

Rail Fleet Services Monthly Report January 2018



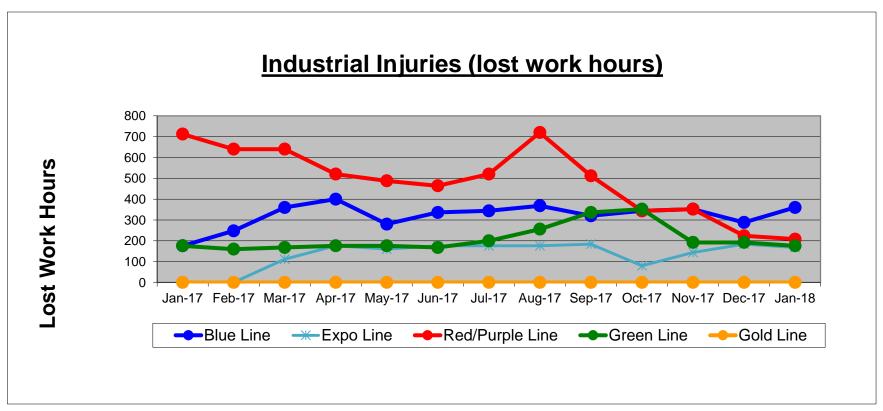
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Industrial Injuries – Lost Work Hours January 2017-2018

	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	13-Month Period
Blue Line	176	248	360	400	280	336	344	368	320	344	352	288	360	4,176
Expo Line	0	0	112	176	160	176	176	176	184	80	144	184	168	1,736
Red/Purple Line	712	640	640	520	488	464	520	720	512	344	352	224	208	6,344
Green Line	176	160	168	176	176	168	200	256	336	352	192	192	176	2,728
Gold Line	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	1,064	1,048	1,280	1,272	1,104	1,144	1,240	1,520	1,352	1,120	1,040	888	912	14,984





Rail Vehicle Accidents & Major Incidents January 2017-2018

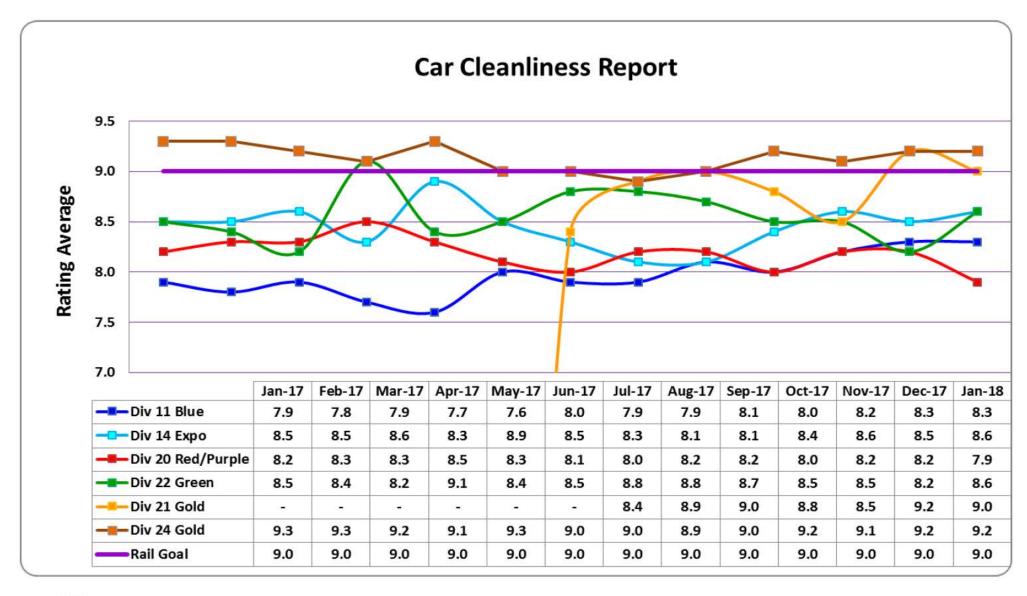
Repair Costs	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	13-Month Period
Blue Line	\$170,311	\$0	\$1,427	\$2,586	\$0	\$15,084	\$632	\$268	\$3,683	\$31,202	\$1,016	\$344	\$0	\$226,553
Expo Line	\$763	\$1,930	\$0	\$1,420	\$0	\$0	\$0	\$191	\$0	\$25,571	\$597	\$321	\$0	\$30,793
Red/Purple Line	\$0	\$1,032	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,032
Green Line	\$0	\$0	\$0	\$334	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$334
Gold Line	\$3,789	\$15,829	\$1,871	\$191	\$2,692	\$0	\$0	\$0	\$1,343	\$5,751	\$0	\$680	\$0	\$32,146
Totals	\$174,863	\$18,791	\$3,298	\$4,531	\$2,692	\$15,084	\$632	\$459	\$5,026	\$62,524	\$1,613	\$1,345	\$0	\$290,858

	Rail Vehicle Accident Costs - January 2018								
Date	Incident #	Problem Code	Incident Description	Repair	Cost				
Metro Rail - No Accidents Report in January				\$	-				
	10-71 = Train vs. Object/ 10-72 = Train vs. Pedestrian/ 10-73 = Train vs. Vehicle/ 10-74 = Train vs. MTA Vehicle/ 10-75 = Derailment								

Note: Repair costs are only the expenses captured during the time period of the report. Actual costs may be significantly higher, if repairs are spread out over several months.



