COMMUTER RAIL SYSTEM ON-TIME PERFORMANCE REPORT April 2010



COMMUTER RAIL ON-TIME PERFORMANCE April 2010

This report presents an analysis of the April 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 April 2010, Metra operated 17,284 scheduled trains, including 'extras'. 563 of these trains were delayed (late or annulled), representing an on-time performance rate of 96.7%. 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 February 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 April 2010.

Table 7.a shows the frequency of train delays by delay-cause category and by line during April 2010. Table 7.b shows the average frequencies over the previous five Aprils, and Table 7.c shows the differences between Table 7.a and Table 7.b. There were 563 delays systemwide in April 2010, 131 more than the average over the previous five Aprils. Table 8.a shows delays from the beginning of the year through April 2010. Table 8.b shows the average frequencies through April 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 April of 2010, a total of 2,182 trains were delayed, compared to 2,775 trains delayed in the same four months of 2009.

Table 10 shows, by line and month, all train delays caused by freight operations over the past 24 months. In April 2010 freight operations delayed 96 trains systemwide, compared to 44 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 April 2010.

A review of April 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 53.3% of all late trains. Table 13 shows that the average length of delay was 14.6 minutes in April 2010. It should be noted that these averages relate only to reportable delays (i.e., trains late by six minutes or more).

P:\ONTIME\report\[ReportText.xls]

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

				W	eekday	s						Weel	kends				Total	
]	Peak*		Off	f-Peak*	*		Total		Sa	turday	S	Sunday	/s & Ho	lidays			
	Trains Scheduled	Trains Late	Percent On-Time															
BNSF	1,189	59	95.0%	884	35	96.0%	2,073	94	95.5%	112	2	98.2%	72	0	100.0%	2,257	96	95.7%
Elec -ML	987	20	98.0%	751	22	97.1%	1,738	42	97.6%	184	1	99.5%	80	0	100.0%	2,002	43	97.9%
-BI	308	9	97.1%	506	13	97.4%	814	22	97.3%	120	0	100.0%				934	22	97.6%
-SC	<u>374</u>	<u>10</u>	97.3%	<u>814</u>	<u>15</u>	98.2%	<u>1,188</u>	<u>25</u>	97.9%	<u>192</u>	<u>1</u>	99.5%	<u>80</u>	<u>0</u>	100.0%	<u>1,460</u>	<u>26</u>	98.2%
Subtotal	1,669	39	97.7%	2,071	50	97.6%	3,740	89	97.6%	496	2	99.6%	160	0	100.0%	4,396	91	97.9%
Heritage	132	11	91.7%				132	11	91.7%							132	11	91.7%
Milw -N	549	25	95.4%	771	45	94.2%	1,320	70	94.7%	96	10	89.6%	80	2	97.5%	1,496	82	94.5%
-W	<u>593</u>	<u>9</u>	98.5%	<u>683</u>	<u>22</u>	96.8%	<u>1,276</u>	<u>31</u>	97.6%	<u>96</u>	0	100.0%	<u>72</u>	<u>0</u>	100.0%	<u>1,444</u>	<u>31</u>	97.9%
Subtotal	1,142	34	97.0%	1,454	67	95.4%	2,596	101	96.1%	192	10	94.8%	152	2	98.7%	2,940	113	96.2%
NCS	242	15	93.8%	242	28	88.4%	484	43	91.1%							484	43	91.1%
RI	792	20	97.5%	705	21	97.0%	1,497	41	97.3%	80	1	98.8%	64	5	92.2%	1,641	47	97.1%
sws	242	4	98.3%	418	15	96.4%	660	19	97.1%	24	0	100.0%				684	19	97.2%
UP -N	659	19	97.1%	881	14	98.4%	1,540	33	97.9%	104	13	87.5%	72	2	97.2%	1,716	48	97.2%
-NW	724	19	97.4%	704	13	98.2%	1,428	32	97.8%	96	4	95.8%	60	0	100.0%	1,584	36	97.7%
- W	<u>594</u>	<u>18</u>	97.0%	<u>704</u>	<u>24</u>	96.6%	<u>1,298</u>	<u>42</u>	96.8%	<u>80</u>	<u>14</u>	82.5%	<u>72</u>	<u>3</u>	95.8%	<u>1,450</u>	<u>59</u>	95.9%
Subtotal	1,977	56	97.2%	2,289	51	97.8%	4,266	107	97.5%	280	31	88.9%	204	5	97.5%	4,750	143	97.0%
SYSTEM	7,385	238	96.8%	8,063	267	96.7%	15,448	505	96.7%	1,184	46	96.1%	652	12	98.2%	17,284	563	96.7%

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

Delays data for most recent month is final (05/19/10) version from TOPS.

