



Memorandum

DATE: August 16, 2017

TO: Board of Directors

FROM: Don Orseno
Executive Director/CEO

SUBJECT: Commuter Rail System On-Time Performance Report June 2017

RECOMMENDATION

Review Metra's June 2017 Report on system on-time performance (see Attachment A).

BACKGROUND

System on-time performance in June 2017 was 95.3%, as the report indicates. The highest percentage of delays, 51%, was between six and ten minutes in duration, slightly higher than Metra's goal of a minimum of 50%.

June 2017 Delays by Duration

Minutes	Delays	% Total
6-10	416	51%
11-15	149	18%
16-20	78	9%
21+	156	19%
Annulled	23	3%
	822	100%

Total Revenue Trains Operated: 17,541

Six Months: Jan 2017 Through Jun 2017

Service Period	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Average of All Six
Weekday Peak	95.0%	96.4%	97.2%	97.0%	96.2%	95.8%	96.3%
Weekday Off-Peak	95.6%	97.0%	97.2%	96.5%	96.9%	95.5%	96.4%
Weekend	97.4%	98.7%	97.2%	96.2%	95.5%	92.9%	96.3%
Total	95.6%	96.9%	97.2%	96.6%	96.5%	95.3%	96.4%

ATTACHMENTS

A. Commuter Rail System On-Time Performance Report, June 2017

Prepared by: Lynnette Ciavarella, Senior Division Director, Strategic Capital Planning/Grants Development
A. Christopher Wilson, Senior Section Manager, System Planning, System Performance & Data
Steven Mannella, Transportation Analyst, System Planning, System Performance & Data

COMMUTER RAIL SYSTEM
ON-TIME PERFORMANCE REPORT

June 2017



Division of Strategic Capital Planning

August 2017

COMMUTER RAIL ON-TIME PERFORMANCE

June 2017

This report presents an analysis of the June 2017 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 June 2017, Metra operated 17,541 scheduled trains, including scheduled "extras", if any. 822 of these trains were delayed (late or annulled), representing an on-time performance rate of 95.3%. Table 2 lists on-time percentages by line for each month and year since 2012.

Table 3 lists each train that was on time for less than 85% of its weekday runs in June 2017, 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 June 2017. Of the 822 delays systemwide in June 2017, all but 421 (51%) were beyond Metra's control. Table 6.b shows the average frequencies over the previous five Junes, and Table 6.c shows the differences between Table 6.a and Table 6.b., illustrating that in June 2017, 34 fewer delays than the average over the previous five Junes were controllable. Table 6.d shows the delay-cause control frequencies since the beginning of the year. Of the 3,760 delays in 2017, all but 1,870 (50%) were beyond Metra's control.

Table 7 provides a daily listing of the number of delays by line and branch for June 2017.

Table 8.a shows the frequency of train delays by delay-cause category and by line during June 2017. Table 8.b shows the average frequencies over the previous five Junes, and Table 8.c shows the differences between Table 8.a and Table 8.b. There were 822 delays systemwide in June 2017, 143 less than the average over the previous five Junes. Table 9.a shows delays from the beginning of the year through June 2017. Table 9.b shows the average frequencies from the beginning of the year through June 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 2017 and 2016 respectively, and Table 10.c shows the difference between the two. From January through June of 2017, a total of 3,760 trains were delayed, compared to 3,836 trains delayed in the same six months of 2016.

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 June 2017 freight operations delayed 110 trains systemwide, compared to 73 a year earlier. Tables 12.a and 12.b display the frequency of lift-deployment train delays by line and month, for 2017 and 2016 respectively. A total of 31 trains were delayed by lift deployment in June 2017.

A review of June 2017 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 50.6% of all late trains. Table 14 shows that the average length of delay was 16.8 minutes in June 2017. 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

“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.

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.

TABLE 1: SCHEDULED AND DELAYED TRAINS, AND ON-TIME PERFORMANCE BY SERVICE PERIOD AND LINE
June 2017

	Weekdays												Weekends												Total		
	Peak*			Off-Peak**			Total			Saturdays			Sundays & Holidays			Trains Scheduled	Trains Late	Percent On-Time	Trains Scheduled	Trains Late	Percent On-Time						
	Trains Scheduled	Trains Late	Percent On-Time	Trains Scheduled	Trains Late	Percent On-Time	Trains Scheduled	Trains Late	Percent On-Time	Trains Scheduled	Trains Late	Percent On-Time	Trains Scheduled	Trains Late	Percent On-Time												
BNSF	1,188	79	93.4%	886	54	93.9%	2,074	133	93.6%	118	3	97.5%	76	6	92.1%	2,268	142	93.7%									
Elec -ML -BI -SC Subtotal	987	25	97.5%	751	26	96.5%	1,738	51	97.1%	184	2	98.9%	80	8	90.0%	2,002	61	97.0%									
	308	8	97.4%	506	28	94.5%	814	36	95.6%	120	0	100.0%	--	--	--	934	36	96.1%									
	374	7	98.1%	814	13	98.4%	1,188	20	98.3%	190	11	94.2%	80	0	100.0%	1,458	31	97.9%									
	1,669	40	97.6%	2,071	67	96.8%	3,740	107	97.1%	494	13	97.4%	160	8	95.0%	4,394	128	97.1%									
Heritage	132	12	90.9%	22	5	77.3%	154	17	89.0%	--	--	--	--	--	--	154	17	89.0%									
Milw -N -W Subtotal	549	22	96.0%	771	52	93.3%	1,320	74	94.4%	96	17	82.3%	80	7	91.3%	1,496	98	93.4%									
	593	27	95.4%	683	25	96.3%	1,276	52	95.9%	96	4	95.8%	72	4	94.4%	1,444	60	95.8%									
	1,142	49	95.7%	1,454	77	94.7%	2,596	126	95.1%	192	21	89.1%	152	11	92.8%	2,940	158	94.6%									
NCS	242	6	97.5%	242	15	93.8%	484	21	95.7%	--	--	--	--	--	--	484	21	95.7%									
RI	792	20	97.5%	836	37	95.6%	1,628	57	96.5%	128	7	94.5%	112	10	91.1%	1,868	74	96.0%									
SWS	242	8	96.7%	418	12	97.1%	660	20	97.0%	24	0	100.0%	--	--	--	684	20	97.1%									
UP -N -NW -W Subtotal	654	14	97.9%	874	17	98.1%	1,528	31	98.0%	108	9	91.7%	75	6	92.0%	1,711	46	97.3%									
	720	45	93.8%	707	28	96.0%	1,427	73	94.9%	97	20	79.4%	61	13	78.7%	1,585	106	93.3%									
	591	39	93.4%	708	60	91.5%	1,299	99	92.4%	81	6	92.6%	73	5	93.2%	1,453	110	92.4%									
	1,965	98	95.0%	2,289	105	95.4%	4,254	203	95.2%	286	35	87.8%	209	24	88.5%	4,749	262	94.5%									
SYSTEM	7,372	312	95.8%	8,218	372	95.5%	15,590	684	95.6%	1,242	79	93.6%	709	59	91.7%	17,541	822	95.3%									

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

Delays data for most recent month is final (07/25/17) version from TOPS.

P:\ONTIME\report\Delays&TrainsByServPeriod.xls\OTPbyServPeriod&Line 08/07/17

TABLE 2: ON-TIME PERFORMANCE BY LINE/BRANCH

LINE	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN-JUN	AVG
BNSF	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	95.7%	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	93.7%	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	85.9%	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	94.1%	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	93.1	94.5%	94.0%
	2017	95.9	95.6	96.2	96.3	95.4	93.7							95.5%	95.5%
2012-2016 average		90.5	92.0	95.6	95.6	93.2	89.7	94.2	93.9	95.2	94.4	95.0	95.1	92.8%	93.7%
Electric	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	98.3%	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	96.9%	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	97.4%	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	97.7	98.3%	98.1%
	2017	95.6	98.9	98.3	98.9	98.7	97.1							97.9%	97.9%
2012-2016 average		95.9	97.4	98.3	98.5	98.3	97.4	96.1	97.8	97.7	97.7	97.6	98.1	97.6%	97.6%
Heritage	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	96.2%	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	95.9%	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	87.3%	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	90.4%	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	91.8	94.8%	94.2%
	2017	93.9	94.3	96.9	96.4	94.2	89.0							94.1%	94.1%
2012-2016 average		90.7	91.5	94.3	95.1	93.3	92.7	92.7	93.9	93.7	97.1	93.5	93.9	93.0%	93.6%
Milw - N	2012	95.1	96.4	94.0	95.3	93.5	93.2	84.8	92.9	94.3	94.9	95.4	95.5	94.6%	93.8%
	2013	95.5	92.4	94.1	95.7	95.3	89.6	92.8	93.6	94.4	93.3	95.7	87.5	93.8%	93.3%
	2014	73.1	81.9	89.5	97.9	95.1	91.1	96.0	95.2	95.5	96.2	95.4	93.5	88.1%	91.7%
	2015	91.8	87.9	93.5	95.1	95.4	94.8	97.1	94.9	95.6	97.9	97.0	96.8	93.1%	94.9%
	2016	95.3	94.2	95.7	96.8	92.5	92.9	95.0	93.1	93.8	97.5	95.1	93.8	94.6%	94.6%
	2017	95.3	95.6	96.5	96.1	95.9	93.4							95.5%	95.5%
2012-2016 average		90.1	90.6	93.4	96.2	94.4	92.3	93.2	93.9	94.7	95.9	95.7	93.4	92.8%	93.7%
Milw - W	2012	94.4	95.1	95.3	97.5	97.1	95.6	93.7	94.1	89.3	93.9	94.6	95.5	95.8%	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	94.6%	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	91.7%	93.5%
	2015	93.6	93.0	94.8	97.7	97.2	95.4	96.6	96.8	97.8	99.0	98.2	96.5	95.3%	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	93.3	94.7%	94.9%
	2017	96.9	95.2	95.2	95.6	97.5	95.8							96.0%	96.0%
2012-2016 average		92.7	92.7	94.4	96.9	96.2	93.5	94.0	94.6	94.8	96.4	96.0	94.7	94.4%	94.7%
NCS	2012	94.8	94.4	94.4	85.1	95.2	94.8	82.5	91.9	95.7	93.9	92.0	94.8	93.1%	92.4%
	2013	95.0	87.5	93.7	90.9	94.0	92.7	93.6	95.0	92.5	93.1	90.0	87.4	92.4%	92.2%
	2014	76.0	81.1	88.5	96.3	88.5	89.2	94.0	88.5	95.2	90.9	97.8	91.9	86.7%	89.9%
	2015	93.9	82.5	92.6	94.8	95.7	94.8	96.0	92.6	95.2	97.1	96.1	93.6	92.5%	93.8%
	2016	92.3	95.5	91.7	93.3	94.4	96.3	95.0	96.4	96.1	95.5	95.2	92.6	93.9%	94.5%
	2017	92.6	91.6	95.1	95.2	95.5	95.7							94.3%	94.3%
2012-2016 average		90.4	88.3	92.2	92.1	93.6	93.6	92.3	93.0	95.0	94.0	94.2	92.1	91.7%	92.6%

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

LINE	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN-JUN	Avg
RI	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	95.6%	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	90.5%	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	97.6%	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	95.3	95.9%	96.1%
	2017	95.2	97.1	97.8	98.0	94.6	96.0							96.5%	96.5%
	2012-2016 average	92.6	94.0	96.2	96.1	96.5	94.4	93.9	96.0	96.8	97.0	96.4	96.3	95.0%	95.5%
SWS	2012	94.2	96.6	94.8	95.3	95.8	93.2	95.3	94.5	93.8	94.3	93.7	96.3	95.0%	94.8%
	2013	94.7	97.1	97.3	97.7	95.0	91.0	98.0	96.8	97.1	98.2	93.2	91.1	95.5%	95.6%
	2014	83.0	92.0	93.5	94.9	93.2	92.8	93.9	95.2	94.2	92.0	90.2	96.2	91.5%	92.6%
	2015	94.7	89.7	95.6	96.1	96.3	91.1	92.4	93.8	97.6	96.8	96.0	94.4	93.9%	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	96.2	95.6%	95.2%
	2017	96.2	94.1	96.4	97.3	92.8	97.1							95.6%	95.6%
	2012-2016 average	92.4	94.6	95.8	95.9	94.4	92.7	94.7	94.7	94.9	95.7	94.0	94.9	94.3%	94.6%
UP - N	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	96.5%	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	96.7%	96.6%
	2014	91.2	92.1	97.4	97.8	97.4	97.2	97.6	98.1	97.6	97.4	97.8	98.3	95.5%	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	97.6%	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	98.1	97.9%	97.8%
	2017	95.6	99.0	98.3	97.0	97.3	97.3							97.4%	97.4%
	2012-2016 average	95.9	96.4	97.7	97.6	97.0	96.4	96.7	96.0	97.4	97.4	97.4	97.7	96.9%	97.0%
UP - NW	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	96.9%	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	93.9%	95.2%
	2015	96.0	91.6	97.6	96.3	96.9	96.8	94.1	96.5	96.1	97.5	96.7	97.5	95.9%	96.2%
	2016	97.0	98.1	97.8	98.1	96.0	96.6	94.9	96.8	96.9	96.5	93.2	93.4	97.3%	96.3%
	2017	96.2	97.4	98.1	93.7	97.2	93.3							96.0%	96.0%
	2012-2016 average	94.3	95.5	96.8	97.4	95.5	94.8	94.5	96.2	97.1	95.6	95.2	95.6	95.7%	95.7%
UP - W	2012	93.1	97.1	95.2	95.5	95.6	92.4	93.8	94.3	97.2	97.2	96.0	96.4	94.8%	95.3%
	2013	96.5	96.2	96.9	94.4	93.7	89.2	95.0	93.0	96.6	96.6	94.0	91.5	94.5%	94.5%
	2014	85.9	90.9	94.4	96.7	96.4	94.8	96.4	94.3	96.7	94.6	95.9	96.2	93.2%	94.4%
	2015	93.9	91.1	96.1	96.3	97.5	93.9	93.9	95.9	96.0	96.1	97.3	96.8	94.8%	95.4%
	2016	97.8	93.4	97.2	96.7	90.1	94.4	96.6	96.0	96.2	95.6	94.0	92.9	95.0%	95.1%
	2017	95.0	96.5	96.1	92.9	93.8	92.4							94.4%	94.4%
	2012-2016 average	93.4	93.7	96.0	95.9	94.6	93.0	95.1	94.7	96.5	96.0	95.4	94.7	94.5%	94.9%
SYSTEM excluding South Shore	2012	94.3	97.4	96.1	97.2	96.3	94.7	94.0	95.2	96.2	95.9	95.8	96.9	96.0%	95.8%
	2013	96.8	96.1	96.7	95.7	95.9	92.4	94.0	95.2	96.4	95.9	95.1	93.8	95.6%	95.4%
	2014	85.6	89.3	94.9	96.8	94.5	93.1	95.6	95.7	96.8	95.9	96.9	96.5	92.4%	94.3%
	2015	94.9	92.5	97.0	97.2	97.2	95.8	95.3	96.3	96.8	97.0	96.8	97.5	95.8%	96.2%
	2016	95.8	96.4	96.8	97.4	95.8	95.5	95.4	95.7	95.7	97.4	96.2	95.2	96.3%	96.1%
	2017	95.6	96.9	97.2	96.6	96.5	95.3							96.4%	96.4%
	2012-2016 average	93.4	94.4	96.3	96.9	96.0	94.3	94.9	95.6	96.4	96.4	96.2	96.0	95.2%	95.6%

Delays data for most recent month is final (07/25/17) version from TOPS.

