW	CW1	XCW	M of W Work, Weather	Engineering	Uncontrollable	RW	RW1	XRW	Train Crew Issues, Weather	Transportation	Uncontrollable
D	D1	XD	Freight Train Interference	Transportation	Semi-controllable	RZ	RZ1	XRZ	ETMS Train Crew Error [obsolete 2015]	Transportation	Controllable
DD	DD1	XDD	Freight Dispatcher/Opr/Freight Train Error	Transportation	Controllable	S	S1	XS	Operational (Efficiency) Testing	Transportation	Uncontrollable
DE	DE1	XDE	Freight Mechanical Malfunction	Transportation	Semi-controllable	T	T1	XT	Property Vandalism	Incidental	Uncontrollable
DM	DM1	XDM	Freight-Accident/Incident	Incidental	Uncontrollable	U	U1	XU	Accessibility Related (ADA)	Ridership	Uncontrollable
DR	DR1	XDR	Freight-Human Error	Transportation	Semi-controllable	UF	UF1	XUF	ADA Lift Failure	Mechanical	Controllable
DW	DW1	XDW	Freight Train Interference, Weather	Transportation	Uncontrollable	UW	UW1	XUW	Accessibility, Weather	Ridership	Uncontrollable
E	E1	XE	Locomotive Malfunction	Mechanical	Controllable	VE	VE1	XVE	Locomotive Problem Reported, Nothing Found	Incidental	Controllable
EA	EA1	XEA	Amtrak Locomotive/Car Malfunction	Mechanical	Uncontrollable	VF	VF1	XVF	Cab Car Problem Reported, Nothing Found	Incidental	Controllable
EW	EW1	XEW	Locomotive Malfunction, Weather	Mechanical	Uncontrollable	VG	VG1	XVG	Broken Gate Crossing Reported, Nothing Found	Incidental	Uncontrollable
EZ	EZ1	XEZ	ETMS Malfunction on Locomotive [obsolete 2015]	Mechanical	Controllable	W	W1	XW	Gas Leak	Incidental	Uncontrollable
F	F1	XF	Cab Car/Trailer/MU Malfunction	Mechanical	Controllable	YB	YB1	XYB	Derailment - Human Error, Engineering	Engineering	Controllable
FS	FS1	XFS	NICTD MU Malfunction	Mechanical	Uncontrollable	YC	YC1	XYC	Derailment - Engineering	Engineering	Controllable
FW	FW1	XFW	Cab Car/TRL/MU Malfunction, Weather	Mechanical	Uncontrollable	YE	YE1	XYE	Derailment - Mechanical	Mechanical	Controllable
FZ	FZ1	XFZ	ETMS Malfunction on Cab Car [obsolete 2015]	Mechanical	Controllable	YF	YF1	XYF	Derailment - Accident, Foreign Line	Incidental	Uncontrollable
G	G1	XG	Signal/Switch Malfunction (Signal Dept.)	Engineering	Controllable	YH	YH1	XYH	Derailment - Human Error, Mechanical	Mechanical	Controllable
GA	GA1	XGA	Signal/Switch Failure Amtrak (Signal Dept.)	Engineering	Semi-controllable	YM	YM1	XYM	Derailment - Accident	Incidental	Uncontrollable
GF	GF1	XGF	Signal/Switch Foreign Line	Engineering	Semi-controllable	YR	YR1	XYR	Derailment - Human Error, Transportation	Transportation	Controllable
GM	GM1	XGM	Gate Crossing Malfunction	Engineering	Controllable	YW	YW1	XYW	Derailment Accident, Weather	Incidental	Uncontrollable
GT	GT1	XGT	Telecom Failure	Engineering	Controllable	ZA	ZA1	XZA	PTC Amtrak Train (On-Board)	Mechanical	Uncontrollable
GW	GW1	XGW	Signal/Switch Malfunction Weather (Signal Dept.)	Engineering	Uncontrollable	ZB	ZB1	XZB	PTC Human Error, Engineering Dept.	Engineering	Controllable
GX	GX1	XGX	Broken Gate Crossing	Engineering	Uncontrollable	ZC	ZC1	XZC	PTC Construction/Maintenance	Engineering	Controllable
GZ	GZ1	XGZ	ETMS Signal Malfunction [obsolete 2015]	Engineering	Controllable	ZD	ZD1	XZD	PTC Freight Train (On-Board)	Transportation	Semi-controllable
H	H1	XH	Human Error, Mechanical Department	Mechanical	Controllable	ZE	ZE1	XZE	PTC Malfunction Locomotive	Mechanical	Controllable
HS	HS1	XHS	Human Error, NICTD Mechanical Dept.	Mechanical	Controllable	ZF	ZF1	XZF	PTC Malfunction Coach	Mechanical	Controllable
I	I1	XI	Passenger Handling, Running Time	Ridership	Uncontrollable	ZG	ZG1	XZG	PTC Wayside	Engineering	Controllable
IB	IB1	XIB	Passenger Handling, Bicycle	Ridership	Uncontrollable	ZH	ZH1	XZH	PTC Human Error, Mechanical	Mechanical	Controllable
IW	IW1	XIW	Passenger Handling, Weather	Ridership	Uncontrollable	ZN	ZN1	XZN	PTC Foreign Line (Non-Train)	Engineering	Semi-controllable
J	J1	XJ	Passenger Problems/Removal	Incidental	Uncontrollable	ZP	ZP1	XZP	PTC Dispatcher	Transportation	Controllable
JA	JA1	XJA	Amtrak Passenger Problems/Removal	Incidental	Uncontrollable	ZR	ZR1	XZR	PTC Human Error, Transportation	Transportation	Controllable
JM	JM1	XJM	Passenger Medical Emergency	Incidental	Uncontrollable	ZS	ZS1	XZS	PTC NICTD MU Train (On-Board)	Mechanical	Uncontrollable
K	K1	XK	Obstruction On Tracks	Incidental	Uncontrollable	ZT	ZT1	XZT	PTC Back Office	Engineering	Controllable
KD	KD1	XKD	Train Struck Debris	Incidental	Uncontrollable	ZW	ZW1	XZW	PTC Weather	Engineering	Uncontrollable
KP	KP1	XKP	Suspicious Package(s)/Person(s)/Activity	Incidental	Uncontrollable						
KW	KW1	XKW	Obstruction On Tracks, Weather	Incidental	Uncontrollable						

Effective July 1, 2016 Revised July 19, 2016

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TABLE 5: DELAY INCIDENT CODES SORTED BY CAUSE CATEGORY & CARRIER DESIGNATION

METRA/PSA DELAY CODES				METRA/PSA DELAY CODES (continued)				FOREIGN CARRIER DELAY CODES			
CATEGORY Codes				CATEGORY Codes				CATEGORY Codes			
Pri.	Sec.	Ann.	Definition	Pri.	Sec.	Ann.	Definition	Pri.	Sec.	Ann.	Definition
1 Passenger Train Interference				13 Human Error				1 Passenger Train Interference			
A	A1	XA	Passenger Train Interference	B	B1	XB	Human Error, Eng. Dept.	AM	AM1	XAM	Amtrak Caused Delay
AA	AA1	XAA	Rule 9.9 Delayed in Block/Rule 6.30	H	H1	XH	Human Error, Mechanical Department	AS	AS1	XAS	NICTD Train Interference
AD	AD1	XAD	Non-Revenue Passenger Train Interference	R	R1	XR	Human Error, Transportation	2 & 3 Freight Interference - Peak & Off-Peak			
4 Accident				RD	RD1	XRD	Human Error, Metra Dispatcher	D	D1	XD	Freight Train Interference
M	M1	XM	Right of Way Accident/Misc.	RL	RL1	XRL	Human Error, Job Action/Employee No Show (CMS Error)	DD	DD1	XDD	Freight Dispatcher/Opr/Freight Train Error
YC	YC1	XYC	Derailment - Engineering	RN	RN1	XRN	Human Error, Job Action/Employee No Show (Non-CMS)	DE	DE1	XDE	Freight Mechanical Malfunction
YE	YE1	XYE	Derailment - Mechanical	RO	RO1	XRO	Human Error, Tower Operator	DR	DR1	XDR	Freight-Human Error
YM	YM1	XYM	Derailment - Accident	RZ	RZ1	XRZ	ETMS Train Crew Error [obsolete 2015]	ZD	ZD1	XZD	PTC Freight Train (On-Board)
5 Passenger Loading				YB	YB1	XYB	Derailment - Human Error, Engineering	4 Accident			
I	I1	XI	Passenger Handling, Running Time	YH	YH1	XYH	Derailment - Human Error, Mechanical	DM	DM1	XDM	Freight-Accident/Incident
IB	IB1	XIB	Passenger Handling, Bicycle	YR	YR1	XYR	Derailment - Human Error, Transportation	YF	YF1	XYF	Derailment - Accident, Foreign Line
6 Lift Deployment				ZB	ZB1	XZB	PTC Human Error, Engineering Dept.	8 Signal/Switch Failure			
U	U1	XU	Accessibility Related (ADA)	ZH	ZH1	XZH	PTC Human Error, Mechanical	GA	GA1	XGA	Signal/Switch Failure Amtrak (Signal Dept.)
UF	UF1	XUF	ADA Lift Failure	ZP	ZP1	XZP	PTC Dispatcher	GF	GF1	XGF	Signal/Switch Foreign Line
7 Obstruction/Debris				ZR	ZR1	XZR	PTC Human Error, Transportation	ZN	ZN1	XZN	PTC Foreign Line (Non-Train)
K	K1	XK	Obstruction On Tracks	14 Sick, Injured, Unruly Passenger				9 Track Work			
KD	KD1	XKD	Train Struck Debris	J	J1	XJ	Passenger Problems/Removal	CA	CA1	XCA	Amtrak Engineering
KP	KP1	XKP	Suspicious Package(s)/Person(s)/Activity	JM	JM1	XJM	Passenger Medical Emergency	11 Non-Locomotive Equipment Failure			
8 Signal/Switch Failure				15 Weather				FS	FS1	XFS	NICTD MU Malfunction
CM	CM1	XCM	Switch Malfunction (Track Dept.)	AW	AW1	XAW	Pass. Train Interference, Weather	ZS	ZS1	XZS	PTC NICTD MU Train (On-Board)
G	G1	XG	Signal/Switch Malfunction (Signal Dept.)	CW	CW1	XCW	M of W Work, Weather	12 Locomotive Failure			
GM	GM1	XGM	Gate Crossing Malfunction	EW	EW1	XEW	Locomotive Malfunction, Weather	EA	EA1	XEA	Amtrak Locomotive/Car Malfunction
GT	GT1	XGT	Telecom Failure	FW	FW1	XFW	Cab Car/TRL/MU Malfunction, Weather	ZA	ZA1	XZA	PTC Amtrak Train (On-Board)
GX	GX1	XGX	Broken Gate Crossing	GW	GW1	XGW	Signal/Switch Malfunction Weather (Signal Dept.)	13 Human Error			
GZ	GZ1	XGZ	ETMS Signal Malfunction [obsolete 2015]	IW	IW1	XIW	Passenger Handling, Weather	BA	BA1	XBA	Amtrak Engineering Human Error
VG	VG1	XVG	Broken Gate Crossing Reported, Nothing Found	KW	KW1	XKW	Obstruction On Tracks, Weather	HS	HS1	XHS	Human Error, NICTD Mechanical Dept.
ZG	ZG1	XZG	PTC Wayside	MW	MW1	XMW	Right of Way Accident/Misc., Weather	RA	RA1	XRA	Human Error, Amtrak Transportation
ZT	ZT1	XZT	PTC Back Office	NW	NW1	XNW	Electricity Utility Failure, Weather	RF	RF1	XRF	Freight Dispatcher/Opr/Non-Freight Train Error
9 Track Work				OW	OW1	XOW	AC/DC System Failure, Weather	RS	RS1	XRS	Human Error, NICTD Transportation
C	C1	XC	Unscheduled Track Work	RW	RW1	XRW	Train Crew Issues, Weather	14 Sick, Injured, Unruly Passenger			
CC	CC1	XCC	Scheduled Track Work	UW	UW1	XUW	Accessibility, Weather	JA	JA1	XJA	Amtrak Passenger Problems/Removal
CF	CF1	XCF	Engineering Equipment Malfunction	YW	YW1	XYW	Derailment Accident, Weather	15 Weather			
CG	CG1	XCG	Scheduled Signal Work	ZW	ZW1	XZW	PTC Weather	DW	DW1	XDW	Freight Train Interference, Weather
CH	CH1	XCH	Contractor Failure	16 Other							
ZC	ZC1	XZC	PTC Construction/Maintenance	L	L1	XL	Unauthorized People On Tracks/Near Miss				
10 Catenary Failure				N	N1	XN	Electricity Utility Failure				
CO	CO1	XCO	Scheduled Wire Work	Q	Q1	XQ	Late Issuance of Track Warrant				
O	O1	XO	AC/DC System Failure	S	S1	XS	Operational (Efficiency) Testing				
11 Non-Locomotive Equipment Failure				T	T1	XT	Property Vandalism				
F	F1	XF	Cab Car/Trailer/MU Malfunction	VE	VE1	XVE	Locomotive Problem Reported, Nothing Found				
FZ	FZ1	XFZ	ETMS Malfunction on Cab Car [obsolete 2015]	VF	VF1	XVF	Cab Car Problem Reported, Nothing Found				
ZF	ZF1	XZF	PTC Malfunction Coach	W	W1	XW	Gas Leak				
12 Locomotive Failure											
E	E1	XE	Locomotive Malfunction								
EZ	EZ1	XEZ	ETMS Malfunction on Locomotive [obsolete 2015]								
ZE	ZE1	XZE	PTC Malfunction Locomotive								