Rail Vehicle – Car Cleanliness January 2017-2018





Service Delivery January 2018

Blue Line Fleet Size: 91	Blu	ıe L	ine	Fleet	Size:	91
--------------------------	-----	------	-----	-------	-------	----

Pull Out	Vehicles Required	Available	% Up (Down)
Weekday:	66	67	102%
Weekend:	26	57	219%

Average

Average

Average

Monthly Mileage: 499,246

Expo Line Fleet Size: 55

		<u>Average</u>	
Pull Out	Vehicles Required	<u>Available</u>	% Up (Down)
Weekday:	42	43	102%
Weekend:	30	40	133%

Monthly Mileage: 311,534

Red/Purple Line Fleet Size: 98

Pull Out	Vehicles Required	Available	% Up (Down)
Weekday:	64	72	113%
Weekend:	40	60	150%

Monthly Mileage: 647,564

Green Line Fleet Size: 36

Pull Out	Vehicles Required	Available	% Up (Down)
Weekday:	26	26	100%
Weekend:	14	20	143%

Monthly Mileage: 247,860

Gold Line Fleet Size: 69

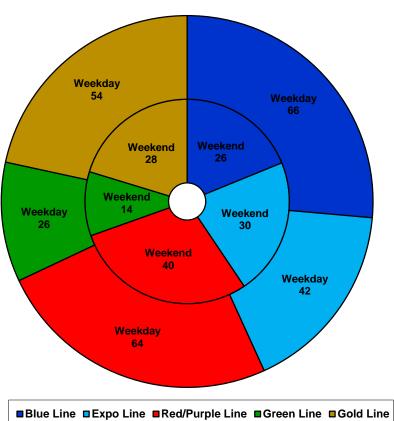
		<u>Average</u>	
Pull Out	Vehicles Required	<u>Available</u>	% Up (Down)
Weekday (Div 21):	10	10	100%
Weekday (Div 24):	44	44	100%
Weekend (Div 24):	28	40	143%

*Monthly Mileage: 630,822

Gold Line monthly mileage includes Division 21 and 24.

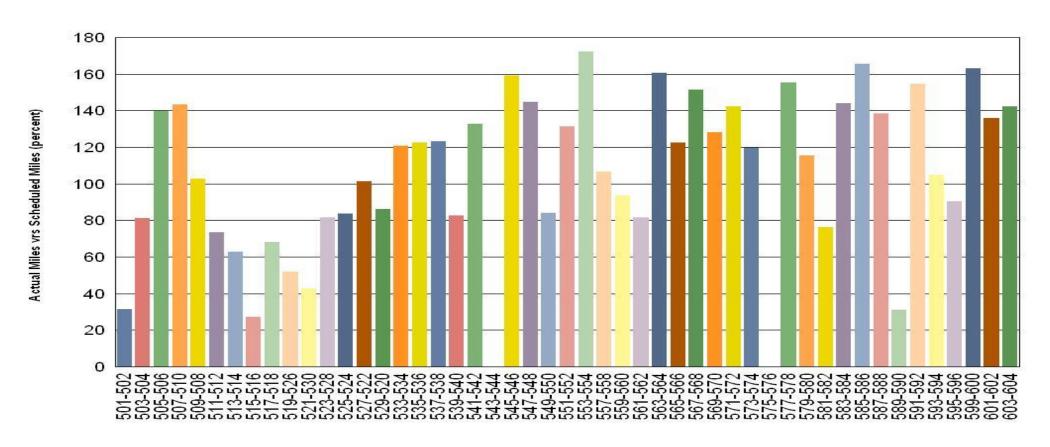
NOTES: Standby trains not included in vehicle requirements





Vehicle Utilization January 2018

Metro Red/Purple Line (98 Cars)



Red/Purple Line:

The following cars were out of service due to:

Car # 501-502 – Propulsion Fault

Car # 515-516 - Propulsion Fault

Car # 543-544 - Interior Renovation Campaign

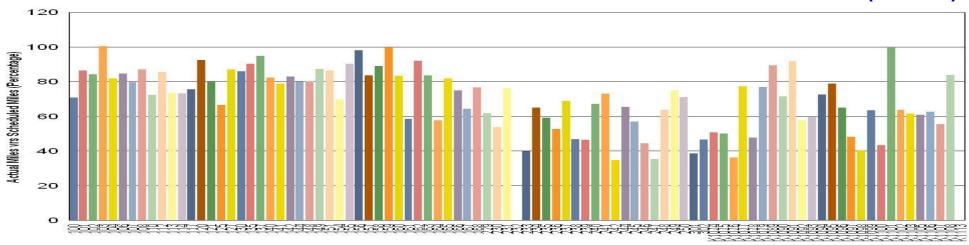
Car # 575-576 – Interior Renovation Campaign

Car # 589-590 - Propulsion Fault



Vehicle Utilization January 2018

Metro Blue Line (91 Cars)



Blue Line: The following cars were out of service due to:

Car # 232 - Off the Property for Midlife Overhaul

Car # 242 – Exterior Paint Restoration

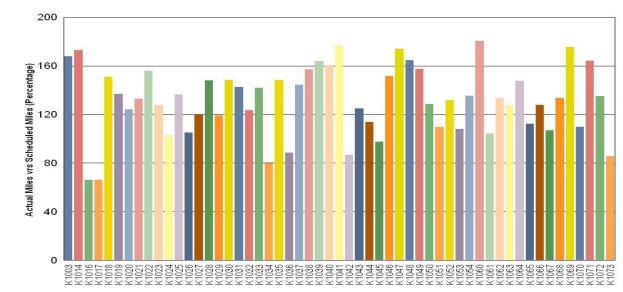
Car # 247 – Propulsion Fault

Car # 301 - Door Wiring Issue / Coupler Overhaul

Car # K1076 - Accident Repair / Master Controller Issue

Car # K1113 - Transferred to the Blue Line 01-26-2018

Metro Expo Line (55 Cars)



Expo Line: The fleet has met the daily maximum utilization requirements for the month.