P:\ONTIME\report\Delays&TrainsByServPeriod.xls\OTPbyLine&Month

8/7/2017

'2012-2016 average' calculated by summing the delays over the five years, summing the trains run over the five years, and calculating their ratio.

TABLE 3: LIST OF WEEKDAY TRAINS LESS THAN 85% ON-TIME
June 2017

Line	Train	Date	Minutes Late	Code	Delay Explanation
BNSF 1236 77% OT	Tue, Jun 06	10	C	BROKEN RAIL MT3 RIDGELAND AVE	
	Mon, Jun 12	36	KD	METX 213 AIR HOSE ISSUE AT LAVERGNE	
	Thu, Jun 15	8	E1	DELAYED WORKING AROUND 1210 AT EOLA	
	Fri, Jun 16	10	DD	HNTWBRC214 LINED THRU WEST EOLA BY EAST END DS.	
	Wed, Jun 28	7	F	DOOR FAILURE IN HILL YARD. CAR 810	
BNSF 1253 82% OT	Wed, Jun 07	6	G	FAIRVIEW AVE. - 1A WOULD NOT NORMAL	
	Tue, Jun 13	6	U	ADA AT DOWNERS GROVE	
	Wed, Jun 14	28	KW	TORNADO WARNING	
	Thu, Jun 15	7	C	MULTIPLE FORM A RESTRICTIONS	
BNSF 1259 82% OT	Wed, Jun 14	28	KW	TORNADO WARNING	
	Thu, Jun 15	8	C	MULTIPLE FORM A RESTRICTIONS	
	Fri, Jun 16	8	R	LATE SET AT CUS TRAINMASTER, WRONG ORDER	
	Thu, Jun 29	16	VE	METX 117 SHUTDOWN ON TRACK 0	
BNSF 1271 76% OT	Fri, Jun 02	10	R1	1267 S/O LOCMOTIVE AND BLOCKING W/E YARD INEXPERIENCED YARD CREW, TRAIN TOO BIG TO CUT.	
	Tue, Jun 06	7	U	ADA LIFT	
	Wed, Jun 07	6	G1	AURORA - CONGESTION AT ATC DUE TO FVW SWITCH FAILURE	
	Mon, Jun 12	8	CW	HEAT INSP	
	Wed, Jun 14	25	KW	TORNADO WARNING	
BNSF 1272 82% OT	Fri, Jun 02	13	DD	YARDING THE Z-PTLCHC9-31	
	Wed, Jun 07	7	D	WAITING ON TRAFFIC AT EOLA	
	Fri, Jun 16	7	D	FOLLOWING THE U ELUNSD0 18T	
	Thu, Jun 29	7	VE1	TRAFFIC FROM 1259	
BNSF 1279 82% OT	Fri, Jun 02	8	R1	TRAFFIC AHEAD WHILE 1267 S/O LOCOMOTIVE IN THE HILL YARD	
	Mon, Jun 12	7	CW	HEAT INSP	
	Wed, Jun 14	39	KW	TORNADO WARNING	
	Thu, Jun 15	13	C	M OF W WORK, MULTIPLE FORM A	
BNSF 1288 82% OT	Fri, Jun 02	13	DD1	LATE FLIP FROM TRAIN 1243	
	Wed, Jun 14	22	KW	TORNADO WARNING	
	Thu, Jun 22	36	K	GATE FOULING MT3 AND TRAIN WAS FORCED TO REVERSE TO OPERATE EB ON OTHER MT, ACCT TRAFFIC ACCIDENT CLOSE TO ROW	
	Fri, Jun 30	6	DD1	FREIGHT TRAIN INTERFERENCE.	
	Thu, Jun 08	8	U	ADA PASSENGER HANDLING	
BNSF 1293 77% OT	Fri, Jun 09	12	U	2 ADA LIFTS LAGRANGE ROAD AND DGM	
	Wed, Jun 14	8	GA	WAITING ON SIGNAL FROM CUS AND DEPARTED 8 MINUTES LATE	
	Thu, Jun 15	14	C	WORKED MT2	
	Wed, Jun 21	7	U	ADA PASSENGER HANDLING AND ALSO ONLY 6 CARS, CONDUCTOR REPORTS HEAVY PASSENGER HANDLING	
	Thu, Jun 01	8	RF	11M CP CERMAK RED SIGNAL; ATTEMPTING TO CONTACT CN DISP., THEN COPYING AWDM FOR MP 36.6 (CP CERMAK IS MP 2.9)	
HC 915 77% OT	Mon, Jun 12	27	RF	9M FOLLOWING AMTK #21 WITH HOT WEATHER SLOW ORDERS; 6M CP JUSTICE MEET AMT#22; 11M X036 WAITING ON UP DISPATCHER.	
	Wed, Jun 14	25	RF1	8M FOLLOWING AMTK #21 FROM CUS; 21M CORWITH (#21 AHEAD AT LEMOYNE W/ PLANT TROUBLE); 6M CP CANAL UP YCHNP-14 UP8732; ALSO CN STORM WX WARNINGS	
	Mon, Jun 19	8	AM	12M DUE TO BRIDGE LIFT AND AMT21	
	Wed, Jun 28	7	GF1	12M 47XO SWITCH OUT OF CORRESPONDENCE	
	Tue, Jun 13	17	RF	12M CORWITH; CN DID NOT LINE IN TRAIN TO BNSF DISP.; 5M LEMOYNE SIGNAL ISSUES; LOST 5M EN-ROUTE CN HEAT SPEED RESTRICTIONS.	
HC 919 77% OT	Wed, Jun 14	27	AM	23M CP LUMBER, SWS#827 AHEAD ACCT. TRACK CIRCUIT 21ST ST., 6M CORWITH, CN RULE X HIGH WIND/STORM SPEED RESTRICTIONS	
	Thu, Jun 15	11	DD	5M TALKED BY 21ST ST.; 5M CP CERMAK TALKED BY TRK CIRCUIT; 6M X036 UP DISP PUT U7625J-15 CN3081 W/114C 7000' AHEAD; SHORT TIME FREIGHT.	
	Mon, Jun 19	23	D	6M DUE TO FLAGGING INSTRUCTIONS AT CERMAK. 28M NO SIGNAL AT CORWITH CROSS TRAFFIC ZWSP819A W/ BNSF4557 46CARS LENGTH 4721.	
	Fri, Jun 30	60	K	HELD AT BRIGHTON 62M 532/634PM ACCT. TRUCK STRUCK BRIDGE MP 4.26 (33RD & WOLCOTT); WAITING FOR INSPECTOR. 6M CORWITH BNSF FREIGHT CLEARING.	
	Thu, Jun 08	6	GT1	7" KENSINGTON WAITING FOR ME120 TO CLEAR.	
ELBI 220 82% OT	Mon, Jun 19	6	CC1	HELD FOR MEET WITH ME120	
	Tue, Jun 20	10	CC1	6" KENSINGTON WAITING FOR ME120 TO CLEAR.	
	Wed, Jun 21	8	CC1	4" KENSINGTON WAITING FOR ME120.	
	Wed, Jun 07	6	CC	6M KENSINGTON WAITING ON ME124	
ELBI 224 59% OT	Thu, Jun 08	7	CC1	5" KENSINGTON WAITING FOR ME124 TO CLEAR.	
	Fri, Jun 09	7	CC1	6" KENSINGTON WAITING FOR ME124.	
	Tue, Jun 13	6	CC1	6M KENSINGTON WAITING ON ME124	
	Wed, Jun 14	6	CC1	6M KENSINGTON WAITING ON ME124	
	Thu, Jun 15	8	CC1	2" KENSINGTON WAITING FOR ME124 TO CLEAR.	
	Fri, Jun 16	9	CC	9M DUE TO TRACK WORK AND GROUND LOADING BETWEEN KENSINGTON AND 69TH.	
	Mon, Jun 19	7	CC1	7M KENS WAITING ON MEET WITH ME124	
	Tue, Jun 20	7	CC1	7" KENSINGTON WAITING FOR ME124 TO CLEAR.	

TABLE 3 (continued): LIST OF WEEKDAY TRAINS LESS THAN 85% ON-TIME
June 2017

Line	Train	Date	Minutes Late	Delay Code	Delay Explanation
ELML	127	Fri, Jun 02	9	RS1	5MIN STUCK BEHIND SS9209 WHICH WAS RUNNING LATE 2MINS 55TH 1 KEN AND 2MINS HARVEY ASSISTING PASSENGERS .
		Tue, Jun 06	10	YC1	DELAYED DUE TO SS918 DERAILMENT AT RANDOLPH
		Thu, Jun 08	6	U	3M FOR ADA FROM RANDOLPH TO HW. 2M FOR PASSENGER WITH A BIKE EXITING TRAIN AT HARVEY
		Thu, Jun 22	9	G	9M DUE PASSENGERS ON THE WRONG PLATFORM AT VAN BUREN. SWITCH FAILURE.
MN	2121	Fri, Jun 23	7	U	5MINS LOADING 30 PASS, 3 WHEELCHAIRS, 1STROLLER @11THTH PLACE UNLOADING @ 2 WHEEL @ HARVEY 1MIN & 1 WHEEL @ 211MIN
		Fri, Jun 02	7	U	2" STOP, MAYFAIR; 2" HOLD FOR #2140 & CHECK PA CABLE ENG 401, DEERFIELD; 2" UNLOADING; 3"
		Tue, Jun 13	9	U	ADA, INGLESIDE 5" ADA, LIBERTYVILLE; 3" ADA, GRAYSLAKE; 5" OLDER MAN WITH A BIKE GOING TO FOX LAKE, ROUND LAKE.
		Thu, Jun 15	18	G	3" CREW STOP TO CHECK AIR LEAK A END HEAD CAR, CUS-A-2; 4" CHECK LEAK, SULLIVAN'S SHANTY; 12" CN SIGNAL PROBLEMS STOP SIGNAL RESTRICTED
		Fri, Jun 16	15	G	3" ADA, HELAY; 4" RONDOUT STOP SIGNAL RESTRICTED SPEED; 4" SIGNAL PROBLEMS, LONG LAKE-FOX LAKE
MN	2125	Thu, Jun 29	14	U	3" STICKING DOOR #7430, CUS; 5" STOP SIGNAL, A-4; 6" ADA, INGLESIDE.
		Thu, Jun 15	12	G	STOP SIGNAL
		Fri, Jun 16	13	G1	14" WAITING ON LATE #2146, RONDOUT, 3" RESTRICTED SPEED 48.5 SIGNAL PROBLEM
		Thu, Jun 22	8	CC	12" STOP SIGNAL, MORTON GROVE
		Fri, Jun 23	9	R	5" PULLED LONG, GLENVIEW; 2" ADA, GLENVIEW; 4" PASSENGER LOADING
		Thu, Jun 29	7	U1	10" WAITING ON LATE #2146, RONDOUT.
MN	2155	Fri, Jun 30	8	I	APPROACH SIGNALS GRAYLAND - MORTON GROVE; 3" ADA; 3" SLOW LOADING
		Thu, Jun 15	8	RF1	12" WAITING ON #2160
		Fri, Jun 16	8	A	5" X-TRAFFIC, MAYFAIR; 4" MEET #2160
		Fri, Jun 23	7	A	6" X-TRAFFIC, MAYFAIR
		Mon, Jun 26	11	D1	16" LATE DEPARTURE DUE TO LATE TURN FROM # 2158, EN ROUTE.
MW	2254	Thu, Jun 01	16	JM1	16" LATE TURN FROM #2249
		Thu, Jun 08	14	RD	6" PASSENGER LOADING; 8" STOP SIGNAL, B-12
		Fri, Jun 09	10	II	6" TURN FROM #2249; 5" PASSENGER LOADING.
		Wed, Jun 14	14	J1	14" LATE TURN FROM #2249
		Thu, Jun 01	15	JM1	12" LATE TURN FROM #2255
MW	2255	Thu, Jun 08	12	RD1	12" LATE TURN FROM #2254
		Fri, Jun 09	12	II	8" TURN FROM #2254.
		Wed, Jun 14	11	J1	12" LATE TURN FROM #2254
		Wed, Jun 07	49	D	4" STOP/APPROACH SIGNALS, ROUND LAKE; 30" STOP SIGNAL/RESTRICTED FOLLOWING S/B FREIGHT, RAM' CP GRAYSLAKE STOP SIGNAL/REST FOLLOW FREIGHT; 10"
NCS	114	Wed, Jun 14	26	D1	26" LATE TURN FROM #103
		Mon, Jun 19	19	D	16" DUE TO FREIGHT INTERFERENCE, GRAYSLAKE; 2" SPD RESTRICTIONS, EN ROUTE.
		Mon, Jun 26	8	D	9" RESTRICTING SIGNAL FOLLOWING FREIGHT TRAIN, LEMOND; 6" RESTRICTING SIGNAL PANEL OUT, MP 42.3.
		Fri, Jun 30	9	D	6" RESTRICTED SPEED MP 50.8 FOLLOWING A FREIGHT TRAIN FROM LAKE VILLA; 2" STOP SIGNAL DEVAL N/B FREIGHT
		Fri, Jun 09	7	CC	7M LATE ENROUTE DUE TO PLANNED TRACK WORK
RI	508	Mon, Jun 12	10	J	12M @ 119TH WAITING ON PD DUE TO PASSENGER INCIDENT
		Tue, Jun 13	13	U	7M ADA ROBBINS - BLUE ISLAND/6M CP PERSHING WAITING ON TRAFFIC TO TUMBLE DUE TO UNPLANNED TRACK WORK @ MP 1.0 THRU MP 1.5
		Wed, Jun 21	11	U	4M EJE X-TRAFFIC CNL521/ENGCN5779+1/W156C/9328FT, 4 ADA'S, 1ST @ NEW LENOX, 2ND @ MOKENA, 3M BROADWAY, 3M B.I./ ALL EXITED @ LSS
		Mon, Jun 26	7	D	8M ENROUTE FOLLOWING IAI712 ENG 712 W/102/4C, 1255TON, 6700FT
		Thu, Jun 08	7	U	9 ASSISTING 2 ADA'S FROM BI TO ROBBINS
RI	513	Mon, Jun 12	22	JM	22M OF WAITING ON EMERGENCY PERSONNEL FOR PASSENGER HAVING A SEIZURE.
		Tue, Jun 13	8	U	8M FOR 2 ADA FROM BI TO ROBBINS
		Fri, Jun 16	6	U	4M ADA 95TH TO ROBBINS, 2M ITEM 1 AT CEDAR RD
		Mon, Jun 12	7	F1	17" LATE TURN FROM #609; TRAIN MEETS, EN ROUTE; HEAVY PASSENGERLOADING, EN ROUTE
UPNW	640	Thu, Jun 15	16	CC	26" WAIT FOR #611 TO CLEAR SINGLE TK, FOX RIVER GROVE, 2 X/O MOVES & 3 XING RESTRICTIONS, HELD BRIDGE A DUE TO TOWER OPERATOR
		Wed, Jun 21	13	F1	23" WAIT FOR #611 TO CLEAR SINGLE TRACKING, FOX RIVER GROVE; 2 X/O MOVES @ RESTRICTED SPEED; HEAVY PASSENGER LOADING, EN ROUTE
		Fri, Jun 23	8	I	28" HEAVY PASSENGER LOADING, EN ROUTE; 11 ADA'S, HAD TO BE TALKED BY SOGNAL @ CPT046, TRACK WORK, CRYTSAL LAKE RUNNING TKI
		Fri, Jun 02	12	M1	11" FOLLOWING #643
UPNW	647	Mon, Jun 05	20	K1	20" CAR STUCK ON TRACKS @ MP18.77 MT PROSPECT RD, FOLLOW TRAINS AHEAD
		Wed, Jun 07	8	VE	6" LATE DEPARTING MECHANICAL ISSUES W/METX 152 HEAD END POWER ISSUES, CPT; XH, MP11.55
		Wed, Jun 14	7	KW	5" FLASH FLOOD WARNING PROCEDURE BETWEEN MP40.0-54.0
		Tue, Jun 27	9	JM1	9" FOLLOWING TRAINS DELAYED BEHIND A LATE # 637 THAT WAS DELAYED FOR MED. EMERGENCY, CLYBOURN.