TABLE 2: ON-TIME PERFORMANCE BY LINE/BRANCH

														JAN-	
LINE Y	EAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	APR	AVG
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	96.1%	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	96.8%	
	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	94.2%	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	95.6%	94.4%
	2009	85.4	94.1	97.5	96.5	94.6	90.9	95.1	91.2	96.0	89.7	97.3	95.3	93.4%	93.6%
	2010	97.8	97.4	96.4	95.7									96.8%	96.8%
2005-2009 av	erage	93.2	93.5	96.7	97.5	96.4	94.0	96.3	93.9	95.4	93.4	94.8	93.4	95.2%	94.9%
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	99.2%	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	98.7%	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	97.9%	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	98.0%	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	98.3%	97.5%
	2010	97.7	98.1	98.4	97.9									98.0%	98.0%
2005-2009 av	erage	98.0	98.3	98.6	98.8	98.5	97.3	97.4	97.9	97.6	97.9	97.9	97.1	98.4%	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	95.5%	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	93.5%	
	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	89.6%	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	88.6%	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	90.4%	90.8%
	2010	92.5	93.3	89.1	91.7									91.6%	91.6%
2005-2009 av		92.4	90.1	91.0	92.5	92.8	93.1	92.4	90.4	91.2	89.5	92.7	87.9	91.5%	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%
	2006	92.7	97.3	95.6	97.1	93.9	93.5	90.6	95.4	94.2	92.8	89.3	92.6	95.6%	
	2007	96.0	89.5	95.6	94.0	96.0	93.0	92.0	95.0	94.1	95.2	93.7	88.1	93.9%	93.6%
	2008	96.1	92.6	96.4	95.8	95.6	95.0	93.3	93.1	95.8	96.9	92.9	84.4	95.2%	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	93.9%	94.9%
	2010	96.1	96.4	94.2	94.5									95.3%	95.3%
2005-2009 av	erage	92.2	95.0	96.4	95.5	95.3	94.1	92.9	94.9	95.2	95.8	92.5	89.4	94.8%	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	95.2%	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	95.7%	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	96.4%	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	96.4%	97.1%
	2010	96.0	95.9	97.3	97.9									96.8%	96.8%
2005-2009 av	erage	93.8	95.6	96.9	97.2	97.6	96.5	95.5	94.4	97.5	97.7	96.9	92.7	95.9%	96.0%
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	91.2%	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	94.6%	
	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	93.6%	
	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%	
	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	93.9%	
	2010	96.4	94.5	92.3	91.1									93.5%	
2005-2009 av		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	APR	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	97.8%	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	96.8%	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	93.9%	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	96.1%	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	95.9%	96.2%
2010	95.4	96.7	97.6	97.1									96.7%	96.7%
2005-2009 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	96.1%	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	95.1%	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	95.0%	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	97.2%	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	94.8%	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	94.0%	95.1%
2010	94.6	93.4	96.9	97.2									95.6%	95.6%
2005-2009 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	95.2%	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	98.0%	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	98.1%	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	96.9%	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	93.0%	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	96.0%	94.2%
2010	93.9	96.8	96.5	97.2									96.1%	96.1%
2005-2009 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	96.3%	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	96.7%	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	98.2%	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	95.7%	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	94.3%	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	96.2%	95.6%
2010	96.7	97.2	97.3	97.7									97.2%	97.2%
2005-2009 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	96.2%	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	95.9%	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	94.4%	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	93.5%	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	95.6%	95.4%
2010	96.6	96.7	97.9	95.9									96.8%	96.8%
2005-2009 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	94.7%	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	97.1%	96.3%
(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	97.0%	
South Shore) 2007	97.4	91.4	96.6	97.0	96.7	95.6	95.2	94.2	95.8	96.9	96.5	94.4	95.7%	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	95.7%	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	95.9%	95.7%
2010	96.5	96.9	97.0	96.7									96.8%	96.8%
2005-2009 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	96.2%	95.9%

Delays data for most recent month is final (05/19/10) version from TOPS.

P:\ONTIME\report\[Delays&TrainsByServPeriod.xls]OTPbyLine&Month 5/19/2010

^{&#}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 April 2010

Line	Train	Date	Minutes Late	•	Delay Explanation
BNSF	1243	Thu, Apr 01	10	U	ADA LIFTS AT DOWNERS GROVE, LISLE AND RT59
82%	6 OT	Mon, Apr 12	7	G	TRACK INDICATION ON MT1 AT 84 LUMBER, MP 30
		Wed, Apr 14	7	DD	FAIRVIEW, NO LINEUP (5") 2" PSGR LINEUP
		Thu, Apr 29	13	KW	HIGH WIND WARNING
BNSF	1271	Fri, Apr 09	10	G	FAIRVIEW AVE SWITCH FAILURE, FLAGGED THROUGH PLANT
	6 OT	Tue, Apr 20	8	DD	WEST EOLA, S-SEACHI2-17 CLEARING INTO EAST YARD
027		Thu, Apr 22	11	Е	NAPERVILLE, ENGINE FAILURE ON ENGINE 194
		Thu, Apr 29	7	KW	HIGH WIND WARNING
BNSF	1279	Fri, Apr 09	21	DD	FAIRVIEW AVE SWITCH FAIULRE, 1271 AHEAD (8") 13" EOLA, WEST EOLA FRT TRAIN
BINDI	12//	111, 11p1 05	21	DD	CLEARING
82%	6 OT	Wed, Apr 21	11	DD	FOLLOWED 1277 AT CPK
		Thu, Apr 22	8	E1	1271 AHEAD AT FVW AVE WHO WAS DELAYED BY 1265
		Mon, Apr 26	9	D	DEPARTED 2" LATE OUT OF CUS, FOLLOWED 1277 MT 1, E-CGBBTM0-02 ON MT 2 AT EOLA
BNSF	1280	Fri, Apr 02	14	KD	STUCK BEHIND DISABLED 9302
82%	6 OT	Mon, Apr 05	7	V	METX 183 ONLY ABLE TO OPERATE 42 MPH
		Wed, Apr 07	8	AM	$2^{\rm o}$ WEATHER RELATED LDG, $6^{\rm o}$ CUS, HeLD FOR OUTBOUND TRAFFIC. OUTBOUND AMTK ENG 99
		Mon, Apr 26	7	K1	LATE FLIP OFF 1280, DEPARTED ATC 1702
BNSF	1281	Mon, Apr 12	9	I	HVY LDG FROM CUB FANS AND ADA LIFTS AT STONE AVE AND WESTMONT
82%	6 OT	Wed, Apr 14	10	GA	TRACK INDICATION AT TAYLOR STREET, SIGNAL HAD TO RUN TIME
		Thu, Apr 15	9	U	STONE AVE, ADA LIFT, (6"), EOLA, FRT INTERFERENCE, C-SXMCNB0-28
		Fri, Apr 30	7	I	HVY CUB FANS LDG AND ADA LIFT AT LAGRANGE RD
НС	0919	Thu, Apr 01	40	D	45" MCHNP01 IN EMERGENCY, CP CANAL.
	6 OT	Mon, Apr 05	7	G	6M FLAGING LEMOYNE; 3M S/O MP 34.5-35.0.
027		Thu, Apr 22		D	10M CP CANAL X-TRAFFIC, 5M FOLLOWING AMTRACK 305.
		Tue, Apr 27	6	RO	6" UD TOWER OPERATOR ERROR.
ELML	0149	Fri, Apr 02	6	I	6" HEAVY DETRAINING ENROUTE.
	6 OT	Thu, Apr 15		F1	6" MAKING FLAG STOPS ENROUTE.
02/	001	Thu, Apr 22	7	I	7M NO REASON GIVEN.
		Fri, Apr 30		FW	8" CC# 1600 DEAD AND HEAVY RAIN ENROUTE.
ELSC	0345	Thu, Apr 01	7	I1	7" MEETING #145, 67TH.
	6 OT	Tue, Apr 06	6	I1	6" HELD FOR CONNECTIONS OFF #145, 67TH.
027	001	Thu, Apr 15	7	F1	7" ACCT #501 PROBLEMS, 67TH.
		Wed, Apr 28	6	I1	6" HELD FOR CONNECTIONS OFF #145, 67TH.
MN	2125		14	D1	14" WAITING FOR #2146 TO CLEAR, ROUNDOUT.
	6 OT	Thu, Apr 01 Fri, Apr 23	9	E	14 WAITING FOR #2140 TO CLEAR, ROUNDOUT. 10M DELAY ENROUTE, LOCO #118 SLOW ENTRAINING, "WHEEL SLIP".
047	001	Wed, Apr 28	12	G	12" SW FAILURE, MORTON GROVE.
		•	12	CC	
MN	2140	Fri, Apr 30 Wed, Apr 07	9	D1	12" WAITING FOR #2146 TO CLEAR, RONDOUT. 13" MEETING DELAYED #120/2156 OFF THE J LINE, RONDOUT.
					13" MEETING DELAYED #120/2156 OFF THE J LINE, RONDOUT. 11" MEETING DELAYED #2156 OFF THE J LINE, RONDOUT.
119	6 OT	Mon, Apr 12	9	G	
		Tue, Apr 13		E1	14" MEETING DELAYED #120/2156 OFF THE J LINE, RONDOUT.
		Wed, Apr 21	10	D	8" CP FRT AHEAD, TOWER A20-RONDOUT; 6" MEETING DELAYED #2156 OFF OF THE J LINE, RONDOUT.
		Wed, Apr 28	9	D	11" FRT TRN INT, CP/WC XING.
MN	2151	Tue, Apr 13	10	E1	12" MEETING DELAYED #2158 OFF THE J LINE, RONDOUT.
77%	6 OT	Wed, Apr 21	8	D1	4" FOLLOWING CP #183-21; 6" MET DELAYED #2158 OFF THE J LINE, RONDOUT.
		Thu, Apr 22	9	K1	10M DELAY ROUNDOUT WAITING FOR #2158 TO CLEAR J-LINE.
		Wed, Apr 28	8	D1	3" FOLLOWING CP #813; $6"$ MEETING DELAYED #2158 OFF THE J LINE, RONDOUT.
		Thu, Apr 29	16	D	18" FRT X-TRAFFIC, CN XING.

