## COMMUTER RAIL SYSTEM ON-TIME PERFORMANCE REPORT March 2010



## COMMUTER RAIL ON-TIME PERFORMANCE March 2010

This report presents an analysis of the March 2010 train delays as reported for Metra's eleven commuter rail lines. On-time is defined, for this analysis, as those trains arriving at their last station stop within five minutes of schedule. Trains that are six minutes or more behind schedule are regarded as late.

Table 1 presents the number of train delays by rail line and service period. During March 2010, Metra operated 17,989 scheduled trains, including 'extras'. 541 of these trains were delayed (late or annulled), representing an on-time performance rate of 97.0%. Table 2 lists on-time percentages by line for each month and year since 2005. Table 3 lists each train that was on time for less than 85% of its weekday runs in March 2010, 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 in Table 5.

Table 6 provides a daily listing of the number of delays by line and branch for March 2010.

Table 7.a shows the frequency of train delays by delay-cause category and by line during March 2010. Table 7.b shows the average frequencies over the previous five Marchs, and Table 7.c shows the differences between Table 7.a and Table 7.b. There were 541 delays systemwide in March 2010, 33 more than the average over the previous five Marchs. Table 8.a shows delays from the beginning of the year through March 2010. Table 8.b shows the average frequencies through March of each of the previous five years, and Table 8.c shows the differences between Table 8.a and Table 8.b. Tables 9.a and 9.b display the systemwide frequency of train delays by cause and by month, for 2010 and 2009 respectively. From January through March of 2010, a total of 1,619 trains were delayed, compared to 2,363 trains delayed in the same three months of 2009.

Table 10 shows, by line and month, all train delays caused by freight operations over the past 24 months. In March 2010 freight operations delayed 81 trains systemwide, compared to 63 a year earlier. Tables 11.a and 11.b display the frequency of lift-deployment train delays by line and month, for 2010 and 2009 respectively. A total of 18 trains were delayed by lift deployment in March 2010.

A review of March 2010 late trains by duration of delay is shown in Table 12. The range with the greatest number of delays was, as usual, six-to-ten minutes, accounting for 53.6% of all late trains. Table 13 shows that the average length of delay was 14.7 minutes in March 2010. It should be noted that these averages relate only to reportable delays (i.e., trains late by six minutes or more).

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TABLE 1: SCHEDULED AND DELAYED TRAINS, AND ON-TIME PERFORMANCE BY SERVICE PERIOD AND LINE **March 2010** 

				W	eekday	S						Weel	kends				Total	
	]	Peak*		Off	-Peak*	*		Total		Sa	turday	s	Sunday	s & Ho	lidays			
	Trains Scheduled	Trains Late	Percent On-Time															
BNSF	1,242	52	95.8%	920	27	97.1%	2,162	79	96.3%	114	5	95.6%	72	1	98.6%	2,348	85	96.4%
Elec -ML	1,035	28	97.3%	782	15	98.1%	1,817	43	97.6%	184	3	98.4%	80	0	100.0%	2,081	46	97.8%
-BI	322	3	99.1%	529	3	99.4%	851	6	99.3%	120	0	100.0%				971	6	99.4%
-SC	<u>391</u>	<u>5</u>	98.7%	<u>851</u>	<u>13</u>	98.5%	1,242	<u>18</u>	98.6%	<u>192</u>	<u>1</u>	99.5%	<u>80</u>	<u>0</u>	100.0%	<u>1,514</u>	<u>19</u>	98.7%
Subtotal	1,748	36	97.9%	2,162	31	98.6%	3,910	67	98.3%	496	4	99.2%	160	0	100.0%	4,566	71	98.4%
Heritage	138	15	89.1%				138	15	89.1%							138	15	89.1%
Milw -N	575	28	95.1%	805	46	94.3%	1,380	74	94.6%	96	15	84.4%	80	1	98.8%	1,556	90	94.2%
-W	<u>621</u>	<u>14</u>	97.7%	<u>713</u>	<u>22</u>	96.9%	<u>1,334</u>	<u>36</u>	97.3%	<u>96</u>	<u>4</u>	95.8%	<u>72</u>	<u>0</u>	100.0%	<u>1,502</u>	<u>40</u>	97.3%
Subtotal	1,196	42	96.5%	1,518	68	95.5%	2,714	110	95.9%	192	19	90.1%	152	1	99.3%	3,058	130	95.7%
NCS	253	19	92.5%	253	20	92.1%	506	39	92.3%							506	39	92.3%
RI	828	15	98.2%	736	20	97.3%	1,564	35	97.8%	83	4	95.2%	66	2	97.0%	1,713	41	97.6%
sws	253	3	98.8%	437	18	95.9%	690	21	97.0%	24	1	95.8%				714	22	96.9%
UP -N	690	19	97.2%	920	32	96.5%	1,610	51	96.8%	104	9	91.3%	72	2	97.2%	1,786	62	96.5%
-NW	759	19	97.5%	736	8	98.9%	1,495	27	98.2%	96	10	89.6%	60	7	88.3%	1,651	44	97.3%
-W	<u>621</u>	<u>7</u>	98.9%	<u>736</u>	<u>18</u>	97.6%	1,357	<u>25</u>	98.2%	<u>80</u>	<u>6</u>	92.5%	<u>72</u>	<u>1</u>	98.6%		<u>32</u>	97.9%
Subtotal	2,070	45	97.8%	2,392	58	97.6%	4,462	103	97.7%	280	25	91.1%	204	10	95.1%	4,946	138	97.2%
SYSTEM	7,728	227	97.1%	8,418	242	97.1%	16,146	469	97.1%	1,189	58	95.1%	654	14	97.9%	17,989	541	97.0%

<sup>\*</sup>Includes peak direction trains operating during weekday peak periods. \*\*Includes all other weekday trains. Delays data for most recent month is final (04/19/10) version from TOPS.