Effective July 1, 2016

Revised July 19, 2016

'Metra/PSA' refers to delays that either directly affect or are directly attributable to Metra or its Purchase of Service Agreement partners (BNSF and Union Pacific) on Metra or PSA-controlled rail lines or trains in commuter operation.

'Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations.

TABLES 6.a, 6.b, 6.c, & 6.d: FREQUENCY OF TRAIN DELAYS BY CONTROL AND LINE

July 2016

DELAY CONTROL	BNSF	Electric			HER	Milw		NCS	RI	SWS	Union Pacific			SYSTEM	
		ML	BI	SC		N	W				N	NW	W		
Controllable	65	26	5	21	8	37	46	7	68	8	16	38	17	362	47%
Semi-controllable	40	0	0	0	6	7	25	12	2	27	0	1	7	127	17%
Uncontrollable	29	19	7	13	3	28	39	3	42	2	33	38	24	280	36%
TOTAL TRAINS DELAYED	134	45	12	34	17	72	110	22	112	37	49	77	48	769	100%

July - Average Over Previous Four Years: 2012-2015

DELAY CONTROL	BNSF	Electric			HER	Milw		NCS	RI	SWS	Union Pacific			SYSTEM	
		ML	BI	SC		N	W				N	NW	W		
Controllable	72.8	44.8	13.5	32.8	3.0	44.8	27.0	13.3	33.5	11.0	28.3	39.0	30.8	394.3	43%
Semi-controllable	14.0	0.0	0.3	0.0	3.3	29.0	14.3	12.8	10.3	20.0	0.5	14.3	16.8	135.3	15%
Uncontrollable	44.0	58.3	11.3	27.8	1.8	36.3	41.0	14.3	59.3	4.3	29.3	37.0	29.5	393.8	43%
TOTAL TRAINS DELAYED	130.8	103.0	25.0	60.5	8.0	110.0	82.3	40.3	103.0	35.3	58.0	90.3	77.0	923.3	100%

July 2016 Divergence From July Average Over Previous Four Years

DELAY CONTROL	BNSF	Electric			HER	Milw		NCS	RI	SWS	Union Pacific			SYSTEM	
		ML	BI	SC		N	W				N	NW	W		
Controllable	-7.8	-18.8	-8.5	-11.8	5.0	-7.8	19.0	-6.3	34.5	-3.0	-12.3	-1.0	-13.8	-32.3	21%
Semi-controllable	26.0	0.0	-0.3	0.0	2.8	-22.0	10.8	-0.8	-8.3	7.0	-0.5	-13.3	-9.8	-8.3	5%
Uncontrollable	-15.0	-39.3	-4.3	-14.8	1.3	-8.3	-2.0	-11.3	-17.3	-2.3	3.8	1.0	-5.5	-113.8	74%
TOTAL TRAINS DELAYED	3.3	-58.0	-13.0	-26.5	9.0	-38.0	27.8	-18.3	9.0	1.8	-9.0	-13.3	-29.0	-154.3	100%

January-July 2016

DELAY CONTROL	BNSF	Electric			HER	Milw		NCS	RI	SWS	Union Pacific			SYSTEM	
		ML	BI	SC		N	W				N	NW	W		
Controllable	340	158	66	83	27	288	233	71	318	71	133	144	297	2,229	48%
Semi-controllable	261	0	0	0	30	70	101	80	48	103	0	15	65	773	17%
Uncontrollable	258	133	35	66	4	195	231	43	178	39	128	174	119	1,603	35%
TOTAL TRAINS DELAYED	859	291	101	149	61	553	565	194	544	213	261	333	481	4,605	100%

Data for current month is final (08/12/16) version from TOPS.

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08/16/2016

TABLE 7: NUMBER OF DELAYS BY DATE
July 2016

WEEKDAY	1	5	6	7	8	11	12	13	14	15	18	19	20	21	22	25	26	27	28	29	TOTAL
	Fr	Tu	We	Th	Fr	Mo	Tu	We	Th	Fr	Mo	Tu	We	Th	Fr	Mo	Tu	We	Th	Fr	
BNSF	4	3	5	4	6	6	0	9	3	3	4	4	0	2	5	7	4	29	6	5	109
Elec -ML	0	1	8	0	2	1	1	0	0	3	1	1	0	10	1	2	0	0	1	2	34
-BI	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	4	1	0	1	1	11
-SC	0	3	2	0	1	2	0	1	0	2	0	0	0	3	4	1	0	1	8	1	29
Heritage	0	0	0	0	0	1	2	2	1	0	1	0	1	0	0	4	0	3	0	2	17
Milw -N	3	2	2	2	1	2	1	1	5	3	0	6	0	0	3	1	1	4	1	7	45
-W	5	0	5	4	1	2	0	1	2	2	2	2	1	5	9	12	0	3	5	13	74
NCS	1	1	0	0	0	1	2	6	1	2	1	0	0	0	3	3	1	0	0	0	22
RI	2	4	3	0	7	13	17	0	7	0	2	0	2	1	0	4	4	16	6	8	96
SWS	0	0	0	0	0	0	0	3	2	0	2	0	0	2	4	2	0	17	5	0	37
UP -N	3	2	2	0	0	1	0	0	0	0	2	0	0	0	1	6	0	7	2	1	27
-NW	2	2	4	1	2	1	1	0	0	1	0	4	4	11	0	7	0	2	2	1	45
-W	1	0	3	3	1	2	1	0	0	1	1	0	8	1	2	1	0	3	2	11	41
SYSTEM	21	18	37	14	22	32	25	23	21	17	16	17	16	35	32	54	11	85	39	52	587

SATURDAY	2	9	16	23	30	TOTAL
BNSF	0	8	5	2	2	17
Elec -ML	0	1	0	2	0	3
-BI	0	1	0	0	0	1
-SC	0	0	0	0	0	0
Heritage	-	-	-	-	-	-
Milw -N	3	3	2	11	0	19
-W	5	2	1	4	4	16
NCS	-	-	-	-	-	-
RI	4	4	0	2	0	10
SWS	0	0	0	0	0	0
UP -N	2	2	5	4	2	15
-NW	1	4	6	5	4	20
-W	1	0	1	0	0	2
SYSTEM	16	25	20	30	12	103

SUNDAY/HOLIDAY	3	4	10	17	24	31	TOTAL
BNSF	0	6	1	1	0	0	8
Elec -ML	1	0	4	0	1	2	8
-BI	-	-	-	-	-	-	0
-SC	2	0	3	0	0	0	5
Heritage	-	-	-	-	-	-	0
Milw -N	2	4	0	0	0	2	8
-W	5	5	1	0	8	1	20
NCS	-	-	-	-	-	-	0
RI	4	0	0	1	1	0	6
SWS	-	-	-	-	-	-	0
UP -N	0	0	1	0	0	6	7
-NW	1	4	2	0	2	3	12
-W	1	0	1	3	0	0	5
SYSTEM	16	19	13	5	12	14	79

Data is final (08/12/16) version from TOPS.