Vehicle Utilization January 2018

Metro Green Line (36 Cars)

Green Line:

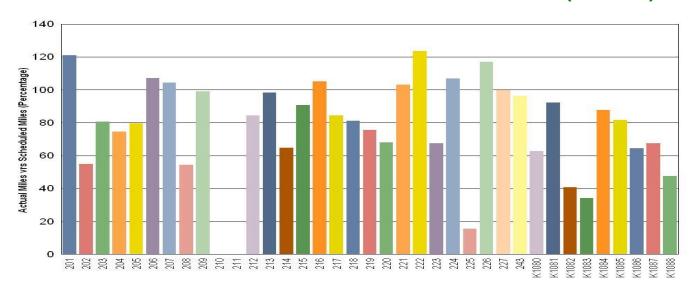
The following cars were out of service due to:

Car # 210 - Pantograph Damage Repair

Car # 211 – Off the Property for Midlife Overhaul

Car # 225 - Exterior Paint Rehab

Car # K1083 - Warranty Repair



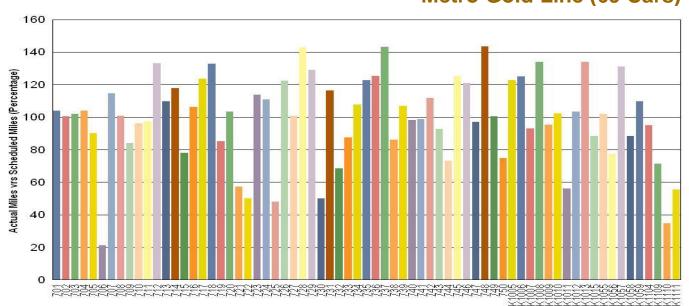
Metro Gold Line (69 Cars)

Gold Line:

The following cars were out of service due to:

Car # 706 – 120K PM Inspection Mileage Hold and Miscellaneous Repairs

Car # K1110 – Newly Commissioned Car that needed some items repaired under warranty (not in-service for the complete month)

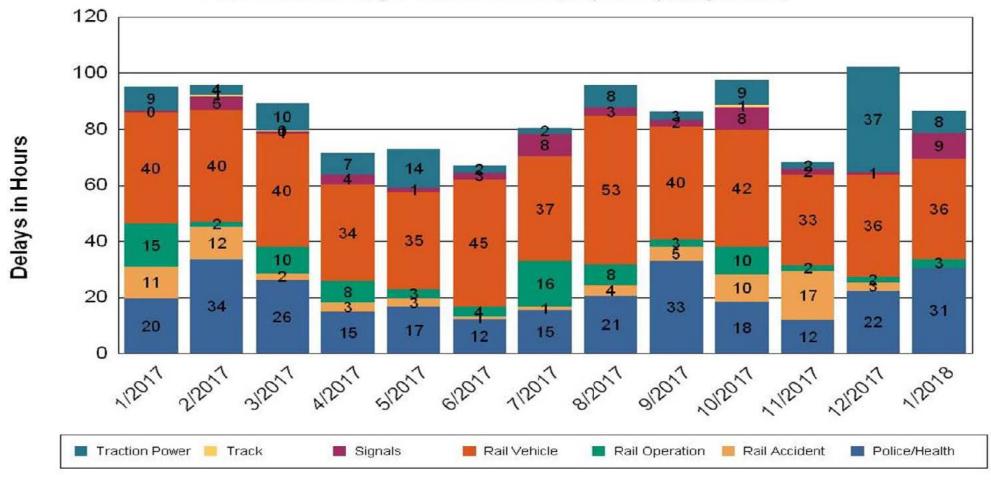




All Train Delays (Hours) January 2017-2018

All Train Delays

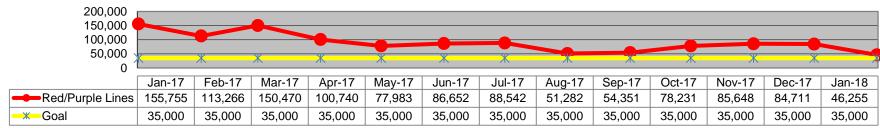
Totals Include the delay to all trains involved (not just the primary incident)



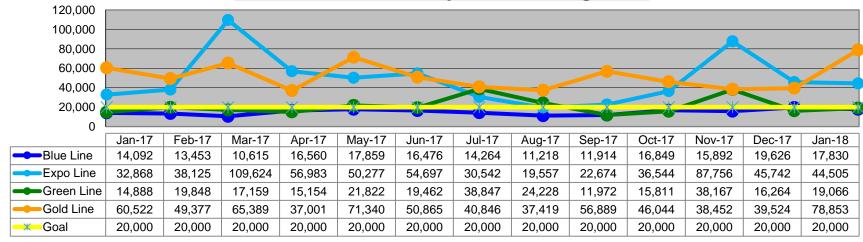


Mean Miles Between Major Failures (MMBF) January 2017-2018

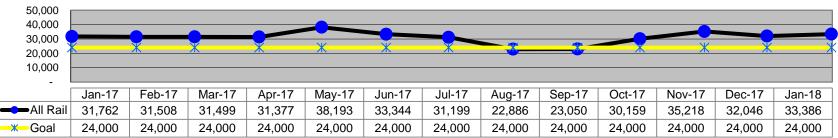
Mean Miles Between Major Failures - Heavy Rail



Mean Miles Between Major Failures - Light Rail



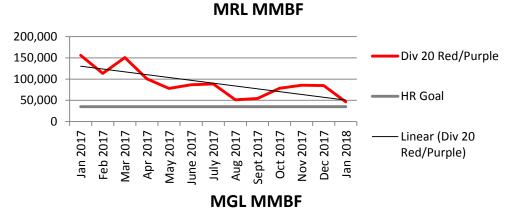
Mean Miles Between Major Failures (all)