TABLE 3 (continued): LIST OF WEEKDAY TRAINS LESS THAN 85% ON-TIME
June 2017

Line	Train	Date	Minutes Late	Delay Code	Delay Explanation
UPW	33 82% OT	Fri, Jun 09	10	I1	10" WAITING FOR THE LATE #50 TO CLEAR TRACK ONE AT ELMURST.
		Fri, Jun 16	9	CC1	19" HELD @ BERKELEY WAITING FOR LATE #48 TO CLEAR TK3; XG, MP39.4
		Thu, Jun 22	7	I	7" WAIT @ BERKELEY FOR #48 TO CLEAR PARK ON TK3
		Fri, Jun 30	7	I1	17" DELAYED FOLLOWING GX01 TURNER-ELBURN
UPW	42 59% OT	Thu, Jun 01	50	W	50" TURNED OFF #25 @ COLLEGE AVE DUE TO GAS LINE RUPTURE @ MP24.23
		Tue, Jun 06	10	CC	10" TWO FORM B'S BETWEEN MP27.5-27 & MP 18.5-16.
		Wed, Jun 07	8	I	6" HEAVY PASSENGER LOADING, MULTIPLE STOPS
		Fri, Jun 09	14	VF	14" TRAIN WENT INTO EMERGENCY AT COLLEGE AVE, ELMHURST, RIVER FOREST AND KEDZIE AFTER SETTING BRAKES AT EACH LOCATION.
		Wed, Jun 14	6	G	16" XG PROCEDURE, ELMHURST; HEAVY/SLOW PASSENGER LOADING, EN ROUTE
		Mon, Jun 19	8	E1	8" DELAYED DUE TO DOUBLE HEADING OPERATING WITH AN ENGINE THAT WOULD NOT START, EN ROUTE.
		Tue, Jun 20	15	F	15" OPERATED ON ABSOLUTE BLOCKS FROM CPY019-CPY802 ACCT B/O ATCON CAR 8422(CAB SIGNALS SHOWED RESTRICTING)
		Wed, Jun 21	33	G	33" CPY029 PLANT WENT DOWN, CREW HAD TO GET FLAGGED PAST WEST CHICAGO SIGNAL & HAND LINE ROUTE ON THE PLANT
		Fri, Jun 23	10	I	10" HEAVY/SLOW PASSENGER LOADING, EN ROUTE
UPW	44 73% OT	Thu, Jun 01	50	W1	50" LATE DEPARTING ACCT GAS LINE RUPTURE @ MP24.23, TURNED OFF #21 THAT RAN EXTRA TO MAKE ALL STOP ELBURN-WHEATON THEN WHEATON-ELBURN
		Fri, Jun 02	18	I	18" HEAVY/SLOW PASSENGER LOADING(CUBS), EN ROUTE
		Mon, Jun 05	21	D	21" STOPPED AT BELLWOOD ACCT GS3GEV GOING INTO THE YARD @ 25TH AVE; GROUND RELAY ISSUES ON METX154; HEAVY PSGE LOADING, GENEVA, WHEATON, COL
		Wed, Jun 07	33	J	33" HEAVY PASSENGER LOADING, MULTIPLE STOPS; WAIT FOR PD & BACKUP TO MAYWOOD TO REMOVE APPROX 80 TEENAGERS DRINKING & SPRAYING BEER ON OTHER
		Thu, Jun 08	37	G	37" SW#47 FAILURE TK2, WAIT FOR PERMISSION TO REVERSE MOVE TO KEDZIE TO X/O TK1; ADA, GENEVA; HEAVY PASSENGER LOADING, ELMHURST
		Fri, Jun 23	13	I	13" HEAVY/SLOW PASSENGER LOADING, EN ROUTE
UPW	48 73% OT	Mon, Jun 05	19	D1	19" LATE TURN FROM #29
		Fri, Jun 16	7	CC	17" WAIT @ UNIVERSITY COR CSHAT9 TO CLEAR TK3 SO THEY COULD X/OTK1-TK3 ACCT TRACK WELDING & RESURFACING ON TK1, UNIVERSITY-GRADE
		Wed, Jun 21	50	G	50" CPY029 PLANT WENT DOWN, CREW HAD TO GET FLAGGED PAST WEST CHICAGO SIGNAL
		Thu, Jun 22	10	I	10" SLOW PASSENGER LOADING, COLLEGE AVE
		Fri, Jun 23	9	I	9" HEAVY PASSENGER LOADING, GENEVA, WHEATON & GLEN ELLYN; SLOW UNLOADING ADA, LOMBARD
		Thu, Jun 29	17	CC1	27" DEPARTED ELBURN 12" LATE DUE TO LATE TURN FROM #29; RAN CENTER TRACK COLLEGE AVE-LOMBARD; PASSENGERS ON WRONG SIDE AT COLLEGE AVE
UPW	49 57% OT	Thu, Jun 01	17	D1	17" TRAIN CONTROL FROM MELROSE PARK-WHEATON FOLLOWING #47 ACCT FREIGHT INTERFERENCE W/#45
		Fri, Jun 02	9	G1	9" TRAIN CONTROL FOLLOWING TRAINS AHEAD
		Mon, Jun 05	8	C	8" 10MPH, MP0.6-1.1#13 SWITCH @ HALSTED NEEDS REPAIR)
		Tue, Jun 06	8	J1	8" FOLLOWING #45 DUE TO PASSENGER REMOVAL.
		Mon, Jun 19	10	D1	10" DELAYED BEHIND #47 WAITING FOR # 56 TO CLEAR CLK # 3 DUE TO IOJPRJ GOING INTO THE YARD AT 25TH AVE ON TRK # 1/ZCIG1 ON TRK #2, VALE.
		Tue, Jun 20	6	RF	6" FOLLOWED #47 THAT WAS DELAYED @ VALE DUE TO TK3 SWITCH WOULDNOT LINE UP OR LOCK FOR NORMAL,#47 WAIT YPRBL WENT OVER SWITCH & CORRECTED
		Thu, Jun 22	7	GT1	7" STOPPED @ KEDZIE WAIT FOR ZBRG1 TO CLEAR INTO ROCKWELL (EARLIER SWITCH FAILURE DELAYED THIS TRAIN)
		Wed, Jun 28	7	D1	7" LATE FOLLOWING # 47 AND RAN SHORT X-OVERS DUE TO IG3AH CROSSING INTO ROCKWELL ON T3, KEDZIE,X-OVER T1-T2,VALE;30 MPH,MP17.7-17.8.
		Thu, Jun 29	7	D	7" STOPPED BEHIND #47 AT KEDZIE WAITING FOR ZBRG1 CROSSING INTO THE ROCKWELL SUB.
UPW	55 76% OT	Thu, Jun 01	18	J1	18" TRAIN CONTROL FROM OAK PARK-WEST CHICAGO FOLLOWING #53 ON ACCT PD ACTIVITY
		Fri, Jun 02	10	G1	10" TRAIN CONTROL FOLLOWING TRAINS AHEAD
		Mon, Jun 19	10	D1	10" DELAYED FOLLOWING TRAINS AHEAD THAT WERE HELD WAITING FOR # 56 TO CLEAR TRK #3 DUE TO THE IOJPRJ GOING INTO YARD AT 25TH AVE/TRK #1.
		Thu, Jun 22	10	GT1	10" RAN TRAIN CONTROL FOLLOWING TRAINS AHEAD
		Fri, Jun 23	10	F1	10" FOLLOWING TRAINS AHEAD THAT WERE LATE DEPARTING THE DEPOT, LATE ARRIVAL OF EQUIPMENT FROM CAL AVE COACH YD ON TRAIN CONTROL, OAK PK-ELMH
UPW	58 82% OT	Wed, Jun 07	10	L1	9" LATE TURN FROM #39; MCLPR, PARK
		Tue, Jun 13	7	D	7" 2CPPCA9 AHEAD CROSSING OVER @ GRACE.
		Fri, Jun 16	15	R	15" MAKE REVERSE MOVE BACK TO KEDZIE DEPOT TO UNLOAD PASSENGERS DUE TO GOING PAST DEPOT
		Thu, Jun 22	10	GT1	10" LATE TURN FRMO #39
UPW	60 82% OT	Tue, Jun 13	8	D1	8" FOLLOWING #58 THAT WAS DELAYED DUE TO 2CPPCA9 AHEAD CROSSINGOVER @ GRACE.
		Fri, Jun 16	16	R1	16" WAIT FOR #56 TO CLEAR KEDZIE, MP7
		Tue, Jun 20	7	RF	7" LATE DEPARTING WAIT FOR SIGNAL TO TIME OUT PER DISPATCHER, HE HAD WRONG SIGNAL UP
		Thu, Jun 22	9	GT1	10" LATE TURN FROM #59, ELMHURST

Data is final (07/25/17) version from TOPS.

P:\ONTIME\report\[WeekdayTrainsBelow85%.xlsx]PrintCopy 08/08/2017

TABLE 4: DELAY INCIDENT CODES AND DEFINITIONS

Codes						Codes					
Primary	Secondary	Primary Annulled	Definition	Delay Class	Responsibility	Primary	Secondary	Primary Annulled	Definition	Delay Class	Responsibility
A	A1	XA	Passenger Train Interference	Transportation	Controllable	L	L1	XL	Unauthorized People On Tracks/Near Miss	Incidental	Uncontrollable
AA	AA1	XAA	Rule 9.9 Delayed in Block/Rule 6.30	Transportation	Controllable	M	M1	XM	Right of Way Accident/Misc.	Incidental	Uncontrollable
AD	AD1	XAD	Non-Revenue Passenger Train Interference	Transportation	Controllable	MW	MW1	XMW	Right of Way Accident/Misc., Weather	Incidental	Uncontrollable
AM	AM1	XAM	Amtrak Caused Delay	Transportation	Controllable	N	N1	XN	Electricity Utility Failure	Incidental	Uncontrollable
AS	AS1	XAS	NICTD Train Interference	Transportation	Controllable	NW	NW1	XNW	Electricity Utility Failure, Weather	Incidental	Uncontrollable
AW	AW1	XAW	Pass. Train Interference, Weather	Transportation	Uncontrollable	O	O1	XO	AC/DC System Failure	Engineering	Controllable
B	B1	XB	Human Error, Eng. Dept.	Engineering	Controllable	OW	OW1	XOW	AC/DC System Failure, Weather	Engineering	Uncontrollable
BA	BA1	XBA	Amtrak Engineering Human Error	Engineering	Controllable	Q	Q1	XQ	Late Issuance of Track Warrant	Transportation	Controllable
C	C1	XC	Unscheduled Track Work	Engineering	Controllable	R	R1	XR	Human Error, Transportation	Transportation	Controllable
CA	CA1	XCA	Amtrak Engineering	Engineering	Semi-controllable	RA	RA1	XRA	Human Error, Amtrak Transportation	Transportation	Controllable
CC	CC1	XCC	Scheduled Track Work	Engineering	Controllable	RD	RD1	XRD	Human Error, Metra Dispatcher	Transportation	Controllable
CF	CF1	XCF	Engineering Equipment Malfunction	Engineering	Controllable	RF	RF1	XRF	Freight Dispatcher/Opr/Non-Freight Train Error	Transportation	Controllable
CG	CG1	XCG	Scheduled Signal Work	Engineering	Controllable	RL	RL1	XRL	Human Error, Job Action/Employee No Show (CMS Error)	Transportation	Controllable
CH	CH1	XCH	Contractor Failure	Engineering	Controllable	RN	RN1	XRN	Human Error, Job Action/Employee No Show (Non-CMS)	Transportation	Controllable
CO	CO1	XCO	Scheduled Wire Work	Engineering	Controllable	RO	ROI	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
RZ	RZ1	XRZ	ETMS Train Crew Error [obsolete 2015]								
D	D1	XD	Freight Train Interference	Transportation	Semi-controllable	S	S1	XS	Operational (Efficiency) Testing	Transportation	Uncontrollable
DD	DD1	XDD	Freight Dispatcher/Opr/Freight Train Error	Transportation	Controllable	T	T1	XT	Property Vandalism	Incidental	Uncontrollable
DE	DE1	XDE	Freight Mechanical Malfunction	Transportation	Semi-controllable	U	U1	XU	Accessibility Related (ADA)	Ridership	Uncontrollable
DM	DM1	XDM	Freight-Accident/Incident	Incidental	Uncontrollable	UF	UF1	XUF	ADA Lift Failure	Mechanical	Controllable
DR	DR1	XDR	Freight-Human Error	Transportation	Semi-controllable	UW	UW1	XUW	Accessibility, Weather	Ridership	Uncontrollable
DW	DW1	XDW	Freight Train Interference, Weather	Transportation	Uncontrollable	VE	VE1	XVE	Locomotive Problem Reported, Nothing Found	Incidental	Controllable
E	E1	XE	Locomotive Malfunction	Mechanical	Controllable	VF	VF1	XVF	Cab Car Problem Reported, Nothing Found	Incidental	Controllable
EA	EA1	XEA	Amtrak Locomotive/Car Malfunction	Mechanical	Uncontrollable	VG	VG1	XVG	Broken Gate Crossing Reported, Nothing Found	Incidental	Uncontrollable
EW	EW1	XEW	Locomotive Malfunction, Weather	Mechanical	Uncontrollable	W	W1	XXW	Gas Leak	Incidental	Uncontrollable
EZ	EZ1	XEZ	ETMS Malfunction on Locomotive [obsolete 2015]	Mechanical	Controllable	YB	YB1	XYB	Derailed - Human Error, Engineering	Engineering	Controllable
F	F1	XF	Cab Car/Trailer/MU Malfunction	Mechanical	Controllable	YC	YC1	XYC	Derailed - Engineering	Engineering	Controllable
FS	FS1	XFS	NICTD MU Malfunction	Mechanical	Uncontrollable	YE	YE1	XYE	Derailed - Mechanical	Mechanical	Controllable
FW	FW1	XFW	Cab Car/TRL/MU Malfunction, Weather	Mechanical	Uncontrollable	YF	YF1	XYF	Derailed - Accident, Foreign Line	Incidental	Uncontrollable
FZ	FZ1	XFZ	ETMS Malfunction on Cab Car [obsolete 2015]	Mechanical	Controllable	YH	YH1	XYH	Derailed - Human Error, Mechanical	Mechanical	Controllable
G	G1	XG	Signal/Switch Malfunction (Signal Dept.)	Engineering	Controllable	YM	YM1	XYM	Derailed - Accident	Incidental	Uncontrollable
GA	GA1	XGA	Signal/Switch Failure Amtrak (Signal Dept.)	Engineering	Semi-controllable	YR	YR1	XYR	Derailed - Human Error, Transportation	Transportation	Controllable
GF	GF1	XGF	Signal/Switch Foreign Line	Engineering	Semi-controllable	YW	YW1	XYW	Derailed Accident, Weather	Incidental	Uncontrollable
GM	GM1	XGM	Gate Crossing Malfunction	Engineering	Controllable	Z	Z1	ZXA	PTC Amtrak Train (On-Board)	Mechanical	Uncontrollable
GT	GT1	XGT	Telecom Failure	Engineering	Controllable	ZB	ZB1	ZXB	PTC Human Error, Engineering Dept.	Engineering	Controllable
GW	GW1	XGW	Signal/Switch Malfunction Weather (Signal Dept.)	Engineering	Uncontrollable	ZC	ZC1	ZXC	PTC Construction/Maintenance	Engineering	Controllable
GX	GX1	XGX	Broken Gate Crossing	Engineering	Uncontrollable	ZD	ZD1	ZXD	PTC Freight Train (On-Board)	Transportation	Semi-controllable
GZ	GZ1	XGZ	ETMS Signal Malfunction [obsolete 2015]	Engineering	Controllable	ZE	ZE1	ZZE	PTC Malfunction Locomotive	Mechanical	Controllable
H	H1	XH	Human Error, Mechanical Department	Mechanical	Controllable	ZF	ZF1	ZZF	PTC Malfunction Coach	Mechanical	Controllable
HS	HS1	XHS	Human Error, NICTD Mechanical Dept.	Mechanical	Controllable	ZG	ZG1	ZXG	PTC Wayside	Engineering	Controllable
I	I1	XI	Passenger Handling, Running Time	Ridership	Uncontrollable	ZH	ZHI	ZZH	PTC Human Error, Mechanical	Mechanical	Controllable
IB	IB1	XIB	Passenger Handling, Bicycle	Ridership	Uncontrollable	ZN	ZN1	ZZN	PTC Foreign Line (Non-Train)	Engineering	Semi-controllable
IW	IW1	XIW	Passenger Handling, Weather	Ridership	Uncontrollable	ZP	ZP1	ZXP	PTC Dispatcher	Transportation	Controllable
J	J1	XJ	Passenger Problems/Removal	Incidental	Uncontrollable	ZR	ZR1	ZXR	PTC Human Error, Transportation	Transportation	Controllable
JA	JA1	XJA	Amtrak Passenger Problems/Removal	Incidental	Uncontrollable	ZS	ZS1	ZXS	PTC NICTD MU Train (On-Board)	Mechanical	Uncontrollable
JM	JM1	XJM	Passenger Medical Emergency	Incidental	Uncontrollable	ZT	ZT1	ZXT	PTC Back Office	Engineering	Controllable
K	K1	XK	Obstruction On Tracks	Incidental	Uncontrollable	ZW	ZW1	ZZW	PTC Weather	Engineering	Uncontrollable
KD	KD1	XKD	Train Struck Debris	Incidental	Uncontrollable						
KP	KP1	XKP	Suspicious Package(s)/Person(s)/Activity	Incidental	Uncontrollable						
KW	KW1	XKW	Obstruction On Tracks, Weather	Incidental	Uncontrollable						