TABLE 8.a: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE
July 2016

CAUSE CATEGORY	BNSF	Electric			HER	Milw		NCS	RI	SWS	Union Pacific			SYSTEM
		ML	BI	SC		N	W				N	NW	W	
Freight Interference - TOTAL	25	0	0	0	2	5	24	6	2	9	0	1	8	82
Freight Interference - Peak	9	0	0	0	2	1	9	4	0	2	0	1	4	32
Primary	5	0	0	0	2	1	3	3	0	2	0	1	4	21
Secondary	4	0	0	0	0	0	6	1	0	0	0	0	0	11
Freight Interference - Off-Peak	16	0	0	0	0	4	15	2	2	7	0	0	4	50
Primary	15	0	0	0	0	3	3	2	2	6	0	0	3	34
Secondary	1	0	0	0	0	1	12	0	0	1	0	0	1	16
Signal/Switch Failure - TOTAL	39	4	0	2	4	7	9	6	7	22	2	2	4	108
Signal/Switch Failure - Metra/PSA	13	4	0	2	0	5	8	0	7	4	2	2	4	51
Primary	11	3	0	2	0	3	8	0	6	3	1	2	2	41
Secondary	2	1	0	0	0	2	0	0	1	1	1	0	2	10
Signal/Switch Failure - Foreign	26	0	0	0	4	2	1	6	0	18	0	0	0	57
Primary	12	0	0	0	4	2	1	5	0	12	0	0	0	36
Secondary	14	0	0	0	0	0	0	1	0	6	0	0	0	21
Mechanical Failure - TOTAL	13	0	0	0	3	12	24	4	42	0	9	6	7	120
Mechanical Failure - Metra/PSA	13	0	0	0	3	12	24	4	42	0	9	6	7	120
Non-Locomotive Equipment Failure - Metra/PSA	5	0	0	0	0	0	2	0	6	0	0	0	6	19
Primary	3	0	0	0	0	0	2	0	1	0	0	0	2	8
Secondary	2	0	0	0	0	0	0	0	5	0	0	0	4	11
Locomotive Failure - Metra/PSA	8	0	0	0	3	12	22	4	36	0	9	6	1	101
Primary	4	0	0	0	2	5	9	1	6	0	4	4	1	36
Secondary	4	0	0	0	1	7	13	3	30	0	5	2	0	65
Mechanical Failure - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passenger Train Interference - TOTAL	1	0	0	0	1	3	2	1	1	1	0	1	1	12
Passenger Train Interference - Metra/PSA	0	0	0	0	0	2	2	1	1	0	0	1	0	7
Passenger Train Interference - Foreign	1	0	0	0	1	1	0	0	0	1	0	0	1	5
Accident - TOTAL	0	1	0	2	0	2	0	0	13	0	0	0	0	18
Accident - Metra/PSA	0	1	0	2	0	2	0	0	13	0	0	0	0	18
Accident - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Track Work - TOTAL	13	18	4	8	1	11	4	2	16	1	3	17	1	99
Track Work - Metra/PSA	13	18	4	8	1	11	4	2	16	1	3	17	1	99
Track Work - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Human Error - TOTAL	13	1	0	1	3	6	6	0	2	2	1	12	0	47
Human Error - Metra/PSA	11	1	0	1	0	1	6	0	2	1	1	10	0	34
Human Error - Foreign	2	0	0	0	3	5	0	0	0	1	0	2	0	13
Sick, Injured, Unruly Passenger - TOTAL	3	1	2	5	1	4	3	0	0	0	1	7	2	29
Sick, Injured, Unruly Passenger - Metra/PSA	3	1	2	5	1	4	3	0	0	0	1	7	2	29
Sick, Injured, Unruly Passenger - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weather - TOTAL	14	9	4	1	0	8	5	0	3	2	1	1	1	49
Weather - Metra/PSA	14	9	4	1	0	8	5	0	3	2	1	1	1	49
Weather - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passenger Loading - TOTAL	8	8	1	2	0	6	18	0	20	0	15	21	10	109
Lift Deployment - TOTAL	1	0	0	0	0	0	7	0	1	0	0	1	1	11
Obstruction/Debris - TOTAL	4	0	0	4	2	1	5	1	1	0	14	8	4	44
Catenary Failure - TOTAL	0	2	1	8	0	0	0	0	0	0	0	0	0	11
Other - TOTAL	0	1	0	1	0	7	3	2	4	0	3	0	9	30
TOTAL TRAINS DELAYED	134	45	12	34	17	72	110	22	112	37	49	77	48	769
Total Metra/PSA Delays	80	45	12	34	7	59	85	10	110	8	49	74	39	612
Total Foreign Carrier Delays	54	0	0	0	10	13	25	12	2	29	0	3	9	157

Data for current month is final (08/12/16) version from TOPS.

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'Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation.

'Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations.

TABLE 8.b: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE

July - Average Over Previous Five Years: 2011-2015

CAUSE CATEGORY	BNSF	Electric			HER	Milw		NCS	RI	SWS	Union Pacific			SYSTEM
		ML	BI	SC		N	W				N	NW	W	
Freight Interference - TOTAL	13.8	0.0	0.0	0.0	4.4	22.8	12.6	15.0	11.6	15.0	1.8	13.2	23.0	133.2
Freight Interference - Peak	3.2	0.0	0.0	0.0	4.4	2.8	2.0	5.6	4.2	4.4	0.4	6.2	4.6	37.8
<i>Primary</i>	3.0	0.0	0.0	0.0	4.4	1.4	1.2	3.8	1.6	3.8	0.2	3.8	2.8	26.0
<i>Secondary</i>	0.2	0.0	0.0	0.0	0.0	1.4	0.8	1.8	2.6	0.6	0.2	2.4	1.8	11.8
Freight Interference - Off-Peak	10.6	0.0	0.0	0.0	0.0	20.0	10.6	9.4	7.4	10.6	1.4	7.0	18.4	95.4
<i>Primary</i>	9.4	0.0	0.0	0.0	0.0	13.4	7.8	7.8	6.0	8.0	1.0	6.6	15.2	75.2
<i>Secondary</i>	1.2	0.0	0.0	0.0	0.0	6.6	2.8	1.6	1.4	2.6	0.4	0.4	3.2	20.2
Signal/Switch Failure - TOTAL	23.4	11.6	3.0	4.2	3.0	35.6	14.4	9.4	9.0	12.8	1.8	9.0	10.0	147.2
Signal/Switch Failure - Metra/PSA	14.6	11.6	2.8	4.2	1.8	28.4	11.6	8.4	8.2	6.6	1.8	7.4	9.4	116.8
<i>Primary</i>	9.4	7.2	2.4	3.2	1.8	16.8	8.2	4.2	5.6	3.2	1.8	2.4	4.8	71.0
<i>Secondary</i>	5.2	4.4	0.4	1.0	0.0	11.6	3.4	4.2	2.6	3.4	0.0	5.0	4.6	45.8
Signal/Switch Failure - Foreign	8.8	0.0	0.2	0.0	1.2	7.2	2.8	1.0	0.8	6.2	0.0	1.6	0.6	30.4
<i>Primary</i>	8.2	0.0	0.0	0.0	1.2	3.6	2.0	1.0	0.6	3.0	0.0	0.8	0.6	21.0
<i>Secondary</i>	0.6	0.0	0.2	0.0	0.0	3.6	0.8	0.0	0.2	3.2	0.0	0.8	0.0	9.4
Mechanical Failure - TOTAL	20.4	2.8	2.2	0.6	0.4	6.8	8.2	1.4	14.2	1.6	8.6	6.8	3.8	77.8
Mechanical Failure - Metra/PSA	20.4	2.8	2.0	0.6	0.4	6.8	8.2	1.4	14.2	1.6	8.6	6.8	3.8	77.6
Non-Locomotive Equipment Failure - Metra/PSA	5.4	2.8	2.0	0.6	0.2	1.0	2.0	0.4	2.8	0.4	1.0	2.8	1.6	23.0
<i>Primary</i>	1.4	1.4	1.0	0.4	0.2	0.6	0.6	0.2	1.8	0.4	0.4	0.8	1.0	10.2
<i>Secondary</i>	4.0	1.4	1.0	0.2	0.0	0.4	1.4	0.2	1.0	0.0	0.6	2.0	0.6	12.8
Locomotive Failure - Metra/PSA	15.0	0.0	0.0	0.0	0.2	5.8	6.2	1.0	11.4	1.2	7.6	4.0	2.2	54.6
<i>Primary</i>	4.2	0.0	0.0	0.0	0.2	2.0	2.4	0.8	3.8	0.4	2.8	1.6	0.6	18.8
<i>Secondary</i>	10.8	0.0	0.0	0.0	0.0	3.8	3.8	0.2	7.6	0.8	4.8	2.4	1.6	35.8
Mechanical Failure - Foreign	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Passenger Train Interference - TOTAL	2.0	2.8	0.8	0.0	0.4	11.4	1.8	1.2	2.6	2.8	0.4	0.8	2.2	29.2
Passenger Train Interference - Metra/PSA	0.0	0.4	0.6	0.0	0.0	5.4	0.8	0.8	1.0	0.4	0.4	0.8	2.2	12.8
Passenger Train Interference - Foreign	2.0	2.4	0.2	0.0	0.4	6.0	1.0	0.4	1.6	2.4	0.0	0.0	0.0	16.4
Accident - TOTAL	12.0	6.4	2.8	5.0	0.2	5.0	6.6	1.0	8.0	0.2	2.8	3.2	2.8	56.0
Accident - Metra/PSA	10.6	6.4	2.8	5.0	0.0	4.4	5.8	1.0	8.0	0.2	2.8	3.2	2.6	52.8
Accident - Foreign	1.4	0.0	0.0	0.0	0.2	0.6	0.8	0.0	0.0	0.0	0.0	0.0	0.2	3.2
Track Work - TOTAL	25.6	5.4	1.4	12.2	0.2	8.8	17.6	1.0	11.4	2.0	11.8	9.6	12.8	119.8
Track Work - Metra/PSA	23.8	5.4	1.4	12.2	0.2	8.8	17.6	1.0	11.4	0.8	11.8	9.6	12.8	116.8
Track Work - Foreign	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	3.0
Human Error - TOTAL	19.8	5.2	1.8	2.8	2.0	6.8	6.2	2.2	7.6	2.8	9.0	12.4	7.4	86.0
Human Error - Metra/PSA	15.8	5.2	1.8	2.8	0.2	5.2	5.2	1.2	7.6	0.0	3.8	5.2	1.2	55.2
Human Error - Foreign	4.0	0.0	0.0	0.0	1.8	1.6	1.0	1.0	0.0	2.8	5.2	7.2	6.2	30.8
Sick, Injured, Unruly Passenger - TOTAL	7.0	9.6	1.4	3.0	0.0	1.6	3.8	0.8	4.8	1.0	4.8	3.2	3.0	44.0
Sick, Injured, Unruly Passenger - Metra/PSA	7.0	9.6	1.4	3.0	0.0	1.6	3.8	0.8	4.8	1.0	4.8	3.2	3.0	44.0
Sick, Injured, Unruly Passenger - Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Weather - TOTAL	14.4	5.4	1.6	3.2	1.6	22.6	10.6	8.8	9.0	1.4	11.2	10.0	7.6	107.4
Weather - Metra/PSA	14.4	5.4	1.6	3.2	1.6	22.6	10.6	8.8	9.0	1.4	11.2	9.6	7.6	107.0
Weather - Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4
Passenger Loading - TOTAL	27.0	39.4	4.6	20.0	0.0	22.0	15.4	0.4	42.2	0.0	34.4	22.2	16.4	244.0
Lift Deployment - TOTAL	4.8	0.4	0.0	0.0	0.0	3.0	6.2	0.4	11.4	0.2	2.4	1.6	3.4	33.8
Obstruction/Debris - TOTAL	3.2	2.0	1.0	3.0	0.2	0.6	3.0	1.2	1.0	1.6	3.0	4.2	5.4	29.4
Catenary Failure - TOTAL	0.0	13.2	3.8	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.6
Other - TOTAL	2.8	2.6	0.8	2.0	0.4	3.4	2.6	0.6	1.8	0.8	3.4	2.4	2.8	26.4
TOTAL TRAINS DELAYED	176.2	106.8	25.2	64.6	12.8	150.4	109.0	43.4	134.6	42.2	95.4	98.6	100.6	1,159.8
Total Metra/PSA Delays	144.4	104.4	24.6	64.6	4.8	112.2	90.8	26.0	120.6	14.6	88.4	76.2	70.6	942.2
Total Foreign Carrier Delays	31.8	2.4	0.6	0.0	8.0	38.2	18.2	17.4	14.0	27.6	7.0	22.4	30.0	217.6

Data for latest month is final (08/19/15) version from TOPS.

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'Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation.

'Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations.