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

Line	Train []]	Date	Minutes Late		Delay Explanation
MN	2156	Wed, Apr 07	10	D	6" MEETING #2143, FOX LAKE; 9" STOP SIG, CP/WC XING.
77%	6 OT	Mon, Apr 12	8	G1	12" MEETING DELAYED #2143, FOX LAKE.
		Tue, Apr 13	12	E1	14" DELAYED #120 CLEARING AHEAD, CP/WC XING.
		Thu, Apr 15	8	AD	8" WAITING FOR #2143 TO YD, FOX LAKE; 4" S/O, MAYFAIR TO HEALY.
		Thu, Apr 29	11	AD	7" WAITING FOR #2143 TO YD, FOX LAKE; 5" X-TRAFFIC, CN XING; 3" X-TRAFFIC,
		111u, 11p1 2)	- 11	7 ID	MAYFAIR.
NCS	0105	Fri, Apr 02	8	D	2" WAITING FOR LINE-UP, TOWER A2; 4" UP PSGR TRN INT, DEVAL; 2"ENTRAINING ENROUTE; 6" FRT TRN INT, LAMOND.
82%	6 OT	Thu, Apr 15	7	CC	12" MOW WORK, DEVAL.
		Mon, Apr 26	8	E1	13M DEL MEETING DEL #114 @ LOMOND.
		Fri, Apr 30	8	D	14" FRT TRN INT, LOMOND.
NCS	0114	Tue, Apr 06	8	E1	2" LATE TURN OF DELAYED #103; 7" CUTTING OUT TRACTION MOTORS.
82%	oTO 6	Mon, Apr 12	15	D	15" MEETING N/B FRT, LAKE VILLA; 3" UP PSGR TRN INT, DEVAL.
		Wed, Apr 14	10	G	$4 \mbox{M}$ SW PROBS, PROSPECT HTS; $4 \mbox{M}$ TLK BY DEVAL; $4 \mbox{M}$ EQIP TRNS AHEAD AT CP CANAL.
		Mon, Apr 26	152	E1	2HR 32M LATE TURN OF DEL 103/FRT TRN INT.
NCS	0119	Thu, Apr 01	6	D1	1" ENTRAINING; 2" #2149 CLEARING CP/WC XING; 3" FRT TRN INT, MUNDELEIN.
77%	6 OT	Wed, Apr 07	8	D	10" FRT TRN INT, LAMOND.
		Wed, Apr 21	8	D	13" MEETING S/B FRT, LAMOND.
		Tue, Apr 27	24	D1	25" LATE TURN OF EQUIP. #118.
		Wed, Apr 28	13	D	15" FRT TRN AHEAD, ALLISON RD.
NCS	0120	Wed, Apr 07	6	D	15" TWO FRT TRNS AHEAD, ANTIOCH-ROUND LAKE BEACH.
82%	6 OT	Thu, Apr 08	11	D	15" WAITING FOR #2149 TO CLEAR 1 MT AND CP FREIGHT STOPPED ON 2 MT,
		, .			DEERFIELD.
		Tue, Apr 13	23	E1	31" LATE TURN OF DELAYED #113.
		Wed, Apr 21	6	D1	14" MET DELAYED #115, RAM; 1" GX PROCEDURES, DUNEE RD.
UPN	0326	Mon, Apr 12	6	I1	6" DELAYED #324 AHEAD.
77%	6 OT	Wed, Apr 14	13	R1	13" DELAYED #324 AHEAD.
		Tue, Apr 20	8	11	8" DELAYED #324 AHEAD.
		Thu, Apr 29	11	R1	11" #324 AHEAD ENROUTE.
		Fri, Apr 30	7	CC	7" #324 AHEAD, HIGHLAKD PK-ROGERS PK AND S/O, MP 12.0-11.97 & 4.,8-4.2.
UPN	0359	Thu, Apr 01	9	I1	9" LATE TURN OF #352, OTC.
77%	6 OT	Tue, Apr 06	6	AA	6" LATE TURN OF DELAYED #352.
		Thu, Apr 08	9	I1	9" LATE TURN OF #352.
		Mon, Apr 12	9	I1	9" LATE TURN OF DELAYED #352.
		Tue, Apr 20	7	I1	7" LATE TURN OF DELAYED #352.
UPW	0044	Thu, Apr 01	7	CC	17" FORM B, MP 35.72 TO 35.5 & 30.4 TO 30 & 27.76 TO 25.25 & 17.25 TO 16.75 & 10.25 TO 9.75; HEAVY ENTRAINING, GENEVA TO ELMHURST.
82%	6 OT	Wed, Apr 14	8	CC	$18"$ MOW, MP 22.5, $8.0\mbox{-}7.0$ & 5.3-5.2 AND HEAVY/SLOW ENTRAINING, GENEVA-ELMHURST, RIVER FOREST AND OAK PARK.
		Thu, Apr 15	16	CC	26° FORM B, MP 22.5 TO 22.49 & 17.2; HEAVY ENTRAINING, GENEVA TO ELMHURST.
		Fri, Apr 30		CC	23" HEAVY ENTRAINING ENROUTE/OPERATING MT2, TURNER-PARK.
UPW	0064	Tue, Apr 13	6	I	6" SLOW ENTRAINING, WEST CHICAGO AND OPERATED MT2, VALE-KEDZIE.
82%	6 OT	Tue, Apr 20	9	G	9" OPERATED MT1 FROM KEDZIE (SW #33 FAILED, TOWER A2).
		Wed, Apr 21	11	V	11" OEPRATED ON BLOCKS, LA FOX-OTC (B/O TRN CONTROL).
		Fri, Apr 30	24	N1	10" LATE TURN OF DELAYED #57; 14" S/O, PARK AND #MKDPRG-30 AHEAD, VALE.