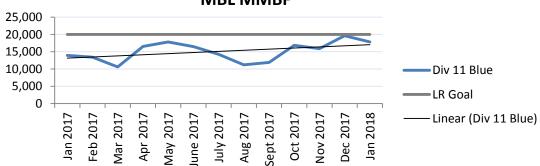


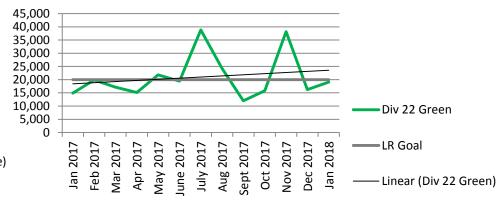


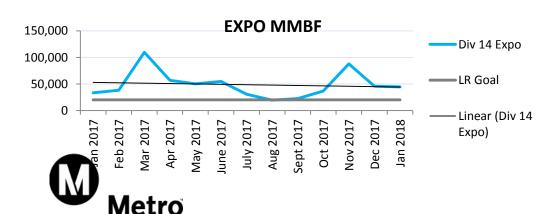
MMBF by Division January 2017-2018

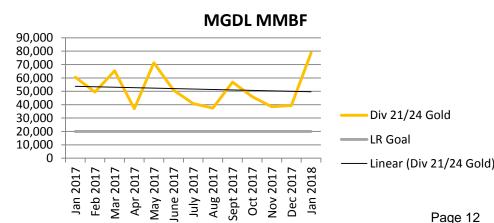




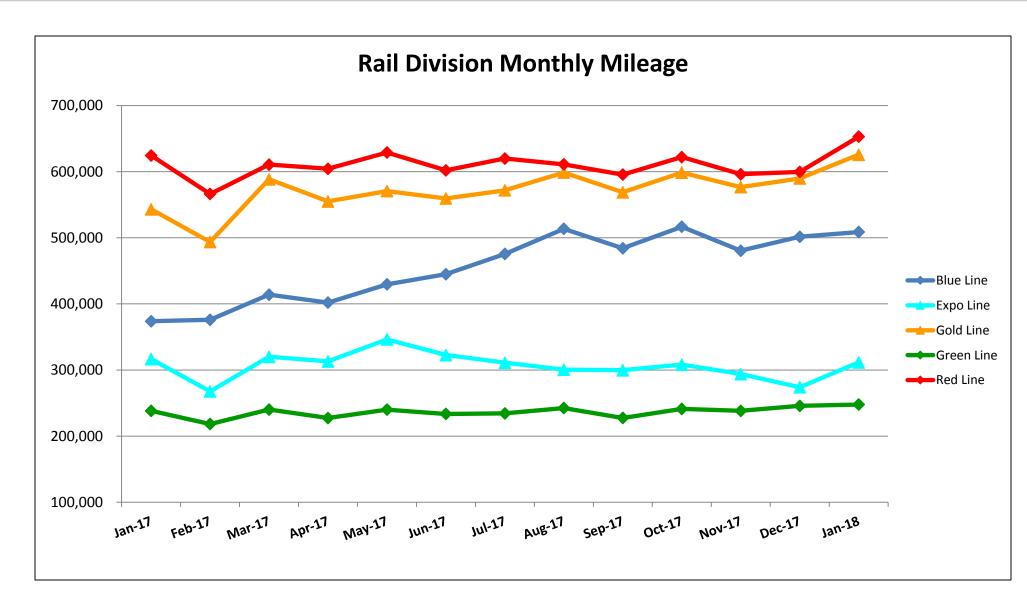






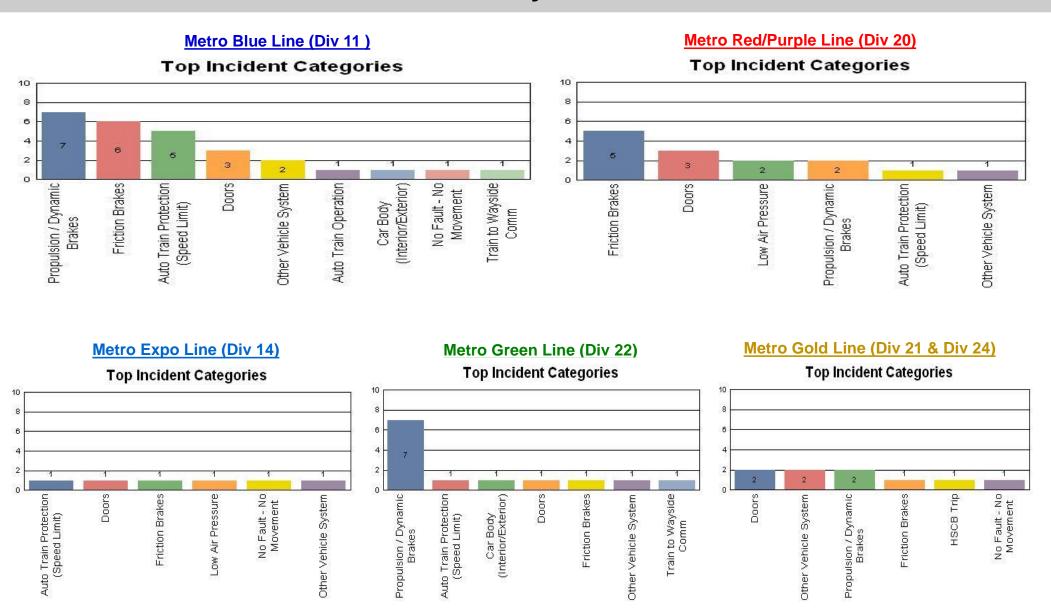


Mileage Between Data Range (by month) January 2017-2018





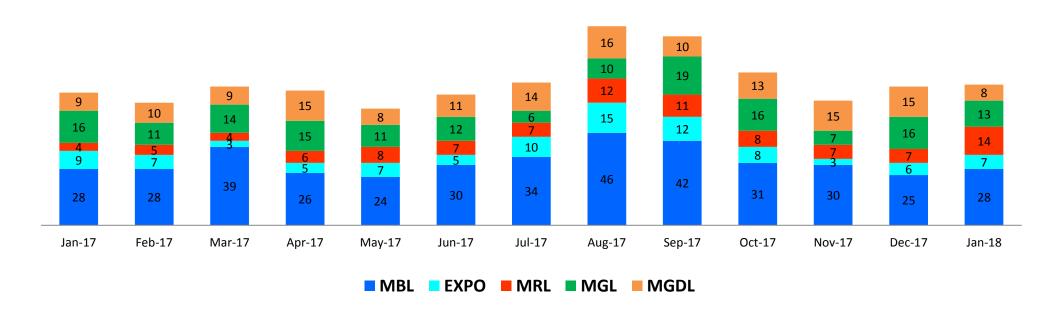
Top Incident Categories January 2018





Major Incidents January 2017-2018

Numbers of Major System Failures (by Line)



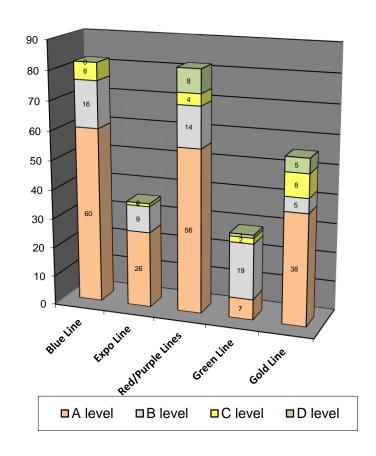


Preventive Maintenance Compliance January 2017-2018

PM Compliance	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18
Blue Line	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Expo Line	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Red/Purple Lines	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Green Line	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Gold Line	100%	100%	100%	100%	100%	98%	100%	100%	100%	100%	100%	100%	99%