TABLE 8.c: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE
July 2016 Divergence From July Average Over Previous Five Years

CAUSE CATEGORY	BNSF	Electric			HER	Milw		NCS	RI	SWS	Union Pacific			SYSTEM
		ML	BI	SC		N	W				N	NW	W	
Freight Interference - TOTAL	11.2	0.0	0.0	0.0	-2.4	-17.8	11.4	-9.0	-9.6	-6.0	-1.8	-12.2	-15.0	-51.2
Freight Interference - Peak	5.8	0.0	0.0	0.0	-2.4	-1.8	7.0	-1.6	-4.2	-2.4	-0.4	-5.2	-0.6	-5.8
<i>Primary</i>	2.0	0.0	0.0	0.0	-2.4	-0.4	1.8	-0.8	-1.6	-1.8	-0.2	-2.8	1.2	-5.0
<i>Secondary</i>	3.8	0.0	0.0	0.0	0.0	-1.4	5.2	-0.8	-2.6	-0.6	-0.2	-2.4	-1.8	-0.8
Freight Interference - Off-Peak	5.4	0.0	0.0	0.0	0.0	-16.0	4.4	-7.4	-5.4	-3.6	-1.4	-7.0	-14.4	-45.4
<i>Primary</i>	5.6	0.0	0.0	0.0	0.0	-10.4	-4.8	-5.8	-4.0	-2.0	-1.0	-6.6	-12.2	-41.2
<i>Secondary</i>	-0.2	0.0	0.0	0.0	0.0	-5.6	9.2	-1.6	-1.4	-1.6	-0.4	-0.4	-2.2	-4.2
Signal/Switch Failure - TOTAL	15.6	-7.6	-3.0	-2.2	1.0	-28.6	-5.4	-3.4	-2.0	9.2	0.2	-7.0	-6.0	-39.2
Signal/Switch Failure - Metra/PSA	-1.6	-7.6	-2.8	-2.2	-1.8	-23.4	-3.6	-8.4	-1.2	-2.6	0.2	-5.4	-5.4	-65.8
<i>Primary</i>	1.6	-4.2	-2.4	-1.2	-1.8	-13.8	-0.2	-4.2	0.4	-0.2	-0.8	-0.4	-2.8	-30.0
<i>Secondary</i>	-3.2	-3.4	-0.4	-1.0	0.0	-9.6	-3.4	-4.2	-1.6	-2.4	1.0	-5.0	-2.6	-35.8
Signal/Switch Failure - Foreign	17.2	0.0	-0.2	0.0	2.8	-5.2	-1.8	5.0	-0.8	11.8	0.0	-1.6	-0.6	26.6
<i>Primary</i>	3.8	0.0	0.0	0.0	2.8	-1.6	-1.0	4.0	-0.6	9.0	0.0	-0.8	-0.6	15.0
<i>Secondary</i>	13.4	0.0	-0.2	0.0	0.0	-3.6	-0.8	1.0	-0.2	2.8	0.0	-0.8	0.0	11.6
Mechanical Failure - TOTAL	-7.4	-2.8	-2.2	-0.6	2.6	5.2	15.8	2.6	27.8	-1.6	0.4	-0.8	3.2	42.2
Mechanical Failure - Metra/PSA	-7.4	-2.8	-2.0	-0.6	2.6	5.2	15.8	2.6	27.8	-1.6	0.4	-0.8	3.2	42.4
Non-Locomotive Equipment Failure - Metra/PSA	-0.4	-2.8	-2.0	-0.6	-0.2	-1.0	0.0	-0.4	3.2	-0.4	-1.0	-2.8	4.4	-4.0
<i>Primary</i>	1.6	-1.4	-1.0	-0.4	-0.2	-0.6	1.4	-0.2	-0.8	-0.4	-0.4	-0.8	1.0	-2.2
<i>Secondary</i>	-2.0	-1.4	-1.0	-0.2	0.0	-0.4	-1.4	-0.2	4.0	0.0	-0.6	-2.0	3.4	-1.8
Locomotive Failure - Metra/PSA	-7.0	0.0	0.0	0.0	2.8	6.2	15.8	3.0	24.6	-1.2	1.4	2.0	-1.2	46.4
<i>Primary</i>	-0.2	0.0	0.0	0.0	1.8	3.0	6.6	0.2	2.2	-0.4	1.2	2.4	0.4	17.2
<i>Secondary</i>	-6.8	0.0	0.0	0.0	1.0	3.2	9.2	2.8	22.4	-0.8	0.2	-0.4	-1.6	29.2
Mechanical Failure - Foreign	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2
Passenger Train Interference - TOTAL	-1.0	-2.8	-0.8	0.0	0.6	-8.4	0.2	-0.2	-1.6	-1.8	-0.4	0.2	-1.2	-17.2
Passenger Train Interference - Metra/PSA	0.0	-0.4	-0.6	0.0	0.0	-3.4	1.2	0.2	0.0	-0.4	-0.4	0.2	-2.2	-5.8
Passenger Train Interference - Foreign	-1.0	-2.4	-0.2	0.0	0.6	-5.0	-1.0	-0.4	-1.6	-1.4	0.0	0.0	1.0	-11.4
Accident - TOTAL	-12.0	-5.4	-2.8	-3.0	-0.2	-3.0	-6.6	-1.0	5.0	-0.2	-2.8	-3.2	-2.8	-38.0
Accident - Metra/PSA	-10.6	-5.4	-2.8	-3.0	0.0	-2.4	-5.8	-1.0	5.0	-0.2	-2.8	-3.2	-2.6	-34.8
Accident - Foreign	-1.4	0.0	0.0	0.0	-0.2	-0.6	-0.8	0.0	0.0	0.0	0.0	0.0	-0.2	-3.2
Track Work - TOTAL	-12.6	12.6	2.6	-4.2	0.8	2.2	-13.6	1.0	4.6	-1.0	-8.8	7.4	-11.8	-20.8
Track Work - Metra/PSA	-10.8	12.6	2.6	-4.2	0.8	2.2	-13.6	1.0	4.6	0.2	-8.8	7.4	-11.8	-17.8
Track Work - Foreign	-1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.2	0.0	0.0	0.0	-3.0
Human Error - TOTAL	-6.8	-4.2	-1.8	-1.8	1.0	-0.8	-0.2	-2.2	-5.6	-0.8	-8.0	-0.4	-7.4	-39.0
Human Error - Metra/PSA	-4.8	-4.2	-1.8	-1.8	-0.2	-4.2	0.8	-1.2	-5.6	1.0	-2.8	4.8	-1.2	-21.2
Human Error - Foreign	-2.0	0.0	0.0	0.0	1.2	3.4	-1.0	-1.0	0.0	-1.8	-5.2	-5.2	-6.2	-17.8
Sick, Injured, Unruly Passenger - TOTAL	-4.0	-8.6	0.6	2.0	1.0	2.4	-0.8	-0.8	-4.8	-1.0	-3.8	3.8	-1.0	-15.0
Sick, Injured, Unruly Passenger - Metra/PSA	-4.0	-8.6	0.6	2.0	1.0	2.4	-0.8	-0.8	-4.8	-1.0	-3.8	3.8	-1.0	-15.0
Sick, Injured, Unruly Passenger - Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Weather - TOTAL	-0.4	3.6	2.4	-2.2	-1.6	-14.6	-5.6	-8.8	-6.0	0.6	-10.2	-8.6	-6.6	-58.4
Weather - Metra/PSA	-0.4	3.6	2.4	-2.2	-1.6	-14.6	-5.6	-8.8	-6.0	0.6	-10.2	-8.6	-6.6	-58.0
Weather - Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	0.0	-0.4
Passenger Loading - TOTAL	-19.0	-31.4	-3.6	-18.0	0.0	-16.0	2.6	-0.4	-22.2	0.0	-19.4	-1.2	-6.4	-135.0
Lift Deployment - TOTAL	-3.8	-0.4	0.0	0.0	0.0	-3.0	0.8	-0.4	-10.4	-0.2	-2.4	-0.6	-2.4	-22.8
Obstruction/Debris - TOTAL	0.8	-2.0	-1.0	1.0	1.8	0.4	2.0	-0.2	0.0	-1.6	11.0	3.8	-1.4	14.6
Catenary Failure - TOTAL	0.0	-11.2	-2.8	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-14.6
Other - TOTAL	-2.8	-1.6	-0.8	-1.0	-0.4	3.6	0.4	1.4	2.2	-0.8	-0.4	-2.4	6.2	3.6
TOTAL TRAINS DELAYED	-42.2	-61.8	-13.2	-30.6	4.2	-78.4	1.0	-21.4	-22.6	-5.2	-46.4	-21.6	-52.6	-390.8
Total Metra/PSA Delays	-64.4	-59.4	-12.6	-30.6	2.2	-53.2	-5.8	-16.0	-10.6	-6.6	-39.4	-2.2	-31.6	-330.2
Total Foreign Carrier Delays	22.2	-2.4	-0.6	0.0	2.0	-25.2	6.8	-5.4	-12.0	1.4	-7.0	-19.4	-21.0	-60.6

Data for current month is final (08/12/16) version from TOPS.

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'Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation.

'Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations.

TABLE 9.a: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE
January - July 2016

CAUSE CATEGORY	BNSF	Electric			HER	Milw		NCS	RI	SWS	Union Pacific			SYSTEM
		ML	BI	SC		N	W				N	NW	W	
Freight Interference - TOTAL	103	0	0	0	12	41	83	37	49	47	0	8	69	449
Freight Interference - Peak	39	0	0	0	9	5	24	12	20	14	0	5	24	152
Primary	27	0	0	0	9	5	11	9	13	10	0	5	11	100
Secondary	12	0	0	0	0	0	13	3	7	4	0	0	13	52
Freight Interference - Off-Peak	64	0	0	0	3	36	59	25	29	33	0	3	45	297
Primary	52	0	0	0	3	28	27	24	22	30	0	2	35	223
Secondary	12	0	0	0	0	8	32	1	7	3	0	1	10	74
Signal/Switch Failure - TOTAL	245	47	25	20	19	126	98	64	47	89	14	27	105	926
Signal/Switch Failure - Metra/PSA	65	47	25	20	0	94	82	22	47	27	14	20	104	567
Primary	42	20	17	16	0	50	54	12	30	17	8	15	24	305
Secondary	23	27	8	4	0	44	28	10	17	10	6	5	80	262
Signal/Switch Failure - Foreign	180	0	0	0	19	32	16	42	0	62	0	7	1	359
Primary	138	0	0	0	17	25	13	28	0	43	0	2	1	267
Secondary	42	0	0	0	2	7	3	14	0	19	0	5	0	92
Mechanical Failure - TOTAL	87	10	2	1	10	68	86	25	173	6	52	56	61	637
Mechanical Failure - Metra/PSA	87	9	2	1	10	68	86	25	173	6	52	56	61	636
Non-Locomotive Equipment Failure - Metra/PSA	17	9	2	1	2	9	7	4	8	1	14	2	33	109
Primary	10	6	2	0	1	5	5	1	3	1	7	2	12	55
Secondary	7	3	0	1	1	4	2	3	5	0	7	0	21	54
Locomotive Failure - Metra/PSA	70	0	0	0	8	59	79	21	165	5	38	54	28	527
Primary	26	0	0	0	6	19	27	7	35	4	13	14	14	165
Secondary	44	0	0	0	2	40	52	14	130	1	25	40	14	362
Mechanical Failure - Foreign	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Passenger Train Interference - TOTAL	15	6	2	5	5	16	3	8	8	15	0	1	2	86
Passenger Train Interference - Metra/PSA	0	2	0	1	0	10	2	8	8	1	0	1	1	34
Passenger Train Interference - Foreign	15	4	2	4	5	6	1	0	0	14	0	0	1	52
Accident - TOTAL	54	6	3	3	1	53	59	28	23	11	27	36	13	317
Accident - Metra/PSA	50	6	3	3	1	44	59	23	23	6	27	33	12	290
Accident - Foreign	4	0	0	0	0	9	0	5	0	5	0	3	1	27
Track Work - TOTAL	96	30	10	21	1	60	35	5	48	4	48	37	100	495
Track Work - Metra/PSA	91	30	10	21	1	60	32	4	48	4	48	37	100	486
Track Work - Foreign	5	0	0	0	0	0	3	1	0	0	0	0	0	9
Human Error - TOTAL	49	39	21	28	10	33	29	9	36	16	14	29	14	327
Human Error - Metra/PSA	42	39	21	28	0	17	17	6	36	3	11	25	10	255
Human Error - Foreign	7	0	0	0	10	16	12	3	0	13	3	4	4	72
Sick, Injured, Unruly Passenger - TOTAL	20	35	8	14	1	23	32	2	28	2	19	33	24	241
Sick, Injured, Unruly Passenger - Metra/PSA	18	35	8	14	1	23	32	2	28	2	19	33	24	239
Sick, Injured, Unruly Passenger - Foreign	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Weather - TOTAL	117	46	12	19	0	46	24	6	50	6	21	12	7	366
Weather - Metra/PSA	117	46	12	19	0	46	24	6	50	6	21	12	7	366
Weather - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passenger Loading - TOTAL	24	18	5	7	0	25	59	0	54	1	28	62	17	300
Lift Deployment - TOTAL	9	1	0	0	0	25	12	1	8	3	0	8	10	77
Obstruction/Debris - TOTAL	28	26	7	18	2	20	38	5	9	10	29	19	28	239
Catenary Failure - TOTAL	0	26	5	12	0	0	0	0	0	0	0	0	0	43
Other - TOTAL	12	1	1	1	0	17	7	4	11	3	9	5	31	102
TOTAL TRAINS DELAYED	859	291	101	149	61	553	565	194	544	213	261	333	481	4,605
Total Metra/PSA Delays	543	286	99	145	15	449	450	106	495	72	258	311	405	3,634
Total Foreign Carrier Delays	316	5	2	4	46	104	115	88	49	141	3	22	76	971

Data for current month is final (08/12/16) version from TOPS.

