# COMMUTER RAIL SYSTEM ON-TIME PERFORMANCE REPORT

# November 2016



January 2017

#### COMMUTER RAIL ON-TIME PERFORMANCE November 2016

This report presents an analysis of the November 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 November 2016, Metra operated 17,026 scheduled trains, including scheduled "extras", if any. 647 of these trains were delayed (late or annulled), representing an on-time performance rate of 96.2%. 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 November 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 November 2016. Of the 647 delays systemwide in November 2016, all but 278 (43%) were beyond Metra's control. Table 6.b shows the average frequencies over the previous four Novembers, and Table 6.c shows the differences between Table 6.a and Table 6.b., illustrating that in November 2016, 15 more delays than the average over the previous four Novembers were controllable. Table 6.d shows the delay-cause control frequencies since the beginning of the year. Of the 7,217 delays in 2016, all but 3,624 (50%) were beyond Metra's control.

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

Table 8.a shows the frequency of train delays by delay-cause category and by line during November 2016. Table 8.b shows the average frequencies over the previous five Novembers, and Table 8.c shows the differences between Table 8.a and Table 8.b. There were 647 delays systemwide in November 2016, 56 less than the average over the previous five Novembers. Table 9.a shows delays from the beginning of the year through November 2016. Table 9.b shows the average frequencies from the beginning of the year through November 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 November of 2016, a total of 7,217 trains were delayed, compared to 7,349 trains delayed in the same eleven 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 November 2016 freight operations delayed 65 trains systemwide, compared to 65 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 8 trains were delayed by lift deployment in November 2016.

A review of November 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 45.4% of all late trains. Table 14 shows that the average length of delay was 20.2 minutes in November 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 for the purpose of calculating the total minutes of delay.)

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				w	eekday	s						Weel	kends				Total	
	]	Peak*			f-Peak*			Total		Sa	aturday		Sunday	s & Ho	olidays			
	Trains Scheduled	Trains Late	Percent On-Time															
BNSF	1,132	62	94.5%	860	28	96.7%	1,992	90	95.5%	115	8	93.0%	90	2	97.8%	2,197	100	95.4%
Elec -ML	939	21	97.8%	719	20	97.2%	1,658	41	97.5%	184	16	91.3%	101	5	95.0%	1,943	62	96.8%
-BI	294	4	98.6%	483	2	99.6%	777	6	99.2%	120	4	96.7%				897	10	98.9%
-SC	<u>357</u>	<u>3</u>	99.2%	<u>777</u>	<u>16</u>	97.9%	<u>1,134</u>	<u>19</u>	98.3%	<u>192</u>	<u>8</u>	95.8%	<u>100</u>	<u>0</u>	100.0%	<u>1,426</u>	<u>27</u>	98.1%
Subtotal	1,590	28	98.2%	1,979	38	98.1%	3,569	66	98.2%	496	28	94.4%	201	5	97.5%	4,266	99	97.7%
Heritage	126	5	96.0%	21	3	85.7%	147	8	94.6%							147	8	94.6%
Milw -N	523	30	94.3%	739	29	96.1%	1,262	59	95.3%	96	7	92.7%	100	6	94.0%	1,458	72	95.1%
-W	<u>564</u>	<u>31</u>	94.5%	<u>656</u>	27	95.9%	1,220	<u>58</u>	95.2%	<u>96</u>	<u>3</u>	96.9%	<u>90</u>	<u>1</u>	98.9%	1,406	<u>62</u>	95.6%
Subtotal	1,087	61	94.4%	1,395	56	96.0%	2,482	117	95.3%	192	10	94.8%	190	7	96.3%	2,864	134	95.3%
NCS	230	15	93.5%	232	7	97.0%	462	22	95.2%							462	22	95.2%
RI	754	13	98.3%	802	20	97.5%	1,556	33	97.9%	128	2	98.4%	140	3	97.9%	1,824	38	97.9%
sws	231	9	96.1%	399	11	97.2%	630	20	96.8%	24	2	91.7%				654	22	96.6%
UP -N	628	13	97.9%	843	18	97.9%	1,471	31	97.9%	104	2	98.1%	90	1	98.9%	1,665	34	98.0%
-NW	688	67	90.3%	675	26	96.1%	1,363	93	93.2%	98	8	91.8%	75	4	94.7%	1,536	105	93.2%
-W	<u>564</u>	<u>45</u>	92.0%	<u>675</u>	<u>29</u>	95.7%	<u>1,239</u>	<u>74</u>	94.0%	<u>82</u>	<u>6</u>	92.7%	<u>90</u>	<u>5</u>	94.4%	<u>1,411</u>	<u>85</u>	94.0%
Subtotal	1,880	125	93.4%	2,193	73	96.7%	4,073	198	95.1%	284	16	94.4%	255	10	96.1%	4,612	224	95.1%
SYSTEM	7,030	318	95.5%	7,881	236	97.0%	14,911	554	96.3%	1,239	66	94.7%	876	27	96.9%	17,026	647	96.2%

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

\*Includes peak direction trains operating during weekday peak periods. \*\*Includes all other weekday trains. Delays data for most recent month is final (12/15/16) version from TOPS.

 $\label{eq:loss_result} P:\ONTIME\report\Delays&TrainsByServPeriod.xls]OTPbyServPeriod&Line 12/16/16$ 

													JAN-	
LINE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	NOV	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	92.7%	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	95.8%	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	94.7%	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	89.3%	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	94.2%	94.4%
2016	93.2	93.8	95.9	96.8	94.0	93.5	93.8	91.4	91.3	95.2	95.4	05.5	94.0%	94.0%
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	93.3%	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	96.6%	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	97.3%	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	97.4%	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	97.5%	97.6%
2016	98.0	98.6	98.8	98.9	98.9	96.5	97.9	98.5	97.1	98.6	97.7		98.1%	98.1%
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	97.2%	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	87.2%	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	96.8%	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	90.8%	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	90.1%	90.2%
2016	90.0	92.9	97.4	97.3	95.2	94.8	87.9	94.4	94.6	98.0	94.6		94.4%	94.4%
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	92.1%	92.1%
M9 N 2011	02.0	05 2	05.7	05.5	80.2	04.4	70.2	07.6	02.2	00.1	01.0	02.0	00.20/	20.00
Milw - N 2011	92.9	85.3	95.7	95.5 05.2	89.2	84.4	78.3	87.6	92.3	88.1	91.9	93.9	89.3%	89.6%
2012	95.1	96.4	94.0	95.3 05.7	93.5	93.2	84.8	92.9	94.3	94.9	95.4 05.7	95.5	93.6%	93.8%
2013	95.5 72.1	92.4	94.1	95.7 07.0	95.3 05.1	89.6	92.8	93.6 95.2	94.4 95.5	93.3	95.7 05.4	87.5	93.9%	93.3%
2014 2015	73.1 91.8	81.9 87.9	89.5 93.5	97.9 95.1	95.1 95.4	91.1 94.8	96.0 97.1	95.2 94.9	95.5 95.6	96.2 97.9	95.4 97.0	93.5 96.8	91.6% 94.7%	91.7% 94.9%
2013	91.8 95.3	94.2	95.5 95.7	95.1 96.8	93.4 92.5	94.8 92.9	97.1 95.0	94.9 93.1	93.0 93.8	97.9 97.5	97.0 95.1	90.0	94.7% 94.7%	94.9% 94.7%
2010 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	92.6%	92.6%
2011-2015 average	07.0	00.7	75.4	)5.)	75.5	70.0	70.0	72.0	74.4	74.1	75.0	75.4	72.070	72.070
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	92.7%	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	94.6%	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	94.3%	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	93.4%	
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	96.4%	96.4%
2016	94.0	95.3	94.4	96.0	94.9	93.6	92.1	95.2	97.4	97.0	95.6		95.0%	95.0%
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	94.3%	94.3%
	05.5	00.2	00.5	00.0	00.0	00.0	05.0	00.1	00.1	00.5	02 7	02.4	00.001	01.10
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	90.9%	91.1%
2012	94.8	94.4	94.4	85.1	95.2	94.8	82.5	91.9	95.7 02.5	93.9	92.0	94.8	92.2%	92.4%
2013	95.0 76.0	87.5	93.7	90.9	94.0	92.7	93.6 04.0	95.0	92.5	93.1	90.0	87.4	92.6%	92.2%
2014 2015	76.0 93.9	81.1	88.5 02.6	96.3 04.8	88.5	89.2 94.8	94.0 96.0	88.5 92.6	95.2 95.2	90.9 97.1	97.8 06.1	91.9 03.6	89.7%	89.9% 93.8%
2015 2016	93.9 92.3	82.5 95.5	92.6 01.7	94.8 93.3	95.7 04.4			92.6 96.4	95.2 96.1		96.1 05.2	93.6	93.8% 04.7%	
2010 2011-2015 average	92.3	95.5 86.8	91.7 92.6	93.3	94.4 92.7	96.3 92.1	95.0 90.9	96.4	96.1	95.5 93.7	95.2 91.8	92.0	94.7% 91.9%	94.7% 91.8%
2011-2015 average	71.1	00.0	92.0	71./	72.1	72.1	20.9	72.1	74.3	73.1	71.0	92.0	71.7%	71.0%

 TABLE 2: ON-TIME PERFORMANCE BY LINE/BRANCH

														JAN-	
LINE Y	<b>EAR</b>	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	NOV	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	93.8%	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	95.3%	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	95.4%	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	93.4%	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	97.0%	97.1%
	2016	92.6	96.2	95.8	96.5	97.9	96.2	93.5	96.3	96.0	98.2	97.9		96.1%	96.1%
2011-2015 av	verage	93.6	92.7	96.6	96.0	95.6	92.9	92.0	95.5	96.5	96.7	96.1	96.6	95.0%	95.1%
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	92.0%	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	94.7%	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	96.0%	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	92.3%	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	94.6%	94.5%
	2016	95.6	97.2	97.8	95.6	91.9	95.3	94.1	93.3	91.6	97.4	96.6		95.1%	95.1%
2011-2015 av	verage	92.3	93.1	95.5	95.8	94.5	90.6	93.7	94.1	94.8	94.8	93.2	94.4	93.9%	93.9%
	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	92.3%	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	96.5%	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	96.5%	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	97.4%	97.5%
	2016	96.9	98.6	97.1	98.3	98.3	98.2	97.0	96.0	98.1	99.1	98.0		97.8%	97.8%
2011-2015 av	verage	95.8	94.1	97.3	97.0	96.2	95.0	94.4	94.9	96.2	96.0	96.6	97.4	95.8%	95.9%
	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	94.8%	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	96.3%	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	94.6%	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	95.1%	95.2%
	2015	96.0 07.0	91.6	97.6 07.8	96.3	96.9	96.8	94.1	96.5	96.1	97.5	96.7	97.5	96.0%	96.2%
	2016	97.0 94.3	98.1	97.8	98.1	96.0	96.6	94.9	96.8 95.5	96.9	96.5	93.2	05.0	96.5%	96.5%
2011-2015 av	erage	94.5	93.7	96.9	97.2	94.9	94.2	93.8	95.5	96.7	95.8	95.7	95.9	95.4%	95.4%
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	91.0%	90.9%
Ur - w	2011	93.5 93.1	87.5 97.1	95.8 95.2	94.5 95.5	95.5 95.6	89.0 92.4	83.9 93.8	89.5 94.3	90.8 97.2	91.0 97.2	92.0 96.0	89.4 96.4	91.0% 95.2%	90.9% 95.3%
	2012 2013	95.1 96.5	97.1 96.2	95.2 96.9	95.5 94.4	93.0 93.7	92.4 89.2	95.8 95.0	94.5 93.0	97.2 96.6	97.2 96.6	90.0 94.0	90.4 91.5	93.2% 94.7%	
	2013 2014	90.9 85.9		90.9 94.4	94.4 96.7		94.8	95.0 96.4		96.7			96.2		
	2014	93.9	91.1	96.1	96.3	97.5	93.9	93.9	95.9	96.0	96.1	97.3	96.8	95.3%	
	2013	97.8	93.4	97.2	96.7	90.1	94.4	96.6	96.0	96.2	95.6	94.0	70.0	95.3%	95.3%
2011-2015 av		92.6	92.6	95.3	95.5	94.7	91.9	93.1	93.3	95.4	95.3	95.0	94.1	94.1%	94.1%
2011-2013 dv	crage	12.0	12.0	,,,,	15.5	J <del>1</del> ./	71.7	75.1	,,,,	73.4	,,,,	75.0	74.1	77.170	77.1/0
SYSTEM	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	93.4%	93.6%
	2011	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%
0	2012	96.8	96.1	96.7	95.7	95.9	92.4	94.0	95.2 95.2	96.4	95.9	95.1	93.8	95.5%	95.4%
	2013	85.6	89.3	94.9	96.8	94.5	93.1	95.6	95.7	96.8	95.9	96.9	96.5	94.1%	94.3%
	2014	94.9	92.5	97.0	97.2	97.2	95.8	95.3	96.3	96.8	97.0	96.8	97.5	96.1%	96.2%
	2013	95.8	96.4	96.8	97.4	95.8	95.5	95.4	95.7	95.7	97.4	96.2	21.5	96.2%	96.2%
2011-2015 av		93.6	93.1	96.3	96.6	95.8	93.4	93.3	95.0	96.0	95.7	95.7	96.1	95.0%	95.1%
Delays data for mos	-						75.4	,5.5		ONTIME				<u>ا</u> ا	//////

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

Delays data for most recent month is final (12/15/16) 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 November 2016