Effective July 1, 2016 Revised July 19, 2016

P:\ONTIME\#DelayClassificationTbl2012_v2016mid.xlsx\IncidentCodeTable_Ind 08/16/2016

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

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

Effective July 1, 2016

Revised July 19, 2016

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

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

P:\ONTIME\{+DelayClassificationTbl2012_v2016mid.xls\}DelayCodes_Cat_CarrierReportTbl 08/16/2016

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

June 2017

DELAY CONTROL	BNSF	Electric			HER	Milw		NCS	RI	SWS	Union Pacific			SYSTEM
		ML	BI	SC		N	W				N	NW	W	
Controllable	80	42	32	29	10	70	27	2	30	7	27	25	40	421 51%
Semi-controllable	9	0	1	0	4	8	3	16	18	9	4	5	28	105 13%
Uncontrollable	53	19	3	2	3	20	30	3	26	4	15	76	42	296 36%
TOTAL TRAINS DELAYED	142	61	36	31	17	98	60	21	74	20	46	106	110	822 100%

June - Average Over Previous Five Years: 2012-2016

DELAY CONTROL	BNSF	Electric			HER	Milw		NCS	RI	SWS	Union Pacific			SYSTEM
		ML	BI	SC		N	W				N	NW	W	
Controllable	128.8	38.4	12.0	20.8	5.8	63.2	36.4	14.0	37.0	14.6	22.8	23.2	38.0	455.0 47%
Semi-controllable	27.6	0.0	0.0	0.0	2.8	12.6	16.4	11.6	6.6	25.8	0.4	6.4	23.6	133.8 14%
Uncontrollable	70.4	24.4	5.2	13.6	1.0	36.4	38.6	4.2	48.8	8.0	36.8	50.8	38.0	376.2 39%
TOTAL TRAINS DELAYED	226.8	62.8	17.2	34.4	9.6	112.2	91.4	29.8	92.4	48.4	60.0	80.4	99.6	965.0 100%

June 2017 Divergence From June Average Over Previous Five Years

DELAY CONTROL	BNSF	Electric			HER	Milw		NCS	RI	SWS	Union Pacific			SYSTEM
		ML	BI	SC		N	W				N	NW	W	
Controllable	-48.8	3.6	20.0	8.2	4.2	6.8	-9.4	-12.0	-7.0	-7.6	4.2	1.8	2.0	-34.0 24%
Semi-controllable	-18.6	0.0	1.0	0.0	1.2	-4.6	-13.4	4.4	11.4	-16.8	3.6	-1.4	4.4	-28.8 20%
Uncontrollable	-17.4	-5.4	-2.2	-11.6	2.0	-16.4	-8.6	-1.2	-22.8	-4.0	-21.8	25.2	4.0	-80.2 56%
TOTAL TRAINS DELAYED	-84.8	-1.8	18.8	-3.4	7.4	-14.2	-31.4	-8.8	-18.4	-28.4	-14.0	25.6	10.4	-143.0 100%

January-June 2017

DELAY CONTROL	BNSF	Electric			HER	Milw		NCS	RI	SWS	Union Pacific			SYSTEM
		ML	BI	SC		N	W				N	NW	W	
Controllable	325	169	84	91	27	221	163	44	210	75	167	104	190	1,870 50%
Semi-controllable	29	0	1	0	16	68	50	84	32	75	10	25	123	513 14%
Uncontrollable	238	100	36	63	10	111	124	32	149	24	83	244	163	1,377 37%
TOTAL TRAINS DELAYED	592	269	121	154	53	400	337	160	391	174	260	373	476	3,760 100%

Data for current month is final (07/25/17) version from TOPS.

P:\ONTIME\report\DelaysByControl.xls>LastMonthRespByLine

08/07/2017

TABLE 7: NUMBER OF DELAYS BY DATE
June 2017

WEEKDAY	1	2	5	6	7	8	9	12	13	14	15	16	19	20	21	22	23	26	27	28	29	30	TOTAL										
	Th	Fr	Mo	Tu	We	Th	Fr	Mo	Tu	We	Th	Fr	Mo	Tu	We	Th	Fr	Mo	Tu	We	Th	Fr											
BNSF	12	14	1	9	6	7	1	8	7	21	14	5	0	0	5	5	5	2	2	4	2	3	133										
Elec -ML	0	7	0	22	2	2	0	0	0	3	0	1	2	1	7	1	1	0	2	0	0	0	0	51									
-BI	0	1	0	9	1	2	1	0	2	3	1	3	3	4	3	1	0	0	0	0	1	1	36										
-SC	0	2	0	12	0	0	0	1	0	1	0	0	1	1	0	0	1	0	0	0	0	1	20										
Heritage	1	0	1	0	1	0	0	1	1	2	1	1	2	0	1	0	1	0	0	2	0	2	17										
Milw -N	0	2	1	0	2	15	1	2	5	4	10	9	0	1	1	2	5	2	0	2	6	4	74										
-W	4	0	1	0	0	4	2	5	4	11	4	3	0	0	0	0	0	11	2	0	0	1	52										
NCS	0	0	0	3	2	4	0	0	0	2	2	0	2	0	0	0	0	3	0	0	1	2	21										
RI	0	1	0	3	0	4	2	6	4	1	7	10	2	0	8	2	1	1	0	1	1	3	57										
SWS	0	4	1	0	1	0	0	2	1	4	0	0	0	2	0	0	0	1	1	1	1	0	20										
UP -N	1	4	0	0	1	1	2	0	0	1	0	1	1	1	8	0	1	2	0	4	2	1	31										
-NW	0	9	14	3	3	6	1	7	0	5	4	0	0	2	6	0	2	2	6	1	1	1	73										
-W	15	5	6	5	5	3	3	0	3	1	1	6	5	5	7	9	6	2	0	1	8	3	99										
SYSTEM	33	49	25	66	24	48	13	32	27	59	44	39	18	17	46	20	24	26	13	16	23	22	684										
SATURDAY	3	10	17	24																									TOTAL				
BNSF	1	0	1	1																									3				
Elec -ML	0	1	0	1																									2				
-BI	0	0	0	0																									0				
-SC	1	0	1	9																									11				
Heritage	-	-	-	-																									-				
Milw -N	1	1	3	12																									17				
-W	1	3	0	0																									4				
NCS	-	-	-	-																									-				
RI	1	5	0	1																									7				
SWS	0	0	0	0																									0				
UP -N	4	4	0	1																									9				
-NW	3	6	1	10																									20				
-W	2	4	0	0																									6				
SYSTEM	14	24	6	35																									79				
SUNDAY/HOLIDAY	4	11	18	25																									TOTAL				
BNSF	0	1	2	3																													6
Elec -ML	0	4	2	2																													8
-BI	-	-	-	-																													0
-SC	0	0	0	0																													0
Heritage	-	-	-	-																													0
Milw -N	4	0	2	1																													7
-W	0	0	1	3																													4
NCS	-	-	-	-																													0
RI	0	4	1	5																													10
SWS	-	-	-	-																													0
UP -N	0	4	1	1																													6
-NW	1	5	1	6																													13
-W	0	3	2	0																													5
SYSTEM	5	21	12	21																													59

Data is final (07/25/17) version from TOPS.

TABLE 8.a: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE
June 2017

CAUSE CATEGORY	BNSF	Electric				Milw		NCS	RI	SWS	Union Pacific			SYSTEM
		ML	BI	SC	HER	N	W				N	NW	W	
Freight Interference - TOTAL	19	0	1	0	3	9	2	14	18	8	4	5	27	110
Freight Interference - Peak	7	0	1	0	3	0	1	3	1	2	2	3	11	34
Primary	6	0	0	0	3	0	1	2	1	2	0	2	5	22
Secondary	1	0	1	0	0	0	0	1	0	0	2	1	6	12
Freight Interference - Off-Peak	12	0	0	0	0	9	1	11	17	6	2	2	16	76
Primary	10	0	0	0	0	5	0	9	14	5	0	2	12	57
Secondary	2	0	0	0	0	4	1	2	3	1	2	0	4	19
Signal/Switch Failure - TOTAL	13	4	3	2	2	15	5	2	1	4	6	9	21	87
Signal/Switch Failure - Metra/PSA	9	4	3	2	0	15	4	0	1	2	6	9	19	74
Primary	5	2	2	2	0	10	2	0	1	2	6	2	8	42
Secondary	4	2	1	0	0	5	2	0	0	0	0	7	11	32
Signal/Switch Failure - Foreign	4	0	0	0	2	0	1	2	0	2	0	0	2	13
Primary	2	0	0	0	1	0	1	2	0	2	0	0	2	10
Secondary	2	0	0	0	1	0	0	0	0	0	0	0	0	3
Mechanical Failure - TOTAL	18	5	0	3	1	8	10	0	16	0	14	6	4	85
Mechanical Failure - Metra/PSA	18	4	0	3	1	8	10	0	16	0	14	6	4	84
Non-Locomotive Equipment Failure - Metra/PSA	9	4	0	3	0	1	0	0	5	0	5	6	2	35
Primary	3	0	0	2	0	1	0	0	2	0	1	3	1	13
Secondary	6	4	0	1	0	0	0	0	3	0	4	3	1	22
Locomotive Failure - Metra/PSA	9	0	0	0	1	7	10	0	11	0	9	0	2	49
Primary	3	0	0	0	1	4	5	0	6	0	5	0	1	25
Secondary	6	0	0	0	0	3	5	0	5	0	4	0	1	24
Mechanical Failure - Foreign	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Passenger Train Interference - TOTAL	0	0	0	0	3	3	0	0	0	2	0	0	1	9
Passenger Train Interference - Metra/PSA	0	0	0	0	0	3	0	0	0	0	0	0	1	4
Passenger Train Interference - Foreign	0	0	0	0	3	0	0	0	0	2	0	0	0	5
Accident - TOTAL	11	22	9	12	0	0	2	0	0	0	0	8	1	65
Accident - Metra/PSA	11	22	9	12	0	0	2	0	0	0	0	8	0	64
Accident - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Track Work - TOTAL	23	8	16	11	0	21	2	0	9	0	4	4	9	107
Track Work - Metra/PSA	23	8	16	11	0	21	2	0	9	0	4	4	9	107
Track Work - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Human Error - TOTAL	12	4	3	1	5	21	9	2	2	2	2	7	5	75
Human Error - Metra/PSA	10	3	3	1	0	19	7	2	2	1	2	5	3	58
Human Error - Foreign	2	1	0	0	5	2	2	0	0	1	0	2	2	17
Sick, Injured, Unruly Passenger - TOTAL	0	2	1	2	0	1	9	0	4	0	2	6	11	38
Sick, Injured, Unruly Passenger - Metra/PSA	0	2	1	2	0	1	9	0	4	0	2	6	11	38
Sick, Injured, Unruly Passenger - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weather - TOTAL	24	0	0	0	0	1	1	0	0	0	1	6	0	33
Weather - Metra/PSA	24	0	0	0	0	1	1	0	0	0	1	6	0	33
Weather - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passenger Loading - TOTAL	4	6	1	0	0	4	5	1	11	0	9	28	12	81
Lift Deployment - TOTAL	5	2	0	0	0	12	0	0	8	0	0	2	2	31
Obstruction/Debris - TOTAL	8	7	1	0	3	2	6	2	3	4	1	21	6	64
Catenary Failure - TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other - TOTAL	5	1	1	0	0	1	9	0	2	0	3	4	11	37
TOTAL TRAINS DELAYED	142	61	36	31	17	98	60	21	74	20	46	106	110	822
Total Metra/PSA Delays	117	59	35	31	4	87	55	5	56	7	42	99	78	675
Total Foreign Carrier Delays	25	2	1	0	13	11	5	16	18	13	4	7	32	147

Data for current month is final (07/25/17) version from TOPS.