TABLE 2: ON-TIME PERFORMANCE BY LINE/BRANCH

													JAN-	
LINE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MAR	AVG
	0.4.0						0.5.0		0.1.1	0.5.0	0.5.1	00.0	0 5 40/	0.5.50/
BNSF 2005	94.3	95.7	96.2	98.1	95.9	95.7	96.8	94.2	94.4	95.0	96.1	93.8	95.4%	95.5%
2006	96.9	96.4	96.4	97.7	96.2	93.4	97.4	95.0	96.2	93.7	90.2	91.4	96.5%	95.0%
2007	96.4	86.8	96.3	96.8	98.2	96.0	97.4	94.5	97.8	95.9	96.1	96.6	93.4%	95.8%
2008	92.9	94.3	97.0	98.2	97.0	94.3	94.8	94.6	92.8	92.8	94.2	89.9	94.7%	94.4%
2009 2010	85.4 97.8	94.1 97.4	97.5 96.4	96.5	94.6	90.9	95.1	91.2	96.0	89.7	97.3	95.3	92.4% 97.2%	93.6% 97.2%
2010 2005-2009 average	93.2	93.5	96.4	97.5	96.4	94.0	96.3	93.9	95.4	93.4	94.8	93.4	94.5%	94.9%
2005-2009 average	93.2	93.3	90.7	91.3	90.4	94.0	90.3	93.9	93.4	93.4	94.0	93.4	94.5%	94.970
Electric 2005	98.5	99.3	99.6	99.3	98.8	96.5	98.6	99.5	99.2	98.7	97.2	98.7	99.1%	98.7%
2006	99.3	98.6	98.1	99.1	98.9	98.1	95.4	97.9	98.0	97.4	98.7	99.0	98.6%	98.2%
2007	99.2	96.4	97.7	98.0	97.1	97.8	96.6	97.0	95.6	97.4	98.6	98.3	97.8%	97.5%
2008	96.4	98.5	98.8	98.3	99.3	98.5	99.2	98.1	97.9	98.2	96.7	95.0	97.9%	97.9%
2009	96.7	98.5	98.7	99.1	98.6	95.7	97.2	97.2	97.2	97.7	98.5	94.7	98.0%	97.5%
2010	97.7	98.1	98.4										98.1%	98.1%
2005-2009 average	98.0	98.3	98.6	98.8	98.5	97.3	97.4	97.9	97.6	97.9	97.9	97.1	98.3%	97.9%
Heritage 2005	95.2	95.0	96.4	95.2	95.2	95.5	93.3	92.8	90.5	88.9	92.1	87.5	95.6%	93.1%
2006	94.4	94.2	92.8	92.5	95.5	92.4	91.7	90.6	90.0	92.4	92.9	95.0	93.8%	92.9%
2007	98.5	80.0	90.2	89.1	87.1	92.1	90.1	89.1	97.4	92.8	96.8	90.8	89.8%	91.1%
2008	93.9	89.7	83.3	87.2	89.7	92.9	91.7	86.5	88.2	89.1	93.0	78.6	89.1%	88.6%
2009	79.4	91.7	91.7	98.5	96.7	92.4	94.9	92.9	90.5	84.1	88.3	88.6	87.6%	90.8%
2010	92.5	93.3	89.1										91.5%	91.5%
2005-2009 average	92.4	90.1	91.0	92.5	92.8	93.1	92.4	90.4	91.2	89.5	92.7	87.9	91.2%	91.3%
Milw - N 2005	90.4	98.4	97.5	95.4	95.7	94.3	92.4	95.8	95.6	97.7	91.3	88.3	95.4%	94.4%
2005 2006	90.4	97.3	97.3 95.6	93.4	93.7	94.5	92.4	95.8 95.4	93.0	97.7	89.3	92.6	95.4%	94.4%
2007	96.0	89.5	95.6 95.6	94.0	96.0	93.0	92.0	95.4 95.0	94.2	95.2	93.7	88.1	93.2%	93.7%
2007	96.1	92.6	96.4	95.8	95.6	95.0	93.3	93.1	95.8	96.9	92.9	84.4	95.1%	94.0%
2009	85.9	97.3	97.1	95.5	95.4	94.7	96.0	95.1	96.2	96.3	95.3	93.5	93.4%	94.9%
2010	96.1	96.4	94.2	73.3	75.4	77.7	70.0	75.1	70.2	70.5	75.5	75.5	95.5%	95.5%
2005-2009 average	92.2	95.0	96.4	95.5	95.3	94.1	92.9	94.9	95.2	95.8	92.5	89.4	94.6%	94.1%
Milw - W 2005	91.1	97.0	96.1	96.6	97.7	95.5	96.2	93.8	96.0	96.2	93.0	89.1	94.7%	94.8%
2006	91.9	97.7	96.0	97.3	97.4	97.2	93.4	95.2	97.4	96.9	98.2	94.1	95.2%	96.0%
2007	98.8	90.1	97.8	95.5	96.7	95.7	93.8	93.7	96.8	98.3	98.0	93.5	95.7%	95.8%
2008	94.5	96.6	97.1	97.4	97.8	97.8	96.1	94.1	98.3	97.9	96.6	92.3	96.1%	96.4%
2009	92.6	96.3	97.4	99.2	98.6	96.3	97.9	95.4	99.2	99.2	98.8	94.4	95.4%	97.1%
2010 2005-2009 average	96.0 93.8	95.9 95.6	97.3 96.9	97.2	97.6	96.5	95.5	94.4	97.5	97.7	96.9	92.7	96.5% 95.4%	96.5% 96.0%
2005-2009 average	93.6	93.0	90.9	91.2	97.0	90.3	93.3	94.4	91.3	91.1	90.9	92.1	93.4%	90.0%
NCS 2005	88.6	97.0	89.6	90.0	98.1	85.5	89.5	90.0	89.0	93.3	88.2	84.9	91.6%	90.2%
2006	92.6	98.0	93.5	93.8	96.1	96.8	95.3	96.3	95.6	91.7	91.1	93.4	95.0%	94.5%
2007	95.9	91.2	94.0	92.9	93.8	94.4	95.9	94.3	94.7	96.2	97.2	94.4	93.8%	94.6%
2008	93.4	94.4	97.4	95.1	95.0	91.3	96.5	97.4	94.4	98.0	95.9	86.5	95.0%	94.6%
2009	88.9	93.4	97.3	95.5	95.2	93.2	97.8	92.4	97.6	94.6	97.7	93.0	93.3%	94.8%
2010	96.4	94.5	92.3										94.3%	94.3%
2005-2009 average	92.3	94.4	94.9	93.9	95.3	93.0	95.8	94.5	94.9	95.0	94.7	91.0	93.9%	94.2%

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

														JAN-	
LINE	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MAR	AVG
RI	2005	96.6	98.6	97.9	98.0	96.3	93.7	94.2	97.4	93.8	86.5	91.8	91.6	97.7%	94.7%
	2006	95.9	97.1	96.8	97.5	96.3	96.7	94.4	97.1	96.8	95.7	97.4	94.2	96.6%	96.3%
	2007	96.0	84.0	96.4	98.4	96.1	93.9	92.0	94.3	95.8	97.1	95.2	90.9	92.4%	94.2%
	2008	95.5	95.6	94.5	98.8	97.6	96.4	96.5	96.9	95.8	92.3	96.3	89.3	95.2%	95.4%
	2009	93.4	97.5	96.2	96.8	97.5	96.2	95.9	97.1	97.2	96.4	96.7	93.6	95.6%	96.2%
	2010	95.4	96.7	97.6										96.6%	96.6%
2005-200	9 average	95.5	94.6	96.4	97.9	96.7	95.4	94.6	96.5	95.9	93.7	95.4	91.9	95.5%	95.4%
SWS	2005	94.0	92.5	97.0	96.7	94.7	96.0	94.4	96.7	96.1	95.5	93.2	90.5	94.6%	94.8%
	2006	92.3	93.3	97.0	96.2	94.1	96.4	93.0	89.7	85.2	90.8	95.7	93.0	94.6%	93.1%
	2007	98.6	95.3	97.0	97.8	97.0	96.2	96.9	95.8	97.4	95.1	95.7	95.2	97.0%	96.5%
	2008	93.5	96.3	95.1	94.4	95.4	95.7	98.3	93.5	95.3	92.2	93.7	89.2	95.0%	94.4%
	2009	87.1	96.5	96.1	95.9	95.1	97.1	97.5	97.1	98.0	87.8	96.8	96.2	93.3%	95.1%
	2010	94.6	93.4	96.9										95.1%	95.1%
2005-200	9 average	93.2	95.1	96.4	96.1	95.3	96.3	96.3	94.3	94.3	91.9	95.2	93.1	94.9%	94.8%
UP - N	2005	94.0	99.6	99.0	99.5	98.8	96.6	96.3	93.7	97.6	96.7	98.4	99.0	97.6%	97.4%
	2006	98.5	98.1	98.8	97.0	99.5	98.3	95.6	95.8	97.8	98.7	96.7	96.6	98.5%	97.6%
	2007	98.0	92.8	97.9	98.5	97.4	93.9	93.5	89.8	96.8	97.6	96.8	92.6	96.3%	95.4%
	2008	91.9	89.4	95.1	95.5	97.1	90.9	92.2	89.9	93.5	95.6	95.2	94.2	92.2%	93.4%
	2009	91.4	98.0	96.9	97.8	95.3	90.7	90.4	89.9	94.0	94.8	97.3	95.1	95.4%	94.2%
	2010	93.9	96.8	96.5										95.7%	95.7%
2005-200	9 average	94.6	95.5	97.5	97.6	97.6	93.9	93.4	91.7	95.8	96.6	96.9	95.4	95.9%	95.5%
UP - NW	2005	93.6	98.0	97.1	98.4	98.8	96.2	98.6	94.8	98.6	98.4	94.9	96.0	96.2%	96.9%
	2006	97.9	98.6	98.5	98.0	99.1	98.4	98.0	96.3	97.3	96.5	96.6	96.9	98.3%	97.7%
	2007	95.8	91.8	97.1	97.7	98.0	97.2	96.5	93.2	95.7	98.0	95.2	95.2	95.0%	96.0%
	2008	91.9	91.8	97.1	96.5	96.8	95.5	95.1	97.1	96.9	96.9	94.5	91.7	93.6%	95.2%
	2009	91.9	97.6	97.4	97.9	95.4	94.7	95.4	95.3	95.3	94.8	96.5	94.9	95.6%	95.6%
	2010	96.7	97.2	97.3										97.1%	97.1%
2005-200	9 average	94.2	95.5	97.4	97.7	97.6	96.4	96.7	95.3	96.8	96.9	95.5	94.9	95.7%	96.3%
UP - W	2005	91.7	97.0	96.8	98.1	94.1	92.7	95.3	92.2	96.4	94.9	95.0	92.7	95.1%	94.7%
	2006	91.7	93.7	96.0	94.2	94.2	95.6	96.1	94.8	95.1	96.0	94.9	93.8	93.9%	94.7%
	2007	95.9	91.5	93.6	96.5	94.7	93.7	95.6	90.7	93.2	96.6	95.5	91.0	93.8%	94.1%
	2008	95.2	90.4	93.7	94.5	96.9	95.4	95.3	94.5	93.0	91.0	93.0	91.6	93.1%	93.7%
	2009	92.3	97.3	95.5	97.2	97.2	94.3	95.7	92.5	95.2	94.7	97.8	95.2	95.0%	95.4%
	2010	96.6	96.7	97.9										97.1%	97.1%
2005-200	9 average	93.4	93.9	95.1	96.1	95.4	94.3	95.6	92.9	94.6	94.6	95.2	92.9	94.2%	94.5%
SYSTEM	2005	94.6	97.9	97.7	98.0	97.3	95.3	96.4	95.9	96.7	95.9	95.1	94.4	96.8%	
(excluding	2006	96.2	97.2	97.1	97.4	97.1	96.5	95.2	96.0	96.3	95.7	95.5	95.3	96.8%	96.3%
South Shor	-	97.4	91.4	96.6	97.0	96.7	95.6	95.2	94.2	95.8	96.9	96.5	94.4	95.2%	95.7%
	2008	94.5	94.5	96.6	97.0	97.4	95.7	96.0	95.3	95.7	95.5	95.2	91.4	95.2%	95.4%
	2009	91.6	97.1	97.3	97.6	96.7	94.3	95.8	94.6	96.4	95.2	97.4	94.6	95.3%	95.7%
2005 200	2010	96.5	96.9	97.0	07.4	07.0	05.5	05.7	05.0	06.2	07.0	05.0	0.4.0	96.8%	96.8%
2005-200	9 average	94.9	95.6	97.1	97.4	97.0	95.5	95.7	95.2	96.2	95.8	95.9	94.0	95.9%	95.9%

Delays data for most recent month is final (04/19/10) version from TOPS.