		Minutes	•	
Line Trai		Late		Delay Explanation
BNSF 125	<i>,</i>	17	GM	BOX 2S FROM MP 9.1 RIDGELAND - MP 10.13 HARLEM AVE
76% OT	Mon, Nov 07 Wed, Nov 16	20 8	K El	CAR FLIPPED OVER @ MP 21.21 DGM MAIN ST / BLOCKING MT 1 & 2 TRAFFIC DUE TO 1243 METX 198 MECHANICAL FAILURE AT ATC
	Fri. Nov 25	26	K1	VEHICLE ON TRACKS @ MP 21.21 DGM STREET
	Tue, Nov 29	12	L	SUICIDAL TRESPASSER AT MP16.8
BNSF 125		9	GM	BOX 2S FROM MP 9.1 RIDGELAND - MP 10.13 HARLEM AVE
81% OT	Mon, Nov 07	35	Κ	CAR FLIPPED OVER @ MP 21.21 DGM MAIN ST / BLOCKING MT 1 & 2
	Wed, Nov 16	9	E1	TRAFFIC DUE TO 1243 METX 198 MECHANICAL FAILURE AT ATC
	Tue, Nov 29	15	L	SUICIDAL TRESPASSER AT MP16.8
BNSF 126 76% OT	,	9 25	GM K	BOX 2S FROM MP 9.1 RIDGELAND - MP 10.13 HARLEM AVE CAR FLIPPED OVER @ MP 21.21 DGM MAIN ST / BLOCKING MT 1 & 2
70% 01	Mon, Nov 07 Wed, Nov 16	25 12	к E1	TRAFFIC DUE TO 1243 METX 198 MECHANICAL FAILURE AT ATC
	Fri, Nov 25	30	K1	VEHICLE ON TRACKS @ MP 21.21 DGM STREET
	Tue, Nov 29	7	L	SUICIDAL TRESPASSER AT MP16.8
BNSF 127		7	DE1	RESIDUAL DELAY FROM MECHANICAL FAILURE / 1269 YARDING WALKING LINEUP
72% OT	· · ·	11	GM	BOX 2S FROM MP 9.1 RIDGELAND - MP 10.13 HARLEM AVE
	Mon, Nov 07	12	K	CAR FLIPPED OVER @ MP 21.21 DGM MAIN ST / BLOCKING MT 1 & 2
	Tue, Nov 08	40	E1	DROPPED SHORTS @ FAIRVIEW / ACCOMMODATED BY 1279 / SHOVED 1265 TO AURORA
BNSF 127	Wed, Nov 16 Wed, Nov 02	<u>10</u> 9	E1 GM	TRAFFIC DUE TO 1243 METX 198 MECHANICAL FAILURE AT ATC BOX 2S FROM MP 9.1 RIDGELAND - MP 10.13 HARLEM AVE
76% OT	Mon, Nov 07	13	K	CAR FLIPPED OVER @ MP 21.21 DGM MAIN ST / BLOCKING MT 1 & 2
707001	Tue, Nov 08	12	E1	ACCOMODATINAG PASSENGERS FROM 1271 / LOCOMOTIVE FAILURE METX 195
	Wed, Nov 16	8	E1	TRAFFIC DUE TO 1243 METX 198 MECHANICAL FAILURE AT ATC
	Fri, Nov 25	27	K1	VEHICLE ON TRACKS @ MP 21.21 DGM STREET
BNSF 128	,	8		LATE ARRIVAL OF EQUIPMENT
81% OT	Thu, Nov 03	7	I1	LATE ARRIVAL OF EQUIPMENT / DEPARTED 3" LATE / 8 CAR SET - LOCAL
	Tue, Nov 08 Tue, Nov 29	9	E1	HEAVY PASSENGER LOADING / ACCOMMODATING 1373 PASSENGERS
BNSF 129	,	16 18	L1 GA1	LATE FLIP FROM 1255/84 CODE LINE FAILURE @ CP HARRISON
81% OT	Fri, Nov 11	8	J	UNRULY PASSENGER REMOVED @ LISLE
	Wed, Nov 16	13	R1	COMBINED WITH 1289 DUE TO MECHANICAL FAILURE WITH 1288/MAKING ALL STOPS
	Tue, Nov 22	9	R	N SIDE DOOR CAR 7471 WOULD NOT CLOSE REMOTELY / ONLY LOCALLY / SWITCHES WERE DOUBLE
				CHECKED BY CREW
BNSF 137	,	8	DE1	RESIDUAL DELAY FROM FLIP / DEPARTED 8" LATE
79% OT	Wed, Nov 02	9		LATE ARRIVAL OF EQUIPMENT
	Tue, Nov 08 Wed, Nov 16	0 11	XE E1	LOCOMOTIVE FAILURE METX 195 TRAFFICE DUE TO 1243 METX 198 MECHANICAL FAILURE AT ATC
ELML 10		23	G	DELAYED DUE SIGNAL PROBLEMS KENSINGTON TO 147TH
81% OT	Mon, Nov 21	9	G	3M RAND FOR AIRTEST, 2M 111TH WTNG FR 700 TO CLR, 6 MIN BETWEEN MP16.47 -21.31 FOR SIGNAL
	,			ISSUES.
	Tue, Nov 22	6	G	DUE TO SIGNAL MALFUNCTIONS TK 1, CP 19.89 TO MP 24.75, ME 105 WAS DELAYED.
	Fri, Nov 25	25	G	SIGNAL MALFUNCTIONS TK 1. RAN RESTICTED SPEED MP. 14.94 - 18.61. DUE TO INITIAL DELAY, TRAIN
		10		WAS HELD @ RICH YRD ALLOWING OTHER TRAINS TO
MN 213	5 Wed, Nov 02 Thu, Nov 03	13 13	GA RA	10" SWITCH FAILURE, CUS; 3" MAYFAIR; 2" ADA 17" WRONG LINE UP, CUS
84% OT	Mon, Nov 14	13	KA CG	17 WRONG LINE UP, CUS 11" SIGNAL FAILURE, MORTON GROVE-DEERFIELD
MW 222		9	I	2" ADA; 3" SLOW LOADING LOCOMOTIVE, CUS; 6" SLOW ENTRAINING
81% OT	Tue, Nov 08	15		18" B/O ADA LIFT ON CAR 7484 WOULDN'T STOW, ITASCA
	Mon, Nov 14	12	J	6" STOP SIGNAL, A-2; 6" FARE DISPUTE, WOOD DALE; 6" SLOW ENTRAINING
L	Tue, Nov 29	6	G	CLINTON ST. RESTRICTING SIGNAL
MW 223	,	9	CC	5" COPY RADIO BULLETIN; 2" GRAND AVE; 2" SLOW ENTRAINING
76% OT	Mon, Nov 07 Thu, Nov 10	24 0	M1 XE	24" #2242 INCIDENT @ PARK ST ANNULLED LOCO #100 STOPPED LOADING GROUND LOCKOUT, PASSENGERS PUT ON #2237, BARTLETT
	1110, 1NOV 10	0	AE	AINTOLED LOCO #100 510FFED LOADING OROUND LOCKOUT, PASSENGERS PUT ON #2257, BARTLETT
	Wed, Nov 16	10	DE1	5" STOP SIGNAL, B-6; 10" RESTRICTED SPEED PAST CP FREIGHT
	Wed, Nov 23	27		15" SWITCH FAILURE, CUS; 10" APPROACH SIGNALS, B17-ROSELLE; 5" APPROACH SIGNALS, ROSELLE-
				BARTLETT.
NCS 10	· · ·	8	CG1	
81% OT	Wed, Nov 16	7		8" FOLLOWING TRAINS AHEAD, EN ROUTE
	Mon, Nov 28	10	А	2"; 1" SLOW LOADING, RIVER GROVE; 1" STUCK DOOR 7885, SCHILLER PARK; 7" STOP SIGNAL, DEVAL
	Wed, Nov 30	10	۸	6" FOLLOW #2227 A 2 TO DIVED CROVE- 2" STOD SIGNAL DEVAL- 1" SLOW UNLOADING
UPNW 62		70	A E1	6" FOLLOW #2227, A-2 TO RIVER GROVE; 3" STOP SIGNAL, DEVAL; 1" SLOW UNLOADING 70" TIED ONTO #620 AND SHOVED TO CPT, CUMBERLAND
81% OT	Thu, Nov 17	186	M1	120" LATE DEPARTING DUE TO #608 STRUCK TRESPASSER @ MP19
	Mon, Nov 21	13	E1	10" DELAYED FOLLOWING M624 FROM CRYSTAL LAKE TO BARRINGTON; CROSS TRAFFIC AHEAD AT
	,			DEVAL
ll	Wed, Nov 23	6	D	6" FOLLOWING M624, PINGREE-BARRINGTON; WAITING FOR NCS #110 TO CLEAR, DEVAL.

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

			Minutes	Delay	
Line	Train D	ate	Late	Code	Delay Explanation
UPNW	631	Fri, Nov 04	28	Ι	48" CUBS PARADE
76%	6 OT	Mon, Nov 07	10	CC	10" 20MPH SPEED RESTRICTION, MP58.8-65.4 MCHENRY SUB
		Tue, Nov 08	12	CC	12" SPEED RESTRICTIONS 20MPH, MP23.78-24.20; 20MPH, MP60.25- 63.6
		Thu, Nov 17	11	CC	11" SLOW ORDER 10MPH, MP63.25-65.4
		Tue, Nov 29	70	M1	72" #654 FATALITLY TK2, MP39.55
UPW	34	Thu, Nov 03	11	JM1	11" FOLLOWING #32 TRAIN CONTROL
81%	6 OT	Mon, Nov 21	7	GF1	7" DELAYED FOLLOWING M32 FROM ELMHURST TO CPT
		Mon, Nov 28	8	Ι	8" SLOW ENTRAINING, RIVER FOREST & OAK PARK; SLOW APPROACHING ALL STATIONS, STUDENT
					ENGINEER
		Tue, Nov 29	7	D1	7" LATE TURN FROM #19
UPW	61	Fri, Nov 04	18	Ι	38" CUBS PARADE
81%	6 OT	Wed, Nov 09	17	R1	17" MADE ALL STOPS CPT-ELBURN TO ACCOMMODATE #57'S PASSENGERS
		Thu, Nov 10	27	J	27" LOCAL PD ARRIVED AND REMOVED MALE TRYING TO CLIMB ABOARD LOCOMOTIVE, LOMBARD
		Mon, Nov 28	0	XR	ANNULLED REPORT OF RULE VIOLATION, REPORTED THAT #61 DID NOT COMPLY WITH XH PROCEDURE @ MP16.13, LOMBARD

Data is final (12/15/16) version from TOPS.

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#### **TABLE 4: DELAY INCIDENT CODES AND DEFINITIONS**

	Codes						Codes				
		Primary						Primary			
Primary	Secondary	Annulled	Definition	Delay Class	Responsibility	Primary	Secondary	Annulled	Definition	Delay Class	Responsibility
Α	Al	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	М	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	Ν	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	0	01	XO	AC/DC System Failure	Engineering	Controllable
В	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	0	Q1	XQ	Late Issuance of Track Warrant	Transportation	Controllable
С	C1	XC	Unscheduled Track Work	Engineering	Controllable	R	R1	XR	Human Error, Transportation	Transportation	Controllable
ČA	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)	1	Controllable
CH	CH1	XCH	Contractor Failure	Engineering	Controllable	RN	RN1	XRN		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	Ul	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	II	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	XJA	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	KD1 KP1	XKP	Suspicious Package(s)/Person(s)/Activity	Incidental	Uncontrollable	2.11	2.111	AL W	i i e weather	Lingincering	Cheonuonaole
KW	KW1	XKW	Obstruction On Tracks, Weather	Incidental	Uncontrollable						
17.11	K W 1	ALW	Obstruction OII Hacks, weather	incidentai	Cheolittonable						

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			N	IETRA/PSA DELAY CODES (continued)			FC	DREIGN CARRIER DELAY CODES
CATEGORY		CAT	EGOF	Υ		CATH	GORY	Y	
Codes		Cod	es			Code	s		
Pri. Sec. Ann.	Definition	Pri.	Sec.	Ann.	Definition	Pri.	Sec.	Ann.	Definition
	Passenger Train Interference	13			Human Error	1			Passenger Train Interference
A A1 XA	Passenger Train Interference	В	B1	XB	Human Error, Eng. Dept.	AM	AM1	XAM	Amtrak Caused Delay
AA AA1 XAA	Rule 9.9 Delayed in Block/Rule 6.30	Н	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 II XI	Passenger Handling, Running Time	YH	YH1	XYH	Derailment - Human Error, Mechanical	DM	DM1	XDM	Freight-Accident/Incident
IB IB1 XIB	Passenger Handling, Bicycle		YR1	XYR	Derailment - Human Error, Transportation	YF		XYF	Derailment - Accident, Foreign Line
	Lift Deployment		ZB1	XZB	PTC Human Error, Engineering Dept.	8			Signal/Switch Failure
U U1 XU	Accessibility Related (ADA)		ZH1	XZH	PTC Human Error, Mechanical	GA	GA1	XGA	Signal/Switch Failure Amtrak (Signal Dept.)
UF UF1 XUF	ADA Lift Failure		ZP1	XZP	PTC Dispatcher	GF			Signal/Switch Foreign Line
	Obstruction/Debris	ZR		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				
	Catenary Failure	Ν	N1	XN	Electricity Utility Failure				
CO CO1 XCO	Scheduled Wire Work	Q	Q1	XQ	Late Issuance of Track Warrant				
0 01 X0	AC/DC System Failure	S	S1	XS	Operational (Efficiency) Testing				
	Non-Locomotive Equipment Failure		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]		VF1	XVF	Cab Car Problem Reported, Nothing Found				
ZF ZF1 XZF	PTC Malfunction Coach	W	W1	XW	Gas Leak				
	Locomotive Failure								
E E1 XE	Locomotive Malfunction								
EZ EZ1 XEZ	ETMS Malfunction on Locomotive [obsolete 2015]								
ZE ZE1 XZE	PTC Malfunction Locomotive								
1									
	6 Revised July 19, 2016	l							

'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.

P:\ONTIME\[#DelayClassificationTbl2012\_v2016mid.xlsx]DelayCodes\_Cat\_CarrierReportTbl 08/16/2016

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

N	DV	em	ber	20	<b>)16</b>	)
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			Electric			Mi	lw				Uı	nion Pacif	ïc		
DELAY CONTROL	BNSF	ML	BI	SC	HER	Ν	W	NCS	RI	SWS	Ν	NW	W	SYSTEM	
Controllable	39	39	9	11	3	53	18	9	23	4	12	22	36	278	43%
Semi-controllable	9	0	0	0	5	14	11	10	2	14	1	4	26	96	15%
Uncontrollable	52	23	1	16	0	5	33	3	13	4	21	79	23	273	42%
TOTAL TRAINS DELAYED	100	62	10	27	8	72	62	22	38	22	34	105	85	647	100%

#### November - Average Over Previous Four Years: 2012-2015

			Electric			Mi	ilw				Uı	ion Paci	fic		
DELAY CONTROL	BNSF	ML	BI	SC	HER	N	W	NCS	RI	SWS	Ν	NW	W	SYSTEM	
Controllable	47.0	30.0	9.3	13.3	2.8	35.5	15.3	8.5	27.0	12.8	16.3	26.0	19.5	263.0	42%
Semi-controllable	28.8	0.0	0.0	0.0	4.5	8.5	15.8	11.0	7.8	26.3	2.5	4.5	10.8	120.3	19%
Uncontrollable	32.5	25.8	8.8	14.3	1.0	14.8	22.8	7.3	29.5	3.0	26.3	33.3	27.3	246.3	39%
TOTAL TRAINS DELAYED	108.3	55.8	18.0	27.5	8.3	58.8	53.8	26.8	64.3	42.0	45.0	63.8	57.5	629.5	100%

#### November 2016 Divergence From November Average Over Previous Four Years

			Electric			Mi	ilw				Uı	nion Paci	fic		
DELAY CONTROL	BNSF	ML	BI	SC	HER	N	W	NCS	RI	SWS	Ν	NW	W	SYSTEM	
Controllable	-8.0	9.0	-0.3	-2.3	0.3	17.5	2.8	0.5	-4.0	-8.8	-4.3	-4.0	16.5	15.0	86%
Semi-controllable	-19.8	0.0	0.0	0.0	0.5	5.5	-4.8	-1.0	-5.8	-12.3	-1.5	-0.5	15.3	-24.3	-139%
Uncontrollable	19.5	-2.8	-7.8	1.8	-1.0	-9.8	10.3	-4.3	-16.5	1.0	-5.3	45.8	-4.3	26.8	153%
TOTAL TRAINS DELAYED	-8.3	6.3	-8.0	-0.5	-0.3	13.3	8.3	-4.8	-26.3	-20.0	-11.0	41.3	27.5	17.5	100%

#### January-November 2016

			Electric			Mi	ilw				Ur	ion Pacif	ïc		
DELAY CONTROL	BNSF	ML	BI	SC	HER	Ν	W	NCS	RI	SWS	N	NW	W	SYSTE	М
Controllable	673	346	88	141	37	457	323	109	461	121	195	238	435	3,624	50%
Semi-controllable	393	0	0	0	48	114	128	111	60	161	4	26	130	1,175	16%
Uncontrollable	390	185	39	96	4	288	328	53	239	73	215	329	179	2,418	34%
TOTAL TRAINS DELAYED	1,456	531	127	237	89	859	779	273	760	355	414	593	744	7,217	100%
Data for current month is final (12/15/16) version from TOPS. P:\ONTME:\potential_asyByControl_xlslLastMonthRespByLine													12/16/201	6	