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'Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation.

'Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations.

TABLE 9.b: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE
January - July - Average Over Previous Five Years: 2011-2015

CAUSE CATEGORY	BNSF	Electric			HER	Milw		NCS	RI	SWS	Union Pacific			SYSTEM
		ML	BI	SC		N	W				N	NW	W	
Freight Interference - TOTAL	134.0	0.0	0.0	0.0	25.0	113.6	94.8	100.2	45.4	105.4	12.0	44.8	153.2	828.4
Freight Interference - Peak	55.8	0.0	0.0	0.0	25.0	21.6	18.8	40.2	12.6	31.6	2.2	21.8	34.0	263.6
Primary	33.8	0.0	0.0	0.0	24.0	14.2	13.0	28.4	7.0	24.8	1.0	11.0	18.4	175.6
Secondary	22.0	0.0	0.0	0.0	1.0	7.4	5.8	11.8	5.6	6.8	1.2	10.8	15.6	88.0
Freight Interference - Off-Peak	78.2	0.0	0.0	0.0	0.0	92.0	76.0	60.0	32.8	73.8	9.8	23.0	119.2	564.8
Primary	66.2	0.0	0.0	0.0	0.0	64.8	55.6	50.4	28.6	57.8	6.2	18.8	97.6	446.0
Secondary	12.0	0.0	0.0	0.0	0.0	27.2	20.4	9.6	4.2	16.0	3.6	4.2	21.6	118.8
Signal/Switch Failure - TOTAL	133.4	54.2	20.0	17.2	14.8	179.6	101.6	59.8	61.8	69.0	31.4	47.4	69.4	859.6
Signal/Switch Failure - Metra/PSA	97.0	54.2	19.8	17.2	6.8	156.6	86.2	44.6	58.4	25.4	30.8	44.4	66.4	707.8
Primary	69.2	42.2	15.2	13.2	6.6	84.0	53.4	24.8	43.8	18.6	17.2	20.6	32.2	441.0
Secondary	27.8	12.0	4.6	4.0	0.2	72.6	32.8	19.8	14.6	6.8	13.6	23.8	34.2	266.8
Signal/Switch Failure - Foreign	36.4	0.0	0.2	0.0	8.0	23.0	15.4	15.2	3.4	43.6	0.6	3.0	3.0	151.8
Primary	31.6	0.0	0.0	0.0	7.2	15.0	11.2	8.2	1.8	27.6	0.6	1.8	3.0	108.0
Secondary	4.8	0.0	0.2	0.0	0.8	8.0	4.2	7.0	1.6	16.0	0.0	1.2	0.0	43.8
Mechanical Failure - TOTAL	111.4	29.0	11.2	8.6	2.4	94.4	54.0	19.4	74.0	18.2	53.8	56.8	39.4	572.6
Mechanical Failure - Metra/PSA	111.0	26.4	10.4	8.4	2.4	90.0	53.8	19.4	73.6	18.2	53.8	56.8	39.2	563.4
Non-Locomotive Equipment Failure - Metra/PSA	25.4	26.4	10.4	8.4	0.8	11.4	13.6	3.0	13.2	6.4	11.6	10.8	12.0	153.4
Primary	8.6	9.2	4.2	4.4	0.6	4.2	5.8	1.2	7.0	2.4	4.0	4.0	7.0	62.6
Secondary	16.8	17.2	6.2	4.0	0.2	7.2	7.8	1.8	6.2	4.0	7.6	6.8	5.0	90.8
Locomotive Failure - Metra/PSA	85.6	0.0	0.0	0.0	1.6	78.6	40.2	16.4	60.4	11.8	42.2	46.0	27.2	410.0
Primary	23.2	0.0	0.0	0.0	1.4	19.0	15.8	4.8	22.4	5.2	14.6	12.2	10.4	129.0
Secondary	62.4	0.0	0.0	0.0	0.2	59.6	24.4	11.6	38.0	6.6	27.6	33.8	16.8	281.0
Mechanical Failure - Foreign	0.4	2.6	0.8	0.2	0.0	4.4	0.2	0.0	0.4	0.0	0.0	0.0	0.2	9.2
Passenger Train Interference - TOTAL	10.6	9.0	2.2	4.2	4.0	56.0	10.4	10.4	12.4	8.8	7.0	5.4	10.4	150.8
Passenger Train Interference - Metra/PSA	1.2	3.8	1.4	3.4	0.2	36.8	8.4	10.0	8.6	2.4	7.0	5.2	10.2	98.6
Passenger Train Interference - Foreign	9.4	5.2	0.8	0.8	3.8	19.2	2.0	0.4	3.8	6.4	0.0	0.2	0.2	52.2
Accident - TOTAL	88.0	15.2	6.8	9.2	0.6	32.4	42.2	11.4	27.6	7.6	31.2	49.6	26.4	348.2
Accident - Metra/PSA	72.8	15.2	6.8	9.2	0.4	31.2	40.6	9.8	26.4	7.6	31.2	49.6	25.2	326.0
Accident - Foreign	15.2	0.0	0.0	0.0	0.2	1.2	1.6	1.6	1.2	0.0	0.0	0.0	1.2	22.2
Track Work - TOTAL	164.6	38.2	12.8	30.6	2.6	48.0	39.0	15.4	46.2	6.4	40.8	29.4	32.8	506.8
Track Work - Metra/PSA	159.0	38.2	12.8	30.6	2.6	47.8	38.8	14.8	46.2	5.0	40.8	29.4	32.8	498.8
Track Work - Foreign	5.6	0.0	0.0	0.0	0.0	0.2	0.2	0.6	0.0	1.4	0.0	0.0	0.0	8.0
Human Error - TOTAL	106.6	34.2	7.4	15.6	11.0	57.4	30.0	16.8	41.4	23.8	41.8	35.4	36.6	458.0
Human Error - Metra/PSA	76.6	31.6	7.2	14.8	2.6	36.6	20.6	7.4	41.0	5.6	32.6	21.4	21.2	319.2
Human Error - Foreign	30.0	2.6	0.2	0.8	8.4	20.8	9.4	9.4	0.4	18.2	9.2	14.0	15.4	138.8
Sick, Injured, Unruly Passenger - TOTAL	25.6	42.4	6.8	13.0	0.8	20.0	22.4	2.2	20.6	4.0	28.6	25.2	21.8	233.4
Sick, Injured, Unruly Passenger - Metra/PSA	25.2	42.4	6.8	13.0	0.8	20.0	22.4	2.2	20.2	4.0	28.6	25.2	21.8	232.6
Sick, Injured, Unruly Passenger - Foreign	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.8
Weather - TOTAL	195.8	115.6	31.4	41.0	7.4	125.0	98.6	39.2	122.6	25.4	101.8	117.2	98.4	1,119.4
Weather - Metra/PSA	194.6	115.6	31.4	41.0	7.0	121.8	98.0	38.8	122.4	24.0	101.8	116.8	97.8	1,111.0
Weather - Foreign	1.2	0.0	0.0	0.0	0.4	3.2	0.6	0.4	0.2	1.4	0.0	0.4	0.6	8.4
Passenger Loading - TOTAL	65.2	101.6	17.4	42.6	0.0	71.8	51.0	1.6	124.8	1.8	95.8	64.6	57.6	695.8
Lift Deployment - TOTAL	20.6	0.6	0.0	0.4	0.0	19.8	24.0	1.2	35.6	0.8	14.2	10.4	22.2	149.8
Obstruction/Debris - TOTAL	39.6	16.8	5.0	20.6	2.6	18.8	24.8	4.8	22.8	10.8	21.0	33.6	30.2	251.4
Catenary Failure - TOTAL	0.0	35.2	7.8	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	59.2
Other - TOTAL	33.0	16.4	4.2	11.2	0.6	14.0	14.4	4.2	19.0	9.8	20.2	17.6	25.8	190.4
TOTAL TRAINS DELAYED	1,128.4	508.4	133.0	230.2	71.8	850.8	607.2	286.6	654.2	291.8	499.6	537.6	624.2	6,423.8
Total Metra/PSA Delays	895.8	498.0	131.0	228.4	26.0	665.2	483.0	158.8	599.0	115.4	477.8	475.2	450.4	5,204.0
Total Foreign Carrier Delays	232.6	10.4	2.0	1.8	45.8	185.6	124.2	127.8	55.2	176.4	21.8	62.4	173.8	1,219.8

Data for latest month is final (08/19/15) version from TOPS.

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'Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation.

'Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations.