P:\ONTIME\report\[DelaysByCause.xlsx]LastMonthByLine 08/07/2017

'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

June - Average Over Previous Five Years: 2012-2016

CAUSE CATEGORY	BNSF	Electric			Milw		NCS	RI	SWS	Union Pacific			SYSTEM	
		ML	BI	SC	HER	N	W			N	NW	W		
Freight Interference - TOTAL	22.8	0.0	0.0	0.0	2.0	9.4	14.0	9.8	6.6	16.6	0.4	6.4	22.0	110.0
Freight Interference - Peak	7.6	0.0	0.0	0.0	1.8	2.2	1.8	4.6	1.4	5.6	0.2	3.8	5.0	34.0
Primary	5.2	0.0	0.0	0.0	1.6	1.4	0.8	3.2	1.4	3.2	0.0	1.4	2.6	20.8
Secondary	2.4	0.0	0.0	0.0	0.2	0.8	1.0	1.4	0.0	2.4	0.2	2.4	2.4	13.2
Freight Interference - Off-Peak	15.2	0.0	0.0	0.0	0.2	7.2	12.2	5.2	5.2	11.0	0.2	2.6	17.0	76.0
Primary	13.0	0.0	0.0	0.0	0.2	5.2	8.2	4.8	4.6	7.8	0.2	1.8	12.2	58.0
Secondary	2.2	0.0	0.0	0.0	0.0	2.0	4.0	0.4	0.6	3.2	0.0	0.8	4.8	18.0
Signal/Switch Failure - TOTAL	33.0	11.0	3.6	3.6	1.6	29.8	16.0	8.6	9.0	12.6	4.6	6.8	13.8	154.0
Signal/Switch Failure - Metra/PSA	25.2	11.0	3.6	3.6	0.2	26.4	13.6	6.6	9.0	3.0	4.6	6.2	12.2	125.2
Primary	18.6	9.8	2.2	2.4	0.2	9.8	6.4	2.4	5.6	2.2	1.8	1.4	3.8	66.6
Secondary	6.6	1.2	1.4	1.2	0.0	16.6	7.2	4.2	3.4	0.8	2.8	4.8	8.4	58.6
Signal/Switch Failure - Foreign	7.8	0.0	0.0	0.0	1.4	3.4	2.4	2.0	0.0	9.6	0.0	0.6	1.6	28.8
Primary	6.6	0.0	0.0	0.0	1.0	2.0	1.6	1.2	0.0	5.6	0.0	0.4	1.6	20.0
Secondary	1.2	0.0	0.0	0.0	0.4	1.4	0.8	0.8	0.0	4.0	0.0	0.2	0.0	8.8
Mechanical Failure - TOTAL	30.0	7.2	1.6	1.2	0.8	12.0	8.6	1.6	5.6	2.2	6.0	8.6	10.8	96.2
Mechanical Failure - Metra/PSA	30.0	7.2	1.6	1.2	0.8	12.0	8.6	1.6	5.6	2.2	6.0	8.6	10.8	96.2
Non-Locomotive Equipment Failure - Metra/PSA	4.2	7.2	1.6	1.2	0.0	0.0	0.8	0.0	0.8	0.4	1.6	1.8	3.8	23.4
Primary	2.2	1.4	0.4	0.4	0.0	0.0	0.6	0.0	0.6	0.2	0.6	0.6	1.4	8.4
Secondary	2.0	5.8	1.2	0.8	0.0	0.0	0.2	0.0	0.2	0.2	1.0	1.2	2.4	15.0
Locomotive Failure - Metra/PSA	25.8	0.0	0.0	0.0	0.8	12.0	7.8	1.6	4.8	1.8	4.4	6.8	7.0	72.8
Primary	5.6	0.0	0.0	0.0	0.6	2.8	2.8	0.2	2.2	1.0	2.4	1.8	2.2	21.6
Secondary	20.2	0.0	0.0	0.0	0.2	9.2	5.0	1.4	2.6	0.8	2.0	5.0	4.8	51.2
Mechanical Failure - 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 Train Interference - TOTAL	2.4	1.2	0.4	1.0	0.8	4.0	1.6	2.2	0.8	2.8	0.2	0.2	0.4	18.0
Passenger Train Interference - Metra/PSA	0.2	0.6	0.2	0.8	0.2	2.2	1.4	2.2	0.6	1.0	0.2	0.0	0.4	10.0
Passenger Train Interference - Foreign	2.2	0.6	0.2	0.2	0.6	1.8	0.2	0.0	0.2	1.8	0.0	0.2	0.0	8.0
Accident - TOTAL	11.4	2.2	0.6	1.6	0.0	3.8	7.8	1.4	3.0	3.4	0.0	3.6	1.2	40.0
Accident - Metra/PSA	10.6	2.2	0.6	1.6	0.0	3.2	7.8	1.0	3.0	3.4	0.0	3.6	1.2	38.2
Accident - Foreign	0.8	0.0	0.0	0.0	0.0	0.6	0.0	0.4	0.0	0.0	0.0	0.0	0.0	1.8
Track Work - TOTAL	50.8	3.4	2.4	7.4	1.0	10.8	5.4	1.4	16.2	2.2	7.0	4.2	6.8	119.0
Track Work - Metra/PSA	50.2	3.4	2.4	7.4	1.0	10.8	5.2	1.4	16.2	2.2	7.0	4.2	6.8	118.2
Track Work - Foreign	0.6	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Human Error - TOTAL	14.6	11.4	3.2	5.0	2.4	9.4	5.2	1.4	3.8	4.4	3.8	2.4	4.8	71.8
Human Error - Metra/PSA	9.0	11.4	3.2	5.0	0.8	5.8	3.2	0.8	3.8	0.8	2.8	1.4	3.8	51.8
Human Error - Foreign	5.6	0.0	0.0	0.0	1.6	3.6	2.0	0.6	0.0	3.6	1.0	1.0	1.0	20.0
Sick, Injured, Unruly Passenger - TOTAL	5.0	4.8	0.8	1.6	0.0	5.2	3.6	0.0	3.6	0.8	3.8	4.2	4.2	37.6
Sick, Injured, Unruly Passenger - Metra/PSA	4.6	4.8	0.8	1.6	0.0	5.2	3.6	0.0	3.6	0.8	3.8	4.2	4.2	37.2
Sick, Injured, Unruly Passenger - Foreign	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Weather - TOTAL	25.0	3.4	1.0	1.4	0.8	4.8	2.6	1.4	6.4	1.6	7.8	16.8	11.0	84.0
Weather - Metra/PSA	25.0	3.4	1.0	1.4	0.8	4.8	2.6	1.4	6.4	1.6	7.8	16.8	11.0	84.0
Weather - Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Passenger Loading - TOTAL	13.2	11.4	2.6	4.2	0.0	15.8	16.4	0.6	25.6	0.4	21.2	19.4	13.0	143.8
Lift Deployment - TOTAL	2.0	0.2	0.0	0.2	0.0	1.8	5.2	0.0	5.4	0.2	1.4	2.2	3.6	22.2
Obstruction/Debris - TOTAL	10.8	2.2	0.0	3.2	0.2	4.4	4.4	0.6	3.2	1.0	3.0	2.8	2.8	38.6
Catenary Failure - TOTAL	0.0	3.2	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
Other - TOTAL	5.8	1.2	0.2	3.4	0.0	1.0	0.6	0.8	3.2	0.2	0.8	2.8	5.2	25.2
TOTAL TRAINS DELAYED	226.8	62.8	17.2	34.4	9.6	112.2	91.4	29.8	92.4	48.4	60.0	80.4	99.6	965.0
Total Metra/PSA Delays	186.6	62.2	17.0	34.2	4.0	93.4	72.6	17.0	85.6	16.8	58.6	72.2	75.0	795.2
Total Foreign Carrier Delays	40.2	0.6	0.2	0.2	5.6	18.8	18.8	12.8	6.8	31.6	1.4	8.2	24.6	169.8

Data for latest month is final (07/15/16) version from TOPS.

P:\ONTIME\report\|DelaysByCause.xlsx]LastMonthByLine 08/07/2017

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

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

TABLE 8.c: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE
June 2017 Divergence From June Average Over Previous Five Years

CAUSE CATEGORY	BNSF	Electric				Milw		NCS	RI	SWS	Union Pacific			SYSTEM	
		ML	BI	SC	HER	N	W				N	NW	W		
Freight Interference - TOTAL	-3.8	0.0	1.0	0.0	1.0	-0.4	-12.0	4.2	11.4	-8.6	3.6	-1.4	5.0	0.0	
Freight Interference - Peak	-0.6	0.0	1.0	0.0	1.2	-2.2	-0.8	-1.6	-0.4	-3.6	1.8	-0.8	6.0	0.0	
Primary	0.8	0.0	0.0	0.0	1.4	-1.4	0.2	-1.2	-0.4	-1.2	0.0	0.6	2.4	1.2	
Secondary	-1.4	0.0	1.0	0.0	-0.2	-0.8	-1.0	-0.4	0.0	-2.4	1.8	-1.4	3.6	-1.2	
Freight Interference - Off-Peak	-3.2	0.0	0.0	0.0	-0.2	1.8	-11.2	5.8	11.8	-5.0	1.8	-0.6	-1.0	0.0	
Primary	-3.0	0.0	0.0	0.0	-0.2	-0.2	-8.2	4.2	9.4	-2.8	-0.2	0.2	-0.2	-1.0	
Secondary	-0.2	0.0	0.0	0.0	0.0	2.0	-3.0	1.6	2.4	-2.2	2.0	-0.8	-0.8	1.0	
Signal/Switch Failure - TOTAL	-20.0	-7.0	-0.6	-1.6	0.4	-14.8	-11.0	-6.6	-8.0	-8.6	1.4	2.2	7.2	-67.0	
Signal/Switch Failure - Metra/PSA	-16.2	-7.0	-0.6	-1.6	-0.2	-11.4	-9.6	-6.6	-8.0	-1.0	1.4	2.8	6.8	-51.2	
Primary	-13.6	-7.8	-0.2	-0.4	-0.2	0.2	-4.4	-2.4	-4.6	-0.2	4.2	0.6	4.2	-24.6	
Secondary	-2.6	0.8	-0.4	-1.2	0.0	-11.6	-5.2	-4.2	-3.4	-0.8	-2.8	2.2	2.6	-26.6	
Signal/Switch Failure - Foreign	-3.8	0.0	0.0	0.0	0.6	-3.4	-1.4	0.0	0.0	-7.6	0.0	-0.6	0.4	-15.8	
Primary	-4.6	0.0	0.0	0.0	0.0	-2.0	-0.6	0.8	0.0	-3.6	0.0	-0.4	0.4	-10.0	
Secondary	0.8	0.0	0.0	0.0	0.6	-1.4	-0.8	0.0	0.0	-4.0	0.0	-0.2	0.0	-5.8	
Mechanical Failure - TOTAL	-12.0	-2.2	-1.6	1.8	0.2	-4.0	1.4	-1.6	10.4	-2.2	8.0	-2.6	-6.8	-11.2	
Mechanical Failure - Metra/PSA	-12.0	-3.2	-1.6	1.8	0.2	-4.0	1.4	-1.6	10.4	-2.2	8.0	-2.6	-6.8	-12.2	
Non-Locomotive Equipment Failure - Metra/PSA	4.8	-3.2	-1.6	1.8	0.0	1.0	-0.8	0.0	4.2	-0.4	3.4	4.2	-1.8	11.6	
Primary	0.8	-1.4	-0.4	1.6	0.0	1.0	-0.6	0.0	1.4	-0.2	0.4	2.4	-0.4	4.6	
Secondary	4.0	-1.8	-1.2	0.2	0.0	0.0	-0.2	0.0	2.8	-0.2	3.0	1.8	-1.4	7.0	
Locomotive Failure - Metra/PSA	-16.8	0.0	0.0	0.0	0.2	-5.0	2.2	-1.6	6.2	-1.8	4.6	-6.8	-5.0	-23.8	
Primary	-2.6	0.0	0.0	0.0	0.4	1.2	2.2	-0.2	3.8	-1.0	2.6	-1.8	-1.2	3.4	
Secondary	-14.2	0.0	0.0	0.0	-0.2	-6.2	0.0	-1.4	2.4	-0.8	2.0	-5.0	-3.8	-27.2	
Mechanical Failure - Foreign	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	
Passenger Train Interference - TOTAL	-2.4	-1.2	-0.4	-1.0	2.2	-1.0	-1.6	-2.2	-0.8	-0.8	-0.2	-0.2	0.6	-9.0	
Passenger Train Interference - Metra/PSA	-0.2	-0.6	-0.2	-0.8	-0.2	0.8	-1.4	-2.2	-0.6	-1.0	-0.2	0.0	0.6	-6.0	
Passenger Train Interference - Foreign	-2.2	-0.6	-0.2	-0.2	2.4	-1.8	-0.2	0.0	-0.2	0.2	0.0	-0.2	0.0	-3.0	
Accident - TOTAL	-0.4	19.8	8.4	10.4	0.0	-3.8	-5.8	-1.4	-3.0	-3.4	0.0	4.4	-0.2	25.0	
Accident - Metra/PSA	0.4	19.8	8.4	10.4	0.0	-3.2	-5.8	-1.0	-3.0	-3.4	0.0	4.4	-1.2	25.8	
Accident - Foreign	-0.8	0.0	0.0	0.0	0.0	-0.6	0.0	-0.4	0.0	0.0	0.0	0.0	1.0	-0.8	
Track Work - TOTAL	-27.8	4.6	13.6	3.6	-1.0	10.2	-3.4	-1.4	-7.2	-2.2	-3.0	-0.2	2.2	-12.0	
Track Work - Metra/PSA	-27.2	4.6	13.6	3.6	-1.0	10.2	-3.2	-1.4	-7.2	-2.2	-3.0	-0.2	2.2	-11.2	
Track Work - Foreign	-0.6	0.0	0.0	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	
Human Error - TOTAL	-2.6	-7.4	-0.2	-4.0	2.6	11.6	3.8	0.6	-1.8	-2.4	-1.8	4.6	0.2	3.2	
Human Error - Metra/PSA	1.0	-8.4	-0.2	-4.0	-0.8	13.2	3.8	1.2	-1.8	0.2	-0.8	3.6	-0.8	6.2	
Human Error - Foreign	-3.6	1.0	0.0	0.0	3.4	-1.6	0.0	-0.6	0.0	-2.6	-1.0	1.0	1.0	-3.0	
Sick, Injured, Unruly Passenger - TOTAL	-5.0	-2.8	0.2	0.4	0.0	-4.2	5.4	0.0	0.4	-0.8	-1.8	1.8	6.8	0.4	
Sick, Injured, Unruly Passenger - Metra/PSA	-4.6	-2.8	0.2	0.4	0.0	-4.2	5.4	0.0	0.4	-0.8	-1.8	1.8	6.8	0.8	
Sick, Injured, Unruly Passenger - Foreign	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.4	
Weather - TOTAL	-1.0	-3.4	-1.0	-1.4	-0.8	-3.8	-1.6	-1.4	-6.4	-1.6	-6.8	-10.8	-11.0	-51.0	
Weather - Metra/PSA	-1.0	-3.4	-1.0	-1.4	-0.8	-3.8	-1.6	-1.4	-6.4	-1.6	-6.8	-10.8	-11.0	-51.0	
Weather - Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Passenger Loading - TOTAL	-9.2	-5.4	-1.6	-4.2	0.0	-11.8	-11.4	0.4	-14.6	-0.4	-12.2	8.6	-1.0	-62.8	
Lift Deployment - TOTAL	3.0	1.8	0.0	-0.2	0.0	10.2	-5.2	0.0	2.6	-0.2	-1.4	-0.2	-1.6	8.8	
Obstruction/Debris - TOTAL	-2.8	4.8	1.0	-3.2	2.8	-2.4	1.6	1.4	-0.2	3.0	-2.0	18.2	3.2	25.4	
Catenary Failure - TOTAL	0.0	-3.2	-0.8	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.6	
Other - TOTAL	-0.8	-0.2	0.8	-3.4	0.0	0.0	8.4	-0.8	-1.2	-0.2	2.2	1.2	5.8	11.8	
TOTAL TRAINS DELAYED	-84.8	-1.8	18.8	-3.4	7.4	-14.2	-31.4	-8.8	-18.4	-28.4	-14.0	25.6	10.4	-143.0	
Total Metra/PSA Delays	-69.6	-3.2	18.0	-3.2	0.0	-6.4	-17.6	-12.0	-29.6	-9.8	-16.6	26.8	3.0	-120.2	
Total Foreign Carrier Delays	-15.2	1.4	0.8	-0.2	7.4	-7.8	-13.8	3.2	11.2	-18.6	2.6	-1.2	7.4	-22.8	

Data for current month is final (07/25/17) version from TOPS.