Number of Preve	entive Mair	itenance l	nspections	- January 2	2018
Line	A level	B level	C level	D level	Totals
Blue Line	60	16	6	0	82
Expo Line	26	9	1	0	36
Red/Purple Lines	56	14	4	8	82
Green Line	7	19	2	1	29
Gold Line	38	5	8	5	56
Totals:	187	63	21	14	285

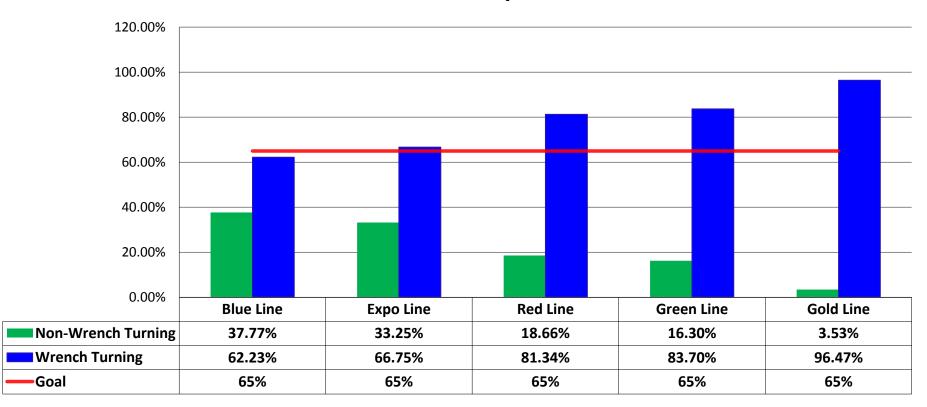
Explanation of PM	Inspection levels		Mile	es .	
Line	Туре	A level	B level	C level	D level
Blue/Expo Lines	P865/P2020	5,000	15,000	30,000	60,000
Blue/Expo Lines	P2000	7,500	22,500	45,000	90,000
Red/Purple Lines	A650	7,500	22,500	45,000	90,000
Green Line	P2000	7,500	22,500	45,000	90,000
Gold Line	P2550	10,000	30,000	60,000	120,000
Gold/Expo Lines	P3010	10,000	30,000	60,000	120,000





RFS Leader Wrench Turning January 2018

RFS - Leader Wrench Turning January 2018

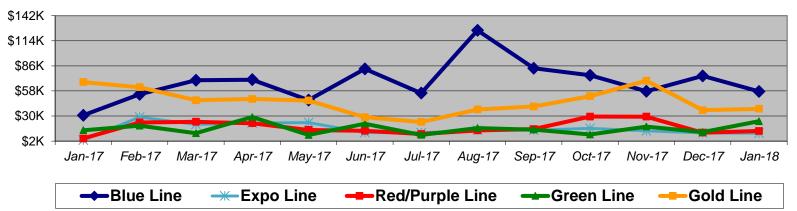


Notes: Labor hours contributed by Maint Specialist Leader, Rail Body/Paint Repair Leader, and Maint Specialist Temporary Leader