WEEKDAY	1	2	3	4	7	8	9	10	11	14		16		18	21	22	23	25	28	29	30	TOTAL
	Tu	We	Th	Fr	Mo	Tu	We	Th	Fr	Mo	Tu	We	Th	Fr	Mo	Tu	We	Fr	Mo	Tu	We	
BNSF	4	12	3	6	15	6	2	1	1	0	0	13	0	1	0	1	0	10	0	15	0	90
Elec -ML	1	4	2	0	4	0	1	1	1	0	1	0	1	3	8	7	1	3	1	2	0	41
-BI	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	1	0	0	6
-SC	7	1	0	0	0	0	0	1	0	1	0	0	1	0	3	1	0	0	0	3	1	19
Heritage	1	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	1	0	1	0	1	8
Milw -N	0	2	4	2	1	0	1	0	5	19	1	0	6	4	7	1	2	4	0	0	0	59
-W	2	1	0	3	18	3	0	2	3	1	1	3	1	0	4	2	8	1	1	1	3	58
NCS	0	1	0	0	1	1	1	1	1	1	2	3	0	0	3	1	3	1	1	0	1	22
RI	4	1	0	3	0	1	3	0	2	0	1	0	2	0	3	3	1	3	3	3	0	33
SWS	1	2	0	0	2	0	2	1	0	1	0	0	0	3	1	0	2	2	0	3	0	20
UP -N	1	0	5	7	2	0	0	0	0	0	4	0	2	0	0	0	4	0	3	1	2	31
-NW	8	0	2	19	5	2	0	2	0	0	2	1	22	1	2	0	3	0	3	21	0	93
-W	<u>0</u>	<u>6</u>	<u>4</u>	<u>4</u>	<u>0</u>	<u>2</u>	<u>8</u>	<u>2</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>0</u>	<u>15</u>	<u>7</u>	<u>13</u>	<u>2</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>74</u>
SYSTEM	29	30	21	44	48	15	19	11	13	25	13	21	38	15	47	24	38	26	17	51	9	554
SATURDAY	5	12	19	26		1	TOT	AL			SUI	NDA	Y/F	IOI	LID	٩Y	6	13	20	24	27	TOTAL
BNSF	1	5	2	0				8			BN	ISF					0	0	0	1	1	2
Elec -ML	•			10													0	0	0	3	2	5
LICC -IVIL	2	1	0	13				16			El	ec	-ML				0	0	0	3	2	5
-BI	2 0	1 0	0	13 4				16 4			El		-BI				0 -	-	-	-	-	0
											El						0 - 0	- 0	- 0	- 0	2 - 0	
-BI	0	0	0	4				4					-BI -SC				-	-	-	-	-	0
-BI -SC	0	0	0	4				4 8			He		-BI -SC ge				-	-	-	-	-	0 0
-BI -SC Heritage	0 2 -	0 3 -	0 0 -	4 3 -				4 8 -			He	eritag ilw	-BI -SC ge				- 0 -	- 0 -	- 0 -	- 0 -	- 0 -	0 0 0
-BI -SC Heritage Milw -N	0 2 - 0	0 3 - 3	0 0 - 0	4 3 - 4				4 8 - 7			He	eritaş ilw	-BI -SC ge -N				- 0 - 0	- 0 - 3	- 0 - 2	- 0 - 1	- 0 - 0	0 0 0 6
-BI -SC Heritage Milw -N -W	0 2 - 0	0 3 - 3	0 0 - 0	4 3 - 4				4 8 - 7			He Mi	eritaş ilw CS	-BI -SC ge -N				- 0 - 0	- 0 - 3	- 0 - 2	- 0 - 1	- 0 - 0	0 0 0 6 1
-BI -SC Heritage Milw -N -W NCS	0 2 - 0 0 -	0 3 - 3 0 -	0 0 - 0 3 -	4 3 - 4 0 -				4 8 - 7 3 -			He Mi	eritaş ilw CS	-BI -SC ge -N				- 0 1 -	- 0 - 3 0 -	- 0 - 2 0 -	- 1 0	- 0 - 0 0	0 0 6 1 0
-BI -SC Heritage Milw -N -W NCS RI	0 2 - 0 0 - 1	0 3 - 3 0 - 0	0 0 - 0 3 - 1	4 3 - 4 0 - 0				4 8 - 7 3 - 2			He Mi NC RI	eritaş ilw CS VS	-BI -SC ge -N				- 0 1 -	- 0 - 3 0 -	- 0 - 2 0 -	- 1 0	- 0 - 0 0	0 0 6 1 0 3
-BI -SC Heritage Milw -N -W NCS RI SWS	0 2 - 0 0 - 1 0	0 3 - 3 0 - 0 1	0 0 - 0 3 - 1 0	4 3 - 4 0 - 0 1				4 8 - 7 3 - 2 2			He Mi NO RI SV	eritaş ilw CS VS	-BI -SC ge -N -W				- 0 1 - 1	0 - 3 0 - 0 -	- 0 - 2 0 - 2 - 2	- 0 - 1 0 - 0 -	- 0 - 0 - 0 -	0 0 6 1 0 3 0
-BI -SC Heritage Milw -N -W NCS RI SWS UP -N	0 2 - 0 0 - 1 0 0 0	0 3 - 3 0 - 0 1 0	0 0 - 0 3 - 1 0 0	4 3 - 4 0 - 0 1 2				4 8 - 7 3 - 2 2 2 2			He Mi NO RI SV	eritag ilw CS VS	-BI -SC ge -N -W				- 0 1 - 1 - 1	0 - 3 0 - 0 - 0	- 0 - 2 0 - 2 - 2 - 0	- 0 - 1 0 - 0 - 0	- 0 - 0 - 0 - 0	0 0 6 1 0 3 0

# TABLE 7: NUMBER OF DELAYS BY DATENovember 2016

Data is final (12/15/16) version from TOPS.

 $P:\label{eq:loss} P:\label{eq:loss} P:\label{e$ 

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

			1	Noven	iber 20									
			Electric			Mi						nion Pacif		
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	Ν	W	NCS	RI	SWS	Ν	NW	W	SYSTEM
Freight Interference - TOTAL	8	0	0	0	5	3	5	7	2	9	1	4	21	65
Freight Interference - Peak	5	0	0	0	4	0	3	5	0	3	0	2	12	34
Primary Secondary	2 3	0 0	0 0	0 0	4 0	0 0	1 2	3 2	0 0	3 0	0	2 0	3 9	18 16
-	3	0	0	0	1	3	2	2	2	6	1	2	9	31
Freight Interference - Off-Peak	3 3	0	0	0	1	3 3	2	2	2	6 6	1	2	7	51 28
Secondary	5 0	0	0	0	0	5 0	2	2	2	0	0	1	2	28
Signal/Switch Failure - TOTAL	15	22	5	3	0	12	11	6	3	5	3	0	25	110
Signal/Switch Failure - Metra/PSA	12	22	5	3	0	1	5	2	3	0	3	0	20	76
Primary	10	15	4	3	0	1	5	2	2	0	3	0	12	57
Secondary	2	7	1	0	0	0	0	0	1	0	0	0	8	19
Signal/Switch Failure - Foreign	3	0	0	0	0	11	6	4	0	5	0	0	5	34
Primary	0	0	0	0	0	7	3	4	0	4	0	0	1	19
Secondary	3	0	0	0	0	4	3	0	0	1	0	0	4	15
Mechanical Failure - TOTAL	14	0	0	0	0	15	10	0	5	2	5	14	6	71
Mechanical Failure - Metra/PSA	14	0	0	0	0	15	10	0	5	2	5	14	6	71
Non-Locomotive Equipment Failure - Metra/PSA	0	0	0	0	0	0	0	0	1	2	0	0	0	3
Primary	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1 0	2 0	0 0	0 0	0 0	3 0
Secondary											-			
Locomotive Failure - Metra/PSA Primary	14 2	0 0	0 0	0 0	0 0	15 6	10 5	0 0	4	0	5	14 5	6	68 23
Secondary	12	0	0	0	0	9	5	0	1	0	4	9	5	23 45
Mechanical Failure - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passenger Train Interference - TOTAL	0	0	0	0	1	0	0	3	0	0	0	0	0	4
Passenger Train Interference - Metra/PSA	0	0	0	0	0	0	0	3	0	0	0	0	0	3
Passenger Train Interference - Foreign	0	0	0	0	1	Ő	0 0	0	0	0	0	0	Ő	1
Accident - TOTAL	3	0	0	7	0	0	20	0	0	0	0	48	1	79
Accident - Metra/PSA	0	0	0	7	0	0	18	0	0	0	0	47	1	73
Accident - Foreign	3	Õ	Õ	0	0	Õ	2	Ő	Õ	0	Õ	1	0	6
Track Work - TOTAL	3	4	1	7	0	24	2	1	6	1	3	7	0	59
Track Work - Metra/PSA	3	4	1	7	0	24	2	1	6	1	3	7	0	59
Track Work - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Human Error - TOTAL	7	7	0	1	2	12	0	2	9	0	2	1	6	49
Human Error - Metra/PSA	5	7	0	1	0	0	0	1	9	0	2	1	6	32
Human Error - Foreign	2	0	0	0	2	12	0	1	0	0	0	0	0	17
Sick, Injured, Unruly Passenger - TOTAL	5	4	0	0	0	2	2	0	3	0	4	3	12	35
Sick, Injured, Unruly Passenger - Metra/PSA	4	4	0	0	0	2	2	0	3	0	4	3	12	34
Sick, Injured, Unruly Passenger - Foreign	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Weather - TOTAL	0	2	0	2	0	0	1	2	0	1	4	1	0	13
Weather - Metra/PSA	0	2	0	2	0	0	1	2	0	1	4	1	0	13
Weather - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passenger Loading - TOTAL	7	5	0	2	0	2	5	0	6	0	9	24	8	68
Lift Deployment - TOTAL	0	0	0	0	0	2	2	0	2	0	0	1	1	8
Obstruction/Debris - TOTAL	23	12	1	4	0	0	2	1	2	1	0	1	0	47
Catenary Failure - TOTAL	0	6	3	0	0	0	0	0	0	0	0	0	0	9
Other - TOTAL	15	0	0	1	0	0	2	0	0	3	3	1	5	30
TOTAL TRAINS DELAYED	100	62	10	27	8	72	62	22	38	22	34	105	85	647
Total Metra/PSA Delays	83	62	10	27	0	46	49	10	36	8	33	100	59	523
Total Foreign Carrier Delays	17	0	0	0	8	26	13	12	2	14	1	5	26	124

Data for current month is final (12/15/16) version from TOPS.

 $P:\label{eq:loss} P:\label{eq:loss} P:\label{e$ 

'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

November - Average Over Previous Five Years: 2011-2015

<u>No</u>	vembe		0	Jver I	revio			s: 2011	-2015					
			Electric			Mi	lw				Uı	nion Paci	fic	
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	Ν	W	NCS	RI	SWS	Ν	NW	W	SYSTEM
Freight Interference - TOTAL	17.0	0.0	0.0	0.0	4.0	9.0	12.8	10.8	6.8	15.6	1.2	3.4	14.8	95.4
Freight Interference - Peak	6.2	0.0	0.0	0.0	3.8	2.4	1.8	3.8	3.0	5.0	0.2	1.6	4.2	32.0
Primary	4.8	0.0	0.0	0.0	3.4	1.0	1.6	2.6	1.2	4.2	0.2	1.0	2.2	22.2
Secondary	1.4	0.0	0.0	0.0	0.4	1.4	0.2	1.2	1.8	0.8	0.0	0.6	2.0	9.8
Freight Interference - Off-Peak	10.8	0.0	0.0	0.0	0.2	6.6 5.0	11.0	7.0	3.8	10.6 7.8	1.0 0.6	1.8 1.8	10.6 10.0	63.4
Primary Secondary	9.6 1.2	0.0	0.0	0.0	0.2	5.0 1.6	7.8 3.2	6.8 0.2	2.4 1.4	2.8	0.6	1.8 0.0	0.6	52.0 11.4
Signal/Switch Failure - TOTAL	23.2	4.6	2.2	1.8	1.4	17.8	11.2	6.2	6.6	12.8	2.8	1.8	10.8	103.2
Signal/Switch Failure - Metra/PSA	11.8	4.6	2.2	1.8	0.2	16.0	8.6	4.8	6.4	3.4	1.4	1.2	10.6	73.0
Primary	8.2	2.2	1.0	1.4	0.2	7.6	5.8	3.2	5.6	2.6	1.2	1.2	6.0	46.2
Secondary	3.6	2.4	1.2	0.4	0.0	8.4	2.8	1.6	0.8	0.8	0.2	0.0	4.6	26.8
Signal/Switch Failure - Foreign	11.4	0.0	0.0	0.0	1.2	1.8	2.6	1.4	0.2	9.4	1.4	0.6	0.2	30.2
Primary	6.0	0.0	0.0	0.0	1.2	1.8	2.4	1.2	0.2	6.2	0.4	0.6	0.2	20.2
Secondary	5.4	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	3.2	1.0	0.0	0.0	10.0
Mechanical Failure - TOTAL	10.2	8.8	3.4	2.2	0.0	6.8	2.4	1.6	9.0	5.8	6.8	14.2	2.2	73.4
Mechanical Failure - Metra/PSA	10.2	6.8	2.4	1.0	0.0	6.8	2.4	1.6	9.0	4.6	6.8	14.2	2.2	68.0
Non-Locomotive Equipment Failure - Metra/PSA Primary	1.2 0.8	6.8 1.8	2.4 0.6	1.0 0.0	0.0 0.0	1.8 0.6	1.2 0.2	0.0 0.0	0.4 0.4	1.2 0.4	2.2 0.4	5.4 1.2	1.0 0.8	24.6 7.2
Primary Secondary	0.8	1.8 5.0	0.6 1.8	0.0 1.0	0.0	0.6 1.2	0.2 1.0	0.0	0.4	0.4	0.4 1.8	4.2	0.8	7.2 17.4
Locomotive Failure - Metra/PSA	9.0	0.0	0.0	0.0	0.0	5.0	1.2	1.6	8.6	3.4	4.6	8.8	1.2	43.4
Primary	2.8	0.0	0.0	0.0	0.0	1.6	0.8	0.6	3.0	1.6	2.4	2.0	0.8	15.6
Secondary	6.2	0.0	0.0	0.0	0.0	3.4	0.4	1.0	5.6	1.8	2.2	6.8	0.4	27.8
Mechanical Failure - Foreign	0.0	2.0	1.0	1.2	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	5.4
Passenger Train Interference - TOTAL	1.8	1.0	0.2	0.2	0.2	7.0	4.4	3.6	2.0	2.6	0.4	1.0	1.2	25.6
Passenger Train Interference - Metra/PSA	0.2	0.4	0.2	0.2	0.0	5.0	3.2	3.0	1.8	0.4	0.4	1.0	1.2	17.0
Passenger Train Interference - Foreign	1.6	0.6	0.0	0.0	0.2	2.0	1.2	0.6	0.2	2.2	0.0	0.0	0.0	8.6
Accident - TOTAL	7.6	0.0	0.0	0.0	0.6	3.6	15.2	5.0	7.8	0.0	6.0	8.4	5.2	59.4
Accident - Metra/PSA	7.6	0.0	0.0	0.0	0.6	3.2	15.2	5.0	7.8	0.0	6.0	8.4	4.0	57.8
Accident - Foreign	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.6
Track Work - TOTAL	12.0	4.0	1.8	4.6	3.2	6.8	6.0	2.0	8.2	1.4	5.2	4.2	2.6	62.0
Track Work - Metra/PSA	12.0	4.0	1.8	4.6	3.2	6.8	6.0	2.0	8.2	1.4	5.2	4.2	2.6	62.0
Track Work - 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
Human Error - TOTAL	13.2	7.2	2.2	4.0	1.6	4.2	1.4	1.0	2.2	1.0	1.6	3.6	6.6	49.8
Human Error - Metra/PSA	10.4	7.2	2.2	4.0	0.6	2.2	1.0	0.2	2.2	0.2	1.4	2.0	5.6	39.2
Human Error - Foreign	2.8	0.0	0.0	0.0	1.0	2.0	0.4	0.8	0.0	0.8	0.2	1.6	1.0	10.6
Sick, Injured, Unruly Passenger - TOTAL	2.8 2.8	5.0 5.0	0.8 0.8	0.4 0.4	0.0	1.8 1.8	2.8 2.8	0.6	1.2 1.2	1.2 1.2	7.8 7.8	4.6 4.6	3.2	32.2
Sick, Injured, Unruly Passenger - Metra/PSA	2.8	5.0 0.0	0.8		0.0	1.8 0.0	2.8	0.6	0.0	1.2 0.0	7.8 0.0	4.6 0.0	3.2 0.0	32.2 0.0
Sick, Injured, Unruly Passenger - Foreign Weather - TOTAL	8.0	4.8	5.0	0.0	0.0	3.8	6.8	0.0	3.6	0.0	5.8	7.6	2.4	52.8
Weather - Metra/PSA	8.0 8.0	4.8 4.8	5.0	3.8	0.0	3.8 3.8	0.8 6.8	0.4	3.0 3.6	0.8	5.8 5.8	7.6	2.4	52.8
Weather - Foreign	0.0	4.8	0.0	5.8 0.0	0.0	0.0	0.0	0.4	0.0	0.8	0.0	0.0	0.0	0.0
Passenger Loading - TOTAL	4.4	14.2	1.4	6.0	0.0	4.8	3.8	0.8	7.0	0.0	9.4	6.2	5.6	63.6
Lift Deployment - TOTAL	1.6	0.2	0.0	0.0	0.0	4.8 1.6	1.0	0.0	3.2	0.0	3.0	3.0	2.6	16.4
Obstruction/Debris - TOTAL	6.8	1.4	0.6	3.4	0.0	0.8	3.0	3.8	1.2	0.2	2.2	5.0	2.0 7.4	36.8
Catenary Failure - TOTAL	0.0	2.6	1.2	2.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
Other - TOTAL	4.4	2.4	0.8	0.8	0.0	2.6	2.8	0.6	3.4	0.8	3.0	0.8	4.0	26.4
		2.1	0.0	0.0	0.0	2.0	2.0	0.0	5.1	0.0	5.0	0.0	1.0	20.1
TOTAL TRAINS DELAYED	113.0	56.2	19.6	29.4	11.4	70.6	73.6	36.4	62.2	43.0	55.2	63.8	68.6	703.0
Total Metra/PSA Delays	80.2	53.6	18.6	28.2	5.0	55.4	56.6	22.8	55.0	13.8	52.4	58.2	51.4	551.2
Total Metha/FSA Delays	00.2					0011			00.0				0111	