P:\ONTIME\report\[DelaysByCause.xlsx]LastMonthByLine 08/07/2017

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

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

TABLE 9.a: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE
January - June 2017

CAUSE CATEGORY	BNSF	Electric			HER	Milw		NCS	RI	SWS	Union Pacific			SYSTEM
		ML	BI	SC		N	W				N	NW	W	
Freight Interference - TOTAL	34	0	1	0	14	43	28	61	32	60	11	25	119	428
Freight Interference - Peak	12	0	1	0	11	4	7	22	4	15	4	8	49	137
Primary	10	0	0	0	8	3	7	17	4	12	2	5	21	89
Secondary	2	0	1	0	3	1	0	5	0	3	2	3	28	48
Freight Interference - Off-Peak	22	0	0	0	3	39	21	39	28	45	7	17	70	291
Primary	19	0	0	0	3	27	16	34	24	30	4	13	48	218
Secondary	3	0	0	0	0	12	5	5	4	15	3	4	22	73
Signal/Switch Failure - TOTAL	56	53	29	39	6	68	60	34	29	36	19	20	50	499
Signal/Switch Failure - Metra/PSA	41	53	29	39	0	41	37	11	29	16	19	19	43	377
Primary	23	36	24	27	0	25	27	8	23	10	11	9	21	244
Secondary	18	17	5	12	0	16	10	3	6	6	8	10	22	133
Signal/Switch Failure - Foreign	15	0	0	0	6	27	23	23	0	20	0	1	7	122
Primary	8	0	0	0	4	6	15	11	0	13	0	1	6	64
Secondary	7	0	0	0	2	21	8	12	0	7	0	0	1	58
Mechanical Failure - TOTAL	72	14	2	5	3	54	44	12	93	8	73	26	41	447
Mechanical Failure - Metra/PSA	70	9	2	5	2	52	44	12	93	8	73	26	41	437
Non-Locomotive Equipment Failure - Metra/PSA	25	9	2	5	1	3	4	3	8	0	8	12	23	103
Primary	11	2	1	2	1	2	3	1	5	0	3	5	10	46
Secondary	14	7	1	3	0	1	1	2	3	0	5	7	13	57
Locomotive Failure - Metra/PSA	45	0	0	0	1	49	40	9	85	8	65	14	18	334
Primary	19	0	0	0	1	20	18	5	34	3	14	10	6	130
Secondary	26	0	0	0	0	29	22	4	51	5	51	4	12	204
Mechanical Failure - Foreign	2	5	0	0	1	2	0	0	0	0	0	0	0	10
Passenger Train Interference - TOTAL	5	1	3	4	8	11	0	3	1	15	0	0	2	53
Passenger Train Interference - Metra/PSA	0	0	3	1	0	8	0	3	1	0	0	0	2	18
Passenger Train Interference - Foreign	5	1	0	3	8	3	0	0	0	15	0	0	0	35
Accident - TOTAL	76	28	11	21	0	2	31	7	25	3	14	90	8	316
Accident - Metra/PSA	76	28	11	21	0	2	28	7	20	0	14	87	1	295
Accident - Foreign	0	0	0	0	0	0	3	0	5	3	0	3	7	21
Track Work - TOTAL	60	61	28	27	1	33	13	1	42	11	33	40	51	401
Track Work - Metra/PSA	60	61	28	27	1	33	13	1	42	11	33	40	51	401
Track Work - Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Human Error - TOTAL	113	19	10	5	12	77	60	14	36	16	38	18	44	462
Human Error - Metra/PSA	48	18	10	5	1	50	37	2	35	3	36	14	34	293
Human Error - Foreign	65	1	0	0	11	27	23	12	1	13	2	4	10	169
Sick, Injured, Unruly Passenger - TOTAL	16	27	3	8	0	20	25	3	15	0	12	24	27	180
Sick, Injured, Unruly Passenger - Metra/PSA	10	27	3	8	0	20	25	3	15	0	12	24	27	174
Sick, Injured, Unruly Passenger - Foreign	6	0	0	0	0	0	0	0	0	0	0	0	0	6
Weather - TOTAL	47	22	8	14	4	29	24	5	30	1	16	13	7	220
Weather - Metra/PSA	47	22	8	14	4	28	24	5	30	1	16	13	7	219
Weather - Foreign	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Passenger Loading - TOTAL	11	11	6	5	0	9	8	1	22	0	22	46	38	179
Lift Deployment - TOTAL	11	3	0	1	0	23	6	0	17	0	8	14	17	100
Obstruction/Debris - TOTAL	70	20	13	16	4	27	21	15	35	17	2	40	50	330
Catenary Failure - TOTAL	0	4	2	6	0	0	0	0	0	0	0	0	0	12
Other - TOTAL	21	6	5	3	1	4	17	4	14	7	12	17	22	133
TOTAL TRAINS DELAYED	592	269	121	154	53	400	337	160	391	174	260	373	476	3,760
Total Metra/PSA Delays	465	262	120	151	13	297	260	64	353	63	247	340	333	2,968
Total Foreign Carrier Delays	127	7	1	3	40	103	77	96	38	111	13	33	143	792

Data for current month is final (07/25/17) version from TOPS.

P:\ONTIME\report\[DelaysByCause.xlsx]YTDByLine 08/07/2017

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

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

TABLE 9.b: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE
January - June - Average Over Previous Five Years: 2012-2016

CAUSE CATEGORY	BNSF	Electric			Milw		NCS	RI	SWS	Union Pacific			SYSTEM	
		ML	BI	SC	HER	N				N	NW	W		
Freight Interference - TOTAL	121.6	0.0	0.0	0.0	18.0	77.2	77.8	74.2	35.2	75.2	8.8	29.0	104.6	621.6
Freight Interference - Peak	51.6	0.0	0.0	0.0	17.4	18.4	16.0	29.2	9.2	24.2	1.8	14.6	25.6	208.0
Primary	33.0	0.0	0.0	0.0	16.6	12.8	10.6	20.2	6.0	18.0	0.8	7.4	12.6	138.0
Secondary	18.6	0.0	0.0	0.0	0.8	5.6	5.4	9.0	3.2	6.2	1.0	7.2	13.0	70.0
Freight Interference - Off-Peak	70.0	0.0	0.0	0.0	0.6	58.8	61.8	45.0	26.0	51.0	7.0	14.4	79.0	413.6
Primary	58.4	0.0	0.0	0.0	0.6	40.6	43.8	38.0	22.4	40.4	4.2	10.6	62.6	321.6
Secondary	11.6	0.0	0.0	0.0	0.0	18.2	18.0	7.0	3.6	10.6	2.8	3.8	16.4	92.0
Signal/Switch Failure - TOTAL	139.2	41.8	18.2	14.4	11.0	135.2	83.4	54.6	50.4	55.0	21.2	34.4	67.6	726.4
Signal/Switch Failure - Metra/PSA	82.4	41.8	18.2	14.4	1.8	113.8	69.0	33.8	47.8	11.4	20.6	31.6	65.0	551.6
Primary	58.2	29.6	13.2	10.8	1.6	53.8	38.0	18.8	33.8	8.2	10.0	12.6	21.8	310.4
Secondary	24.2	12.2	5.0	3.6	0.2	60.0	31.0	15.0	14.0	3.2	10.6	19.0	43.2	241.2
Signal/Switch Failure - Foreign	56.8	0.0	0.0	0.0	9.2	21.4	14.4	20.8	2.6	43.6	0.6	2.8	2.6	174.8
Primary	47.0	0.0	0.0	0.0	8.0	15.6	10.4	11.2	1.2	28.2	0.6	1.4	2.6	126.2
Secondary	9.8	0.0	0.0	0.0	1.2	5.8	4.0	9.6	1.4	15.4	0.0	1.4	0.0	48.6
Mechanical Failure - TOTAL	95.6	22.0	6.2	5.4	3.0	83.4	50.6	19.8	73.8	16.0	42.2	48.8	39.4	506.2
Mechanical Failure - Metra/PSA	95.2	19.2	5.6	5.2	3.0	79.0	50.4	19.8	73.4	16.0	42.2	48.8	39.2	497.0
Non-Locomotive Equipment Failure - Metra/PSA	22.4	19.2	5.6	5.2	1.0	10.2	10.2	3.2	9.4	6.2	11.2	7.6	13.2	124.6
Primary	8.6	7.4	2.4	3.0	0.6	3.0	4.8	1.2	4.2	2.2	4.2	3.2	6.4	51.2
Secondary	13.8	11.8	3.2	2.2	0.4	7.2	5.4	2.0	5.2	7.0	4.4	6.8	73.4	
Locomotive Failure - Metra/PSA	72.8	0.0	0.0	0.0	2.0	68.8	40.2	16.6	64.0	9.8	31.0	41.2	26.0	372.4
Primary	21.0	0.0	0.0	0.0	1.6	16.4	14.6	4.4	19.8	4.8	11.0	10.8	10.2	114.6
Secondary	51.8	0.0	0.0	0.0	0.4	52.4	25.6	12.2	44.2	5.0	20.0	30.4	15.8	257.8
Mechanical Failure - Foreign	0.4	2.8	0.6	0.2	0.0	4.4	0.2	0.0	0.4	0.0	0.0	0.0	0.2	9.2
Passenger Train Interference - TOTAL	8.8	4.8	1.4	3.8	3.4	34.2	7.2	9.2	8.0	7.0	1.0	2.2	6.6	97.6
Passenger Train Interference - Metra/PSA	0.8	2.4	0.4	2.4	0.2	24.0	6.4	9.2	6.0	1.8	1.0	2.0	6.4	63.0
Passenger Train Interference - Foreign	8.0	2.4	1.0	1.4	3.2	10.2	0.8	0.0	2.0	5.2	0.0	0.2	0.2	34.6
Accident - TOTAL	73.4	9.4	3.2	3.4	0.6	34.2	36.4	13.4	21.4	7.0	22.8	47.2	21.2	293.6
Accident - Metra/PSA	58.8	9.4	3.2	3.4	0.6	31.8	35.6	10.8	20.2	6.0	22.8	46.6	20.0	269.2
Accident - Foreign	14.6	0.0	0.0	0.0	0.0	2.4	0.8	2.6	1.2	1.0	0.0	0.6	1.2	24.4
Track Work - TOTAL	139.0	26.0	12.2	19.4	2.4	38.4	19.4	12.2	35.6	4.2	30.4	17.4	33.4	390.0
Track Work - Metra/PSA	134.4	26.0	12.2	19.4	2.4	38.2	18.6	11.4	35.6	4.0	30.4	17.4	33.4	383.4
Track Work - Foreign	4.6	0.0	0.0	0.0	0.0	0.2	0.8	0.8	0.0	0.2	0.0	0.0	0.0	6.6
Human Error - TOTAL	82.2	29.4	9.6	14.4	9.0	45.8	25.0	13.6	35.8	19.8	25.0	20.4	21.0	351.0
Human Error - Metra/PSA	58.4	26.8	9.4	13.6	2.4	28.2	15.2	6.6	35.8	5.0	21.4	15.4	14.4	252.6
Human Error - Foreign	23.8	2.6	0.2	0.8	6.6	17.6	9.8	7.0	0.0	14.8	3.6	5.0	6.6	98.4
Sick, Injured, Unruly Passenger - TOTAL	17.2	34.0	6.0	8.6	0.8	18.2	21.0	1.8	17.4	3.4	18.6	24.6	18.0	189.6
Sick, Injured, Unruly Passenger - Metra/PSA	16.4	34.0	6.0	8.6	0.8	18.2	21.0	1.8	17.2	3.4	18.6	24.6	18.0	188.6
Sick, Injured, Unruly Passenger - Foreign	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	1.0
Weather - TOTAL	167.6	93.8	27.4	32.6	4.2	81.2	70.6	22.8	101.4	19.4	70.8	85.4	70.8	848.0
Weather - Metra/PSA	166.6	93.8	27.4	32.6	3.8	79.0	70.0	22.8	101.4	18.4	70.8	85.4	70.4	842.4
Weather - Foreign	1.0	0.0	0.0	0.0	0.4	2.2	0.6	0.0	0.0	1.0	0.0	0.0	0.4	5.6
Passenger Loading - TOTAL	30.0	45.0	10.0	14.2	0.0	36.6	34.6	1.0	67.0	1.4	40.6	42.6	31.4	354.4
Lift Deployment - TOTAL	13.4	0.4	0.0	0.4	0.0	18.0	13.2	1.0	17.2	0.8	6.6	9.2	16.2	96.4
Obstruction/Debris - TOTAL	34.8	18.4	5.0	16.8	2.4	20.8	27.0	3.6	19.2	10.0	18.2	26.4	19.8	222.4
Catenary Failure - TOTAL	0.0	22.8	4.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	34.0
Other - TOTAL	28.4	12.4	3.0	8.2	0.0	8.2	8.6	4.0	14.0	7.2	11.0	10.6	23.6	139.2
TOTAL TRAINS DELAYED	951.2	360.2	106.2	148.6	54.8	631.4	474.8	231.2	496.4	226.4	317.2	398.4	473.6	4,870.4
Total Metra/PSA Delays	719.6	352.4	104.4	146.2	17.4	495.8	369.6	125.8	454.8	85.4	304.2	360.8	357.8	3,894.2
Total Foreign Carrier Delays	231.6	7.8	1.8	2.4	37.4	135.6	105.2	105.4	41.6	141.0	13.0	37.6	115.8	976.2

Data for latest month is final (07/15/16) version from TOPS.