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<sup>&#</sup>x27;2005-2009 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 March 2010

Line T	rain	Date	Minutes Late	•	Delay Explanation
HC	0914	Mon, Mar 01	12	G	15" SW #190 FAILED, JUD; 3" FRT TRN INT, CP CANAL/ARGO.
83%	ОТ	Fri, Mar 19	8	D	10" FRT X-TRAFFIC, CP CANAL.
		Mon, Mar 29	14	D	17" BN #FSEACHI125K CLEARING CORWITH.
		Tue, Mar 30	29	D	29" CN #503 BLOCKING DEPOT, SUMMIT; 6" FRT TRN INT, LEMOYNE.
HC	0916	Mon, Mar 08	14	A	7" 21ST ST #805 CLEARING; 3" 21ST ST SEESAW MOVE; 4" NO REASON GIVEN.
78%	ОТ	Mon, Mar 15	7	AM	8" CORWITH WAITING ON AMTRK 301
		Tue, Mar 16	12	D	13" CSX #E94914 CLEARING CP BRIGHTON.
		Fri, Mar 19	26	AM	3" S/O, MP 37.1 TO 36.7; 3" WAITING FOR SIGNAL, 21ST; 26" COMPUTER PROBLEMS,
		,			POLK ST.
		Tue, Mar 30	7	D	2" X/O, 47XOVER; 6" BN #MGALBRC CLEARING LEMOYNE.
ELML	0737	Thu, Mar 11	6	I	6" HEAVY ENTRAINING.
83%	ОТ	Fri, Mar 12	7	R	7" NO REASON GIVEN.
		Thu, Mar 18	8	G	8" SW FAILURE, 115TH.
		Fri, Mar 19	7	I	3" FOLLOWING TRAFFIC, 115TH; 2" DETRAINING ENROUTE; 2" NO REASON GIVEN.
ELSC	0345	Wed, Mar 03	6	I1	6" HELD FOR CONNECTIONS OFF #145, 67TH.
74%	ОТ	Fri, Mar 05	6	I1	7" LATE DEPT ACCT MEETING #142, 67TH.
		Mon, Mar 08	34	K	6" MEETING #145, 67TH; 29" CAR ON TRACK AT 83RD.
		Thu, Mar 18	6	G1	7" MEETING #145, 67TH.
		Tue, Mar 30	6	I1	7" HELD FOR CONNECTIONS OFF #145, WOODLAWN.
		Wed, Mar 31	6	I1	6" HELD FOR CONNECTIONS OFF #145, 67TH.
MN	2107	Wed, Mar 03	17	С	13" BROKEN RAIL, TOWER A2; 4" RESTRICTING, MP 29.1.
78%	ОТ	Thu, Mar 04	53	С	53" BROKEN RAIL, MP 18.
		Thu, Mar 18	7	I	3" ENTRAINING, HEALY TO MN; 1" HELD FOR 2124, GLN; 3" FREIGHT X-TRAFFIC, CN
		.,			CROSSING.
		Mon, Mar 22	8	A	8" STOP SIG, MAYFAIR.
		Thu, Mar 25	8	D1	2" X-TRAFFIC, MAYFAIR; 1" SLOW DETRAINING, LAKE COOK; 5" FRT X-TRAFFIC,
		.,			DEERFIELD.
MN	2141	Tue, Mar 02	10	G	10" SIG PROBS, CP/WC XING.
83%	ОТ	Tue, Mar 09	11	G1	10" DELAYED #2139 AHEAD FROM CP/WC XING.
		Wed, Mar 17	15	G1	17" #115 CLEARING CP/WC XING.
		Tue, Mar 30	24	G	15" SIG PROBS, RONDOUT.
MN	2143	Tue, Mar 02	7	G	7" SIG PROBS, CP/WC XING AND DELAYED #2141 AHEAD.
74%	ОТ	Thu, Mar 11	9	G	14" SWITCH FAILURE, A-5.
		Fri, Mar 12	9	AM	8" FOLLOWING #339, MORTON GROVE TO DEERFIELD; 1" NO REASON GIVEN.
		Wed, Mar 17	15	G1	15" DELAYED #2141 AHEAD.
		Mon, Mar 29	20	Е	20" LOCO PROBS ENROUTE.
		Tue, Mar 30	13	G	5" SIG PROBS, TOWER A5; 10" SIG PROBS, RONDOUT.
MN	2149	Fri, Mar 05	9	D	4" WAIT FOR #2156 TO CLEAR, JLINE; 8" RED SIG, CN XING.
83%		Thu, Mar 11	8	G1	10" WAITING ON #2156 TO CLEAR J-LINE, RONDOUT.
00 70		Fri, Mar 12	14	AM	14" WAITING FOR #2156 TO CLEAR, JLINE.
		Mon, Mar 29	13	E1	13" MEETING DELAYED #2156 OFF THE J LINE, RONDOUT.