Data for latest month is final (12/17/15) 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.

November 20	<u>16 Div</u>	ergenc	e Fror	n Nov	ember	Avera	ige Ov	er Pre	vious	Five Y	ears			
			Electric			Mi	lw				U	nion Pacit	fic	
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	Ν	W	NCS	RI	SWS	Ν	NW	W	SYSTEM
Freight Interference - TOTAL	-9.0	0.0	0.0	0.0	1.0	-6.0	-7.8	-3.8	-4.8	-6.6	-0.2	0.6	6.2	-30.4
Freight Interference - Peak	-1.2	0.0	0.0	0.0	0.2	-2.4	1.2	1.2	-3.0	-2.0	-0.2	0.4	7.8	2.0
Primary	-2.8	0.0	0.0	0.0	0.6	-1.0	-0.6	0.4	-1.2	-1.2	-0.2	1.0	0.8	-4.2
Secondary	1.6	0.0	0.0	0.0	-0.4	-1.4	1.8	0.8	-1.8	-0.8	0.0	-0.6	7.0	6.2
Freight Interference - Off-Peak	-7.8	0.0	0.0	0.0	0.8	-3.6	-9.0	-5.0	-1.8	-4.6	0.0	0.2	-1.6	-32.4
Primary Secondary	-6.6 -1.2	0.0 0.0	0.0 0.0	0.0 0.0	0.8 0.0	-2.0 -1.6	-5.8 -3.2	-4.8 -0.2	-0.4 -1.4	-1.8 -2.8	0.4 -0.4	-0.8 1.0	-3.0 1.4	-24.0 -8.4
Signal/Switch Failure - TOTAL	-8.2	17.4	2.8	1.2	-1.4	-5.8	-0.2	-0.2	-3.6	-7.8	0.2	-1.8	14.2	6.8
Signal/Switch Failure - Metra/PSA	0.2	17.4	2.8	1.2	-0.2	-15.0	-0.2	-0.2	-3.0	-7.8	1.6	-1.8	9.4	3.0
Primary	1.8	17.4	3.0	1.2	-0.2	-6.6	-0.8	-2.0	-3.6	-2.6	1.8	-1.2	6.0	10.8
Secondary	-1.6	4.6	-0.2	-0.4	0.0	-8.4	-2.8	-1.6	0.2	-0.8	-0.2	0.0	3.4	-7.8
Signal/Switch Failure - Foreign	-8.4	0.0	0.0	0.0	-1.2	9.2	3.4	2.6	-0.2	-4.4	-1.4	-0.6	4.8	3.8
Primary	-6.0	0.0	0.0	0.0	-1.2	5.2	0.6	2.8	-0.2	-2.2	-0.4	-0.6	0.8	-1.2
Secondary	-2.4	0.0	0.0	0.0	0.0	4.0	2.8	-0.2	0.0	-2.2	-1.0	0.0	4.0	5.0
Mechanical Failure - TOTAL	3.8	-8.8	-3.4	-2.2	0.0	8.2	7.6	-1.6	-4.0	-3.8	-1.8	-0.2	3.8	-2.4
Mechanical Failure - Metra/PSA	3.8	-6.8	-2.4	-1.0	0.0	8.2	7.6	-1.6	-4.0	-2.6	-1.8	-0.2	3.8	3.0
Non-Locomotive Equipment Failure - Metra/PSA	-1.2	-6.8	-2.4	-1.0	0.0	-1.8	-1.2	0.0	0.6	0.8	-2.2	-5.4	-1.0	-21.6
Primary Secondary	-0.8 -0.4	-1.8 -5.0	-0.6 -1.8	0.0 -1.0	0.0 0.0	-0.6 -1.2	-0.2 -1.0	0.0 0.0	0.6 0.0	1.6 -0.8	-0.4 -1.8	-1.2 -4.2	-0.8 -0.2	-4.2 -17.4
	5.0	0.0	-1.0	0.0	0.0	10.0	-1.0	-1.6	-4.6	-3.4	-1.8	5.2	4.8	24.6
Locomotive Failure - Metra/PSA Primary	-0.8	0.0	0.0	0.0	0.0	4.4	8.8 4.2	-1.6	-4.6	-3.4	-1.4	5.2 3.0	4.8	24.6 7.4
Secondary	-0.8	0.0	0.0	0.0	0.0	4.4 5.6	4.2 4.6	-0.0	-4.6	-1.8	-1.4	2.2	4.6	17.2
Mechanical Failure - Foreign	0.0	-2.0	-1.0	-1.2	0.0	0.0	0.0	0.0	0.0	-1.2	0.0	0.0	0.0	-5.4
Passenger Train Interference - TOTAL	-1.8	-1.0	-0.2	-0.2	0.8	-7.0	-4.4	-0.6	-2.0	-2.6	-0.4	-1.0	-1.2	-21.6
Passenger Train Interference - Metra/PSA	-0.2	-0.4	-0.2	-0.2	0.0	-5.0	-3.2	0.0	-1.8	-0.4	-0.4	-1.0	-1.2	-14.0
Passenger Train Interference - Foreign	-1.6	-0.6	0.0	0.0	0.8	-2.0	-1.2	-0.6	-0.2	-2.2	0.0	0.0	0.0	-7.6
Accident - TOTAL	-4.6	0.0	0.0	7.0	-0.6	-3.6	4.8	-5.0	-7.8	0.0	-6.0	39.6	-4.2	19.6
Accident - Metra/PSA	-7.6	0.0	0.0	7.0	-0.6	-3.2	2.8	-5.0	-7.8	0.0	-6.0	38.6	-3.0	15.2
Accident - Foreign	3.0	0.0	0.0	0.0	0.0	-0.4	2.0	0.0	0.0	0.0	0.0	1.0	-1.2	4.4
Track Work - TOTAL	-9.0	0.0	-0.8	2.4	-3.2	17.2	-4.0	-1.0	-2.2	-0.4	-2.2	2.8	-2.6	-3.0
Track Work - Metra/PSA	-9.0	0.0	-0.8	2.4	-3.2	17.2	-4.0	-1.0	-2.2	-0.4	-2.2	2.8	-2.6	-3.0
Track Work - 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
Human Error - TOTAL	-6.2	-0.2	-2.2	-3.0	0.4	7.8	-1.4	1.0	6.8	-1.0	0.4	-2.6	-0.6	-0.8
Human Error - Metra/PSA	-5.4	-0.2	-2.2	-3.0	-0.6	-2.2	-1.0	0.8	6.8	-0.2	0.6	-1.0	0.4	-7.2
Human Error - Foreign	-0.8	0.0	0.0	0.0	1.0	10.0	-0.4	0.2	0.0	-0.8	-0.2	-1.6	-1.0	6.4
Sick, Injured, Unruly Passenger - TOTAL	2.2	-1.0	-0.8	-0.4	0.0	0.2	-0.8	-0.6	1.8	-1.2	-3.8	-1.6	8.8	2.8
Sick, Injured, Unruly Passenger - Metra/PSA	1.2	-1.0	-0.8	-0.4	0.0	0.2	-0.8	-0.6	1.8	-1.2	-3.8	-1.6	8.8	1.8
Sick, Injured, Unruly Passenger - Foreign	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Weather - TOTAL	-8.0	-2.8	-5.0	-1.8	0.0	-3.8	-5.8	1.6	-3.6	0.2	-1.8	-6.6	-2.4	-39.8
Weather - Metra/PSA	-8.0	-2.8	-5.0	-1.8	0.0	-3.8	-5.8	1.6	-3.6	0.2	-1.8	-6.6	-2.4	-39.8
Weather - Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Passenger Loading - TOTAL	2.6	-9.2	-1.4	-4.0	0.0	-2.8	1.2	-0.8	-1.0	0.0	-0.4	17.8	2.4	4.4
Lift Deployment - TOTAL	-1.6	-0.2	0.0 0.4	0.0 0.6	0.0 -0.4	0.4 -0.8	1.0 -1.0	0.0	-1.2 0.8	-0.2 0.2	-3.0 -2.2	-2.0 -4.0	-1.6 -7.4	-8.4
Obstruction/Debris - TOTAL Catenary Failure - TOTAL	16.2 0.0	10.6 3.4	0.4 1.8	-2.2	-0.4 0.0	-0.8 0.0	-1.0 0.0	-2.8 0.0	0.8	0.2	-2.2 0.0	-4.0 0.0	-7.4 0.0	10.2 3.0
Other - TOTAL	10.6	-2.4	-0.8	-2.2	0.0	-2.6	-0.8	-0.6	-3.4	2.2	0.0	0.0	1.0	3.0 3.6
Ouler - TOTAL	10.0	-2.4	-0.8	0.2	0.0	-2.0	-0.8	-0.0	-3.4	2.2	0.0	0.2	1.0	5.0
TOTAL TRAINS DELAYED	-13.0	5.8	-9.6	-2.4	-3.4	1.4	-11.6	-14.4	-24.2	-21.0	-21.2	41.2	16.4	-56.0
Total Metra/PSA Delays	2.8	8.4	-8.6	-1.2	-5.0	-9.4	-7.6	-12.8	-19.0	-5.8	-19.4	41.8	7.6	-28.2
Total Foreign Carrier Delays	-15.8	-2.6	-1.0	-1.2	1.6	10.8	-4.0	-1.6	-5.2	-15.2	-1.8	-0.6	8.8	-27.8

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

Data for current month is final (12/15/16) 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.