TABLE 9.c: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE
January - July 2016 Divergence From January - July Average Over Previous Five Years

CAUSE CATEGORY	BNSF	Electric			HER	Milw		NCS	RI	SWS	Union Pacific			SYSTEM
		ML	BI	SC		N	W				N	NW	W	
Freight Interference - TOTAL	-31.0	0.0	0.0	0.0	-13.0	-72.6	-11.8	-63.2	3.6	-58.4	-12.0	-36.8	-84.2	-379.4
Freight Interference - Peak	-16.8	0.0	0.0	0.0	-16.0	-16.6	5.2	-28.2	7.4	-17.6	-2.2	-16.8	-10.0	-111.6
Primary	-6.8	0.0	0.0	0.0	-15.0	-9.2	-2.0	-19.4	6.0	-14.8	-1.0	-6.0	-7.4	-75.6
Secondary	-10.0	0.0	0.0	0.0	-1.0	-7.4	7.2	-8.8	1.4	-2.8	-1.2	-10.8	-2.6	-36.0
Freight Interference - Off-Peak	-14.2	0.0	0.0	0.0	3.0	-56.0	-17.0	-35.0	-3.8	-40.8	-9.8	-20.0	-74.2	-267.8
Primary	-14.2	0.0	0.0	0.0	3.0	-36.8	-28.6	-26.4	-6.6	-27.8	-6.2	-16.8	-62.6	-223.0
Secondary	0.0	0.0	0.0	0.0	0.0	-19.2	11.6	-8.6	2.8	-13.0	-3.6	-3.2	-11.6	-44.8
Signal/Switch Failure - TOTAL	111.6	-7.2	5.0	2.8	4.2	-53.6	-3.6	4.2	-14.8	20.0	-17.4	-20.4	35.6	66.4
Signal/Switch Failure - Metra/PSA	-32.0	-7.2	5.2	2.8	-6.8	-62.6	-4.2	-22.6	-11.4	1.6	-16.8	-24.4	37.6	-140.8
Primary	-27.2	-22.2	1.8	2.8	-6.6	-34.0	0.6	-12.8	-13.8	-1.6	-9.2	-5.6	-8.2	-136.0
Secondary	-4.8	15.0	3.4	0.0	-0.2	-28.6	-4.8	-9.8	2.4	3.2	-7.6	-18.8	45.8	-4.8
Signal/Switch Failure - Foreign	143.6	0.0	-0.2	0.0	11.0	9.0	0.6	26.8	-3.4	18.4	-0.6	4.0	-2.0	207.2
Primary	106.4	0.0	0.0	0.0	9.8	10.0	1.8	19.8	-1.8	15.4	-0.6	0.2	-2.0	159.0
Secondary	37.2	0.0	-0.2	0.0	1.2	-1.0	-1.2	7.0	-1.6	3.0	0.0	3.8	0.0	48.2
Mechanical Failure - TOTAL	-24.4	-19.0	-9.2	-7.6	7.6	-26.4	32.0	5.6	99.0	-12.2	-1.8	-0.8	21.6	64.4
Mechanical Failure - Metra/PSA	-24.0	-17.4	-8.4	-7.4	7.6	-22.0	32.2	5.6	99.4	-12.2	-1.8	-0.8	21.8	72.6
Non-Locomotive Equipment Failure - Metra/PSA	-8.4	-17.4	-8.4	-7.4	1.2	-2.4	-6.6	1.0	-5.2	-5.4	2.4	-8.8	21.0	-44.4
Primary	1.4	-3.2	-2.2	-4.4	0.4	0.8	-0.8	-0.2	-4.0	-1.4	3.0	-2.0	5.0	-7.6
Secondary	-9.8	-14.2	-6.2	-3.0	0.8	-3.2	-5.8	1.2	-1.2	-4.0	-0.6	-6.8	16.0	-36.8
Locomotive Failure - Metra/PSA	-15.6	0.0	0.0	0.0	6.4	-19.6	38.8	4.6	104.6	-6.8	-4.2	8.0	0.8	117.0
Primary	2.8	0.0	0.0	0.0	4.6	0.0	11.2	2.2	12.6	-1.2	-1.6	1.8	3.6	36.0
Secondary	-18.4	0.0	0.0	0.0	1.8	-19.6	27.6	2.4	92.0	-5.6	-2.6	6.2	-2.8	81.0
Mechanical Failure - Foreign	-0.4	-1.6	-0.8	-0.2	0.0	-4.4	-0.2	0.0	-0.4	0.0	0.0	0.0	-0.2	-8.2
Passenger Train Interference - TOTAL	4.4	-3.0	-0.2	0.8	1.0	-40.0	-7.4	-2.4	-4.4	6.2	-7.0	-4.4	-8.4	-64.8
Passenger Train Interference - Metra/PSA	-1.2	-1.8	-1.4	-2.4	-0.2	-26.8	-6.4	-2.0	-0.6	-1.4	-7.0	-4.2	-9.2	-64.6
Passenger Train Interference - Foreign	5.6	-1.2	1.2	3.2	1.2	-13.2	-1.0	-0.4	-3.8	7.6	0.0	-0.2	0.8	-0.2
Accident - TOTAL	-34.0	-9.2	-3.8	-6.2	0.4	20.6	16.8	16.6	-4.6	3.4	-4.2	-13.6	-13.4	-31.2
Accident - Metra/PSA	-22.8	-9.2	-3.8	-6.2	0.6	12.8	18.4	13.2	-3.4	-1.6	-4.2	-16.6	-13.2	-36.0
Accident - Foreign	-11.2	0.0	0.0	0.0	-0.2	7.8	-1.6	3.4	-1.2	5.0	0.0	3.0	-0.2	4.8
Track Work - TOTAL	-68.6	-8.2	-2.8	-9.6	-1.6	12.0	-4.0	-10.4	1.8	-2.4	7.2	7.6	67.2	-11.8
Track Work - Metra/PSA	-68.0	-8.2	-2.8	-9.6	-1.6	12.2	-6.8	-10.8	1.8	-1.0	7.2	7.6	67.2	-12.8
Track Work - Foreign	-0.6	0.0	0.0	0.0	0.0	-0.2	2.8	0.4	0.0	-1.4	0.0	0.0	0.0	1.0
Human Error - TOTAL	-57.6	4.8	13.6	12.4	-1.0	-24.4	-1.0	-7.8	-5.4	-7.8	-27.8	-6.4	-22.6	-131.0
Human Error - Metra/PSA	-34.6	7.4	13.8	13.2	-2.6	-19.6	-3.6	-1.4	-5.0	-2.6	-21.6	3.6	-11.2	-64.2
Human Error - Foreign	-23.0	-2.6	-0.2	-0.8	1.6	-4.8	2.6	-6.4	-0.4	-5.2	-6.2	-10.0	-11.4	-66.8
Sick, Injured, Unruly Passenger - TOTAL	-5.6	-7.4	1.2	1.0	0.2	3.0	9.6	-0.2	7.4	-2.0	-9.6	7.8	2.2	7.6
Sick, Injured, Unruly Passenger - Metra/PSA	-7.2	-7.4	1.2	1.0	0.2	3.0	9.6	-0.2	7.8	-2.0	-9.6	7.8	2.2	6.4
Sick, Injured, Unruly Passenger - Foreign	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	0.0	0.0	0.0	0.0	1.2
Weather - TOTAL	-78.8	-69.6	-19.4	-22.0	-7.4	-79.0	-74.6	-33.2	-72.6	-19.4	-80.8	-105.2	-91.4	-753.4
Weather - Metra/PSA	-77.6	-69.6	-19.4	-22.0	-7.0	-75.8	-74.0	-32.8	-72.4	-18.0	-80.8	-104.8	-90.8	-745.0
Weather - Foreign	-1.2	0.0	0.0	0.0	-0.4	-3.2	-0.6	-0.4	-0.2	-1.4	0.0	-0.4	-0.6	-8.4
Passenger Loading - TOTAL	-41.2	-83.6	-12.4	-35.6	0.0	-46.8	8.0	-1.6	-70.8	-0.8	-67.8	-2.6	-40.6	-395.8
Lift Deployment - TOTAL	-11.6	0.4	0.0	-0.4	0.0	5.2	-12.0	-0.2	-27.6	2.2	-14.2	-2.4	-12.2	-72.8
Obstruction/Debris - TOTAL	-11.6	9.2	2.0	-2.6	-0.6	1.2	13.2	0.2	-13.8	-0.8	8.0	-14.6	-2.2	-12.4
Catenary Failure - TOTAL	0.0	-9.2	-2.8	-4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	0.0	-16.2
Other - TOTAL	-21.0	-15.4	-3.2	-10.2	-0.6	3.0	-7.4	-0.2	-8.0	-6.8	-11.2	-12.6	5.2	-88.4
TOTAL TRAINS DELAYED	-269.4	-217.4	-32.0	-81.2	-10.8	-297.8	-42.2	-92.6	-110.2	-78.8	-238.6	-204.6	-143.2	-1,818.8
Total Metra/PSA Delays	-352.8	-212.0	-32.0	-83.4	-11.0	-216.2	-33.0	-52.8	-104.0	-43.4	-219.8	-164.2	-45.4	-1,570.0
Total Foreign Carrier Delays	83.4	-5.4	0.0	2.2	0.2	-81.6	-9.2	-39.8	-6.2	-35.4	-18.8	-40.4	-97.8	-248.8

Data for current month is final (08/12/16) version from TOPS.

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'Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation.

'Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations.

**TABLE 10.a: FREQUENCY OF TRAIN DELAYS BY CAUSE & MONTH
2016**

CAUSE CATEGORY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan - Jul	
Freight Interference - TOTAL	82	53	43	44	72	73	82						449	9.8%
Freight Interference - Peak	32	17	14	9	28	20	32						152	3.3%
Primary	26	10	11	7	15	10	21						100	2.2%
Secondary	6	7	3	2	13	10	11						52	1.1%
Freight Interference - Off-Peak	50	36	29	35	44	53	50						297	6.4%
Primary	32	29	23	29	32	44	34						223	4.8%
Secondary	18	7	6	6	12	9	16						74	1.6%
Signal/Switch Failure - TOTAL	154	155	123	98	145	143	108						926	20.1%
Signal/Switch Failure - Metra/PSA	67	122	99	60	84	84	51						567	12.3%
Primary	35	30	52	41	54	52	41						305	6.6%
Secondary	32	92	47	19	30	32	10						262	5.7%
Signal/Switch Failure - Foreign	87	33	24	38	61	59	57						359	7.8%
Primary	68	24	14	33	49	43	36						267	5.8%
Secondary	19	9	10	5	12	16	21						92	2.0%
Mechanical Failure - TOTAL	107	68	131	43	80	88	120						637	13.8%
Mechanical Failure - Metra/PSA	107	68	131	42	80	88	120						636	13.8%
Non-Locomotive Equipment Failure - Metra/PSA	25	19	10	6	13	17	19						109	2.4%
Primary	11	9	4	5	9	9	8						55	1.2%
Secondary	14	10	6	1	4	8	11						54	1.2%
Locomotive Failure - Metra/PSA	82	49	121	36	67	71	101						527	11.4%
Primary	28	18	24	14	18	27	36						165	3.6%
Secondary	54	31	97	22	49	44	65						362	7.9%
Mechanical Failure - Foreign	0	0	0	1	0	0	0						1	0.0%
Passenger Train Interference - TOTAL	22	12	3	4	19	14	12						86	1.9%
Passenger Train Interference - Metra/PSA	13	5	2	3	2	2	7						34	0.7%
Passenger Train Interference - Foreign	9	7	1	1	17	12	5						52	1.1%
Accident - TOTAL	59	15	62	48	86	29	18						317	6.9%
Accident - Metra/PSA	49	14	62	41	77	29	18						290	6.3%
Accident - Foreign	10	1	0	7	9	0	0						27	0.6%
Track Work - TOTAL	40	21	36	44	141	114	99						495	10.7%
Track Work - Metra/PSA	40	21	36	41	139	110	99						486	10.6%
Track Work - Foreign	0	0	0	3	2	4	0						9	0.2%
Human Error - TOTAL	38	33	21	53	23	112	47						327	7.1%
Human Error - Metra/PSA	30	25	15	42	15	94	34						255	5.5%
Human Error - Foreign	8	8	6	11	8	18	13						72	1.6%
Sick, Injured, Unruly Passenger - TOTAL	20	39	27	50	44	32	29						241	5.2%
Sick, Injured, Unruly Passenger - Metra/PSA	20	39	27	50	44	30	29						239	5.2%
Sick, Injured, Unruly Passenger - Foreign	0	0	0	0	0	2	0						2	0.0%
Weather - TOTAL	129	132	28	1	4	23	49						366	7.9%
Weather - Metra/PSA	129	132	28	1	4	23	49						366	7.9%
Weather - Foreign	0	0	0	0	0	0	0						0	0.0%
Passenger Loading - TOTAL	13	7	29	8	51	83	109						300	6.5%
Lift Deployment - TOTAL	11	14	12	3	15	11	11						77	1.7%
Obstruction/Debris - TOTAL	18	30	40	54	22	31	44						239	5.2%
Catenary Failure - TOTAL	9	3	2	1	4	13	11						43	0.9%
Other - TOTAL	5	17	15	0	10	25	30						102	2.2%
TOTAL TRAINS DELAYED	707	599	572	451	716	791	769						4,605	100.0%
Total Metra/PSA Delays	511	497	498	346	547	623	612						3,634	78.9%
Total Foreign Carrier Delays	196	102	74	105	169	168	157						971	21.1%

Data for current month is final (08/12/16) version from TOPS.