TABLE 3 (continued): LIST OF WEEKDAY TRAINS LESS THAN 85% ON-TIME March 2010

MN	Train 1	Date			
	2151		Late	Code	Delay Explanation
78%	2151	Mon, Mar 01	16	G	18" RESTRICTED SPEED, MP 16.1-22.1 (SIG PROBS, TOWER A20).
	TO 6	Wed, Mar 10	10	G1	10" MEETING DELAYED #2158 OFF THE J LINE, RONDOUT; 7" FLAGGING CP/WC XING.
		Fri, Mar 12	12	AM	15" WAITING FOR #2158 TO CLEAR, JLINE.
		Mon, Mar 22	38	E1	38" MEETING DELAYED #2158 OFF THE J LINE, RONDOUT.
		Mon, Mar 29	14	E1	14" MEETING DELAYED #2158 OFF THE J LINE.
MN	2156	Tue, Mar 02	11	G1	11" MEETING DELAYED #2143, FOX LAKE.
70%	TO 6	Thu, Mar 11	10	G1	13" LATE TURN OF #2143, FOX LAKE; 2" S/O, ENROUTE; 2" X-TRAFFIC, MAYFAIR; 1" SLOW ENTRAINING, GLENVIEW.
		Fri, Mar 12	19	AM	16" LATE TURN OF #2143, FOX LAKE.
		Mon, Mar 22	24	E1	ORIGINATED GRAYSLAKE AS TURN OF #2147. 9" WAITING FOR MOVEMENT AUTHORITY, GRAYSLAKE; 5" STOP SIG, CP/WC XING; 12" CP #280-22 AHEAD.
		Mon, Mar 29	15	E1	22" LATE ARRIVAL OF EQUIP #2143, FOX LK; 1" SLO ENTRAINING, PRAIRIE XING; 7" ELDERLY PSGRS, N GLEN; 1" SPEED REST ENROUTE.
		Tue, Mar 30	8	G1	8" ORIGINATED GRAYSLAKE (AS TURN OF #2147). (FOX LAKE-GRAYSLAKEPSGRS FORWARDED ON EX #425/2158)
		Wed, Mar 31	8	G1	8" MEETING #2143, FOX LAKE.
MN	2158	Wed, Mar 10	10	G1	7" WAIT FOR #2149; 14" STOP, CN, COMPUTER LOCKED UP AT HOMEWOOD
78%	TO 6	Fri, Mar 12	6	AM	12" WAITING FOR #2149 TO CLEAR, JLINE.
		Mon, Mar 22	44	E	ORIGINATED FOX LAKE AS EX #614 E/B. 44" LOCO PROBS ENROUTE.
		Mon, Mar 29	17	E1	17" LATE TURN OF DELAYED #2149.
		Tue, Mar 30	17	G1	ORIGINATED FOX LAKE (AS TURN OF #2141) 1942 HRS. 17" MEETING DELAYED #2149, GRAYSLAKE.
MW	2221	Thu, Mar 04	17	D	15" WAITING FOR CP FRT TO CLEAR, A5.
83%	TO 6	Fri, Mar 19	8	I	2" PROBLEM PSGR, ROSELLE; 2" ADA, BARTLETT; 4" SLOW DETRAINING ENROUTE.
		Mon, Mar 22	7	I	2" AMTRAK #336 CLEARING AHEAD, CUS; $2"$ UP PSGR TRN INT, TOWER A2; $3"$ SLOW ENTRAINING ENROUTE.
		Wed, Mar 31	10	U	9" ADAS, RIVER GROVE, BARTLETT AND ELGIN; 1" NO REASON GIVEN.
NCS	0115	Tue, Mar 02	9	G	12" SIG PROBS, CP/WC XING.
83%	TO 6	Tue, Mar 09	7	G	9" FLAGGING CP/WC XING.
		Wed, Mar 17	14	G	17" HAND LINE SWITCH, OHARE; 1" S/O, LEE & GRACELAND (POSSIBLE BROKEN RAIL); 1" ADA OFF, BUFFALO GROVE.
		Wed, Mar 31	7	D1	10" MEETING DELAYED #118, DEVAL; $3"$ ADAS OFF, BUFFALO GROVE ANDPROSPECT HTS; $2"$ OPERATING MT2, PRAIRIE VIEW-LAMOND.
NCS	0117	Tue, Mar 02	9	G	9" SIG PROBS, CP/WC XING AND MEETING #120, RAM.
83%	TO 6	Thu, Mar 11	23	G	14" SW PROBS, TOWER A5; $10"$ WAITING FOR LINE-UP (UNABLE TO CON-TACT RTC), RAM.
		Mon, Mar 22	13	J	16" FARE DISPUTE (ZONE JUMPER), ROUND LAKE BEACH.
		Tue, Mar 30	31	G	33" FLAGGING CP/WC XING (B/O RADIO).
UPN	0356	Tue, Mar 09	8	I	8" HEAVY ENTRAINING (WAUKEGAN, GREAT LAKES AND LAKE BLUFF).
83%	TO 6	Wed, Mar 10	10	G1	10" LATE TURN OF DELAYED #335.
		Fri, Mar 19	8	I	8" HEAVY ENTRAINING ALL STATIONS.
		Thu, Mar 25	6	GX	6" GX PROCEDURES, MP 23.19; 2 ADA'S ENROUTE.
UPN	0361	Tue, Mar 16	6	I	6" HEAVY ENTRAINING, RAVENSWOOD-LK FOREST.
83%	TO 6	Thu, Mar 18	7	I	7" HEAVY ENTRAINING ENROUTE.
		Fri, Mar 19	7	D	7" FRT TRN CNAOK-17, WAUKEGAN.
		Mon, Mar 22	8	U	8" HEAVY DETRAINING, RAVENSWOOD-LK FOREST AND ADAS, EVANSTON/ MAIN AND EVANSTON/DAVIS.

Data is final (04/19/10) version from TOPS.

**TABLE 4: DELAY CODES AND DEFINITIONS** 

Code	Definition	Code	Definition
A	Passenger Train Interference	M	Right of Way Accident/Misc.
AA	Rule 9.9 Delayed in Block/Rule 6.30	MW	Right of Way Accident/Misc., Weather
AD	Non-Revenue Passenger Train Interference	M1	Right of Way Accident/Misc., Train Ahead
AM	Amtrak Caused Delay	N	ComEd Failure
AS	NICTD Train Interference	NW	ComEd Failure, Weather
AW	Pass. Train Interference, Weather	N1	ComEd Failure, Train Ahead
A1	Pass. Train Interference, Train Ahead	O	AC/DC System Failure
В	Human Error, Eng. Dept.	OW	AC/DC System Failure, Weather
BA	Amtrak Engineering Human Error	O1	AC/DC System Failure, Train Ahead
BW	Human Error, Eng. Dept. Weather	P	Late Equipment From Coach Yard
B1	Human Error, Eng. Dept. Train Ahead	PW	Late Equipment From Coach Yard, Weather
C	M of W Work	P1	Late Equipment From Coach Yard, Train Ahead
CA	Amtrak Engineering	Q	Late Issuance of Track Warrant
CC	Scheduled Track Work	Q1	Late Issuance of Track Warrant, Train Ahead
CF	M of W Caused Mechanical Malfunction	R	Human Error, Transportation
CG	Scheduled Signal Work	RA	Human Error, Amtrak Transportation
CH	Contractor Failure	RD	Human Error, Metra Dispatcher
CO	Scheduled Wire Work	RF	Freight Dispatcher/Opr/Non-Freight Train Error
CW	M of W Work, Weather	RL	Human Error, Job Action/Employee No Show
CW C1	M of W Work, Train Ahead	RO	Human Error, Metra Operator
D	Freight Train Interference	RS	Human Error, NICTD Transportation
DD DD	e	RW	Human Error, Transportation, Weather
DW DW	Freight Dispatcher/Opr/Freight Train Error Freight Train Interference, Weather	R1	Human Error, Transportation, Train Ahead
DW D1	=	S	Operational (Efficiency) Testing
E E	Freight Train Interference, Train Ahead Locomotive Malfunction	S S1	Operational (Efficiency) Testing  Operational (Efficiency) Testing, Train Ahead
	Amtrak Locomotive Malfunction	T	Property Vandalism
EA			Vandalism of Gates
EW	Locomotive Malfunction, Weather	TG	
E1 F	Locomotive Malfunction, Train Ahead	T1	Property Vandalism, Train Ahead
	Cab Car/Trailer/MU Malfunction	U	Accessibility Related (ADA)
FA	Amtrak Car Malfunction	UF	ADA Lift Failure
FW	Cab Car/TRL/MU Malfunction, Weather	UW	Accessibility, Weather
F1	Cab Car/TRL/MU Malfunction, Train Ahead	U1	Accessibility, Train Ahead
G	Signal/Switch Malfunction	V	Mechanical Problem Reported, Nothing Found
GA	Signal/Switch Failure Amtrak	V1	Mech. Prob., Nothing Found, Train Ahead
GW	Signal/Switch Malfunction Weather	W	Gas Leak
GX	Broken Gate Crossing	WW	Gas Leak, Weather
G1	Signal/Switch Malfunction, Train Ahead	W1	Gas Leak, Train Ahead
H	Human Error, Mechanical Department	XA	Train Annulled - Amtrak
HS	Human Error, NICTD Mechanical Dept.	XB	Train Annulled - Engineering Dept.
HW	Human Error, Mech. Dept., Weather	XD	Train Annulled - Freight Interference
H1	Human Error, Mech. Dept., Train Ahead	XE	Train Annulled - Engine Failure
I	Passenger Handling, Running Time	XF	Train Annulled - B/O Car
IB	Passenger Handling, Bicycle	XG	Train Annulled - Signal Dept.
IW	Passenger Handling, Weather	XH	Train Annulled - Mechanical Dept.
I1	Passenger Handling, Train Ahead	XJ	Train Annulled - Passenger Problem/Removal
J	Passenger Problems/Removal	XK	Train Annulled - Obstruction
JA	Amtrak Passenger Problems/Removal	XL	Train Annulled - Unauthorized People On Trk
J1	Passenger Problems/Removal Train Ahead	XM	Train Annulled - Right of Way Accident/Misc.
K	Obstruction On Tracks	XN	Train Annulled - ComEd Problem
KD	Obstruction On Tracks, Debris	XO	Train Annulled - AC/DC Failure
KP	Suspicious Package(s)/Person(s)/Activity	XQ	Train Annulled - No Track Warrant
KW	Obstruction On Tracks, Weather	XR	Train Annulled - Transportation Dept.
K1	Obstruction On Tracks, Train Ahead	XT	Train Annulled - Vandalism
L	Unauthorized People On Tracks/Near Miss	XV	Train Annulled - Mech. Problem, Nothing Found
L1	Unauthorized People On Tracks, Train Ahead	XW	Train Annulled - Gas Leak