$ \begin{array}{c c c c c c c c c c c c c c c c c c c $				Jan	uary -	Novem	ber 201	16							
Freight Interference - TOTAL         200         0         0         0         2         26         69         100         60         61         80         4         19         129         77           Freight Interference - OH-Peak $\frac{67}{10}$ 0         0         0         22         10         32         24         22         28         0         9         47           Scondary $\frac{67}{20}$ 0         0         0         0         22         9         77         5         5         0         9         47           Scondary         21         0         0         0         4         459         68         37         12         10         82         47         14         17         12         19         45         17         17         46         0         7         18         51         30         13         30         46         37         18         51         30         13         30         46           Signal/Switch Failure - TOTAL         125         12         3         1         11         104         110         36         232         14         17         100							Mil						110n Pacifi		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $															SYSTEM
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	0		-		~	-									748
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	6						-	-					-		277
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			-		-							_	-		182
Primary Secondary         96         0         0         0         0         0         0         0         0         1         23         35         36         0         0         0         0         0         1         107         107         108         107         11         109         45         114         108         36         11         108         36         0         7         6         97         10         12         10         22         13         15         16         6         10         22         12         10         23         1         11         104         10         36         232         14         72         10         122         10         122         10         122         10         122         10         122         10         122															95 471
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	8	-	-								-	-			4/1 371
												-			371 100
										71		19			1.271
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$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Secondary	27	45	12	7	0	58	32	11	20	10	6	8	97	333
	Signal/Switch Failure - Foreign	199	0	0	0	24	48	26	51	0	85	0	7	6	446
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Primary		0	0	0			18		0		0	2	2	325
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$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$					1										964
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Mechanical Failure - Metra/PSA	125	23		1	11	104	110		232	14	72	110	122	963
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$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$															83
$\begin{array}{c c c c c c c c c c c c c c c c c c c $				-	-										79
Secondary         66         0         0         2         60         63         18         172         3         33         75         56           Mechanical Failure - Foreign         0         1         0 </td <td></td> <td>801 253</td>															801 253
Mechanical Failure - Foreign0100<			-		0										253 548
Passenger Train Interference - TOTAL227272762041392202221Passenger Train Interference - Metra/PSA030201431291021Passenger Train Interference - Foreign224256611021001Accident - TOTAL9763101778128312733871444Accident - Metra/PSA86631016877233122338313Accident - Foreign1100094505041Track Work - TOTAL30892125011014767213715511191Track Work - Metra/PSA27492125011014457210715511191Human Error - Metra/PSA805124341686472266262433355Human Error - Metra/PSA805124341523316658212830Human Error - Metra/PSA345181514847237335<															1
Passenger Train Interference - Metra/PSA         0         3         0         2         0         14         3         12         9         1         0         2         1           Passenger Train Interference - Foreign         22         4         2         5         6         6         1         1         0         21         0         0         1           Accident - TOTAL         97         6         3         10         1         77         81         28         31         27         33         87         14         44           Accident - Foreign         11         0         0         0         9         4         5         0         5         0         4         1           Track Work - TOTAL         308         92         12         50         1         101         47         6         72         13         71         55         111         97           Track Work - Foreign         34         0         0         0         0         3         0         3         0         0         0         3         0         3         0         3         0         0         0         3         0 <td></td> <td></td> <td>-</td> <td>-</td> <td>-</td> <td>•</td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td>-</td> <td></td> <td>-</td> <td>116</td>			-	-	-	•			-			-		-	116
Passenger Train Interference - Foreign         22         4         2         5         6         6         1         0         21         0         0         1           Accident - TOTAL         97         6         3         10         1         77         81         28         31         27         33         87         14         44           Accident - Metra/PSA         86         6         3         10         1         68         77         23         31         22         33         83         13           Accident - Foreign         11         0         0         0         9         4         5         0         5         0         4         1           Track Work - Metra/PSA         274         92         12         50         1         101         44         5         72         10         71         55         111         97           Track Work - Metra/PSA         274         92         12         30         0         0         0         3         0         0         0         3         0         0         0         3         0         0         0         3         0         0			'			-		-	-	-					47
Accident - TOTAL9763101778128312733871444Accident - Metra/PSA86631016877233122338313Accident - Foreign11000094505041Track Work - TOTAL30892125011014767213715511192Track Work - Metra/PSA27492125011014457210715511192Track Work - Foreign34000003103000Human Error - TOTAL10051243416864722662624333556Human Error - Foreign20001534146118355Sick, Injured, Unruly Passenger - TOTAL37518151484723733547423'Sick, Injured, Unruly Passenger - Foreign3000000000000Weather - Metra/PSA12048122304637954742131144Wea	8	-	-			-		-		-					69
Accident - Metra/PSA86631016877233122338313Accident - Foreign11000094505041Track Work - TOTAL30892125011014767213715511192Track Work - Foreign3400000031003000Human Error - TOTAL10051243416864722662624333550Human Error - Metra/PSA8051243416864722662624333550Human Error - Metra/PSA8051243416864722662624333550Sick, Injured, Unruly Passenger - TOTAL375181514847237335474233Sick, Injured, Unruly Passenger - Metra/PSA345181514847237335474233Sick, Injured, Unruly Passenger - Metra/PSA345181514847237335474237Sick, Injured, Unruly Passenger - Foreign300000<										•		-			495
Accident - Foreign11000094505041Track Work - TOTAL30892125011014767213715511192Track Work - Metra/PSA27492125011014457210715511192Track Work - Foreign3400003103000Human Error - TOTAL10051243416864722662624333555Human Error - Metra/PSA805124341523316658212830Human Error - Foreign200001534146118355Sick, Injured, Unruly Passenger - TOTAL37518151484723733547423'Sick, Injured, Unruly Passenger - Metra/PSA34518151484723733547423'Sick, Injured, Unruly Passenger - Foreign3000000000000Weather - Metra/PSA120481223046379547421311 </td <td></td> <td></td> <td>-</td> <td></td> <td>-</td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>456</td>			-		-			-							456
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$\begin{array}{c c c c c c c c c c c c c c c c c c c $	5			-	-	-								•	939
Track Work - Foreign $34$ 000003103000Human Error - TOTAL100 $51$ $24$ $34$ 16 $86$ $47$ $22$ $66$ $26$ $24$ $33$ $35$ $56$ Human Error - Metra/PSA80 $51$ $24$ $34$ 1 $52$ $33$ $16$ $65$ $8$ $21$ $28$ $30$ Human Error - Metra/PSA20000 $15$ $34$ $14$ $6$ $1$ $18$ $3$ $5$ $5$ Sick, Injured, Unruly Passenger - TOTAL $37$ $51$ $8$ $15$ $1$ $48$ $47$ $2$ $37$ $3$ $35$ $47$ $42$ $37$ Sick, Injured, Unruly Passenger - Metra/PSA $34$ $51$ $8$ $15$ $1$ $48$ $47$ $2$ $37$ $3$ $35$ $47$ $42$ $37$ Sick, Injured, Unruly Passenger - Foreign $3$ $0$ $0$ $0$ $0$ $0$ $0$ $0$ $0$ $0$ $0$ $0$ $0$ Weather - Metra/PSA120 $48$ $12$ $23$ $0$ $46$ $37$ $9$ $54$ $7$ $42$ $13$ $11$ $47$ Weather - Horeign $0$			-			-	-		-		-				898
Human Error - TOTAL10051243416864722662624333556Human Error - Metra/PSA805124341523316658212830Human Error - Foreign200001534146118355Sick, Injured, Unruly Passenger - TOTAL37518151484723733547423'Sick, Injured, Unruly Passenger - Metra/PSA34518151484723733547423'Sick, Injured, Unruly Passenger - Foreign3000000000000Weather - TOTAL1204812230463795474213114'Weather - Metra/PSA1204812230463795474213114'Weather - Foreign000000000000000Passenger Loading - TOTAL453071003776168151107374'Lift Deployment - TOTAL534692923558925 </td <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td>41</td>			-				-				-				41
Human Error - Metra/PSA805124341523316658212830Human Error - Foreign200001534146118355Sick, Injured, Unruly Passenger - TOTAL375181514847237335474237Sick, Injured, Unruly Passenger - Metra/PSA345181514847237335474237Sick, Injured, Unruly Passenger - Metra/PSA345181514847237335474237Sick, Injured, Unruly Passenger - Foreign300000000000Weather - TOTAL12048122304637954742131147Weather - Metra/PSA12048122304637954742131147Weather - Foreign00000000000000Passenger Loading - TOTAL4530710037761681511073744Lift Deployment - TOTAL4420104021214		-	-			-	-			-					564
Human Error - Foreign20001534146118355Sick, Injured, Unruly Passenger - Metra/PSA375181514847237335474237Sick, Injured, Unruly Passenger - Metra/PSA345181514847237335474237Sick, Injured, Unruly Passenger - Foreign300000000000000Weather - TOTAL12048122304637954742131143Weather - Metra/PSA12048122304637954742131143Weather - Foreign000000000000Passenger Loading - TOTAL4530710037761681511073744Lift Deployment - TOTAL142010402121434141412Obstruction/Debris - TOTAL5346929235589252236453544Catenary Failure - TOTAL0641124000000<		80	51		-	-		33			-	21			443
Sick, Injured, Unruly Passenger - TOTAL       37       51       8       15       1       48       47       2       37       3       35       47       42       37         Sick, Injured, Unruly Passenger - Metra/PSA       34       51       8       15       1       48       47       2       37       3       35       47       42       37         Sick, Injured, Unruly Passenger - Foreign       3       0			-		-		-				-				121
Sick, Injured, Unruly Passenger - Metra/PSA3451815148472373354742Sick, Injured, Unruly Passenger - Foreign3000 <td< td=""><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td>373</td></td<>						-			-						373
Sick, Injured, Unruly Passenger - Foreign         3         0		34	51	8	-	1	48	47	2	37	3	35	47	42	370
Weather - TOTAL       120       48       12       23       0       46       37       9       54       7       42       13       11       44         Weather - Metra/PSA       120       48       12       23       0       46       37       9       54       7       42       13       11       44         Weather - Foreign       0		3	0	0	0	0	0	0	0	0	0	0	0	0	3
Weather - Foreign         0			48	12		0	46	37	9	54	7	42	13	11	422
Passenger Loading - TOTAL       45       30       7       10       0       37       76       1       68       1       51       107       37       44         Lift Deployment - TOTAL       14       2       0       1       0       40       21       2       14       3       4       14       14       11         Obstruction/Debris - TOTAL       53       46       9       29       2       35       58       9       25       22       36       45       35       44         Catenary Failure - TOTAL       0       64       11       24       0       12       23	Weather - Metra/PSA	120	48	12	23	0	46	37	9	54	7	42	13	11	422
Passenger Loading - TOTAL       45       30       7       10       0       37       76       1       68       1       51       107       37       44         Lift Deployment - TOTAL       14       2       0       1       0       40       21       2       14       3       4       14       14       11         Obstruction/Debris - TOTAL       53       46       9       29       2       35       58       9       25       22       36       45       35       44         Catenary Failure - TOTAL       0       64       11       24       0	Weather - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Obstruction/Debris - TOTAL         53         46         9         29         2         35         58         9         25         22         36         45         35         44           Catenary Failure - TOTAL         0         64         11         24         0 <td></td> <td>45</td> <td>30</td> <td>7</td> <td>10</td> <td>0</td> <td>37</td> <td>76</td> <td>1</td> <td>68</td> <td>1</td> <td>51</td> <td>107</td> <td>37</td> <td>470</td>		45	30	7	10	0	37	76	1	68	1	51	107	37	470
Obstruction/Debris - TOTAL         53         46         9         29         2         35         58         9         25         22         36         45         35         44           Catenary Failure - TOTAL         0         64         11         24         0 <td>6 6</td> <td>14</td> <td>2</td> <td>0</td> <td>1</td> <td>0</td> <td>40</td> <td>21</td> <td>2</td> <td>14</td> <td>3</td> <td>4</td> <td>14</td> <td>14</td> <td>129</td>	6 6	14	2	0	1	0	40	21	2	14	3	4	14	14	129
Catenary Failure - TOTAL         0         64         11         24         0<	1 5	53	46	9		2	35	58	9	25	22	36	45	35	404
Other - TOTAL         44         8         1         6         0         21         22         5         20         12         23         16         45         22		0	64	11	24	0	0	0	0	0	0	0	0	0	99
TOTAL TRAINS DELAYED 1.456 531 127 237 89 859 779 273 760 355 414 593 744 7.2		44	8	1	6	0	21	22	5	20	12	23	16	45	223
	TOTAL TRAINS DELAYED	1,456	531	127	237	89	859	779	273	760	355	414	593	744	7,217
Total Metra/PSA Delays 967 526 125 232 18 693 631 149 698 143 407 558 602 5.	Total Metra/PSA Delays	967	526	125	232	18	693	631	149	698	143	407	558	602	5,749
	~			-		-	166		124	62	212			142	1,468

#### TABLE 9.a: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE

Data for current month is final (12/15/16) version from TOPS.

P:\ONTIME\report\[DelaysByCause.xlsm]YTDByLine 12/16/2016

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 9.b:	FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE
Ionu	Jary November Average Over Providus Five Vears, 2011 2015

Jai	nuary - N	ovemb	er - Av	verage	Over P			Years:	2011-2	015				
			Electric			M	ilw				U	nion Paci	fic	
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	Ν	W	NCS	RI	SWS	Ν	NW	W	SYSTEM
Freight Interference - TOTAL	212.2	0.0	0.2	0.0	38.0	159.6	150.2	145.6	68.4	168.2	15.6	62.2	222.2	1,242.4
Freight Interference - Peak	81.0	0.0	0.2	0.0	37.8	29.2	27.2	55.2	22.8	50.6	3.6	28.8	48.8	385.2
Primary	52.0	0.0	0.0	0.0	36.0	19.2	18.4	37.8	12.4	39.0	2.0	14.8	26.4	258.0
Secondary	29.0	0.0	0.2	0.0	1.8	10.0	8.8	17.4	10.4	11.6	1.6	14.0	22.4	127.2
Freight Interference - Off-Peak	131.2	0.0 0.0	0.0 0.0	0.0 0.0	0.2	130.4 94.4	123.0	90.4 77.6	45.6 39.8	117.6 89.4	12.0 7.4	33.4 28.2	173.4 145.8	857.2 681.8
Primary Secondary	110.4 20.8	0.0	0.0	0.0	0.2 0.0	94.4 36.0	88.6 34.4	12.8	5.8	89.4 28.2	7.4 4.6	28.2 5.2	145.8 27.6	081.8 175.4
Signal/Switch Failure - TOTAL	193.8	87.4	31.4	31.0	21.0	250.8	143.6	86.6	86.8	102.0	47.8	67.2	102.4	1,251.8
Signal/Switch Failure - Metra/PSA	134.8	87.4	31.2	31.0	9.4	221.8	123.4	64.6	81.4	36.0	45.8	61.4	97.4	1,025.6
Primary	97.4	66.2	23.0	21.6	9.2	122.2	77.6	38.0	64.6	27.0	24.6	30.2	51.2	652.8
Secondary	37.4	21.2	8.2	9.4	0.2	99.6	45.8	26.6	16.8	9.0	21.2	31.2	46.2	372.8
Signal/Switch Failure - Foreign	59.0	0.0	0.2	0.0	11.6	29.0	20.2	22.0	5.4	66.0	2.0	5.8	5.0	226.2
Primary	43.4	0.0	0.0	0.0	10.8	19.6	14.8	12.8	3.0	43.6	1.0	3.6	4.2	156.8
Secondary	15.6	0.0	0.2	0.0	0.8	9.4	5.4	9.2	2.4	22.4	1.0	2.2	0.8	69.4
Mechanical Failure - TOTAL	145.6	55.6	18.6	14.6	3.2	125.0	70.0	28.6	111.2	28.6	84.2	93.0	64.4	842.6
Mechanical Failure - Metra/PSA	145.2	50.2	16.4	13.0	3.2	120.6	69.8	28.6	110.8	27.4	84.2	93.0	64.2	826.6
Non-Locomotive Equipment Failure - Metra/PSA Primary	30.0 12.2	50.2 15.8	16.4 6.2	13.0 5.6	0.8 0.6	17.6 6.4	17.0 7.4	3.8 1.4	16.2 9.0	8.4 3.4	16.2 6.2	20.4 7.2	21.2 10.4	231.2 91.8
Secondary	12.2	34.4	10.2	5.0 7.4	0.0	11.2	7.4 9.6	2.4	7.2	5.0	10.0	13.2	10.4	139.4
Locomotive Failure - Metra/PSA	115.2	0.0	0.0	0.0	2.4	103.0	52.8	24.8	94.6	19.0	68.0	72.6	43.0	595.4
Primary	34.6	0.0	0.0	0.0	1.8	26.4	21.4	7.8	35.8	8.8	24.4	18.8	16.4	196.2
Secondary	80.6	0.0	0.0	0.0	0.6	76.6	31.4	17.0	58.8	10.2	43.6	53.8	26.6	399.2
Mechanical Failure - Foreign	0.4	5.4	2.2	1.6	0.0	4.4	0.2	0.0	0.4	1.2	0.0	0.0	0.2	16.0
Passenger Train Interference - TOTAL	19.6	12.0	3.4	5.4	7.2	85.2	19.6	19.0	18.0	14.0	10.2	7.8	16.0	237.4
Passenger Train Interference - Metra/PSA	2.0	5.6	2.6	4.4	0.8	58.8	15.2	17.8	12.2	3.6	10.2	7.6	15.8	156.6
Passenger Train Interference - Foreign	17.6	6.4	0.8	1.0	6.4	26.4	4.4	1.2	5.8	10.4	0.0	0.2	0.2	80.8
Accident - TOTAL	123.4	17.8	7.8	10.8	2.0	47.6	65.4	19.0	46.8	9.4	46.2	75.4	44.2	515.8
Accident - Metra/PSA	108.0	17.8	7.8	10.8	1.8	46.0	63.8	17.4	45.6	9.4	46.2	75.4	41.0	491.0
Accident - Foreign	15.4	0.0	0.0	0.0	0.2	1.6	1.6	1.6	1.2	0.0	0.0	0.0	3.2	24.8
Track Work - TOTAL	247.6	66.0	20.0	62.8	10.4	86.6	69.6	25.0	76.8	13.2	82.8	62.6	54.4	877.8
Track Work - Metra/PSA	239.8	66.0	20.0	62.8	10.4 0.0	86.2	69.4	24.4	76.8	11.6	82.8	62.6	54.4 0.0	867.2
Track Work - Foreign Human Error - TOTAL	7.8	0.0	0.0	0.0	15.8	0.4	0.2	0.6	0.0	1.6 38.4	0.0	0.0	58.4	10.6 681.0
Human Error - Metra/PSA	105.8	48.2	11.8	24.0	4.0	48.8	34.2	9.2	56.0	9.2	43.2	48.2	35.4	469.8
Human Error - Foreign	47.2	2.6	0.2	23.8	11.8	37.0	15.8	9.2 13.4	0.6	29.2	43.2	18.6	23.0	211.2
Sick, Injured, Unruly Passenger - TOTAL	36.4	65.8	11.8	20.0	1.4	31.0	32.2	4.4	29.0	5.6	53.0	42.8	35.0	368.4
Sick, Injured, Unruly Passenger - Metra/PSA	35.8	65.8	11.8	20.0	1.4	31.0	32.2	4.4	28.6	5.6	53.0	42.8	35.0	367.4
Sick, Injured, Unruly Passenger - Foreign	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	1.0
Weather - TOTAL	221.0	130.0	38.8	47.6	8.0	138.8	122.4	43.6	135.2	27.4	123.4	143.6	111.2	1,291.0
Weather - Metra/PSA	219.8	130.0	38.8	47.6	7.6	135.6	121.8	43.2	134.0	25.8	123.4	143.2	110.6	1,281.4
Weather - Foreign	1.2	0.0	0.0	0.0	0.4	3.2	0.6	0.4	1.2	1.6	0.0	0.4	0.6	9.6
Passenger Loading - TOTAL	99.6	160.2	25.0	66.0	0.0	113.0	80.6	3.2	162.0	2.6	168.0	100.0	96.6	1,076.8
Lift Deployment - TOTAL	32.8	1.6	0.0	1.4	0.0	29.4	34.0	3.4	54.8	1.6	27.2	18.4	34.8	239.4
Obstruction/Debris - TOTAL	81.8	32.8	11.4	34.6	3.2	27.4	35.2	10.4	31.8	19.4	31.0	48.4	46.0	413.4
Catenary Failure - TOTAL	0.0	59.4	13.4	27.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	100.6
Other - TOTAL	45.2	28.4	8.8	14.6	1.0	20.6	23.6	6.6	28.0	14.8	33.2	22.2	39.2	286.2
TOTAL TRAINS DELAYED	1,622.8	767.8	202.4	361.0	111.2	1,200.8	896.4	418.0	905.4	445.2	776.8	792.0	924.8	9,424.6
Total Metra/PSA Delays	1,261.4	753.4	198.8	357.6	42.8	939.2	703.2	233.2	822.0	167.0	748.2	704.8	670.4	7,602.0
Total Foreign Carrier Delays	361.4	14.4	3.6	3.4	68.4	261.6	193.2	184.8	83.4	278.2	28.6	87.2	254.4	1,822.6