Data is final (05/19/10) 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		RL	Human Error, Job Action/Employee No Show
CW C1	M of W Work, Weather M of W Work, Train Ahead	RO	* *
C1 D	Freight Train Interference	RS RS	Human Error, Metra Operator Human Error, NICTD Transportation
	2		, 1
DD	Freight Dispatcher/Opr/Freight Train Error	RW	Human Error, Transportation, Weather
DW	Freight Train Interference, Weather	R1	Human Error, Transportation, Train Ahead
D1	Freight Train Interference, Train Ahead	S	Operational (Efficiency) Testing
E	Locomotive Malfunction	S1	Operational (Efficiency) Testing, Train Ahead
EA	Amtrak Locomotive Malfunction	T	Property Vandalism
EW	Locomotive Malfunction, Weather	TG	Vandalism of Gates
E1	Locomotive Malfunction, Train Ahead	T1	Property Vandalism, Train Ahead
F	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
IΒ	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 - AC/DC Panule Train Annulled - No Track Warrant
KV KW		XR	
	Obstruction On Tracks, Weather		Train Annulled - Transportation Dept. Train Annulled - Vandalism
K1	Obstruction On Tracks, Train Ahead	XT	
L L1	Unauthorized People On Tracks/Near Miss Unauthorized People On Tracks, Train Ahead	XV	Train Annulled - Mech. Problem, Nothing Found
	Linguinorized People Un 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
D	Freight Train Interference	RL	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., 17am Aneau 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	e	JA	9
IB	Passenger Handling, Running Time	XJ	Amtrak Passenger Problems/Removal Train Annulled - Passenger Problem/Removal
6 6	Passenger Handling, Bicycle LIFT DEPLOYMENT	15	WEATHER
U1		AW	
U	Accessibility, Train Ahead	BW	Pass. Train Interference, Weather
	Accessibility Related (ADA)		Human Error, Eng. Dept. Weather
UF 7	ADA Lift Failure	CW	M of W Work, Weather
/ V1	Obstruction On Treaks Train Ahead	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
CH	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
O1	AC/DC System Failure, Train Ahead	S	Operational (Efficiency) Testing
О	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
12	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
		XW	Train Annulled - Gas Leak
	N7 version	23.77	Train / Innuned Out Leak