P:\ONTIME\report\DelaysByCause.xlsx\AllMonths 08/16/2016

'Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation.

'Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations.

**TABLE 10.b: FREQUENCY OF TRAIN DELAYS BY CAUSE & MONTH
2015**

CAUSE CATEGORY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan - Jul	
Freight Interference - TOTAL	122	158	113	87	59	90	116	89	84	60	65	49	745	14.6%
Freight Interference - Peak	35	48	42	36	23	42	38	31	27	12	29	8	264	5.2%
Primary	24	33	24	24	13	25	26	19	16	9	22	5	169	3.3%
Secondary	11	15	18	12	10	17	12	12	11	3	7	3	95	1.9%
Freight Interference - Off-Peak	87	110	71	51	36	48	78	58	57	48	36	41	481	9.4%
Primary	63	86	59	42	28	38	56	42	48	41	31	33	372	7.3%
Secondary	24	24	12	9	8	10	22	16	9	7	5	8	109	2.1%
Signal/Switch Failure - TOTAL	93	126	35	69	69	79	116	87	64	84	63	53	587	11.5%
Signal/Switch Failure - Metra/PSA	73	83	28	53	54	67	103	68	51	74	39	42	461	9.0%
Primary	38	54	25	29	30	42	63	32	34	35	35	26	281	5.5%
Secondary	35	29	3	24	24	25	40	36	17	39	4	16	180	3.5%
Signal/Switch Failure - Foreign	20	43	7	16	15	12	13	19	13	10	24	11	126	2.5%
Primary	17	23	5	12	7	6	11	11	9	7	10	8	81	1.6%
Secondary	3	20	2	4	8	6	2	8	4	3	14	3	45	0.9%
Mechanical Failure - TOTAL	82	102	69	66	51	100	65	62	67	46	80	40	535	10.5%
Mechanical Failure - Metra/PSA	71	93	69	56	51	100	65	62	67	46	80	40	505	9.9%
Non-Locomotive Equipment Failure - Metra/PSA	27	19	22	17	8	35	28	11	11	5	12	8	156	3.0%
Primary	10	6	10	7	6	4	9	4	5	4	4	7	52	1.0%
Secondary	17	13	12	10	2	31	19	7	6	1	8	1	104	2.0%
Locomotive Failure - Metra/PSA	44	74	47	39	43	65	37	51	56	41	68	32	349	6.8%
Primary	16	25	14	17	15	14	15	22	24	14	20	18	116	2.3%
Secondary	28	49	33	22	28	51	22	29	32	27	48	14	233	4.6%
Mechanical Failure - Foreign	11	9	0	10	0	0	0	0	0	0	0	0	30	0.6%
Passenger Train Interference - TOTAL	13	19	6	7	16	27	12	10	3	8	9	10	100	2.0%
Passenger Train Interference - Metra/PSA	6	14	5	4	4	15	1	4	1	3	3	10	49	1.0%
Passenger Train Interference - Foreign	7	5	1	3	12	12	11	6	2	5	6	0	51	1.0%
Accident - TOTAL	29	35	60	60	20	59	29	13	27	73	44	50	292	5.7%
Accident - Metra/PSA	28	34	60	60	18	59	25	13	27	73	43	50	284	5.5%
Accident - Foreign	1	1	0	0	2	0	4	0	0	0	1	0	8	0.2%
Track Work - TOTAL	38	50	19	52	57	49	85	79	60	71	34	23	350	6.8%
Track Work - Metra/PSA	38	32	19	52	57	49	71	73	58	71	34	23	318	6.2%
Track Work - Foreign	0	18	0	0	0	0	14	6	2	0	0	0	32	0.6%
Human Error - TOTAL	32	67	103	31	40	45	148	41	65	43	44	34	466	9.1%
Human Error - Metra/PSA	24	45	91	17	28	41	59	29	38	22	35	28	305	6.0%
Human Error - Foreign	8	22	12	14	12	4	89	12	27	21	9	6	161	3.1%
Sick, Injured, Unruly Passenger - TOTAL	21	25	20	29	24	36	36	28	22	27	19	25	191	3.7%
Sick, Injured, Unruly Passenger - Metra/PSA	21	25	20	29	24	36	36	28	21	27	19	25	191	3.7%
Sick, Injured, Unruly Passenger - Foreign	0	0	0	0	0	0	0	0	1	0	0	0	0	0.0%
Weather - TOTAL	335	395	17	10	3	59	17	22	22	12	83	39	836	16.3%
Weather - Metra/PSA	333	381	17	10	3	59	17	22	21	12	83	39	820	16.0%
Weather - Foreign	2	14	0	0	0	0	0	0	1	0	0	0	16	0.3%
Passenger Loading - TOTAL	20	21	42	21	44	98	124	101	23	27	21	38	370	7.2%
Lift Deployment - TOTAL	22	23	20	9	9	24	18	10	14	8	8	7	125	2.4%
Obstruction/Debris - TOTAL	31	71	8	34	48	49	34	61	30	44	25	52	275	5.4%
Catenary Failure - TOTAL	4	34	10	0	3	4	23	9	37	14	13	15	78	1.5%
Other - TOTAL	23	59	10	10	19	16	31	19	24	11	22	12	168	3.3%
TOTAL TRAINS DELAYED	865	1,185	532	485	462	735	854	631	542	528	530	447	5,118	100.0%
Total Metra/PSA Delays	694	915	399	355	362	617	607	499	412	432	425	381	3,949	77.2%
Total Foreign Carrier Delays	171	270	133	130	100	118	247	132	130	96	105	66	1,169	22.8%

Data for latest month is final (01/14/16) version from TOPS.

P:\ONTIME\report\DelaysByCause.xlsx]AllMonths 08/16/2016

'Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation.

'Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations.

TABLE 10.c: FREQUENCY OF TRAIN DELAYS BY CAUSE & MONTH
2016 Divergence From 2015

CAUSE CATEGORY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan - Jul
Freight Interference - TOTAL	-40	-105	-70	-43	13	-17	-34						-296 -4.8%
Freight Interference - Peak	-3	-31	-28	-27	5	-22	-6						-112 -1.9%
Primary	2	-23	-13	-17	2	-15	-5						-69 -1.1%
Secondary	-5	-8	-15	-10	3	-7	-1						-43 -0.7%
Freight Interference - Off-Peak	-37	-74	-42	-16	8	5	-28						-184 -2.9%
Primary	-31	-57	-36	-13	4	6	-22						-149 -2.4%
Secondary	-6	-17	-6	-3	4	-1	-6						-35 -0.5%
Signal/Switch Failure - TOTAL	61	29	88	29	76	64	-8						339 8.6%
Signal/Switch Failure - Metra/PSA	-6	39	71	7	30	17	-52						106 3.3%
Primary	-3	-24	27	12	24	10	-22						24 1.1%
Secondary	-3	63	44	-5	6	7	-30						82 2.2%
Signal/Switch Failure - Foreign	67	-10	17	22	46	47	44						233 5.3%
Primary	51	1	9	21	42	37	25						186 4.2%
Secondary	16	-11	8	1	4	10	19						47 1.1%
Mechanical Failure - TOTAL	25	-34	62	-23	29	-12	55						102 3.4%
Mechanical Failure - Metra/PSA	36	-25	62	-14	29	-12	55						131 3.9%
Non-Locomotive Equipment Failure - Metra/PSA	-2	0	-12	-11	5	-18	-9						-47 -0.7%
Primary	1	3	-6	-2	3	5	-1						3 0.2%
Secondary	-3	-3	-6	-9	2	-23	-8						-50 -0.9%
Locomotive Failure - Metra/PSA	38	-25	74	-3	24	6	64						178 4.6%
Primary	12	-7	10	-3	3	13	21						49 1.3%
Secondary	26	-18	64	0	21	-7	43						129 3.3%
Mechanical Failure - Foreign	-11	-9	0	-9	0	0	0						-29 -0.6%
Passenger Train Interference - TOTAL	9	-7	-3	-3	3	-13	0						-14 -0.1%
Passenger Train Interference - Metra/PSA	7	-9	-3	-1	-2	-13	6						-15 -0.2%
Passenger Train Interference - Foreign	2	2	0	-2	5	0	-6						1 0.1%
Accident - TOTAL	30	-20	2	-12	66	-30	-11						25 1.2%
Accident - Metra/PSA	21	-20	2	-19	59	-30	-7						6 0.7%
Accident - Foreign	9	0	0	7	7	0	-4						19 0.4%
Track Work - TOTAL	2	-29	17	-8	84	65	14						145 3.9%
Track Work - Metra/PSA	2	-11	17	-11	82	61	28						168 4.3%
Track Work - Foreign	0	-18	0	3	2	4	-14						-23 -0.4%
Human Error - TOTAL	6	-34	-82	22	-17	67	-101						-139 -2.0%
Human Error - Metra/PSA	6	-20	-76	25	-13	53	-25						-50 -0.4%
Human Error - Foreign	0	-14	-6	-3	-4	14	-76						-89 -1.6%
Sick, Injured, Unruly Passenger - TOTAL	-1	14	7	21	20	-4	-7						50 1.5%
Sick, Injured, Unruly Passenger - Metra/PSA	-1	14	7	21	20	-6	-7						48 1.5%
Sick, Injured, Unruly Passenger - Foreign	0	0	0	0	0	2	0						2 0.0%
Weather - TOTAL	-206	-263	11	-9	1	-36	32						-470 -8.4%
Weather - Metra/PSA	-204	-249	11	-9	1	-36	32						-454 -8.1%
Weather - Foreign	-2	-14	0	0	0	0	0						-16 -0.3%
Passenger Loading - TOTAL	-7	-14	-13	-13	7	-15	-15						-70 -0.7%
Lift Deployment - TOTAL	-11	-9	-8	-6	6	-13	-7						-48 -0.8%
Obstruction/Debris - TOTAL	-13	-41	32	20	-26	-18	10						-36 -0.2%
Catenary Failure - TOTAL	5	-31	-8	1	1	9	-12						-35 -0.6%
Other - TOTAL	-18	-42	5	-10	-9	9	-1						-66 -1.1%
TOTAL TRAINS DELAYED	-158	-586	40	-34	254	56	-85						-513
Total Metra/PSA Delays	-183	-418	99	-9	185	6	5						-315
Total Foreign Carrier Delays	25	-168	-59	-25	69	50	-90						-198

Data for current month is final (08/12/16) version from TOPS.

P:\ONTIME\report\DelaysByCause.xlsx AllMonths 08/16/2016

'Metra/PSA' refers to delays that may be directly or indirectly attributed to Metra or Metra Purchase of Service Agreement partners (BNSF and UP) in commuter rail operation.

'Foreign' refers to delays that may be directly or indirectly attributed to other carriers, including freight carriers, Amtrak, and NICTD, that affect Metra trains. 'Foreign' also includes delays attributable to BNSF and Union Pacific freight operations.