11/07/07 version

TABLE 5: DELAY CODES SORTED BY CAUSE CATEGORY

CATE	GORY	CATE	GORY
_	Definition		Definition
1	PASSENGER TRAIN INTERFERENCE	13	HUMAN ERROR
A1	Pass. Train Interference, Train Ahead	B1	Human Error, Eng. Dept. Train Ahead
A	Passenger Train Interference	В	Human Error, Eng. Dept.
AA	Rule 9.9 Delayed in Block/Rule 6.30	BA	Amtrak Engineering Human Error
AD	Non-Revenue Passenger Train Interference	H1	Human Error, Mech. Dept., Train Ahead
AM	Amtrak Caused Delay	Н	Human Error, Mechanical Department
AS	NICTD Train Interference	HS	Human Error, NICTD Mechanical Dept.
P1	Late Equipment From Coach Yard, Train Ahead	R1	Human Error, Transportation, Train Ahead
P	Late Equipment From Coach Yard	R	Human Error, Transportation
XA	Train Annulled - Amtrak	RA	Human Error, Amtrak Transportation
2 & 3	FREIGHT INTERFERENCE	RD	Human Error, Metra Dispatcher
D1	Freight Train Interference, Train Ahead	RF	Freight Dispatcher/Opr/Non-Freight Train Error
		RL	
D	Freight Train Interference		Human Error, Job Action/Employee No Show
DD	Freight Dispatcher/Opr/Freight Train Error	RO	Human Error, Metra Operator
XD	Train Annulled - Freight Interference	RS	Human Error, NICTD Transportation
4	ACCIDENT	XB	Train Annulled - Engineering Dept.
M1	Right of Way Accident/Misc., Train Ahead	XH	Train Annulled - Mechanical Dept.
M	Right of Way Accident/Misc.	XR	Train Annulled - Transportation Dept.
XM	Train Annulled - Right of Way Accident/Misc.	14	SICK, INJURED, UNRULY PASSENGER
5	PASSENGER LOADING	J1	Passenger Problems/Removal Train Ahead
I1	Passenger Handling, Train Ahead	J	Passenger Problems/Removal
I	Passenger Handling, Running Time	JA	Amtrak Passenger Problems/Removal
IB	Passenger Handling, Bicycle	XJ	Train Annulled - Passenger Problem/Removal
6	LIFT DEPLOYMENT	15	WEATHER
U1	Accessibility, Train Ahead	AW	Pass. Train Interference, Weather
U	Accessibility Related (ADA)	BW	Human Error, Eng. Dept. Weather
UF	ADA Lift Failure	CW	M of W Work, Weather
7	OBSTRUCTION/DEBRIS	DW	Freight Train Interference, Weather
K1	Obstruction On Tracks, Train Ahead	EW	Locomotive Malfunction, Weather
K	Obstruction On Tracks	FW	Cab Car/TRL/MU Malfunction, Weather
KD	Obstruction On Tracks, Debris	GW	Signal/Switch Malfunction Weather
KP	Suspicious Package(s)/Person(s)/Activity	HW	Human Error, Mech. Dept., Weather
XK	Train Annulled - Obstruction	IW	Passenger Handling, Weather
8	SIGNAL/SWITCH FAILURE	KW	Obstruction On Tracks, Weather
G1	Signal/Switch Malfunction, Train Ahead	MW	Right of Way Accident/Misc., Weather
G	Signal/Switch Malfunction	NW	ComEd Failure, Weather
GA	Signal/Switch Failure Amtrak	OW	AC/DC System Failure, Weather
GX	Broken Gate Crossing	PW	Late Equipment From Coach Yard, Weather
XG	Train Annulled - Signal Dept.	RW	Human Error, Transportation, Weather
9	TRACK WORK	UW	Accessibility, Weather
C1	M of W Work, Train Ahead	WW	Gas Leak, Weather
C	M of W Work	16	OTHER
CA	Amtrak Engineering	L1	Unauthorized People On Tracks, Train Ahead
CC	Scheduled Track Work	L	Unauthorized People On Tracks/Near Miss
CF	M of W Caused Mechanical Malfunction	N1	ComEd Failure, Train Ahead
CG	Scheduled Signal Work	N	ComEd Failure
СН	Contractor Failure	Q1	Late Issuance of Track Warrant, Train Ahead
10	CATENARY FAILURE	Q.	Late Issuance of Track Warrant
CO	Scheduled Wire Work	S1	Operational (Efficiency) Testing, Train Ahead
01	AC/DC System Failure, Train Ahead	S	Operational (Efficiency) Testing
0	AC/DC System Failure  AC/DC System Failure	T1	Property Vandalism, Train Ahead
XO	Train Annulled - AC/DC Failure	T	Property Vandalism
11	NON-LOCOMOTIVE EQUIPMENT FAILURE	TG	Vandalism of Gates
F1	Cab Car/TRL/MU Malfunction, Train Ahead	V1	Mech. Prob., Nothing Found, Train Ahead
F	Cab Car/Trailer/MU Malfunction	V	Mechanical Problem Reported, Nothing Found
FA	Amtrak Car Malfunction	W1	Gas Leak, Train Ahead
XF	Train Annulled - B/O Car	W	Gas Leak Train Appulled - Unauthorized Pacala On Tak
12 E1	LOCOMOTIVE FAILURE	XL	Train Annulled - Unauthorized People On Trk
E1	Locomotive Malfunction, Train Ahead	XN	Train Annulled - ComEd Problem
E	Locomotive Malfunction	XQ	Train Annulled - No Track Warrant
EA	Amtrak Locomotive Malfunction	XT	Train Annulled - Vandalism
XE	Train Annulled - Engine Failure	XV	Train Annulled - Mech. Problem, Nothing Found
Ī		XW	Train Annulled - Gas Leak

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TABLE 6: NUMBER OF DELAYS BY DATE March 2010

WEEKDAY N BNSF	1 Mo	2	3						11	10	1 =	11	17	10	10	22	22	24	25	20	20	20	21	TATA
		Tu		<b>4</b> Th	<b>5</b> Fr	<b>8</b> Mo		<b>10</b> We	II Th		Mo		<b>17</b> We	18 Th		Mo	<b>23</b> Tu		25 Th	26 Fr	<b>29</b> Mo	<b>30</b> Tu		TOTAL
BNSF																								70
II I	0	2	0	7	2	3	1	1	1	4	2	1	0	3	30	0	0	3	2	0	9	0	8	79
Elec -ML	1	9	0	2	0	8	0	1	2	2	1	3	2	2	2	0	0	0	4	3	1	0	0	43
-BI -SC	2	1 2	0	0	0 1	1 8	0	0	0	$0 \\ 0$	0	0	1	0 1	$0 \\ 0$	0	0	0	0 1	0	0	0 1	1 2	6 18
	2	0	0	0	0	2	1	1	0		1	1	0	0	2		0	1	0	0	1	2	0	15
Heritage		U	0	U	U	2	1	1		0	1	1	U	0	2	1	U	1	U	U	_		U	
Milw -N -W	3 5	3 2	3	7 1	1 4	0 2	2	4	3 2	5 1	0	1 4	6 1	2 2	2	4 2	0	0 2	6 0	0	5	11	6	74 36
				1												2								
NCS	6	3	1	1	7	0	1	0	3	0	0	0	2	0	0	1	1	4	0	0	0	6	3	39
RI	12	1	1	0	2	1	2	2	0	2	0	0	2	2	0	0	1	0	0	1	0	0	6	35
sws	1	0	0	1	2	0	0	2	1	0	0	2	0	0	2	0	2	1	0	0	1	1	5	21
UP -N	1	1	1	1	3	2	4	4	2	2	8	1	2	2	2	2	0	0	2	0	11	0	0	51
-NW	1	0	0	0	0	1	2	0	2	1	0	0	0	0	0	1	1	1	5	11	0	0	1	27
- <b>W</b>	0	1	<u>2</u>	0	2	0	0	<u>0</u>	0	<u>5</u>	<u>3</u>	1	0	<u>1</u>	0	0	0	<u>0</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	0	<u>25</u>
SYSTEM	34	25	9	21	24	28	13	15	16	22	15	14	16	15	43	11	5	12	24	18	30	25	34	469
SATURDAY	6	13	20	27		T	OT.	AL			SU	ND.	AY/	HOl	LID	AY	7	14	21	28				TOTAL
BNSF	1	1	3	0				5			BN	NSF					0	0	0	1				1
Elec -ML	0	0	2	1				3			El	ec	-ML	,			0	0	0	0				0
-BI	0	0	0	0				0					-BI				-	-	-	-				-
-SC	0	0	0	1				1					-SC				0	0	0	0				0
Heritage	-	-	-	-				-			Н	erita	ge				-	-	-	-				-
Milw -N	5	1	2	7				15			M	ilw	-N				0	0	0	1				1
-W	1	1	1	1				4					-W				0	0	0	0				0
NCS	-	-	-	-				-			NO	CS					_	-	-	-				-
RI	1	2	1	0				4			RI	[					0	2	0	0				2
SWS	0	0	0	1				1				VS												
								1									-	-	-	-				_
UP -N -NW	1	5 8	2	1 1				9 10			Ul		-N -NW	7			0	0 7	2	0				2
-N W	<u>2</u>	<u>3</u>	1 1	<u>0</u>				6					-19 VV -W				<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>				1 1
			13					58			57	ZSTI					0	9	3	2				14

Data is final (04/19/10) version from TOPS.