P:\ONTIME\report\[DelaysByCause.xlsx]YTDByLine 08/07/2017

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

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

TABLE 9.c: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE
January - June 2017 Divergence From January - June Average Over Previous Five Years

CAUSE CATEGORY	BNSF	Electric			Milw		NCS	RI	SWS	Union Pacific			SYSTEM	
		ML	BI	SC	HER	N	W			N	NW	W		
Freight Interference - TOTAL	-87.6	0.0	1.0	0.0	-4.0	-34.2	-49.8	-13.2	-3.2	-15.2	2.2	-4.0	14.4	-193.6
Freight Interference - Peak	-39.6	0.0	1.0	0.0	-6.4	-14.4	-9.0	-7.2	-5.2	-9.2	2.2	-6.6	23.4	-71.0
Primary	-23.0	0.0	0.0	0.0	-8.6	-9.8	-3.6	-3.2	-2.0	-6.0	1.2	-2.4	8.4	-49.0
Secondary	-16.6	0.0	1.0	0.0	2.2	-4.6	-5.4	-4.0	-3.2	-3.2	1.0	-4.2	15.0	-22.0
Freight Interference - Off-Peak	-48.0	0.0	0.0	0.0	2.4	-19.8	-40.8	-6.0	2.0	-6.0	0.0	2.6	-9.0	-122.6
Primary	-39.4	0.0	0.0	0.0	2.4	-13.6	-27.8	-4.0	1.6	-10.4	-0.2	2.4	-14.6	-103.6
Secondary	-8.6	0.0	0.0	0.0	0.0	-6.2	-13.0	-2.0	0.4	4.4	0.2	0.2	5.6	-19.0
Signal/Switch Failure - TOTAL	-83.2	11.2	10.8	24.6	-5.0	-67.2	-23.4	-20.6	-21.4	-19.0	-2.2	-14.4	-17.6	-227.4
Signal/Switch Failure - Metra/PSA	-41.4	11.2	10.8	24.6	-1.8	-72.8	-32.0	-22.8	-18.8	4.6	-1.6	-12.6	-22.0	-174.6
Primary	-35.2	6.4	10.8	16.2	-1.6	-28.8	-11.0	-10.8	-10.8	1.8	1.0	-3.6	-0.8	-66.4
Secondary	-6.2	4.8	0.0	8.4	-0.2	-44.0	-21.0	-12.0	-8.0	2.8	-2.6	-9.0	-21.2	-108.2
Signal/Switch Failure - Foreign	-41.8	0.0	0.0	0.0	-3.2	5.6	8.6	2.2	-2.6	-23.6	-0.6	-1.8	4.4	-52.8
Primary	-39.0	0.0	0.0	0.0	-4.0	-9.6	4.6	-0.2	-1.2	-15.2	-0.6	-0.4	3.4	-62.2
Secondary	-2.8	0.0	0.0	0.0	0.8	15.2	4.0	2.4	-1.4	-8.4	0.0	-1.4	1.0	9.4
Mechanical Failure - TOTAL	-23.6	-8.0	-4.2	-0.4	0.0	-29.4	-6.6	-7.8	19.2	-8.0	30.8	-22.8	1.6	-59.2
Mechanical Failure - Metra/PSA	-25.2	-10.2	-3.6	-0.2	-1.0	-27.0	-6.4	-7.8	19.6	-8.0	30.8	-22.8	1.8	-60.0
Non-Locomotive Equipment Failure - Metra/PSA	2.6	-10.2	-3.6	-0.2	0.0	-7.2	-6.2	-0.2	-1.4	-6.2	-3.2	4.4	9.8	-21.6
Primary	2.4	-5.4	-1.4	-1.0	0.4	-1.0	-1.8	-0.2	0.8	-2.2	-1.2	1.8	3.6	-5.2
Secondary	0.2	-4.8	-2.2	0.8	-0.4	-6.2	-4.4	0.0	-2.2	-4.0	-2.0	2.6	6.2	-16.4
Locomotive Failure - Metra/PSA	-27.8	0.0	0.0	0.0	-1.0	-19.8	-0.2	-7.6	21.0	-1.8	34.0	-27.2	-8.0	-38.4
Primary	-2.0	0.0	0.0	0.0	-0.6	3.6	3.4	0.6	14.2	-1.8	3.0	-0.8	-4.2	15.4
Secondary	-25.8	0.0	0.0	0.0	-0.4	-23.4	-3.6	-8.2	6.8	0.0	31.0	-26.4	-3.8	-53.8
Mechanical Failure - Foreign	1.6	2.2	-0.6	-0.2	1.0	-2.4	-0.2	0.0	-0.4	0.0	0.0	0.0	-0.2	0.8
Passenger Train Interference - TOTAL	-3.8	-3.8	1.6	0.2	4.6	-23.2	-7.2	-6.2	-7.0	8.0	-1.0	-2.2	-4.6	-44.6
Passenger Train Interference - Metra/PSA	-0.8	-2.4	2.6	-1.4	-0.2	-16.0	-6.4	-6.2	-5.0	-1.8	-1.0	-2.0	-4.4	-45.0
Passenger Train Interference - Foreign	-3.0	-1.4	-1.0	1.6	4.8	-7.2	-0.8	0.0	-2.0	9.8	0.0	-0.2	0.0	0.4
Accident - TOTAL	2.6	18.6	7.8	17.6	-0.6	-32.2	-5.4	-6.4	3.6	-4.0	-8.8	42.8	-13.2	22.4
Accident - Metra/PSA	17.2	18.6	7.8	17.6	-0.6	-29.8	-7.6	-3.8	-0.2	-6.0	-8.8	40.4	-19.0	25.8
Accident - Foreign	-14.6	0.0	0.0	0.0	0.0	-2.4	2.2	-2.6	3.8	2.0	0.0	2.4	5.8	-3.4
Track Work - TOTAL	-79.0	35.0	15.8	7.6	-1.4	-5.4	-6.4	-11.2	6.4	6.8	2.6	22.6	17.6	11.0
Track Work - Metra/PSA	-74.4	35.0	15.8	7.6	-1.4	-5.2	-5.6	-10.4	6.4	7.0	2.6	22.6	17.6	17.6
Track Work - Foreign	-4.6	0.0	0.0	0.0	0.0	-0.2	-0.8	-0.8	0.0	-0.2	0.0	0.0	0.0	-6.6
Human Error - TOTAL	30.8	-10.4	0.4	-9.4	3.0	31.2	35.0	0.4	0.2	-3.8	13.0	-2.4	23.0	111.0
Human Error - Metra/PSA	-10.4	-8.8	0.6	-8.6	-1.4	21.8	21.8	-4.6	-0.8	-2.0	14.6	-1.4	19.6	40.4
Human Error - Foreign	41.2	-1.6	-0.2	-0.8	4.4	9.4	13.2	5.0	1.0	-1.8	-1.6	-1.0	3.4	70.6
Sick, Injured, Unruly Passenger - TOTAL	-1.2	-7.0	-3.0	-0.6	-0.8	1.8	4.0	1.2	-2.4	-3.4	-6.6	-0.6	9.0	-9.6
Sick, Injured, Unruly Passenger - Metra/PSA	-6.4	-7.0	-3.0	-0.6	-0.8	1.8	4.0	1.2	-2.2	-3.4	-6.6	-0.6	9.0	-14.6
Sick, Injured, Unruly Passenger - Foreign	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	5.0
Weather - TOTAL	-120.6	-71.8	-19.4	-18.6	-0.2	-52.2	-46.6	-17.8	-71.4	-18.4	-54.8	-72.4	-63.8	-628.0
Weather - Metra/PSA	-119.6	-71.8	-19.4	-18.6	0.2	-51.0	-46.0	-17.8	-71.4	-17.4	-54.8	-72.4	-63.4	-623.4
Weather - Foreign	-1.0	0.0	0.0	0.0	-0.4	-1.2	-0.6	0.0	0.0	-1.0	0.0	0.0	-0.4	-4.6
Passenger Loading - TOTAL	-19.0	-34.0	-4.0	-9.2	0.0	-27.6	-26.6	0.0	-45.0	-1.4	-18.6	3.4	6.6	-175.4
Lift Deployment - TOTAL	-2.4	2.6	0.0	0.6	0.0	5.0	-7.2	-1.0	-0.2	-0.8	1.4	4.8	0.8	3.6
Obstruction/Debris - TOTAL	35.2	1.6	8.0	-0.8	1.6	6.2	-6.0	11.4	15.8	7.0	-16.2	13.6	30.2	107.6
Catenary Failure - TOTAL	0.0	-18.8	-2.0	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	0.0	-22.0
Other - TOTAL	-7.4	-6.4	2.0	-5.2	1.0	-4.2	8.4	0.0	0.0	-0.2	1.0	6.4	-1.6	-6.2
TOTAL TRAINS DELAYED	-359.2	-91.2	14.8	5.4	-1.8	-231.4	-137.8	-71.2	-105.4	-52.4	-57.2	-25.4	2.4	-1,110.4
Total Metra/PSA Delays	-254.6	-90.4	15.6	4.8	-4.4	-198.8	-109.6	-61.8	-101.8	-22.4	-57.2	-20.8	-24.8	-926.2
Total Foreign Carrier Delays	-104.6	-0.8	-0.8	0.6	2.6	-32.6	-28.2	-9.4	-3.6	-30.0	0.0	-4.6	27.2	-184.2

Data for current month is final (07/25/17) version from TOPS.

P:\ONTIME\report\DelaysByCause.xslm\YTDByLine 08/07/2017

'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
2017

CAUSE CATEGORY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan - Jun
Freight Interference - TOTAL	53	68	69	79	49	110							428 11.4%
Freight Interference - Peak	20	21	23	25	14	34							137 3.6%
Primary	11	16	17	11	12	22							89 2.4%
Secondary	9	5	6	14	2	12							48 1.3%
Freight Interference - Off-Peak	33	47	46	54	35	76							291 7.7%
Primary	26	38	36	34	27	57							218 5.8%
Secondary	7	9	10	20	8	19							73 1.9%
Signal/Switch Failure - TOTAL	118	44	80	79	91	87							499 13.3%
Signal/Switch Failure - Metra/PSA	98	31	74	28	72	74							377 10.0%
Primary	69	21	41	25	46	42							244 6.5%
Secondary	29	10	33	3	26	32							133 3.5%
Signal/Switch Failure - Foreign	20	13	6	51	19	13							122 3.2%
Primary	10	9	4	16	15	10							64 1.7%
Secondary	10	4	2	35	4	3							58 1.5%
Mechanical Failure - TOTAL	84	61	64	42	111	85							447 11.9%
Mechanical Failure - Metra/PSA	83	55	62	42	111	84							437 11.6%
Non-Locomotive Equipment Failure - Metra/PSA	12	8	15	10	23	35							103 2.7%
Primary	6	8	5	7	7	13							46 1.2%
Secondary	6	0	10	3	16	22							57 1.5%
Locomotive Failure - Metra/PSA	71	47	47	32	88	49							334 8.9%
Primary	18	21	20	17	29	25							130 3.5%
Secondary	53	26	27	15	59	24							204 5.4%
Mechanical Failure - Foreign	1	6	2	0	0	1							10 0.3%
Passenger Train Interference - TOTAL	16	2	2	5	19	9							53 1.4%
Passenger Train Interference - Metra/PSA	9	0	1	2	2	4							18 0.5%
Passenger Train Interference - Foreign	7	2	1	3	17	5							35 0.9%
Accident - TOTAL	74	32	26	101	18	65							316 8.4%
Accident - Metra/PSA	69	32	23	98	9	64							295 7.8%
Accident - Foreign	5	0	3	3	9	1							21 0.6%
Track Work - TOTAL	78	17	29	72	98	107							401 10.7%
Track Work - Metra/PSA	78	17	29	72	98	107							401 10.7%
Track Work - Foreign	0	0	0	0	0	0							0 0.0%
Human Error - TOTAL	68	140	54	69	56	75							462 12.3%
Human Error - Metra/PSA	58	50	37	49	41	58							293 7.8%
Human Error - Foreign	10	90	17	20	15	17							169 4.5%
Sick, Injured, Unruly Passenger - TOTAL	27	28	40	27	20	38							180 4.8%
Sick, Injured, Unruly Passenger - Metra/PSA	27	28	34	27	20	38							174 4.6%
Sick, Injured, Unruly Passenger - Foreign	0	0	6	0	0	0							6 0.2%
Weather - TOTAL	97	25	59	4	2	33							220 5.9%
Weather - Metra/PSA	96	25	59	4	2	33							219 5.8%
Weather - Foreign	1	0	0	0	0	0							1 0.0%
Passenger Loading - TOTAL	33	7	12	10	36	81							179 4.8%
Lift Deployment - TOTAL	17	8	8	13	23	31							100 2.7%
Obstruction/Debris - TOTAL	66	44	43	35	78	64							330 8.8%
Catenary Failure - TOTAL	6	1	4	1	0	0							12 0.3%
Other - TOTAL	15	15	24	20	22	37							133 3.5%
TOTAL TRAINS DELAYED	752	492	514	557	623	822							3,760 100.0%
Total Metra/PSA Delays	655	313	410	401	514	675							2,968 78.9%
Total Foreign Carrier Delays	97	179	104	156	109	147							792 21.1%

Data for current month is final (07/25/17) version from TOPS.

P:\ONTIME\report\[DelaysByCause.xlsx]AllMonths 08/07/2017

'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
2016

CAUSE CATEGORY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan - Jun	
Freight Interference - TOTAL	82	53	43	44	72	73	82	108	78	48	65	94	367	9.6%
Freight Interference - Peak	32	17	14	9	28	20	32	50	26	15	34	32	120	3.1%
Primary	26	10	11	7	15	10	21	31	20	13	18	20	79	2.1%
Secondary	6	7	3	2	13	10	11	19	6	2	16	12	41	1.1%
Freight Interference - Off-Peak	50	36	29	35	44	53	50	58	52	33	31	62	247	6.4%
Primary	32	29	23	29	32	44	34	48	43	29	28	52	189	4.9%
Secondary	18	7	6	6	12	9	16	10	9	4	3	10	58	1.5%
Signal/Switch Failure - TOTAL	154	155	123	98	145	143	108	63	105	67	110	120	818	21.3%
Signal/Switch Failure - Metra/PSA	67	122	99	60	84	84	51	55	89	38	76	76	516	13.5%
Primary	35	30	52	41	54	52	41	40	58	32	57	52	264	6.9%
Secondary	32	92	47	19	30	32	10	15	31	6	19	24	252	6.6%
Signal/Switch Failure - Foreign	87	33	24	38	61	59	57	8	16	29	34	44	302	7.9%
Primary	68	24	14	33	49	43	36	6	12	21	19	29	231	6.0%
Secondary	19	9	10	5	12	16	21	2	4	8	15	15	71	1.9%
Mechanical Failure - TOTAL	107	68	131	43	80	88	120	78	114	64	71	88	517	13.5%
Mechanical Failure - Metra/PSA	107	68	131	42	80	88	120	78	114	64	71	80	516	13.5%
Non-Locomotive Equipment Failure - Metra/PSA	25	19	10	6	13	17	19	30	8	12	3	29	90	2.3%
Primary	11	9	4	5	9	9	8	11	7	7	3	9	47	1.2%
Secondary	14	10	6	1	4	8	11	19	1	5	0	20	43	1.1%
Locomotive Failure - Metra/PSA	82	49	121	36	67	71	101	48	106	52	68	51	426	11.1%
Primary	28	18	24	14	18	27	36	20	28	17	23	25	129	3.4%
Secondary	54	31	97	22	49	44	65	28	78	35	45	26	297	7.7%
Mechanical Failure - Foreign	0	0	0	1	0	0	0	0	0	0	0	8	1	0.0%
Passenger Train Interference - TOTAL	22	12	3	4	19	14	12	11	5	10	4	38	74	1.9%
Passenger Train Interference - Metra/PSA	13	5	2	3	2	2	7	2	2	6	3	2	27	0.7%
Passenger Train Interference - Foreign	9	7	1	1	17	12	5	9	3	4	1	36	47	1.2%
Accident - TOTAL	59	15	62	48	86	29	18	55	34	10	79	49	299	7.8%
Accident - Metra/PSA	49	14	62	41	77	29	18	53	30	10	73	49	272	7.1%
Accident - Foreign	10	1	0	7	9	0	0	2	4	0	6	0	27	0.7%
Track Work - TOTAL	40	21	36	44	141	114	99	133	177	75	59	61	396	10.3%
Track Work - Metra/PSA	40	21	36	41	139	110	99	104	175	74	59	61	387	10.1%
Track Work - Foreign	0	0	0	3	2	4	0	29	2	1	0	0	9	0.2%
Human Error - TOTAL	38	33	21	53	23	112	47	93	50	45	49	71	280	7.3%
Human Error - Metra/PSA	30	25	15	42	15	94	34	81	43	32	32	57	221	5.8%
Human Error - Foreign	8	8	6	11	8	18	13	12	7	13	17	14	59	1.5%
Sick, Injured, Unruly Passenger - TOTAL	20	39	27	50	44	32	29	43	30	24	35	34	212	5.5%
Sick, Injured, Unruly Passenger - Metra/PSA	20	39	27	50	44	30	29	43	30	24	34	34	210	5.5%
Sick, Injured, Unruly Passenger - Foreign	0	0	0	0	0	2	0	0	0	0	1	0	2	0.1%
Weather - TOTAL	129	132	28	1	4	23	49	38	1	4	13	132	317	8.3%
Weather - Metra/PSA	129	132	28	1	4	23	49	38	1	4	13	131	317	8.3%
Weather - Foreign	0	0	0	0	0	0	0	0	0	0	0	1	0	0.0%
Passenger Loading - TOTAL	13	7	29	8	51	83	109	42	32	28	68	71	191	5.0%
Lift Deployment - TOTAL	11	14	12	3	15	11	11	21	11	12	8	16	66	1.7%
Obstruction/Debris - TOTAL	18	30	40	54	22	31	44	51	28	39	47	42	195	5.1%
Catenary Failure - TOTAL	9	3	2	1	4	13	11	6	29	12	9	1	32	0.8%
Other - TOTAL	5	17	15	0	10	25	30	39	35	17	30	19	72	1.9%
TOTAL TRAINS DELAYED	707	599	572	451	716	791	769	781	729	455	647	836	3,836	100.0%
Total Metra/PSA Delays	511	497	498	346	547	623	612	613	619	360	523	639	3,022	78.8%
Total Foreign Carrier Delays	196	102	74	105	169	168	157	168	110	95	124	197	814	21.2%

Data for latest month is final (01/26/17) version from TOPS.