Vandalism & Graffiti Report January 2017-2018

	Jan-17	Feb-17	Mar-17	Apr-17	M ay-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	13-Month Period
Blue Line	\$31K	\$54K	\$70K	\$71K	\$48K	\$83K	\$56K	\$126K	\$83K	\$75K	\$58K	\$75K	\$57K	\$886K
Expo Line	\$3K	\$29K	\$21K	\$22K	\$23K	\$11K	\$11K	\$14K	\$14K	\$16K	\$13K	\$11K	\$11K	\$200K
Red/Purple Line	\$5K	\$23K	\$24K	\$22K	\$14K	\$13K	\$10K	\$14K	\$15K	\$29K	\$29K	\$11K	\$13K	\$224K
Green Line	\$14K	\$19K	\$11K	\$29K	\$9K	\$21K	\$9K	\$17K	\$15K	\$9K	\$18K	\$12K	\$24K	\$207K
Gold Line	\$68K	\$62K	\$48K	\$49K	\$47K	\$29K	\$23K	\$37K	\$41K	\$52K	\$69K	\$37K	\$38K	\$600K
Totals:	\$121K	\$187K	\$172K	\$193K	\$141K	\$158K	\$109K	\$208K	\$168K	\$182K	\$188K	\$146K	\$144K	\$2,116K

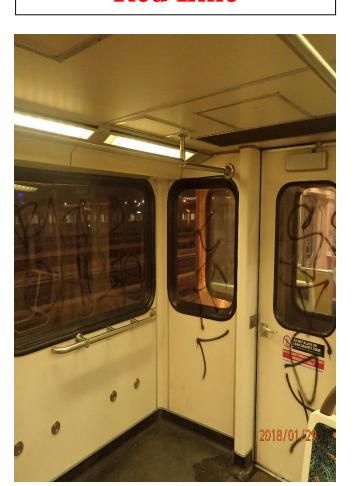


January 2018 Vandalism & Graffiti - All Rail												
Qty Labor Materials Totals												
Windows Replaced	69	\$	17,982	\$	38,101	\$	56,083					
Vandal Shields Replaced	542	\$	21,010	\$	10,118	\$	31,128					
Seats Cleaned	109	\$	489	\$	62	\$	551					
Seats Inserts Replaced	384	\$	14,017	\$	12,966	\$	26,983					
Graffiti Removal - Other	1,333	\$	19,281	\$	5,436	\$	24,717					
Repainting Panels	135	\$	4,253	\$	-	\$	4,253					
Totals	2,572	\$	77,032	\$	66,683	\$	143,715					



Vandalism & Graffiti Pictures January 2018

Red Line



Green Line

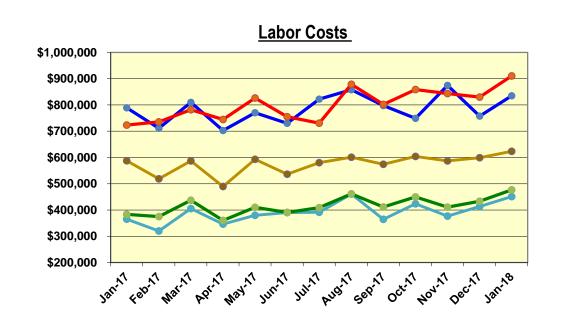


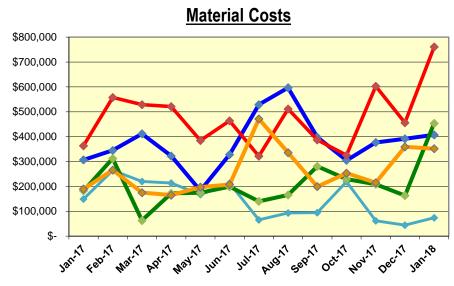
Gold Line





Labor and Material Costs January 2017-2018





		Jan-17		Feb-17		Mar-17	- 1	Apr-17		May-17		Jun-17		Jul-17		Aug-17		Sep-17		Oct-17		Nov-17		Dec-17	,	Jan-18
													l ah	or Costs	•											
Divertible	•	700 705	_	744.054	•	040.040	•	700.074	•	770.045	_				•	057.040	•	707.000		740.000	•	074.400	•	757.070	•	004 540
Blue Line	→	788,785	4	711,354	Þ	810,012	3	702,374	3	770,245	Þ	730,183		822,077	Þ	857,616	4	797,683	ð	749,009	Þ	874,166		757,379	Þ	834,543
Expo Line	\$	365,354	\$	320,019	\$	405,656	\$	346,398	\$	379,871	\$	389,878	\$	391,095	\$	461,075	\$	364,430	\$	423,859	\$	377,003	\$	413,302	\$	451,261
Red/Purple Lines	\$	723,038	\$\$	735,394	\$	781,595	\$	744,460	\$	826,461	\$	754,862	\$	730,783	\$	878,453	\$	801,722	\$	858,679	\$	843,202	\$	829,663	\$	909,988
Green Line	\$	383,591	49	374,747	\$	437,154	\$	360,314	\$	410,146	\$	390,662	\$	409,313	\$	461,320	49	411,714	\$	449,839	\$	410,869	\$	433,318	\$	476,459
Gold Line	\$	587,313	\$\$	518,524	\$	586,949	\$	489,634	\$	593,070	\$	536,404	\$	580,341	\$	600,583	\$	574,080	\$	603,761	\$	586,885	\$	598,943	\$	623,485
Totals	\$ 2	2,848,080	\$ 2	2,660,038	\$ 3	3,021,365	\$ 2	2,643,180	\$ 2	2,979,794	\$	2,801,989	\$ 2	2,933,607	\$	3,259,046	\$ 2	2,949,629	\$:	3,085,146	\$ 3	3,092,125	\$ 3	3,032,606	\$ 3	3,295,737