 $P: \label{lem:post} $$P: \Delays By Date.xls] Delays By Date-Month $$ 4/19/2010$$ 

TABLES 7.a, 7.b & 7.c: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE March 2010

		]	Electric			Mil	w				Un	ion Pacif	ic	
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	N	W	NCS	RI	SWS	N	NW	W	SYSTEM
Passenger Train Interference	6	0	0	0	3	6	0	1	0	1	0	1	0	18
Freight Interference - Peak	7	0	0	0	7	2	0	7	0	2	0	1	0	26
Freight Interference - Off-Peak	7	0	0	0	0	10	4	5	6	12	2	0	9	55
Freight Interference - Total	14	0	0	0	7	12	4	12	6	14	2	1	9	81
Accident	1	0	0	0	0	0	0	0	12	0	2	0	0	15
Passenger Loading	3	8	1	6	0	5	7	0	4	0	10	14	4	62
Lift Deployment	2	0	0	0	0	0	7	0	4	0	4	0	1	18
Obstruction/Debris	4	3	1	6	0	0	2	0	1	3	0	6	2	28
Signal/Switch Failure	31	6	1	1	4	32	9	11	3	2	15	3	0	118
Track Work	3	1	1	0	0	16	0	1	1	0	6	0	2	31
Catenary Failure	0	4	0	0	0	0	0	0	0	0	0	0	0	4
Non-Locomotive Equipment Failure	1	4	1	2	0	0	3	0	3	0	0	0	2	16
Locomotive Failure	10	0	0	0	0	14	0	8	0	0	13	1	0	46
Human Error	5	1	0	0	1	1	2	5	1	2	1	13	0	32
Sick, Injured, Unruly Passenger	2	19	1	4	0	2	3	1	5	0	6	4	10	57
Weather	2	0	0	0	0	0	1	0	0	0	0	0	0	3
Other	1	0	0	0	0	2	2	0	1	0	3	1	2	12
TOTAL TRAINS DELAYED	85	46	6	19	15	90	40	39	41	22	62	44	32	541

March - Average Over Previous Five Years: 2005-2009

		]	Electric			Mil	w				Un	ion Pacifi	ic	
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	N	W	NCS	RI	SWS	N	NW	W	SYSTEM
Passenger Train Interference	2	2	1	0	1	2	3	1	3	1	1	0	0	18
Freight Interference - Peak	6	0	0	0	7	1	0	2	1	2	0	1	6	27
Freight Interference - Off-Peak	13	0	0	0	0	8	6	6	2	7	1	2	22	66
Freight Interference - Total	19	0	0	0	7	9	6	8	4	9	2	2	28	93
Accident	3	2	0	1	0	0	7	1	5	1	1	8	0	30
Passenger Loading	1	1	1	2	0	5	3	1	16	0	13	3	5	51
Lift Deployment	2	0	0	0	0	2	1	0	3	0	1	1	1	12
Obstruction/Debris	4	1	1	3	0	2	1	0	2	1	1	3	4	23
Signal/Switch Failure	18	8	1	3	3	14	9	6	7	6	2	6	9	93
Track Work	3	3	0	2	0	2	1	1	1	2	1	0	2	20
Catenary Failure	0	1	0	2	0	0	0	0	0	0	0	0	0	3
Non-Locomotive Equipment Failure	1	3	1	2	0	1	0	0	1	0	2	0	2	12
Locomotive Failure	4	0	0	0	1	4	5	1	5	0	3	5	7	34
Human Error	12	6	2	4	0	4	5	1	6	1	4	6	4	55
Sick, Injured, Unruly Passenger	3	3	1	1	0	4	2	0	3	0	1	1	2	20
Weather	1	1	1	0	0	4	1	1	0	0	4	2	3	17
Other	2	1	1	1	0	1	2	2	5	0	4	3	4	27
TOTAL TRAINS DELAYED	76	32	11	20	12	54	46	22	61	22	40	41	72	508

March 2010 Divergence From March Average Over Previous Five Years

		J	Electric			Mil	w				Un	ion Pacifi	ic	
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	N	W	NCS	RI	SWS	N	NW	W	SYSTEM
Passenger Train Interference	4	-2	-1	0	2	4	-3	0	-3	0	-1	1	0	0
Freight Interference - Peak	1	0	0	0	0	1	0	5	-1	0	0	0	-6	-1
Freight Interference - Off-Peak	-6	0	0	0	0	2	-2	-1	4	5	1	-2	-13	-11
Freight Interference - Total	-5	0	0	0	0	3	-2	4	2	5	0	-1	-19	-12
Accident	-2	-2	0	-1	0	0	-7	-1	7	-1	1	-8	0	-15
Passenger Loading	2	7	0	4	0	0	4	-1	-12	0	-3	11	-1	11
Lift Deployment	0	0	0	0	0	-2	6	0	1	0	3	-1	0	6
Obstruction/Debris	0	2	0	3	0	-2	1	0	-1	2	-1	3	-2	5
Signal/Switch Failure	13	-2	0	-2	1	18	0	5	-4	-4	13	-3	-9	25
Track Work	0	-2	1	-2	0	14	-1	0	0	-2	5	0	0	11
Catenary Failure	0	3	0	-2	0	0	0	0	0	0	0	0	0	1
Non-Locomotive Equipment Failure	0	1	0	0	0	-1	3	0	2	0	-2	0	0	4
Locomotive Failure	6	0	0	0	-1	10	-5	7	-5	0	10	-4	-7	12
Human Error	-7	-5	-2	-4	1	-3	-3	4	-5	1	-3	7	-4	-23
Sick, Injured, Unruly Passenger	-1	16	0	3	0	-2	1	1	2	0	5	3	8	37
Weather	1	-1	-1	0	0	-4	0	-1	0	0	-4	-2	-3	-14
Other	-1	-1	-1	-1	0	1	0	-2	-4	0	-1	-2	-2	-15
TOTAL TRAINS DELAYED	9	14	-5	-1	3	36	-6	17	-20	0	22	3	-40	33

Data for current month is final (04/19/10) version from TOPS.

P:\ONTIME\report\[DelaysByCause16Cats.xls]LastMonthByLine 04/19/2010

TABLES 8.a, 8.b & 8.c: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE January-March 2010

		]	Electric			Mil	w				Un	ion Pacif	ic	
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	N	W	NCS	RI	SWS	N	NW	W	SYSTEM
Passenger Train Interference	7	11	4	2	3	34	4	2	3	4	18	8	4	104
Freight Interference - Peak	18	0	0	0	17	4	7	15	4	10	9	2	9	95
Freight Interference - Off-Peak	22	1	1	0	0	25	18	16	15	32	8	2	25	165
Freight Interference - Total	40	1	1	0	17	29	25	31	19	42	17	4	34	260
Accident	27	0	0	0	0	0	0	5	23	2	2	10	13	82
Passenger Loading	3	19	11	11	0	6	7	0	10	1	51	16	8	143
Lift Deployment	5	0	0	0	0	1	15	1	14	0	9	3	2	50
Obstruction/Debris	5	5	2	10	0	0	4	1	11	5	3	20	4	70
Signal/Switch Failure	38	33	6	10	11	40	33	14	16	23	18	13	11	266
Track Work	4	2	1	0	0	18	3	1	7	0	12	0	6	54
Catenary Failure	0	7	3	1	0	0	0	0	0	0	0	0	0	11
Non-Locomotive Equipment Failure	5	8	1	2	0	1	3	0	10	3	4	5	2	44
Locomotive Failure	12	0	0	0	0	30	16	11	5	1	14	13	6	108
Human Error	15	3	2	2	1	16	21	8	7	7	12	22	3	119
Sick, Injured, Unruly Passenger	5	33	2	9	0	2	6	1	13	0	11	10	11	103
Weather	18	10	4	1	0	15	10	4	19	8	27	9	13	138
Other	1	28	1	2	0	4	2	0	5	1	15	2	6	67
TOTAL TRAINS DELAYED	185	160	38	50	32	196	149	79	162	97	213	135	123	1,619