TABLE 11: FREIGHT DELAYS
between August 2014 and July 2016

	BNSF	Electric			HER	Milw		NCS	RI	SWS	Union Pacific			SYSTEM
		ML	BI	SC		N	W				N	NW	W	
Aug-14	26	0	0	0	3	12	24	25	4	17	0	4	38	153
Sep-14	24	0	0	0	5	5	22	8	0	24	5	0	7	100
Oct-14	68	0	0	0	0	10	19	20	3	16	4	11	16	167
Nov-14	13	0	0	0	2	12	14	5	1	25	0	1	7	80
Dec-14	11	0	0	0	2	11	20	6	2	6	0	3	14	75
Jan-15	13	0	0	0	3	29	17	11	3	16	0	3	27	122
Feb-15	5	0	0	0	4	31	14	26	2	19	5	13	39	158
Mar-15	18	0	0	0	3	3	12	12	3	16	5	7	34	113
Apr-15	8	0	0	0	6	11	4	13	4	12	4	9	16	87
May-15	20	0	0	0	4	5	2	8	2	9	0	3	6	59
Jun-15	12	0	0	0	4	11	1	9	3	24	0	6	20	90
Jul-15	23	0	0	0	1	11	0	3	12	17	0	18	31	116
Total	241	0	0	0	37	151	149	146	39	201	23	78	255	1,320
Aug-15	13	0	0	0	8	7	5	11	4	17	0	0	24	89
Sep-15	20	0	0	0	1	9	6	11	14	6	0	2	15	84
Oct-15	16	0	0	0	0	5	4	3	3	11	0	3	15	60
Nov-15	15	0	0	0	7	0	4	7	5	10	3	6	8	65
Dec-15	9	0	0	0	2	4	4	5	4	5	0	1	15	49
Jan-16	14	0	0	0	1	4	23	5	24	3	0	3	5	82
Feb-16	11	0	0	0	3	5	6	1	16	2	0	2	7	53
Mar-16	4	0	0	0	2	6	8	6	2	7	0	0	8	43
Apr-16	13	0	0	0	3	8	4	3	1	8	0	1	3	44
May-16	17	0	0	0	0	9	12	7	0	8	0	1	18	72
Jun-16	19	0	0	0	1	4	6	9	4	10	0	0	20	73
Jul-16	25	0	0	0	2	5	24	6	2	9	0	1	8	82
Total	176	0	0	0	30	66	106	74	79	96	3	20	146	796

Data for current month is final (08/12/16) version from TOPS.

TABLES 12.a & 12.b: FREQUENCY OF LIFT-DEPLOYMENT TRAIN DELAYS BY LINE & MONTH
2016

LINE	Jan Feb Mar			Apr May Jun			Jul Aug Sep			Oct Nov Dec			Lift Delays YTD	% of All Delays YTD
	BNSF	5	1	1	0	1	0	1						9
Electric ML	1	0	0	0	0	0	0						1	0.34%
Electric BI	0	0	0	0	0	0	0						0	0.00%
Electric SC	0	0	0	0	0	0	0						0	0.00%
HER	0	0	0	0	0	0	0						0	0.00%
Milw N	1	6	8	0	7	3	0						25	4.52%
Milw W	0	0	1	2	0	2	7						12	2.12%
NCS	0	1	0	0	0	0	0						1	0.52%
RI	2	2	0	0	1	2	1						8	1.47%
SWS	0	0	0	0	2	1	0						3	1.41%
UP N	0	0	0	0	0	0	0						0	0.00%
UP NW	1	0	2	0	2	2	1						8	2.40%
UP W	1	4	0	1	2	1	1						10	2.08%
Total Lift Delays	11	14	12	3	15	11	11						77	1.67%
ALL DELAYS													4,605	

Data for current month is final (08/12/16) version from TOPS.

2015

LINE	Jan Feb Mar			Apr May Jun			Jul Aug Sep			Oct Nov Dec			Lift Delays All Year	% of All Delays All Year
	BNSF	6	7	8	1	1	2	7	1	3	3	1	0	40
Electric ML	0	0	0	0	0	1	2	0	0	0	0	0	3	0.41%
Electric BI	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Electric SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
HER	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Milw N	4	9	0	1	2	2	0	0	2	1	2	0	23	2.51%
Milw W	4	1	1	1	1	11	2	3	0	1	1	1	27	4.35%
NCS	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
RI	0	1	1	0	1	0	5	1	2	1	0	1	13	2.17%
SWS	0	0	0	0	1	0	0	0	0	0	0	0	1	0.23%
UP N	0	0	0	1	2	1	2	2	5	0	0	0	13	2.56%
UP NW	5	0	1	3	1	3	0	1	2	1	2	1	20	2.79%
UP W	3	5	9	2	0	4	0	2	0	1	2	4	32	4.06%
Total Lift Delays	22	23	20	9	9	24	18	10	14	8	8	7	172	2.21%
ALL DELAYS													7,796	

TABLE 13: FREQUENCY OF TRAIN DELAYS BY DURATION

July 2016

Minutes	BNSF	Electric			Her	Milwaukee		NCS	RI	SWS	UP			System
		ML	BI	SC		N	W				N	NW	W	
Peak *														
6-10	22	1	0	0	8	12	10	8	8	3	7	10	11	100
11-15	5	0	1	0	1	3	8	0	5	2	1	5	2	33
16-20	5	0	1	0	1	0	1	2	3	3	1	4	0	21
21+	10	0	0	1	6	0	2	3	15	4	1	9	4	55
Annulled	<u>8</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>5</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>18</u>
Sub-Total	50	1	4	1	16	15	26	13	32	12	10	29	18	227
Off-Peak **														
6-10	33	24	5	21	0	23	36	4	36	9	15	16	15	237
11-15	26	12	2	5	0	14	20	2	15	7	3	14	6	126
16-20	7	6	0	2	1	9	10	1	4	2	1	5	3	51
21+	17	2	0	3	0	11	18	2	20	7	16	13	4	113
Annulled	<u>1</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>5</u>	<u>0</u>	<u>4</u>	<u>0</u>	<u>2</u>	<u>15</u>
Sub-Total	84	44	8	33	1	57	84	9	80	25	39	48	30	542
July 2016 Total														
6-10	55	25	5	21	8	35	46	12	44	12	22	26	26	337
11-15	31	12	3	5	1	17	28	2	20	9	4	19	8	159
16-20	12	6	1	2	2	9	11	3	7	5	2	9	3	72
21+	27	2	0	4	6	11	20	5	35	11	17	22	8	168
Annulled	<u>9</u>	<u>0</u>	<u>3</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>5</u>	<u>0</u>	<u>6</u>	<u>0</u>	<u>4</u>	<u>1</u>	<u>3</u>	<u>33</u>
TOTAL	134	45	12	34	17	72	110	22	112	37	49	77	48	769
2016 Year-to-Date														
6-10	376	138	58	77	26	241	208	78	248	104	74	133	184	1,945
11-15	174	59	8	19	9	104	124	38	93	35	50	76	91	880
16-20	78	28	3	8	4	64	59	28	58	24	29	35	55	473
21+	180	58	20	28	19	116	139	46	125	50	91	78	126	1,076
Annulled	<u>51</u>	<u>8</u>	<u>12</u>	<u>17</u>	<u>3</u>	<u>28</u>	<u>35</u>	<u>4</u>	<u>20</u>	<u>0</u>	<u>17</u>	<u>11</u>	<u>25</u>	<u>231</u>
TOTAL	859	291	101	149	61	553	565	194	544	213	261	333	481	4,605
PERCENT COMPOSITION OF DELAYS BY RANGE OF DURATION														
Minutes	BNSF	Electric			Her	Milwaukee		NCS	RI	SWS	UP			System
		ML	BI	SC		N	W				N	NW	W	
July 2016 Total														
6-10	41.0%	55.6%	41.7%	61.8%	47.1%	48.6%	41.8%	54.5%	39.3%	32.4%	44.9%	33.8%	54.2%	43.8%
11-15	23.1%	26.7%	25.0%	14.7%	5.9%	23.6%	25.5%	9.1%	17.9%	24.3%	8.2%	24.7%	16.7%	20.7%
16-20	9.0%	13.3%	8.3%	5.9%	11.8%	12.5%	10.0%	13.6%	6.3%	13.5%	4.1%	11.7%	6.3%	9.4%
21+	20.1%	4.4%	0.0%	11.8%	35.3%	15.3%	18.2%	22.7%	31.3%	29.7%	34.7%	28.6%	16.7%	21.8%
Annulled	<u>6.7%</u>	<u>0.0%</u>	<u>25.0%</u>	<u>5.9%</u>	<u>0.0%</u>	<u>0.0%</u>	<u>4.5%</u>	<u>0.0%</u>	<u>5.4%</u>	<u>0.0%</u>	<u>8.2%</u>	<u>1.3%</u>	<u>6.3%</u>	<u>4.3%</u>
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2016 Year-to-Date Delays By Duration														
6-10	43.8%	47.4%	57.4%	51.7%	42.6%	43.6%	36.8%	40.2%	45.6%	48.8%	28.4%	39.9%	38.3%	42.2%
11-15	20.3%	20.3%	7.9%	12.8%	14.8%	18.8%	21.9%	19.6%	17.1%	16.4%	19.2%	22.8%	18.9%	19.1%
16-20	9.1%	9.6%	3.0%	5.4%	6.6%	11.6%	10.4%	14.4%	10.7%	11.3%	11.1%	10.5%	11.4%	10.3%
21+	21.0%	19.9%	19.8%	18.8%	31.1%	21.0%	24.6%	23.7%	23.0%	23.5%	34.9%	23.4%	26.2%	23.4%
Annulled	<u>5.9%</u>	<u>2.7%</u>	<u>11.9%</u>	<u>11.4%</u>	<u>4.9%</u>	<u>5.1%</u>	<u>6.2%</u>	<u>2.1%</u>	<u>3.7%</u>	<u>0.0%</u>	<u>6.5%</u>	<u>3.3%</u>	<u>5.2%</u>	<u>5.0%</u>
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

*Includes peak direction trains operating during weekday peak periods. **Includes all other weekday and weekend trains.

Data for most recent month is final (08/12/16) version from TOPS.

TABLE 14: AVERAGE LENGTH OF DELAY BY SERVICE PERIOD, IN MINUTES

	BNSF	Electric			Her	Milwaukee		NCS	RI	SWS	UP			System
		ML	BI	SC		N	W				N	NW	W	
July 2016														
Peak *	18.0	10.0	14.0	21.0	22.3	8.8	13.2	14.2	36.6	26.3	12.2	20.8	14.5	19.9
Off-Peak **	16.8	11.1	8.1	13.0	19.0	14.4	15.7	22.8	17.5	16.4	21.4	19.5	15.3	16.2
All	17.2	11.1	9.4	13.2	22.1	13.2	15.2	17.7	23.1	19.6	19.4	20.0	15.0	17.3
2016 Year-to-Date														
Peak *	17.5	15.8	20.7	15.5	22.4	18.1	22.0	19.2	20.3	16.3	28.7	18.6	18.7	19.2
Off-Peak **	17.4	17.3	22.3	16.3	11.9	16.3	16.3	16.5	15.6	18.0	20.4	18.9	21.3	17.6
All	17.5	16.6	21.7	16.2	21.1	16.8	18.0	17.9	17.9	17.5	23.5	18.8	20.1	18.3

Excludes annulled trains, which do not have delay times.

*Includes peak direction trains operating during weekday peak periods. **Includes all other weekday and weekend trains.

Data for most recent month is final (08/12/16) version from TOPS.