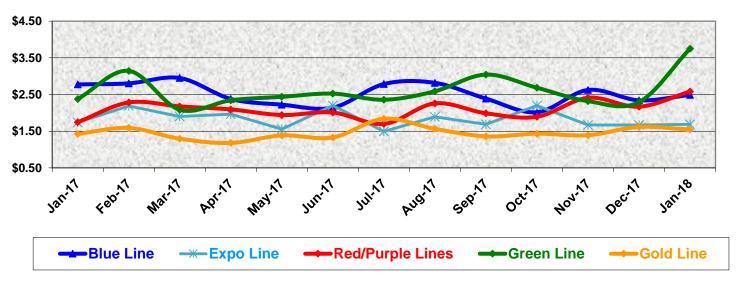
							M	late	erial Cos	ts									
Blue Line	\$ 306,710	\$ 344,931	\$ 411,541	\$ 322,424	\$	182,846	\$ 328,206	\$	529,007	\$	596,865	\$ 397,951	\$	304,627	\$ 376,903	\$	391,572	\$	407,451
Expo Line	\$ 149,260	\$ 264,561	\$ 219,980	\$ 213,435	\$	167,428	\$ 212,682	\$\$	65,432	\$	93,233	\$ 94,730	49	218,980	\$ 61,966	\$	44,504	\$	73,843
Red/Purple Lines	\$ 363,192	\$ 557,616	\$ 528,820	\$ 521,242	\$	384,776	\$ 463,957	\$	321,863	\$	511,576	\$ 386,990	49	325,604	\$ 602,668	\$	456,278	\$	760,795
Green Line	\$ 182,518	\$ 312,113	\$ 63,371	\$ 172,269	\$	174,969	\$ 199,040	\$	140,168	\$	165,820	\$ 280,752	49	229,311	\$ 208,844	\$	163,235	\$	453,737
Gold Line	\$ 189,520	\$ 265,930	\$ 175,047	\$ 165,012	\$	197,220	\$ 207,555	\$	471,378	\$	336,025	\$ 199,318	\$ \$	253,138	\$ 215,172	\$	359,058	\$	351,690
Totals	\$ 1,191,200	\$ 1,745,150	\$ 1,398,760	\$ 1,394,383	\$ 1	1,107,239	\$ 1,411,440	\$	1,527,848	\$	1,703,519	\$ 1,359,742	Ġ	1,331,660	\$ 1,465,553	\$ 1	1,414,648	\$ 2	2,047,515



Cost Per Mile January 2017-2018

Cost per mile:	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Average
Blue Line	\$2.78	\$2.80	\$2.95	\$2.38	\$2.22	\$2.14	\$2.79	\$2.82	\$2.39	\$2.02	\$2.62	\$2.34	\$2.49	\$2.52
Expo Line	\$1.74	\$2.19	\$1.90	\$1.96	\$1.56	\$2.20	\$1.49	\$1.89	\$1.69	\$2.20	\$1.67	\$1.67	\$1.69	\$1.83
Red/Purple Lines	\$1.74	\$2.28	\$2.18	\$2.09	\$1.94	\$2.01	\$1.70	\$2.26	\$1.99	\$1.89	\$2.41	\$2.17	\$2.58	\$2.10
Green Line	\$2.38	\$3.15	\$2.08	\$2.34	\$2.44	\$2.52	\$2.36	\$2.59	\$3.04	\$2.68	\$2.32	\$2.29	\$3.75	\$2.61
Gold Line	\$1.43	\$1.59	\$1.29	\$1.18	\$1.38	\$1.33	\$1.84	\$1.56	\$1.36	\$1.43	\$1.39	\$1.62	\$1.55	\$1.46

Cost per Mile





ATU Absences vs. Overtime January 2018

ABSENCE TYPE and HOURS	3941 Blue	3947 Expo	3942 Red	3943 Green	3944 Gold	3948 Monrovia	Total
BER-BEREAVEMENT	64	-	104	-	_	-	168
CTO-COMPENSATORY TIME OFF	352	254	364	218	8	250	1,446
CUT-EMPLOYEE LEAVES EARLY	2	1	1	2	1	-	6
DSL-DISABILITY LEAVE/LONG	-	184	-	568	-	256	1,008
EFH-EMG. FLOAT HOL.	-	32	40	24	16	40	152
ETO-EXCUSED TIME OFF	60	85	45	17	1	23	231
FMI-FAM IND INJURY	-	-	160	176	-	-	336
FML-FAMILY CARE LEAVE	627	24	219	248	160	352	1,631
FMS-FAMILY LEAVE SICK	128	8	104	40	48	90	418
HLF-HOLIDAY FLOATING	128	24	224	88	32	104	600
HNP-HOLIDAY NOT PAID	16	-	-	16	-	-	32
HOL-HOLIDAY LEGAL	448	96	488	104	48	256	1,440
IS-INVESTIGATIVE SUSPENSION	152	-	-	-	-	-	152
JUR-JURY DUTY	-	-	8	40	_	-	48
LC1-LABOR CODE 233	354	104	325	180	72	181	1,216
LTI-OCCPIL/LONGTRM INJ LEAVE	360	168	208	176	-	-	912
RTO-REQUESTED TIME OFF-NO PAY	17	-	10	12	-	2	41
SCK-SICK PAY	242	64	208	192	248	264	1,219
SCW-SICK WITHOUT PAY	128	144	50	137	80	52	591
SPN-SCHOOL PARTNER NOT PAID	-	-	-	ı	-	8	8
SUS-DISCIPLINARY SUSPENSION	_	48	-	1	-	-	48
TAR-TARDY	1	1	2	2	0	0	7
UNP-UNION BUS PAID	_	8	-	1	-	-	8
VAC-VACATION	1,084	228	1,006	232	284	718	3,552
*TRAINING	17	111	3	229	6	35	401
Total Absence Hours	4,179	1,583	3,570	2,701	1,004	2,631	15,668
**ATU Number of Work Force (active)	106	41	106	46	17	60	376
Full Work Force hours/month	18,370	7,105	18,370	7,972	2,946	10,400	65,161
Absence as a % of Work Force	23%	22%	19%	34%	34%	25%	24%