11/07/07 version

TABLE 6: NUMBER OF DELAYS BY DATE April 2010

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	Мо	-	We	Th	Fr			We		Fr	Mo		We	Th			Tu		Th	Fr	
BNSF	1	15	1	1	2	1	4	4	1	3	3	0	2	5	3	27	0	6	0	0	11	4	94
Elec -ML	0	1	2	0	2	0	0	0	0	0	19	3	2	2	2	2	1	0	1	2	1	2	42
-BI	0	0	1	1	1	0	1	0	0	0	12	0	0	1	0	1	0	1	0	1	0	2	22
-SC	1	0	0	1	3	0	0	0	0	0	13	0	0	1	0	0	0	0	1	1	0	4	25
Heritage	2	1	2	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	11
Milw -N	3	2	5	6	3	0	0	4	5	0	4	0	0	1	4	4	6	2	2	6	3	10	70
-W	5	1	0	1	1	0	0	1	1	5	1	1	1	1	0	2	1	5	2	1	0	1	31
NCS	2	2	0	6	3	1	1	1	4	2	2	0	1	0	4	0	0	4	5	2	0	3	43
RI	1	2	5	0	5	2	3	0	4	0	0	0	3	0	1	2	5	1	3	0	2	2	41
SWS	0	2	0	1	1	2	0	0	0	1	0	0	2	1	1	2	3	0	1	2	0	0	19
UP -N	2	0	5	2	0	2	0	6	0	3	0	1	0	3	1	0	0	0	0	1	2	5	33
-NW	6	2	2	0	1	0	0	0	1	1	0	0	0	1	2	0	0	0	14	0	1	1	32
-W	<u>2</u>	0	0	<u>4</u>	1	<u>3</u>	0	<u>1</u>	<u>3</u>	1	<u>2</u>	<u>3</u>	<u>2</u>	<u>2</u>	<u>1</u>	0	1	<u>1</u>	0	1	1	<u>13</u>	42
SYSTEM	25	28	23	23	23	12	9	17	19	16	56	8	13	18	19	41	18	21	30	18	21	47	505
SATURDAY	3	10	17	24		T	TO	ΊΑL			SUI	NDA	Y/I	HOI	LID	AY	4	11	18	25			TOTAL
BNSF	0	1	1	0				2			BN	NSF					0	0	0	0			0
Elec -ML	1	0	0	0				1			Ele	ec	-ML				0	0	0	0			0
-BI	0	0	0	0				0					-BI				-	-	-	-			-
-SC	1	0	0	0				1					-SC				0	0	0	0			0
Heritage	-	-	-	-				-			Не	erita	ge				-	-	-	-			-
Milw -N	0	1	6	3				10			Mi	ilw	-N				0	0	2	0			2
-W	0	0	0	0				0					-W				0	0	0	0			0
NCS	-	-	-	-				-			NO	CS					-	-	-	-			-
RI	0	0	0	1				1			RI	[1	1	3	0			5
SWS	0	0	0	0				0			SV	VS					-	-	-	-			-
UP -N	3	5	4	1				13			UI	•	-N				1	1	0	0			2
-NW	0	1	3	0				4			-		-NW	7			0	0	0	0			0
-W	<u>2</u>	<u>4</u>	3	<u>5</u>				<u>14</u>					-W				0	1	1	1			3
SYSTEM	7	12	17	10				46			SZ	STI	EM.				2	3	6	1			12

Data is draft (05/05/10) version from TOPS.

 $P: \verb| ONTIME| report \\ | Delays By Date.xls| Delays By Date-Month \\ \\ 5/19/2010$

TABLES 7.a, 7.b & 7.c: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE April 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	2	0	1	0	0	5	3	1	0	0	1	5	0	18
Freight Interference - Peak	10	0	0	0	7	3	2	10	1	1	0	3	0	37
Freight Interference - Off-Peak	3	0	0	0	0	14	2	16	4	7	2	1	10	59
Freight Interference - Total	13	0	0	0	7	17	4	26	5	8	2	4	10	96
Accident	0	2	0	0	0	0	0	0	6	0	0	0	1	9
Passenger Loading	3	6	4	5	0	0	2	0	2	0	23	4	6	55
Lift Deployment	2	1	0	0	0	1	1	0	3	0	1	1	8	18
Obstruction/Debris	30	0	0	0	0	3	0	0	5	0	1	1	2	42
Signal/Switch Failure	27	7	2	7	2	15	2	3	9	3	0	8	2	87
Track Work	0	0	0	0	0	16	0	1	6	1	6	1	14	45
Catenary Failure	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Locomotive Equipment Failure	0	20	12	13	0	1	0	0	2	1	0	1	0	50
Locomotive Failure	3	0	0	0	0	7	10	9	6	0	0	1	1	37
Human Error	1	1	0	0	2	3	1	2	2	5	6	5	1	29
Sick, Injured, Unruly Passenger	1	5	2	1	0	1	5	0	0	0	1	4	2	22
Weather	11	1	0	0	0	6	0	1	0	0	4	1	2	26
Other	3	0	1	0	0	7	3	0	1	1	3	0	10	29
TOTAL TRAINS DELAYED	96	43	22	26	11	82	31	43	47	19	48	36	59	563

April - 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	2	1	0	1	0	2	1	1	3	1	0	1	2	16
Freight Interference - Peak	5	0	0	0	4	1	3	3	1	4	1	2	2	26
Freight Interference - Off-Peak	9	0	0	0	0	7	6	3	3	6	1	2	14	51
Freight Interference - Total	14	0	0	0	4	8	9	5	4	10	2	4	16	76
Accident	0	0	0	1	0	2	1	2	3	0	7	2	3	21
Passenger Loading	2	1	1	1	0	2	0	0	3	0	5	1	2	17
Lift Deployment	1	0	0	0	0	2	1	1	1	1	0	2	2	12
Obstruction/Debris	1	2	0	4	1	6	3	1	1	0	1	4	1	24
Signal/Switch Failure	9	9	2	2	2	15	8	6	3	5	4	4	7	77
Track Work	3	6	2	3	0	9	3	2	2	1	3	4	6	43
Catenary Failure	0	2	0	2	0	0	0	0	0	0	0	0	0	4
Non-Locomotive Equipment Failure	3	0	1	0	0	1	1	0	1	0	1	0	0	8
Locomotive Failure	6	0	0	0	0	4	2	3	3	1	1	3	1	26
Human Error	7	1	1	1	0	8	5	2	4	2	7	4	7	50
Sick, Injured, Unruly Passenger	1	5	1	1	0	4	2	0	2	0	3	2	2	23
Weather	3	1	0	0	0	3	1	1	1	0	2	2	1	14
Other	3	1	0	0	1	1	2	0	2	1	1	3	5	21
TOTAL TRAINS DELAYED	55	29	8	16	10	64	39	25	33	23	38	36	55	432