Data for latest month is final (12/17/15) 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.

January - Novemb	er 2016 l	Diverge	nce Fr	om Jar	uary -	Noven	iber A	verage	Over F	reviou	s Five Y	ears		
			Electric			Mi	lw				U	nion Paci	fic	
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	Ν	W	NCS	RI	SWS	Ν	NW	W	SYSTEM
Freight Interference - TOTAL	-12.2	0.0	-0.2	0.0	-12.0	-90.6	-50.2	-85.6	-7.4	-88.2	-11.6	-43.2	-93.2	-494.4
Freight Interference - Peak	2.0	0.0	-0.2	0.0	-15.8	-19.2	4.8	-31.2	-0.8	-22.6	-3.6	-19.8	-1.8	-108.2
Primary	-5.0	0.0	0.0	0.0	-14.0	-10.2	-1.4	-18.8	2.6	-16.0	-2.0	-5.8	-5.4	-76.0
Secondary	7.0	0.0	-0.2	0.0	-1.8	-9.0	6.2	-12.4	-3.4	-6.6	-1.6	-14.0	3.6	-32.2
Freight Interference - Off-Peak	-14.2	0.0	0.0	0.0	3.8	-71.4	-55.0	-54.4	-6.6	-65.6	-8.0	-23.4	-91.4	-386.2
Primary Secondary	-14.4 0.2	0.0 0.0	0.0 0.0	0.0 0.0	3.8 0.0	-49.4 -22.0	-53.6 -1.4	-42.6 -11.8	-7.8 1.2	-43.4 -22.2	-3.4 -4.6	-21.2 -2.2	-78.8 -12.6	-310.8 -75.4
Signal/Switch Failure - TOTAL	97.2	14.6	3.6	-4.0	4.0	-75.8	-14.6	-6.6	-15.8	23.0	-28.8	-22.2	44.6	19.2
Signal/Switch Failure - Metra/PSA	-42.8	14.0	3.8	-4.0	-8.4	-73.8	-14.0	-35.6	-10.4	4.0	-26.8	-22.2	44.0	-200.6
Primary	-32.4	-9.2	0.0	-4.0	-8.2	-53.2	-20.4	-20.0	-10.4	4.0	-20.8	-2.3.4	-7.2	-200.0
Secondary	-10.4	23.8	3.8	-2.4	-0.2	-41.6	-13.8	-15.6	3.2	1.0	-15.2	-23.2	50.8	-39.8
Signal/Switch Failure - Foreign	140.0	0.0	-0.2	0.0	12.4	19.0	5.8	29.0	-5.4	19.0	-2.0	1.2	1.0	219.8
Primary	105.6	0.0	0.0	0.0	11.2	15.4	3.2	23.2	-3.0	17.4	-1.0	-1.6	-2.2	168.2
Secondary	34.4	0.0	-0.2	0.0	1.2	3.6	2.6	5.8	-2.4	1.6	-1.0	2.8	3.2	51.6
Mechanical Failure - TOTAL	-20.6	-31.6	-15.6	-13.6	7.8	-21.0	40.0	7.4	120.8	-14.6	-12.2	17.0	57.6	121.4
Mechanical Failure - Metra/PSA	-20.2	-27.2	-13.4	-12.0	7.8	-16.6	40.2	7.4	121.2	-13.4	-12.2	17.0	57.8	136.4
Non-Locomotive Equipment Failure - Metra/PSA	-11.0	-27.2	-13.4	-12.0	1.2	-5.6	-7.0	3.2	-7.2	-2.4	3.8	-13.4	21.8	-69.2
Primary Secondary	-1.2 -9.8	-8.8 -18.4	-4.2 -9.2	-5.6 -6.4	0.4 0.8	1.6 -7.2	0.6 -7.6	1.6 1.6	-5.0 -2.2	2.6 -5.0	4.8 -1.0	-2.2 -11.2	6.6 15.2	-8.8 -60.4
-														
Locomotive Failure - Metra/PSA Primary	-9.2 5.4	0.0 0.0	0.0 0.0	0.0 0.0	6.6 5.2	-11.0 5.6	47.2 15.6	4.2 3.2	128.4 15.2	-11.0 -3.8	-16.0 -5.4	30.4 9.2	36.0 6.6	205.6 56.8
Secondary	-14.6	0.0	0.0	0.0	1.4	-16.6	31.6	1.0	113.2	-7.2	-10.6	21.2	29.4	148.8
Mechanical Failure - Foreign	-0.4	-4.4	-2.2	-1.6	0.0	-4.4	-0.2	0.0	-0.4	-1.2	0.0	0.0	-0.2	-15.0
Passenger Train Interference - TOTAL	2.4	-5.0	-1.4	1.6	-1.2	-65.2	-15.6	-6.0	-9.0	8.0	-10.2	-5.8	-14.0	-121.4
Passenger Train Interference - Metra/PSA	-2.0	-2.6	-2.6	-2.4	-0.8	-44.8	-12.2	-5.8	-3.2	-2.6	-10.2	-5.6	-14.8	-109.6
Passenger Train Interference - Foreign	4.4	-2.4	1.2	4.0	-0.4	-20.4	-3.4	-0.2	-5.8	10.6	0.0	-0.2	0.8	-11.8
Accident - TOTAL	-26.4	-11.8	-4.8	-0.8	-1.0	29.4	15.6	9.0	-15.8	17.6	-13.2	11.6	-30.2	-20.8
Accident - Metra/PSA	-22.0	-11.8	-4.8	-0.8	-0.8	22.0	13.2	5.6	-14.6	12.6	-13.2	7.6	-28.0	-35.0
Accident - Foreign	-4.4	0.0	0.0	0.0	-0.2	7.4	2.4	3.4	-1.2	5.0	0.0	4.0	-2.2	14.2
Track Work - TOTAL	60.4	26.0	-8.0	-12.8	-9.4	14.4	-22.6	-19.0	-4.8	-0.2	-11.8	-7.6	56.6	61.2
Track Work - Metra/PSA	34.2	26.0	-8.0	-12.8	-9.4	14.8	-25.4	-19.4	-4.8	-1.6	-11.8	-7.6	56.6	30.8
Track Work - Foreign	26.2	0.0	0.0	0.0	0.0	-0.4	2.8	0.4	0.0	1.4	0.0	0.0	0.0	30.4
Human Error - TOTAL	-63.8	0.2	12.2	9.4	0.2	0.2	-3.0	-0.6	9.4	-12.4	-30.2	-15.2	-23.4	-117.0
Human Error - Metra/PSA	-36.6	2.8	12.4	10.2	-3.0	3.2	-1.2	6.8	9.0	-1.2	-22.2	-1.6	-5.4	-26.8
Human Error - Foreign	-27.2	-2.6	-0.2	-0.8	3.2	-3.0	-1.8	-7.4	0.4	-11.2	-8.0	-13.6	-18.0	-90.2
Sick, Injured, Unruly Passenger - TOTAL	0.6	-14.8	-3.8	-5.0	-0.4	17.0	14.8	-2.4	8.0	-2.6	-18.0	4.2	7.0	4.6
Sick, Injured, Unruly Passenger - Metra/PSA	-1.8	-14.8	-3.8	-5.0	-0.4	17.0	14.8	-2.4	8.4	-2.6	-18.0	4.2	7.0	2.6
Sick, Injured, Unruly Passenger - Foreign	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	0.0	0.0	0.0	0.0	2.0
Weather - TOTAL	-101.0	-82.0	-26.8	-24.6	-8.0	-92.8	-85.4	-34.6	-81.2	-20.4	-81.4	-130.6	-100.2	-869.0
Weather - Metra/PSA	-99.8	-82.0	-26.8	-24.6	-7.6	-89.6	-84.8	-34.2	-80.0	-18.8	-81.4	-130.2	-99.6	-859.4
Weather - Foreign	-1.2	0.0	0.0	0.0	-0.4	-3.2	-0.6	-0.4	-1.2	-1.6	0.0	-0.4	-0.6	-9.6
Passenger Loading - TOTAL	-54.6	-130.2	-18.0	-56.0	0.0	-76.0	-4.6	-2.2	-94.0	-1.6	-117.0	7.0	-59.6	-606.8
Lift Deployment - TOTAL	-18.8	0.4	0.0	-0.4	0.0	10.6	-13.0	-1.4	-40.8	1.4	-23.2	-4.4	-20.8	-110.4
Obstruction/Debris - TOTAL	-28.8	13.2	-2.4	-5.6	-1.2	7.6	22.8	-1.4	-6.8	2.6	5.0	-3.4	-11.0	-9.4
Catenary Failure - TOTAL Other - TOTAL	0.0 -1.2	4.6 -20.4	-2.4 -7.8	-3.6 -8.6	0.0 -1.0	0.0 0.4	0.0 -1.6	0.0	0.0 -8.0	0.0	0.0 -10.2	-0.2 -6.2	0.0 5.8	-1.6 -63.2
other - TOTAL	-1.2	-20.4	-7.0	-8.0	-1.0	0.4	-1.0	-1.0	-8.0	-2.8	-10.2	-0.2	5.8	-05.2
TOTAL TRAINS DELAYED	-166.8	-236.8	-75.4	-124.0	-22.2	-341.8	-117.4	-145.0	-145.4	-90.2	-362.8	-199.0	-180.8	-2,207.6
Total Metra/PSA Delays	-294.4	-227.4	-73.8	-125.6	-24.8	-246.2	-72.2	-84.2	-124.0	-24.0	-341.2	-146.8	-68.4	-1,853.0
Total Foreign Carrier Delays	127.6	-9.4	-1.6	1.6	2.6	-95.6	-45.2	-60.8	-21.4	-66.2	-21.6	-52.2	-112.4	-354.6

TABLE 9.c: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE

Data for current month is final (12/15/16) version from TOPS.

P:\ONTIME\report\[DelaysByCause.xlsm]YTDByLine 12/16/2016

'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.a: FREQUENCY OF TRAIN DELAYS BY CAUSE & MONTH

2016

					2016									
CAUSE CATEGORY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan -	
Freight Interference - TOTAL	82	53	43	44	72	73	82	108	78	48	65		748	10.4%
Freight Interference - Peak	32	17	14	9	28	20	32	50	26	15	34		277	3.8%
Primary	26	10	11	7	15	10	21	31	20	13	18		182	2.5%
Secondary	6	7	3	2	13	10	11	19	6	2	16		95	1.3%
Freight Interference - Off-Peak	50	36	29	35	44	53	50	58	52	33	31		471	6.5%
Primary Secondary	32 18	29 7	23 6	29 6	32 12	44 9	34 16	48 10	43 9	29 4	28 3		371 100	5.1% 1.4%
Signal/Switch Failure - TOTAL	154	155	123	98	145	143	108	63	105	67	110		1.271	17.6%
8	67	133	99	98 60	84	84	51	55	89	38	76		825	17.0%
Signal/Switch Failure - Metra/PSA Primary	67 35	122 30	99 52	60 41	84 54	84 52	51 41	55 40	89 58	38 32	76 57		825 492	11.4% 6.8%
Secondary	33	30 92	47	41	34 30	32	41 10	40	31	52	19		333	4.6%
Signal/Switch Failure - Foreign	87	33	24	38	61	59	57	8	16	29	34		446	6.2%
Primary	68	24	24 14	33	49	43	36	6	10	21	19		325	4.5%
Secondary	19	9	10	5	12	16	21	2	4	8	15		121	1.7%
Mechanical Failure - TOTAL	107	68	131	43	80	88	120	78	114	64	71		964	13.4%
Mechanical Failure - Metra/PSA	107	68	131	42	80	88	120	78	114	64	71		963	13.3%
Non-Locomotive Equipment Failure - Metra/PSA	25	19	10	6	13	17	19	30	8	12	3		162	2.2%
Primary	11	9	4	5	9	9	8	11	7	7	3		83	1.2%
Secondary	14	10	6	1	4	8	11	19	1	5	0		79	1.1%
Locomotive Failure - Metra/PSA	82	49	121	36	67	71	101	48	106	52	68		801	11.1%
Primary	28	18	24	14	18	27	36	20	28	17	23		253	3.5%
Secondary	54	31	97	22	49	44	65	28	78	35	45		548	7.6%
Mechanical Failure - Foreign	0	0	0	1	0	0	0	0	0	0	0		1	0.0%
Passenger Train Interference - TOTAL	22	12	3	4	19	14	12	11	5	10	4		116	1.6%
Passenger Train Interference - Metra/PSA	13	5	2	3	2	2	7	2	2	6	3		47	0.7%
Passenger Train Interference - Foreign	9	7	1	1	17	12	5	9	3	4	1		69	1.0%
Accident - TOTAL	59	15	62	48	86	29	18	55	34	10	79		495	6.9%
Accident - Metra/PSA	49	14	62	41	77	29	18	53	30	10	73		456	6.3%
Accident - Foreign	10	1	0	7	9	0	0	2	4	0	6		39	0.5%
Track Work - TOTAL	40	21	36	44	141	114	99	133	177	75	59		939	13.0%
Track Work - Metra/PSA	40	21	36	41	139	110	99	104	175	74	59		898	12.4%
Track Work - Foreign	0	0	0	3	2	4	0	29	2	1	0		41	0.6%
Human Error - TOTAL	38	33	21	53	23	112	47	93	50	45	49		564	7.8%
Human Error - Metra/PSA	30	25	15	42	15	94	34	81	43	32	32		443	6.1%
Human Error - Foreign	8	8	6	11	8	18	13	12	7	13	17		121	1.7%
Sick, Injured, Unruly Passenger - TOTAL	20	39	27	50	44	32	29	43	30	24	35		373	5.2%
Sick, Injured, Unruly Passenger - Metra/PSA	20	39	27	50	44	30	29	43	30	24	34		370	5.1%
Sick, Injured, Unruly Passenger - Foreign	0	0	0	0	0	2	0	0	0	0	1		3	0.0%
Weather - TOTAL	129	132	28	1	4	23	49	38	1	4	13		422	5.8%
Weather - Metra/PSA	129	132	28	1	4	23	49	38	1	4	13		422	5.8%
Weather - Foreign	0	0	0	0	0	0	0	0	0	0	0		0	0.0%
Passenger Loading - TOTAL	13	7	29	8	51	83	109	42	32	28	68		470	6.5%
Lift Deployment - TOTAL	11	14	12	3	15	11	11	21	11	12	8		129	1.8%
Obstruction/Debris - TOTAL	18	30	40	54	22	31	44	51	28	39	47		404	5.6%
Catenary Failure - TOTAL	9	3	2	1	4	13	11	6	29	12	9		99	1.4%
Other - TOTAL	5	17	15	0	10	25	30	39	35	17	30		223	3.1%
TOTAL TRAINS DELAYED	707	599	572	451	716	791	769	781	729	455	647		7,217	100.0%
Total Metra/PSA Delays	511	497	498	346	547	623	612	613	619	360	523		5,749	79.7%
Total Foreign Carrier Delays	196	102	74	105	169	168	157	168	110	95	124		1,468	20.3%

Data for current month is final (12/15/16) version from TOPS.