OVERTIME TYPE and HOURS	3941 Blue	3947 Expo	3942 Red	3943 Green	3944 Gold	3948 Monrovia	Total
CTB-COMPENSATORY TIME TO BANK	161	76	147	41	37	101	562
OTP-PREM OVERTIME	3,826	2,346	3,918	2,773	47	1,340	14,250
TRO OVERTIME	ı	12	-	-	-	-	12
WLO-Worked Lunch Overtme	129	149	273	149	19	106	825
Total Overtime Hours	4,116	2,582	4,338	2,963	103	1,547	15,649
Overtime as a % of Work Force	22%	36%	24%	37%	4%	15%	24%

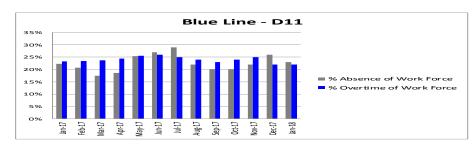
^{*}Training hours captured by Instruction Department are added to Absences Report.

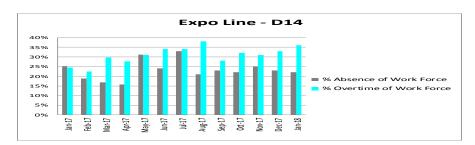
^{**}ATU Employee Numbers from ATU Manpower Status Report (last week of the month)

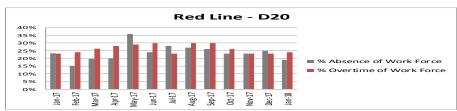


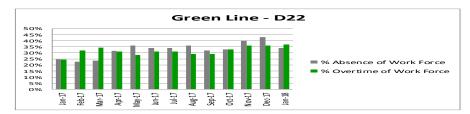
Note: Overtime also covers other required activities, including Training, Component Overhaul, and Special Events.

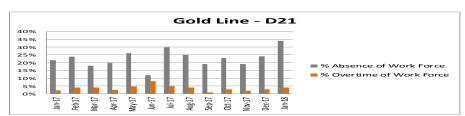
ATU - %Absence & %Overtime of Work Force January 2017-2018

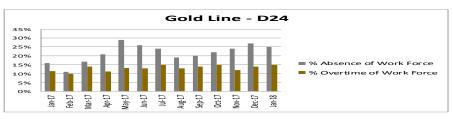












% Abse	nce of Work Force	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	13-Month Average
	Blue Line D11	22%	21%	17%	19%	25%	27%	29%	22%	20%	20%	22%	26%	23%	23%
	Expo Line D14	25%	19%	17%	16%	31%	24%	33%	21%	23%	22%	25%	23%	22%	23%
	Red Line D20	23%	15%	20%	20%	36%	24%	28%	27%	26%	23%	23%	25%	19%	24%
	Green Line D22	25%	23%	24%	32%	36%	34%	34%	36%	32%	33%	40%	43%	34%	33%
	Gold Line D21	21%	24%	18%	20%	26%	12%	30%	25%	19%	23%	19%	24%	34%	23%
	Gold Line D24	16%	11%	17%	21%	29%	26%	24%	19%	20%	22%	24%	27%	25%	22%

% Overt	ime of Work Force	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	13-Month Average
	Blue Line D11	23%	23%	24%	24%	26%	26%	25%	24%	23%	24%	25%	22%	22%	24%
	Expo Line D14	24%	22%	30%	28%	31%	34%	34%	38%	28%	32%	31%	33%	36%	31%
	Red Line D20	23%	24%	26%	28%	29%	30%	23%	30%	30%	26%	23%	23%	24%	26%
	Green Line D22	25%	32%	34%	31%	28%	31%	31%	29%	29%	33%	36%	36%	37%	32%
	Gold Line D21	2%	4%	4%	2%	5%	2%	5%	4%	1%	3%	2%	3%	4%	3%
	Gold Line D24	11%	10%	14%	11%	13%	13%	15%	13%	14%	15%	12%	14%	15%	13%

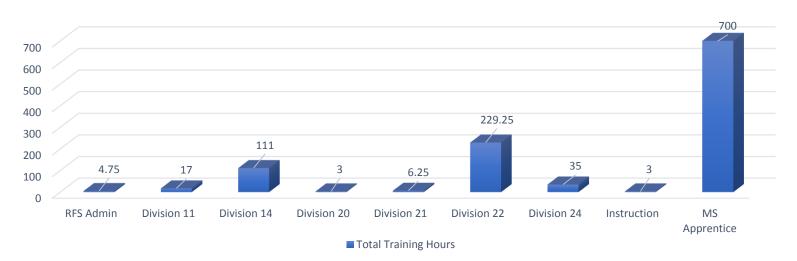


Training - RFS Instruction Department January 2018

RFS Training Hours

Team	No. Employees
RFS Admin	3
Division 11	3
Division 14	33
Division 20	1
Division 21	3
Division 22	37
Division 24	13
Instruction	1
MS Apprentice	7
Grand Total	101

Vehicle Training	RFS Other	Metro Provided	Total Training Hours
-	-	5	5
-	-	17	17
-	60	51	111
-	-	3	3
-	-	6	6
-	-	229	229
_	-	35	35
-	-	3	3
700	_	-	700
700	60	349	1,109



Description

Vehicle Training = Training related to Fleet Maintenance

RFS Other = Training Created by RFS Instruction but not related to Vehicle Training

Metro Provided = Training provided outside RFS Training (OD&T, Transportation)

Total Training Hours = Total amount of man-hours spent by RFS in any kind of training



Maintenance Specialists Vehicle Training Levels January 2018