April 2010 Divergence From April 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	0	-1	1	-1	0	3	2	0	-3	-1	1	4	-2	2
Freight Interference - Peak	5	0	0	0	3	2	-1	7	0	-3	-1	1	-2	11
Freight Interference - Off-Peak	-6	0	0	0	0	7	-4	13	1	1	1	-1	-4	8
Freight Interference - Total	-1	0	0	0	3	9	-5	21	1	-2	0	0	-6	20
Accident	0	2	0	-1	0	-2	-1	-2	3	0	-7	-2	-2	-12
Passenger Loading	1	5	3	4	0	-2	2	0	-1	0	18	3	4	38
Lift Deployment	1	1	0	0	0	-1	0	-1	2	-1	1	-1	6	6
Obstruction/Debris	29	-2	0	-4	-1	-3	-3	-1	4	0	0	-3	1	18
Signal/Switch Failure	18	-2	0	5	0	0	-6	-3	6	-2	-4	4	-5	10
Track Work	-3	-6	-2	-3	0	7	-3	-1	4	0	3	-3	8	2
Catenary Failure	0	-2	0	-2	0	0	0	0	0	0	0	0	0	-4
Non-Locomotive Equipment Failure	-3	20	11	13	0	0	-1	0	1	1	-1	1	0	42
Locomotive Failure	-3	0	0	0	0	3	8	6	3	-1	-1	-2	0	11
Human Error	-6	0	-1	-1	2	-5	-4	0	-2	3	-1	1	-6	-21
Sick, Injured, Unruly Passenger	0	0	1	0	0	-3	3	0	-2	0	-2	2	0	-1
Weather	8	0	0	0	0	3	-1	0	-1	0	2	-1	1	12
Other	0	-1	1	0	-1	6	1	0	-1	0	2	-3	5	8
TOTAL TRAINS DELAYED	41	14	14	10	1	18	-8	18	14	-4	10	0	4	131

Data for current month is final (05/19/10) version from TOPS.

P:\ONTIME\report\[DelaysByCause16Cats.xls]LastMonthByLine 05/19/2010

TABLES 8.a, 8.b & 8.c: FREQUENCY OF TRAIN DELAYS BY CAUSE AND LINE January-April 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	9	11	5	2	3	39	7	3	3	4	19	13	4	122
Freight Interference - Peak	28	0	0	0	24	7	9	25	5	11	9	5	9	132
Freight Interference - Off-Peak	25	1	1	0	0	39	20	32	19	39	10	3	35	224
Freight Interference - Total	53	1	1	0	24	46	29	57	24	50	19	8	44	356
Accident	27	2	0	0	0	0	0	5	29	2	2	10	14	91
Passenger Loading	6	25	15	16	0	6	9	0	12	1	74	20	14	198
Lift Deployment	7	1	0	0	0	2	16	1	17	0	10	4	10	68
Obstruction/Debris	35	5	2	10	0	3	4	1	16	5	4	21	6	112
Signal/Switch Failure	65	40	8	17	13	55	35	17	25	26	18	21	13	353
Track Work	4	2	1	0	0	34	3	2	13	1	18	1	20	99
Catenary Failure	0	7	3	1	0	0	0	0	0	0	0	0	0	11
Non-Locomotive Equipment Failure	5	28	13	15	0	2	3	0	12	4	4	6	2	94
Locomotive Failure	15	0	0	0	0	37	26	20	11	1	14	14	7	145
Human Error	16	4	2	2	3	19	22	10	9	12	18	27	4	148
Sick, Injured, Unruly Passenger	6	38	4	10	0	3	11	1	13	0	12	14	13	125
Weather	29	11	4	1	0	21	10	5	19	8	31	10	15	164
Other	4	28	2	2	0	11	5	0	6	2	18	2	16	96
TOTAL TRAINS DELAYED	281	203	60	76	43	278	180	122	209	116	261	171	182	2,182

January-April - 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	13	10	3	3	1	13	15	6	10	4	6	4	9	97
Freight Interference - Peak	28	0	0	0	19	4	7	11	6	12	2	8	20	118
Freight Interference - Off-Peak	45	0	0	0	0	28	21	15	16	26	5	11	78	246
Freight Interference - Total	73	0	0	0	19	32	28	26	22	38	7	19	99	364
Accident	28	5	1	4	0	8	15	6	8	5	12	26	10	125
Passenger Loading	9	7	5	4	0	11	6	1	24	0	47	10	15	139
Lift Deployment	7	0	0	0	0	9	6	3	13	1	4	6	7	56
Obstruction/Debris	17	4	3	10	1	16	14	2	7	3	9	20	10	115
Signal/Switch Failure	106	30	6	9	10	58	41	25	30	25	18	28	39	424
Track Work	14	13	3	11	1	17	6	3	9	6	6	7	10	105
Catenary Failure	0	5	2	5	0	0	0	0	0	0	0	0	0	12
Non-Locomotive Equipment Failure	12	11	7	3	0	3	3	1	4	0	7	5	4	60
Locomotive Failure	31	1	0	0	1	24	21	5	18	4	6	18	15	143
Human Error	42	15	5	7	3	20	19	4	21	6	26	24	19	210
Sick, Injured, Unruly Passenger	13	13	3	4	0	13	8	1	14	0	9	6	8	92
Weather	45	35	11	11	6	68	42	11	57	12	62	46	41	448
Other	11	4	2	3	1	11	9	3	13	3	12	14	17	102
TOTAL TRAINS DELAYED	419	152	50	74	43	301	234	97	250	108	230	233	303	2,494

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

]	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	1	2	-1	2	26	-8	-3	-7	0	13	9	-5	25
Freight Interference - Peak	0	0	0	0	5	3	2	14	-1	-1	7	-3	-11	14
Freight Interference - Off-Peak	-20	1	1	0	0	11	-1	17	3	13	5	-8	-43	-22
Freight Interference - Total	-20	1	1	0	5	14	1	31	2	12	12	-11	-55	-8
Accident	-1	-3	-1	-4	0	-8	-15	-1	21	-3	-10	-16	4	-34
Passenger Loading	-3	18	10	12	0	-5	3	-1	-12	1	27	10	-1	59
Lift Deployment	0	1	0	0	0	-7	10	-2	4	-1	6	-2	3	12
Obstruction/Debris	18	1	-1	0	-1	-13	-10	-1	9	2	-5	1	-4	-3
Signal/Switch Failure	-41	10	2	8	3	-3	-6	-8	-5	1	0	-7	-26	-71
Track Work	-10	-11	-2	-11	-1	17	-3	-1	4	-5	12	-6	10	-6
Catenary Failure	0	2	1	-4	0	0	0	0	0	0	0	0	0	-1
Non-Locomotive Equipment Failure	-7	17	6	12	0	-1	0	-1	8	4	-3	1	-2	34
Locomotive Failure	-16	-1	0	0	-1	13	5	15	-7	-3	8	-4	-8	2
Human Error	-26	-11	-3	-5	0	-1	3	6	-12	6	-8	3	-15	-62
Sick, Injured, Unruly Passenger	-7	25	1	6	0	-10	3	0	-1	0	3	8	5	33
Weather	-16	-24	-7	-10	-6	-47	-32	-6	-38	-4	-31	-36	-26	-284
Other	-7	24	0	-1	-1	0	-4	-3	-7	-1	6	-12	-1	-6
TOTAL TRAINS DELAYED	-138	51	10	2	0	-23	-54	25	-41	8	31	-62	-121	-312

Data for current month is final (05/19/10) version from TOPS.