12/16/2016 P:\ONTIME\report\[DelaysByCause.xlsm]AllMonths

'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 Freight Interference - TOTAL Freight Interference - Peak Primary	Jan 122 35	Feb 158	Mar 113	Apr 87	May 59	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan -	Nov
Freight Interference - Peak Primary	35		113	87	50									
Primary						90	116	89	84	60	65	49	1,043	14.2%
		48	42	36	23	42	38	31	27	12	29	8	363	4.9%
	24	33	24	24	13	25	26	19	16	9	22	5	235	3.2%
Secondary	11	15	18	12	10	17	12	12	11	3	7	3	128	1.7%
Freight Interference - Off-Peak	87	110	71	51	36	48	78	58	57	48	36	41	680	9.3%
Primary Secondary	63 24	86 24	59 12	42 9	28 8	38 10	56 22	42 16	48 9	41 7	31 5	33 8	534 146	7.3% 2.0%
Signal/Switch Failure - TOTAL	93	126	35	69	69	79	116	87	64	84	63	53	885	12.0%
6	73	83	28	53	54	79 67	103	68	04 51	74	39	42	693	9.4%
Signal/Switch Failure - Metra/PSA	75 38	83 54	28 25	55 29	54 30	42	63	08 32	51 34	74 35	39	42	693 417	9.4% 5.7%
Secondary	35	29	25	29	30 24	42 25	40	32 36	34 17	39	4	20 16	276	3.8%
Signal/Switch Failure - Foreign	20	43	7	16	15	12	13	19	13	10	24	11	192	2.6%
Primary	20	4.5	5	10	7	12	13	19	9	7	24 10	8	192	2.0%
Secondary	3	20	2	4	8	6	2	8	4	3	14	3	74	1.0%
Mechanical Failure - TOTAL	82	102	69	66	51	100	65	62	67	46	80	40	790	10.7%
Mechanical Failure - Metra/PSA	71	93	69	56	51	100	65	62	67	46	80	40	760	10.3%
Non-Locomotive Equipment Failure - Metra/PSA	27	19	22	17	8	35	28	11	11	5	12	8	195	2.7%
Primary	10	6	10	7	6	4	9	4	5	4	4	7	69	0.9%
Secondary	17	13	12	10	2	31	19	7	6	1	8	1	126	1.7%
Locomotive Failure - Metra/PSA	44	74	47	39	43	65	37	51	56	41	68	32	565	7.7%
Primary	16	25	14	17	15	14	15	22	24	14	20	18	196	2.7%
Secondary	28	49	33	22	28	51	22	29	32	27	48	14	369	5.0%
Mechanical Failure - Foreign	11	9	0	10	0	0	0	0	0	0	0	0	30	0.4%
Passenger Train Interference - TOTAL	13	19	6	7	16	27	12	10	3	8	9	10	130	1.8%
Passenger Train Interference - Metra/PSA	6	14	5	4	4	15	1	4	1	3	3	10	60	0.8%
Passenger Train Interference - Foreign	7	5	1	3	12	12	11	6	2	5	6	0	70	1.0%
Accident - TOTAL	29	35	60	60	20	59	29	13	27	73	44	50	449	6.1%
Accident - Metra/PSA	28	34	60	60	18	59	25	13	27	73	43	50	440	6.0%
Accident - Foreign	1	1	0	0	2	0	4	0	0	0	1	0	9	0.1%
Frack Work - TOTAL	38	50	19	52	57	49	85	79	60	71	34	23	594	8.1%
Track Work - Metra/PSA	38	32	19	52	57	49	71	73	58	71	34	23	554	7.5%
Track Work - Foreign	0	18	0	0	0	0	14	6	2	0	0	0	40	0.5%
Human Error - TOTAL	32	67	103	31	40	45	148	41	65	43	44	34	659	9.0%
Human Error - Metra/PSA	24	45	91	17	28	41	59	29	38	22	35	28	429	5.8%
Human Error - Foreign	8	22	12	14	12	4	89	12	27	21	9	6	230	3.1%
Sick, Injured, Unruly Passenger - TOTAL	21	25	20	29	24	36	36	28	22	27	19	25	287	3.9%
Sick, Injured, Unruly Passenger - Metra/PSA	21	25	20	29	24	36	36	28	21	27	19	25	286	3.9%
Sick, Injured, Unruly Passenger - Foreign	0	0	0	0	0	0	0	0	1	0	0	0	1	0.0%
Weather - TOTAL	335	395	17	10	3	59	17	22	22	12	83	39	975	13.3%
Weather - Metra/PSA	333	381	17	10	3	59	17	22	21	12	83	39	958	13.0%
Weather - Foreign	2	14	0	0	0	0	0	0	1	0	0	0	17	0.2%
Passenger Loading - TOTAL	20	21	42	21	44	98	124	101	23	27	21	38	542	7.4%
Lift Deployment - TOTAL	22	23	20	9	9	24	18	10	14	8	8	7	165	2.2%
Obstruction/Debris - TOTAL	31	71	8	34	48	49	34	61	30	44	25	52	435	5.9%
Catenary Failure - TOTAL	4	34	10	0	3	4	23	9	37	14	13	15	151	2.1%
Other - TOTAL	23	59	10	10	19	16	31	19	24	11	22	12	244	3.3%
FOTAL TRAINS DELAYED	865	1,185	532	485	462	735	854	631	542	528	530	447	7,349	100.0%
Total Metra/PSA Delays	694	915	399	355	362	617	607	499	412	432	425	381	5,717	77.8%
Total Foreign Carrier Delays	171	270	133	130	100	118	247	132	130	96	105	66	1,632	22.2%

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

P:\ONTIME\report\[DelaysByCause.xlsm]AllMonths 12/16/2016

'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.

CAUSE CATEGORI	Jan	ren	Iviai	Арі	Iviay	Jun	Jui	Aug	зер	00	1107	Det	Jan -	1107
Freight Interference - TOTAL	-40	-105	-70	-43	13	-17	-34	19	-6	-12	0		-295	-3.8%
Freight Interference - Peak	-3	-31	-28	-27	5	-22	-6	19	-1	3	5		-86	-1.1%
Primary	2	-23	-13	-17	2	-15	-5	12	4	4	-4		-53	-0.7%
Secondary	-5	-8	-15	-10	3	-7	-1	7	-5	-1	9		-33	-0.4%
Freight Interference - Off-Peak	-37	-74	-42	-16	8	5	-28	0	-5	-15	-5		-209	-2.7%
Primary	-31	-57	-36	-13	4	6	-22	6	-5	-12	-3		-163	-2.1%
Secondary	-6	-17	-6	-3	4	-1	-6	-6	0	-3	-2		-46	-0.6%
Signal/Switch Failure - TOTAL	61	29	88	29	76	64	-8	-24	41	-17	47		386	5.6%
Signal/Switch Failure - Metra/PSA	-6	39	71	7	30	17	-52	-13	38	-36	37		132	2.0%
Primary	-3	-24	27	12	24	10	-22	8	24	-3	22		75	1.1%
Secondary	-3	63	44	-5	6	7	-30	-21	14	-33	15		57	0.9%
Signal/Switch Failure - Foreign	67	-10	17	22	46	47	44	-11	3	19	10		254	3.6%
Primary	51	1	9	21	42	37	25	-5	3	14	9		207	2.9%
Secondary	16	-11	8	1	4	10	19	-6	0	5	1		47	0.7%
Mechanical Failure - TOTAL	25	-34	62	-23	29	-12	55	16	47	18	-9		174	2.6%
Mechanical Failure - Metra/PSA	36	-25	62	-14	29	-12	55	16	47	18	-9		203	3.0%
Non-Locomotive Equipment Failure - Metra/PSA	-2	0	-12	-11	5	-18	-9	19	-3	7	-9		-33	-0.4%
Primary	1	3	-6	-2	3	5	-1	7	2	3	-1		14	0.2%
Secondary	-3	-3	-6	-9	2	-23	-8	12	-5	4	-8		-47	-0.6%
Locomotive Failure - Metra/PSA	38	-25	74	-3	24	6	64	-3	50	11	0		236	3.4%
Primary	12	-7	10	-3	3	13	21	-2	4	3	3		57	0.8%
Secondary	26	-18	64	0	21	-7	43	-1	46	8	-3		179	2.6%
Mechanical Failure - Foreign	-11	-9	0	-9	0	0	0	0	0	0	0		-29	-0.4%
Passenger Train Interference - TOTAL	9	-7	-3	-3	3	-13	0	1	2	2	-5		-14	-0.2%
Passenger Train Interference - Metra/PSA	7	-9	-3	-1	-2	-13	6	-2	1	3	0		-13	-0.2%
Passenger Train Interference - Foreign	2	2	0	-2	5	0	-6	3	1	-1	-5		-1	0.0%
Accident - TOTAL	30	-20	2	-12	66	-30	-11	42	7	-63	35		46	0.7%
Accident - Metra/PSA	21	-20	2	-19	59	-30	-7	40	3	-63	30		16	0.3%
Accident - Foreign	9	0	0	7	7	0	-4	2	4	0	5		30	0.4%
Track Work - TOTAL	2	-29	17	-8	84	65	14	54	117	4	25		345	4.9%
Track Work - Metra/PSA	2	-11	17	-11	82	61	28	31	117	3	25		344	4.9%
Track Work - Foreign	0	-18	0	3	2	4	-14	23	0	1	0		1	0.0%
Human Error - TOTAL	6	-34	-82	22	-17	67	-101	52	-15	2	5		-95	-1.2%
Human Error - Metra/PSA	6	-20	-02	25	-13	53	-25	52	-15	10	-3		14	0.3%
Human Error - Foreign	0	-14	-70	-3	-13	14	-25	0	-20	-8	-5		-109	-1.5%
Sick, Injured, Unruly Passenger - TOTAL	-1	-14	-0	21	20	-4	-70	15	-20	-3	16		-109	1.3%
	-1	14	7	21		-4 -6	-7	15	° 9	-3	15		84	
Sick, Injured, Unruly Passenger - Metra/PSA	-				20				-					1.2%
Sick, Injured, Unruly Passenger - Foreign	0	0	0	0	0	2	0	0	-1	0	1		2	0.0%
Weather - TOTAL	-206	-263	11	-9	1	-36	32	16	-21	-8	-70		-553	-7.4%
Weather - Metra/PSA	-204	-249	11	-9	1	-36	32	16	-20	-8	-70		-536	-7.2%
Weather - Foreign	-2	-14	0	0	0	0	0	0	-1	0	0		-17	-0.2%
Passenger Loading - TOTAL	-7	-14	-13	-13	7	-15	-15	-59	9	1	47		-72	-0.9%
Lift Deployment - TOTAL	-11	-9	-8	-6	6	-13	-7	11	-3	4	0		-36	-0.5%
Obstruction/Debris - TOTAL	-13	-41	32	20	-26	-18	10	-10	-2	-5	22		-31	-0.3%
Catenary Failure - TOTAL	5	-31	-8	1	1	9	-12	-3	-8	-2	-4		-52	-0.7%
Other - TOTAL	-18	-42	5	-10	-9	9	-1	20	11	6	8		-21	-0.2%

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

Jun

Jul

Aug

Sep

Oct

Nov

Dec

Data for current month is final (12/15/16) version from TOPS.

TOTAL TRAINS DELAYED

Total Foreign Carrier Delays

Total Metra/PSA Delays

CAUSE CATEGORY

Jan

Feb

Mar

Apr

P:\ONTIME\report\[DelaysByCause.xlsm]AllMonths 12/16/2016

-132

32

-164

Jan - Nov

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.

-34

-9

-25

254

185

69

56

6

50

-85

5

-90

150

114

36

187

207

-20

-73

-72

-1

117

98

19

-158

-183

25

-586

-418

-168

40

99

-59

						ember 4			venin					
		]	Electric			Mil						ion Paci	fic	
	BNSF	ML	BI	SC	HER	Ν	W	NCS	RI	SWS	Ν	NW	W	SYSTEM
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
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
Total	174	0	0	0	43	133	89	120	57	163	17	73	249	1,118
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
Aug-16	56	0	0	0	2	14	6	4	3	5	1	2	15	108
Sep-16	22	0	0	0	5	9	4	3	4	17	1	2	11	78
Oct-16	11	0	0	0	2	2	2	9	3	2	1	3	13	48
Nov-16	8	0	0	0	5	3	5	7	2	9	1	4	21	65
Total	209	0	0	0	28	73	104	65	65	85	4	20	144	797

### TABLE 11: FREIGHT DELAYSbetween December 2014 and November 2016

Data for current month is final (12/15/16) version from TOPS.

P:\ONTIME\report\[DelaysByCause.xlsm]Freight- YTD, 2 yrs 12/16/2016

						-	-							
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	1	0	4	0		14	0.96%
Electric ML	1	0	0	0	0	0	0	0	0	1	0		2	0.38%
Electric BI	0	0	0	0	0	0	0	0	0	0	0		0	0.00%
Electric SC	0	0	0	0	0	0	0	0	1	0	0		1	0.42%
HER	0	0	0	0	0	0	0	0	0	0	0		0	0.00%
Milw N	1	6	8	0	7	3	0	6	4	3	2		40	4.66%
Milw W	0	0	1	2	0	2	7	1	3	3	2		21	2.70%
NCS	0	1	0	0	0	0	0	1	0	0	0		2	0.73%
RI	2	2	0	0	1	2	1	3	1	0	2		14	1.84%
SWS	0	0	0	0	2	1	0	0	0	0	0		3	0.85%
UP N	0	0	0	0	0	0	0	4	0	0	0		4	0.97%
UP NW	1	0	2	0	2	2	1	3	1	1	1		14	2.36%
UP W	1	4	0	1	2	1	1	2	1	0	1		14	1.88%
Total Lift Delays	11	14	12	3	15	11	11	21	11	12	8		129	1.79%
ALL DELAYS														7,217
Data for current month is final (12/15/16) version from TOPS.														