P:\ONTIME\report\[DelaysByCause.xlsx]AllMonths 08/07/2017

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

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

TABLE 10.c: FREQUENCY OF TRAIN DELAYS BY CAUSE & MONTH
2017 Divergence From 2016

CAUSE CATEGORY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan - Jun
Freight Interference - TOTAL	-29	15	26	35	-23	37							61 1.8%
Freight Interference - Peak	-12	4	9	16	-14	14							17 0.5%
Primary	-15	6	6	4	-3	12							10 0.3%
Secondary	3	-2	3	12	-11	2							7 0.2%
Freight Interference - Off-Peak	-17	11	17	19	-9	23							44 1.3%
Primary	-6	9	13	5	-5	13							29 0.9%
Secondary	-11	2	4	14	-4	10							15 0.4%
Signal/Switch Failure - TOTAL	-36	-111	-43	-19	-54	-56							-319 -8.1%
Signal/Switch Failure - Metra/PSA	31	-91	-25	-32	-12	-10							-139 -3.4%
Primary	34	-9	-11	-16	-8	-10							-20 -0.4%
Secondary	-3	-82	-14	-16	-4	0							-119 -3.0%
Signal/Switch Failure - Foreign	-67	-20	-18	13	-42	-46							-180 -4.6%
Primary	-58	-15	-10	-17	-34	-33							-167 -4.3%
Secondary	-9	-5	-8	30	-8	-13							-13 -0.3%
Mechanical Failure - TOTAL	-23	-7	-67	-1	31	-3							-70 -1.6%
Mechanical Failure - Metra/PSA	-24	-13	-69	0	31	-4							-79 -1.8%
Non-Locomotive Equipment Failure - Metra/PSA	-13	-11	5	4	10	18							13 0.4%
Primary	-5	-1	1	2	-2	4							-1 0.0%
Secondary	-8	-10	4	2	12	14							14 0.4%
Locomotive Failure - Metra/PSA	-11	-2	-74	-4	21	-22							-92 -2.2%
Primary	-10	3	-4	3	11	-2							1 0.1%
Secondary	-1	-5	-70	-7	10	-20							-93 -2.3%
Mechanical Failure - Foreign	1	6	2	-1	0	1							9 0.2%
Passenger Train Interference - TOTAL	-6	-10	-1	1	0	-5							-21 -0.5%
Passenger Train Interference - Metra/PSA	-4	-5	-1	-1	0	2							-9 -0.2%
Passenger Train Interference - Foreign	-2	-5	0	2	0	-7							-12 -0.3%
Accident - TOTAL	15	17	-36	53	-68	36							17 0.6%
Accident - Metra/PSA	20	18	-39	57	-68	35							23 0.8%
Accident - Foreign	-5	-1	3	-4	0	1							-6 -0.1%
Track Work - TOTAL	38	-4	-7	28	-43	-7							5 0.3%
Track Work - Metra/PSA	38	-4	-7	31	-41	-3							14 0.6%
Track Work - Foreign	0	0	0	-3	-2	-4							-9 -0.2%
Human Error - TOTAL	30	107	33	16	33	-37							182 5.0%
Human Error - Metra/PSA	28	25	22	7	26	-36							72 2.0%
Human Error - Foreign	2	82	11	9	7	-1							110 3.0%
Sick, Injured, Unruly Passenger - TOTAL	7	-11	13	-23	-24	6							-32 -0.7%
Sick, Injured, Unruly Passenger - Metra/PSA	7	-11	7	-23	-24	8							-36 -0.8%
Sick, Injured, Unruly Passenger - Foreign	0	0	6	0	0	-2							4 0.1%
Weather - TOTAL	-32	-107	31	3	-2	10							-97 -2.4%
Weather - Metra/PSA	-33	-107	31	3	-2	10							-98 -2.4%
Weather - Foreign	1	0	0	0	0	0							1 0.0%
Passenger Loading - TOTAL	20	0	-17	2	-15	-2							-12 -0.2%
Lift Deployment - TOTAL	6	-6	-4	10	8	20							34 0.9%
Obstruction/Debris - TOTAL	48	14	3	-19	56	33							135 3.7%
Catenary Failure - TOTAL	-3	-2	2	0	-4	-13							-20 -0.5%
Other - TOTAL	10	-2	9	20	12	12							61 1.7%
TOTAL TRAINS DELAYED	45	-107	-58	106	-93	31							-76
Total Metra/PSA Delays	144	-184	-88	55	-33	52							-54
Total Foreign Carrier Delays	-99	77	30	51	-60	-21							-22

Data for current month is final (07/25/17) version from TOPS.

P:\ONTIME\report\[DelaysByCause.xlsx]AllMonths 08/07/2017

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

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

TABLE 11: FREIGHT DELAYS
between July 2015 and June 2017

	BNSF	Electric			Milw		NCS	RI	SWS	Union Pacific			SYSTEM	
		ML	BI	SC	HER	N	W			N	NW	W		
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
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
Total	174	0	0	0	29	72	82	71	89	104	3	37	169	830
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
Dec-16	9	0	0	0	4	7	4	8	6	9	2	8	37	94
Jan-17	3	0	0	0	2	6	5	6	3	3	2	1	22	53
Feb-17	4	0	0	0	2	9	3	13	3	10	2	7	15	68
Mar-17	6	0	0	0	4	6	7	5	2	17	1	6	15	69
Apr-17	0	0	0	0	1	8	9	12	4	7	0	4	34	79
May-17	2	0	0	0	2	5	2	11	2	15	2	2	6	49
Jun-17	19	0	1	0	3	9	2	14	18	8	4	5	27	110
Total	165	0	1	0	34	83	73	98	52	111	17	45	224	903

Data for current month is final (07/25/17) version from TOPS.

P:\ONTIME\report\[DelaysByCause.xls]Freight- YTD, 2 yrs 08/07/2017

TABLES 12.a & 12.b: FREQUENCY OF LIFT-DEPLOYMENT TRAIN DELAYS BY LINE & MONTH
2017

LINE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Lift Delays YTD	% of All Delays YTD
BNSF	1	1	0	0	4	5							11	1.86%
Electric ML	0	0	0	0	1	2							3	1.12%
Electric BI	0	0	0	0	0	0							0	0.00%
Electric SC	0	1	0	0	0	0							1	0.65%
HER	0	0	0	0	0	0							0	0.00%
Milw N	3	2	1	1	4	12							23	5.75%
Milw W	3	0	2	1	0	0							6	1.78%
NCS	0	0	0	0	0	0							0	0.00%
RI	2	1	0	2	4	8							17	4.35%
SWS	0	0	0	0	0	0							0	0.00%
UP N	2	1	1	0	4	0							8	3.08%
UP NW	2	1	0	6	3	2							14	3.75%
UP W	4	1	4	3	3	2							17	3.57%
Total Lift Delays	17	8	8	13	23	31							100	2.66%
ALL DELAYS														3,760

Data for current month is final (07/25/17) version from TOPS.

2016

LINE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Lift Delays All Year	% of All Delays All Year
BNSF	5	1	1	0	1	0	1	1	0	4	0	0	14	0.87%
Electric ML	1	0	0	0	0	0	0	0	0	1	0	0	2	0.33%
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	1	0	0	0	1	0.39%
HER	0	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	2	42	4.42%
Milw W	0	0	1	2	0	2	7	1	3	3	2	1	22	2.51%
NCS	0	1	0	0	0	0	0	1	0	0	0	0	2	0.65%
RI	2	2	0	0	1	2	1	3	1	0	2	8	22	2.60%
SWS	0	0	0	0	2	1	0	0	0	0	0	1	4	1.05%
UP N	0	0	0	0	0	0	0	4	0	0	0	1	5	1.12%
UP NW	1	0	2	0	2	2	1	3	1	1	1	1	15	2.16%
UP W	1	4	0	1	2	1	1	2	1	0	1	2	16	1.89%
Total Lift Delays	11	14	12	3	15	11	11	21	11	12	8	16	145	1.80%
ALL DELAYS														8,053

TABLE 13: FREQUENCY OF TRAIN DELAYS BY DURATION

June 2017

Minutes	BNSF	Electric			Her	Milwaukee		NCS	RI	SWS	UP			System
		ML	BI	SC		N	W				N	NW	W	
Peak *														
6-10	41	10	3	2	3	10	12	4	12	4	12	19	29	161
11-15	10	2	2	1	2	4	4	0	5	2	0	10	5	47
16-20	5	5	1	0	2	0	3	1	2	1	1	6	5	32
21+	21	8	2	1	5	5	7	1	1	1	1	10	0	63
Annulled	2	0	0	3	0	3	1	0	0	0	0	0	0	9
Sub-Total	79	25	8	7	12	22	27	6	20	8	14	45	39	312
Off-Peak **														
6-10	39	27	21	11	3	29	10	4	37	8	13	22	31	255
11-15	11	3	2	3	0	21	18	2	10	2	7	12	11	102
16-20	1	1	1	4	0	9	1	4	2	0	2	13	8	46
21+	10	5	4	6	2	12	3	5	5	2	7	12	20	93
Annulled	2	0	0	0	0	5	1	0	0	0	3	2	1	14
Sub-Total	63	36	28	24	5	76	33	15	54	12	32	61	71	510
June 2017 Total														
6-10	80	37	24	13	6	39	22	8	49	12	25	41	60	416
11-15	21	5	4	4	2	25	22	2	15	4	7	22	16	149
16-20	6	6	2	4	2	9	4	5	4	1	3	19	13	78
21+	31	13	6	7	7	17	10	6	6	3	8	22	20	156
Annulled	4	0	0	3	0	8	2	0	0	0	3	2	1	23
TOTAL	142	61	36	31	17	98	60	21	74	20	46	106	110	822
2017 Year-to-Date														
6-10	272	150	81	77	13	192	114	73	200	78	111	134	252	1,747
11-15	93	37	14	17	10	88	87	31	72	27	54	71	93	694
16-20	45	23	11	12	9	41	29	17	32	11	24	38	51	343
21+	126	59	15	36	21	59	80	32	76	53	60	107	76	800
Annulled	56	0	0	12	0	20	27	7	11	5	11	23	4	176
TOTAL	592	269	121	154	53	400	337	160	391	174	260	373	476	3,760

PERCENT COMPOSITION OF DELAYS BY RANGE OF DURATION

Minutes	BNSF	Electric			Her	Milwaukee		NCS	RI	SWS	UP			System
		ML	BI	SC		N	W				N	NW	W	
June 2017 Total														
6-10	56.3%	60.7%	66.7%	41.9%	35.3%	39.8%	36.7%	38.1%	66.2%	60.0%	54.3%	38.7%	54.5%	50.6%
11-15	14.8%	8.2%	11.1%	12.9%	11.8%	25.5%	36.7%	9.5%	20.3%	20.0%	15.2%	20.8%	14.5%	18.1%
16-20	4.2%	9.8%	5.6%	12.9%	11.8%	9.2%	6.7%	23.8%	5.4%	5.0%	6.5%	17.9%	11.8%	9.5%
21+	21.8%	21.3%	16.7%	22.6%	41.2%	17.3%	16.7%	28.6%	8.1%	15.0%	17.4%	20.8%	18.2%	19.0%
Annulled	2.8%	0.0%	0.0%	9.7%	0.0%	8.2%	3.3%	0.0%	0.0%	0.0%	6.5%	1.9%	0.9%	2.8%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2017 Year-to-Date Delays By Duration														
6-10	45.9%	55.8%	66.9%	50.0%	24.5%	48.0%	33.8%	45.6%	51.2%	44.8%	42.7%	35.9%	52.9%	46.5%
11-15	15.7%	13.8%	11.6%	11.0%	18.9%	22.0%	25.8%	19.4%	18.4%	15.5%	20.8%	19.0%	19.5%	18.5%
16-20	7.6%	8.6%	9.1%	7.8%	17.0%	10.3%	8.6%	10.6%	8.2%	6.3%	9.2%	10.2%	10.7%	9.1%
21+	21.3%	21.9%	12.4%	23.4%	39.6%	14.8%	23.7%	20.0%	19.4%	30.5%	23.1%	28.7%	16.0%	21.3%
Annulled	9.5%	0.0%	0.0%	7.8%	0.0%	5.0%	8.0%	4.4%	2.8%	2.9%	4.2%	6.2%	0.8%	4.7%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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

Data for most recent month is final (07/25/17) version from TOPS.

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

	BNSF	Electric			Her	Milwaukee		NCS	RI	SWS	UP			System
		ML	BI	SC		N	W				N	NW	W	
<i>June 2017</i>														
Peak *	24.2	22.4	16.9	17.8	21.0	14.9	18.2	12.2	13.5	13.1	9.4	15.0	9.9	17.4
Off-Peak **	18.4	13.3	12.0	20.0	15.0	15.5	16.5	18.6	12.0	12.3	16.9	18.6	20.0	16.5
All	21.6	17.0	13.1	19.6	19.2	15.4	17.3	16.8	12.4	12.7	14.4	17.0	16.4	16.8
<i>2017 Year-to-Date</i>														
Peak *	23.2	18.5	12.8	16.7	24.4	16.6	20.0	16.2	17.9	18.3	14.8	35.8	13.6	20.1
Off-Peak **	17.0	14.2	11.6	16.2	17.9	15.0	17.5	16.5	14.7	20.5	18.5	27.1	15.6	17.2
All	20.5	15.9	12.0	16.4	22.6	15.5	18.5	16.4	16.1	19.8	17.0	30.8	14.8	18.4

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 (07/25/17) version from TOPS.

P:\ONTIME\report\|DelaysByDuration.xls]MinutesByServPeriod

8/7/2017