 $P: \label{eq:cause16Cats.xls} P: \$

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 -	· Apr
Passenger Train Interference	43	43	18	18									122	5.6%
Freight Interference - Peak	39	30	26	37									132	6.0%
Freight Interference - Off-Peak	49	61	55	59									224	10.3%
Freight Interference - Total	88	91	81	96									356	16.3%
Accident	18	49	15	9									91	4.2%
Passenger Loading	47	34	62	55									198	9.1%
Lift Deployment	18	14	18	18									68	3.1%
Obstruction/Debris	29	13	28	42									112	5.1%
Signal/Switch Failure	85	63	118	87									353	16.2%
Track Work	14	9	31	45									99	4.5%
Catenary Failure	7	0	4	0									11	0.5%
Non-Locomotive Equipment Failure	18	10	16	50									94	4.3%
Locomotive Failure	12	50	46	37									145	6.6%
Human Error	54	33	32	29									148	6.8%
Sick, Injured, Unruly Passenger	14	32	57	22									125	5.7%
Weather	94	41	3	26									164	7.5%
Other	44	11	12	29									96	4.4%
TOTAL TRAINS DELAYED	585	493	541	563									2,182	100%

Data for current month is final (05/19/10) version from TOPS.

2009

CAUSE CATEGORY	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan -	- Apr
Passenger Train Interference	52	43	12	28	18	24	17	19	14	31	15	31	135	4.9%
Freight Interference - Peak	40	15	21	16	13	24	18	57	20	73	18	29	92	3.3%
Freight Interference - Off-Peak	56	22	42	28	38	36	35	48	38	90	29	58	148	5.3%
Freight Interference - Total	96	37	63	44	51	60	53	105	58	163	47	87	240	8.6%
Accident	98	12	9	27	8	20	20	9	9	6	5	38	146	5.3%
Passenger Loading	45	33	51	21	84	249	278	216	154	56	68	113	150	5.4%
Lift Deployment	23	15	13	8	12	16	41	21	30	33	22	21	59	2.1%
Obstruction/Debris	29	48	31	36	34	47	45	23	31	26	14	35	144	5.2%
Signal/Switch Failure	265	97	107	67	103	189	71	154	62	119	58	109	536	19.3%
Track Work	15	15	25	58	47	117	34	170	85	132	64	46	113	4.1%
Catenary Failure	0	8	0	11	1	19	8	0	0	0	0	9	19	0.7%
Non-Locomotive Equipment Failure	9	9	7	6	26	41	16	19	16	11	6	35	31	1.1%
Locomotive Failure	107	80	49	44	48	17	40	48	22	59	26	61	280	10.1%
Human Error	38	19	28	30	71	57	52	45	51	55	24	59	115	4.1%
Sick, Injured, Unruly Passenger	23	32	27	10	22	46	56	44	30	35	49	20	92	3.3%
Weather	599	9	11	4	1	62	11	20	3	84	14	257	623	22.5%
Other	27	10	37	18	14	16	17	31	31	40	11	17	92	3.3%
TOTAL TRAINS DELAYED	1,426	467	470	412	540	980	759	924	596	850	423	938	2,775	100%

05/19/2010

TABLE 10: FREIGHT DELAYS between May 2008 and April 2010

]	Electric			Mil	w				Un	ion Pacif	ic	
	BNSF	ML	BI	SC	HER	N	W	NCS	RI	SWS	N	NW	W	SYSTEM
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
Apr-09	18	0	0	0	1	3	2	0	5	5	0	4	6	44
Total	179	0	0	0	52	80	59	80	81	152	25	38	197	943
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
Apr-10	13	0	0	0	7	17	4	26	5	8	2	4	10	96
Total	177	1	1	0	64	99	68	103	58	182	30	46	151	980

Data for current month is final (05/19/10) version from TOPS.

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

LINE	Jan	Feb	Mar	Ann	May	Jun	Jul	Ana	Sep	Oct	Nov	Dec	Lift Delays YTD	% of All Delays YTD
	Jan			Apr	May	Jun	Jui	Aug	Sep	OCI	1101	Dec		
BNSF	1	2	2	2									7	2.49%
Electric ML	0	0	0	1									1	0.49%
Electric BI	0	0	0	0									0	0.00%
Electric SC	0	0	0	0									0	0.00%
HER	0	0	0	0									0	0.00%
Milw N	1	0	0	1									2	0.72%
Milw W	4	4	7	1									16	8.89%
NCS	1	0	0	0									1	0.82%
RI	6	4	4	3									17	8.13%
SWS	0	0	0	0									0	0.00%
UP N	4	1	4	1									10	3.83%
UP NW	0	3	0	1									4	2.34%
UP W	1	0	1	8									10	5.49%
Total Lift Delays	18	14	18	18									68	3.12%
ALL DELAYS														2,182

Data for current month is final (05/19/10) 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