## TABLES 12.a & 12.b: FREQUENCY OF LIFT-DEPLOYMENT TRAIN DELAYS BY LINE & MONTH2016

2015

LINE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Lift Delays	% of All Delays All Year
BNSF	<b>5</b> <i>a</i> 11	7	8	1	1	2	<b>Ju</b> 7	1 1	3	3	1	0	40	2.70%
Electric ML	0	0	0	0	0	1	2	0	0	0	0	0	40	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

 $P:\label{eq:continue} P:\label{eq:continue} P:\label{eq:continue$ 

12/16/2016

November 2016 <u>Minutes</u> BNSF Electric Her Milwaukee NCS RI SWS UP Sv												
				NCS	RI	SWS	N		<b>XX</b> 7	System		
<u>31 SC</u>		Ν	W				Ν	NW	w			
										151		
										57		
										24		
										69 17		
<u>0</u>	<u>u</u> <u>u</u>	<u>0</u>	<u>0</u>	<u>U</u>	<u>2</u>	<u>U</u>	<u>U</u>	<u>3</u>	<u>2</u>	<u>17</u>		
4	3 5	5 30	31	15	13	9	13	67	45	318		
4	17 1	20	10	3	14	8	11	5	18	143		
1	2 0	) 4	7	2	5	1	5	7	8	61		
1	3 1	. 8	3	2	2	2	1	1	4	34		
0	0 1	. 7	9	0	3	2	3	21	8	68		
<u>0</u>	<u>2</u> <u>0</u>	<u>) 3</u>	<u>2</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>4</u>	<u>2</u>	23		
6	24 3	42	31	7	25	13	21	38	40	329		
7	19 4	36	22	17	23	13	13	22	41	294		
2	2 1	12	9	3	6	3	12	13	21	118		
1	4 1	12	6	2	3	4	4	5	6	58		
0	0 2	. 9	17	0	3	2	4	56	13	137		
<u>0</u>	<u>2</u> <u>0</u>	<u>) 3</u>	<u>8</u>	<u>0</u>	<u>3</u>	<u>0</u>	<u>1</u>	<u>9</u>	4	40		
							34		85	647		
							-					
78 1	32 38	386	299	125	366	180	139	212	298	3,243		
										1,391		
										712		
			180	54	157	79	119	176	178	1,535		
<u>12</u>	<u>21 4</u>	37	<u>47</u>	<u>5</u>	31	<u>4</u>	<u>30</u>	23	<u>39</u>	336		
										7,217		
										.,		
ENI COI	APOSITI	UN OF I	DELAY	SBYK	ANGE	OF DUE	CATION	N				
ctric	Her	Milwa	aukee	NCS	RI	SWS		UP		System		
BI SC		Ν	W				Ν	NW	W	-		
0.0% 70.4	% 50.0%	50.0%	35.5%	77.3%	60.5%	59.1%	38.2%	21.0%	48.2%	45.4%		
).0% 7.4	% 12.5%	16.7%	14.5%	13.6%	15.8%	13.6%	35.3%	12.4%	24.7%	18.2%		
).0% 14.8	% 12.5%	16.7%	9.7%	9.1%	7.9%	18.2%	11.8%	4.8%	7.1%	9.0%		
).0% 0.0	% 25.0%	12.5%	27.4%	0.0%	7.9%	9.1%	11.8%	53.3%	15.3%	21.2%		
<u>).0% 7.4</u>	<u>-% 0.0%</u>	4.2%	<u>12.9%</u>	<u>0.0%</u>	<u>7.9%</u>	<u>0.0%</u>	<u>2.9%</u>	<u>8.6%</u>	<u>4.7%</u>	<u>6.2%</u>		
0.0% 100.0	)% 100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%		
uration												
1.4% 55.7	% 42.7%	44.9%	38.4%	45.8%	48.2%	50.7%	33.6%	35.8%	40.1%	44.9%		
			22.0%	19.8%	16.8%	15.5%	19.8%	21.2%	20.6%	19.3%		
			10.5%	12.8%	10.3%		10.6%	9.4%	10.2%	9.9%		
				19.8%				29.7%		21.3%		
			6.0%	1.8%	4.1%	1.1%	7.2%	3.9%	5.2%	4.7%		
	3         1         0         0         0         0         4         1         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         10         78         11         4         22         12	BI         SC $3$ 2 $3$ 1         0         1           0         1         0           0         0         1           0         0         0           0         0         0           0         0         0           4         17         1           1         2         0           4         17         1           0         0         1           0         0         1           0         0         1           0         0         1           0         2         0           6         24         3           7         19         4           2         2         1           1         4         1           0         0         2           0         2         0           10         27         8           78         132         38           11         32         14           4         18         9           22         34         24 <td>etric         Her         Milwa           BI         SC         N           <math>3</math>         2         3         16           1         0         1         8           0         1         0         4           0         0         1         2           0         0         0         0         4           1         2         0         4         3         5           4         17         1         20         4           1         2         0         4         3         5           0         0         1         7         20         4         3         6           2         0         3         16         2         2         1         12           1         4         1         12         0         2         9         3           10         27         8         72         12         1         12         12         1         12         12         1         12         12         1         12         12         1         13         14         176         4         18         9</td> <td>ctric         Her         Milwaukee           BI         SC         N         W           <math>3</math>         2         3         16         12           1         0         1         8         2           0         1         0         4         3           0         0         1         2         8           0         0         0         0         6           4         3         5         30         31           4         17         1         20         10           1         2         0         4         3           0         0         1         7         9           0         2         0         3         2           6         24         3         42         31           7         19         4         36         22           2         2         1         12         9           1         4         12         6         0           0         2         9         17         0         2           10         27         8         72         62</td> <td>ctric         Her         Milwaukee         NCS           BI         SC         N         W         NCS           3         2         3         16         12         14           1         0         1         8         2         1           0         1         0         4         3         0           0         0         1         2         8         0           0         0         0         6         0         1           4         3         5         30         31         15           4         17         1         20         10         3           1         2         0         4         7         2           1         3         1         8         3         2           0         0         1         7         9         0           2         2         1         12         9         3           1         4         1         12         6         2           0         0         2         9         17         0           0         2         12</td> <td>ctric         Her         Milwaukee N         NCS         RI           3         2         3         16         12         14         9           1         0         1         8         2         1         1           0         1         0         4         3         0         1           0         0         1         2         8         0         0           0         0         1         2         8         0         0           0         0         1         2         8         0         0           4         17         1         20         10         3         14           1         2         0         4         7         2         5           1         3         1         8         3         2         2           0         0         1         7         9         3         6           2         1         12         9         3         6         1           1         2         1         12         9         3         6           1         3         14         <t< td=""><td>etric         Her         Milwaukee         NCS         RI         SWS           3         2         3         16         12         14         9         5           1         0         1         8         2         1         1         2           0         1         0         4         3         0         1         2           0         0         1         2         8         0         0         0           0         0         1         2         8         0         0         0           4         3         5         30         31         15         13         9           4         17         1         20         10         3         14         8           1         2         0         4         7         2         5         1           3         1         8         3         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         3         3         2         2         2         3         3         &lt;</td><td>etric         Her         Milwaukce         NCS         RI         SWS         N           3         2         3         16         12         14         9         5         2           1         0         1         8         2         1         1         2         7           0         1         0         4         3         0         1         2         3           0         0         1         2         8         0         0         0         1           0         0         1         2         8         0         0         0         1           0         0         1         2         8         0         0         0         1           1         2         0         4         7         2         5         1         5           1         3         1         8         3         2         2         2         1         0         1           0         0         1         7         9         0         3         2         1         1         0         1         1         1         1         1</td><td>ctric         Her         Milwaukee         NCS         RI         SWS         UP           3         2         3         16         12         14         9         5         2         17           1         0         1         8         2         1         1         2         7         6           0         1         0         4         3         0         1         2         3         4           0         0         1         2         8         0         0         0         1         35           0         0         0         0         2         0         0         5         7           4         17         1         20         10         3         14         8         11         5           1         3         1         8         3         2         2         1         1         4         11         5         7           0         0         1         7         9         0         3         2         3         21         38           1         1         12         9         3         6</td><td>etric         Her         Milwaukee         NCS         RI         SWS         UP           3         2         3         16         12         14         9         5         2         17         23           1         0         1         8         2         1         1         2         7         6         13           0         1         0         4         3         0         1         2         3         4         2           0         0         1         2         8         0         0         1         35         5           0         0         0         0         6         0         2         0         0         5         2           4         17         1         20         10         3         14         8         11         5         18           1         3         1         8         3         2         2         1         1         4         2           6         24         3         42         31         7         25         13         21         38         40           1         2</td></t<></td>	etric         Her         Milwa           BI         SC         N $3$ 2         3         16           1         0         1         8           0         1         0         4           0         0         1         2           0         0         0         0         4           1         2         0         4         3         5           4         17         1         20         4           1         2         0         4         3         5           0         0         1         7         20         4         3         6           2         0         3         16         2         2         1         12           1         4         1         12         0         2         9         3           10         27         8         72         12         1         12         12         1         12         12         1         12         12         1         12         12         1         13         14         176         4         18         9	ctric         Her         Milwaukee           BI         SC         N         W $3$ 2         3         16         12           1         0         1         8         2           0         1         0         4         3           0         0         1         2         8           0         0         0         0         6           4         3         5         30         31           4         17         1         20         10           1         2         0         4         3           0         0         1         7         9           0         2         0         3         2           6         24         3         42         31           7         19         4         36         22           2         2         1         12         9           1         4         12         6         0           0         2         9         17         0         2           10         27         8         72         62	ctric         Her         Milwaukee         NCS           BI         SC         N         W         NCS           3         2         3         16         12         14           1         0         1         8         2         1           0         1         0         4         3         0           0         0         1         2         8         0           0         0         0         6         0         1           4         3         5         30         31         15           4         17         1         20         10         3           1         2         0         4         7         2           1         3         1         8         3         2           0         0         1         7         9         0           2         2         1         12         9         3           1         4         1         12         6         2           0         0         2         9         17         0           0         2         12	ctric         Her         Milwaukee N         NCS         RI           3         2         3         16         12         14         9           1         0         1         8         2         1         1           0         1         0         4         3         0         1           0         0         1         2         8         0         0           0         0         1         2         8         0         0           0         0         1         2         8         0         0           4         17         1         20         10         3         14           1         2         0         4         7         2         5           1         3         1         8         3         2         2           0         0         1         7         9         3         6           2         1         12         9         3         6         1           1         2         1         12         9         3         6           1         3         14 <t< td=""><td>etric         Her         Milwaukee         NCS         RI         SWS           3         2         3         16         12         14         9         5           1         0         1         8         2         1         1         2           0         1         0         4         3         0         1         2           0         0         1         2         8         0         0         0           0         0         1         2         8         0         0         0           4         3         5         30         31         15         13         9           4         17         1         20         10         3         14         8           1         2         0         4         7         2         5         1           3         1         8         3         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         3         3         2         2         2         3         3         &lt;</td><td>etric         Her         Milwaukce         NCS         RI         SWS         N           3         2         3         16         12         14         9         5         2           1         0         1         8         2         1         1         2         7           0         1         0         4         3         0         1         2         3           0         0         1         2         8         0         0         0         1           0         0         1         2         8         0         0         0         1           0         0         1         2         8         0         0         0         1           1         2         0         4         7         2         5         1         5           1         3         1         8         3         2         2         2         1         0         1           0         0         1         7         9         0         3         2         1         1         0         1         1         1         1         1</td><td>ctric         Her         Milwaukee         NCS         RI         SWS         UP           3         2         3         16         12         14         9         5         2         17           1         0         1         8         2         1         1         2         7         6           0         1         0         4         3         0         1         2         3         4           0         0         1         2         8         0         0         0         1         35           0         0         0         0         2         0         0         5         7           4         17         1         20         10         3         14         8         11         5           1         3         1         8         3         2         2         1         1         4         11         5         7           0         0         1         7         9         0         3         2         3         21         38           1         1         12         9         3         6</td><td>etric         Her         Milwaukee         NCS         RI         SWS         UP           3         2         3         16         12         14         9         5         2         17         23           1         0         1         8         2         1         1         2         7         6         13           0         1         0         4         3         0         1         2         3         4         2           0         0         1         2         8         0         0         1         35         5           0         0         0         0         6         0         2         0         0         5         2           4         17         1         20         10         3         14         8         11         5         18           1         3         1         8         3         2         2         1         1         4         2           6         24         3         42         31         7         25         13         21         38         40           1         2</td></t<>	etric         Her         Milwaukee         NCS         RI         SWS           3         2         3         16         12         14         9         5           1         0         1         8         2         1         1         2           0         1         0         4         3         0         1         2           0         0         1         2         8         0         0         0           0         0         1         2         8         0         0         0           4         3         5         30         31         15         13         9           4         17         1         20         10         3         14         8           1         2         0         4         7         2         5         1           3         1         8         3         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         3         3         2         2         2         3         3         <	etric         Her         Milwaukce         NCS         RI         SWS         N           3         2         3         16         12         14         9         5         2           1         0         1         8         2         1         1         2         7           0         1         0         4         3         0         1         2         3           0         0         1         2         8         0         0         0         1           0         0         1         2         8         0         0         0         1           0         0         1         2         8         0         0         0         1           1         2         0         4         7         2         5         1         5           1         3         1         8         3         2         2         2         1         0         1           0         0         1         7         9         0         3         2         1         1         0         1         1         1         1         1	ctric         Her         Milwaukee         NCS         RI         SWS         UP           3         2         3         16         12         14         9         5         2         17           1         0         1         8         2         1         1         2         7         6           0         1         0         4         3         0         1         2         3         4           0         0         1         2         8         0         0         0         1         35           0         0         0         0         2         0         0         5         7           4         17         1         20         10         3         14         8         11         5           1         3         1         8         3         2         2         1         1         4         11         5         7           0         0         1         7         9         0         3         2         3         21         38           1         1         12         9         3         6	etric         Her         Milwaukee         NCS         RI         SWS         UP           3         2         3         16         12         14         9         5         2         17         23           1         0         1         8         2         1         1         2         7         6         13           0         1         0         4         3         0         1         2         3         4         2           0         0         1         2         8         0         0         1         35         5           0         0         0         0         6         0         2         0         0         5         2           4         17         1         20         10         3         14         8         11         5         18           1         3         1         8         3         2         2         1         1         4         2           6         24         3         42         31         7         25         13         21         38         40           1         2		

#### TABLE 13: FREQUENCY OF TRAIN DELAYS BY DURATION November 2016

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

Data for most recent month is final (12/15/16) 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		Ν	W				Ν	NW	W	, ,
November 2016														
Peak *	14.9	9.5	8.8	10.3	11.4	11.1	16.7	8.4	8.9	10.7	14.0	57.1	17.2	22.4
Off-Peak **	12.0	21.6	9.7	9.1	18.3	15.2	16.7	12.6	12.3	14.1	14.6	39.2	18.4	18.0
All	13.9	17.3	9.3	9.3	14.0	13.4	16.7	9.7	11.3	12.7	14.4	50.7	17.7	20.2
2016 V														
2016 Year-1	to-Date													
Peak *	15.9	14.7	18.5	13.9	19.9	15.8	19.1	16.6	19.0	16.5	24.4	27.6	18.1	18.4
Off-Peak **	15.7	15.3	19.5	14.2	14.8	15.8	16.2	17.2	15.0	17.3	19.2	21.6	20.6	16.9
All	15.8	15.1	19.1	14.1	18.9	15.8	17.1	16.9	16.9	17.0	21.1	24.4	19.4	17.5

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 (12/15/16) version from TOPS.

P:\ONTIME\report\[DelaysByDuration.xls]MinutesByServPeriod 12/16/2016