January-March - Average Over Previous Five Years: 2005-2009

		]	Electric			Mil	w				Un	ion Pacif	ic	
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	N	W	NCS	RI	SWS	N	NW	W	SYSTEM
Passenger Train Interference	11	9	3	2	1	12	14	5	7	3	6	4	7	82
Freight Interference - Peak	23	0	0	0	15	3	4	8	5	9	1	6	18	92
Freight Interference - Off-Peak	37	0	0	0	0	21	15	13	13	20	4	9	65	195
Freight Interference - Total	59	0	0	0	15	24	19	21	18	28	5	15	83	287
Accident	28	5	1	3	0	6	14	4	5	5	4	24	7	105
Passenger Loading	7	6	4	3	0	9	5	1	21	0	42	9	13	122
Lift Deployment	6	0	0	0	0	7	4	2	11	0	4	4	6	44
Obstruction/Debris	16	2	2	6	0	10	11	2	7	2	8	16	9	91
Signal/Switch Failure	96	21	4	7	8	43	33	18	27	20	14	25	32	347
Track Work	11	7	1	8	0	8	4	2	6	5	3	3	4	62
Catenary Failure	0	3	2	4	0	0	0	0	0	0	0	0	0	9
Non-Locomotive Equipment Failure	9	10	6	3	0	2	2	1	4	0	5	5	4	51
Locomotive Failure	24	1	0	0	1	20	19	2	14	3	5	14	13	117
Human Error	35	13	4	6	2	12	14	2	17	5	19	20	11	160
Sick, Injured, Unruly Passenger	12	8	2	3	0	9	7	0	11	0	7	4	6	70
Weather	42	34	10	11	6	65	41	10	57	12	60	44	41	434
Other	8	4	2	2	0	10	7	2	11	2	11	11	11	81
TOTAL TRAINS DELAYED	364	123	42	58	34	236	194	72	217	85	192	197	248	2,062

January-March 2010 Divergence From January-March Average Over Previous Five Years

		J	Electric			Mil	w				Un	ion Pacif	ic	
CAUSE CATEGORY	BNSF	ML	BI	SC	HER	N	W	NCS	RI	SWS	N	NW	W	SYSTEM
Passenger Train Interference	-4	2	1	0	2	22	-10	-3	-4	1	12	4	-3	22
Freight Interference - Peak	-5	0	0	0	2	1	3	7	-1	1	8	-4	-9	3
Freight Interference - Off-Peak	-15	1	1	0	0	4	3	3	2	12	4	-7	-40	-30
Freight Interference - Total	-19	1	1	0	2	5	6	10	1	14	12	-11	-49	-27
Accident	-1	-5	-1	-3	0	-6	-14	1	18	-3	-2	-14	6	-23
Passenger Loading	-4	13	7	8	0	-3	2	-1	-11	1	9	7	-5	21
Lift Deployment	-1	0	0	0	0	-6	11	-1	3	0	5	-1	-4	6
Obstruction/Debris	-11	3	0	4	0	-10	-7	-1	4	3	-5	4	-5	-21
Signal/Switch Failure	-58	12	2	3	3	-3	0	-4	-11	3	4	-12	-21	-81
Track Work	-7	-5	0	-8	0	10	-1	-1	1	-5	9	-3	2	-8
Catenary Failure	0	4	1	-3	0	0	0	0	0	0	0	0	0	2
Non-Locomotive Equipment Failure	-4	-2	-5	-1	0	-1	1	-1	6	3	-1	0	-2	-7
Locomotive Failure	-12	-1	0	0	-1	10	-3	9	-9	-2	9	-1	-7	-9
Human Error	-20	-10	-2	-4	-1	4	7	6	-10	2	-7	2	-8	-41
Sick, Injured, Unruly Passenger	-7	25	0	6	0	-7	-1	1	2	0	4	6	5	33
Weather	-24	-24	-6	-10	-6	-50	-31	-6	-38	-4	-33	-35	-28	-296
Other	-7	24	-1	0	0	-6	-5	-2	-6	-1	4	-9	-5	-14
TOTAL TRAINS DELAYED	-179	37	-4	-8	-2	-40	-45	7	-55	12	21	-62	-125	-443

Data for current month is final (04/19/10) version from TOPS.

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TABLES 9.a & 9.b: FREQUENCY OF TRAIN DELAYS BY CAUSE & MONTH  $2010\,$ 

CAUSE CATEGORY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan -	Mar
Passenger Train Interference	43	43	18										104	6.4%
Freight Interference - Peak	39	30	26										95	5.9%
Freight Interference - Off-Peak	49	61	55										165	10.2%
Freight Interference - Total	88	91	81										260	16.1%
Accident	18	49	15										82	5.1%
Passenger Loading	47	34	62										143	8.8%
Lift Deployment	18	14	18										50	3.1%
Obstruction/Debris	29	13	28										70	4.3%
Signal/Switch Failure	85	63	118										266	16.4%
Track Work	14	9	31										54	3.3%
Catenary Failure	7	0	4										11	0.7%
Non-Locomotive Equipment Failure	18	10	16										44	2.7%
Locomotive Failure	12	50	46										108	6.7%
Human Error	54	33	32										119	7.4%
Sick, Injured, Unruly Passenger	14	32	57										103	6.4%
Weather	94	41	3										138	8.5%
Other	44	11	12										67	4.1%
TOTAL TRAINS DELAYED	585	493	541										1,619	100%

Data for current month is final (04/19/10) version from TOPS.

## 2009

CAUSE CATEGORY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan -	Mar
Passenger Train Interference	52	43	12	28	18	24	17	19	14	31	15	31	107	4.5%
Freight Interference - Peak	40	15	21	16	13	24	18	57	20	73	18	29	76	3.2%
Freight Interference - Off-Peak	56	22	42	28	38	36	35	48	38	90	29	58	120	5.1%
Freight Interference - Total	96	37	63	44	51	60	53	105	58	163	47	87	196	8.3%
Accident	98	12	9	27	8	20	20	9	9	6	5	38	119	5.0%
Passenger Loading	45	33	51	21	84	249	278	216	154	56	68	113	129	5.5%
Lift Deployment	23	15	13	8	12	16	41	21	30	33	22	21	51	2.2%
Obstruction/Debris	29	48	31	36	34	47	45	23	31	26	14	35	108	4.6%
Signal/Switch Failure	265	97	107	67	103	189	71	154	62	119	58	109	469	19.8%
Track Work	15	15	25	58	47	117	34	170	85	132	64	46	55	2.3%
Catenary Failure	0	8	0	11	1	19	8	0	0	0	0	9	8	0.3%
Non-Locomotive Equipment Failure	9	9	7	6	26	41	16	19	16	11	6	35	25	1.1%
Locomotive Failure	107	80	49	44	48	17	40	48	22	59	26	61	236	10.0%
Human Error	38	19	28	30	71	57	52	45	51	55	24	59	85	3.6%
Sick, Injured, Unruly Passenger	23	32	27	10	22	46	56	44	30	35	49	20	82	3.5%
Weather	599	9	11	4	1	62	11	20	3	84	14	257	619	26.2%
Other	27	10	37	18	14	16	17	31	31	40	11	17	74	3.1%
TOTAL TRAINS DELAYED	1,426	467	470	412	540	980	759	924	596	850	423	938	2,363	100%

TABLE 10: FREIGHT DELAYS ON METRA DIESEL LINES between April 2008 and March 2010

		]	Electric			Mil	w				Un	ion Pacif	ic	
	BNSF	ML	BI	SC	HER	N	W	NCS	RI	SWS	N	NW	W	SYSTEM
Apr-08	4	0	0	0	5	8	15	6	4	18	0	2	19	81
May-08	10	0	0	0	5	10	2	2	6	11	3	0	14	63
Jun-08	8	0	0	0	4	9	7	17	8	10	0	4	7	74
Jul-08	12	0	0	0	4	10	5	4	9	6	2	3	20	75
Aug-08	15	0	0	0	6	10	3	3	5	12	2	1	25	82
Sep-08	35	0	0	0	4	8	2	7	9	17	3	8	42	135
Oct-08	28	0	0	0	7	7	5	1	10	26	8	0	42	134
Nov-08	9	0	0	0	5	5	4	1	6	15	1	9	21	76
Dec-08	5	0	0	0	4	8	9	10	5	13	2	4	4	64
Jan-09	20	0	0	0	7	6	9	18	5	21	0	4	6	96
Feb-09	6	0	0	0	2	1	6	9	5	6	0	0	2	37
Mar-09	13	0	0	0	3	3	5	8	8	10	4	1	8	63
Total	165	0	0	0	56	85	72	86	80	165	25	36	210	980
Apr-09	18	0	0	0	1	3	2	0	5	5	0	4	6	44
May-09	11	0	0	0	1	4	3	7	6	10	1	4	4	51
Jun-09	6	0	0	0	3	6	7	6	5	11	0	5	11	60
Jul-09	13	0	0	0	3	7	5	2	10	4	0	4	5	53
Aug-09	37	0	0	0	3	5	8	9	1	11	3	4	24	105
Sep-09	16	0	0	0	3	3	5	5	2	7	0	6	11	58
Oct-09	22	0	0	0	14	13	3	4	5	68	2	14	18	163
Nov-09	6	0	0	0	8	5	1	4	1	11	0	0	11	47
Dec-09	13	0	0	0	5	10	7	9	4	10	5	1	23	87
Jan-10	9	0	0	0	7	8	8	10	8	11	15	1	11	88
Feb-10	17	1	1	0	3	9	13	9	5	17	0	2	14	91
Mar-10	14	0	0	0	7	12	4	12	6	14	2	1	9	81
Total	182	1	1	0	58	85	66	77	58	179	28	46	147	928

Data for current month is final (04/19/10) version from TOPS.