05/19/2010

TABLE 12: FREQUENCY OF TRAIN DELAYS BY DURATION April 2010

Minutes	BNSF		Electric		Her	Milwa	aukee	NCS	RI	SWS		UP		System
		ML	BI	SC		N	W				N	NW	W	
Peak *	•													
6-10	28	8	2	2	8	10	3	7	13	0	17	16	10	124
11-15	11	2	1	1	2	12	1	6	4	1	2	3	3	49
16-20	6	2	2	1	0	2	1	0	1	0	0	0	3	18
21+	11	7	3	3	1	1	4	2	0	3	0	0	2	37
Annulled	<u>3</u>	<u>1</u>	<u>1</u>	<u>3</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	0	0	<u>0</u>	0	<u>10</u>
Sub-Total	59	20	9	10	11	25	9	15	20	4	19	19	18	238
Off-Peak *	*													
6-10	17	14	7	8	0	32	10	17	12	10	19	9	21	176
11-15	7	4	3	3	0	11	3	6	6	4	5	4	13	69
16-20	2	3	1	0	0	4	2	0	3	1	1	2	3	22
21+	11	2	2	2	0	10	4	5	5	0	4	2	4	51
Annulled	<u>0</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>7</u>
Sub-Total	37	23	13	16	0	57	22	28	27	15	29	17	41	325
April 2010	Total													
6-10	45	22	9	10	8	42	13	24	25	10	36	25	31	300
11-15	18	6	4	4	2	23	4	12	10	5	7	7	16	118
16-20	8	5	3	1	0	6	3	0	4	1	1	2	6	40
21+	22	9	5	5	1	11	8	7	5	3	4	2	6	88
Annulled	<u>3</u>	1	<u>1</u>	<u>6</u>	0	0	<u>3</u>	0	<u>3</u>	0	0	0	0	<u>17</u>
TOTAL	96	43	22	26	11	82	31	43	47	19	48	36	59	563
2010 Year-1	to-Date													
6-10	138	121	38	36	19	125	85	67	117	54	178	88	90	1,156
11-15	58	34	9	10	12	81	47	31	39	20	48	23	42	454
16-20	20	24	4	9	5	23	12	8	14	15	11	17	14	176
21+	57	23	7	13	7	45	33	15	30	27	19	39	33	348
Annulled	<u>8</u>	<u>1</u>	<u>2</u>	<u>8</u>	<u>0</u>	<u>4</u>	<u>3</u>	1	<u>9</u>	<u>0</u>	<u>5</u>	<u>4</u>	<u>3</u>	48
TOTAL	281	203	60	76	43	278	180	122	209	116	261	171	182	2,182
		PEI	RCENT	СОМР	OSITIO	ON OF I	DELAY	S RV R	ANGE (OF DUI	RATION	J		
				001.11	001110	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				01 201		`		
Minutes	BNSF		Electric		Her	Milwa		NCS	RI	SWS		UP		System
		ML	BI	SC		N	W				N	NW	W	
April 2010														1
6-10	46.9%	51.2%	40.9%	38.5%	72.7%	51.2%	41.9%	55.8%	53.2%	52.6%	75.0%	69.4%	52.5%	53.3%
11-15	18.8%	14.0%	18.2%	15.4%	18.2%	28.0%	12.9%	27.9%	21.3%	26.3%	14.6%	19.4%	27.1%	21.0%
16-20	8.3%	11.6%	13.6%	3.8%	0.0%	7.3%	9.7%	0.0%	8.5%	5.3%	2.1%	5.6%	10.2%	7.1%
21+	22.9%	20.9%	22.7%	19.2%	9.1%	13.4%	25.8%	16.3%	10.6%	15.8%	8.3%	5.6%	10.2%	15.6%
Annulled	3.1%	2.3%	4.5%	23.1%	0.0%	0.0%	9.7%	0.0%	6.4%	0.0%	0.0%	0.0%	0.0%	3.0%
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-1	to-Date D	elays By	Duratio	n										
6-10	49.1%	59.6%	63.3%	47.4%	44.2%	45.0%	47.2%	54.9%	56.0%	46.6%	68.2%	51.5%	49.5%	53.0%
11-15	20.6%	16.7%	15.0%	13.2%	27.9%	29.1%	26.1%	25.4%	18.7%	17.2%	18.4%	13.5%	23.1%	20.8%
16-20	7.1%	11.8%	6.7%	11.8%	11.6%	8.3%	6.7%	6.6%	6.7%	12.9%	4.2%	9.9%	7.7%	8.1%
21+	20.3%	11.3%	11.7%	17.1%	16.3%	16.2%	18.3%	12.3%	14.4%	23.3%	7.3%	22.8%	18.1%	15.9%
Annulled	2.8%	0.5%	3.3%	10.5%	0.0%	1.4%	1.7%	0.8%	4.3%	0.0%	1.9%	2.3%	1.6%	2.2%
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%	100.0%	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 (05/19/10) version from TOPS.

P:\ONTIME\report\[DelaysByDuration.xls]FreqByDuration 5

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

	BNSF]	Electric	!	Her	Milwa	aukee	NCS	RI	SWS		UP		System
		ML	BI	SC		N	\mathbf{W}				N	NW	W	
April 2010														
Peak *	15.1	17.2	22.6	44.9	11.5	12.5	17.4	15.3	9.4	24.5	8.4	8.6	11.9	14.5
Off-Peak **	17.1	11.7	14.2	17.5		12.8	14.8	21.3	17.3	10.1	12.6	15.9	12.3	14.7
All	15.9	14.2	17.4	27.1	11.5	12.7	15.7	19.2	14.1	13.2	10.9	12.1	12.2	14.6
2010 Year-	to-Date													
Peak *	14.2	12.2	13.5	21.2	13.6	14.6	17.7	14.9	13.5	16.2	13.0	17.2	11.5	14.4
Off-Peak **	17.8	11.9	12.4	15.6		14.2	12.3	15.3	13.9	16.8	12.0	17.0	18.8	14.8
All	15.6	12.1	12.8	17.3	13.6	14.3	14.4	15.1	13.8	16.6	12.5	17.1	16.2	14.6

Excludes annulled trains, which do not have delay times.

P:\ONTIME\report\[DelaysByDuration.xls]MinutesByServPeriod 5/

^{*}Includes peak direction trains operating during weekday peak periods. **Includes all other weekday and weekend trains. Data for most recent month is final (05/19/10) version from TOPS.