TABLES 11.a & 11.b: FREQUENCY OF LIFT-DEPLOYMENT TRAIN DELAYS BY LINE & MONTH  $2010\,$ 

LINE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Lift Delays YTD	% of All Delays YTD
BNSF	1	2	2										5	2.70%
Electric ML	0	0	0										0	0.00%
Electric BI	0	0	0										0	0.00%
Electric SC	0	0	0										0	0.00%
HER	0	0	0										0	0.00%
Milw N	1	0	0										1	0.51%
Milw W	4	4	7										15	10.07%
NCS	1	0	0										1	1.27%
RI	6	4	4										14	8.64%
SWS	0	0	0										0	0.00%
UP N	4	1	4										9	4.23%
UP NW	0	3	0										3	2.22%
UP W	1	0	1										2	1.63%
Total Lift Delays	18	14	18										50	3.09%
ALL DELAYS		`	`	·	`		`	·	·	·		·		1,619

Data for current month is final (04/19/10) version from TOPS.

2009

LINE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Lift Delays All Year	% of All Delays All Year
BNSF	0	2	1	1	2	3	4	5	6	8	3	1	36	2.12%
Electric ML	0	0	0	0	0	2	0	0	0	1	0	0	3	0.39%
Electric BI	0	0	0	0	0	0	0	0	0	1	0	0	1	0.35%
Electric SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
HER	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Milw N	13	0	0	0	0	0	2	1	1	0	0	1	18	1.97%
Milw W	0	0	0	0	0	0	0	0	1	0	1	6	8	1.62%
NCS	1	0	1	0	1	2	0	0	0	2	0	0	7	2.38%
RI	3	5	6	1	3	3	15	9	4	11	10	6	76	10.23%
SWS	0	0	0	3	0	0	0	0	0	0	0	0	3	0.78%
UP N	1	0	2	1	3	1	11	1	11	5	2	4	42	3.58%
UP NW	1	4	1	1	2	0	6	1	1	2	3	3	25	3.02%
UP W	4	4	2	1	1	5	3	4	6	3	3	0	36	4.55%
Total Lift Delays	23	15	13	8	12	16	41	21	30	33	22	21	255	2.90%
ALL DELAYS					·			·			·			8,785

TABLE 12: FREQUENCY OF TRAIN DELAYS BY DURATION March 2010

Minutes	BNSF		Electric	CC	Her	Milwa		NCS	RI	SWS	N.T	UP	***	System
		ML	BI	SC		N	W				N	NW	W	
Peak *														
6-10	28	21	3	3	6	14	8	8	4	2	6	7	5	115
11-15	4	4	0	2	7	7	4	3	3	1	6	4	1	46
16-20	5	1	0	0	0	1	0	1	2	0	0	3	0	13
21+ Annulled	14	2	0	0	2	5	2	6	3	0	6	4	1	45
	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>3</u>	0	<u>1</u>	<u>1</u>	0	<u>8</u>
Sub-Total	52	28	3	5	15	28	14	19	15	3	19	19	7	227
Off-Peak *														
6-10	13	12	1	8	0	29	15	13	15	15	28	15	11	175
11-15	8	2	1	1	0	19	9	5	6	3	10	3	7	74
16-20	2	2	0	2	0	9	1	1	1	1	1	3	0	23
21+	7	2	1	3	0	5	1	1	4	0	2	4	7	37
Annulled	<u>3</u>	<u>0</u>	0	<u>2</u>	<u>0</u>	<u>0</u>	<u>5</u>							
Sub-Total	33	18	3	14	0	62	26	20	26	19	43	25	25	314
March 201														
6-10	41	33	4	11	6	43	23	21	19	17	34	22	16	290
11-15	12	6	1	3	7	26	13	8	9	4	16	7	8	120
16-20	7	3	0	2	0	10	1	2	3	1	1	6	0	36
21+	21	4	1	3	2	10	3	7	7	0	8	8	8	82
Annulled	4	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>3</u>	<u>0</u>	<u>3</u>	<u>1</u>	<u>0</u>	<u>13</u>
TOTAL	85	46	6	19	15	90	40	39	41	22	62	44	32	541
2010 Year-	to-Date													
6-10	93	99	29	26	11	83	72	43	92	44		63	59	856
11-15	40	28	5	6	10	58	43	19	29	15	41	16	26	336
16-20	12	19	1	8	5	17	9	8	10	14	10	15	8	136
21+	35	14	2	8	6	34	25	8	25	24	15	37	27	260
Annulled	<u>5</u>	0	<u>1</u>	<u>2</u>	<u>0</u>	<u>4</u>	<u>0</u>	<u>1</u>	<u>6</u>	<u>0</u>	<u>5</u>	<u>4</u>	<u>3</u>	<u>31</u>
TOTAL	185	160	38	50	32	196	149	79	162	97	213	135	123	1,619
		PER	CENT	COMP	OSITIC	ON OF I	DELAY	S BY R	ANGE	OF DU	RATIO	N		
Minutes	BNSF		Electric	1	Her	Milwa	ankee	NCS	RI	SWS		UP		System
17111111CS	DINDI	ML	BI	SC	1101	N	W	TTCB	141	5115	N	NW	W	System
March 201	0 Total	•	•	•	•	•		•						
6-10	48.2%	71.7%	66.7%	57.9%	40.0%	47.8%	57.5%	53.8%	46.3%	77.3%	54.8%	50.0%	50.0%	53.6%
11-15	14.1%	13.0%	16.7%	15.8%	46.7%	28.9%	32.5%	20.5%	22.0%	18.2%	25.8%	15.9%	25.0%	22.2%
16-20	8.2%	6.5%	0.0%	10.5%	0.0%	11.1%	2.5%	5.1%	7.3%	4.5%	1.6%	13.6%	0.0%	6.7%
21+	24.7%	8.7%	16.7%	15.8%	13.3%	11.1%	7.5%	17.9%	17.1%	0.0%	12.9%	18.2%	25.0%	15.2%
Annulled	<u>4.7%</u>	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	2.6%	7.3%	0.0%	4.8%	2.3%	0.0%	2.4%
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%
2010 Year-	to-Date 1	Delavs B	v Durati	on										
6-10	50.3%	61.9%	76.3%	52.0%	34.4%	42.3%	48.3%	54.4%	56.8%	45.4%	66.7%	46.7%	48.0%	52.9%
11-15	21.6%	17.5%	13.2%	12.0%	31.3%	29.6%	28.9%	24.1%	17.9%	15.5%	19.2%	11.9%	21.1%	20.8%
16-20	6.5%	11.9%	2.6%	16.0%	15.6%	8.7%	6.0%	10.1%	6.2%	14.4%	4.7%	11.1%	6.5%	8.4%
21+	18.9%	8.8%	5.3%	16.0%	18.8%	17.3%	16.8%	10.1%	15.4%	24.7%	7.0%	27.4%	22.0%	16.1%
Annulled	2.7%	0.0%	2.6%	4.0%	0.0%	2.0%	0.0%	1.3%	3.7%	0.0%	2.3%	3.0%	2.4%	1.9%
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%

TOTAL 100.0% 100

TABLE 13: AVERAGE LENGTH OF DELAY BY SERVICE PERIOD, IN MINUTES

	BNSF	J	Electric		Her	Milwa	aukee	NCS	RI	SWS		UP		System
	•	ML	BI	SC		N	W				N	NW	W	·
March 201	9													
Peak *	16.2	10.5	7.3	9.8	12.5	14.6	13.2	18.1	17.5	10.7	29.2	16.7	11.3	15.7
Off-Peak **	19.5	11.8	28.3	13.4		13.4	10.2	10.7	16.4	9.6	12.0	13.9	19.8	14.0
All	17.5	11.0	17.8	12.5	12.5	13.7	11.3	14.2	16.8	9.8	17.2	15.0	17.9	14.7
2010 Year-	to-Date													
Peak *	13.8	11.3	9.2	8.5	14.4	15.3	17.8	14.8	14.7	15.2	13.9	19.6	11.4	14.3
Off-Peak **	18.2	12.0	11.2	14.9		14.9	11.8	10.9	13.0	18.4	11.9	17.3	22.5	14.9
All	15.5	11.5	10.2	13.2	14.4	15.0	14.2	12.9	13.7	17.3	12.8	18.5	18.1	14.6

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 (04/19/10) version from TOPS.